EPA NEW ENGLAND
REGION 1

RAYMARK INDUSTRIES, INC.
SUPERFUND SITE

RECORD OF DECISION

FOR

FINAL SOURCE CONTROL ACTIONS AT FOUR PROPERTIES WITHIN OPERABLE UNIT 6 (ADDITIONAL PROPERTIES) AND INTERIM ACTIONS AT OTHER LOCATIONS CONTAINING RAYMARK WASTE

STRATFORD, CONNECTICUT

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B. STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial actions for source control at four of the 24 properties within Operable Unit 6 (OU6) of the Raymark Industries, Inc. Superfund Site (the "Site"). In addition, this decision document selects interim actions to address the remaining OU6 properties and properties at other operable units where there are potential risks from direct exposure to manufacturing waste from the former Raymark facility ("Raymark waste").

OU6 consists of 24 properties located throughout the Town of Stratford where Raymark waste was used to fill low lying areas. EPA has worked with the Town of Stratford and citizens groups for a number of years and has reached consensus on the clean-up of four of these 24 OU6 properties. While EPA will continue to work with the Town and citizens towards the cleanup of remaining Raymark waste areas, short-term actions will be implemented now to prevent the potential for current direct exposure at these remaining locations.

The Town of Stratford is located in southwestern Connecticut on the shore of the Long Island Sound between Bridgeport and the Housatonic River. Operable units containing Raymark waste are primarily located on the eastern edge of Stratford along the Housatonic River, within historically filled marsh areas.

The remedial actions were chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 USC § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, as amended. The Director of the Office of Site Remediation and Restoration (OSRR) has been delegated the authority to approve this Record of Decision (ROD).

This decision was based upon the Administrative Record, which has been developed in accordance with Section 113(k) of CERCLA, and which is available for review at the Stratford Public Library and at the United States Environmental Protection Agency (EPA) Region 1 OSRR Records Center in Boston, Massachusetts. The Administrative Record Index (Appendix F to the ROD) identifies each of the items comprising the Administrative Record upon which the selections of the remedial actions are based.

The Connecticut Department of Energy and Environmental Protection (CTDEEP) (formerly the CT Department of Environmental Protection (CTDEP)) has reviewed the various cleanup alternatives, the Risk Assessments, and the Feasibility Study. CTDEEP concurs with the selected remedies and interim actions detailed in this decision document.

C. ASSESSMENT OF THE SITE

The response actions selected in this ROD are necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

D. DESCRIPTION OF THE SELECTED REMEDY

This ROD sets forth the selected final source control remedies for four of the 24 properties that comprise OU6 of the Raymark Industries, Inc. Superfund Site, specifically: 576 and 600 East Broadway, Beacon Point Area of Concern 2 (AOC2), and Third Avenue. (Note that 576 and 600 East Broadway are abutting properties and are being addressed together.) This ROD further provides for interim actions to prevent the potential for direct exposure of Raymark waste at other locations containing Raymark waste. Groundwater (OU2), which includes vapor intrusion issues, and other areas containing Raymark waste (OUs 3-9) are addressed in other operable units. Public drinking water is provided throughout the area, and there are no known groundwater wells. The four properties addressed in this ROD are not within the plume of contaminated groundwater that extends from the former Raymark facility.

The major components of the selected remedies are summarized below.

576/600 East Broadway:
Capping is the selected remedy for 576/600 East Broadway. Raymark waste will be excavated from the 100 year floodplain, consolidated on the upland portion of the two properties, then capped with a low-permeable cap resulting in an increase in elevation of approximately five feet at the center of the properties. The capping will occur outside the 100-year flood plain and will avoid wetlands. Excavated floodplains will be backfilled to existing grade with clean fill. Restoration of the properties will include working with the town, potential developer(s), and the public, as appropriate, in attempts to integrate reuse possibilities into the cap during the remedial design. Redevelopment of the property is anticipated.

In addition to the construction of a cap, institutional controls will be put in place to restrict any activity that might result in potential exposure to Raymark waste. These institutional controls will include restrictions on excavations and use of the groundwater on both properties. Because waste will be left in place, monthly cap inspections, annual reporting, groundwater monitoring, and five year reviews will be required.

Beacon Point AOC2:
Institutional controls are the selected remedy for Beacon Point AOC2. Raymark waste is located at a depth of 8-10 feet at this portion of the town-owned property. Institutional controls will include restrictions on excavations and use of the groundwater. Because Raymark waste will be left in place, annual reporting and five year reviews will also be required. Quarterly groundwater monitoring to ensure that there are no changes in the impacts from Raymark waste will be required for two years. Groundwater monitoring after two years is not anticipated.

Third Avenue: (To be performed only if consolidation capacity exists at 576/600 East Broadway.)
Complete excavation is the selected remedy for Third Avenue. All Raymark waste, both above and below the ground water table, will be excavated from the property. Restoration of the Third Avenue property will involve re-establishing the pre-excavation surface features to the extent practicable and ensuring that floodplain storage capacity is maintained. The removal of all Raymark waste from the property will eliminate any need for future restrictions. Quarterly groundwater monitoring will be performed for two years to ensure the effectiveness of the remedy. Further groundwater monitoring is not anticipated.

If consolidation capacity is available, Raymark waste excavated from Third Avenue will be consolidated at 576/600 East Broadway. This will be determined during the Remedial Design. If this occurs, the Corrective Action Management Unit (CAMU) rule of the Resource Conservation and Recovery Act (RCRA) will be an applicable or relevant and appropriate requirement for the consolidation of material at the East Broadway properties. All excavated Raymark waste from Third Avenue will be tested for leachability prior to any consolidation of Raymark waste at 575/600 East Broadway. Any excavated Raymark waste from Third Avenue that meets the threshold for the toxic characteristic under RCRA and that exceeds certain treatment standards will be treated and disposed off-site. All remaining Raymark waste excavated from Third Avenue will be consolidated at 576/600 East Broadway.

If consolidation capacity at 576/600 East Broadway is not sufficient to accept all the excavated Raymark waste from Third Avenue, then cleanup of Third Avenue will not be conducted at this time but will be addressed during the next phase of OU6 property remediation. If cleanup is delayed, then interim actions (described below) will be required for the Third Avenue property.

It should be noted that there are some exceedences of state regulatory standards on 576/600 East Broadway, Beacon Point AOC2, and Third Avenue beyond those caused by Raymark waste. Contamination remaining on these properties not associated with Raymark waste will not be addressed by EPA's cleanup action.

Interim Actions:
Any remaining locations throughout Stratford where direct contact exposure to Raymark waste is a concern will be evaluated for potential interim actions. It is important to note that only four of

the 24 properties that comprise OU6 are addressed under this ROD. The remaining OU6 properties also contain Raymark waste at levels that are potentially harmful to human health and the environment. In addition, there are a number of other locations in other OUs throughout Stratford where exposures could also occur. To address these risks, interim actions to reduce or restrict exposure to Raymark waste will be implemented until a final cleanup plan is developed and implemented at each location. Such interim actions may include, but are not limited to, use restrictions (for example, excavation prohibitions or groundwater use restrictions), geo-fabrics, or similar controls, for actively eroding areas, fencing, and warning signs. These interim actions will reduce, but not eliminate, risks on the properties to be addressed. Each property will be evaluated and any interim action(s) necessary at each property will be determined by EPA, in cooperation with CT DEEP and the Town of Stratford, on a property-by-property basis.

Because the interim actions are temporary measures, groundwater monitoring will not be required. Public drinking water is provided throughout the area, and there are no known groundwater wells. Quarterly inspections to ensure that interim actions remain effective at preventing direct contact with Raymark waste will be performed by EPA.

E. STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to the remedial action, is cost-effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The selected remedy does not satisfy the statutory preference for treatment as a principal element. Because Raymark waste contains a complex mixture of contaminants, treatment would be time consuming and costly. Treatment to levels suitable for on-site reuse would require multiple-stage treatment processes. On-site treatment would involve a great deal of manipulation and handling of waste material and would result in increased volumes requiring disposal. The alternatives involving off-property transportation of Raymark waste, however, include treatment to address the principal threats posed by Raymark waste. See Section L (Principal Threat Waste) of the Decision Summary for more details.

For the remedies at the four OU6 properties selected in this ROD, treatment would only be applicable to Raymark waste excavated from Third Avenue, as Raymark waste will remain on-site at 576/600 East Broadway and Beacon Point AOC2. To date, there has not been any leachability testing of the Raymark waste areas at Third Avenue. Such toxic characteristic testing will be performed prior to any consolidation of Raymark waste at 575/600 East Broadway. Any excavated Raymark waste from Third Avenue that exceeds the thresholds described in Section L will be treated and disposed of out-of-town.

Because this remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure (and groundwater and/or land use restrictions are necessary), a statutory review will be conducted within five years after initiation of the remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment. Five-year reviews will continue as long as waste remains at the Site and unlimited use is restricted.

The interim actions are protective of human health and the environment in the short-term and provide adequate protection until a final remedy is developed and implemented; comply with those federal and state requirements that are applicable or relevant and appropriate to the interim actions; and are cost-effective. The interim actions are an interim solution only and are not intended to use permanent solutions and alterative treatment or resource recovery technologies. Because the interim actions do not constitute final remedies, the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element will be addressed by the final response action.

F. SPECIAL FINDINGS

Regarding the consolidation of waste on the East Broadway properties, the CAMU rule establishes standards and minimum design requirements to ensure that waste consolidation is implemented in a protective manner. The minimum design standards for a new CAMU require a cap, liner, and leachate collection system. An alternative design, however, will be used for the East Broadway CAMU. Pursuant to 40 Code of Federal Regulations Section 264.552(e)(3)(ii), a CAMU without a liner and leachate collection system may be constructed if an alternative design will prevent the migration of contamination at least as effectively as a CAMU with a liner and leachate collection system or if a CAMU is to be established in an area with significant existing contamination and the alternative design would prevent migration that would exceed long-term remedial goals. As described in the Decision Summary, the East Broadway CAMU meets both of the requirements for an alternative design. Accordingly, by approving this document, EPA has determined that an alternative CAMU design is appropriate for the remedy for 576/600 East Broadway.

Section 404 of the Clean Water Act and Executive Orders 11990 (Protection of Wetlands) and 11988 (Protection of Floodplains) require a determination that there is no practical alternative to taking federal actions in a wetland or floodplain. Should there be no alternative, the federal actions should minimize the destruction, loss, or degradation of wetlands and floodplains and preserve and enhance their natural and beneficial values. The selected remedies will have no impacts to wetlands. At 576/600 East Broadway work will be performed within a buffer zone to wetlands and Ferry Creek. Accordingly, protection will be taken to protect the wetlands and the creek.

Because Raymark waste is located within the 100 year floodplain at 576/600 East Broadway and

at Third Avenue, temporary impacts to floodplains are anticipated. Waste located within the 100-year floodplain will be excavated. Once excavated, the area will be backfilled with clean fill and restored to grade so that the current flood storage capacity will not be diminished. Best management practices will be used, which include erosion control measures, proper grading, and restoration of impacted areas. By approving this document, EPA has determined that there is no practical alternative to taking action in the floodplain, and that the chosen alternative is the least damaging practicable alternative for protecting the floodplain resources.

The storage, disposal, and cleanup described in the Decision Summary of the polychlorinated biphenyls (PCBs) in the Raymark waste will be conducted in accordance with 40 CFR 761.61(c) of the Toxic Substances Control Act (TSCA) program, which addresses risk-based response actions for the remediation of PCB waste. By approving this document, I have determined that the risk-based response action pursuant to 40 CFR 761.61(c) is appropriate and that the response actions will not pose an unreasonable risk of injury to health or the environment. A final TSCA Determination pursuant to TSCA Section 761.61(c) is attached to this ROD as Appendix C.

G. ROD DATA CERTIFICATION CHECKLIST

The following information is included in the Decision Summary section of this Record of Decision. Additional information can be found in the Administrative Record file for this Site.

- Chemicals of concern (COCs) and their respective concentrations.
- Baseline risk represented by the COCs.
- Cleanup levels established for COCs and the basis for the levels.
- Assumptions in the baseline risk assessment and the ROD.
- Estimated capital, operation and maintenance (O&M), and total present worth costs; discount rate; and the number of years over which the remedy cost estimates are projected.
- Decisive factor(s) that led to selecting the remedy.

H. AUTHORIZING SIGNATURES

This ROD documents the selected remedies for the source control remediation of four properties within OU6 of the Raymark Industries, Inc. Superfund Site. In addition, this ROD provides for interim actions to prevent the potential for direct exposure to Raymark waste at properties within OU6 not being addressed at this time, as well as within other operable units of the Site where potential risks from direct exposure to Raymark waste is a concern. The remedies and interim actions were selected by EPA with the concurrence of the Connecticut Department of Energy and Environmental Protection.

Concur and recommended for immediate implementation:

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: _____ Date: 7/21/11

James T. Owens III, Director
Office of Site Remediation and Restoration
Region 1

PART 2: DECISION SUMMARY

A. SITE NAME, LOCATION, AND BRIEF DESCRIPTION

The Raymark Industries, Inc. Superfund Site ("Site") includes areas that have been contaminated as a result of manufacturing processes from the former Raymark Industries, Inc. facility, which was located at 75 East Main Street, Stratford, Connecticut. The Site has been divided into nine operable units, or OUs (see Figure 1). The source control remediation at the former manufacturing facility, OU1, is complete and has been redeveloped into the 34-acre Stratford Crossing Shopping Center that currently includes a Home Depot, Wal-Mart, ShopRite, and a Webster Bank building. OU2 is the area impacted by contaminated groundwater emanating from the former facility. OUs 3, 7, and 8 are areas of a nearby surface water body known as Ferry Creek and surrounding and down gradient wetlands that contain Raymark waste either from direct filling of wetlands or by surface water transport. OU4 is a former disposal area for Raymark and other wastes. A recreational area and a ballfield, known as the Raybestos Memorial Field, was built over the area, but has now been abandoned for many years. The former Raybestos Memorial Field contains approximately 200,000 cubic yards (CY) of contaminated Raymark waste. OU5 is a former tidal wetland that was filled with Raymark waste and other contaminated material along Shore Road. OU6 consists of over 157 acres and is comprised of 24 individual properties (16 commercially owned, two residentially owned, two state owned, and four town owned), all of which contain Raymark waste (see Figure 2). OU9 includes the Stratford Landfill and portions of Short Beach Park where over 500,000 CY of waste is disposed.

This Record of Decision selects a final source control remedial action at four (4) of the 24 OU6 properties and provides for interim actions at other locations within OU6 and other operable units where potential direct exposure to Raymark waste is a concern. The four (4) OU6 properties include 576 and 600 East Broadway (both commercial), a portion of Beacon Point known as AOC2 (recreational - town property), and a residential property on Third Avenue (to be included only if consolidation capacity exists at 576/600 East Broadway). See Figures 3, 4, and 5, respectively. In addition, interim remedial actions at other locations within OU6 (besides the four properties addressed in this document) and other operable units where potential direct exposure to Raymark waste is a concern are also part of this ROD (see Figure 1). These interim remedial actions, which will reduce but not eliminate potential direct exposure to Raymark waste, will remain in effect until final remedial actions are selected and implemented for such properties.

B. SITE HISTORY AND ENFORCEMENT ACTIVITIES

1. History of Site Activities

The Raymark Industries, Inc. Superfund Site consists of over 500 acres in the Town of Stratford, Fairfield County, Connecticut (see Figure 6). Raymark Industries, Inc. (Raymark), formerly known as the Raybestos - Manhattan Company, manufactured friction materials containing asbestos and non-asbestos components, metals, phenol-formaldehyde resins, and various adhesives. Primary products were gasket materials, sheet packing, and friction materials including clutch facings, transmission plates, and brake linings, primarily for the automotive industry. Raymark and its predecessors operated at this location from 1919 until 1989 when operations ceased.

During the facility's 70 years of operation, water and wastes from manufacturing operations were collected and diverted into the facility's drainage system. Liquids were transported through the drainage network, mixed with lagoon wastewaters, then discharged to groundwater and a nearby surface water body known as Ferry Creek. Groundwater currently emanating from the former Raymark facility still has extensive volatile organic compound (VOC) contamination.

Solids were settled out in a series of lagoons, and the settled material was periodically removed by dredging. It was common practice to dispose of both this dredged lagoon waste and other manufacturing waste as "fill" on the facility itself, but over time this waste material was also disposed of within the Town of Stratford at residential, commercial, recreational, state, and municipal properties. In addition, several wetland areas abutting or in close proximity to the Housatonic River were also filled in with Raymark's manufacturing waste. The contaminants in Raymark's waste "fill" primarily consisted of polychlorinated biphenyls (PCBs), asbestos, lead, and copper.

A more complete description of the Site history can be found in Section 1.3 of the OU6 Feasibility Study ("FS") report.

2. History of Federal and State Investigations and Remedial Actions

In 1993 the Federal Agency for Toxic Substances and Disease Registry (ATSDR) performed a health assessment in response to a citizen petition and shortly thereafter issued a Public Health Advisory for the Raymark facility and locations around the Town of Stratford where manufacturing wastes from the former Raymark facility had come to be located. EPA listed the Site on EPA's National Priorities List (NPL) of Superfund sites on April 25, 1995.

Raymark Waste:
Raymark waste was comprised of sludges that were dredged from lagoons, "off-specification"

materials that were discarded, and other waste products from the Raymark facility that frequently contained volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, pesticides, dioxins and furans, metals (primarily lead and copper), and asbestos. The various locations that received Raymark waste as fill, however, also received fill materials from other entities. Based on the long history of industrial and commercial activities in the area, past releases of petroleum hydrocarbons, VOCs, SVOCs, and other contaminants from other sources were likely. The origins of some of the chemical contamination affecting the properties with fill are indistinguishable. Accordingly, it was necessary to develop an approach that would uniquely determine Raymark waste from other waste that frequently was present within the same property or area.

From EPA's sampling and work at the former Raymark facility, it was known that lead, asbestos, PCBs, and copper were the most common constituents found in Raymark waste. Based on these four constituents and the frequency of their co-location in a single sample, the following definition of Raymark waste was developed:

> *Raymark waste in soil is defined as a single soil sample containing lead above 400 parts per million (ppm), and asbestos (chrysotile only) greater than 1 percent, and either copper above 288 ppm or polychlorinated biphenyls (PCBs) (Aroclor 1268 only) above 1 ppm.*

While other contaminants are present in Raymark waste, these four contaminants were used as a "fingerprint" to identify Raymark waste locations. (See Section 2 of the June 2005 OU6 Remedial Investigation and Section 2.2.2.1 of the OU6 Feasibility Study for further detail.) This definition was used to distinguish Raymark waste from non-Raymark waste areas.

Early Actions

The EPA began excavating contaminated waste/soil from residential properties during the fall of 1993 under its removal authorities. The contaminated material was transported back to the Raymark Industries, Inc. facility where it was eventually capped in place in accordance with a 1995 ROD (see Operable Unit 1 discussion below). The residential excavations, 46 in all, were completed in the fall of 1995 and property restoration continued into 1996. In addition, throughout 1993 and 1994, Raymark undertook a number of closure activities at its facility, including removing thousands of 1 cubic yard bags of asbestos and containers holding hazardous substances, temporarily capping four waste lagoons, and securing the facility. The CTDEEP (then the Connecticut Department of Environmental Protection (CTDEP), here forward referred to as the Connecticut Department of Energy and Environmental Protection (CTDEEP)) undertook a number of interim actions on municipal properties between 1993 and 1994, including installing temporary caps and fencing at the Wooster Middle School and a portion of Short Beach Park. During 1994, the CTDEEP also required several commercial property owners to restrict access to known contaminated waste areas through the installation of fences or pavement. In June 1995, the CTDEEP excavated contaminated materials at the Wooster Middle

School and transported the material to the Raymark facility. Approximately 100,000 CY of contaminated waste/soil from residential properties and the Wooster Middle School was consolidated at the Raymark facility and capped in place in accordance with a 1995 ROD.

Operable Units

The Raymark Superfund Site has been divided into nine (9) separate pieces (operable units or OUs) in an effort to effectively manage the various investigatory studies that have taken place throughout the Site. Aside from this current Record of Decision, only one other Record of Decision has been issued for this Site (Operable Unit 1). For all other operable units (except OU5 where a removal action was taken), the nature and extent of contamination and risks associated with that contamination has been evaluated in separate studies for each operable unit (known as Remedial Investigation studies) and EPA is working with the community to pursue protective measures to address the contamination. In the meantime, this ROD provides for interim measures to control potential risks, as well as a final source control remedy for four OU6 properties. The following is a discussion of each operable unit.

Operable Unit 1 (OU1)

The former facility is referred to as OU1. As a result of environmental investigations conducted by Raymark and the EPA, a final remedy for the manufacturing facility was documented in a July 1995 Record of Decision (ROD). Shortly thereafter, in September 1995, the cleanup of the Raymark property began with the demolition of 15 acres of buildings and the placement of an impermeable cap over the entire 33 acre property that contained approximately 500,000 CY of contaminated waste/soil plus approximately an additional 100,000 CY from removal and other interim actions taken at residential properties and the Wooster Middle School. Underlying the cap is an extensive plumbing network that removes solvents from the groundwater and gas from the soil. This plumbing network includes 12 vapor extraction wells, which pump air contaminated with solvents out of the soil beneath the cap into a treatment building located in the eastern portion of the property, and five extraction wells, which pump solvents located in pockets in the groundwater into a holding tank located in a treatment building on the western edge of the property. The cap was constructed in a manner that allowed commercial redevelopment of the property while ensuring the continued containment of the underlying contamination. In addition to the demolition and capping work, over 50 monitoring wells were installed in the cap to monitor the quality of the groundwater beneath the property.

OU1 remedial activities were completed by EPA (working with the CTDEEP and Army Corps of Engineers) by November 1997. The construction of the Stratford Crossing Shopping Center began in the Spring of 2001 and opened for retail business in early 2002. The CTDEEP provides ongoing operation and maintenance of the soil gas and solvent collection systems, as well as the two treatment facilities.

Operable Unit 2 (OU2)

OU2 is the area impacted by contaminated groundwater emanating from the former facility

(OU1). Since 2000, EPA has sampled the groundwater, soil gas, and indoor air in a residential area between Ferry Boulevard and the Housatonic River for chemicals disposed of at the former Raymark facility on East Main Street. These chemicals, called volatile organic compounds or VOCs, are present in the groundwater and can change from a liquid into a gas, migrate upwards through the soil, and then enter homes through the foundation. In an effort to ensure protection of public health, sub-slab depressurization systems were installed in 2004 in over 100 homes throughout the affected area. The depressurization systems, which are similar to radon systems, draw air from beneath the foundation and vent it through a pipe near the roof of each house. The primary contaminant that required this removal action was trichloroethene (TCE). Long-term maintenance of these systems has been conducted by the CTDEEP at no cost to the homeowners.

The potential threat posed by the volatilization of the volatile organic compounds described above is confined to the residential area down-gradient of the former Raymark facility. Accordingly, the volatilization is not an issue for the four properties that are the subject of this ROD and not an issue for the properties potentially subject to interim actions.

The OU2 Remedial Investigation (RI) report, completed in January 2005, presents all available data, identifies groundwater flow directions, and identifies risks associated with contaminants found in the groundwater. The findings of this report were that risks to human health were primarily through indoor air pathways which had already been addressed, as described above. Other risks associated with groundwater were found to be insignificant as the groundwater in the area is not used as a drinking water source. The most recent groundwater sampling was conducted in 2009 as part of the Site's five-year review evaluation, which found no significant changes in the locations or concentrations of groundwater contaminants.

Operable Unit 3 (OU3)

OU3 includes a portion of Ferry Creek and the surrounding areas from approximately Interstate 95 (across from Homestead Avenue) southward to Broad Street. It encompasses approximately 33 acres which includes approximately 5 acres of wetlands. A Remedial Investigation report was completed in October 1999 that concluded that fill and natural soils throughout OU3 are contaminated with asbestos, lead, copper, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and dioxins. In some areas, the level of contamination is high. Potential risks to human health, sediment dwelling organisms, and organisms higher up the food chain (that feed on sediment dwelling organisms) are a concern throughout the area.

Operable Unit 4 (OU4)

The former Raybestos Memorial Field, known as OU4, is located north of the former Raymark facility (OU1) just over the Metro-North railroad tracks leading to New York City and points east. It encompasses approximately 14 acres. Residential properties border the OU4 study area to the north/northwest. Town, commercial, and industrial properties are located to the northeast. An inactive industrial facility, formerly Contract Plating, abuts the area to the south/southwest. OU4 was historically used as a gravel pit operation, then as a disposal area for industrial wastes.

A recreational area and a ball field, known as the Raybestos Memorial Field, was built over the area, but has now been abandoned for many years. Approximately 200,000 CY of contaminated waste/soil at depths of up to 16 feet deep are present. Contaminants include asbestos, lead, arsenic, and polychlorinated biphenyls (PCBs).

In 1992, the EPA installed a security fence around OU4, installed a temporary soil cover (6 inches minimum thickness), and sampled and removed drummed wastes from the area. This effort has temporarily restricted access to the area as well as to the contamination found within the soil.

In 1999, the EPA performed a comprehensive remedial investigation that included test pits, soil borings, monitoring well installation, an electromagnetic (EM) survey, and ground penetrating radar to determine the presence, location, and character of buried wastes. A Remedial Investigation report was completed in August 1999. The report concluded that fill and natural soils throughout the OU4 study area are contaminated with asbestos, lead, barium, zinc, arsenic, polychlorinated biphenyls (PCBs) and semi-volatile organic compounds (SVOCs). Potential risks are to human health. No ecological risks were identified.

Operable Unit 5 (OU5)

The Shore Road Area, known as OU5, is an approximately 4-acre section of Shore Road and the Housatonic Boat Club near the former Shakespeare Theater that borders the Housatonic River. Contamination was found in this area in 1993 and, as a temporary measure, the CTDEEP covered the area with a plastic fabric barrier and six inches of wood chips. In early 1999, EPA found that the plastic fabric barrier was beginning to wear and that much of the wood chips had eroded. At the request of the Town of Stratford, EPA took steps to re-evaluate the risks posed by the contaminants in the area.

These steps included the completion of an Engineering Evaluation/Cost Analysis (EE/CA) report in June 1999 that documented risks to human health and the environment from asbestos and lead. As a result of these findings, EPA performed a removal action that included the installation of a revetment along the unprotected southeastern tidal areas, restoration of existing riverside revetments to limit exposure to underlying contaminated soils, capping of excavated soils, paving the driven surfaces and capped soils, and installation/restoration of utilities to allow maintenance without the threat of exposure to contaminated soils. These removal actions were completed in September 2000.

Operable Unit 6 (OU6)

Additional properties, known as OU6, consist of 24 properties located throughout the Town of Stratford. These properties, with commercial, recreational, or residential use, were constructed at locations where Raymark manufacturing waste was used to fill low lying areas. Each of these properties has been evaluated individually. A Remedial Investigation was completed in June 2005 and a Feasibility Study (FS) was completed in August 2010.

Since the completion of the RI, EPA has worked with the Town of Stratford and citizens groups in an effort to find acceptable clean-up approaches to address the 24 contaminated properties. Conceptual agreement was reached for the cleanup remedy for four of the properties: 576 and 600 East Broadway (both commercial), a portion of Beacon Point known as AOC2 (recreational - town property), and a residential property on Third Avenue (to be included only if consolidation capacity exists at 576/600 East Broadway). See Figures 3, 4, and 5, respectively. Interim actions will be taken at the other locations within OU6 (as well as at locations in other operable units) where potential direct exposure to Raymark waste is a concern. A Proposed Plan was issued in September 2010 that forms the basis for this Record of Decision. EPA plans to continue discussions with the town and citizens to develop clean-up solutions for the remaining 20 OU6 properties.

Operable Unit 7 (OU7)

OU7 includes lower Ferry Creek (from Broad Street to the mouth of Ferry Creek), Selby Pond, and the Housatonic River wetlands (located south and east of Shore Road). It encompasses approximately 44 acres of which approximately 35+ acres are wetlands and/or open water. A Remedial Investigation report for OU7 was completed in November 2000. The report concluded that fill and natural soils throughout OU7 are contaminated with asbestos, metals, pesticides, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and dioxins. In some areas, the level of contamination is high. Potential risks to human health, sediment dwelling organisms, and organisms higher up the food chain (that feed on sediment dwelling organisms) are a concern throughout the OU7 areas.

Operable Unit 8 (OU8)

OU8 includes wetlands to the north and south of the Beacon Point boat launch area and wetlands off of Elm Street. It encompasses approximately 14 acres that are wetlands and/or open water.

A Remedial Investigation report for OU8 was completed in November 2000. The report concludes that fill and natural soils throughout OU8 are contaminated with asbestos, metals, pesticides, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and dioxins. In some areas, the level of contamination is high. Potential risks to human health, sediment dwelling organisms, and organisms higher up the food chain (that feed on sediment dwelling organisms) are a concern throughout the OU8 areas.

Operable Unit 9 (OU9)

The Stratford Landfill and Short Beach Park combined encompass the area known as OU9. The two areas together were historically used as a single landfill. The Stratford Landfill stopped receiving wastes a number of years ago, but until recently was still used for leaf disposal. CTDEEP has issued the Town of Stratford a Notice of Violation (NOV) requiring closure of the landfill. Short Beach Park Area is currently a heavily-used recreation area for baseball, softball, soccer and golf.

Between 1993 and 1994, the CT DEEP installed a temporary cap on a portion of Short Beach Park where Raymark wastes were found to be present. Additional investigations were conducted by EPA in December 2003 through February 2004 with a Remedial Investigation (RI) report completed in July 2005.

The RI found that there were potential risks to commercial workers at the Stratford Landfill (asbestos and PCBs), but there were no immediate risks found to commercial workers or recreational users of Short Beach Park due to the presence of Raymark waste. However, the RI also determined that if the use of Short Beach Park changed in the future to a residential setting or if any excavations were to occur, then unacceptable risks would exist because of the presence of Raymark wastes. Accordingly, the RI identified the need to develop a permanent remedy for OU9 so that the public health is protected in the future.

3. History of Significant CERCLA Enforcement Activities

Raymark Industries was subject to a number of environmental enforcement actions throughout the 1980s and early 1990s for violations at its facility of both the Resource Conservation and Recovery Act (RCRA) and of the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) under the Clean Air Act (42 U.S.C. 7401 et seq.).

On April 3, 1995, EPA notified two (2) parties, Raymark Industries, Inc. and Raytech Corporation of their potential CERCLA liability with respect to the Site. (Raytech was a company formed by Raymark that was ruled to be a successor to Raymark and thus had liability for the cleanup costs of Raymark waste.)

In 1997, the United States filed a lawsuit against Raymark which sought over $280 million in costs that EPA had spent cleaning up the Raymark property and other properties around Stratford that had been contaminated with Raymark's waste. The United States also sought an order allowing the sale of the Raymark property to help recover some of the costs that EPA had expended cleaning up the company's waste.

Raymark then sued the owners of residential properties in Stratford that contained Raymark waste seeking to recover costs for the clean-up. The United States subsequently settled with each residential property owner which provided contribution protection from Raymark's lawsuit. The United States has also entered into a Consent Decree with the Town of Stratford.

As a result of its liabilities, Raymark and Raytech filed for bankruptcy. The Raymark property was sold at a bankruptcy auction in January 2000, and EPA recovered the proceeds from the sale of the property. In a separate bankruptcy settlement, EPA also recovered a portion of Raymark's insurance proceeds. EPA deposited the proceeds from the property sale and the insurance recovery into a "Special Account" dedicated to the Site.

Because of the property sale and the bankruptcy settlement, there have been no further actions against Raymark and Raytech. Accordingly, this action will be performed and paid for by EPA.

C. COMMUNITY PARTICIPATION

Throughout the Site's history, community concerns and involvement have been high. EPA has kept the community and other interested parties apprised of Site activities through informational meetings, fact sheets, press releases and public meetings. Below is a brief chronology of public outreach efforts conducted since the first Raymark ROD was completed in 1995.

- In February 1995, EPA released a Community Relations Plan (CRP) that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities at the Site. A draft Community Involvement Plan Update was distributed to the community for comment in June 2000 and was finalized in September 2000.

- From 1996 through 2010, EPA issued the following 17 press releases relating to the Raymark site:

07/30/1996	Leach and EPA Sign Landmark Agreement to Redevelop Raymark Property
08/06/1996	EPA Adds $13 Million of Funding for Cleanup of Raymark Property
01/07/1997	U.S. Sues Raymark Industries for Estimated $192 Million Cleanup of Connecticut Superfund Site
03/14/1997	Judge Orders Homeowner Protection in Raymark Lawsuits
08/26/1998	Settlement Protects Settling Stratford Homeowners from Superfund Costs
09/30/1999	EPA Issues Modified Cleanup Plan for Shore Road
01/04/2000	EPA Puts Shore Road Project on Hold
04/18/2000	Raymark Superfund Site: EPA to Sample Indoor Air in Some Stratford Homes
07/13/2000	EPA to Award Superfund Redevelopment Grants
11/17/2000	Raymark Superfund Site- Advisory Committee to Meet Next Week: Seeks Citizen Input
04/11/2003	Raymark: EPA to Sample Groundwater
09/16/2003	EPA to Meet with Residents to Discuss Indoor Air Cleanup Plan
06/01/2005	Cleanup Progress at Raymark Industries Superfund Site Reviewed
02/08/2006	Bankruptcy Settlement Will Advance Cleanup of CT Raymark Site
07/18/2007	Public Meetings Scheduled for Raymark Superfund Site in Stratford, CT
07/21/2009	Environmental Sampling to Begin at Raymark Superfund Site in Stratford, CT
09/07/2010	EPA to Seek Public Input on Cleanup Plan for Contamination at Raymark Site in Stratford, CT

- From 1996 through 2008, EPA also issued approximately 40 bulletins/community updates

regarding the Site. In addition, two fact sheets on Frequently Asked Questions were developed in cooperation with the Connecticut Department of Public Health, the Connecticut Department of Energy and Environmental Protection, and the Stratford Health Department in August 2007 and February 2008. These fact sheets primarily related to environmental health and safety issues. All bulletins/community updates and fact sheets were posted on EPA's website for the Raymark Site at:
http://yosemite.epa.gov/r1/npl_pad.nsf/701b6886f189ceae85256bd20014e93d/a4b8dbf11e413 4398525692d00618241!OpenDocument

- In June 2000, a Town-appointed committee comprised of local business representatives, citizens, and other interested parties, known as the Raymark Advisory Committee (RAC), was developed. From June 2000 through September 2007, EPA, CTDEEP, and town officials met more than forty times with the RAC, along with EPA-funded third-party facilitation and technical assistance in an effort to reach consensus on future cleanup decisions. The RAC attained a thorough understanding of the complex technical, legal, regulatory, and financial constraints relative to the development of cleanup alternatives to address the Raymark contamination in Stratford and commented on a number of documents, including the RI for OU6. In September 2007, the RAC presented a final Report to the Town Council which included sections on Accomplishments, Constraints, and Recommendations; however, consensus among the members of the RAC on an overall clean-up approach was not reached.

- In July 2008, the EPA Regional Administrator and the Connecticut DEEP Commissioner met in Stratford with representatives of a newly organized group of citizens, Save Stratford, former members of the Raymark Advisory Committee, and local elected and Town officials, in an effort to find common ground on potential cleanup options to address the remaining Raymark waste locations in Stratford. As a result of this meeting, a new group known as the Raymark Superfund Team (RST) comprised of the representatives of that meeting, was organized. The RST met eleven times from August through December 2008 in an effort to develop both short- and long-term goals towards Site cleanup. While several plans for long-term options were discussed, there was no consensus reached on a permanent solution for Stratford's Raymark waste contamination. There was, however, conceptual agreement by the RST on the cleanup of four properties and the need for interim actions at other properties. This was the remedy presented in the September 2010 Proposed Plan and is the subject of this ROD.

- On September 7, 2010, the OU6 Proposed Plan along with a notice that contained information about the public comment period, an information meeting, and a public hearing was distributed via e-mail to approximately 50 former RAC and RST members and other interested citizens in Stratford who had provided e-mail addresses to EPA. A one page summary of the Proposed Plan and a copy of the September 9 news release were also attached to the e-mail.

- During the week of September 13, 2010, copies of the OU6 Proposed Plan were hand delivered to abutters of the properties addressed in the plan, and copies of the public notice

and plan summary were also delivered as a flyer to residents in the vicinity of the properties addressed in the plan.

- During the week of September 13, 2010, copies of the OU6 Proposed Plan were made publically available at the Stratford Town Hall, Library, and Health Department; the plan was also made available on the EPA webpage.

- On September 14, 2010, EPA published a Public Notice and summary of the OU6 Proposed Plan in the Connecticut Post. Multiple articles subsequently ran in the Connecticut Post, Stratford Star, Hartford Business.com and CT Public Radio announcing the plan's availability to the public.

- On September 15, 2010, EPA made the administrative record available for public review at EPA's offices in Boston and at the Stratford Public Library, Stratford, Connecticut.

- On September 15, 2010, EPA held an informational meeting to discuss the results of the OU6 Feasibility Study, cleanup alternatives evaluated, and to present the Agency's OU6 Proposed Plan. At these meetings, representatives from EPA answered questions from the public.

- From September 16 to October 16, 2010, EPA held a 30-day public comment period to accept public comment on the alternatives presented in the OU6 Feasibility Study and the OU6 Proposed Plan and on any other documents previously released to the public.

- On October 6, 2010, the EPA held a formal Public Hearing to discuss the OU6 Proposed Plan and to accept any oral comments. A transcript of this meeting and the comments, as well as other formal comments received, and the Agency's response to comments are included in the Responsiveness Summary, which is part of this Record of Decision.

D. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION

As discussed above in Section B.2., there are nine operable units or OUs at the Site. EPA addressed the Raymark facility and contaminated soil within OU1 via demolition and off-site disposal or recycling of construction debris, an on-site soil gas collection and treatment system, and consolidation and on-site capping of contaminated soils; these remedial activities were completed in 1997. EPA then completed comprehensive investigations of the rest of the Site. OU2 groundwater investigations led to a removal action that included the installation of sub slab depressurization systems in over 100 residential homes in 2004. The Remedial Investigation for OU2 was completed in January 2005. Remedial Investigations were also completed for OU3 Upper Ferry Creek (October 1999), OU4 Former Raybestos Memorial Ballfield (August 1999), OU6 Additional Properties (June 2005), OU7 Lower Ferry Creek (November 2000), OU8 Beacon Point Area and Elm Street Wetlands (November 2000), and OU9 Short Beach Park and

Stratford Landfill (July 2005).

A Non-Time Critical Removal Action at OU5 was completed in September 2000. Actions included the installation of a revetment along the unprotected southeastern tidal areas, restoration of existing riverside revetments to limit exposure to underlying contaminated soils, capping of excavated soils, paving the driven surfaces and capped soils, and installation/restoration of utilities to allow maintenance without the threat of exposure to contaminated soils.

Operable Unit 6 (OU6) Additional Properties was created at the request of the Raymark Advisory Committee in an effort to accelerate the clean-up of commercial, residential, Town, and State owned properties. A total of 24 properties that were primarily located within other operable units were placed into OU6.

This Record of Decision selects a final source control remedial action at four (4) of the 24 OU6 properties and provides for interim actions at other locations where potential direct exposure to Raymark waste is a concern. Interim actions are needed because there are locations at the Site where Raymark waste has been identified in surficial soil which presents potential risks to current users. These interim actions are temporary measures that will provide risk reduction while EPA continues efforts towards reaching consensus on a comprehensive and final cleanup plan for all remaining areas containing Raymark waste. The interim actions will neither be inconsistent with, nor preclude, implementation of the final remedies at these properties.

Current Response Actions Under this ROD:

EPA's selected remedy will be a final source control remedy at 576/600 East Broadway, Beacon Point AOC2, and Third Avenue This includes, among other things, consolidation and capping of Raymark waste at 576/600 East Broadway, a monitoring program to ensure the continued integrity of the cap, groundwater monitoring, institutional controls (ICs), and five-year reviews (FYRs). Raymark waste from the Third Avenue property will be consolidated beneath the cap at 576/600 East Broadway, only if capacity allows, and will represent a final source control remedy for that property, if implemented. If during the design stage it is determined that consolidation capacity is not sufficient to accept all the Raymark waste from Third Avenue, then cleanup of Third Avenue will not be conducted at this time but will be addressed during the next phase of OU6 property remediation. If cleanup is delayed, then interim actions (institutional controls as described below) will be required for the Third Avenue property.

EPA's selected final source control remedy for Beacon Point AOC2 includes institutional controls to restrict any activity that might result in potential exposure to Raymark waste. These institutional controls will include restrictions on excavations and use of the groundwater. Because waste will be left in place, annual reporting and five year reviews will be required.

For all remaining locations throughout Stratford that contain Raymark waste located at or near ground surface and potential current direct exposure to human health or the environment is a concern (i.e., OU3, OU4, OU5, remaining properties within OU6, OU7, OU8 and OU9), interim actions to restrict access may be required. These restrictions will consist of notification and/or access restrictions (such as restrictions on excavations, groundwater use, and/or fencing or signage, etc.). Any restrictions necessary will be determined on a property by property basis, based on the potential of a direct contact risk, and are only temporary measures (that is, interim actions) to reduce potential current direct exposures to Raymark waste until final remedies are completed. These ICs will neither be inconsistent with nor preclude implementation of a final remedy.

This is a source control remedy, and site groundwater and potential threats related to vapor intrusion will be addressed in Operable Unit 2. (Note that all properties included in OU6 are served by a public water supply. There is no known use of groundwater for any purpose in the Site. The four properties addressed in this ROD are not within the plume of contaminated groundwater that extends from the former Raymark facility.)

E. OU6 SITE CHARACTERISTICS

The Town of Stratford is located in southwestern Connecticut on the shore of the Long Island Sound between Bridgeport and the Housatonic River. It is a suburban town located approximately 50 miles northeast of New York City with a population of approximately 49,976 (2000 census) within the 18.7 square miles of the town. There are approximately 2,200 businesses in Stratford that include the manufacturing of aircraft, air conditioning, chemicals, plastic, paper, rubber goods, electrical and machine parts, and toys.

The area identified as the OU6 study area includes 24 properties found to contain Raymark waste. Some of these properties are contiguous, but others are scattered, found mainly along the eastern edge of Stratford along the Housatonic River, constructed above historically filled marsh areas. The OU6 study area encompasses a total of 157.1 acres.

EPA completed a Remedial Investigation (RI) for OU6 in June 2005 and a Feasibility Study (FS) in August 2010. The significant findings of the OU6 RI and other site investigations are summarized below.

Environmental Investigations

Prior to the creation of OU6, extensive investigations were conducted throughout the Stratford area over a 10 year period at hundreds of locations where there was a potential for Raymark waste to be present. These locations were identified by a number of sources including, but not

limited to, officials of the Town of Stratford, Raymark records and/or former employees, historical records, analytical data, and neighbors/citizens. Each individual location was evaluated for the presence of Raymark waste.

As a result of these investigations, a total of 24 commercial, residential, town, and state owned properties were found to contain Raymark waste at varying contaminant concentrations and volumes. Many of these properties were originally within another operable unit, but at the request of the Raymark Advisory Committee, Operable Unit 6 (OU6) Additional Properties was created in an effort to accelerate the clean-up of these properties.

Physical Characteristics of the OU6 Study Area

Most of the properties in OU6 are part of the Housatonic River Basin, a tidally influenced system. The OU6 Study Area includes residential, recreational, and commercial properties (see Figure 2).

The topography of the majority of the OU6 Study Area is relatively flat, with topographic elevations of approximately 10 feet and gentle slopes trending towards Ferry Creek and the Housatonic River. All but 3 of the 24 OU6 properties are located within the 100-year floodplain.

Soil borings conducted throughout the OU6 study area found that fill in the area consists of a mixture of household, construction, and manufacturing debris. Natural materials include various amounts of clay, silt, sand, and gravel. Man made fill materials frequently include charcoal, asphalt, metal, brick, tile, glass, and other miscellaneous materials, including manufacturing debris.

The contamination sources in the OU6 Study Area are locations where Raymark and other waste materials were disposed of (dumped) at residential, commercial, state and municipal properties within or adjacent to the OU6 Study Area. The areas of Raymark waste within these properties have been delineated which shows the random nature of the Raymark waste disposal practices (see Figures 3, 4, and 5, respectively).

F. CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

The OU6 study area includes 16 commercially owned properties predominantly occupied by small businesses, such as a liquor store, automobile dealers, boat dealers, small retail shops, automobile body shops, and restaurants. There are two unoccupied state-owned properties that abut I-95 and four town-owned properties with recreational and municipal uses. Two of the properties are residentially owned; one is vacant and one has a single family residential home. Four of the 24 properties that are the subject of this ROD as final source control remedies are discussed below.

The interim actions, which will be determined on a property by property basis, are not anticipated to impact the current use of a property. Properties anticipated to receive interim actions are either vacant or provide a combination of commercial, recreational, and municipal uses. It is assumed that current land uses will remain the same for the duration of interim actions.

576/600 East Broadway

576 and 600 East Broadway are abutting parcels of commercially-zoned (light industrial) land totaling approximately 6 acres. The parcels are bounded to the north by the Vacant DOT Lot abutting I-95 (another OU6 property), the south and west by residential neighborhoods, to the northeast by Ferry Creek, and by a town street, East Broadway, to the southeast. The estimated total volume of Raymark waste currently on these parcels is 42,667 cubic yards. See Figure 3.

576 East Broadway is presently occupied by one building that contains a wood working shop and warehouse. 600 East Broadway is currently unoccupied and presently overgrown with grasses, weeds, and shrubs. Large trees are present around the perimeter of the property. Much of the area located near the perimeter of both properties lie within the 100-year floodplain, but a large portion of the center of 600 East Broadway rises above the 100-year flood elevation.

EPA expects the future use of these properties to remain commercially-zoned, light industrial. This is based on interest expressed by the current owner and discussions with town representatives.

Beacon Point AOC2

The Beacon Point Area property consists of approximately 7.4 acres of town-owned, commercially-zoned land (waterfront business). It is bordered by the Tide Harbor Condominiums and adjacent wetlands to the north, 1 Beacon Point Road (commercial) and adjacent wetlands to the south, the Housatonic River to the east, and a town road, Beacon Point Road, to the west. There are three areas of concern (AOCs) where Raymark waste was found. AOC2 is located in the central paved portion of the Beacon Point Area and is being addressed separately from the two other non-contiguous Raymark waste areas that are located within the same property (Beacon Point AOC 1 and AOC 3, which are presented in the OU6 FS Sections 4.3.13 and 4.3.15, respectively, will be subject to potential interim actions and will receive final remedies at a later date, under a separate ROD). See Figure 4.

The Beacon Point Area is a recreational area used for boat launching and fishing. EPA expects the future use of this property to remain town-owned with a continued use of recreational (fishing off piers and boat launch area). This is based on discussions with town representatives.

Third Avenue

The Third Avenue property encompasses approximately 0.3 acres of residentially-zoned land. The property is located in a fairly dense populated residential setting, bordered by two other residential properties to the north and south, Third Avenue to the east and the Fourth Avenue Pond to the west. The Third Avenue property is occupied by a single family private home. The house sits on the northern half of the property. See Figure 5.

EPA expects the future use of this property to remain residential based on surrounding land use and on discussions with town representatives.

G. SUMMARY OF SITE RISKS

EPA performed a baseline risk assessment for all OU6 properties in 2005 to estimate the probability and magnitude of potential adverse human health and environmental effects from exposure to soil contaminants associated with the Site assuming no remedial action was taken. This baseline risk assessment provides the basis for taking action and identifying the contaminants and exposure pathways that need to be addressed by the remedial action. The human health risk assessment followed a four-step process: 1) hazard identification, which identified those hazardous substances which, given the specifics of the Site, were of significant concern; 2) exposure assessment, which identified actual or potential exposure pathways, characterized the potentially exposed populations, and determined the extent of possible exposure; 3) toxicity assessment, which considered the types and magnitude of adverse health effects associated with exposure to hazardous substances, and 4) risk characterization and uncertainty analysis, which integrated the three earlier steps to summarize the potential and actual risks posed by hazardous substances at the Site, including carcinogenic and non-carcinogenic risks and a discussion of the uncertainty in the risk estimates. A summary of those aspects of the human health risk assessment for soil contaminants which support the need for a source control remedial action at the OU6 properties is discussed in this section, followed by a summary of the ecological risk evaluation. A separate subsection regarding the risks related to the properties subject to interim actions is found at the end of this section.

This ROD provides a final source control remedy for four of the 24 OU6 properties. For all remaining OU6 properties and locations within other operable units where a final source control remedy will not be determined at this time, the need for interim actions will be evaluated. This evaluation will include the results of risk assessments, both quantitative and qualitative, that were performed at these various locations containing Raymark waste. The review will focus on current potential risks based on the presence of Raymark waste at or near ground surface. See Section G.3.

1. Human Health Risk Assessment

a. Hazard Identification

The October 1999 OU3 RI, the November 2000 OU7 RI, and the June 2005 OU6 RI all included evaluations of a number of the properties that now comprise OU6.[1] The various RI investigations identified a number of other contaminants (in addition to the four contaminants that define Raymark waste), comingled with Raymark waste, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals. The Raymark waste contaminants and all co-mingled contaminants were then evaluated in the human health risk assessment (HHRA) according to their toxicity, concentration, frequency of detection, mobility and/or persistence in the environment. A discussion of the various contaminants can be found in Section 2.0 of the 2005 OU6 RI report for the 24 properties that make up Raymark OU6. Groundwater beneath the OU6 properties will be evaluated separately as part of OU2.

It should be noted that contaminants other than Raymark waste were identified on many OU6 properties. When these contaminants were co-mingled with Raymark waste they were included in the risk evaluation and will be addressed during EPA's cleanup action. However, when contaminants other than Raymark waste were found beyond delineated Raymark waste areas they are not believed to have originated from the former Raymark manufacturing facility and will not be included in the Superfund response cleanup efforts. Information on any remaining contamination on a property that EPA does not address will be provided to the property owner, the Stratford Town Health Department, and the Connecticut DEEP.

Three different types of quantitative evaluations were performed. Noncarcinogenic contaminants were evaluated through estimates of hazard indices. Carcinogenic contaminants were evaluated through estimates of cancer risk. Lead was evaluated through adult and child lead models, which predict blood lead levels. In addition, qualitative evaluations of potential inhalation risks from asbestos exposure were also discussed.

Quantitative Assessments: At each OU6 property, soil exposures and resulting quantitative risk estimates have been prorated based on the percentages of each property estimated to contain Raymark waste. Prorating exposures (fraction of Raymark waste (FRW)) in risk calculations assumes that receptors use all areas of the property equally. Prorating exposures recognizes that a receptor is unlikely to spend all of their time only within the estimated areas of Raymark waste. Rather, a receptor will be exposed to soils from various areas of the property. By prorating the

[1] The reason the OU6 properties are addressed in these various reports is that some of the OU6 properties were initially located within OU3 and OU7. OU6, which was created at the request of the Town appointed citizens group, the Raymark Advisory Committee (RAC), also evaluated hundreds of properties within the Town of Stratford for the presence of Raymark waste. This effort defined the 24 properties which now comprise OU6, leaving Ferry Creek and surrounding wetlands as the focus of OU3 and OU7.

exposure, the resulting risk estimate is assumed to represent risk from only the estimated time spent within identified areas of Raymark waste. See Section 2.3 and 2.7 of the RI report for Raymark OU6.

The objective of the HHRA was to estimate the potential current and future risks from exposures to the portion of each individual property where soils were identified as containing Raymark waste. This evaluation included the four Raymark waste indicator compounds (lead, asbestos (crysotile), PBCs (Aroclor 1268) and copper) and any other co-mingled contaminants in the soil samples that were collected from within these estimated areas of Raymark waste. An individual risk assessment was performed on each of the 24 OU6 properties separately. Data collected from each property, but beyond the estimated areas of Raymark waste, was not included in the risk evaluations.

Qualitative Assessment: At the National level, EPA has determined that the amount of asbestos in soil that presents a concern depends on many factors and that a single value for protectiveness may not be appropriate in all instances. Evaluation through activity-based-sampling is the recommended approach for estimating risk from asbestos in soil to ensure protectiveness. With this approach, air monitoring is performed while activities that are likely to take place in the area are conducted. The objective is to characterize air borne particulates based on the likely use of the area. This is believed to produce the most representative air data for potential exposures based on reasonable use.

Activity based sampling, however, has not been performed at the Site. This is because all of the cleanup approaches that have been developed will ensure that future exposures to Raymark waste, which includes asbestos, will not occur. This will be accomplished by either capping the waste in place, complete excavation, excavating first and then capping, or through institutional controls. This approach will be taken at every location where Raymark waste has been found.

Contaminants of Concern (COCs): For 576 and 600 East Broadway, Beacon Point Area, and the Third Avenue property, which are the subject of a portion of this ROD, a total of 21Contaminants of Concern (COCs) were identified in surface and subsurface soils within the Raymark waste footprint: 12 COCs were identified at 576 East Broadway, 13 COCs were identified at 600 East Broadway, 16 COCs were identified at Beacon Point Area, and 18 COCs were identified at Third Avenue. The COCs were selected based on toxicity, concentration, frequency of detection, and mobility and persistence in the environment.

Soil sampling results of the HHRA for 576 East Broadway, 600 East Broadway, Beacon Point, and Third Avenue are summarized individually in the tables below. These tables contain the exposure point concentrations (EPC) used to evaluate the reasonable maximum exposure scenario (RME). The EPC value is based on a statistical determination of all available data. The RME is the highest exposure to a chemical that can reasonably be expected to occur under current and potential future site uses. The RME is the specific value of each chemical of concern

that is used in the calculation of risk in the baseline risk assessment. The table for each property identifies the specific chemicals of concern in soil and their associated RME values.

Estimates of average or central tendency exposure concentrations for these chemicals of concern and all chemicals of potential concern can be found in Section 3.1.5 of the June 2005 OU6 RI. A summary of the health effects of each COC is located in Appendix B-1of the HHRA of the 2005 OU6 RI.

Summary of Chemicals of Concern
576 East Broadway

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil (Surface and Subsurface)

Chemical of Concern	Concentration Detected		Unit	Frequency of Detection	Reasonable Maximum Exposure (RME)		
	Min	Max			EPC Value	EPC Unit	Statistical Measure
Benzo(a)anthracene	40	3200	µg/kg	11/12	3200	µg/kg	Max
Benzo(a)pyrene	41	2000	µg/kg	12/12	2000	µg/kg	Max
Benzo(b)fluoranthene	40	2900	µg/kg	12/12	2900	µg/kg	Max
Aroclors, Total	259.5	413300	µg/kg	14/14	413300	µg/kg	Max
Dieldrin	6.7	3000	µg/kg	6/14	980	µg/kg	95% UCL-T
Dioxins – TEQ	0.012	16.794	µg/kg	11/11	16.8	µg/kg	Max
Arsenic	0.9	21.9	mg/kg	13/14	19.7	mg/kg	95% UCL-T
Barium	29.4	17000	mg/kg	14/14	17000	mg/kg	Max
Chromium	6.3	906	mg/kg	14/14	596	mg/kg	95% UCL-T
Lead	10	24700	mg/kg	37/41	24700	mg/kg	Max
Thallium	3.6	13.2	mg/kg	2/14	3.3	mg/kg	95% UCL-T
Asbestos	0.99	90	%	40/41	84	%	95% UCL-T

* UCL-T is the log transformed data of the upper confidence limit

Summary of Chemicals of Concern
600 East Broadway

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil (Surface and Subsurface)

Chemical of Concern	Concentration Detected		Unit	Frequency of Detection	Reasonable Maximum Exposure		
	Min	Max			Medium EPC Value	EPC Unit	Statistical Measure
Trichloroethene	5	120	µg/kg	3/10	120	µg/kg	Max
Benzo(a)anthracene	74	3600	µg/kg	7/14	3600	µg/kg	Max
Benzo(a)pyrene	88	2500	µg/kg	10/14	2500	µg/kg	Max
Benzo(b)fluoranthene	96	5000	µg/kg	10/14	5000	µg/kg	Max
Inden(1,2,3-cd)pyrene	65	2200	µg/kg	10/14	2200	µg/kg	Max
Aroclors, Total	356.5	97525	µg/kg	15/15	86000	µg/kg	95% UCL-T
Dioxins – TEQ	0.00068	1.03	µg/kg	8/12	0.45	µg/kg	95% UCL-N
Arsenic	4.4	263	mg/kg	17/17	61.9	mg/kg	95% UCL-T
Barium	50.1	10900	mg/kg	17/17	10900	mg/kg	Max
Chromium	12.5	240	mg/kg	17/17	221	mg/kg	95% UCL-T
Lead	9	25600	mg/kg	17/17	12900	mg/kg	95% UCL-T
Zinc	41.3	24000	mg/kg	17/17	12900	mg/kg	95% UCL-T
Asbestos	0.9	85	%	69/80	85	%	Max

* UCL-T is the log transformed data of the upper confidence limit
*UCL-N is the normalized data of the upper confidence limit

Summary of Chemicals of Concern
Beacon Point Area*

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil (Surface and Subsurface)

Chemical of Concern	Concentration Detected		Unit	Frequency of Detection	Reasonable Maximum Exposure		
	Min	Max			Medium EPC Value	EPC Unit	Statistical Measure
Benzo(a)anthracene	380	11000	µg/kg	6/10	11000	µg/kg	Max
Benzo(a)pyrene	130	9000	µg/kg	8/10	9000	µg/kg	Max
Benzo(b)fluoranthene	250	12000	µg/kg	6/10	12000	µg/kg	Max
Dibenzo(a,h) Anthranene	81	1800	µg/kg	6/10	1600	µg/kg	95% UCL-T
Inden(1,2,3-cd) pyrene	180	7700	µg/kg	7/10	7700	µg/kg	Max
Aroclors, Total	432.5	68750	µg/kg	5/11	69000	µg/kg	Max
Dioxins – TEQ	0.00947	7.81	µg/kg	3/3	7.8	µg/kg	Max
Arsenic	3.2	35.5	mg/kg	6/11	22.8	mg/kg	95% UCL-T
Barium	27.5	19700	mg/kg	11/11	19700	mg/kg	Max
Cadmium	0.59	10.2	mg/kg	8/9	10.1	mg/kg	95% UCL-T
Chromium	18.6	199	mg/kg	11/11	80.7	mg/kg	95% UCL-T
Lead	15.2	49000	mg/kg	41/49	7990	mg/kg	95% UCL-T
Manganese	208	938	mg/kg	11/11	52.4	mg/kg	95% UCL-T
Nickel	13.3	547	mg/kg	11/11	165	mg/kg	95% UCL-T
Zinc	45.6	3830	mg/kg	11/11	2780	mg/kg	95% UCL-T
Asbestos	0.9	40	%	31/50	23	%	95% UCL-T

* Note: A risk assessment for the entire Beacon Point Area parcel was performed with findings provided within in this table. The Beacon Point Area parcel has been divided into three areas of concern: AOC1, ACO2, and AOC3. See August 2010 OU6 FS, Figure 4-14.

* UCL-T is the log transformed data of the upper confidence limit

Summary of Chemicals of Concern
Third Avenue

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil (Surface and Subsurface)

Chemical of Concern	Concentration Detected		Unit	Frequency of Detection	Reasonable Maximum Exposure		
	Min	Max			Medium EPC Value	EPC Unit	Statistical Measure
Acetophenone	44	310	µg/kg	3/6	310	µg/kg	Max
Benzo(a)anthracene	250	2700	µg/kg	5/6	2700	µg/kg	Max
Benzo(a)pyrene	260	2800	µg/kg	5/6	2800	µg/kg	Max
Benzo(b)fluoranthene	240	2500	µg/kg	5/6	2500	µg/kg	Max
Dibenzo(a,h) Anthranene	260	260	µg/kg	1/6	260	µg/kg	Max
Inden(1,2,3-cd) pyrene	150	1200	µg/kg	5/6	1200	µg/kg	Max
Aroclors, Total	219	35800	µg/kg	7/9	35800	µg/kg	Max
Dieldrin	4.1	40	µg/kg	2/6	40	µg/kg	Max
Dioxins – TEQ	0.015	0.015	µg/kg	1/1	0.015	µg/kg	Max
Antimony	4.2	4.2	mg/kg	1/6	4.2	mg/kg	Max
Arsenic	2.8	12.2	mg/kg	6/6	11.8	mg/kg	95% UCL-N
Barium	29.6	9930	mg/kg	6/6	9930	mg/kg	Max
Chromium	11.8	156	mg/kg	6/6	156	mg/kg	Max
Lead	14.6	18200	mg/kg	49/54	5900	mg/kg	95% UCL-T
Manganese	209	364	mg/kg	6/6	313	mg/kg	95% UCL-T
Nickel	11.3	439	mg/kg	6/6	439	mg/kg	Max
Zinc	42.9	7270	mg/kg	6/6	7270	mg/kg	Max
Asbestos	0.9	40	%	23/24	40	%	Max

* UCL-T is the log transformed data of the upper confidence limit
*UCL-N is the normalized data of the upper confidence limit

b. Exposure Assessment

The HHRA included an evaluation of current and future exposures as shown below. Some of the properties were evaluated for two potential receptor scenarios and others for only a single one, based on current and reasonably anticipated future uses. (See the HHRA, Table 1 in Appendix B-1 of the 2005 OU6 RI Report).

- recreational visitor – adults and children who may visit the property for recreational purposes and be exposed to contaminated soil through inadvertent contact (exposure from ingestion and dermal contact of contaminated soil);[2]
- commercial worker - adult workers who may be accidently exposed to contaminated soil through construction work (exposure from ingestion and dermal contact of contaminated soil);[3] and
- resident - adults and children who live on a property who may inadvertently be exposed to contaminated soil (exposure from ingestion and dermal contact of contaminated soil).[4]

The exposure assessment findings for the four properties that are the subject of a portion of this ROD (576/600 East Broadway, Beacon Point AOC3, and Third Avenue) are shown below:

576/600 East Broadway:

- Receptors selected for evaluation of potential exposures were adult commercial workers. Based on current and reasonably anticipated future uses, other receptors were not considered viable for these parcels.
- Under both current and future conditions, commercial workers were assumed to be exposed to soil only within the estimated areas of Raymark waste at the property under reasonable maximum exposure (RME) conditions.
- Possible exposures of commercial workers to site-related contaminants would be through

[2] For current exposures to soil from recreational use, ingestion of 100 mg/day for 24 years was presumed for an adult. For a young child (age 1-6), ingestion of 200 mg/day for 6 years was presumed. Body weights of 70 kg and 15 kg were used for the adult and child, respectively. Dermal contact was assumed with 5,700 cm^2/day of surface area for the adult and 2,800 cm^2/day for the child. Soil exposures were assumed to occur 150 days/year.

[3] For current adult commercial worker soil exposure, ingestion of 100 mg/day for 25 years was presumed. A body weight of 70 kg was presumed. Dermal contact assumed was 3,300 cm^2/day of surface area. Soil exposures were assumed to occur 250 days/year.

[4] For current exposures to soil from residential use, ingestion of 100 mg/day for 24 years was presumed for an adult. For a young child (age 1-6), ingestion of 200 mg/day for 6 years was presumed. Body weights of 70 kg and 15 kg were used for the adult and child, respectively. Dermal contact was assumed with 5,700 cm^2/day of surface area for the adult and 2,800 cm^2/day for the child. Soil exposures were assumed to occur 350 days/year.

inadvertent contact during commercial/industrial activities. Under both current and future use scenarios, commercial workers were evaluated for exposure to soils (0 to 15 feet below ground surface) within the estimated areas of Raymark waste[5].

- Current and future routes of exposure for potential human receptors are incidental ingestion and dermal contact with soil. Current potential exposures to volatile emissions, fugitive dust, and asbestos are considered to be minimal due to the presence of pavement and vegetative cover at 576 East Broadway and vegetative cover and gravel at 600 East Broadway. If asbestos containing soils are disturbed in the future, however, there is a potential for airborne asbestos exposure and associated inhalation risks.

Beacon Point:

- The exposure assessment findings presented below are for the entire Beacon Point Area parcel, not just AOC2 (the subject of a portion of this ROD). The findings for the three AOCs within the Beacon Point Area, however, are similar.
- Receptors selected for evaluation of potential exposures were frequent adult and children recreational users. Based on current and reasonable future uses, a residential scenario was not considered likely. Although current and future commercial worker receptors are likely, the exposure assessment for frequent recreational users is more conservative. Accordingly, the commercial worker receptor was not evaluated.
- Under both current and future conditions, frequent recreational users were assumed to be exposed to soil only within the estimated areas of Raymark waste at the property under reasonable maximum exposure (RME) conditions.
- Possible exposures of frequent recreational visitors to site-related contaminants would be through inadvertent contact during recreational activities, such as walking or picnicking. Under both the current and future land use scenarios, frequent recreational visitors were evaluated for exposure to soils (0 to 15 feet bgs) within the estimated areas of Raymark waste.
- Current and future routes of exposure for potential human receptors are incidental ingestion and dermal contact with soil. Current potential exposures to volatile emissions, fugitive dust, and asbestos are considered to be minimal due to the presence of pavement in the estimated areas of Raymark waste. If asbestos containing soils are disturbed in the future, however, there is a potential for airborne asbestos exposure and associated inhalation risks.

[5] CT Remediation Standard Regulations (RSRs) require compliance of direct contact criteria to a depth of 15 feet below ground surface for accessible soils. See Standards for Soil, CT RSRs Section 122a-133k-2, b.3.

Third Avenue:

- Receptors selected for evaluation of potential exposures were adult and children residents. Based on current and reasonable future uses, a residential scenario was determined to be the most likely. Although current and future commercial worker receptors are also likely, the exposure assessment for residents is more conservative. Because of this, the commercial worker receptor was not evaluated.
- Under current and future conditions, potential human receptors were residents that were assumed to be exposed to soil only within the estimated areas of Raymark waste at the property under reasonable maximum exposure (RME) conditions.
- Possible exposures of residents to site-related contaminants would be through inadvertent contact activities such as playing or yard work at their home. Under the current and future land use, residents were evaluated for exposure to soils (0 to 15 feet bgs) within the estimated areas of Raymark waste.
- Current and future routes of exposure for potential human receptors are incidental ingestion and dermal contact with soil. Current potential exposures to volatile emissions, fugitive dust, and asbestos are considered to be minimal due to the presence of pavement and vegetative cover in the estimated areas of Raymark waste. If asbestos containing soils are disturbed in the future, however, there is a potential for airborne asbestos exposure and associated inhalation risks.

Section 3 of the 2005 OU6 RI Report provides a more thorough description of all exposure assumptions used to evaluate risks in both the average and reasonable maximum exposure scenarios at 576/600 East Broadway, Beacon Point, Third Avenue, and all of the other OU6 properties. For discussion of risks at locations associated with interim actions, see Section G.3.

c. Toxicity Assessment

A number of contaminants with both carcinogenic and non-carcinogenic effects were identified in soils from 576/600 East Broadway, Beacon Point AOC2, and Third Avenue. A summary of the constituents identified at all four properties is discussed below.

The potential for carcinogenic effects is evaluated using chemical-specific cancer slope factors (CSFs) for oral and dermal exposures. A weight of evidence classification is available for each chemical. CSFs have been developed by EPA from epidemiological or animal studies to reflect a conservative "upper bound" estimate of the risk posed by potentially carcinogenic compounds. That is, the true risk calculated using the CSFs is unlikely to be greater than the risk predicted. A summary of the cancer toxicity data relevant to the chemicals of concern in soil at OU6 is presented in the HHRA Appendix B-1 of the 2005 OU6 RI.

Cancer Toxicity Data Summary Constituents Identified in Soils at 576/600 East Broadway, Beacon Point, and Third Avenue					
Chemical of Concern	**Oral Cancer Slope Factor**	**Adjusted Dermal Cancer Slope Factor**	**Units**	**Source**	**Date**
Trichloroethene	4.0×10^{-1}	4.0×10^{-1}	1/(mg/kg-day)	EPA/NCEA	
Acetophenone	NA	NA	NA	IRIS	2003
Benzo(a)anthracene	7.3×10^{-1}	7.3×10^{-1}	1/(mg/kg-day)	EPA/NCEA	
Benzo(a)pyrene	7.3	7.3	1/(mg/kg-day)	IRIS	2003
Benzo(b)fluoranthene	7.3×10^{-1}	7.3×10^{-1}	1/(mg/kg-day)	EPA/NCEA	
Dibenzo(a,h) Anthranene	7.3	7.3	1/(mg/kg-day)	EPA/NCEA	
Inden(1,2,3-cd) pyrene	7.3×10^{-1}	7.3×10^{-1}	1/(mg/kg-day)	EPA/NCEA	
Aroclors, Total	2	2	1/(mg/kg-day)	IRIS	2003
Dieldrin	16	16	1/(mg/kg-day)	IRIS	2003
Dioxins – TEQ	$1.5 \times 10^{+5}$	$1.5 \times 10^{+5}$	1/(mg/kg-day)	IRIS	2003
Dioxins – TEQ*1	$1.0 \times 10^{+6}$	$1.0 \times 10^{+6}$	1/(mg/kg-day)	EPA	2001
Antimony	NA	NA	NA	NA	NA
Arsenic	1.5	1.5	1/(mg/kg-day)	IRIS	2003
Barium	NA	NA	NA	IRIS	2003
Cadmium	NA	NA	NA	IRIS	2003
Chromium VI	NA	NA	NA	IRIS	2003
Lead*2	NA	NA	NA	IRIS	2003
Manganese	NA	NA	NA	IRIS	2003
Nickel	NA	NA	NA	IRIS	2003
Thallium	NA	NA	NA	IRIS	2003
Zinc	NA	NA	NA	IRIS	2003
Asbestos	NA	NA	NA	NA	NA

Footnotes:
*1 Proposed Dioxin CSF per Draft Dioxin Reassessment, EPA, 2001
*2 Lead is not a carcinogen. Lead risks are from adverse health effects from blood levels above 10 µg/dL.

In assessing the potential for non-carcinogenic adverse effects, it is EPA policy to assume that a safe exposure level exists, which is described by the reference dose (RfD) for the ingestion pathway. RfDs have been developed by EPA as estimates of a daily exposure that is likely to be without an appreciable risk of an adverse health effect when exposure occurs over the duration of a lifetime. In other words, RfDs represent a level to which an individual may be exposed that is not expected to result in any deleterious effect. RfDs are derived from epidemiological and/or

animal studies and incorporate uncertainty factors to help ensure that adverse health effects will not occur. The RfDs relevant to the constituents that were identified at 576/600 East Broadway, Beacon Point AOC3, and Third Avenue are presented in the table below. Further discussion on toxicity assessment can be found in Section 2.7 and Section 3 of the 2005 OU6 RI.

Non-Cancer Toxicity Data Summary
Constituents Identified in Soils at 576/600 East Broadway, Beacon Point, and Third Avenue

Chemical of Concern	Chronic/ Subchronic	Oral RfD Value	Adjusted Dermal RfD*1	Oral RfD Unit	Primary Target Organ	Sources of RfD	Dates RfD Searched
Trichloroethene	Chronic	3.0×10^{-4}	3.0×10^{-4}	mg/kg-day	Liver/Kidney	EPA/NCEA	2003
Acetophenone	Chronic	1.0×10^{-1}	1.0×10^{-1}	mg/kg-day	General	IRIS	2003
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h) Anthranene	NA	NA	NA	NA	NA	NA	NA
Inden(1,2,3-cd) pyrene	NA	NA	NA	NA	NA	NA	NA
Aroclors, Total	Chronic	2.0×10^{-5}	2.0×10^{-5}	mg/kg-day	Skin/Eyes/ Immune	IRIS	2003
Dieldrin	Chronic	5.0×10^{-5}	5.0×10^{-5}	mg/kg-day	Liver	IRIS	2003
Dioxins – TEQ	NA	NA	NA	NA	NA	NA	NA
Antimony	Chronic	4.0×10^{-4}	6.0×10^{-5}	mg/kg-day	Blood	IRIS	2003
Arsenic	Chronic	3.0×10^{-4}	3.0×10^{-4}	mg/kg-day	Skin	IRIS	2003
Barium	Chronic	7.0×10^{-2}	4.9×10^{-3}	mg/kg-day	Kidney	IRIS	2003
Cadmium	Chronic	1.0×10^{-3}	2.5×10^{-2}	mg/kg-day	Blood	IRIS	2003
Chromium VI	Chronic	3.0×10^{-3}	2.5×10^{-2}	mg/kg-day	None	IRIS	2003
Lead	NA	NA	NA	NA	NA	NA	NA
Manganese	Chronic	1.40×10^{-1}	4.0×10^{-2}	mg/kg-day	CNS	IRIS	2003
Nickel	Chronic	2.0×10^{-2}	4.0×10^{-2}	mg/kg-day	Body Weight	IRIS	2003
Thallium	Chronic	8.0×10^{-5}	1	mg/kg-day	None	IRIS	2003
Zinc	Chronic	3.0×10^{-1}	1	mg/kg-day	Blood	IRIS	2003
Asbestos	Chronic	2.0×10^{-5}	NA	NA	NA	NA	NA

Footnotes:
*1 Lead is not organ specific. Lead risks are from adverse health effects from blood levels above 10 µg/dL.

d. Risk Characterization

The risk characterization combines the exposure estimate with the toxicity information to estimate the probability or potential that adverse health effects may occur if no action were to be taken.

Excess lifetime cancer risks were determined for each exposure pathway by multiplying the exposure level with the chemical-specific cancer potency factor. The resulting risk estimates are expressed in scientific notation as a probability (for example, 1×10^{-6} for 1/1,000,000) and indicate that an average individual is not likely to have greater than a one in a million chance of developing cancer over 70 years as a result of site-related exposure to the compound at the stated concentration. Current EPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances.

In assessing the potential for adverse non-carcinogenic effects, a hazard quotient (HQ) is calculated by dividing the exposure level by the reference dose (RfD) or other suitable benchmark. A HQ less than or equal to 1 indicates that a receptor's exposure to a single contaminant is less than the safe value (RfD in this case) and that toxic non-carcinogenic effects from that chemical are unlikely. Conversely, a HQ greater than1 indicates that adverse effects as a result of exposure to the contaminant are possible. To account for additive effects resulting from exposure to more than one compound, a Hazard Index (HI) is generated by adding the HQs for all chemicals of concern that affect the same target organ (e.g., liver, nervous system) within or across those media to which the same individual may reasonably be exposed. Generally, EPA views HI values based on site-related exposure in excess of unity (1) as unacceptable. It should be noted that the magnitude of the HQ or HI is not proportional to the likelihood that an adverse effect will be observed.

Because of the uncertainties in the dose-response relationship between exposures to lead and biological effects, there is no EPA-derived RfD for lead. Therefore, the Integrated Exposure Uptake Biokenetic or IEUBK model was used to evaluate potential risks of exposure to lead in soil. The model predicts the probability that a child (under the age of seven) will have a lead blood level greater than the level associated with adverse health effects. EPA's goal is that the probability of the exposed population's blood levels exceeding 10 ug/dL is no greater than 5%.

As stated previously, EPA has determined that a single value for protectiveness from asbestos may not be appropriate in all instances and that activity-based-sampling is the recommended approach for estimating risk from asbestos in soil. Activity based sampling, however, has not been performed at the Site. This is because all of the cleanup approaches that have been developed will ensure that future exposures to Raymark waste, which includes asbestos, will not occur. This will be accomplished by either capping the waste in place, complete excavation, excavating first and then capping, or through institutional controls. This approach will be taken at every location where Raymark waste has been found. Asbestos data provided for each parcel is expressed as a percentage of total volume within a soil sample.

It should be noted that although the risk assessment was performed in 2005, the findings of the HHRA remain valid. Some toxicity values have been updated and the methodology of calculating cancer risk for chemicals which act via a mutagenic mode of action has changed for scenarios that include children. These changes, however, do not impact the calculations of risks at the majority of the OU6 properties where industrial/commercial workers are the primary receptors; however, the changes would lead to greater cancer risks from PAHs at properties with resident or recreational visitor scenarios. Thus, these changes do not significantly impact the HHRA findings for 576 and 600 East Broadway, Beacon Point AOC2, and Third Avenue.

A summary of the receptors, exposure pathways, cancer and noncancer risks, and lead and asbestos evaluations that were identified at 576 and 600 East Broadway, Beacon Point AOC2, and Third Avenue is presented for each property below. Readers are referred to the HHRA in Appendix B of the 2005 OU6 RI for a more comprehensive risk summary for these and all other OU6 properties. The response actions selected in this ROD are necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

576 East Broadway

Commercial Worker

Carcinogenic and Noncarcinogenic Risk: Tables 8.10 and 7-10 of the HHRA in Appendix B-1 of the 2005 OU6 RI depict the carcinogenic and non-carcinogenic risk summary for the chemicals of concern in soil evaluated to reflect potential current/future adult commercial worker exposure through incidental ingestion and dermal contact with soil at 576 East Broadway corresponding to the RME scenario. For the current/future commercial worker, carcinogenic and non-carcinogenic risks exceeded the EPA acceptable risk range of 10^{-4} to 10^{-6} and a target organ HI of 1. The cumulative carcinogenic risk was 5.0×10^{-4} and the target organ HI was 16. The exceedances were due primarily to the presence of PCBs, dioxin TEQ, dieldrin, arsenic, and benzo(a)pyrene.

Lead Risk: Under the commercial scenario for the estimated areas of Raymark waste at 576 East Broadway, the range of probabilities that the fetal blood-lead concentration exceeds10 µg/dL is 7 to 10 percent. EPA's stated goal for lead is that individuals exposed would have no more than a 5 percent probability of exceeding the level of concern of 10 µg/dL.

Asbestos Risk: Asbestos was found at 576 East Broadway in 40 of 41 samples at soil percentages ranging from 0.99 to 90%, with an EPC of 84%. The presence of pavement and vegetative cover in the estimated areas of Raymark waste reduces the potential for current airborne exposures. Future concerns exist, however, if asbestos containing soils are disturbed.

600 East Broadway

Commercial Worker

Carcinogenic and Noncarcinogenic Risk: Tables 8.11 and 7-11 of the HHRA in Appendix B-1 of the 2005 OU6 RI depict the carcinogenic and non-carcinogenic risk summary for the chemicals of concern in soil evaluated to reflect potential current/future adult commercial worker exposure through incidental ingestion and dermal contact with soil at 600 East Broadway corresponding to the RME scenario. For the current/future commercial worker, carcinogenic risk was 4.0×10^{-5} which is within the EPA acceptable risk range of 10^{-4} to 10^{-6}. Non-carcinogenic risks were 2 which exceeded the target organ HI of 1. The exceedances were due primarily to the presence of PCBs, dioxin TEQ, and arsenic.

Lead Risk: Under the commercial scenario for the estimated areas of Raymark waste at 600 East Broadway, the range of probabilities that the fetal blood-lead concentration exceeds 10 µg/dL is 1 to 2 percent. EPA's stated goal for lead is that individuals exposed would have no more than a 5 percent probability of exceeding the level of concern of 10 µg/dL.

Asbestos Risk: Asbestos was found at 600 East Broadway in 69 of 80 samples at soil percentages ranging from 0.99 to 85%, with an EPC of 85%. The presence of gravel and vegetative cover in the estimated areas of Raymark waste reduces the potential for current airborne exposures. Future concerns exist, however, if asbestos containing soils are disturbed.

Beacon Point Area

Frequent Recreational User

Carcinogenic and Noncarcinogenic Risk: Tables 8.20A and 7.20A of the HHRA in Appendix B-1 of the 2005 OU6 RI depict the carcinogenic and non-carcinogenic risk summary for the chemicals of concern in soil evaluated to reflect potential current/future frequent adult recreational user exposure through incidental ingestion and dermal contact with soil at the Beacon Point Area corresponding to the RME scenario. Tables 8.20B and 7.20B depict the same risk summary for the frequent child recreational user.

For the current/future frequent adult (lifetime) recreational user, carcinogenic risk was 1.1×10^{-4} and the target organ HI was 4. The exceedences of EPA's acceptable risk range of 10^{-4} to 10^{-6} and a target organ HI of 1 was due primarily to the presence of PCBs, dioxin TEQ, PAHs, and arsenic.

The current/future frequent child (age 1-6) recreational user carcinogenic risk was 7.4×10^{-5} which is within the EPA acceptable risk range of 10^{-4} to 10^{-6}. The current/future frequent child

(age 1-6) recreational user non-carcinogenic risk was 4 which exceeded the EPA target organ HI of 1. The HI exceedence was due primarily to the presence of PCBs.

Lead Risk: Under a frequent child residential scenario for the estimated areas of Raymark waste at Beacon Point Area (recreational scenarios are not performed for lead evaluations), the IEUBK model estimates that there is a 10.8 percent probability that a child will have a blood-lead level of greater than 10μg/dL. EPA's stated goal for lead is that exposed individuals will have no more than a 5 percent probability of exceeding the blood level of concern of 10μg/dL.

Asbestos Risk: Asbestos was found at Beacon Point Area in 31 of 50 samples at soil percentages ranging from 0.9 to 40%, with an EPC of 23%. The presence of pavement in the estimated areas of Raymark waste at AOC2 reduces the potential for current airborne exposures. Future concerns exist, however, if asbestos containing soils are disturbed.

Third Avenue

Resident

Carcinogenic and Noncarcinogenic Risk: Tables 8.24A and 7.24A of the HHRA in Appendix B-1 of the 2005 OU6 RI depict the carcinogenic and non-carcinogenic risk summary for the chemicals of concern in soil evaluated to reflect a potential current/future adult residential user exposure through incidental ingestion and dermal contact with soil at Third Avenue corresponding to the RME scenario. Tables 8.24B and 7.24B depict the same risk summary for a child residential use.

For the current/future frequent adult (lifetime) residential user, carcinogenic risk was 3.3×10^{-5} which is within the EPA acceptable risk range of 10^{-4} to 10^{-6}. The target organ HI was 5 is above EPA's target organ HI of 1. The exceedence was due primarily to the presence of PCBs arsenic, and benzo(a)pyrene.

The current/future frequent child (age 1-6) residential user carcinogenic risk was 2.3×10^{-5} which is within the EPA acceptable risk range of 10^{-4} to 10^{-6}. The current/future frequent child (age 1-6) residential user non-carcinogenic risk was 5 which exceeded the EPA target organ HI of 1. The HI exceedence was due primarily to the presence of PCBs.

Lead Risk: Lead exceedences were not found at Third Avenue. Under a frequent child residential scenario for the estimated areas of Raymark waste at Third Avenue, the IEUBK model estimates that there is a 1.6 percent probability that a child will have a blood-lead level of greater than 10μg/dL. This is within EPA's stated goal for lead of no more than a 5 percent probability of an individual exceeding the blood level of concern of 10μg/dL.

Asbestos Risk: Asbestos was found at Third Avenue in 23 of 24 samples at soil percentages ranging from 0.9 to 40%, with an EPC of 40%. The presence of pavement and vegetative cover in the estimated areas of Raymark waste at Third Avenue reduces the potential for current airborne exposures. Future concerns exist, however, if asbestos containing soils are disturbed.

A summary of risks for all OU6 properties is presented in Appendix B, Table 1. A summary of risks for 576 East Broadway, 600 East Broadway, Beacon Point, and Third Avenue, are shown below.

Summary of Human Health Risks
576 and 600 East Broadway, Beacon Point, and Third Avenue

Property	Maximum Asbestos*1 (%)	Lead*2 (%)	Scenario/ Receptor	CR>1E-04 or HI>1	Total Cancer Risk*3	Total Cancer Risk*4	Major contributors to cancer risk above 1E-4 (individual cancer risk >1E-06)	Total Noncancer Hazard Index	Major contributors to noncancer Hazard Index (HI>1.0)
576 East Broadway	90	7.1-9.7	Commercial Worker	YES	5.0×10^{-4}	2.0×10^{-3}	PCBs, dioxin TEQ, dieldrin, arsenic, benzo(a)pyrene	16	PCBs
600 East Broadway	85	1.0-2.1	Commercial Worker	YES	4.0×10^{-5}	5.0×10^{-5}	PCBs, dioxin TEQ, arsenic, benzo(a)pyrene	2	PCBs
Beacon Point Area	40	11	Recreational Visitor	YES	1.1×10^{-4}	5.1×10^{-4}	PCBs, dioxin TEQ, PAHs, arsenic	4	PCBs
Third Ave.	40	1.6	Resident	YES	3.3×10^{-5}	3.5×10^{-5}	PCBs, arsenic, benzo(a)pyrene	5	PCBs

Footnotes:
*1 Maximum Detected Asbestos (%); asbestos-containing material is material containing more than 1 percent asbestos (Appendix A to Subpart M of 40 CFR 61)
*2 Probability (%) that blood levels exceed 10 µg/dL; EPA's goal is that no more than 5% of individual will have blood lead concentration above 10 µg/dL
*3 Cancer risk estimated using the dioxin slope factor of 1.5E+5 (mg/kg/d)-1
*4 Cancer risk estimated using the Draft Dioxin Reassessment recommended dioxin slope factor of 1E+6 (mg/kg/d)-1

e. Uncertainties

- There is uncertainty associated with the extent of the estimated areas of Raymark waste on each property investigated. The delineation of Raymark waste on a property assumed that Raymark waste extends halfway between a sampling point containing Raymark waste and another not meeting the definition of Raymark waste. Limitations in the determination of the areal extent of Raymark waste for each property are discussed in Section 2.3 of the 2005 OU6 RI.

- Prorating exposures assumes that individual receptors will spend time within the estimated areas of Raymark waste in direct proportion to the percent of the property estimated to contain Raymark waste. It is conceivable that individuals may spend all of their time within the estimated areas of Raymark waste. If this were the case, reasonable maximum risks for exposure to the estimated areas of Raymark waste would be higher and were evaluated as part of the HHRA (See Table 1 in Appendix B-12 of the OU6 RI).

- Risks were determined based on potential exposures to Raymark waste and constituents co-mingled within the Raymark waste delineated areas. Potential exposures associated with contaminants identified beyond delineated Raymark waste areas on a property were not included in the risk assessment as they were determined not to be Site-related. Reasonable maximum risks for an individual who comes into contact with contaminants beyond the delineated Raymark waste areas would, accordingly, be higher.

- Due to the lack of an approved toxicity value, a quantitative estimate of human health risks from copper exposure could not be performed. Because of this, copper concentrations were evaluated using the EPA Region IX PRGs for industrial and residential soils (now known as the Regional Screening Levels (RSLs). Copper concentrations exceed the EPA industrial soil RSL of 41,000 mg/kg at 576 and 600 East Broadway and the residential soil RSL of 3,100 mg/kg at the Beacon Point Area. Copper is a significant contaminant in Raymark waste. The absence of a quantitative risk evaluation of copper may result in an underestimate of total non-cancer risks.

- Dioxins were selected as COPCs at all four properties that are the subject of a portion of this ROD, 576 and 600 East Broadway, Beacon Point Area, and Third Avenue. The 2005 OU6 risk assessment calculated dioxin cancer risks using the Cancer Slope Factor (CSF) of 1.5×10^5 $(mg/kg/day)^{-1}$. This CSF is from EPA's 1997 Health Effects Summary tables (HEAST) database and was the most current EPA-approved value at the time the 2005 risk assessment was prepared. In 2003, EPA issued an external review draft entitled *Exposure and Human Health Reassessment of 2, 3, 7, 8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds*, in which a new CSF of 1.0×10^6 $(mg/kg/day)^{-1}$ was proposed. As part of the uncertainty analysis in the 2005 risk assessment, cancer risks from dioxins based on the external review draft proposed CSF were calculated and presented in the Appendix B-9 of the HHRA, 2005 OU6 RI. These risks were approximately one order of magnitude greater than risks estimated using the 1997 CSF of 1.5×10^5 $(mg/kg/day)^{-1}$ (See table on prior page).

- In the absence of chromium speciation data, toxicity values for chromium VI were used to estimate risks from measured total chromium concentrations. Since hexavalent chromium is considered to be more toxic than the trivalent state, which is more common, risks for this chemical are probably overestimated to some degree.

2. Ecological Risk Assessment

All of the OU6 properties are either developed or have been disturbed by surrounding development, past uses of Ferry Creek, or filling of wetlands. The OU6 properties provide only limited use as areas for birds, reptiles, and small mammals to forage, cover, rest, and breed because of the level of development, existing soil contamination, disturbed nature of the area, and low vegetation density and/or diversity. Because of these factors, none of the OU6 properties were found to provide significant habitat to support ecological receptors, and a full ecological risk assessment was determined not to be warranted. Qualitative ecological risk assessments, however, have been completed for each of the OU6 properties. The following findings are from the qualitative ecological assessments that were performed at 576 and 600 East Broadway, the Beacon Point Area, and Third Avenue.

576 and 600 East Broadway

576 and 600 East Broadway were evaluated together from an ecological perspective because they are adjacent to each other, have similar habitat characteristics, and have similar contaminant profiles. The 576/600 East Broadway parcels are mostly undeveloped and have been colonized by early successional plant species including quaking aspen, black locust, gray birch, Norway maple, and red oak. These plants are highly resilient with respect to poor soil conditions and contaminants, so they are common in disturbed areas in which the soil is dominated by fill.

Some ecological receptors use these sites, including birds and reptiles. While there may be sufficient resources on these properties to support some foraging by ecological receptors, it is unlikely that there is sufficient habitat to support a viable population of any species of bird, reptile, or mammal. The lots are also surrounded by developed land for the most part which limits recruitment of animals from other areas. Based on these observations, the parcels appear to be of little ecological value.

The principal ecological feature of the area is Ferry Creek, which borders the parcels to the northeast. There is some ecological value provided by the trees and shrubs that have colonized the parcels along Ferry Creek. These plants may provide protective shade to keep water temperatures down and they stabilize the soil to reduce run-off into the stream. It would be beneficial if these plants were to remain in place to the extent possible.

Beacon Point Area

Most of the property has been disturbed by surrounding development, past uses of Ferry Creek, and filling of a wetland area prior to developing the property. There are wetlands abutting the property, and the property abuts the Housatonic River. There is limited vegetation as most of the property, and all of AOC2, is covered by pavement. This property provides only limited use as an area for birds, reptiles, and small mammals to forage, cover, rest, and breed primarily due to

the level of recreational use and pavement. Most wildlife utilize the surrounding areas, including Ferry Creek, rather than this property.

Third Avenue
Most of the property and surrounding area has been developed into residential parcels. There are nearby wetlands and a beach area of the Housatonic River used for recreational purposes. Because of this, the property provides only limited use as an area for birds, reptiles, and small mammals to forage, cover, rest, and breed primarily due to the level of development.

3. Potential Risks Requiring Interim Actions

Risks associated with potential exposures to Raymark waste have been identified at the remaining 20 OU6 properties as well as the other operable units (OU3, 4, 5, 7, 8, and 9) where Raymark waste has been identified. These risks have been documented in the HHRAs contained in several existing RI reports (OU3 (October 1999), OU4 (August 1999), OU6 (June 2005), OU7 (November 2000), OU8 (November 2000), and OU9 (July 2005)). Until a final remedy is implemented to address these risks, interim actions will be required at a number of these locations to ensure that the potential for exposure to Raymark waste is minimized.

Table 1 in Appendix B summarizes the current human health risks associated with the remaining 20 OU6 properties and the table below (Interim Actions: Summary of Current Human Health Risks OUs 3, 4, 5, 7, 8, and 9) summarizes the current human health risks associated with Raymark waste within other operable units. As can be seen in these tables, the primary risk drivers are asbestos, lead, PCBs, PAHs, dioxins, and arsenic. Potential human health receptors include recreational users and commercial workers. On many properties, Raymark waste is at or near the ground surface where direct contact could easily occur and limited or no mechanisms are currently in place to restrict access.

Potential ecological receptors include birds (heron and blackbird), small mammals (raccoon), and benthic communities. Individual ecological risk assessments or evaluations were performed for each property in OU6 and for each area in operable units 3, 4, 7, 8, and 9 (OU5 was addressed as a removal action and a complete risk assessment has not been performed to date). The findings from these various assessments are that, in general, degradation is clearly evident in the benethic community and that potential risks (ranging from low to high at various areas) exist for wildlife. Primary constituents of concern include arsenic, copper, lead, mercury, nickel, silver, zinc, PCBs, pesticides, and dioxins. Potential exposures are possible from Raymark waste at or near the ground surface, burrowing into Raymark waste, or active erosion of Raymark waste into Ferry Creek. If significant ecological risks are found to be present, EPA will evaluate whether modifications to the interim actions are appropriate to address such risks.

The land use at the locations where Raymark waste has been found at the various OUs includes vacant lots, developed commercial/retail properties, and a residential property.

Interim Actions: Summary of Current Human Health Risks*1 OUs 3, 4, 5, 7, 8, and 9

Location	Maximum Asbestos*2 (%)	Lead*3 (%)	Scenario/ Receptor	CR>1E-04 or HI>1	Total Current Cancer Risk	Major contributors to cancer risk above 1E-4 (individual cancer risk >1E-06)	Total Current Noncancer Hazard Index	Major contributors to noncancer Hazard Index (HI>1.0)
OU3*4	90	58.3	Recreational User	YES	1.0×10^{-4}	NA	1	PCBs
OU4	60	99.2	Recreational User	YES	1.4×10^{-5}	NA	1	PCBs
			Commercial Worker	YES	7.6×10^{-5}	NA	5	PCBs
			Residential User	YES	2.9×10^{-4}	PCBs, arsenic, PAHs	6	PCBs, barium, zinc
OU5*5	90	94	Commercial Worker	-	-	-	-	-
OU7	50	4.7-12.0	Commercial Worker	YES	1.9×10^{-4}	PCBs, PAHs, dioxin	8	PCBs
OU8	30	17.0	Commercial Worker	YES	1.0×10^{-4}	NA	4	PCBs, chromium
OU9	48	6.2	Recreational User	YES	1.3×10^{-4}	PCBs, dioxins, PAHs, arsenic	4	PCBs

Footnotes:

*1 All risk presented are using a reasonable maximum exposure (RME) evaluation.

*2 Maximum Detected Asbestos (%); asbestos-containing material is material containing more than 1 percent asbestos An (Appendix A to Subpart M of 40 CFR 61)

*3 Probability (%) that blood levels exceed 10 µg/dL; EPA's goal is that no more than 5% of individual will have blood lead concentration above 10 µg/dL

*4 Areas from within OU3 were developed into separate operable units (OU7 and OU8). Because of this, some overlap may exist in risk evaluations.

*5 To date, a completed baseline risk assessment has not been performed for OU5. A removal action was conducted during 1999-2000 with some quantitative human health evaluations completed, primarily for lead. Soil sampling at OU5 prior to the removal action focused on a 0-4 feet depth with findings of maximum concentrations of asbestos (90%), lead (56,000 mg/kg), PCBs (285 ppm), and dioxin (12,000 ppt).

H. REMEDIAL ACTION OBJECTIVE

Based on preliminary information about types of contaminants, environmental media of concern, and potential exposure pathways, a Remedial Action Objective (RAO) was developed to aid in the development and screening of alternatives. This RAO was developed to mitigate and/or prevent existing and future potential threats to human health, as described in the various HHRA reports. (There is no RAO for ecological receptors due to the lack of significant ecological habitat, as previously described in Section G.2) To address this human health risk, EPA has

established the following RAO for all of the OU6 properties and additional Raymark waste areas addressed in this ROD:

Remedial Action Objective (RAO):

Human Health: To prevent direct exposure (inhalation, dermal contact, or ingestion) to soils meeting the definition of Raymark waste.

This RAO focuses on the single source of Raymark-related risk which is the Raymark waste in soils. Preventing direct exposures to contaminants within or comingled with the Raymark waste will achieve the appropriate reduction of risks.

Groundwater monitoring is a component of the final source control clean-up remedies; however, site-wide groundwater will be comprehensively evaluated under another operable unit (OU2). All properties included in OU6 are served by a public water supply. Although there is no known use of groundwater for any purpose in the area, the selected final source control remedies contain a restriction on the use of groundwater. Groundwater monitoring is not a component of interim actions.

To achieve the RAO at properties receiving a final source control remedy, EPA has developed clean-up goals that are consistent with the CTDEEP Direct Exposure Criteria for soils in both commercial and residential settings as shown below. Clean-up goals for other constituents found comingled with Raymark waste will be the CTDEEP Direct Exposure Criteria (DECs) for either a commercial or residential setting, as appropriate, and the Pollutant Mobility Criteria (PMCs) or an alternate PMC clean-up standard to a depth of four feet pursuant to CTDEEP's letter of July 9, 2010 (see Appendix G). See Section M.5 for detail on the clean-up approach for soil excavations.

Interim actions will be taken at any of the remaining 20 OU6 properties and at any locations in other OUs where direct exposure to Raymark waste is a concern.

Soil Clean-up Levels		
Constituent	**Commercial**	**Residential**
Lead	1,000 ppm	400 ppm
Asbestos(crysotile only)	1%	1%
PCBs (Aroclor 1268)	10 ppm	1 ppm
Copper	76,000 mg/kg	2,500 mg/kg

I. DEVELOPMENT AND SCREENING OF ALTERNATIVES

1. Statutory Requirements/Response Objectives

Under its legal authorities, EPA's primary responsibility at Superfund sites is to undertake remedial actions that are protective of human health and the environment. In addition, Section 121 of CERCLA establishes several other statutory requirements and preferences, including:

- a requirement that EPA's remedial action, when complete, comply with all federal and more stringent state environmental and facility siting standards, requirements, criteria or limitations, unless a waiver is invoked;
- a requirement that EPA select a remedial action that is cost-effective and that utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and
- a preference for remedies in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances is a principal element, as opposed to remedies not involving such treatment.

Final source control response alternatives were developed to be consistent with these statutory mandates. Interim actions are temporary measures that, when a final source control remedy is implemented, will be consistent with the above statutory mandates.

2. Technology and Alternative Development and Screening

CERCLA and the National Contingency Plan (NCP) set forth the process by which remedial actions are evaluated and selected. In accordance with these requirements, a Feasibility Study (FS) was prepared that developed a wide range of remedial alternatives. Within the FS, an evaluation of each alternative was also completed; this consisted of an assessment of each alternative's ability to attain specific remediation levels. A no action alternative was also included as a baseline to which all other alternatives could be compared.

As discussed in Section 2 of the OU6 FS, remedy options were identified, assessed and screened based on implementability, effectiveness, and cost. Section 3 of the OU6 FS presented the remedial alternatives developed by combining the technologies retained from the previous screening process into the categories identified in Section 300.430(e)(3) of the NCP. The purpose of the initial screening was to narrow the number of potential remedial alternatives for further detailed analysis while preserving a range of options. Each alternative was then evaluated in detail for each property in Section 4 of the OU6 FS.

Because of the various constituents within Raymark waste, widespread treatment of Raymark waste was eliminated as a viable clean-up approach. See Section 2.5.3 of the OU6 FS for further details. However, see Section L ("Principal Threat Waste") of this document for a discussion of the potential for treatment of a portion of Raymark waste that will be excavated and transported offsite for treatment and disposal at an out-of-town licensed facility.

After the screening of remedial alternatives, ten alternatives were retained for detailed analysis for the potential cleanup of the four OU6 properties.

Two interim action alternatives were evaluated for the remaining 20 OU6 properties and locations in other operable units containing Raymark waste: no action, and restrictions with monitoring.

J. DESCRIPTION OF ALTERNATIVES

This Section provides a narrative summary of each remedial alternative evaluated in the detailed analysis section of the OU6 FS. These alternatives were developed by combining response actions and technologies to address the elevated risk to human health. The alternatives were also developed to represent a range of effectiveness, duration of time required to achieve the RAO, and cost to implement.

Costs are determined through a present value analysis that produces a single figure representing the amount of money that, if invested at a particular rate of return in the base year - usually the present year - and dispersed as needed, would cover all costs associated with the alternative. In other words, the present value figure represents a single cost number to capture all capital costs (that is, construction costs), future operation and maintenance costs, and five year reviews.

Section J.1 presents the alternatives evaluated for 576 and 600 East Broadway, Beacon Point AOC2, and Third Avenue. Please note that because 576 and 600 are abutting properties, a single remedial alternative was chosen to address both parcels; costs for alternatives have been combined to address these parcels together. Section J.2 presents the alternatives evaluated for potential interim actions at all remaining OU6 properties and locations with Raymark waste in other operable units.

1. Alternatives Evaluated for 576 and 600 East Broadway, Beacon Point AOC2, and Third Avenue

a. No Action (Alternative 1)

In accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and RI/FS Guidance, a "No Action" Alternative is developed to provide a baseline for which all other alternatives can be compared. Under this alternative, it is assumed that no active treatment or monitoring would occur. Any reduction in toxicity, mobility, or volume of contaminants would occur as a result of natural processes.

Costs associated with Alterative 1 are for the development of five year reviews, which are required when waste is left in place above certain regulatory levels. The total estimated present value costs associated with the No Action alternative are shown below. Additional cost detail can be found in Appendix G of the August 2010 OU6 FS.

Property	**Alternative 1** No Action Costs (Present Value)	**Estimated time to Completion (months)**
576/600 East Broadway	$32,367	NA
Beacon Point AOC2	$21,578	NA
Third Ave	$21,578	NA

b. Restrictions with Long-Term Monitoring (Alternative 2)

Alternative 2 is EPA's selected remedy for Beacon Point AOC2. This final remedy for Beacon Point AOC2 is described in further detail in Section M.2.

This institutional control alternative was developed to provide a scenario under which no active treatment, removal, or containment of Raymark waste would occur. However, protection of human health and the environment is provided through the use of administrative procedures that place restrictions on the property, such as prohibitions on certain types of excavations, the use of groundwater, or any activity that might result in potential exposure to Raymark waste. EPA, in conjunction with CTDEEP, will implement the institutional controls.

Because Raymark waste will be left in place, operation and maintenance will include quarterly inspections, groundwater monitoring, maintenance of the current ground surfaces including vegetative and/or paved surfaces, and five-year reviews to verify that there have been no changes in impacts from the Raymark waste. Quarterly groundwater monitoring to ensure that there are no changes in the impacts from Raymark waste will be required for two years from a minimum of two wells. Groundwater monitoring after two years is not anticipated.

Costs primarily include the installation of ground water monitoring wells, quarterly (years 1 & 2) and annual (years 3-30) ground water sampling, the design, fabrication, and installation of signs and fencing, and annual and five year reviews. The total estimated present value costs associated with Restrictions with Long-Term Monitoring (Alternative 2) are shown below. Additional cost detail can be found in Appendix G of the August 2010 OU6 FS.

Property	Alternative 2 Restrictions with Long-Term Monitoring Costs (Present Value)	Estimated time to Completion (months)
576/600 East Broadway	$823,882	Minimal
Beacon Point AOC2	$184,609	Minimal
Third Ave	$518,440	Minimal

c and d. Low-Permeability Cap with In-Town Consolidation (Alternative 3) or Out-of-Town Disposal (Alternative 4)

Alternative 3 is EPA's selected remedy for 576/600 East Broadway. This final remedy for these OU6 properties is described in further detail in Section M.2.

Alternatives 3 and 4 are containment alternatives with an objective to minimize the volume of Raymark waste to be excavated and transported to either an in-town consolidation area (Alternative 3), or an out-of-town treatment/disposal facility (Alternative 4). Under these alternatives, properties without elevation restrictions will have a RCRA cap constructed above existing Raymark waste. However, properties where current grades must be maintained due to floodplains or current land use will have delineated areas of Raymark waste excavated approximately 3 feet to allow for the construction of a RCRA low-permeability cap. The RCRA cap will provide a barrier to direct contact and will also limit potential infiltration and potential impacts to groundwater and nearby surface water bodies. Restoration of the property will include working with the town, potential developer(s), and the public, as appropriate, in attempts to integrate reuse possibilities into the cap during the remedial design. Redevelopment of the property is anticipated.

Institutional controls such as prohibitions on certain types of excavations, the use of groundwater, or any activity that might result in potential exposure to Raymark waste will be placed on the property to ensure the long-term protectiveness of the remedy. EPA, in conjunction with CTDEEP, will implement the institutional controls.

Operations and maintenance will include groundwater monitoring, maintenance of the ground surfaces including vegetative and/or paved surfaces, and five-year reviews to verify that the remedy functions as designed. Quarterly groundwater monitoring will be required for the first two years, then annually thereafter to ensure that there are no changes in the impacts from Raymark waste. Monthly inspections and annual reporting of existing conditions is also required.

Costs primarily include the installation of the low-permeable cap, installation of ground water monitoring wells and quarterly (years 1 & 2) and annual (years 3-30) ground water sampling,

and performing annual and five year reviews. The total estimated present value costs associated with Low-Permeability Cap with In-Town Consolidation (Alternative 3) or Out-of-Town Disposal (Alternative 4) are shown below. Additional cost detail can be found in Appendix G of the August 2010 OU6 FS.

Property	Costs (Present Value) Low-Permeability Cap		Estimated time to Completion (months)	
	Alternative 3 In-Town Consolidation	**Alternative 4** Out-of-Town Disposal	**Alternative 3** In-Town Consolidation	**Alternative 4** Out-of-Town Disposal
576/600 East Broadway*1	$3,349,396	NA	14	NA
Beacon Point AOC2*2	NA	NA	NA	NA
Third Ave	$741,940	$863,256	2	2

*1 Footnote for 576/600 East Broadway: Alternative 4 was not evaluated as adequate capacity exists within these two parcels for the construction of a low-permeable cap.

*2 Footnote for Beacon Point AOC2: Alternatives 3 and 4 were not evaluated because the Raymark waste present on this portion of Beacon Point is only located below the seasonal high water table and a cap is not required.

e and f. Excavation to the Water Table with In-Town Consolidation (Alternative 5) or Out-of-Town Disposal (Alternative 6)

A modified Alternative 5 (Alternative 5A, described below) is EPA's preferred alternative for Third Avenue. This final remedy is described in further detail in Section M.2.

Alternatives 5 and 6 require excavation of the entire volume of Raymark waste that is located above the seasonal high water table with transportation of this waste to an in-town consolidation area (Alternative 5) or an out-of-town disposal facility (Alternative 6). The seasonal high water table elevation was selected as the vertical limit of the excavation to achieve compliance with CTDEEPs requirement regarding pollution mobility. With the implementation of institutional controls, direct contact requirements will also be met. Restoration of the property will involve re-establishing the pre-excavation surface features as much as possible and ensuring that floodplain storage capacity is maintained.

Institutional controls such as prohibitions on certain types of excavations, the use of groundwater, or any activity that might result in potential exposure to Raymark waste will be placed on the property where Raymark waste remains to ensure the long-term protectiveness of the remedy. EPA, in conjunction with CTDEEP, will implement the institutional controls.

Operations and maintenance will include groundwater monitoring, maintenance of the ground surfaces including vegetative and/or paved surfaces, and five-year reviews to verify that the remedy functions as designed. Quarterly groundwater monitoring will be required for two years to confirm the effectiveness of the excavations. Monthly inspections and annual reporting of existing conditions will be required if Raymark waste remains below the seasonal high water table.

Costs primarily include excavation and backfilling, ground water sampling, and performing annual and five year reviews. The total estimated present value costs associated with Excavation to the Water Table with In-Town Consolidation (Alternatives 5) or Out-of-Town Disposal (Alternatives 6) are shown below. Additional cost detail can be found in Tables 4-6 and Appendix G of the August 2010 OU6 FS.

Alternatives 5A and Alternative 6A (modifications of Alternative 5 and Alternative 6) have also been evaluated for properties with limited volumes of Raymark waste. This modification excavates all waste on the property, both above and below the seasonal high water table. (See the August 2010 OU6 FS, Volume 2, Appendix H).

Institutional controls will not be required for Alternatives 5A and 6A as complete excavation of Raymark waste will be performed.

Operations and maintenance and five year reviews will not be required. Quarterly groundwater monitoring will be required for two years to confirm the effectiveness of the excavations.

Costs for Alternatives 5A and 6A primarily include excavation and backfilling and ground water sampling. The total estimated present value costs associated with Complete Excavation with In-Town Consolidation (Alternatives 5A) or Out-of-Town Disposal (Alternatives 6A) are shown below. Additional cost detail can be found in Tables H-2-10 of Appendix H of the August 2010 OU6 FS.

Connecticut's Remediation Standard Regulations (RSRs) state that groundwater monitoring in a GB aquifer may be discontinued two years after the cessation of all remediation if the applicable surface-water protection and volatilization criteria have been met and all groundwater is suitable for all existing uses. Because Alternatives 5/5A and 6/6A remove all Raymark waste above the seasonal high water table, it is anticipated that these requirements will be attained and groundwater monitoring will be discontinued after two years.

Property	Costs (Present Value) Excavation to the Water Table		Estimated time to Completion (months)	
	Alternative 5/5A In-Town Consolidation	**Alternative 6/6A** Out-of-Town Disposal	**Alternative 5/5A** In-Town Consolidation	**Alternative 6/6A** Out-of-Town Disposal
576/600 East Broadway*1	$3,365,799 / NA	$12,736,830 / NA	10 / NA	10 / NA
Beacon Point AOC2*2	NA / NA	NA / NA	NA / NA	NA / NA
Third Ave*3	$504,748 / $370,533	$774,359 / $786,559	3 / 3	3 / 3

*1 Footnote for 576/600 East Broadway: Alternatives 5A and 6A were not evaluated due to the large volume of Raymark and other wastes on the property at depths of up to 18 feet deep.

*2 Footnote for Beacon Point AOC 2: Alternatives 5 & 6 were not evaluated as all Raymark waste is located below the seasonal high water table. Alternatives 5A and 6A, which excavate Raymark waste below the seasonal high water table, were also not evaluated. This is because excavating the entire volume of Raymark waste on this parcel (1,259 CY), all of which is below the seasonal high water table, would be costly. Further, as this is a Town-owned property, institutional controls such as property restrictions can be reliable.

*3 Footnote for Third Avenue, Alternatives 5A & 6A:

- Both Alternative 5A & 6A excavate all Raymark waste on the property, both above and below the seasonal high water table.
- Costs for Alternative 5A are less than Alternative 5 because annual inspections and five year reviews are not required when all waste is removed.
- Costs for Alternative 6A are comparable to Alternative 6 even though annual inspections and five year reviews are not required when all waste is removed. This is because the additional costs for out-of-town disposal are greater than the savings realized from the elimination of annual inspections and five year reviews.

g and h. Excavation of Raymark waste to depths of either 2 feet (for asphalt/paved areas) or 4 feet (non-paved areas) with transportation to an in-town consolidation area (Alternative 7) or an out-of-town treatment/disposal facility (Alternative 8).

Alternatives 7 and 8 require the excavation of Raymark waste to depths of 2 feet in currently asphalt/paved areas and 4 feet in currently non-paved areas with transportation of the excavated Raymark waste to an in-town consolidation area (Alternative 7) or an out-of-town treatment/disposal facility (Alternative 8). The depths of these excavations were selected to comply with CTDEEPs Direct Exposure Criteria, but they will not comply with the pollutant mobility criteria without a waiver or variance (See Section N.2 for more details). Restoration of the property will involve re-establishing the pre-excavation surface features as much as possible and ensuring that floodplain storage capacity is maintained.

Institutional controls such as prohibitions on certain types of excavations, the use of groundwater, or any activity that might result in potential exposure to Raymark waste will be placed on the property where Raymark waste remains to ensure the long-term protectiveness of

the remedy. EPA, in conjunction with CTDEEP, will implement the institutional controls. If complete excavation of Raymark waste is accomplished, however, institutional controls will not be required.

Operations and maintenance will include groundwater monitoring, maintenance of the ground surfaces including vegetative or and/or paved surfaces, and five-year reviews to verify that the remedy functions as designed. Quarterly groundwater monitoring will be required for the first two years. If, after implementation of the alternative, Raymark waste remains on the property above the seasonal high water table, annually groundwater monitoring will be required to ensure that there are no changes from the impacts from Raymark waste. Monthly inspections and annual reporting of existing conditions is also required.

Costs primarily include excavation and backfilling, ground water sampling, and performing annual and five year reviews. The total estimated present value costs associated with the excavation of Raymark waste to depths of either 2 feet (for asphalt/paved areas) or 4 feet (non-paved areas) with transportation to an in-town consolidation area (Alternative 7) or an out-of-town treatment/disposal facility (Alternative 8) are shown below. Additional cost detail can be found in Appendix G of the August 2010 OU6 FS.

Property	Costs (Present Value) Excavation to Depths of 2 feet (paved) or 4 feet (nonpaved)		Estimated time to Completion (months)	
	Alternative 7 In-Town Consolidation	**Alternative 8** Out-of-Town Disposal	**Alternative 7** In-Town Consolidation	**Alternative 8** Out-of-Town Disposal
576/600 East Broadway	$2,668,794	$8,686,372	8	8
Beacon Point AOC2*1	NA	NA	NA	NA
Third Ave	$702,260	$848,924	1	1

*1 Footnote for Beacon Point AOC2: Alternatives 7 and 8 were not evaluated because the Raymark waste present on this portion of Beacon Point is located at depths of 8-10 feet below the ground surface.

i and j. Excavation to a depth of 4 Feet with In-Town Consolidation (Alternative 9) or Out-of-Town Disposal (Alternative 10)

Alternatives 9 and 10 will involve excavation of Raymark waste to the depth of 4 feet and transportation to an in-town consolidation area (Alternative 9), or an out-of-town treatment/disposal facility (Alternative 10). The four feet excavation depth was selected to comply with both CTDEEPs Direct Exposure Criteria and alternate Pollutant Mobility Criteria to

a depth of four feet pursuant to CTDEEP's letter of July 9, 2010 (see Appendix G). Restoration of the property will involve re-establishing the pre-excavation surface features as much as possible and ensuring that floodplain storage capacity is maintained.

Institutional controls, operation and maintenance, and all other activities are similar to those of Alternatives 7 and 8 above.

The total estimated present value costs associated with the Excavation to a depth of 4 feet with In-Town Consolidation (Alternative 9) or Out-of-Town Disposal (Alternative 10) are shown below.

Property	Costs (Present Value) Excavation to a Depth of 4 Feet		Estimated time to Completion (months)	
	Alternative 9 In-Town Consolidation	**Alternative 10** Out-of-Town Disposal	**Alternative 9** In-Town Consolidation	**Alternative 10** Out-of-Town Disposal
576/600 East Broadway	$2,726,796	$8,973,382	8	8
Beacon Point AOC2*1	NA	NA	NA	NA
Third Ave	$705,370	$871,243	1	1

*I Footnote for Beacon Point AOC2: Alternatives 9 and 10 were not evaluated because the Raymark waste present on this portion of Beacon Point is located at depths of 8-10 feet below ground surface.

2. Interim Actions

The following alternatives were evaluated for potential interim actions at locations containing Raymark waste where a final source control remedy has not been implemented. These locations include the remaining 20 OU6 properties and locations in other operable units (OUs 3, 4, 5, 7, 8, and 9).

a. Interim Action Alternative 1 - No Action

In accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and RI/FS Guidance, a "No Action" Alternative is developed to provide a baseline for which all other alternatives can be compared. Under this alternative, it is assumed that no active treatment or monitoring would occur. Any reduction in toxicity, mobility, or volume of contaminants would occur as a result of natural processes. No costs are associated with Interim Action Alternative 1 – No Action as no actions would be taken.

b. Interim Action Alternative 2 - Restrictions with Monitoring

Interim Action Alternative 2 – Restrictions with Monitoring is EPA's selected remedy for any locations that contain Raymark waste without final remedies either in place or described in this ROD, and where potential direct contact exposures to Raymark waste are a concern.

Interim Action Alternative 2 will provide protection to areas where potential exposures to Raymark waste could occur by restricting access and preventing direct exposures. Each location will be evaluated and any interim action(s) necessary for each location will be determined on a property-by-property basis, based on past risk assessments and current conditions. Physical barriers such as fencing and warning signs to alert the public of the potential hazards on a property will be placed in areas where there is a potential for trespassers. In areas were active erosion is occurring, geo-fabrics or similar materials will be used for temporary stabilization. Groundwater monitoring will not be performed, however, restrictions will be put in place restricting excavations and groundwater use until a final remedy is completed. EPA will conduct quarterly inspections to ensure that implemented interim measures continue to effectively restrict access to Raymark waste areas where direct contact exposure is a concern.

Costs associated with Interim Action Alternative 2 – Restrictions with Monitoring will be for fencing, signage, stabilization of actively eroding areas, and quarterly inspections. Costs are estimated to be approximately $855,858. The time required for implementation is approximately 3 months.

More permanent remedies such as permeable covers and low-permeability caps were not evaluated as an alternative because interim actions are meant to provide short-term protection until a final ROD is implemented.

K. COMPARATIVE ANALYSIS OF ALTERNATIVES

Section 121(b)(1) of CERCLA presents several factors that EPA is required to consider in its assessment of alternatives. Building upon these specific statutory mandates, the NCP articulates nine evaluation criteria to be used in assessing individual remedial alternatives. A detailed analysis was performed on the alternatives described in Section J, using the nine evaluation criteria in order to select a remedy for the four OU6 properties and the other areas containing Raymark waste that require interim actions. These nine evaluation criteria are divided into three categories: threshold criteria, which must be met for an alternative to be selected; primary balancing criteria, which are used to compare and evaluate the elements of one alternative to another that meet the threshold criteria; and modifying criteria, which are used in the final evaluation of remedial alternatives, generally after EPA has received public comment on the RI/FS and Proposed Plan. The comparative analysis of alternatives for 576 and 600 East Broadway, Beacon Point (AOC2), and Third Avenue is presented in Section K.1. The

comparative analysis for interim actions is presented in Section K.2.

1. Comparative Analysis of Alternatives for 576 and 600 East Broadway, Beacon Point (AOC2), and Third Avenue

a. Threshold Criteria

There are two threshold criteria that *must* be met in order for an alternative to be eligible for selection in accordance with the NCP. These are overall protection of human health and the environment, and compliance with applicable or relevant and appropriate requirements (ARARs).

Overall Protection of Human Health and the Environment

This criterion addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced or controlled through treatment, engineering controls, or institutional controls.

Alternative 1 (No Action) would not be protective of human health and the environment because no action would be taken to address the risks posed by the Raymark waste on each property.

Alternative 2 (Restrictions with Long-Term Monitoring) would be protective at Beacon Point Area (AOC2) as Raymark waste is found only at depths of 8-10 feet below grade, which is below the seasonal high water table and does not present a direct contact threat at the surface of the property. Accordingly, restrictions could be an effective mechanism to prevent any unauthorized excavation on this Town-owned property that could result in potential exposures to Raymark waste. However, Alternative 2 would not be protective at 576/600 East Broadway or Third Avenue as Raymark waste is at or near the surface and exposures could occur more easily.

Capping of Raymark waste at 576/600 East Broadway (Alternative 3) and at Third Avenue (Alternative 3 and 4) would be effective at protecting human health and the environment and would reduce potential infiltration of rain water through the Raymark waste beneath the cap. Capping of the Beacon Point Area (AOC2) would not provide any additional protection to human health or the environment. Raymark waste at Beacon Point Area (AOC2) is only located below the water table, and an impermeable cap, which prevents potential leaching of contaminants located above the water table, would not add any additional protection. Due the depth of waste, institutional controls are sufficient to address the potential threat posed by the contaminated soil.

Alternatives 5-10 combine varying excavation depths of Raymark waste with in-town and out-of-town disposal options. While Alternatives 5-10 all provide similar levels of protection to human health and the environment, Alternatives 5 and 6 remove Raymark waste to the depth of the seasonal high water table. However, even with all Raymark waste removed down to the water table, Raymark waste would still remain below the water table at both 576/600 East

Broadway and Third Avenue. Alternative 5A and 6A (complete excavation) would remove all Raymark waste on these properties and would be the most protective, however, this approach was not considered viable for 576/600 East Broadway due to the large volume of Raymark and other wastes on the property at depths of up to 18 feet deep, 12 feet of which would be below the water table. Alternatives 5A and 6A were evaluated for Third Avenue because of the limited volume of Raymark waste below the water table, and because it provides the most protective remedy for this residential property. Excavation was not considered for Beacon Point (AOC2) as all waste is located below the water table. See footnote 2 to Section J.1.e. and f.

Compliance with Applicable or Relevant and Appropriate Environmental Requirements (ARARs)

This criterion addresses whether or not a remedy will meet all Federal environmental and more stringent State environmental and facility siting standards, requirements, criteria or limitations, unless a waiver is invoked.

Alternative 1 (No Action) would not comply with ARARs as no action is being taken to address risks. Alternative 2 (Restrictions with Long-Term Monitoring) would not comply with ARARs at 576/600 East Broadway or Third Avenue as Raymark waste would remain in soils within 4 feet of the ground surface which is considered to be accessible under the CT RSR regulations. Alternative 2 would comply with ARARs at Beacon Point AOC2 since Raymark waste is only located at depths greater than 4 feet below the ground surface.

Alternatives 3-4 (Capping), 5-6 (Excavation to water table), and 5A-6A (Complete Excavation) could all be designed to comply with all chemical-specific, action-specific, and location-specific ARARs for 576/600 East Broadway and Third Avenue (Alternative 4, 5A, and 6A are not applicable to 576/600 East Broadway).

Alternatives 7-8 (Excavation with engineered controls) at 576/600 East Broadway and Third Avenue could be designed to comply with ARARs, including the CT Direct Exposure Criteria, but would not comply with the numeric criteria of the CT Pollutant Mobility Criteria. Compliance could be obtained through a variance or a waiver, which is allowed under certain conditions by Connecticut's regulations, however, CTDEEP has opined that such a waiver is not appropriate for Alternatives 7-8. See Appendix G.

Alternatives 9-10 could be designed to comply with ARARs, including the CTDEEP Direct Exposure Criteria and the Pollutant Mobility Criteria (PMCs), through an alternative approach allowed under the PMC regulations. See Appendix G.

Alternatives 3-10 would not be necessary at Beacon Point Area (AOC2) as the Raymark waste is only located below the water table.

b. Primary Balancing Criteria

There are five primary balancing criteria: long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost. These are used to compare and evaluate the elements of one alternative to another that meet the threshold criteria.

Long-Term Effectiveness and Permanence

This criterion addresses expected residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup levels have been met. This criterion includes the consideration of residual risk that will remain on-site following remediation and the adequacy and reliability of controls.

The magnitude of residual human health risk associated with Raymark waste would be highest for Alternative 1 (No Action) at all locations as no actions would be taken to mitigate human health risks. Residual human health risks for Alternative 2 (Restrictions with Long-term Monitoring) would be lower than Alternative 1, but would still be above acceptable human health risk levels at 576/600 East Broadway and Third Avenue because Raymark waste is within four feet of the ground surface. Alternative 2 could provide adequate long-term effectiveness and permanence at Beacon Point AOC2 as all Raymark waste is located below the seasonal high water table and is greater than four feet below ground surface. With ongoing monitoring, this town-owned parcel could be permanently maintained.

Capping of Raymark waste (Alternative 3) would be effective at providing long-term effectiveness at 576/600 East Broadway. This six acre commercially zoned property has the potential for future development that could incorporate long-term operation and maintenance requirements. Capping (Alternatives 3 & 4) at Third Avenue, a small (0.3 acre) residential parcel, would require monitoring and maintenance to ensure the necessary institutional controls are continued and enforced in the long-term. Because this is a residential parcel, ensuring long-term effectiveness of a cap could prove burdensome. Further, as time passes and the title transfers to new owners, the continuation of institutional controls could become challenging. In general, institutional controls are only adequate and reliable if they are monitored and enforced over the long-term. Capping of the Beacon Point Area (AOC2) would not provide any additional long-term effectiveness as the Raymark waste is located below the water table. An impermeable cap, which prevents potential leaching of contaminants above the water table, would not add any additional effectiveness or permanence. Due the depth of waste, institutional controls are sufficient to address the potential threat posed by the contaminated soil.

Alternatives 5-10 include varying amounts of excavation depths with out-of-town and in-town disposal options. While, Alternatives 5-10 all provide basically the same level of long-term effectiveness and permanence, Alternatives 5 and 6 remove Raymark waste to the depth of the seasonal high water table and protection of human health and the environment would not be dependent on the maintenance of a low-permeability cap, soil, or paved cover. However, even

with all Raymark waste removed down to the water table, Raymark waste would still remain below the water table at both 576/600 East Broadway and Third Avenue. Alternative 5A and 6A, (complete excavation) would remove all Raymark waste on the properties and would be the most permanent. This approach, however, was not considered viable for 576/600 East Broadway due to the large volume of wastes on the property at depths of up to 18 feet deep, 12 feet of which would be below the water table. Alternatives 5A and 6A were evaluated for Third Avenue because of the limited volume of Raymark waste below the water table would result in a very effective and permanent clean-up of this property. Excavation was not considered for Beacon Point (AOC2) as all waste is located below the water table. See footnote 2 to Section J.1.e. and f.

Reduction of Toxicity, Mobility, or Volume through Treatment

This criterion addresses the degree to which alternatives employ recycling or treatment that reduces toxicity, mobility, or volume.

Because of the various constituents within Raymark waste, widespread treatment of Raymark waste was eliminated as a viable clean-up approach. See Section 2.5.3 of the OU6 FS for further details. However, a portion of the Raymark source material at the Third Avenue property may be categorized as principal threat waste that requires treatment if it meets certain criteria.[6] (See Section L ("Principal Threat Waste") of this document for a discussion of the criteria and potential treatment of a portion of Raymark waste.) Waste identified as principal threat waste will be excavated and transported off site for treatment and disposal. It has been estimated that approximately 10% of all Raymark waste will meet the criteria for principal threat waste. Accordingly, for cost purposes, offsite treatment and disposal of 10% of all excavated Raymark waste from Third Avenue has been assumed for Alternatives 3-10.

No treatment of Raymark waste would occur under Alternative 1 (No Action) or Alternative 2 (Restrictions with Long-term Monitoring) as these alternatives do not include any off-site disposal. Alternatives 3-10 [7] could result in off-site disposal and treatment of some Raymark waste from Third Avenue if the excavated Raymark waste meets certain criteria (See Section L). Because a larger amount of Raymark waste could be excavated under Alternatives 5 and 6 (and Alternatives 5A and 6A for Third Avenue), the portion of Raymark waste anticipated to require off site treatment and disposal (10%) may also be a larger volume. This larger volume of excavated material that may require treatment prior to disposal, could result in a greater amount

[6]For the four OU6 properties with remedies selected in this ROD, these requirements would generally only be applicable to Raymark waste excavated from Third Avenue as Raymark waste will remain on-site at Beacon Point AOC2 and, therefore, would not trigger the criteria.

[7] Alternative 3 and 4 are containment alternatives with an objective of minimizing the volume of Raymark waste to be excavated. Because at 576/600 East Broadway Alternative 3 does not require off-site disposal in order to construct a low permeable cap, Alternative 4 (which does require off-site disposal) was not evaluated.

of reduction in toxicity, mobility, and volume.

Alternatives 3-10 and thus, out-of-town disposal, will not occur at Beacon Point Area (AOC2) as all the Raymark waste is only located below the seasonally high water table.

Short-Term Effectiveness

This criterion focuses on the period of time needed to achieve protection and the potential for any adverse impacts on human health and the environment that may be posed during the construction and implementation period, until cleanup goals are achieved.

No short-term impacts would result from Alternative 1 (No Action) as there would be no cleanup actions taken. Alternative 2 (Restrictions with Long-Term Monitoring) would present very minimal short-term impacts (i.e. implementation of fencing, signage, and institutional controls) to the community, workers, or the environment.

Alternatives 3-10, which all assume that some or all of the Raymark waste would be excavated and transported off the property, would have some potential impacts to the community, workers, or the environment. These potential impacts could be addressed with engineering controls, which have had proven effectiveness and reliability at many other Superfund sites (for example, erosion and sedimentation controls, decontamination of equipment, dust control, etc.). Air-quality data would be collected to monitor the excavation areas to ensure the protection of on-site workers and nearby residents, and transportation routes within Stratford would be carefully coordinated with local officials.

Short-term impacts from capping and excavation alternatives (Alternatives 3-10) would all require a similar volume of truck traffic to either construct a cap (Alternatives 3 and 4) or for excavation and backfilling (Alternatives 5-10). Alternative 5 through 10 would require the greatest amount of waste handling and corresponding short-term impacts to the community, workers, or the environment because Raymark waste would be excavated and transported off the properties.

At 576/600 East Broadway, Alternative 3 would take approximately 14 months to complete, while Alternatives 5 and 6 would each take approximately 10 months. Alternatives 7 through 10 would each require approximately 8 months. For Alternatives 5, 7, and 9, these estimates do not include the amount of time necessary to address any closure requirements at an in-town consolidation location as a specific location has not been determined and, therefore, site specific design issues are unknown.

At Third Avenue, Alternatives 3-10 would require between 1-3 months to complete. For Alternatives 3, 5, 5A, 7, and 9, the estimated time to complete does not include the amount of time necessary to address any closure requirements at an in-town consolidation location.

Alternative 2 at Beacon Point Area (AOC2) would require between 1-3 months to implement the actions required. Alternatives 3-10 would not be necessary at Beacon Point Area (AOC2) as the Raymark waste is only located below the seasonal high water table.

Implementability
This criterion addresses the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

No actions would be taken under Alternative 1 (No Action) so there would be no implementation issues. Alternative 2 (Restrictions with Long-Term Monitoring) would require institutional controls such as fencing, signage, excavation and groundwater use restrictions, etc. While no significant implementability issues are foreseen with these actions, some administrative difficulties could be encountered when dealing with multiple properties and multiple property owners. Administrative difficulties could also be encountered when dealing with O&M at these multiple properties into the future.

For 576/600 East Broadway and Third Avenue, Alternatives 3 and 4 (Capping), Alternatives 5 and 6 (Excavation to water table), Alternatives 5A and 6A (Complete excavation), and Alternatives 7-10 (Excavation with engineered controls), can be implemented through standard construction and environmental remediation methods. Alternatives 3 and 4, and 7-10 require excavations in floodplains, specific site grading, placement of cap materials based on design specifications, and operation and maintenance into the future. Alternatives 5 and 6 would involve the excavation of a large volume of Raymark waste (at least 14,222 CY at 576/600 East Broadway and 410 CY at Third Avenue). (For Alternatives 5 and 6 any horizontal expansion of the Raymark waste area due to confirmatory sampling will lead to a larger volume of excavated Raymark waste compared to Alternatives 7 through 10 due to the excavation depth to the seasonal high water table.) At Third Avenue, Alternatives 5A and 6A require an additional excavation of 221 CY of Raymark from below the water table increasing the total volume excavated from 410 CY to 661 CY.

Alternatives 5A and 6A would remove all Raymark waste both above and below the water table at Third Avenue. Excavation into the water table could present additional implementation issues such as dewatering and sidewall stabilization requirements, however, long-term monitoring would not be required and there would be no restrictions on future use of the property.

Additional remedial actions could be difficult (costly) to implement for Alternatives 3 and 4 due to the presence of a RCRA-compliant cap. Alternatives 7 thru 10 are all equally amenable to additional remedial actions, should they be deemed necessary in the future.

Alternatives 3, 5, 7, and 9 are all based on the availability of an in-town location for the consolidation of excavated Raymark waste. However, consensus has not been reached with town officials or the public on a location, even after a number of years of discussions. Capping

options, however, are still viable at 576/600 East Broadway as there are no significant elevation restrictions (except for a small portion of the property within the 100 year floodplain) and

excavations to maintain grades prior to cap construction are not necessary. Limited additional capacity may also be available at 576/600 East Broadway for excavated waste from Third Avenue which will be determined during remedial design.

Alternatives 3 - 10 would all require operation and maintenance of a cap/cover (not required for Alternatives 5A and 6A). Alternatives 5 & 6, and 5A & 6A are expected to require only two years of quarterly groundwater monitoring as all Raymark waste will be removed either to the seasonal high water table (Alternatives 5 & 6) or would be completely excavated (Alternatives 5A and 6A). All other Alternatives (2, 3 & 4, 7 & 8, and 9 & 10) would require two years of quarterly groundwater monitoring then ongoing annual groundwater monitoring.

In conclusion, Alternatives 3 and 4 (capping) are the most implementable at 576 and 600 East Broadway because of the large volume of Raymark waste present and that the majority of the parcels are above the 100 year floodplain which will allow capping to be accomplished above existing grade. Alternatives 5A and 6A are most implementable in the long-term at Third Avenue because there is a relatively small volume of Raymark waste, all of which would be excavated, which would also eliminate the need for long-term monitoring and restrictions on future use of the property. Alternatives 3-10 would not be necessary at Beacon Point Area (AOC2) as the Raymark waste is only located below the seasonal high water table. Alternative 2 is implementable at Beacon Point AOC2.

Cost

This criterion includes estimated capital and Operation and Maintenance (O&M) costs, as well as present-worth costs.

Alternative 1 (No Action) has no capital costs and Alternative 2 (Restrictions with Long-term Monitoring) has only limited capital costs (fencing, signage, etc.). Alternatives 3, 4, 5, 7, and 9 have relatively moderate costs. Alternatives 6, 8, and 10 have relatively high costs. Alternatives 5A and 6A (Complete Excavation) result in an overall costs savings for some of the OU6 properties (See Appendix H of the August 2010 OU6 FS and Cost table below).

COST SUMMARY (all costs in present value)			
	Beacon Point AOC 2	576/600 E Broadway*1	Third Avenue
Alternative 1 – No Action	$21,578	$32,367	$21,578
Alternative 2 – Restrictions with Long-Term Monitoring	**$184,609***2	$823,882	$518,440
Alternative 3 - Low Permeability Cap with In-Town Consolidation	NA	**$3,349,396***3	$741,940
Alternative 4 - Low Permeability Cap with Out-of-Town Disposal	NA	NA	$863,256
Alternative 5 - Excavation to the Water Table with In-Town Consolidation	NA	$3,365,799	$504,748
Alternative 5A (modified Alternative 5) – Complete Excavation both above and below the Water Table with In-Town Consolidation	NA	NA	**$370,533***4
Alternative 6 - Excavation to the Water Table with Out-of-Town Disposal	NA	$12,736,830	$774,359
Alternative 6A (modified Alternative 6) – Complete Excavation both above and below the Water Table with Out-of-Town Disposal	NA	NA	$786,559
Alternative 7 - Excavation of either 2 or 4 Feet with In-Town Consolidation	NA	$2,668,794	$702,260
Alternative 8 - Excavation of either 2 or 4 Feet with Out-of-Town Disposal	NA	$8,686,372	$848,924
Alternative 9 - Excavation of 4 Feet with In-Town Consolidation	NA	$2,726,796	$705,370
Alternative 10 – Excavation of 4 Feet with Out-of-Town Disposal	NA	$8,973,382	$871,243

*1 Costs are similar for Alternative 3 and 5 at 576/600 E. Broadway. However, because consensus for an in-town consolidation location has not been reached with the community, Alternatives 5, 7, and 9 are not viable options for 576/600 E. Broadway. Alternatives 6, 8, and 10 have high costs relative to the protectiveness of the alternatives.

*2 Alternative 2 - Restrictions with Long-Term Monitoring is the selected remedy for Beacon Point AOC2 with costs of $184,609.

*3 Alternative 3 - Low Permeability Cap with In-Town Consolidation is the selected remedy for 576/600 East Broadway with costs of $3,349,396.

*4 Alternative 5A – Complete Excavation both above and below the water table with In-Town Consolidation is the selected remedy for Third Avenue with costs of $370,533.

c. Modifying Criteria

The modifying criteria of State acceptance and Community acceptance are used as the final evaluation of remedial alternatives, generally after EPA has received public comment on the RI/FS and Proposed Plan.

State Acceptance

This criterion addresses the State's position and key concerns related to the preferred alternative and other alternatives, and the State's comments on ARARs or the proposed use of waivers. The State of Connecticut, through its lead agency, the Connecticut Department of Energy and Environmental Protection, has expressed its support for the preferred alternatives presented in the Proposed Plan and concurs with the selected remedies outlined in this ROD. See Appendix E for the State concurrence letter.

Community Acceptance

This criterion addresses the public's general response to the alternatives described in the Proposed Plan and RI/FS reports, and in particular to the public's response to EPA's proposed plan.

EPA's extensive community engagement efforts at the Site, including the publication of a proposed plan and the holding of multiple public meetings, are described above in Section C. A Public Hearing was held on October 6, 2010 at the Stratford Town Hall. A transcript was created for this hearing and has been made part of the Administrative Record for this Record of Decision. In addition to the oral comments received at the hearing, a number of written comments were also provided.

From all comments received, the majority requested the development of a fully-funded, comprehensive clean-up plan that removes most, if not all, of the Raymark waste out-of-town. Comments were also received expressing concerns over potential groundwater impacts including vapor intrusion from volatile organic compounds, safety concerns while performing the remediation, and health impacts from past exposures to Raymark waste. There were also requests for the clean-up of other locations in Stratford, beyond the Raymark Site.

A representative of the property owner of 576 and 600 East Broadway provided conditional support of the proposed clean-up and the potential for redevelopment of that location, with an understanding that details must be addressed in a yet to be developed final remediation plan.

Finally, a request for open communication and transparency as remediation moves forward was received from the Mayor of Stratford. EPA is committed to providing both frequent and transparent communication.

In general, many of the comments supported the proposed clean-up actions, with the reservation that they would have preferred that Raymark waste be shipped out-of-town. While a number of comments addressed issues beyond the scope of the current proposed clean-up, no comments were received that explicitly expressed non-support of the clean-up plans for the four OU6 properties. Some commenters did, however, disagree with the in-town disposal options selected.

All comments received during the public comment period and EPA's responses to comments are included in the Responsiveness Summary, which is Part 3 of this Record of Decision.

K.2 Comparative Analysis for Interim Actions

The following comparative analysis is for interim action alternatives evaluated to address locations where current direct contact risks to Raymark waste are a concern and a final remedy has not been determined. These areas include the remaining 20 OU6 properties and locations

within other operable units where current direct contact risks from Raymark waste is present at or near the ground surface. The alternatives evaluated include No Action and Restrictions with Monitoring.

a. Threshold Criteria

There are two threshold criteria that *must* be met in order for an alternative to be eligible for selection in accordance with the NCP. These are overall protection of human health and the environment, and compliance with applicable or relevant and appropriate requirements (ARARs).

Overall Protection of Human Health and the Environment

This criterion addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced or controlled through treatment, engineering controls, or institutional controls.

Interim Action Alternative 1 (No Action) would not be protective of human health and the environment because no action would be taken to address the risks posed by the Raymark waste at the various locations.

Interim Action Alternative 2 (Restrictions with Monitoring) would reduce risks in the short-term by restricting access through physical barriers and/or institutional controls. Physical barriers such as fencing, signage, or cover with geo-fabrics would prevent direct contact risks. Institutional controls would be required to maintain these physical barriers and restrict excavations and groundwater use until a final remedy was implemented.

Compliance with Applicable or Relevant and Appropriate Environmental Requirements (ARARs)

This criterion addresses whether or not a remedy will meet all Federal environmental and more stringent State environmental and facility siting standards, requirements, criteria or limitations, unless a waiver is invoked.

Interim Action Alternative 1 (No Action) would not comply with ARARs as no action is being taken to address risks.

Interim Action 2 (Restrictions With Monitoring) will comply with ARARs that are applicable to the interim action. The installation of fencing and signs may generate soil from the digging of holes. Any soil generated from such activity will be characterized to determine if such soil must comply with RCRA ARARs related to the generation, management, and disposal of hazardous waste. The management and disposal of such soils will also comply with ARARs related to the Toxic Substances Control Act ("TSCA"), the Clean Air Act hazardous air standards for asbestos, and state dust emission standards. See Appendix D, Table A, "Action Specific ARARs" for cites to these standards. Any work installing signs, fences, or geo-fabrics in floodplains or wetlands

will comply with federal and state requirements related to floodplains and wetlands, including, if necessary, the requirement to provide compensatory floodplain or wetland mitigation. See Appendix D, Tables B and C, for cites to these standards. Land use restrictions will also comply with the substantive provisions of the Connecticut RSR regulations.

b. Primary Balancing Criteria

There are five primary balancing criteria: long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost. These are used to compare and evaluate the elements of one alternative to another that meet the threshold criteria.

Long-Term Effectiveness and Permanence

This criterion addresses expected residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup levels have been met. This criterion includes the consideration of residual risk that will remain on-site following remediation and the adequacy and reliability of controls.

Because the interim actions are not intended to be permanent or effective over the long-term, this criterion is not applicable. A final action will be implemented in a future decision document that will satisfy the Long-Term Effectiveness and Permanence criterion.

Reduction of Toxicity, Mobility, or Volume through Treatment

This criterion addresses the degree to which alternatives employ recycling or treatment that reduces toxicity, mobility, or volume.

No treatment of Raymark waste would occur under Interim Action Alternative 1 (No Action) as no actions will be taken.

Interim Action Alternative 2 (Restrictions with Monitoring) includes the implementation of physical and other restrictions to areas containing Raymark waste. No off-site disposal of wastes will occur and, therefore, no treatment will occur. A final action, when determined and implemented at these locations, will address reduction of toxicity, mobility, or volume through treatment to the maximum extent practicable.

Short-Term Effectiveness

This criterion focuses on the period of time needed to achieve protection and the potential for any adverse impacts on human health and the environment that may be posed during the construction and implementation period, until cleanup goals are achieved.

No short-term impacts would result from Interim Action Alternative 1 (No Action) as there would be no actions taken.

Interim Action Alternative 2 (Restrictions with Monitoring) would present very minimal short-term impacts (i.e. implementation of fencing, signage, and institutional controls) to the community, workers, or the environment. Implementation of restrictions with monitoring could be attained in approximately 3 months.

Implementability

This criterion addresses the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

No actions would be taken under Interim Action Alternative 1 (No Action) so there would be no implementation issues.

Interim Action Alternative 2 (Restrictions with Monitoring) would require only the construction of physical barriers and placement of other institutional controls (i.e. fencing, signage, excavation and groundwater use restrictions, etc.). While no significant implementability issues are foreseen with these limited actions, some administrative difficulties could be encountered when dealing with multiple properties and multiple property owners. Administrative difficulties could also be encountered when dealing with O&M at these multiple properties into the future.

Cost

This criterion includes estimated capital and Operation and Maintenance (O&M) costs, as well as present-worth costs.

No actions would be taken under Interim Action Alternative 1 (No Action), therefore, there are no associated capital or O&M costs.

Interim Action Alternative 2 (Restrictions with Monitoring) has relatively low capital costs (installation of fencing, signage, etc.). O&M costs could be moderate due to inspections and repairs as a result of potential vandalism to fences and signs. Estimated costs that include both capital and O&M expenses are $855,858.

c. Modifying Criteria

The modifying criteria of State acceptance and Community acceptance are used as the final evaluation of remedial alternatives, generally after EPA has received public comment on the RI/FS and Proposed Plan.

State Acceptance

This criterion addresses the State's position and key concerns related to the preferred alternative and other alternatives, and the State's comments on ARARs or the proposed use of waivers. The State of Connecticut, through its lead agency, the Connecticut Department of Energy and Environmental Protection, has expressed its support and has concurred with the preferred alternative presented in the Proposed Plan of Restrictions with Monitoring for interim actions.

See Appendix E for the State concurrence letter.

Community Acceptance
This criterion addresses the public's general response to the alternatives described in the Proposed Plan and RI/FS reports, and in particular to the public's response to EPA's proposed plan.

EPA held a Public Hearing held on October 6, 2010 at the Stratford Town Hall and received comments on the proposed final source control remedies for the four OU6 properties (576/600 East Broadway, Beacon Point AOC2, and Third Avenue), however, no comments were received on the proposed interim actions. A transcript was created for this hearing and has been made part of the Administrative Record for this Record of Decision.

All comments received during the public comment period and EPA's responses to comments are included in the Responsiveness Summary, which is Part 3 of this Record of Decision.

L. PRINCIPAL THREAT WASTE

The National Contingency Plan, which governs EPA cleanups, at 40 CFR Section 300.430(a)(1)(iii), states that EPA expects to use "treatment to address the principal threats posed by a site, wherever practicable" and "engineering controls, such as containment, for waste that poses a relatively low long-term threat" to achieve protection of human health and the environment. This expectation is further explained in an EPA fact sheet (OSWER # 9380.3-06FS), which provides additional guidance that should be taken into account when categorizing waste for which treatment or containment generally will be suitable.

The Region has determined that any Raymark waste that meets the definition of "principal hazardous constituents (PHC)" as defined by Part 264, Subpart S, of RCRA, is principal threat waste. In general, PHCs are those "carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10^{-3}, and non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose." Based upon Table 2, a fair amount of Raymark waste may be considered principal threat waste, especially if the fraction of Raymark waste is not considered. On-site treatment of such waste is not practicable, however, for a number of reasons. See Section N.5 for details. Accordingly, as it is not practicable to treat all principle threat waste when Raymark waste is excavated and removed from a property, the Region will transport any Raymark waste off-site for treatment and disposal at an out-of-town licensed facility that (i) is toxic characteristic hazardous waste, as defined under the federal Resource Conservation and Recovery Act (RCRA), and (ii) exceeds the alternative RCRA Land Disposal Regulation treatment standards for contaminated soil, which standard is ten times the RCRA Universal Treatment Standards (UTS) promulgated in 40 CFR

268.48. Toxic RCRA characteristic waste is any waste where the leachable extract from a representative sample of that waste equals or exceeds the concentrations for contaminants listed in the "Maximum Concentration of Contaminants for the Toxicity Characteristic" table in 40 CFR 261.24. Raymark waste that meets the definition of toxic characteristic is potentially more leachable and more mobile and presents a greater threat than other Raymark waste that does not meet this definition.

For the four OU6 properties with remedies selected in this ROD, these requirements would only be applicable to Raymark waste excavated from Third Avenue, as Raymark waste will remain on-site at Beacon Point AOC2 and at 576/600 East Broadway. There has been no leachability testing of the Raymark waste areas at Third Avenue. Such testing will be performed prior to any consolidation of Raymark waste at 575/600 East Broadway. Any excavated Raymark waste from Third Avenue that exceeds the above criteria will be treated and disposed out-of-town. All remaining Raymark waste excavated from Third Avenue will be consolidated at 576/600 East Broadway, if capacity is available.

M. SELECTED REMEDY

1. Summary of the Rationale for the Selected Remedy

The selected remedies at 576/600 East Broadway, Beacon Point AOC2, and Third Avenue, are final source control remedies that address the unacceptable human health risks identified. The selected remedy for interim actions at the other Raymark waste locations in Stratford will provide adequate restrictions from potential exposure until a final remedy is selected and in place. It should be noted that these interim actions will reduce, but not eliminate, potential risks on the properties to be addressed. A final remedy is still needed for properties receiving interim actions.

The following is a summary in general terms of why EPA recommends the cleanup plan for each property. See the OU6 Proposed Plan and the OU6 Feasibility Study for more details.

- For 576/600 East Broadway, Alternative 3 (capping) is the most appropriate remedy. Alternatives 5, 7, and 9 are not viable options because they involve in-town consolidation and agreement has not been reached on an in-town consolidation location. Alternatives 6, 8, and 10 involve cost-prohibitive out-of-town disposal, given that a cap is a protective remedy. Alternative 2 alone is not protective.

- For Beacon Point AOC2, the institutional controls of Alternative 2 (Restrictions with Long-Term Monitoring) are protective given that all Raymark waste on the property is located below the seasonal high water table and well below ground. The other capping and

excavation remedies are more costly, and, when compared to Alternative 2, will not provide any additional protection of human health and the environment.

- For the Third Avenue property, Alternative 5A (excavation of all Raymark waste) is preferred because it will excavate and remove all Raymark waste on this residential property. Such excavation is more protective than the other excavation alternatives, which leave Raymark waste on the property. Alternative 5A is also the least costly alternative because long-term monitoring is not needed. Given the size and use of the property, construction of a cap (Alternatives 3/4) presents difficulties with future long-term maintenance. Alternative 2 alone is not protective.

- For interim actions on any remaining locations where potential exposures to Raymark waste are a concern, Interim Action Alternative 2 (Restrictions with Monitoring) is preferred. Interim Action Alternative 2 (Restrictions with monitoring) prevents direct access to areas of Raymark waste and can be implemented in a relatively short frame. The properties subject to interim actions will be addressed with a final action at a later date.

A summary of the major components of the remedies selected are as follows:

576/600 East Broadway – Final Source Control Action – Alternative 3

- Excavate Raymark waste from the 100 year floodplain to a depth of four feet and consolidate excavated material on the upland portion of the two properties to be capped
- If capacity allows, consolidate Raymark waste excavated from Third Avenue onto the properties
- Place a low-permeability RCRA cap on all Raymark waste on the properties located above the 100 year floodplain
- Integrate final slopes with abutting residential properties
- Continue monitoring of groundwater and perform cap maintenance, as required
- Institutional controls that restrict excavation in the capped area and mitigated floodplain and prohibit the use of groundwater
- Annual reporting and five year reviews
- The estimated total present value cost is $3,349,396

Beacon Point AOC2 – Final Source Control Action – Alternative 2

- Place institutional controls (ICs) that restrict excavation and groundwater use on a portion of this Town-owned property
- Groundwater monitoring, annual reporting, and five-year reviews
- The estimated total present value cost is $184,609

Third Avenue – Final Source Control Action – Alternative 5A (To be performed only if consolidation capacity exists at 576/600 East Broadway)

- Excavate all Raymark waste from the property
- Backfill the excavation with clean fill and return property to existing conditions

- Transport excavated Raymark waste to a storage area and sample
- Transport any Raymark waste above certain regulatory standards to an out-of-town treatment and disposal facility
- Consolidate remaining Raymark waste on 576/600 East Broadway (if available capacity)
- The estimated total present value cost is $370,533

Interim Actions – Interim Action Alternative 3 - Restrictions with Monitoring

- Place restrictions on any remaining locations throughout Stratford that contain Raymark waste where direct contact exposures are a concern. Restrictions may include access restrictions such as signage or physical barriers such fencing, geo-fabrics, or similar controls for stabilization of actively eroding areas; and restrictions on excavations and groundwater use. The types of restrictions necessary will be determined on a property by property basis during a design phase and are only temporary measures to reduce the potential of current direct contact exposures to Raymark waste. These temporary measures will remain in place until final remedies are complete.
- Quarterly inspections
- The estimated total present value cost is $855,858

2. Detailed Description of Remedial Components

The final source control remedies for 576/600 East Broadway, Beacon Point (AOC2), and Third Avenue are consistent with the alternatives described in the August 2010 OU6 Feasibility Study. These source control remedies as well as the interim actions are also consistent with EPA's preferred alternatives outlined in the September 2010 Proposed Plan. The following is a detailed description of each of the components of the selected Remedial Alternatives.

576/600 East Broadway – Final Source Control Action

Alternative 3 (Capping) is the selected final source control action for 576/600 East Broadway (see Figure 3). This final source control remedy will not require excavation for the construction of a cap as there are no floodplains or current land use issues that would require that grades be maintained within the area to be capped. Raymark waste beyond the area to be capped, which is within the 100 year floodplain, will be excavated to a depth of four feet (to comply with CTDEEP RSR criteria) with the excavate placed on the portion of the properties to be capped. Dewatering of excavated Raymark waste is not anticipated as depth to groundwater is greater than four feet. All excavated areas within the floodplain will be backfilled with clean fill. Any excavated areas that have Raymark waste remaining below the depth of the excavation will be isolated with a geotextile fabric prior to backfilling with clean fill.

A RCRA low-permeable cap, which will provide a barrier to direct contact and also limit potential infiltration and potential impacts to groundwater and nearby surface water bodies, will be constructed on the portion of the properties that contains Raymark waste. The capping will occur outside the 100-year flood plain and avoid wetlands. Grades are anticipated to be gentle

with the overall height at the center of the properties increased by approximately five feet from existing grade as a result of consolidating Raymark waste from floodplains and the thickness of the cap. Appropriate measures will be taken to contain impacts from site activities, including, but not limited to, stormwater collection and sedimentation barriers.

Restoration of the property will include working with the Town, potential developer(s), and the public, as appropriate, in attempts to integrate reuse possibilities into the cap during the remedial design. Redevelopment of the property is anticipated.

In addition to the construction of a cap, Alternative 3 will provide protection through the placement of institutional controls that will restrict any activity that might result in potential exposure to Raymark waste. These institutional controls will include restrictions on excavations and use of the groundwater on both properties. Because waste will be left in place, operations and maintenance would include groundwater monitoring, maintenance of the ground surfaces including vegetative and/or paved surfaces, and five-year reviews to verify that the remedy functions as designed. Quarterly groundwater monitoring will be required for the first two years, then annually thereafter to ensure that there are no changes in the impacts from Raymark waste. Monthly inspections and annual reporting of existing conditions is also required. EPA, with CTDEEP's assistance, will implement ICs until CTDEEP assumes responsibilities for long-term O&M activities. It is estimated that it will take approximately 14 months to implement Alternative 3 at a cost of approximately $3,349,396 (total present value).

576 and 600 East Broadway are abutting commercially-zoned (light industrial) parcels totaling approximately 5.8 acres. These parcels are mostly vacant, but contain one small building. They are located on the west side of East Broadway, bounded to the north by the Vacant DOT Lot Abutting I-95, to the northeast by Ferry Creek, and to the south and west by residential neighborhoods. The estimated total volume of Raymark waste currently on these parcels is 42,667 cubic yards.

Additional capacity may also exist under the proposed cap which may allow for additional Raymark waste from the Third Avenue property. (See Third Avenue discussion below.)

It should be noted that there are some exceedences of state regulatory standards on 576/600 East Broadway beyond those caused by Raymark waste. Contamination remaining on the property not associated with Raymark waste will not be addressed by EPA's cleanup action.

Beacon Point AOC2 – Final Source Control Action

Alternative 2 (Restrictions with Long-Term Monitoring) is the selected final source control action for this portion of the Town-owned Beacon Point parcel (see Figure 4). Alternative 2 will provide protection through institutional controls which will place restrictions on the AOC2 portion of the property such as prohibitions on certain types of excavations, the use of groundwater, or any activity that might result in potential exposure to Raymark waste. Because

Raymark waste will be left in place, operation and maintenance will include quarterly inspections, groundwater monitoring, maintenance of the current ground surfaces, and five-year reviews to verify that there have been no changes in impacts from the Raymark waste. Quarterly groundwater monitoring will be required for two years from a minimum of two wells. Groundwater monitoring after two years is not anticipated. EPA, with CTDEEP's assistance, will implement ICs until CTDEEP assumes responsibilities for long-term O&M activities. It is estimated that it will take approximately 1-3 months to implement Alternative 2 at a cost of approximately $184,609 (total present value).

The Beacon Point Area property consists of approximately 7.4 acres of commercially-zoned land (waterfront business) located immediately to the north of One Beacon Point Road. Beacon Point AOC 2 is located within the central paved portion of the property. Based on soil sampling results collected during the Remedial Investigation, the Raymark waste in this area is estimated to be 17,000 square feet with an estimated 1,260 cubic yards located at a depth of 8-10 feet which is below the seasonal high water table. The water table is approximately 5 feet below the ground surface in this area. Although Raymark waste is located at a depth of 8-10 feet, CTDEEP's Direct Exposure Criteria (DECs) are applicable as the Raymark waste is within 15 feet of ground surface. The CTDECs will be satisfied because waste is located below four feet and institutional controls will be implemented. CTDEEP's Pollutant Mobility Criteria (PMCs) will not be applicable as the Raymark waste is located only below the seasonally high water table.

It should be noted that there are some exceedences of state regulatory standards on Beacon Point AOC2 beyond those caused by Raymark waste. Contamination remaining on the property not associated with Raymark waste will not be addressed by EPA's cleanup action.

Third Avenue – Final Source Control Action (To be performed only if consolidation capacity exists at 576/600 East Broadway.)
Alternative 5A (Complete Excavation) is the selected final source control action for Third Avenue (see Figure 5). This remedy will address the risks posed by the Raymark waste at Third Avenue by excavating all Raymark waste from the property. A relatively small volume of Raymark waste (estimated at 631 cubic yards) is located on this residential parcel, ranging from 2 to 11 feet below the ground surface (bgs) and both above and below the water table. While Alternative 5, as described in the Feasibility Study, requires excavation of Raymark waste only to the seasonal high water table, EPA will modify this approach by excavating deeper, into the water table, and removing all of the soil with contamination above established regulatory levels for direct contact and Pollutant Mobility Criteria (PMCs). Complete excavation of waste in delineated Raymark waste areas above regulatory levels is estimated to result in the removal of 631 CY of Raymark waste (410 CY to water table (6.5 feet) plus an additional 221 CY from the water table (to a depth of 11 feet bgs).

Excavated Raymark waste from Third Avenue will be trucked to a temporary storage area for

characterization. Characterization of the excavate, including leachability testing, will be performed prior to any consolidation of Raymark waste at 575/600 East Broadway. Any excavated Raymark waste from Third Avenue that meets the criteria for principal threat waste will be transported offsite for treatment and disposal. All remaining Raymark waste excavated from Third Avenue will be consolidated under a permanent cap at 576/600 East Broadway. This approach is dependent upon the consolidation capacity at 576/600 East Broadway which will be determined during the Remedial Design phase. If consolidation capacity at 576/600 East Broadway is not sufficient to accept all the excavated Raymark waste from Third Avenue, then cleanup of Third Avenue will not be conducted at this time but will be addressed during the next phase of OU6 property remediation. If cleanup is delayed, then the interim actions described below will be required for the Third Avenue property.

Appropriate construction techniques, including side slope stabilization requirements, will be met for all excavations, including excavations into the water table. Any Raymark waste trucked to a temporary storage area will be handled as a RCRA hazardous waste, meeting requirements of all ARARs, including RCRA and Toxic Substances and Control Act (TSCA) requirements. Each truckload of Raymark waste will be appropriately contained for transport, then transported and placed on an impermeable liner at the storage location. Dewatering of any Raymark waste excavated from within the water table will be conducted, as necessary, with appropriate measures taken to collect, contain, characterize and dispose of all dewatered liquids.

Appropriate measures will be taken to contain impacts from site activities, including, but not limited to, appropriate temporary covering of any excavated Raymark waste, stormwater collection, and sedimentation barriers. Perimeter air monitoring at both Third Avenue as well as the storage area will be ongoing during all site activities. Characterization of any excavated Raymark waste from Third Avenue that is transported to a storage location will be conducted daily. Storage time of any excavated Raymark waste from Third Avenue required prior to consolidation at 576/600 East Broadway is expected to be less than two weeks.

Restoration of the Third Avenue property will involve re-establishing the pre-excavation surface features as much as possible and ensuring that floodplain storage capacity is maintained. The removal of all Raymark waste from the property will eliminate any need for future restrictions. Quarterly groundwater monitoring will be performed by CTDEEP for two years to ensure the effectiveness of the remedy. Further groundwater monitoring is not anticipated. It is estimated that it will take approximately 1-3 months to remove all of the Raymark waste on the property (Alternative 5A) at a cost of approximately $370,533 (total present value).

The Third Avenue parcel is residentially-zoned and encompasses approximately 0.3 acres. The property is bordered by two other residential properties to the north and south, the Fourth Avenue Pond to the west, and Third Avenue to the east. The Third Avenue property is occupied by a residential home.

There are some exceedences of state regulatory standards on Third Avenue beyond those caused by Raymark waste. Contamination remaining on the property not associated with Raymark waste will not be addressed by EPA's cleanup action.

Interim Actions - Restrictions with Modified Long-Term Monitoring

Interim Action Alternative 2 involves interim actions for any remaining locations throughout Stratford where exposure to Raymark waste is a concern. It is important to note that only 4 of the 24 properties that comprise OU6 are addressed under this ROD with a final remedy. The remaining OU6 properties also contain Raymark waste at levels that are potentially harmful to human health and the environment. In addition, there are a number of other locations in other OUs throughout Stratford where exposures could also occur. To address these risks, interim actions to reduce or restrict exposure to Raymark waste will be implemented until a final cleanup plan is developed and implemented at each location. Such interim actions may include, but are not limited to, use restrictions (for example, excavation prohibitions or groundwater use restrictions), geo-fabrics, or similar controls, for actively eroding areas, fencing, and warning signs. These interim actions will reduce, but not eliminate, risks on the properties to be addressed. Risks on the properties were documented in the Remedial Investigation Reports for each OU and are summarized in Section G of this ROD. Each property will be evaluated and any interim action(s) necessary at each property will be determined by EPA, in cooperation with CT DEEP and the Town of Stratford, on a property-by-property basis.

Under Interim Action Alternative 2, groundwater monitoring will not be required. Because waste will be left in place, EPA will perform quarterly inspections to ensure the current ground surfaces including vegetative and/or paved surfaces remain intact and are maintained and property specific controls remain in place. It is estimated that it will take approximately 3 months to implement Interim Action Alternative 2 at a cost of approximately $858,138 (total present value).

3. Summary of the Estimated Remedy Costs

The total estimated cost of the selected remedies is approximately $4.8 million (total present value). A summary table of the major capital and operations and maintenance costs (annual operation, maintenance, and monitoring costs) of the selected remedy for 576/600 East Broadway, Beacon Point AOC2, Third Avenue, and the Interim Actions is shown below. The discount rate used for calculating total present worth costs was 7%.

The information in these cost estimate summary tables are based on the best available information regarding the anticipated scope of the remedial alternatives. Changes in the cost elements are likely to occur as a result of new information and data which may be obtained during the pre-design phase. This is an order-of-magnitude engineering cost estimate that is expected to be within +50 to -30 percent of the actual project cost.

Summary of Costs for the Selected Remedy at 576/600 East Broadway, Beacon Point, and Third Avenue and Interim Actions at Other Locations				
Property	Selected Alternative	Capital	O&M	Total Costs (Present Value)
576/600 East Broadway	Alternative 3	$ 2,735,437	$ 613,959	$ 3,349,396
Beacon Point AOC2	Alternative 2	$ 22,655	$161,954	$ 184,609
Third Avenue	Alternative 5A (modified Alternative 5)	$ 305,581	$ 64,952	$ 370,533
Interim Actions	Alternative 2A (modified Alternative 2)	$ 675,381	$ 180,477	$ 855,858
Total Costs		$3,739,054	$1,021,342	$4,760,396

4. Expected Outcomes of the Selected Remedies

The remedies at 576/600 East Broadway, Beacon Point AOC2, and Third Avenue will prevent unacceptable risks to potential receptors who may come in contact with soil contaminated by Raymark waste at such properties. The remedial action objective will be met at 576/600 East Broadway as soon as construction is complete and institutional controls are in place. The remedial action objective will be met at Beacon Point AOC2 as soon as institutional controls are in place. The remedial action objective will be met at Third Avenue as soon as construction is complete.

The remedy for 576/600 East Broadway will allow for commercial reuse of the properties. EPA will work with the town, potential developer(s), and the public, as appropriate, to integrate reuse possibilities into the cap during the remedial design. The remedies for Beacon Point AOC2 and for Third Avenue will allow the existing uses to continue.

Future monitoring and/or maintenance will be required at 576/600 East Broadway and at Beacon Point AOC2 because waste will be left in place above levels that allow for unlimited use and unrestricted exposure. Future monitoring and maintenance will not be required for Third Avenue because all Raymark-waste contaminated soil will be removed from that property.

Interim actions will be implemented to reduce or restrict exposure to Raymark waste. Interim action may include, but are not limited to, restrictions on excavations, groundwater use, and/or notification requirements such as fencing or signage. While the specific restriction necessary at each property will be determined on a property-by-property basis, restrictions are anticipated to be effective at their implementation. Because multiple properties and owners are involved with

these actions, however, administrative difficulties may be challenging in the future. These interim actions will reduce, but not eliminate, risks on the properties and will remain in place until final remedies are implemented at these locations.

5. Cleanup Approach for Soil Excavations

The cleanup approach for the excavation of Raymark waste will be to first determine the horizontal extent of excavation using the Raymark waste definition (see Section B) and then determine the vertical extent using applicable clean-up goals.

The horizontal extent or area determined to contain Raymark waste will be excavated approximately 12 inches deep with the perimeter walls of the excavated area sampled to confirm that all wastes meeting the definition of Raymark waste have been included. Once the horizontal extent of Raymark waste has been confirmed, the vertical extent will then be evaluated. The depth of the excavation is where clean-up goals will be applied (see Section H). It is assumed that waste is present on a property vertically to the required excavation depth of the selected alternative. If, however, during the initial 12-inch removal of contaminated soil, and prior to reaching the required excavation depth, evidence suggests (visual or otherwise) that clean-up goals may have been met, then confirmation samples will be collected from both the floor of the excavation as well as vertically (i.e. soil boring) to the required depth of the selected alternative. These soil samples will be analyzed for clean-up goals and Connecticut's regulatory levels for direct contact and Pollutant Mobility Criteria (PMCs) based upon either a commercial or residential setting, as applicable to the property use. Excavations will continue vertically in the vicinity of any soil sample not found to meet clean-up goals and established regulatory levels for direct contact and Pollutant Mobility Criteria (PMCs).

If cleanup levels are not met initially, further excavations of 12 inch lifts will be conducted and then additional confirmation sampling can be conducted. This iterative process will continue until confirmation sampling confirms that the remaining soil meets clean-up goals and Connecticut's regulatory levels for direct contact and Pollutant Mobility Criteria (PMCs) based upon either a commercial or residential setting, or until the planned depth of the excavation is reached based upon the alternative selected. If the analysis determines that the soil meets all regulatory requirements before the planned depth of the excavation is reached, then the excavation will be complete.

N. STATUTORY DETERMINATIONS

The remedial actions selected for 576 and 600 East Broadway, Beacon Point AOC2 and Third Avenue and the interim actions are consistent with CERCLA and, to the extent practicable, the NCP. The selected remedy is protective of human health and the environment, will comply with ARARs, and is cost-effective. In addition, the selected remedy utilizes permanent solutions and

alternate treatment technologies or resource recovery technologies to the maximum extent practicable. The remedy does not satisfy the statutory preference for treatment that permanently and significantly reduces the mobility, toxicity or volume of hazardous substances as a principal element.

1. The Selected Remedy is Protective of Human Health and the Environment

The remedies at 576 and 600 East Broadway, Beacon Point AOC2 and Third Avenue will protect human health and the environment by eliminating, reducing or controlling exposures to human and environmental receptors through engineering controls and institutional controls. The risks presented by these properties are described in Section G.

For 576/600 East Broadway, the selected remedy of excavation, waste consolidation, capping, monitoring, and institutional controls will eliminate unacceptable cancer and non-cancer risks to receptors on and near the property from incidental ingestion, dermal contact, and/or inhalation of soils contaminated with Raymark waste at and from the property.

For Beacon Point AOC2, the selected remedy of institutional controls will eliminate unacceptable cancer and non-cancer risks to receptors on and near the property from incidental ingestion, dermal contact, and/or inhalation of soils contaminated with Raymark waste at and from the property.

For Third Avenue, the selected remedy of excavation and off-property consolidation will eliminate unacceptable non-cancer risks (no exceedences of cancer risk identified) to receptors on and near the property from incidental ingestion, dermal contact, and/or inhalation of soils contaminated with Raymark waste at and from the property.

The interim actions will reduce, but not eliminate, direct contact risks on the properties that will be addressed by the interim actions. The interim actions will be in place until a final, permanent cleanup plan is developed and put in place at each location.

In sum, the selected remedies for the four properties will reduce potential human health risk levels such that they do not exceed EPA's acceptable risk range of 10^{-4} to 10^{-6} for incremental carcinogenic risk and such that the non-carcinogenic hazard will not exceed one. The interim actions will reduce direct contact risks and offer short-term protection until final remedies are chosen. The remedies will reduce potential human health risk levels to protective ARAR levels, that is, the remedies will comply with ARARs and To Be Considered criteria. Implementation of the selected remedies will not pose any unacceptable short-term risks or cause any cross-media impacts. The properties that are the subject of this ROD were not found to provide significant habitat to support ecological receptors.

2. The Selected Remedy Complies with ARARs

The selected remedy will comply with all federal and any more stringent state applicable or

relevant and appropriate requirements (ARARs) that pertain to the Site. There are no ARAR waivers for this Site. The ARARs for the selected remedy are listed and discussed in detail in the tables in Appendix D to this ROD. ARARs are also discussed in detail in Section 2.1 and Sections 4.3.6, 4.3.14, and 4.3.18 of the OU6 Feasibility Study.

To supplement the ARARs discussion described in Appendix D, the Region notes the following. The Direct Exposure Criteria (DECs) and the Pollutant Mobility Criteria (PMCs) of the Connecticut Remediation Standard Regulations (RSRs) are two applicable State ARARs. The selected remedy will comply with these ARARs through soil excavation to the depths required under the RSRs, capping with a low-permeable cap that meets the RSRs requirement for an "engineered control," and through the imposition of environmental land use restrictions, which will also be consistent with the RSRs. Any constituents found co-mingled with Raymark waste will be remediated to meet the CT DECs and CT Pollutant Mobility Criteria (PMCs), as applicable.

Section 404 of the Clean Water Act and Executive Orders 11990 (Protection of Wetlands) and 11988 (Protection of Floodplains) require a determination that there is no practical alternative to taking federal actions in a wetland or floodplain. Should there be no alternative, the federal actions should minimize the destruction, loss, or degradation of wetlands and floodplains and preserve and enhance their natural and beneficial values. Impacts to wetlands from the selected remedies are not anticipated. Activities near wetlands will utilize best management practices (sediment basins, silt fence, hay bales, etc.) and a protective non-wetland buffer zone. At 576/600 East Broadway work will be performed within a buffer zone to wetlands and Ferry Creek. Accordingly, protection will be taken to protect the wetlands and the creek.

Because Raymark waste is located within the 100 year floodplain at 576/600 East Broadway and at Third Avenue, temporary impacts to floodplains are anticipated. Waste located within the 100-year floodplain will be excavated. Once excavated, the area will be backfilled with clean fill and restored to grade so that the current flood storage capacity will not be diminished. Best management practices will be used, which include erosion control measures, proper grading, and restoration of impacted areas. By approving this document, EPA Region I's Regional Administrator has determined that there is no practical alternative to taking action in the floodplain, and that the chosen alternative is the least damaging practicable alternative for protecting the floodplain resources.

If capacity is available and waste from Third Avenue is consolidated at 576/600 East Broadway, the Corrective Action Management Unit (CAMU) rule of the Resource Conservation and Recovery Act (RCRA) will be an ARAR for the consolidation of material at the East Broadway properties. CAMUs are special RCRA units that facilitate the treatment, storage, and disposal of hazardous wastes. All excavated Raymark waste from Third Avenue will be tested for leachability prior to any consolidation of Raymark waste at 575/600 East Broadway. Any excavated Raymark waste from Third Avenue that meets criteria for principal threat waste will

be transported offsite for treatment and disposal. See Section L (Principal Threat Waste) for more details. All remaining Raymark waste excavated from Third Avenue will be consolidated at 576/600 East Broadway.

The CAMU rule establishes standards and minimum design requirements to ensure that waste consolidation is implemented in a protective manner. The minimum design standards for a new CAMU require a cap, liner, and leachate collection system. An alternative design, however, will be used for the East Broadway CAMU. Pursuant to 40 Code of Federal Regulations Section 264.552(e)(3)(ii), a CAMU without a liner and leachate collection system may be constructed if an alternative design will prevent the migration of contamination at least as effectively as a CAMU with a liner and leachate collection system or if a CAMU is to be established in an area with significant existing contamination and the alternative design would prevent migration that would exceed long-term remedial goals. The East Broadway CAMU will meet both of these alternative design requirements.

If Raymark waste from Third Avenue is consolidated at 576/600 East Broadway, the consolidation area at 576/600 East Broadway meets the requirements of both of the alternative CAMU design provisions for a number of reasons. The property contains significant levels of existing contamination, both within and outside of the Raymark waste areas. There will be minimal, if any, leaching of any consolidated Raymark waste because it will be placed well above the water table and covered by a low-permeability cap. Although Raymark waste does not appear to present a significant leaching threat, all Raymark waste excavated from Third Avenue will first be characterized and any portion found to meet the criteria for principal threat waste will be transported offsite for treatment and disposal. All remaining Raymark waste excavated from Third Avenue will be consolidated under a permanent cap at 576/600 East Broadway.

A potential CAMU at 576/600 East Broadway will also be located within a GB aquifer, where there are no drinking water wells or other private use wells in the area. The only potential exposure is to surface water receptors, and these exposures would not increase if a liner system is not present as no additional waste is being placed within the water table. Accordingly, installing a liner and leachate collection system would not materially increase protectiveness and would not be the best use of cleanup resources. A CAMU without a liner and leachate collection system will function at least as effectively as a CAMU with a liner. Also, the property will be created in an area with existing significant contamination, and the low-permeability cap over the entire CAMU should prevent migration that would exceed long-term remedial goals. Accordingly, by approving this document, EPA Region I's Regional Administrator has determined that an alternative CAMU design is appropriate for the remedy for 576/600 East Broadway.

The waste currently existing at 576/600 East Broadway will not be disposed of off-Site but will be consolidated on 576/600 East Broadway pursuant to the "Area of Contamination" policy as described in EPA guidance and the preamble to the NCP regulations. Accordingly, ARARs

related to RCRA Land Disposal Restrictions and other RCRA requirements (such as the minimum technology requirements related to landfills) do not apply to such consolidation.

The storage, disposal, and cleanup described in this document of the PCBs in the Raymark waste will be conducted in accordance with 40 CFR 761.61(c) of the Toxic Substances Control Act (TSCA) program, which addresses risk-based response actions for PCB remediation waste, as defined by TSCA. By approving this document, EPA Region I's Regional Administrator has determined that the risk-based response action pursuant to 40 CFR 761.61(c) is appropriate and that the response actions will not pose an unreasonable risk of injury to health or the environment. A final TSCA Determination pursuant to § 761.61(c) is attached to this ROD as Appendix C.

3. The Selected Remedy is Cost-Effective

In EPA's judgment, the selected remedy is cost-effective because the remedy costs are proportional to its overall effectiveness (see 40 CFR 300.430(f)(1)(ii)(D)). This determination was made by evaluating the overall effectiveness of those alternatives that satisfied the threshold criteria (that is, protective of human health and the environment and comply with all federal and any more stringent ARARs, or as appropriate, waive ARARs). Overall effectiveness was evaluated by assessing three of the five balancing criteria -- long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness, in combination. The effectiveness of each alternative then was compared to the alternative's costs to determine cost-effectiveness. The relationship of the overall effectiveness of the selected remedy was determined to be proportional to its costs and hence represents a reasonable value for the money to be spent.

For 576/600 East Broadway, the present value cost of the selected remedy (Alternative 3 Capping) is $3,349,396. While the cost of some of the excavation alternatives are equal to or lower than the selected remedy capping cost, those alternatives assume in-town consolidation and agreement has not been reached on an in-town consolidation location. The excavation alternatives that involve out-of-town disposal are significantly higher than the selected remedy cost without providing significantly more protectiveness. The restriction alternative is significantly less costly than the selected remedy, but restrictions alone at this property are not protective.

For Beacon Point AOC2, the present value cost of the selected remedy (Alternative 2 Restrictions with long-term monitoring) is $184,609. The selected remedy is protective and ARAR compliant, but much less expensive than the other capping and excavation alternatives. Furthermore, the capping and excavation alternatives do not provide significantly more protectiveness.

For the Third Avenue property, the present value cost of the selected remedy (Alternative 5A – Complete Excavation), is $370,533. As the selected remedy removes all contamination on the property (assuming capacity at 576/600 East Broadway), it is protective. It is also the least costly alternative. The other excavation alternatives are more costly, and the out-of-town disposal cost is significantly more costly. The restriction alternative is significantly less costly than the selected remedy, but restrictions alone at this property are not protective.

For the interim actions, the present value cost of Interim Action Alternative 2 (Restrictions with Monitoring) is $855,858. Although these actions will not achieve a final remedy, the reduction in risk achieved by the interim actions is proportionate to the cost of such actions.

The total estimated cost of EPA's proposed clean-up plan is $4.8 million (total present value).

4. The Selected Remedy Utilizes Permanent Solutions and Alternative Treatment or Resource Recovery Technologies to the Maximum Extent Practicable

Once EPA identified those alternatives that would attain ARARs (or that are eligible for a waiver of ARARs), and that would be protective of human health and the environment, EPA identified which alternatives utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. This determination was made by deciding which one of the identified alternatives provides the best balance of trade-offs in terms of: 1) long-term effectiveness and permanence; 2) reduction of toxicity, mobility or volume through treatment; 3) short-term effectiveness; 4) implementability; and 5) cost. The balancing test emphasized long-term effectiveness and permanence and the reduction of toxicity, mobility and volume through treatment and also considered the preference for treatment as a principal element, the bias against off-site land disposal of untreated waste, and community and state acceptance. The selected remedy provides the best balance of trade-offs among the alternatives.

For 576/600 East Broadway, Alternative 3 (capping) is the superior remedy. Alternatives 5, 7, and 9 are not viable options because they involve excavation and in-town consolidation, and agreement has not been reached on an in-town consolidation location. Alternatives 6, 8, and 10, while providing a more permanent remedy than Alternative 3, involve excavation and cost-prohibitive out-of-town disposal. The restrictions of Alternative 2 will not be protective given that contamination exists on the surface of these properties.

For Beacon Point AOC 2, the institutional controls of Alternative 2 (Restrictions with Long-Term Monitoring) are superior to the other alternatives given that all Raymark waste on the property is located below the seasonal high water table and well below ground surface. The other capping and excavation remedies are protective, but they are significantly more costly, and, when compared to Alternative 2, will not provide any additional protection of human health and the environment.

For the Third Avenue property, Alternative 5A is superior because it will excavate and remove all Raymark waste on this residential property. Such excavation is more protective than the other excavation alternatives, which leave Raymark waste on the property. Alternative 5A is also the least costly alternative because long-term monitoring is not needed. Given the size and use of the property, construction of a cap (Alternatives 3/4) presents difficulties with future long-term maintenance. The restrictions of Alternative 2 will not be protective in the long-term given that contamination exists near the surface of this property.

The interim actions on the remaining properties are necessary given the potential for exposure to Raymark waste but are not designed or expected to be final actions. The interim actions represent the best balance of trade-offs among alternatives with respect to pertinent criteria, given the limited scope of the action. The properties subject to interim actions will be addressed with a final action at a later date.

Short-term effectiveness and implementability were not the primary deciding factors in selecting alternatives. The preference for treatment is discussed in the next section.

5. The Selected Remedy Does Not Satisfy the Preference for Treatment Which Permanently and Significantly Reduces the Toxicity, Mobility or Volume of the Hazardous Substances as a Principal Element

The selected remedy does not satisfy the statutory preference for treatment as a principal element. As explained in Section 2.5.3 of the Feasibility Study, treatment was eliminated from the analysis of cleanup alternatives for a number of reasons. Because Raymark waste contains a complex mixture of contaminants, treatment would be time consuming and costly. Treatment to levels suitable for on-Site reuse would require multiple-stage treatment processes. On-Site treatment would involve a great deal of manipulation and handling of waste material and would result in increased volumes requiring disposal.

The alternatives with off-site disposal, however, include treatment to address the principal threats posed by Raymark waste contaminants. See Section L (Principal Threat Waste) for more details.

For the remedies at the four OU6 properties selected in this ROD, treatment would only be applicable to Raymark waste excavated from Third Avenue, as Raymark waste will remain on-site at 576/600 East Broadway and Beacon Point AOC2. To date, there has not been any leachability testing of the Raymark waste areas at Third Avenue. Such toxic characteristic testing will be performed prior to any consolidation of Raymark waste at 575/600 East Broadway. Any excavated Raymark waste from Third Avenue that exceeds the thresholds described in Section L will be treated and disposed of out-of-town.

The interim actions on the remaining properties do not incorporate treatment. The properties subject to interim actions will be addressed with a final action at a later date, and the preference for treatment will be considered in the final decision document for these properties.

6. Five-Year Reviews of the Selected Remedy Are Required

Because this remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure (and groundwater and/or land use restrictions are necessary), a review will be conducted within five years after initiation of the final remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment. Five-year reviews will continue as long as waste remains at the Site and unlimited use is restricted. Five year reviews will not be conducted for the interim actions as they are intended to be temporary actions and will be monitored quarterly for their duration.

O. DOCUMENTATION OF NO SIGNIFICANT CHANGES

EPA unveiled its proposed plan for the remediation of the four OU6 properties -- 576 and 600 East Broadway, Beacon Point AOC2, and Third Avenue, as well as the implementation of interim actions -- at a number of meetings with the Raymark Superfund Team in 2008. EPA proposed the selected remedy in a September 2010 Proposed Plan, issued for public comment. The selected remedy documented in this ROD includes all the features of the preferred remedy described in the September 2010 Proposed Plan: flood plain excavation and capping with institutional controls at 576 and 600 East Broadway; institutional controls at Beacon Point AOC2; complete excavation and consolidation of the excavate at 576/600 East Broadway for Third Avenue (Third Avenue will be performed only if consolidation capacity is determined to exist at 576/600 East Broadway); and interim actions, which will occur on properties where exposure to Raymark waste is a concern and will be determined on a property-by-property basis.

EPA has reviewed all written and verbal comments submitted during the public comment period. It was determined that no significant changes to the remedy, as originally identified in the proposed plan, were necessary. See the attached responsiveness summary for a detailed response to comments. A comment that was submitted by a number of commenters was the desire for a comprehensive plan for complete clean-up of all Raymark waste that takes the majority, if not all, Raymark waste "out-of-town." EPA will continue to work with the Town and citizens towards the continued cleanup of Raymark waste throughout Stratford.

Although not significant, there are some changes in the remedy selected in this ROD that are different from the remedy described in the proposed plan.

- The proposed plan described the remedies at the four properties as final remedies. The proposed plan also stated that EPA is evaluating the cleanup of groundwater under another operable unit, that is, OU2. To be clear, the remedies in this ROD are a final source control remedies for the four properties. That is, the remedies will be final action for the contaminants contained in the soil contaminated with Raymark waste. Groundwater will be subject to investigation and cleanup under OU2. EPA anticipates issuing an updated Remedial Investigation report and a Feasibility Study for OU2 by the end of this year. The four properties addressed in this ROD are not within the plume of contaminated groundwater that extends from the former Raymark facility.

- The proposed plan defined principal threat waste as Raymark waste that does not meet the definition of "principal hazardous constituents" or PHCs as defined under the RCRA CAMU rule. (PHCs are those "carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10^{-3}, and non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose.") After further reviewing the data regarding the PHCs, the Region has decided that it is not practicable to treat all waste meeting the PHC definition and that it is more appropriate to treat Raymark waste that exceeds RCRA's test for toxicity and that fails the alternative RCRA LDR treatment standards for contaminated soil (that is, soil that exceeds ten times the Universal Treatment Standards). These tests identify waste that is leachable, and thus more mobile, than waste that does not fail the toxicity test. Such waste poses more of a threat to groundwater if a landfill cap should fail and be exposed to rainwater. Raymark waste excavated and removed from a property that exceeds these criteria will be transported offsite for treatment and disposal and will not be consolidated within the Site. See Section L (Principal Threat Waste) for more details.

P. STATE ROLE

The State of Connecticut, acting through the Connecticut Department of Energy and Environmental Protection (CTDEEP), has reviewed the various alternatives and has indicated its support for the selected remedy, as stated in Section K.1.c The CTDEEP has reviewed the OU6 Remedial Investigation and Risk Assessment as well as the Feasibility Study to determine if the selected remedy is in compliance with applicable or relevant and appropriate State environmental and facility laws and regulations. The State of Connecticut concurs with the selected remedy. A copy of their declaration of concurrence is attached as Appendix E.

PART 3: THE RESPONSIVENESS SUMMARY

A. PREFACE

In September 2010, the United States Environmental Protection Agency (EPA) issued a Proposed Plan for the clean-up of a portion of Operable Unit 6 (OU6) of the Raymark Industries, Inc. Superfund (Site) in Stratford, Connecticut. The Proposed Plan presented the recommended clean-up alternatives for four (4) of the 24 properties that comprise OU6. These four properties were 576 and 600 East Broadway, Beacon Point AOC2, and Third Avenue. The Proposed Plan also addressed interim actions to address risks on the remaining 20 OU6 properties and other non-OU6 properties where Raymark waste has come to be located.

The Proposed Plan was based on findings from the Baseline Human Health Risk Assessment, the Remedial Investigation, and the Feasibility Study reports for OU6. These reports, the Proposed Plan, and all supporting documents were presented in an Administrative Record and made available at public information repositories at the Stratford Public Library and at EPA's office in Boston, Massachusetts.

The Proposed Plan included notice of a potential determination, and solicited comment on the proposed determination, to minimize destruction, loss or degradation of wetlands pursuant to Section 404 of the Clean Water Act and Executive Order 11990 (Protection of Wetlands), should work in wetlands areas be required. Similarly, the Proposed Plan included notice of a potential determination, and solicited comment on the proposed determination, to minimize potential harm to floodplains pursuant to Executive Order 11988 (Protection of Floodplains), as work in floodplain areas at or around the four OU6 properties will be required.

From September 16, 2010 to October 16, 2010, the Agency held a 30 day public comment period to accept public comment on the alternatives presented in the Feasibility Study and the Proposed Plan and the accompanying Administrative Record. EPA held a public meeting on September 15, 2010, to discuss the Proposed Plan, and held a public hearing on October 6, 2010, to accept any oral comments. The comment period for the Proposed Plan ended on October 16, 2010.

Comments were submitted by elected officials, citizens, and the Connecticut Department of Energy and Environmental Protection, either during the public hearing, in writing, or both. This Responsiveness Summary lists each comment and provides a response to the issues raised. The comments and responses have been divided into two categories:

- Elected officials and citizens, and
- The Connecticut Department of Energy and Environmental Protection (CTDEEP).

A transcript of the public hearing and all written comments received during the comment period

are attached to this Responsiveness Summary, which is attached to the Record of Decision. The purpose of this Responsiveness Summary is to provide a concise and complete summary of significant comments received from the public during the public comment period, and provide EPA's response to these comments. EPA considered all comments received before selecting the final remedy for the four OU6 properties and for the properties subject to interim action.

B. SUMMARY OF ELECTED OFFICIALS' AND CITIZENS' COMMENTS

A total of 23 comments were received from elected officials and citizens, either during the public hearing, in writing, or both. Where appropriate, EPA has grouped similar comments and prepared a single response. To avoid repetition, a response to a particular comment may refer to the response to another comment for more details.

Citizen Comment 1: *An elected official stated that he believed that clean-up of the Raymark Superfund Site is the most significant issue facing the Town of Stratford. While he acknowledged past disagreements with the Agencies on how to address Raymark waste, he stated that he believed there is consensus among residents for a limited amount of judicious consolidation, in an appropriate area, in exchange for a comprehensive clean-up plan and the removal of at least some of the waste from Stratford. He stated that he is pleased that EPA's proposal is complying with a State law limiting consolidation of no more than 1,000 cubic yards of asbestos containing material. He requested that, as we move forward, the Agencies consider the Town's desire to remove as much waste from Town as possible. He stated that he appreciated Congresswoman Rosa DeLauro's efforts with assistance in the communication with the Agencies and that he is hopeful that open communication and transparency will continue. He asked that state and federal officials be honest and forthcoming with Town residents.*

Response to Citizen Comment 1:

Need for a Comprehensive Clean-up Plan: EPA concurs that the clean-up of the Raymark Industries, Inc. Superfund Site (the "Site") is a significant issue. To date, EPA has expended over $200 million on Site investigations and remediation. Raymark waste, however, remains at or near the ground surface at a number of locations in Stratford. The potential for both human health and ecological exposures remains very real. While the interim actions identified in this Record of Decision (ROD) will address these areas, they are only temporary measures such as fencing and signage. Final clean-up remedies are still needed.

EPA concurs that a comprehensive clean-up plan is needed. Although this ROD addresses only four of the OU6 properties, EPA is committed to seeking consensus for a comprehensive clean-up plan for the Site. Currently, an EPA-funded outside consultant, Vita Nuova, is conducting a

redevelopment evaluation of the former Raybestos Memorial Field (OU4).[8] With town direction, the evaluation is focusing on redevelopment opportunities for the area. The objective is to have a clear understanding of redevelopment goals to ensure that future remediation designs are compatible with redevelopment and Town planning. EPA believes that the conclusions of the redevelopment study will provide valuable information regarding clean-up options. After this redevelopment evaluation of the abandoned OU4 former ballfield is complete later this year, EPA intends to make further efforts to reach consensus on a comprehensive clean-up plan with elected officials, citizens groups, commercial landowners, and other interested parties.[9] EPA is committed to an honest and transparent discussion of any clean-up plans. Such plans will be fully discussed with interested parties and subject to a formal public comment period.[10]

Desire for Out-of-Town Disposal of Raymark Waste: The evaluation of alternatives in the OU6 Feasibility Study considered both consolidation and disposal options. For the four OU6 properties addressed in this ROD, disposing of the waste at an out-of-town disposal facility is considerably more expensive than the consolidation option, without providing significantly more protectiveness. The money saved by implementing the consolidation option will be available for other clean-up actions at the Site. The 576/600 East Broadway properties are already contaminated with Raymark waste and will be capped. Accordingly, consolidating the relatively small amount of waste from Third Avenue under the cap to be constructed at East Broadway will not increase the risk posed by the capped East Broadway properties.

As clean-up discussions progress, EPA will consider the expressed desire by Stratford officials and others to remove as much waste from the town as possible. The final remedy, however, must be consistent with statutory and regulatory requirements regarding clean-up decisions, including the requirement to select remedies that are both protective of human health and the environment and cost-effective.

Ongoing Agency Communication: EPA has expended significant resources ensuring open and on-going communication with the town and citizens through fact sheets, bulletins, and meetings. Since 1995, EPA has issued approximately 50 bulletins/community updates and approximately 20 press releases on various issues concerning the Raymark Site. Throughout the years, EPA has

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[8] EPA has provided assistance to the Town of Stratford for two other redevelopment evaluations using independent consultants. In March 2001, the Superfund Redevelopment Initiative (SRI) evaluated the various OU6 properties and others for reuse/revitalization potential. In June 2003, a final report was developed that was incorporated into Stratford's long-term planning for a public access area along the Housatonic River known as the Greenway.

[9] EPA has been informed by a number of property owners that the contamination on their property has prevented them refinancing the property or obtaining loans for business expansion. This limitation will likely exist for these properties until a final remedy for clean-up is implemented.

[10] EPA notes that the Feasibility Study contained in the Administrative Record is a study of all OU6 properties, so EPA will not have to conduct further Feasibility Studies of OU6 if consensus can be reached.

worked with three separate citizens groups: the Stratford Citizens Advisory Council (SCAC), the Raymark Advisory Committee (RAC), and the Raymark Superfund Team (RST).

EPA initially worked with the Stratford Citizens Advisory Council. The SCAC was formed in 1993 with the assistance of the Stratford Health Department and the Connecticut Department of Public Health. The SCAC's focus was primarily the clean-up of the playing fields at Wooster School by CTDEEP from 1993-1994 and the clean-up of 46 residential properties that EPA completed from 1993-1996.

In June 2000, after working with the town in an effort to further improve communication, a Town-appointed committee comprised of local business representatives, citizens, and other interested parties, known as the Raymark Advisory Committee (RAC), was developed. From June 2000 through September 2007, EPA, CTDEEP, and town officials met more than forty times with the RAC, along with EPA-funded third-party facilitation and technical assistance, in an effort to reach consensus on future clean-up decisions. The RAC attained a thorough understanding of the complex technical, legal, regulatory, and financial constraints relative to the development of clean-up alternatives and commented on a number of documents, including the RI for OU6. In September 2007, the RAC presented a final Report to the Town Council which included sections on Accomplishments, Constraints, and Recommendations; however, consensus among the members of the RAC on an overall clean-up approach for the Raymark Site was not reached.

In an effort to continue on-going communications, in July 2008, the EPA Regional Administrator and the Connecticut DEEP Commissioner met in Stratford with representatives of Save Stratford (a newly organized group of citizens), former members of the Raymark Advisory Committee, and local elected and Town officials. This meeting was an effort to find common ground on potential clean-up options. As a result of this meeting, a new group was organized, known as the Raymark Superfund Team (RST), comprised of the representatives of that meeting. The RST met eleven times from August through December 2008 in an effort to develop both short- and long-term goals towards Site clean-up. While several plans for long-term options were discussed, there was no consensus reached on an overall clean-up approach. There was, however, conceptual agreement by the RST on the clean-up of four properties and the need for interim actions at other properties. This was the remedy presented in the September 2010 Proposed Plan and is the subject of this ROD.

EPA has put forth significant resources into various efforts to reach agreement on the comprehensive clean-up of the Raymark Site and is committed to continuing these efforts as discussed above. EPA is committed to frequent and transparent communication. As the commenter mentioned, Congresswoman DeLauro's office has been very involved throughout the years. EPA has very much appreciated her efforts and looks forward to her continued involvement.

Citizen Comment 2: *A representative of an elected official thanked property owners, community members, the Raymark Advisory Committee (RAC), and Save Stratford for working with the Agencies for so long in an effort to reach agreement on a remediation plan for the Raymark Site. She acknowledged that reaching agreements has been challenging in the past, but is hopeful for continued dialogue. She emphasized the need to continue to move forward with clean-ups.*

Response to Citizen Comment 2: EPA agrees that the decision process has been long and challenging for everyone involved, but EPA is hopeful that this ROD for the clean-up of the four OU6 properties will be the beginning of future agreements and additional clean-ups. As stated in the response to Comment 1, EPA is committed to continuing efforts to reach agreement on the clean-up of the entire Raymark Site.

Citizen Comment 3: *An elected official that represents property owners abutting and surrounding 576 and 600 East Broadway stated that the majority of those properties are residential. He stated he is a fourth generation Stratford resident and is concerned with potential impacts of Raymark waste to overall longevity (grandparents and parents died early). He is concerned about future groundwater and surface water impacts and feels that a cap over consolidated waste would not last forever. He believes that Stratford served the military's needs for over a century, and the Town deserves more from the federal government than what EPA is proposing. He stressed the need for a bigger clean-up plan, not one for just a few properties. He believes that any Raymark waste that is excavated from Third Avenue should be shipped out-of-town, but is grateful for current progress.*

Response to Citizen Comment 3: EPA has spoken with many of the residential property owners abutting 576 East Broadway, specifically properties along Harris Court, Blakeman Place, and Meadow Street, and has left copies of the Proposed Plan with them. Direct communication will continue with residents, especially prior to the initiation of the remediation. The properties abutting 600 East Broadway are commercial and efforts to coordinate with these property owners will also occur prior to the initiation of clean-up.

Concerning potential health risks posed by Raymark waste and relationships to longevity, it is extremely difficult to directly link exposure to Raymark waste to a health reaction and/or longevity. There are many environmental and biological factors that play a role in overall health. During the remediation of the former Raymark facility, CTDPH and ATSDR performed a study that evaluated cancer risks in the Stratford area to those seen nationally. The results initially found a slight increase in the frequency of bladder cancer in Stratford, but when this evaluation was recently updated, this increase was no longer found. Again, it is extremely difficult to directly link a human health exposure to a health reaction and/or impact on longevity.

As for capping, one purpose of a cap is to limit the amount of precipitation infiltrating through contaminants contained in the soil above the water table. Minimizing infiltration limits potential impacts to groundwater and surface water. Capping, which is the best available technology for securing material in place, however, can and does fail. The frequency of failure is very low and usually occurs as a result of severe weather conditions and steep side slopes. Repairs can usually be readily performed. The capping design for 576/600 will be above the 100 year floodplain and will not include steep slopes, so the likelihood for failure is very low. An operation and maintenance plan for the cap will be put in place should any repairs be necessary in the future.

As for the Third Avenue clean-up, the remedy that is proposed for Third Avenue is based on EPA's statutory requirement to select remedies that are both protective of human health and the environment and cost-effective. This statutory requirement must be met wherever remediation is required. Please see Response to Comment 1 regarding out-of-town disposal.

Regarding the need for a larger clean-up plan and out-of-town disposal in general, see the Response to Citizen Comment 1.

EPA appreciates the support concerning current progress and is committed to continuing efforts to reach agreement on the clean-up of the entire Raymark Site.

Citizen Comment 4: *A citizen stated that he had a relative that worked in security at Raymark who died of cancer. He stated that he also had a friend that worked in the manufacturing near Raybestos that died of cancer. He made it clear that the clean-up of the Raymark site is a sensitive issue for him. He believes that the clean-up of groundwater is probably the biggest issue and that more federal money is needed to address the problem. He suggested getting the press and movie industry involved so that the problem is better known. While he supports the proposed plan, he believes that a comprehensive, time phased plan is needed for entire Raymark site. He also stressed the need for better communication with the Agencies.*

Response to Citizen Comment 4:
Please see Response to Citizen Comment 3 concerning the possible link between Raymark waste and health issues.

Groundwater Contamination at the Site:
EPA concurs that groundwater is an important issue at the Site. The Site groundwater contamination, known as Operable Unit 2 (OU2), encompasses approximately 500 acres. EPA has sampled the groundwater since approximately 1995, and has focused on sampling soil gas and indoor air in a residential area between Ferry Boulevard and the Housatonic River since 2000. This sampling was to identify volatile organic compounds or VOCs that had been

disposed of at the former Raymark facility on East Main Street. VOCs in groundwater can change from a liquid into a gas, migrate upwards through the soil, and then enter homes through the foundation. EPA, working with the Connecticut Department of Public Health, the Agency for Toxic Substances and Disease Registry (ATSDR), and the CTDEEP, identified several homes where this vapor intrusion appeared to be occurring. Based on these findings, sub-slab ventilation systems were installed in nine homes in this area by January 2003.

Then, in an effort to ensure protection of public health of everyone in the area, EPA, through the CTDEEP, installed approximately 100 sub-slab ventilation systems in other homes throughout the affected area by the fall of 2004. The ventilation systems, which are similar to radon systems, draw air from beneath the foundation and vent it through a pipe near the roof of each house. Long-term maintenance of the systems is being conducted by the CTDEEP at no cost to the homeowners or tenants.

The Site-wide groundwater investigations are complete, and the final Remedial Investigation report was released in January 2005. This report presents all available data, identifies groundwater flow directions, and identifies risks associated with contaminants found in the groundwater. The findings of this report were that risks to human health were primarily from indoor air through groundwater volatilization. (EPA responded to these volatilization risks as discussed above.) Other risks associated with groundwater were found to be insignificant as the groundwater in the area is not used as a drinking water source. Ecological risks from groundwater impacts were also determined to be relatively insignificant. Groundwater in the area was sampled again in November 2009 with findings relatively consistent to those contained in the January 2005 Remedial Investigation report. A Feasibility Study, that evaluates potential clean-up alternatives, should be completed later this year.

Funding for Clean-up Efforts:

Regarding funding, the Raymark Site is fortunate to have dedicated funds, in a "Special Account," available for investigation and remediation efforts. This funding, which originated from the sale of the Raymark property, can only be used at the Raymark Site. Most Superfund sites do not have this dedicated funding. The current issue for the Raymark site, however, is a lack of agreement on overall site clean-up. Once clean-up efforts progress and the dedicated funds are expended, the Region can then request further funding from EPA headquarters for additional clean-up efforts. Until the available Special Account funding is expended, however, requests for any further funding will not be successful. Unfortunately, there are no guarantees on when or how much additional funding may be available.

EPA has no comment on efforts suggested to involve the press and movie industry. EPA has developed over 20 press releases throughout the years in an effort to inform the public on various issues concerning the Raymark Site. Please see Response to Citizen Comment 1 concerning Agency communication and the need for a comprehensive clean-up plan.

Citizen Comment 5: A citizen who was a member of the RAC stated that much more money is needed for site clean-up than what is currently available and that the proposed plan addresses Connecticut Department of Energy and Environmental Protection expressed concern about contaminated groundwater in the area, the integrity of the temporary cap on Raybestos Memorial Ballfield, and the potential for exposures. He stated that the Proposed Plan should be implemented as soon as possible as there are bigger issues ahead concerning the clean-up of the Raymark site.

Response to Citizen Comment 5: EPA agrees that the Proposed Plan addresses only a small part of the Raymark Site. Because agreements on the Site clean-up have been so challenging, EPA views the agreement for the four OU6 properties as very promising and is hopeful that it is the beginning of additional remediation agreements in the very near future. Please see the Response to Citizen Comment 1 for further discussion concerning the need for a comprehensive clean-up plan.

Please see Response to Citizen Comment 4 concerning funding and groundwater.

Regarding health concerns during remediation, EPA will develop and implement a Health and Safety Plan and a Sampling and Analysis Plan to address potential impacts. EPA is committed to working with residents to discuss measures to be taken to address health and safety issues and will provide overall on-going information during the remediation. Precautions will be taken, including on and off-site air monitoring. EPA successfully performed the same type of clean-up work described in this ROD during remediation at the former Raymark facility.

Please see Response to Comment 1 concerning the out-of-town disposal of waste from Third Avenue.

Concerning the integrity of the temporary cap on the Raybestos Memorial Ballfield and the potential for exposures, both EPA and CTDEEP inspected the area last fall (2010). There was some evidence of erosion and burrowing by animals but not to an extent that would result in a significant concern for potential exposures. Vegetation has been established that further aides the effectiveness of the soil cover material. While the temporary soil cap is not a final remedy, interim actions will be evaluated and implemented as needed to protect human health until a final remedy is in place for this property. Both the EPA and CTDEEP will inspect the area again during the summer or fall of 2011.

EPA agrees that the remedies in the Proposed Plan should be implemented as soon as possible and will work with CTDEEP, the Town of Stratford, and citizens towards this goal as well as efforts to reach agreement on the clean-up of the entire Raymark Site.

Citizen Comment 6: *A citizen who stated she was a founding member of Save Stratford asked for a comprehensive, fully formed plan for entire Raymark Site so that the magnitude of the Site could be understood. She stated that this has been requested of the Agencies for twenty years. She stated that the clean-up of the four properties was a beginning.*

Response to Citizen Comment 6: Several of the Site operable unit investigations, which must be complete before clean-up plans can be developed, were completed as recently as 2005. Please see the Response to Citizen Comment 1 for further discussion concerning the need for a comprehensive clean-up plan.

Citizen Comment 7: *A citizen who stated that he was also a founding member of Save Stratford stated that he felt the effort to clean up the four OU6 properties is minor compared to the rest of the site. He stated that he did not see the Proposed Plan as progress without a comprehensive plan. He stated that he wants a long-term, fully-funded comprehensive plan and as much waste as possible moved out of town.*

Response to Citizen Comment 7: EPA agrees that the Proposed Plan addresses only a small part of the Raymark Site. EPA disagrees, however, that the proposed clean-up of four OU6 properties and the implementation of interim actions is not progress. The four OU6 properties and interim actions were the basis of the conceptual agreement that was reached by the RST after many meetings, which included Town officials. That conceptual agreement formed the basis of the Proposed Plan and this ROD. As was stated previously, EPA views this agreement for the four OU6 properties as very promising and is hopeful that it is the beginning of reaching additional agreements on remediation for the Site. Please see the Response to Citizen Comment 1 for further discussion concerning the need for a comprehensive clean-up plan and for out-of-town disposal.

Citizen Comment 8: *A citizen expressed concern about a number of trees that have died on his and his neighbor's property as well as the quality of watermelons that he grew in his garden. He believes that groundwater quality is the largest issue facing Stratford and stated that he raised the issue of contaminated groundwater and volatile organic contaminants (VOCs) a long time ago. He thanked the RAC for working with EPA on installing 106 house vents to address this issue.*

He stated that Stratford was home to a number of manufacturing facilities for various DOD efforts throughout the years and wants the federal government to clean things up. These include Aviation Corporation (AVCO), Stratford Army Engine Plant (SAEP), Sikorsky Airport, Sikorsky

Army Plant, and all others in Stratford. He also expressed concerns over a number of other issues including the Sikorski airport expansion, the I-95 off-ramp, and the fact that EPA claims to have no money for Raymark but it does have money to fund Brownfields all across the country.

He stated that he supported the RAC's and Save Stratford's position on completely cleaning up the Raymark site. He also supports the plan to clean up the four OU6 properties, but does not want the approach to be a delay tactic to address the rest of the Site. He stated that there should be no more delays.

Response to Citizen Comment 8: EPA cannot comment on the health of trees in the area other than to point out that VOCs, the contaminants of concern in groundwater, are very unlikely to be a significant factor in plant health. VOCs readily transpire through plant tissue and foliage and the concentrations seen in the area should have little to no effect on tree health. This is also true for vegetables grown in the area.

EPA concurs that the contaminated groundwater at the Site is an important issue. Please see Response to Citizen Comment 4 regarding indoor air impacts from groundwater.

As stated in Response to Citizen Comment 3, the amount of clean-up that is proposed is based on EPA's statutory requirement to select remedies that are both protective of human health and the environment, and are cost-effective. Regarding the request to address sites that do not contain Raymark waste, EPA can only spend its dedicated Superfund Special Account funding for remedial investigations and clean-up actions at sites that are part of the Raymark site, that is, places where Raymark waste has come to be located. So, for example, EPA cannot address the Stratford Army Engine Plant or any other non-Raymark site with monies from the Raymark Special Account.

Concerning funding for the Raymark site, as explained in Response to Citizen Comment 4, the current issue is a lack of agreement on the approach to site clean-up.

EPA appreciates the support and very much agrees that the proposed clean-up should move forward as quickly as possible. As has been stated, EPA is committed to continuing efforts to reach agreement on the clean-up of the entire Raymark Site. Please see the Response to Citizen Comment 1 for further discussion concerning the need for a comprehensive clean-up plan.

Citizen Comment 9: *A former member of the RAC stated she had no issue with proposed remediation at 576/600 East Broadway; however, she felt that waste from Third Avenue should be disposed of out-of-town.*

Response to Citizen Comment 9: Regarding out-of-town disposal from Third Avenue, please see Response to Citizen Comment 3. For out-of-town disposal in general, please see Response to Citizen Comment 1.

Citizen Comment 10: *A citizen that stated she was a member of Save Stratford stated that she was very frustrated that only four properties are being addressed and that waste is not going out-of-town.*

Response to Citizen Comment 10: Please see Response to Citizen Comment 2 regarding the decision process and Response to Comment 1 regarding out-of-town disposal and the need for a complete clean-up.

Citizen Comment 11: *A citizen representing the owner of 576 East Broadway stated that they supported the remediation plan and they would like the property remediated so that redevelopment can occur. He indicated that this support is conditional based on details to be addressed in a final remediation plan.*

Response to Citizen Comment 11: EPA appreciates the support and plans to incorporate redevelopment into the design of the final clean-up as appropriate. EPA will work with the owner or Town, as appropriate, as the design for clean-up progresses.

Citizen Comment 12: *A citizen who stated he represented Save Stratford, a citizens group, stated that it was unacceptable that the Agencies had dismissed five different Save Stratford proposals to spend $20 million to clean-up the Raymark Site and that the Agencies had only provided a single option which was consolidation. He stated that it bordered on gross negligence that they Agencies had not cleaned up a residential property, Third Avenue, after knowing about the presence of Raymark waste on that parcel for 10 years. Further, the Agencies were "playing politics" by proposing to clean up the parcel only if in-town consolidation capacity was available.*

He stated that the Agencies had done nothing to stop, contain, or even complete a study on the magnitude of the groundwater contamination at the Site. That the Agencies had stated that a Feasibility Study would begin in the fall of 2009 and that the Agencies were unaware of how many homes did not have a sub-slab ventilation system [to address vapor intrusion].

He raised concerns over accountability and liability if consolidation were to occur and stated that EPA needs to accept full responsibility for any releases or damages sustained by residents who live in close proximity to where the work is performed.

Finally, he stated that disposing of only 10% of the Raymark waste out-of-town does not solve the problem and does not help the Town of Stratford. He requested that the Agencies provide a fully funded comprehensive plan that removes most, if not all, of the Raymark waste to an out-of-town location.

Response to Citizen Comment 12:
Concerning the comment regarding Save Stratford's proposals to spend $20 million and remove a significant amount of waste from the Town, EPA believes that this comment refers to the Raymark Superfund Team ("RST") discussions for a comprehensive remedy. EPA spent a significant amount of time during the RST meetings discussing and evaluating proposals by Save Stratford and others. Although consensus was not reached on a comprehensive plan, there was, however, conceptual agreement by the RST on the clean-up of the four properties subject to this ROD and the need for interim actions at other properties. The Feasibility Study, the Proposed Plan, and this Record of Decision provide detailed explanations for EPA's decisions regarding the four properties and the interim actions. As stated in this response, EPA agrees that a comprehensive clean-up plan is needed, and EPA intends to make further efforts in this regard.

Regarding the remediation of Third Avenue and accusations of "playing politics," Superfund clean-ups must be based on EPA's statutory requirement to select remedies that are both protective of human health and the environment, and are cost-effective. Please see Response to Citizen Comment 3 concerning the expenditure of Superfund funding and Third Avenue.

Raymark waste on Third Avenue is located 2-11 feet below ground surface and poses no current risk. EPA has communicated with the home owner on Third Avenue and provided sampling results. Exposures are a concern only if excavations occur in the future that unearth Raymark waste.

As for groundwater, please see Response to Citizen Comment 4. A total of 16 homeowners refused the installation of sub-slab ventilation systems. EPA continues to work with Town officials to address this issue.

Regarding accountability and liability for the cleanup of the East Broadway property (576/600 East Broadway), EPA is well aware that there are residential properties located near the East Broadway property. To mitigate any potential impacts, EPA will develop and implement a Health and Safety Plan and a Sampling and Analysis Plan. EPA is committed to working with residents to discuss measures to be taken to address health and safety issues and will provide overall on-going information during the remediation. Precautions will be taken, including on and off-site air monitoring and dust suppression measures. EPA successfully performed the same type of clean-up work described in this ROD during remediation at the former Raymark facility. Such precautions are necessary regardless of whether there is consolidation or excavation and out-of-town disposal at the East Broadway properties. For more details on

capping, please see Response to Comment 3.

Please see Response to Citizen Comment 1 regarding a comprehensive clean-up plan and out-of-town disposal of Raymark waste.

Citizen Comment 13: *A total of eight emails were received that requested a fully funded comprehensive plan that removed most if not all of the Raymark waste out-of-town.*

Response to Citizen Comment 13: Please see Response to Citizen Comment 4 regarding funding, and the Response to Comment 1 regarding out-of-town disposal and the need for a complete clean-up.

C. SUMMARY OF COMMENTS FROM THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

The Connecticut Department of Energy and Environmental Protection (CT DEEP) submitted written comments in a letter dated October 15, 2010. In this letter, the CT DEEP supported EPA's clean-up proposal and summarized their concurrence in the following:

- Beacon Point (AOC-2) - An institutional control, in the form of an Environmental Land Use Restriction, to prohibit disturbance of Raymark waste that has been identified at 8 to 10 feet below ground surface on this town owned parcel. This final remedy will allow for the continued use of the parcel as a boat launch and parking area.

- 576/600 East Broadway - An Engineered Control is proposed to isolate the Raymark waste from direct contact and restrict infiltration of precipitation through waste. An institutional control, in the form of an Environmental Land Use Restriction, would prohibit activities that could damage the Engineered Control and restricts certain activities and uses of the parcel.

- Third Avenue – Excavation of all Raymark waste on this parcel is proposed only if 576/600 East Broadway has the capacity for consolidation of the excavated material. If all Raymark waste is removed, an Environmental Land Use Restriction will not be required.

- Remaining Raymark Waste Parcels – Interim Actions would be implemented as temporary protective measures, until a permanent remedy is selected and implemented. Interim Actions would be determined for each parcel as appropriate including, but not limited to;

    1. Institutional controls – To prohibit disturbance of Raymark waste.
    2. Fencing – To restrict access to uncontrolled parcels.

3. Signage – To warn trespassers of possible exposures to "Hazardous Waste."

EPA appreciates the effort that CTDEEP has devoted to this Site and is glad that CTDEEP concurs with the recommendations contained in the Proposed Plan. EPA will continue to work with CTDEEP towards developing a comprehensive remedy for this Site.

ATTACHMENT A OF RESPONSIVENESS SUMMARY:
Transcript of Public Hearing
(October 6, 2010)

EPA PUBLIC HEARING

RE: RAYMARK INDUSTRIES SUPERFUND SITE

Hearing held on October 6, 2010, at Stratford Town Hall, Council Chamber, 2725 Main Street, Stratford, Connecticut, commencing at 7:00 p.m., before Bonnie L. Syat, Court Reporter and Notary Public, in and for the State of Connecticut.

APPEARANCES:

ENVIRONMENTAL PROTECTION AGENCY
BY: JIM MURPHY
COMMUNITY INVOLVEMENT COORDINATOR
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

ENVIRONMENTAL PROTECTION AGENCY
BY: RON JENNINGS
PROJECT MANAGER
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

HEARING

TRANSCRIPT OF PROCEEDINGS

October 6, 2010

MR. MURPHY: Okay, we're going to get started.

My name is Jim Murphy from the U.S. Environmental Protection Agency. And tonight we're holding a public hearing on EPA's proposed plans for the Raymark Industry sites, Operable Unit 6 we call it, properties. And we're going to start with just a brief statement from EPA.

Ron Jennings, who is our project manager for the site, will make a brief statement and then that will be followed by the opportunity for members of the public to come up and make a statement for the record.

We have a court reporter here tonight to record people's statements. You're also welcome to submit comments in writing. The public comment period extends to October 16th and there're copies of the proposed plan on the back. There's information there about how to submit comments, either by mail or e-mail.

Following the public hearing, we will end the hearing, and then Ron, myself, staff from the Connecticut Department of Environmental Protection will be available to answer questions on an informal basis.

During the hearing, we're not going to be responding to any of the questions or the comments. We will respond to the comments that are formally submitted tonight and during the public comment period in what we call a responsiveness summary, which is a written response to the questions that are part of the record of decision, that will come out following the EPA decision on the OU6 proposal.

So with that, I just want to remind folks who would like to speak, that we have a sign-up sheet right by the podium. I would just ask people to sign.

After Ron's statement, we'll first ask if there're any public officials that would like to first make a statement, then we'll open it up to the general public.

Thanks.

(Whereupon, Mr. Jennings came to the podium.)

MR. JENNINGS: Good evening.

As Jim indicated, my name is Ron Jennings. I'm the EPA's project manager for the Raymark Superfund Site.

I've worked on the Raymark site for almost fifteen years, and over these years I've spent a good deal of time simply having holes punched in the ground in order to analyze soil during various investigations.

Tonight, for the first time in almost fifteen years, we're finally talking about performing a cleanup for some of the areas in Raymark.

Now I wish we were discussing the cleanup of more locations and that we had a larger overall plan, but at least we're taking a step forward and can finally get some properties cleaned up.

To put things in perspective, at Raymark we have a total of nine operable units. An operable unit, or OU, is simply a way of breaking a site into various pieces

or areas in order to make it more manageable.

Operable Unit 1 is complete and has been redeveloped into the Stratford Crossing Shopping Center. This means we still have eight operable units remaining.

Tonight we're asking for your comments on EPA's proposed cleanup, a final cleanup, at four of the twenty-four properties within one operable unit, Operable Unit 6. There are still twenty properties remaining within OU6 as well as the other OUs that will need to be addressed. Clearly, we have a long way to go.

But tonight, it's about the four properties where cleanup is proposed. These are 576/600 East Broadway, a residential property on Third Ave., and a portion of Beacon Point.

What we are proposing to do is to excavate the waste within the one hundred-year flood plain at 576/600 East Broadway and place it on the portion of these parcels that lie above the hundred year

flood plain.

Once this is done, and only if capacity allows, Raymark waste from Third Avenue will then be consolidated at 576/600 East Broadway. 576/600 East Broadway will then be capped and it will be done in a manner that will allow for redevelopment. EPA will work with the Town or developer, as appropriate, on the design of the final cap.

For the portion of Beacon Point that EPA is dealing with, we're proposing to leave Raymark waste in place, as it is only located at a depth of eight to ten feet, which is below the groundwater table. Deed restrictions will be required to ensure that future exposures to Raymark waste do not occur.

EPA has selected these proposed cleanups after evaluating various cleanup options that included no action, which means do nothing, limited action, which is basically fencing the site or sites, and then various approaches to capping and excavation. The details of these options evaluated,

including the proposed cleanup options, can be found in the feasibility study for OU6 that is in the Stratford Library. EPA believes that the cleanups proposed provide the best long-term protectiveness and future use possibilities for these four locations.

Over the past ten years, EPA has worked with several administrations within the Town and various public groups, including more than seven years with the Raymark Advisory Committee, or the RAC, and more recently with Save Stratford, in an effort to move the cleanups forward. While, as I previously stated, we still have a long way to go, this current proposal is progress and that is what tonight is about.

EPA is asking for your comments on the proposed cleanups at these four properties. Comments received will be considered and will be formally responded to in a responsiveness summary, which is a portion of EPA's formal decision document, a record of decision, or ROD. EPA anticipates the completion of the ROD by early spring of

2011.

Thank you for your time and I ask that you focus your comments on the proposed cleanup of these four properties. All comments that will come forward will be addressed in the Responsiveness Summary, but the four properties is the focus for this evening.

Thank you.

MR. MURPHY: Okay. We're going to start with comments from the public. I would just ask that all those who come up to speak, just provide your name and address, and if you could, spell your last name for the Court Reporter so we can make sure we get that right.

And so I would invite Mayor Harkins, if you would like to start it out. And if there's any other -- Are there any other elected officials who would like to speak tonight?

Okay. Did you sign in sir?

VOICE FROM AUDIENCE: Yes.

MR. MURPHY: Okay.

(Whereupon, Mayor Harkins came to the podium.)

MR. HARKINS: John Harkins, Mayor of the Town of Stratford. My home address is 1036 Whippoorwill Lane.

I'd like to thank you for the opportunity to speak this evening.

The remediation of Raymark waste is an issue that has consumed nearly my entire time in public office. This is for good reason. I strongly feel that it is the most significant issue that's facing the Town of Stratford.

I won't belabor the battles and shouting matches and very public disagreements the residents of this town has had with the DEP and the EPA on how to proceed on this issue. Those disagreements are in the past.

As mayor and as someone who has been intimately involved as an advocate for residents impacted by Raymark contamination for fifteen years, I stand here confident that we have turned the page and begin a new, more collaborative and more productive

chapter in this long and running saga. The pieces are falling into place.

There is a consensus among residents, and they are speaking with a unified and more measured voice. They have agreed to a limited amount of judicious consolidation, in an appropriate area, in exchange for the government providing a comprehensive plan for the remediation of all waste and the removal of at least some of it from our town.

The town, for the first time in a long time, has proactively engaged our member of Congress, Rosa DeLauro, over the last several months. Thanks to her help, we have a more open line of communication with the EPA and we're getting better and more timely information on this process. I believe the EPA is more willing than we've seen in the past to work with us. I met with Jim Murphy and the City of Stratford just this morning and I am grateful for insurances received that a comprehensive plan for remediation will be forthcoming, that a plan to communicate with residents more frequently

is being put in place, and that our desire to remove as much waste as possible from the town will be considered as we move forward.

It is a new day. And while I trust issues between all sides will only be healed with time, I believe we are moving in the right direction. That direction can be seen in the plan being discussed tonight, where the law I've worked hard to pass in the legislature, to prevent consolidation of more than one thousand cubic yards of waste in one area, serves as the very foundation for the EPA's proposals.

In closing, I want to make a plea to the state and federal officials here tonight. Please be honest and forthcoming with this group of residents moving forward. Heated public meetings and forums of the past aside, we are reasonable people who want to be part of the solution. We understand there will be mistakes and sometimes plans need to be changed to fit fluid circumstances. However, the suspicions that have hindered progress in this matter for so

long will only be re-validated if our government fails to be forthcoming, not just with good news, but with bad news as well.

Thank you.

MR. MURPHY: Thanks Mayor Harkins.

Next is Kim Junior who is a representative from Congresswoman DeLauro's office.

(Whereupon, Kim Junior came to the podium.)

MS. JUNIOR: Hello. I'm Kim Junior and I'm here on behalf of Congresswoman DeLauro. And I'd like to thank first and foremost the property owners and community members.

THE REPORTER: Could you spell your last name please?

MS. JUNIOR: Oh sure. Sorry. It's J-u-n-i-o-r.

THE REPORTER: Thank you.

MS. JUNIOR: Community members and also members from the Raymark Advisory Council and Save Stratford who have, for months and years, been working with the EPA

and DEP to come up with a remediation plan for the remaining properties contained in the Raymark Superfund site.

We all know that this has not been the easiest of roads. However, the plan being commented on tonight, a plan which was developed through this partnership, represents a crucial step in that effort. Tonight's meeting is the beginning of a process that will allow public comment on this proposal and perhaps will further conversations on how to appropriately remediate the remaining properties. Though the remaining impacted property owners and the residents of Stratford have not always agreed with the EPA and DEP on how, we can all agree that we need to continue to move forward. There is certainly much work still to be done and it's my hope that those partners continue that dialogue and I will continue to work to help all involved to reach agreement on a more comprehensive remediation plan.

Thank you.

MR. MURPHY: Councilman Catalano, do

you want to speak next?

(Whereupon, Matthew Catalano came to the podium.)

MR. CATALANO: My name is Matthew Catalano. I live at 3486 Main Street in Stratford. That's C-a-t-a-l-a-n-o. And I am also currently the Third District Councilman, where unfortunately most of the Raymark waste exists.

I can echo the comments of the people who came before me. The wheels of justice obviously grind slowly. And the fact that we are here today in fact moving forward, is a blessing. And I'm happy about that. However, a few of my concerns.

We've recently passed legislation having to do with consolidation of Raymark waste in residential areas. And I know perhaps the East Broadway property doesn't look like a residential area, unfortunately I have constituency on East Broadway, Warwick, Elm Street and streets that back up to that property that might beg to differ with you.

My contention has always been, and I

understand that this area in Lordship, the Third Avenue piece needs to be cleaned up. I'm a little skeptical of the map. I don't think the waste goes right to the property line, but we'll figure that out when we start digging.

The only thing I would like to see, and I've always been a proponent of this; if we're going to dig that stuff up and move it around, all right, get it out. I don't see any use in digging it up and keeping it in town. Save Stratford has identified three locations to deal with this waste. I can't imagine the waste on Third Avenue is that much to get out of here, and that would be my own personal plea.

And my other personal plea would be, you know, after fifteen years of talking about this, I'm kind of shocked that we don't have a bigger plan. I would encourage the EPA and the federal government to get us a plan.

And this issue is generational in my mind. I know that you can stand in front

of us and say that we're going to put a permeable cap that's guaranteed for life. You know, I have a hard time believing that. We keep putting this waste on top of underground streams and feeders into the river and the Sound and I wonder what's going to happen fifty, sixty years after we're all gone, what the fishermen are going to be dealing with then if one of these caps breaks or isn't, you know, the guarantee. Who is going to hold that guarantee, that's one of my concerns. Capping in place is one thing, moving around town is another.

And frankly I, you know, I'm fourth generation Stratford, fourth generation Raymark neighborhood. Both my grandmothers were dead before I was born. I didn't know either of my grandparents. My grandfathers were dead when I was a young man. I buried my parents before they were sixty-seven years old. Is it connected? I don't know. I don't know. But I find it a little odd.

And as for my town, the Town of Stratford, we have done nothing in this town

but serve the military industrial complex of our nation for a century. We've had our hands in winning over three wars. And I think the federal government owes us more. I really think they do. We've been a target through the Cold War and we've done nothing but serve our, serve our country faithfully. And I just, I think we deserve a good plan and I think that if, Mr. Jennings, as you mentioned the other night, that this is a problem that exists all around the country and it's kind of normal, I think the federal government has to look into these kinds of facilities and remediate this property and get towards a program of working out how we can remediate this problem nationwide then, you know? And maybe it starts here. Maybe this will be the place that we can break ground with that, you know? I don't know. I know there's a lot of money involved. I know the federal government spends a ton of money and I think, I think our town deserves, I think our town deserves more.

I'm grateful for the progress we're

making now. I don't want to undermine that and I would never speak against that. It is, I know, it's a daunting project. I just want to make sure that our groundwater is protected. I want to make sure that the feeder streams into the river and the Sound are not jeopardized for future generations, and above all, we need to remove and remediate as much of this waste as possible. The future generations of Stratford count on it.

Thank you.

MR. MURPHY: Thank you.

Jim Mihaley.

(Whereupon, Jim Mihaley came to the podium.)

MR. MIHALEY: My name is Jim Mihaley. I live at 510 Overland Drive. That's M-i-h-a-l-e-y.

I want to thank Jim Murphy and Ron Jennings for having this hearing. Let me focus on four issues.

Number 1 is on the proposed plan for these four sites of Operable Unit 6. The

second part is the third five year review plan. They already did two, 2000, 2005 and one is due now in 2010. Fifteen years. As Ron Jennings said, clearly, a long way to go.

The third part is obvious that we need a time phased comprehensive plan. Every one of the operational units, one through nine, including Number 1, where there has got to be monitoring of groundwater, we need a comprehensive plan. And Number 4, what's really lacking is the communication. For fifteen years nobody in this town knows really what is going on. And thank God for the Raymark advisory team, Save Stratford and the latest team. But let me focus.

Number 1 item; I support the proposed plan at five point one million. Present value money. But that's the tip of the iceberg. That leaves about eighteen million left. So what we must demand, without just words, is that there has to be a time phased plan prepared that identifies each operable unit, one through nine, what

the remediation plan is for each of those sites, what the present cost is going to be for that and how long it's going to take.

I've been there with operational planning. These guys have been here fifteen years. I had a relative that worked in security at Raybestos. He died in Branford Hospice of cancer. One of my closest friends, a tremendous athlete, died at fifty of cancer. He worked in the manufacturing near Raybestos. It's a sensitive issue with me.

What, how do you have to do the plan? And for our record of decision, for Ron to say that this is about the four sites, forget that. Give them ninety days from now. Because you've got Thanksgiving and Christmas. But by the middle of January we want to see a proposed time phased comprehensive plan, a matrix that defines basic criteria. And that way give the town, the municipality ninety days to review the plan with the federal and state environmental protection people and then come to an

agreement and use the pressure of the law and the media if the media can have some common sense and put specifics in the paper instead of generalities. So by the end of the first quarter of 2011, there's an agreement on the remediation of all of these operable units.

I'm going to close with the final thing, on communication. As my good friend here with the watermelons, George Mulligan did, making a suggestion about the Stratford Army Plant, pardon me, about the Shakespeare Theater. He said we got to get a movie put together on the restoration of the Shakespeare Theater. What a hell of a good idea.

Let me carry this a step further. You get David Wright and get the municipality working with the Stratford school system and the Board of Education to put together a movie, students and the municipality, and get the environmental protection people, state and federal, to participate, and get a movie put together, get the students involved and put

it on Facebook and put it on Twitter so that it gets global attention so that pressure can be put on the government to come up with another twenty-five or fifty million that's going to be needed to remediate these nine operable units. And I'd be happy to talk, as I have with Jim occasionally in the past. I came here because I'm tired of it. And I don't want to see any more people die and I want to see, especially Raybestos Memorial Field where I pitched the first Little League game, as I've said about a hundred times in the past. What a sin. People coming on Metro North, on the northeast corridor, what do they see? A cesspool. What do they see? Contract Plating.

And let me finish with one thing that I forgot about. As you get a little older, you have other priorities.

Groundwater above and below the water table. That's the name of the game baby. Ron says, where the shopping center is, Walmart, they've got monitors of groundwater. Because look at Thrash Pond. Look at Thrash

Creek. That's a sin. That's a contaminated sewer. It should not be.

Look at Selden Pond. Look at Thrash Pond. Look at the landfill. The airport, has more water problems out there. But as a part of the overall plan, the groundwater is probably the Number 1 issue on this whole cleanup.

Sorry to take so much time, but I came here for the benefit of the town. And I would have hoped that if there are any people in the media, get your pencils out and put something in the paper that is not just something handed to you.

Thank you very much.

MR. MURPHY: Paul Rohaly.

(Whereupon, Paul Rohaly came to the podium.)

MR. ROHALY: My name is Paul Rohaly, R-o-h-a-l-y. I reside at 382 Patterson Avenue and my property shares a property line with the Raymark Ball Field, better known as OU4 to the EPA people.

I have been a member of the Raymark

Advisory Committee as well as the Raymark Superfund Team and have been an active member of SAFE, Stratford Action for the Environment and I've known more about the Raymark waste than I care to.

This has been a long haul. We have huge problems in the Town of Stratford, and I think it's in the neighborhood probably of around two hundred million dollars worth of problems, not just twenty-one million dollars or whatever.

There's a lot of problems that need to be dealt with, but the three sites, or the four properties that are proposed here, are all relatively minor ones. And the proposed action plans on these are, in my opinion, in line with both the Raymark Advisory Committee as well as the Stratford Superfund Team, with one exception.

One of the things that we would have liked to see in both groups is that the waste on the Third Avenue property actually be taken out of town. And that is for several reasons. But I think that it also

falls within the criteria of things that we laid out. If it was consolidated on the Morgan Francis property, the East Broadway property, that should be fine too.

I'd also like to state that I think that as the remediation moves forward on the Morgan Francis property, that the EPA follows guidelines that were laid out in the Raymark recommendations, Section 3 on health issues, on how to deal with it around residential areas with installations of barriers and buffer zones as well as communication to the neighbors and make sure there's a constant flow of what's going on.

I would like to see this action plan move forward as quickly as possible. We have much larger problems with Raymark waste that need to be dealt with. I know this is isolated to this case here, but for instance, not only the groundwater but the ballfield that is behind my house, in 1995, a ten year temporary cap was put on that. It's just a dirt cap. And we're not fifteen years of that into that ten year cap. And I worry

about further exposure to not only my family, but the neighboring family and anybody that would go past that area.

In closing, I would just like to say that I'd like to see this plan move on and get this done as quickly as possible so that we can move on and tackle the other large problems that we have here in town.

Thank you.

MR. MURPHY: Thank you.

Erin Holroyd.

(Whereupon, Erin Holroyd came to the podium.)

MS. HOLROYD: Hi. Erin Holroyd, H-o-l-r-o-y-d, 130 Clinton Avenue.

I am one of the founding members of Save Stratford. And although we are very pleased that the EPA has been working with us to try and come up with a beginning, it's just a beginning, a humble beginning at that, but a beginning nonetheless.

The reality, as we're asking as an organization, for the same thing that we've asked all along. We want a comprehensive,

fully formed plan that outlines what we're dealing with. We can't understand the solution if we can't understand the magnitude of the problem. So we're asking for what we've asked for twenty years. Give us an idea of what our problem is from beginning to end. Although I don't want to sound ungrateful that there's a beginning, I'd like to know that there's an end somewhere.

Thank you.

MR. MURPHY: Tom Nichols.

(Whereupon, Tom Nichols came to the podium.)

MR. NICHOLS: Tom Nichols, 190 Patterson Avenue. It's N-i-c-h-o-l-s.

I'm also a founding member of Save Stratford. I've been a member of Save Stratford since the first month I moved into town.

I echo most of the sentiments that have been mentioned tonight in the sense that we want a fully funded comprehensive plan.

You know Ron Jennings asked us to focus on these four properties and this

initial cleanup plan, but I feel we get bogged down in focusing on something so minor when everybody seems very grateful, as well as I am that, you know, that there is a plan, there is progress. But with foresight, where are we going to leave the town when the money is spent? And if there's really going to be, you know, the trust and give and take and progress with the help of both sides, we don't see it, any mention of a comprehensive plan.

We've asked for as much waste as possible to be removed from town with the funds available because we feel that's a start to put Stratford in a better place. So as much as this is progress, we see no sign of that. And from that standpoint, it's hard to really view this from my point, as progress. So we're asking to address, you know, a long-term fully-funded plan that puts Stratford in a better position, you know.

By consolidating waste in this town, you know, we're spending money, and we're

dealing with, you know, dire health issues, you know, that were prioritized. But we're not putting the town in any better position.

So as much as you'd like and we'd all like to focus on these four properties and one operating unit, it's not, we're going to more, it's going to be more of the same. We're just going to stand up here and echo the same sentiments that we talked face-to-face, whether it be in people's living rooms or, you know, people screaming at each other in this forum.

So I can't view it as progress without a comprehensive plan. We know it's underfunded, but if we saw it, then we'd know where we stood and where we could possible end up.

So thank you for your time. Obviously, hopefully, we don't have to come back every quarter and do the same thing. Thank you very much.

MR. MURPHY: Thank you.

George Mulligan.

(Whereupon, George Mulligan came to

the podium.)

MR. MULLIGAN: Mulligan. M-u-l-l-i-g-a-n. 429 Housatonic Avenue since 1978.

I'd like to present to the Mayor, to Mr. Jennings and to Jim Murphy a couple of melons from my backyard.

I've got groundwater under my house that helped to kill my four trees and a planting strip in the early two thousands. I can't prove it, but when you have branches falling down into the street -- Let me just give these to Jim and Ron.

(Whereupon, Handing melons to Ron Jennings and Jim Murphy.

MR. MULLIGAN: In the movie Erin Brockavich, Erin Brockavich challenged the lawyers to drink from the water that she got from underground. So if you want to dig into those melons, they're from my garden. Or at least test them.

But anyway, I've got four trees that came down from dead branches gradually falling. I also had a tree by my house and

a tree by my neighbor's house that was taken down and also four other trees.

I was the one that raised the issue to Town Council about groundwater two months before and just after the release of Erin Brockavich. And all of a sudden, the EPA suddenly discovered volatile organic compounds.

I'd like to take Paul Rohaly and members of RAC working with the EPA that helped to put in a hundred and six vents and alarms into basements of houses in my neighborhood, as well as a couple of businesses as well.

Now if there was no danger from volatile organic compounds, they wouldn't have wasted a million dollars. If there was no danger from underground groundwater, then they wouldn't have made an issue. As my friend Jim Mihaley pointed out, it is the biggest issue and we still, and as Save Stratford has pointed out, we still have twenty sites sitting there.

Now EPA says we don't have money. Well there are brownfields all across the

country, and they're finding money for those. And that maybe that would be a way to help get jobs, because we need jobs, to help clean up the country where all the brownfields are.

I support the positions of Save Stratford and the Raymark Advisory Commission to completely clean up Raymark. I would also like to see AVCO, SAEP, Sikorsky Airport, Sikorsky Army Plant, any and all Army plants and subcontractors in Stratford also be cleaned up. The Army caused problems. The Federal Government caused problems. You broke it. You fix it.

Reluctantly, I concur with the EPA plan to cover up and consolidate the four properties, which appears to have consensus. However, my support is conditional, that this is not another Trojan Horse or delay tactic. I don't expect to be living fifteen years from now, but I certainly hope that Ron Jennings is not working here another fifteen years.

I respectfully and politely

vociferously object to the delays, whereas Raymark should have been completely cleaned by the 1990s, including all of the poisoned toxic dump sites and the five hundred acres of poisoned toxic groundwater, which may or may not be causal to health concerns. But they do affect property values for resale of homes and businesses, despite over taxation by political players. I request, no, I politely demand whatever legislation and funding as seed money to clean up these blighted and poisoned grounds and waters to re-flower our community health and property values.

I'm concerned the federal, state and local political people have willfully, intentionally, and maliciously been acting to beggar the greatest generation, residents and businesses, both in Stratford and Bridgeport and perhaps across the country. Perhaps there's racism involved or political or financial interest. I don't know, I don't care.

Bridgeport and Stratford were arsenals

of democracy. Now we've got Neutron Jack like brownfields that exist where manufacturing was strong and vibrant, where we helped to protect American forces, like my father who was a World War II combat vet, fighting to protect our freedoms. Once the American military and political decision makers helped manufacturing and command economies providing many workers and subcontractors to have decent jobs or businesses, allowing many Americans to enter into the middle and upper class.

Since President Eisenhower's warning, as Matt mentioned about the government military and industrial conflicts, since President Eisenhower's warning, it appears our government branches and government levels have afflicted the people that have helped to make this country what it is.

The EPA has federal statutory oversight on private and government property, except for military property. However, both the U.S. Code and the Code of Military Justice have statutory requirements for all

federal agencies and departments to work together at the direction of the executive legislation and traditional branches of government. This is under the U.S. Constitution, which is the supreme law of the land. In other words, if you're not obeying the Constitution, you're not obeying the supreme law of the land.

There are statutes related to state branches, departments and agencies to cooperate under the Constitution and also the State Constitution, U.S. Codes and State Codes as well as all regulations. There are statutes related to municipal branches, departments and agencies to cooperate under the U.S. Constitution, the State Constitution.

Army contractors' decisions have contaminated AVCO, SAEP, Sikorsky, Sikorsky Army Engineering Plant, Sikorsky Airport, Chance Vought, Contract Plating, Dresser and many other places, including probably Raymark, which I'm sure was around in World War II.

The Department of Transportation has torn up Main Street downtown and intends to

work with the FAA and Bridgeport to endanger Stratford with a safety zone where a crash would likely land in a Raybestos contaminated asbestos site, which if an airplane crashes into this, and all of a sudden airborne asbestos gets into the air, it could affect Lordship, it could affect central Stratford, it could affect Milford, it could affect Bridgeport. Who is going to responsible for that liability?

And Ron Jennings and Jim Murphy are nice people who intend well. And I would hate to see them be escape goats for the political expediency or lack of expediency that has plagued Stratford.

The Department of Transportation is also tearing up grounds along I-95, Exit 33, with the intent to ramp. And again, if asbestos gets into the air, that's an EPA issue under their purview, because that's not too far from my house or the houses of Save Stratford.

The FAA intends to further pollute Stratford groundwater, grounds, air and noise

while raising dangers to the homeowners and businesses and drivers in Stratford under the specious and pernicious guise of pilot/passenger safety. Just another game of double speak and Three Card Monty by fork-tongued politically appointed hacks.

The EPA desires to move and consolidate most poison dump sites to land on the Raybestos Ball Field, which Mr. Mihaley pointed out, as well as Save Stratford has been pointing out.

Has the Federal Government declared war on Stratford? Maybe if we were all white or big campaign donors or politically connected, we would have rights.

I took the liberty of contact DARPA, the people that created the Internet. They are the military, Defense Department's department that looks at research.

We have a temporary cap that is supposed to last ten years. It's now lasting fifteen and it has cracks, according to Paul Rohaly earlier in previous conversations. And I owe a debt to Paul and

to Charlie and to Save Stratford.

We have a impermeable cap that was circumvented. Now you have an impermeable cap. It protects things from right there. But above it and around it you've got groundwater, you've got volatile organic compounds. How is this impermeable?

It's a frustrating situation when you ask, when we the people ask the government to be good government, to act intelligently, to try to protect our lives and our livelihoods, and to work with equal protection of the law.

I mockingly wrote a letter to the editor of CBS and EPA and DEP and all the different politicians would gladly accept these contaminants in their basements. I was kidding, but making a point. If these things have caused cancer, like Jim Mihaley's friends, as he pointed out, or are a danger to your children or to anybody, and if it's a danger to Stratford's health and safety or a danger to the population, I certainly can't see anybody wanting to buy a house in an

area with five hundred acres of groundwater that's poisoned. Not toxic, poison. Use the right word. The question is; are we going to do the right thing? Are we going to obey the Fourteenth Amendment and the Ninth Amendment and the, We The People preamble, or are we going to continue to go along with the politically expedient and the politically connected?

I pray that EPA is people like Jim, Mr. Murphy and Mr. Jennings and that they are able to convey to their people. And there's only six or seven speakers out of fifty thousand that bothered to, or that spoke tonight, but we feel an obligation to help protect our brothers and sisters.

Thank you and God bless.

MR. MURPHY: Thank you.

Mr. Mulligan was the last person who had signed to speak this evening. So I just want to see if there's any other members of the audience who would like to comment.

(Whereupon, Michelina Buchino came to the podium.)

MS. BUCHINO: Just to make it official. I don't think I need to pull that down.

My name is Michelina Buchino. The last name is spelled B, as in boy, u-c-h-i-n-o.

THE REPORTER: Could you spell your first name please?

MS. BUCHINO: Michelina, M, as in Mary, i-c-h-e-l-i-n-a.

THE REPORTER: Thank you very much.

MS. BUCHINO: 471 Patterson Avenue. I've been a member of the RAC Committee and the superfund redevelopment initiative and also a number of other meetings.

But I would just like to say that as far as remediating the property, what we came to know as Morgan Francis, I have no issue with the remediation of this property on its own site. My only objection would be to bring any other waste from any other site, and that includes the Third Avenue property. That should be disposed of and taken away out of the town. And that' it.

MR. MURPHY: Thank you.

Are there any other members of the public that would like to provide public comment?

(Whereupon, Meg Kelly came to the podium.)

MS. KELLY: Hi. My name is Meg Kelly. I live at 140 Spruce Street, Stratford.

I've been a Sunshine Patriot as far as being a member of Save Stratford. I actually had come tonight because I'm so frustrated that I haven't been to many meetings. I'm here to support the group. And from two years off, I can't believe that this is where we are.

So I'm not a good speaker, but I'm very frustrated to hear that we're supposed to, you know, funnel this into talking about the four properties and that you're really not moving it out of town.

Thank you.

MR. MURPHY: Anyone else who would like to provide public comment?

(Whereupon, No response.)

MR. MURPHY: Okay. Well with that, we will officially end the public hearing. But as I said, we'll, EPA and DEP, will be available just now to answer any questions you people may want to pose.

(Whereupon, the Hearing concluded at 7:48 p.m.)

CERTIFICATE OF REPORTER

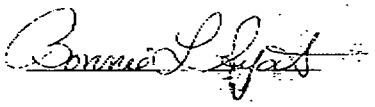
STATE OF CONNECTICUT

COUNTY OF NEW HAVEN

I, BONNIE L. SYAT, a Notary Public duly commissioned within and for the State of Connecticut, do hereby certify that pursuant to notice, on the 6th day of October, 2010, at approximately 7:00 p.m., located at Stratford, Town Hall, I electronically recorded said hearing, re: Raymark Superfund Site, reduced it to writing under my supervision; that said hearing is a true and accurate record as hereinbefore appears.

I further certify that I am neither attorney nor counsel for nor related to nor employed by any of the parties to the action in which this hearing was taken, and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in this action.

In witness whereof, I hereunto set my hand and affix my notarial seal this 19th day of October, 2010.



Bonnie L. Syat

Commission expires: 03/31/15

ATTACHMENT B OF RESPONSIVENESS SUMMARY: Written Comments Received During Public Comment Period (September 16, 2010 to October 16, 2010)

Toxic Raymark Waste in Stratford
Lynn
to:
Ron Jennings
10/07/2010 06:11 PM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that is designed and equipped to appropriately handle it.

Thank you.

Save stratford meeting
Susan
to:
Ron Jennings
10/06/2010 02:52 PM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Thank you,
Sincerely,
Susan E. Penny
Stratford

Robert Rothenberg
to:
Ron Jennings
10/06/2010 09:53 PM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Toxic Raymark Waste
Jim Furbush
to:
Ron Jennings
10/07/2010 06:02 PM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Thank you.

Jim Furbush
Stratford, CT

Stratford
megij2000
to:
Ron Jennings
10/04/2010 11:48 AM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Sincerely,
Meghan Lanese
6 Patterson Avenue
Stratford, CT 06614

Gregory Jontos
to:
Ron Jennings
10/05/2010 01:45 PM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Stratford clean up
Manny
to:
Ron Jennings
10/04/2010 11:42 AM
Show Details

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Manny Veloza
327 Cedar Knoll Dr
Stratford, CT

EPA Town Council Meeting, 10/6/10
Ann Marie Poremba
to:
Ron Jennings
10/04/2010 11:43 AM
Show Details

Unfortunately I will be unable to attend the subject meeting, but would like my comment below taken into consideration when making any decisions discussed at the subject meeting. Thank you very much for your time and consideration in this matter.

The EPA needs to provide the Town of Stratford with a Fully Funded, Comprehensive Clean-up Plan that addresses all the remaining sites (not just a few) and removes most if not all of the Toxic Raymark Waste from town for disposal in a facility that it designed and equipped to appropriately handle it.

Ann Marie Poremba
76 Minor Avenue
Stratford, CT 06615

EPA Proposed Redmediation in Stratford CT - Comments from SaveStratford.org
Thomas Smith
to:
Ron Jennings, Mike Jasinski, Jim Murphy, ronald.curran
10/15/2010 10:52 PM
Cc:
Mayor Harkins, mayor, SaveStratford.org, "Sen. Debicella, Dan", krystn_ledoux, Dan Debicella, correspondence-email, Alex Barron , jeffrey.bombard, allison.dodge
Show Details

Dear Mr. Jennings -

It has been 2 years since the RST last met and 20 years since the EPA began its clean-up efforts. Despite being given 5 different ways to spend $20 million dollars and remove a significant amount of waste from Stratford, permanently cleaning many different properties in the process, the EPA and State DEP appear to have summarily dismissed all proposals without any analysis, discussion or explanation whatsoever. The fact that both agencies presented one (and only one) proposal which was essentially the large scale consolidation of Toxic Raymark Waste in a residential neighborhood is frankly unacceptable.

- The one Remaining Residential Property

  The fact that your agency has refused to fully remediate the residential property on Third Avenue until now despite knowing about it for ten years is unconscionable. Additionally, the fact that your agency opted to play politics (not cleaning up the property unless the waste is consolidated somewhere else in Stratford) rather than actually removing the waste and cleaning up this property is frankly disgraceful and borders on gross negligence.

- The Toxic Groundwater Plume

  During the RST meetings you repeatedly stressed that "the most significant problem that represents the highest exposure threat to the community is the Toxic Plume (OU-2)". The EPA has known about this "exposure" for at least 10 years. Yet, your agency has done nothing to stop, contain or even complete a study to understand the magnitude of the problem. The EPA told attendees at a follow up meeting in 2009 that a Feasibility Study would be commenced in the fall of 2009. This has yet to be done. Is this any way to approach what your agency has deemed "the most hazardous problem facing Stratford"? The fact that neither your agency or the State DEP knew how many houses did not have the sub-slab ventilation systems (and the fact that it took almost 3 months to figure this out) speaks volumes to the EPA's complete and total failure to it's commitment to protect human health and the environment here in Stratford, CT.

- The Current Proposed Clean-up of the East Broadway Property - accountability, responsibility and liability

  One of the major issues we'd like to point out, yet again, is the accountability and liability. Specifically, the EPA needs to assume full responsibility for the work they are undertaking here in Stratford. Because your agency truly believes that "consolidation" is the one and only option for Stratford, then the EPA needs to accept full and unlimited legal liability for its workproduct. In the event that there is an incident, accident or release of particulate matter (or any other toxic material for that matter), we will hold the EPA accountable and legally liable for any damages (bodily and property related) sustained by residents who live in close proximity to where work is being done.

Finally, the fact that the EPA will not remove more than 10% (the bare minimum) of any waste on any property

for disposal out of town does not solve the Toxic Raymark Waste problem, does not finish the job started 20 years ago, and does not help the Town of Stratford or affected property owners. It certainly does not clean-up the mess that has been festering for 20+ years.

SaveStratford.org would like to take this opportunity to reiterate that the best solution for remediating the Toxic Raymark Waste in Stratford is for the EPA to provide the Town of Stratford with a fully funded, comprehensive clean-up plan that removes all or as much of the Toxic Raymark Waste from town.

Sincerely,

Tom Smith and the Members of SaveStratford.org

Log On, Find Out, Take Action...

EPA Proposed Remediation in Stratford CT - Comments from SaveStratford.org
Thomas Smith
to:
Ron Jennings, Mike Jasinski, Jim Murphy, ronald.curran
10/16/2010 10:17 AM
Cc:
Mayor Harkins, mayor, SaveStratford.org, "Sen. Debicella, Dan", krystn_ledoux, Dan Debicella, correspondence-email, Alex Barron , jeffrey.bombard, allison.dodge
Show Details

Dear Mr. Jennings -

It has been 2 years since the RST last met and 20 years since the EPA began its clean-up efforts. Despite being given 5 different ways to spend $20 million dollars and remove a significant amount of waste from Stratford, permanently cleaning many different properties in the process, the EPA and State DEP appear to have summarily dismissed all proposals without any analysis, discussion or explanation whatsoever. The fact that both agencies presented one (and only one) proposal which was essentially the large scale consolidation of Toxic Raymark Waste in a residential neighborhood is frankly unacceptable.

- The One Remaining Residential Property

  The fact that your agency has refused to fully remediate the residential property on Third Avenue until now despite knowing about it for ten years is unconscionable. Additionally, the fact that your agency opted to play politics (not cleaning up the property unless the waste is consolidated somewhere else in Stratford) rather than actually removing the waste and cleaning up this property is frankly disgraceful and borders on gross negligence.

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Finally, the fact that the EPA will not remove more than 10% of any waste on any property (for disposal outside of Stratford) does not solve the Raymark Waste problem, does not finish the job started 20 years ago, and does

not help the Town of Stratford. It certainly does not clean-up the mess that has been festering for 20+ years.

SaveStratford.org would like to take this opportunity to reiterate that the best solution for remediating the Toxic Raymark Waste here in town is for the EPA to provide the Town of Stratford with a fully funded, comprehensive clean-up plan that removes all or most of the waste from town.

Sincerely,

The Members of SaveStratford.org

Log on, Find Out, Take Action...

October 6, 2010 Stratford Town Council hearing on EPA affects on Stratford: My name is George Mulligan, 429 Housatonic Avenue, Stratford, CT 06615 (203) 378-1888 georgeemcom@yahoo.com

I support the positions of Save Stratford and Raymark Advisory Commission, to completely clean up Raymark, AVCO SAEP, Sikorsky Airport, Sikorsky Army Plant, and any/all Army plants and subcontractors in Stratford.

Reluctantly I concur with the EPA plan to cover up and consolidate 4 properties, which appears to have consensus. However, my support is conditional that this is not another Trojan Horse nor delay tactics.

I respectfully and politely vociferously object to the delays whereas Raymark should have been completely cleaned by the 1990s, including all of the poisoned toxic dumpsites and the 500 acres of poisoned toxin ground water which may or may not be causal to health concerns. They do affect property values for resale of homes and business, despite the over taxation by political players. I request, no I politely demand whatever legislation and funding as "seed money" to clean these blighted and poisoned grounds and waters, to re-flower our community health and property values!

I am concerned the Federal, State, and Local political people have willfully, intentionally, and maliciously been acting to beggar the greatest generation, residents, and businesses in both Stratford and Bridgeport for perhaps racist and for financial and political reasons!

Bridgeport and Stratford were arsenals of democracies! Now neutron jack like brown fields exist, where manufacturing was strong and vibrant, helping to protect American forces, fighting to protect our freedoms. Once the American military and political decisions helped "manufacturing" and "command" economy provide many workers and subcontractors to have "decent jobs or businesses" allowing many American entry into middle and upper class.

Since President eisenhower's warning it appear government branches, government levels,

The EPA has Federal statutory oversight on private and government property, except military property. However both the US CODE and the CODE of MILITARY JUSTICE have statutory requirements for all Federal Agencies and Departments to work together, at the direction of the Executive, Legislature, and Judicial Branches of government, under the U. S. Constitution. There are statutes related to State branches, departments and agencies mandated to cooperate under the U. S. and State Constitutions, US CODE and STATE CODE . There are statures related to municipal branches, departments and agencies to cooperate under the U.S. Constitution, State Constitution, Town Charter, US and State CODES and Town Ordinances and Resolutions. (and all appropriate legal and ethical Regulations) The DEP is the State Counterpart. The Health Department is a form of local counterpart

ARMY contract decisions contaminated AVCO SAEP, Sikorsky army plant, Sikorsky Airport from (Chance Vought), Contract Plating, Dresser, and many plants and subcontractors.

DOT has torn up Main Street downtown and intends to work with the FAA and Bridgeport to endanger Stratford with a "safety zone" where a crash would s likely raise asbestos into becoming airborne, threatening Lordship, Mid-Stratford, Bridgeport, and perhaps even Shelton. The DOT is tearing up grounds along I-95 # 33 with intent to ramp!

The FAA intends to further pollute Stratford groundwater, grounds, Air, and noise, while raising danger to the home owners and businesses and drivers in Stratford under the specious and pernicious guise of pilot – passenger safety. Just another game of double speak and e3 card monty – by fork tongued politically appointed hacks

The EPA desires to move and consolidate most poison dumpsites in land to the Raybestos Ball field near Public Works, which already is one of the sources for 500 acres of poisoned ground water. Has the Federal Government declared war on Stratford? Maybe if we were all white, big campaign donors, and politically connected, we would have rights?

RAYMARK BULLETIN # 44

1. What's Next
2. Back ground – 2005 Investigations nearing completion
3. Community participation
4. How did contamination occur
5. Health effects – VOC + Groundwater contaminate
6. What has been cleaned up –over 100 homes vent
7. They Raymark facility – and ball field map
8. Groundwater – 550 wells / 500 acres
9. Upper Ferry Creek – Willow to Housatonic
10. Raybestos Memorial Ball field – temp cap
11. Shore road - Shakespeare
12. Additional Properties – Wooster Park
13. Lower Ferry Creek
14. Beacon Point / Elm Street Wetlands
15. Shore Beach Park / Stratford Landfill –Short Beach and across from Airport runway
16. Information Repository + Contracts

1 – Where are Heath Study documents, per dumpsite or groundwater, related to:
   A) Dumpsite Toxins
   B) Ground water
   C) VOC Volatile Organic Compound

2 – What plan 100 % guarantees end of any added leaking / leaching by consolidation, inland?

3 – What / where are the data related to concentrations of toxins in groundwater within 500 acres and why has it not been included in EPA bulletin?

Caselli
COMMERCIAL
PROPERTIES, INC.

1675A BARNUM AVE. • STRATFORD, CONN. 06614
(203) 377-7510 • FAX (203) 377-6195

September 28, 2010

Mr. Ron Jennings
EPA Remedial Project Manager
5 Post Office Square, Suite 100
Boston MA 02109-3912

Re: 576 East Broadway, Stratford

Dear Ron:

I will not be able to attend the meeting on October 6. I would appreciate it, therefore, if you would read the following into the record:

> *My name is Joseph Caselli with offices at 1675A Barnum Avenue, Stratford, Connecticut. I represent the owner of 576 East Broadway. I have reviewed the proposal for remediation of the site, including the transfer of some additional fill material from a residential property in Lordship and can represent that the owner supports the remediation plan. I believe it is both the intention of the various regulatory agencies, as well as the owner of the property, to remediate the site in such a manner that it will become financeable and available for development.*

This endorsement, of course, is conditioned upon a final remediation plan that is satisfactory to the owner. I am sure there will be issues large and small that need to be resolved but I can assure you an expeditious effort will be made to resolve those matters.

Sincerely,

Joseph Caselli

JMC/raa

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

October 15, 2010

Ronald Jennings
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mailcode: OSRR07-1
Boston, MA 02109-3912

RE: Proposed Plan, Raymark Industries, Inc. (September 2010)
576/600 East Broadway, Beacon Point (AOC2) & 35 Third Avenue
Stratford, Connecticut

Dear Mr. Jennings,

The Remediation Division of the Bureau of Water Protection and Land Reuse has reviewed the plan titled, "Proposed Plan, Raymark Industries, Inc. Stratford, CT" (Proposed Plan) dated September 2010. The plan was prepared by the US Environmental Protection Agency (USEPA) and was received by the CT Department of Environmental Protection (CT DEP) on September 15, 2010. The Proposed Plan was presented to the public on September 15, 2010, in accordance with Section 117 of the Comprehensive Environmental Response, Compensation and Liability Act 42 U.S.C. Section 9601.

Raymark Industries, Inc. was listed on the National Priority List (Superfund) on April 25, 1995. The Raymark NPL site is defined as any location where Raymark Waste came to be placed. The Raymark NPL site consists of nine (9) Operable Units (OUs) of which the current Proposed Plan recommends actions at a portion of Raymark OU6.

Raymark OU6 consists of 24 properties in Stratford that historically received fill material that originated at the Raymark Industries site. This fill material consists of industrial waste containing; metals, PCBs, asbestos, dioxin, SVOCs and other contamination.

The Proposed Plan, as presented, was developed after numerous discussions and meetings with residents, property owners and elected officials. The Proposed Plan reflects the consensus of the interested parties

The Proposed Plan, as presented to the public proposes final actions at, up to four (4) of 24, OU6 properties;

- **Beacon Point (AOC-2)** - An institutional control, in the form of an Environmental Land Use Restriction, to prohibit disturbance of Raymark waste that has been identified at 8 to 10 feet below ground surface on this town owned parcel, this final remedy will allow for the continued use of this parcel as a boat launch and parking area.

- **576/600 East Broadway** – An Engineered Control is proposed to isolate the Raymark waste from direct contact and restrict infiltration of precipitation through waste. An institutional control, in the form of an Environmental Land Use Restriction, would prohibit activities that could damage the Engineered Control and restricts certain activities and uses of the parcel.

- **35 Third Avenue** – Excavation of all Raymark waste on this parcel is proposed only if 576/600 East Broadway has capacity for consolidation of the excavated material. If all Raymark waste is removed, an Environmental Land Use Restriction will not be required.

- **Remaining Raymark Waste Parcels** – Interim Actions would be implemented as temporary protective measures, until a permanent remedy is selected and implemented. Interim Actions would be determined for each parcel as appropriate including, but not limited to;
    1. Institutional controls – To prohibit disturbance of Raymark waste
    2. Fencing – To restrict access to uncontrolled parcels
    3. Signage – To warn trespassers of possible exposure to "Hazardous Waste"

The Connecticut Department of Environmental Protection, Remediation Division, concurs with the recommendations contained in this Proposed Plan.

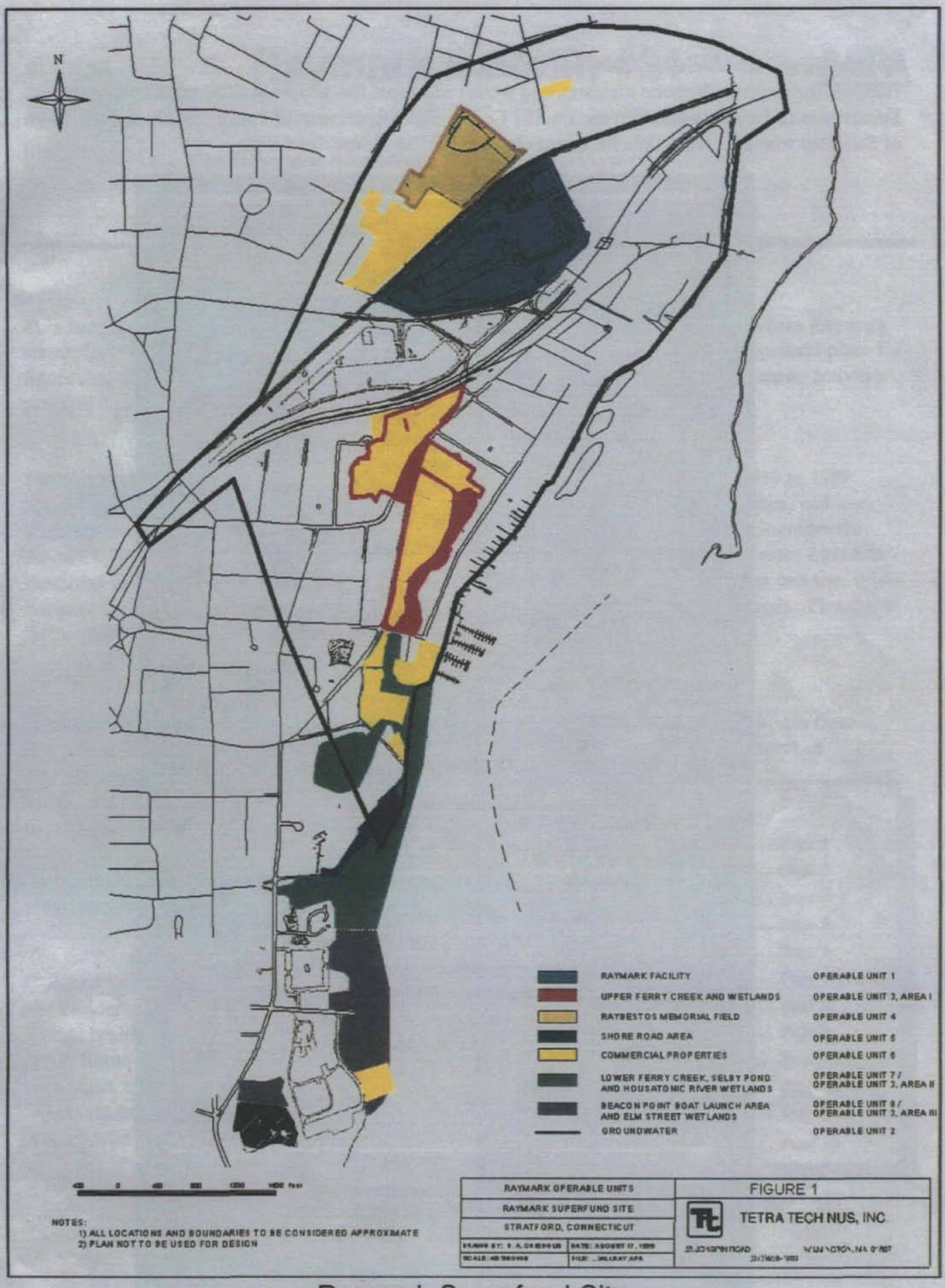
Respectfully submitted,

Patrick Bowe / Matt Bell Assistant Director

Patrick F. Bowe
Director
Remediation Division
Bureau of Water Planning and Land Reuse

APPENDICES

APPENDIX A: FIGURES



Raymark Superfund Site

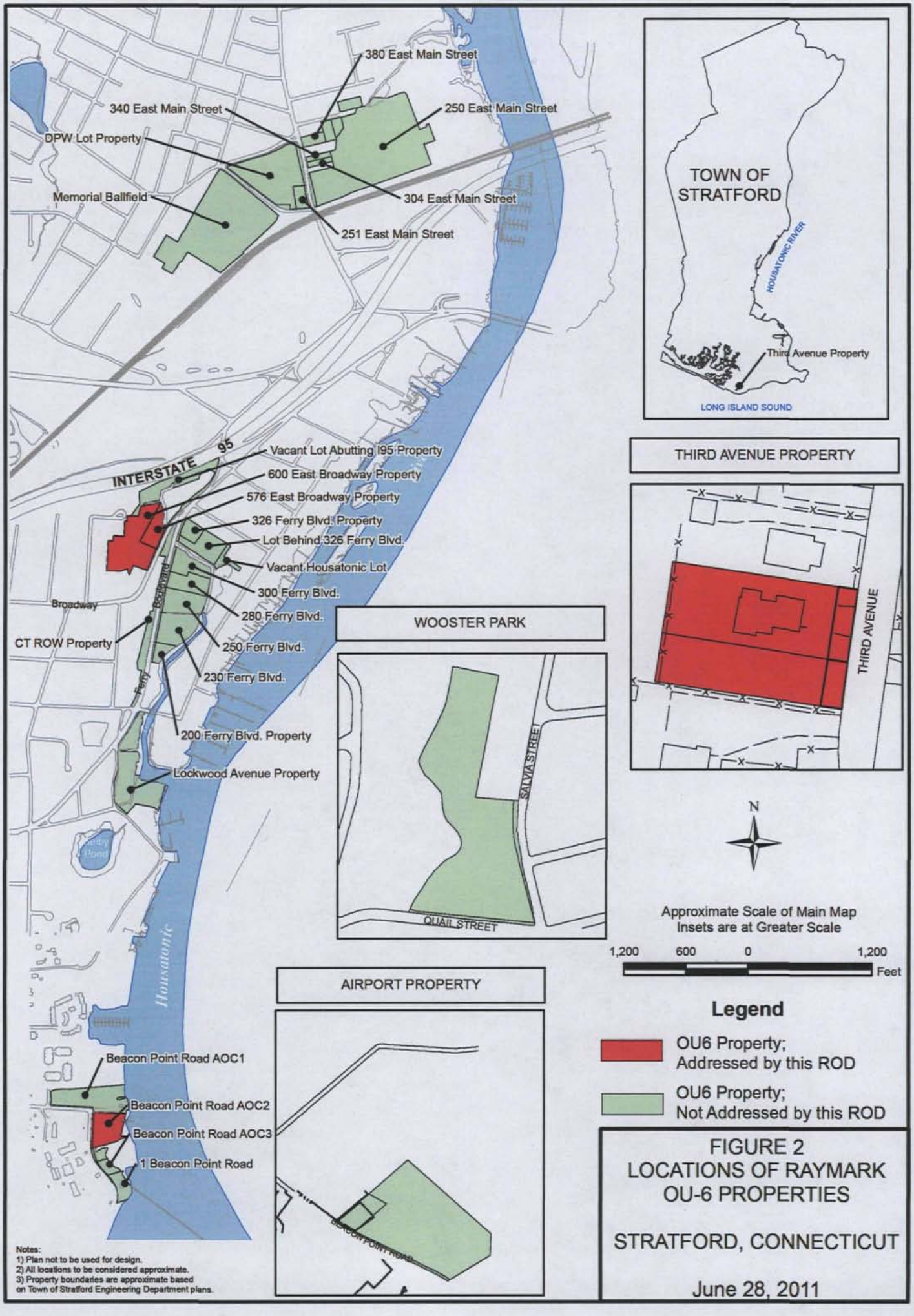


FIGURE 2
LOCATIONS OF RAYMARK
OU-6 PROPERTIES

STRATFORD, CONNECTICUT

June 28, 2011

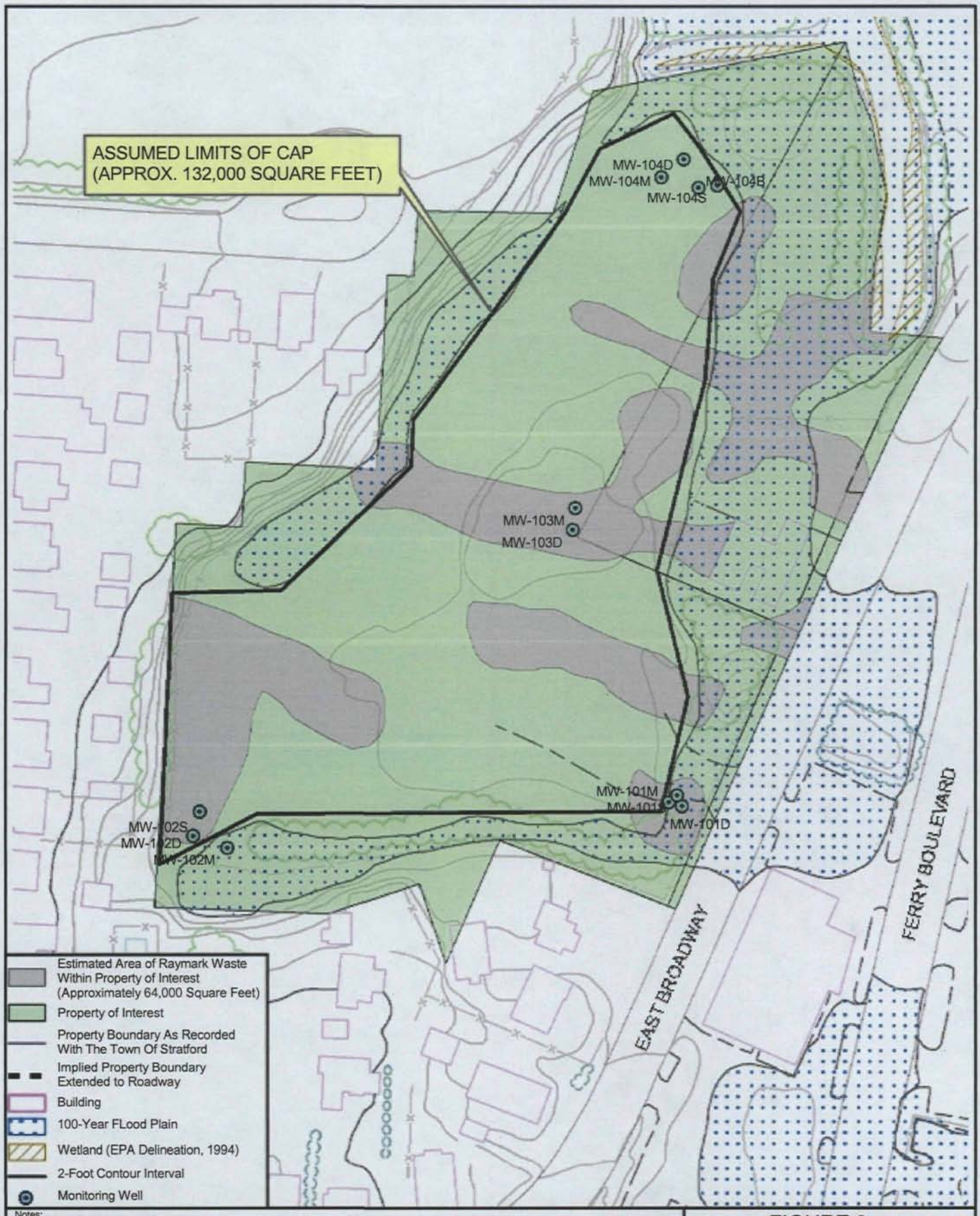
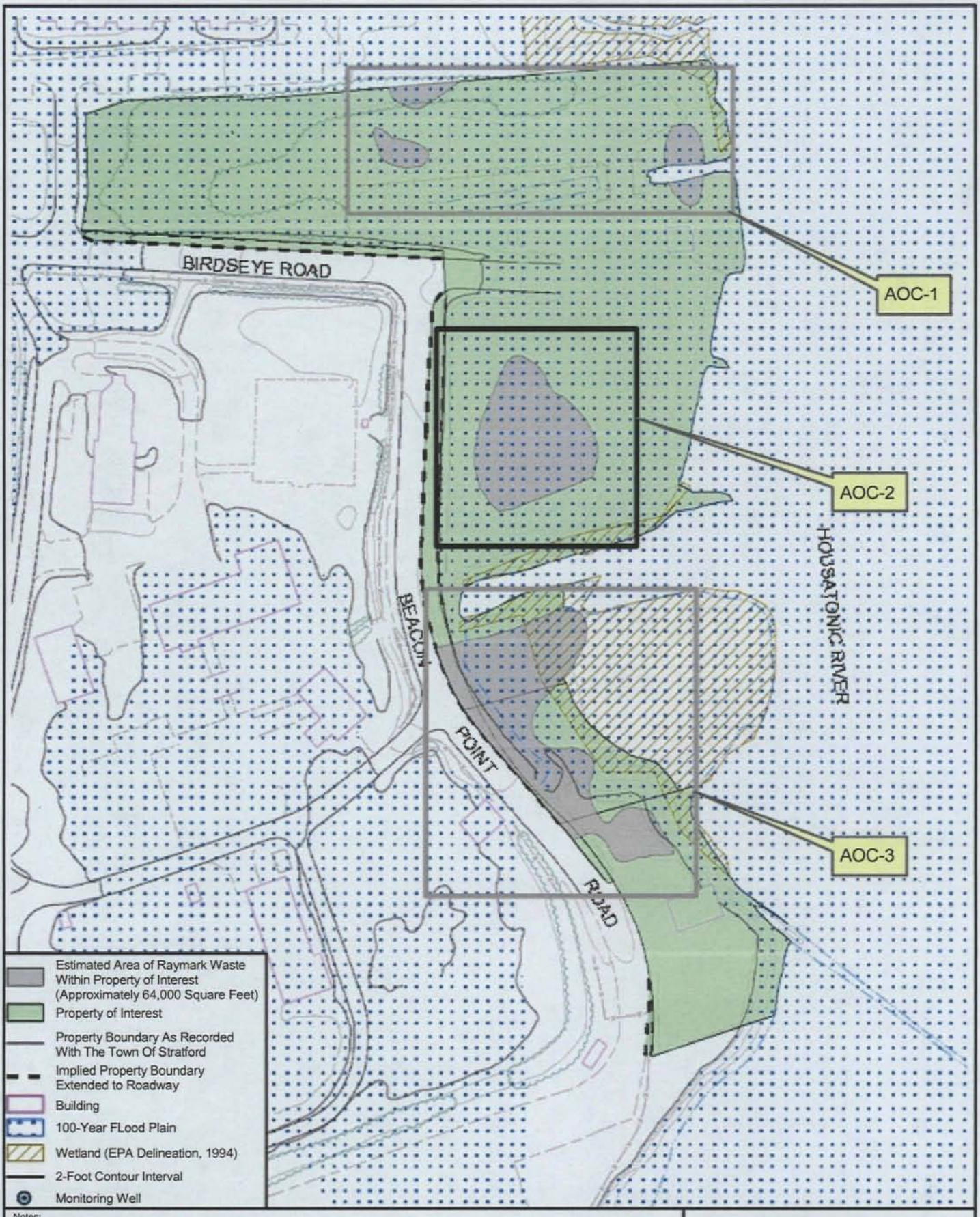


FIGURE 3

576/600 EAST BROADWAY
PROPOSED PLAN
RAYMARK SUPERFUND SITE
STRATFORD, CONNECTICUT

R:\00000 Task Order #00006 Raymark\Technical Data #016_Data\Figures\Proposed_Plan\576_600_East_Broadway.mxd

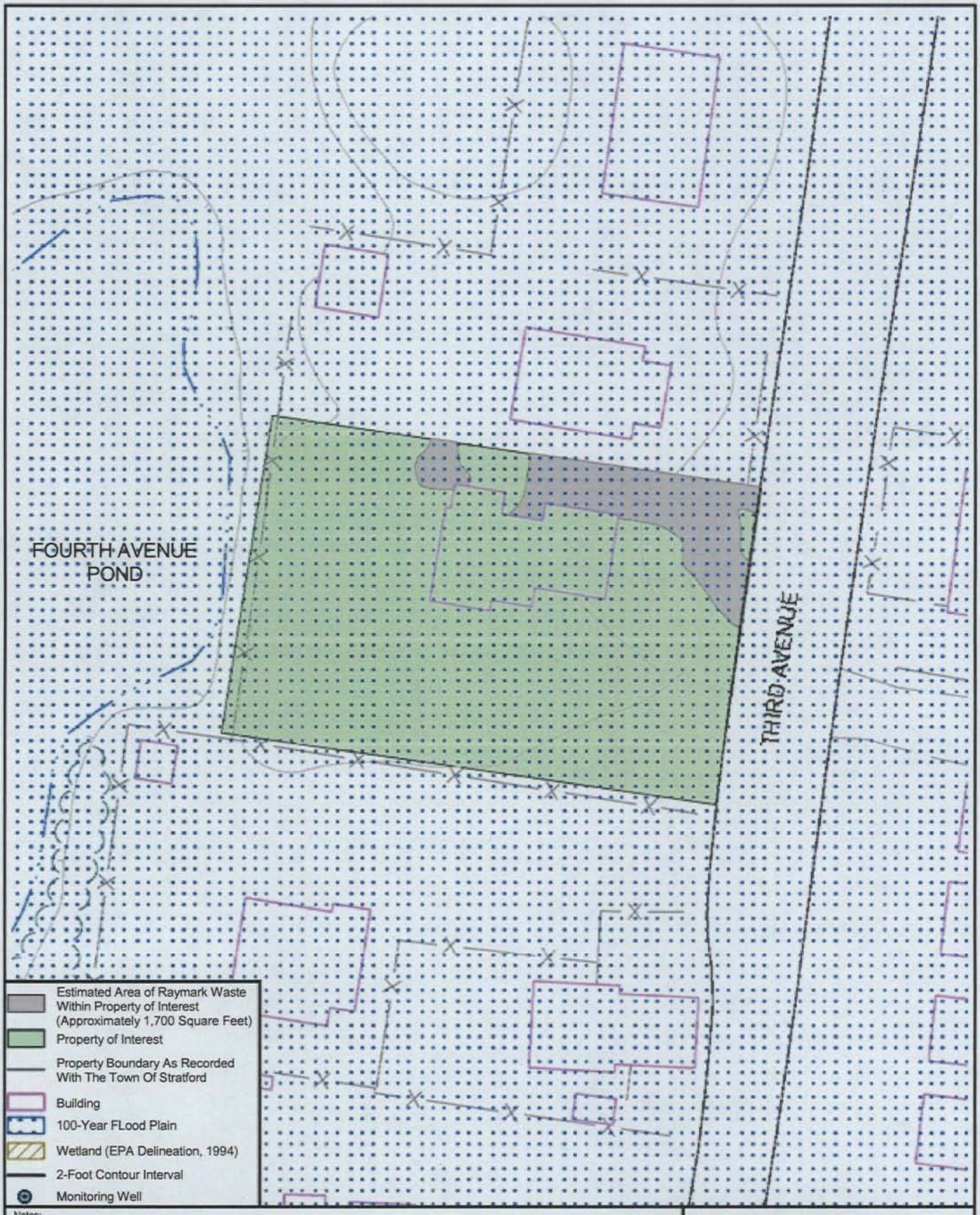


Notes:
1) Plan not to be used for design.
2) All locations to be considered approximate.
3) Property boundaries are approximate based on Town of Stratford Engineering Department plans.
4) Floodplain extent based on Federal Emergency Management Agency Q3 Flood Data, Community Panel Numbers 090016 0001-0004, Revised June 16, 1992, FEMA, Washington D.C. and modified to Town of Stratford Engineering Plan 10-foot contour.
5) Adapted from TTNUS Remedial Investigation, 2005.

R:\90000 Task Order #90006 Raymark\Technical Dat #GIS_Data\Figures\Proposed_Plan\Beacon_Point_AOC_2.mxd

FIGURE 4

BEACON POINT AREA OF CONCERN (AOC)-2
PROPOSED PLAN
RAYMARK SUPERFUND SITE
STRATFORD, CONNECTICUT


FOURTH AVENUE
POND
THIRD AVENUE
Estimated Area of Raymark Waste Within Property of Interest (Approximately 1,700 Square Feet)
Property of Interest
Property Boundary As Recorded With The Town Of Stratford
Building
100-Year FLood Plain
Wetland (EPA Delineation, 1994)
2-Foot Contour Interval
Monitoring Well
Notes:
1) Plan not to be used for design.
2) All locations to be considered approximate.
3) Property boundaries are approximate based on Town of Stratford Engineering Department plans.
4) Floodplain extent based on Federal Emergency Management Agency Q3 Flood Data, Community Panel Numbers 090016 0001-0004, Revised June 16, 1992, FEMA, Washington D.C. and modified to Town of Stratford Engineering Plan 10-foot contour.
5) Adapted from TTNUS Remedial Investigation, 2005.
N
40 20 0 40
Feet
FIGURE 5
THIRD AVENUE PROPERTY
PROPOSED PLAN
RAYMARK SUPERFUND SITE
STRATFORD, CONNECTICUT

BASEMAP: PORTIONS OF THE FOLLOWING U.S.G.S. QUADRANGLE MAPS: BRIDGEPORT, CONN., 1970 (PHOTOREVISED 1984) AND MILFORD, CONN., 1960 (PHOTOREVISED 1984)

GRAPHIC SCALE 0' 4000'

1 INCH = 4000 FEET

SITE LOCUS

REMEDIAL INVESTIGATION

RAYMARK – OU6 – STRATFORD, CT

FIGURE 6

DRAWN BY:	D.W. MACDOUGALL	REV.:	0
CHECKED BY:	D. CHISHOLM	DATE:	JANUARY 2004
SCALE:	1" = 100'	ACAD NAME:	DWG\4106\0900\FIG_1-1.DWG

TETRA TECH NUS, INC.
55 Jonspin Road Wilmington, MA 01887
(978)658-7899

APPENDIX B: TABLES

TABLE 1
SUMMARY OF RECEPTOR RISKS AND HAZARDS
REMEDIAL INVESTIGATION
RAYMARK-OU6
STRATFORD, CONNECTICUT

Property	Maximum Asbestos (1)	Lead (2)	Scenario/ Receptor	CR>1E-04 or HI>1	Total Cancer Risks (3)	Total Cancer Risks (4)	Major contributors to cancer risk above 1E-04 (individual cancer risk >1E-06)	Total Noncancer Hazard Index	Major contributors to noncancer Hazard Index (HI>1.0)
Lockwood Avenue Property	50%	0.5-1.2%	Commercial Worker	YES	4.8E-05	7.3E-05	PCBs, Dioxin TEQ, PAHs, Arsenic	2.1	PCBs
Lockwood Avenue Property	50%	2.5%	Recreational Visitor	YES	7.3E-05	1.1E-04	PCBs, Dioxin TEQ, PAHs, Arsenic, Dieldrin	9.3	PCBs, Chromium
200 Ferry Boulevard	25%	0.2-0.6%	Commercial Worker	NE	NE	NE	NE	NE	NE
230 Ferry Boulevard	90%	9 - 12%	Commercial Worker	YES	3.2E-04	1.4E-03	PCBs, Dioxin TEQ, Arsenic, PAHs	7.2	PCBs
250 Ferry Boulevard	90%	17-20%	Commercial Worker	YES	2.9E-04	6.7E-04	PCBs, Dioxin TEQ, PAHs, Arsenic	12	PCBs
280 Ferry Boulevard	90%	57-59%	Commercial Worker	YES	3.3E-04	9.8E-04	PCBs, Dioxin TEQ, PAHs, Arsenic	8.2	PCBs
300 Ferry Boulevard	75%	28-31%	Commercial Worker	YES	2.8E-04	3.6E-04	PCBs, Dioxin TEQ, Arsenic, Benzo(a)pyrene	18	PCBs
Lot behind 326 Ferry Boulevard	60%	2.2-3.9%	Commercial Worker	YES	1.7E-04	3.9E-04	PCBs, Dioxin TEQ, Arsenic, Benzo(a)pyrene	9	PCBs
Vacant Lot at Housatonic Avenue	80%	91%	Future Resident	YES	6.3E-04	3.4E-03	PCBs, Dioxin TEQ, PAHs, Arsenic	20	PCBs
326 Ferry Boulevard	8%	NA	Commercial Worker	NO	2.8E-06	3.4E-06	Benzo(a)pyrene	0.04	NA
576 East Broadway	90%	7.1-9.7%	Commercial Worker	YES	5.0E-04	2.0E-03	PCBs, Dioxin TEQ, Dieldrin, Arsenic, Benzo(a)pyrene	16	PCBs
600 East Broadway	85%	1.0-2.1%	Commercial Worker	YES	4.0E-05	5.9E-05	PCBs, Dioxin TEQ, Arsenic, Benzo(a)pyrene	1.8	PCBs
Vacant DOT lot abutting I-95	40%	0.2-0.7%	Commercial Worker	NO	5.0E-06	6.7E-06	PCBs	0.2	NA
CT Right-of-Way	16%	0.2-0.6%	Commercial Worker	NO	1.8E-06	NA	NA	0.03	NA
CT Right-of-Way - Residential Portion	16%	1.3%	Resident	YES	3.5E-05	4.4E-05	PCBs, Dioxin TEQ, PAHs, Arsenic	2.2	PCBs
304 East Main Street	50%	17-20%	Commercial Worker	YES	3.1E-04	3.6E-04	PCBs, Dioxin TEQ, Arsenic	21	PCBs
340 East Main Street	70%	21-24%	Commercial Worker	NO	1.2E-06	NA	NA	0.08	NA
380 East Main Street	2%	0.2-0.6%	Commercial Worker	NE	NE	NE	NE	NE	NE
250 East Main Street	80%	0.2-0.6%	Commercial Worker	NO	1.8E-07	NA	NA	0.005	NA
DPW Lot	30%	0.2-0.6%	Commercial Worker	NE	NE	NE	NE	NE	NE
251 East Main Street	7%	NA	Commercial Worker	NE	NE	NE	NE	NE	NE
Beacon Point Area	40%	11%	Recreational Visitor	YES	1.1E-04	5.1E-04	PCBs, Dioxin TEQ, PAHs, Arsenic	4.3	PCBs
1 Beacon Point Road	60%	0.5-1.2%	Commercial Worker	NO	8.2E-06	1.6E-05	PCBs, Dioxin TEQ, Benzo(a)pyrene	0.19	NA
Airport Property North of Marine Basin	40%	0.2-0.7%	Commercial Worker	NO	2.1E-05	NA	PAHs	0.0014	NA
Wooster Park	60%	0.69%	Recreational Visitor	NO	1.6E-05	4.4E-05	PCBs, Dioxin TEQ, Benzo(a)pyrene	0.7	NA
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:

(1) Maximum Detected Asbestos; asbestos-containing material is material containing more than 1 percent asbestos (Appendix A to Subpart M of 40 CFR 61) (EPA, 1990). All properties have asbestos above 1 percent.
(2) Probability that blood lead levels exceed 10 ug/dL; EPA's goal is that no more than 5% of individuals will have blood lead concentrations above 10 ug/dL.
(3) Cancer risks estimated using the dioxin slope factor of 1.5E+5 (mg/kg/d)-1.
(4) Cancer risks estimated using the Draft Dioxin Reassessment recommended dioxin slope factor of 1E+6 (mg/kg/d)$^{-1}$.
NA- Not Applicable
NE- Not evaluated due to insufficient data.
All properties have asbestos above 1 percent.

Lead is above levels of concern, Cancer Risks are above 1E-04, AND/OR Hazard Indices are above 1.
Cancer risks fall in the range of 10^{-4} to 10^{-6}, hazard indices are less than 1, and lead is below levels of concern.
Lead is below levels of concern. Cancer risks are less than 10^{-6} and hazard indices are less than 1 OR cancer risks and hazard indices were not evaluated due to insufficent data.

TABLE 2
COMPARISION OF RISKS PROPERTY WIDE VERSUS DELINEATED RAYMARK WASTE AREAS ONLY
REMEDIAL INVESTIGATION
RAYMARK-OU6
STRATFORD, CONNECTICUT

Property	Total Area (acres)	Area of Raymark Waste (acres)	Fraction of Area estimated to contain Raymark Waste (FRW)	Lead (1)		Total Cancer Risks(2)		Total Noncancer Hazard Index	
				with FRW	without FRW	with FRW	without FRW	with FRW	without FRW
Lockwood Avenue Property - commercial	5.3	1.8	0.34	0.5-1.2%	2-3.6%	4.8E-05	1.4E-04	2.1	6.3
Lockwood Avenue Property- recreational	5.3	1.8	0.34	2.5%	31.7%	7.3E-05	2.1E-04	9.3	27
200 Ferry Boulevard	0.6	0.04	0.07	0.2-0.6%	0.4-1.1%	NE	NE	NE	NE
230 Ferry Boulevard	2.5	0.65	0.27	9 - 12%	56-58%	3.2E-04	1.2E-03	7.2	27
250 Ferry Boulevard	2.1	1.3	0.70	17-20%	28-32%	2.9E-04	4.1E-04	12	17
280 Ferry Boulevard	1.6	1.1	0.78	57-59%	69-71%	3.3E-04	4.2E-04	8.2	11
300 Ferry Boulevard	1.6	0.86	0.67	28-31%	46-49%	2.6E-04	4.2E-04	18	27
Lot behind 328 Ferry Boulevard	1.7	0.75	0.43	2.2-3.9%	10-13%	1.7E-04	4.0E-04	9	21
Vacant Lot at Housatonic Avenue	0.5	0.15	0.33	91%	99.7%	6.3E-04	1.9E-03	20	62
326 Ferry Boulevard	0.8	0.06	0.10	NE	NE	2.8E-06	2.8E-05	0.04	0.4
576 East Broadway	1.3	0.51	0.42	7.1-9.7%	29-33%	5.0E-04	1.2E-03	16	39
600 East Broadway	4.5	0.95	0.21	1.0-2.1%	14-17%	4.0E-05	1.9E-04	1.8	8.6
Vacant DOT lot abutting 95	2.4	0.21	0.09	0.2-0.7%	3.0-4.9%	5.0E-06	5.6E-05	0.2	2.2
CT Right of Way	1.9	0.10	0.05	0.2-0.6%	0.8-1.7%	1.8E-06	3.5E-05	0.03	1
CT Right of Way - Residential Portion	0.1	0.03	0.43	1.3%	13%	3.5E-05	8.1E-05	2.2	5
304 East Main Street	0.3	0.11	0.44	17-20%	50-53%	3.1E-04	7.1E-04	21	48
340 East Main Street	0.3	0.20	0.72	21-24%	33-36%	1.2E-06	1.6E-06	0.08	0.11
380 East Main Street	0.5	0.003	0.01	0.2-0.6%	6.4-9.9%	NE	NE	NE	NE
250 East Main Street	16.7	0.10	0.01	0.2-0.6%	18-21%	1.8E-07	1.8E-05	0.005	0.54
DPW Lot	6.4	0.62	0.12	0.2-0.6%	0.7-1.7%	NE	NE	NE	NE
251 East Main Street	0.7	0.08	0.13	NE	NE	NE	NE	NE	NE
Beacon Point Area	7.4	0.99	0.15	11%	93%	1.1E-04	7.2E-04	4.3	29
1 Beacon Point Road	0.9	0.10	0.12	0.5-1.2%	13-16%	8.2E-06	1.6E-04	0.19	3.7
Airport Property North of Airport	15.1	1.1	0.07	0.2-0.7%	3.0-4.9%	2.1E-05	3.0E-04	0.0014	0.02
Wooster Park	4.0	0.16	0.04	0.69%	97%	1.6E-05	4.1E-04	0.7	17
Third Avenue Property	0.3	0.04	0.13	1.6%	77%	3.3E-05	2.5E-04	4.6	36

Notes:
(1) Probability that blood lead levels exceed 10 ug/dL; EPA's goal is that no more than 5% of individuals will have blood lead concentrations above 10 ug/dL.
(2) Cancer risks estimated using the dioxin slope factor of 1.5E+5
NE- Not evaluated due to insufficient data.
All properties have asbestos above 1 percent.
Shaded properties have lead above levels of concern, Cancer Risk above 1E-04, AND/OR Hazard Index above 1.
Shaded cancer risks fall in the range of 10^{-4} to 10^{-6}.

APPENDIX C:

TABLES OF APPLICABLE OR RELEVANT

AND

APPROPRIATE REQUIREMENTS (ARARS)

Appendix C
Table A
Summary of ARARs and TBCs for All Alternatives
Raymark Industries Superfund Site
Stratford, Connecticut

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
CHEMICAL-SPECIFIC ARARS			
State Regulatory Requirements	Connecticut Remediation Standard Regulations (22a-133k, Appendices A and B)	These regulations establish numeric direct exposure (DEC) and pollutant mobility (PMC) criteria for cleanup of soils.	Contaminated soil within the Raymark waste footprint exceeding the DEC and PMC values will be managed according to the RSR regulations by excavation and off-property disposal, land use restrictions, and/or construction of an engineered control (capping).
Criteria, Advisories, and Guidance	Toxic Substances Control Act (TSCA) PCB Spill Clean-up Policy (40 CFR 761.120-135)	This policy applies to recent PCB spills and establishes clean-up levels for PCB spills of 50 ppm or greater at 10 ppm for non-restricted access areas and 25 ppm for restricted access areas.	This document will be considered in responding to new and historical PCB spills.
	EPA Guidance on Remedial Actions for Superfund Sites with PCB Contamination (EPA/540/G-90/007)	This document describes the recommended approach for developing remediation goals and selecting remedies at Superfund sites with PCB contamination.	This document will be used as guidance for the development and selection of remedial alternatives.
	EPA Risk Reference Doses (RfDs)	RfDs are dose levels developed by EPA for use in estimating the non-carcinogenic effects of exposure to toxic substances.	EPA RfDs were used to assess health risks due to exposure to noncarcinogenic contaminants present at the site.
	Cancer Slope Factors (CSFs)	Guidance values used to evaluate the potential carcinogenic risk caused by exposure to contaminants.	CSFs were used to evaluate health risks associated with site-related contaminants.
Federal Regulatory Requirements	Fish and Wildlife Coordination Act (16 USC 661 et seq.; 50 CFR Parts 81, 226, 402)	This Act protects fish and wildlife when federal actions result in the control or structural modification of a natural stream of body of water.	Alternatives that involve actions that might impact fish and wildlife will require consultation with the Fish and Wildlife Service to develop appropriate measures to protect resources.

Table A
Summary of ARARs and TBCs for All Alternatives
Raymark Industries Superfund Site
Stratford, Connecticut

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
Federal Regulatory Requirements (cont.)	National Historic Preservation Act (NHPA) (16 U.S.C. 470)	Pursuant to Sections 106 and 110(f) of the NHPA, as amended, CERCLA response actions are required to take into account the effects of the response activities on any historic property included or eligible for inclusion on the National Register of Historic Places.	Prior to any excavation or disturbance of soil or a structure, a review of potential impacts to historic structures or sites will be conducted. If any such impacts are identified, the substantive provisions of this ARAR will be complied with.
State Regulatory Requirements	Connecticut Coastal Management Act (Sec. 22a-92, 93, 94, 98 and 100)	This statute establishes Connecticut's enforceable coastal zone policies in accordance with the federal Coastal Zone Management Act.	Activities performed in coastal areas, particularly in wetlands and floodplains, will conform to the substantive provisions of the enforceable coastal zone policies.
ACTION-SPECIFIC ARARS			
Federal Regulatory Requirements	TSCA - PCB Storage, Capping and Disposal (40 CFR 761.61 (c))	These regulations establish standards for the storage, decontamination, capping, and response to PCB remediation waste.	The storage and response to PCB contaminated soil will be conducted with approval by the Regional Administrator pursuant to TSCA's risk-based approval provisions.
	CAA National Emission Standards for Hazardous Air Pollutants (NESHAPS) (40 CFR 61 – Subpart M; 61.150 and 61.151)	These regulations specify requirements regarding removal, management, and disposal of asbestos.	Handling, treatment, and disposal of soils containing asbestos will comply with the substantive provisions of these regulations. The removal and handling of asbestos will be managed through air monitoring and best management practices.
	Clean Water Act NPDES Regulations (Stormwater Discharges) (40 CFR 122.26(c)(ii)(C))	Discharges of stormwater associated with construction activities are required to implement measures, including best management practices, to control pollutants in stormwater discharges during and after construction activities.	Alternatives involving remedial construction will be designed and implemented to comply with the substantive provisions of the cited requirements and/or the requirements of the construction general permit for stormwater, such as best management practices.

Table A
Summary of ARARs and TBCs for All Alternatives
Raymark Industries Superfund Site
Stratford, Connecticut
Page 3 of 3

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
ACTION-SPECIFIC ARARS (CONTINUED)			
State Regulatory Requirements	Hazardous Waste Management: Generator & Handler Requirements – General Standards, Listing, and Identification (RCSA 22a-449(c)100-101)	These sections establish standards for listing and identification of hazardous waste. The standards of 40 CFR 260-261 are incorporated by reference.	Wastes that are generated during implementation of an alternative (i.e. excavated Raymark waste) will undergo testing for RCRA characteristics to determine the appropriate waste classification and disposal options.
	Hazardous Waste Management: Generator Standards (RCSA 22a-449(c)102)	This section establishes standards for various classes of generators. The standards of 40 CFR 262 are incorporated by reference. Storage requirements given at 40 CFR 265.15 are also included.	On-site storage of wastes determined to be RCRA hazardous (listed or characteristic) will comply with the substantive provisions of these requirements, including storage requirements.
	Connecticut Air Pollution Regulations – Fugitive Dust Emissions (Sec. 22a-174-18)	Requires that reasonable precautions be taken to prevent particulate matter from becoming airborne during demolition and construction activities and material handling operations.	Activities involving soil excavation or handling and cap construction will be conducted in a manner to minimize fugitive dust emissions. Air monitoring and best engineering practices will be employed to minimize fugitive dust emissions.
State Regulatory Requirements (cont.)	Control of Noise (RSCA Section 22a-69-1 to 69-7.4)	These Regulations establish allowable noise levels.	All remedial construction activities will comply with the substantive requirements of these regulations.
	CT Guidelines for Soil Erosion and Sediment Control (May 2002) (adopted pursuant to CGS 22a-328)	The Guidelines provide technical and administrative guidance for the development, adoption, and implementation of erosion and sediment control programs.	Remedial construction (for example soil excavation) will be designed and implemented to comply with the substantive provisions of these Guidelines by use of best management practices such as hay bales and silt fences.

Appendix C
Table B
ARAR Add-Ons for Remedial Actions Occurring In Wetlands
Raymark Industries Superfund Site
Stratford, Connecticut
Page 1 of 2

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
LOCATION-SPECIFIC ARARS			
Federal Regulatory Requirements	Executive Order 11990 - Protection of Wetlands (40 CFR 6.302(a) and 40 CFR 6, App. A)	Federal agencies are required to minimize the destruction, loss, or degradation of wetlands, and the Order emphasizes the importance of avoiding harm to wetlands unless there is no practicable alternative to such construction.	Any alternative that includes activities within wetland areas that might result in the destruction, loss, or degradation of wetlands will need to comply with this order. EPA will seek public comment in the Proposed Plan regarding wetlands impacts. The Region will need to make a finding that there is no practical alternative to the selected remedy and that the selected remedy is the least environmentally damaging practical alternative.
	Federal Clean Water Act (CWA) Regulations governing dredge and fill activities in wetlands – Section 404. (33 USC 1344) (40 CFR 230) (33 CFR 320-323) (33 CFR 332)	Discharge of dredged or fill material is prohibited to wetlands or other US waters if there is a practical alternative which would have less adverse impact to the aquatic ecosystem, as long as the alternative does not have other significant impacts.	Design of excavation, capping, and/or consolidation alternatives will need to consider potential for disturbance of wetlands, and mitigate these disturbances accordingly. If there is no practicable alternative to disturbing wetlands, compensatory measures will be required.
State Regulatory Requirements	Tidal Wetlands Act and Regulations (CGS 22a-28 through 35) (RCSA 22a-30-2, 10, and 11)	Regulates activities that are conducted within the tidal wetlands of the State. Establishes permitting, approval, and restoration procedures for work conducted within tidal wetlands.	Any work conducted within tidal wetlands (i.e. excavation, removal of soil, filling) will be subject to compliance with the substantive provisions of these regulations.
	Connecticut Inland Wetlands and Watercourses Act and Regulations (CGS 22a-36 to 22a-45) (RCSA 22a-39-1 to 15)	Regulates activities that are conducted within inland wetlands and surface water bodies.	Any work conducted within inland wetlands or in rivers, streams, or ponds will be subject to compliance with the substantive provisions of these regulations.

Table B (Cont.)
ARAR Add-Ons for Remedial Actions Occurring In Wetlands
Raymark Industries Superfund Site
Stratford, Connecticut

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
LOCATION-SPECIFIC ARARS			
State Regulatory Requirements (cont.)	Regulation of Dredging and Placement of Fill in Tidal, Coastal or Navigable Waters: (CGS 22a-359-363f)	This statute regulates dredging, the erection of structures, and placement of fill in tidal, coastal, or navigable waters waterward of the high tide line.	Any work conducted within tidal areas (i.e. excavation, removal of soil, filling) will be subject to compliance with the substantive provisions of these regulations.
Criteria, Advisories, and Guidance	USEPA Memorandum, "Policy on Floodplains and Wetland Assessments for CERCLA Actions" (August 6, 1985)	This memorandum details situations that would require preparation of floodplains or wetlands assessments and the factors which should be considered in preparing an assessment for actions taken under Section 104 or 106 of CERCLA.	Design of excavation and/or capping alternatives will need to consider the potential for disturbance of wetlands within or adjacent to Raymark waste areas, and mitigate any disturbance accordingly. EPA has delineated the wetlands on the OU6 properties. EPA will conduct further detailed assessments of wetland impacts, as necessary, as part of pre-design studies.

Appendix C
Table C
ARAR Add-Ons for Remedial Actions Occurring In Floodplains
Raymark Industries Superfund Site
Stratford, Connecticut

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
LOCATION-SPECIFIC ARARS			
Federal Regulatory Requirements	Executive Order 11988 - Floodplain Management (40 CFR 6.302(b) and 40 CFR 6, App. A)	Federal agencies are required to avoid impacts associated with the occupancy and modification of a floodplain and avoid floodplain development wherever there is a practicable alternative.	Any alternative that includes activities within floodplain areas that might result in the occupancy or modification of the floodplain will need to comply with this order. Compensatory flood storage will be provided if necessary. EPA will seek public comment in the Proposed Plan regarding floodplain impacts.
	RCRA Floodplain Restrictions for Hazardous Waste Facilities (40 CFR 264.18(b))	A hazardous waste cap located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout or to result in no adverse effects on human health or the environment if washout were to occur.	Any caps of Raymark Waste located in a floodplain will be designed to prevent washouts or the accidental transport of contaminated media into floodplain areas.
State Regulatory Requirements	Flood Management Act and Regulations (CGS 2568d) (RCSA 25-68h-1 to 3)	These regulations govern activities in flood plains to minimize flood risk and prevent flood hazards. The regulations also contain stormwater management standards.	Any work in floodplains will comply with the substantive provisions of the regulations. Compensatory flood storage will be provided if necessary. Stormwater will be managed using best management practices such as hay bales and silt fences.
Criteria, Advisories, and Guidance	USEPA Memorandum, "Policy on Floodplains and Wetland Assessments for CERCLA Actions" (August 6, 1985)	This memorandum details situations that require preparation of floodplains or wetlands assessments and the factors which should be considered in preparing an assessment for actions taken under Section 104 or 106 of CERCLA.	Design of excavation and/or capping alternatives will need to consider the potential for disturbance of floodplains within or adjacent to Raymark waste areas, and mitigate any disturbance accordingly. EPA has delineated the floodplains on the OU6 properties. EPA will conduct further detailed assessments of floodplain impacts, as necessary, as part of pre-design studies.

Appendix C
Table D
ARAR Add-Ons for Remedial Actions Including Low-Permeability Caps
Raymark Industries Superfund Site
Stratford, Connecticut

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
ACTION-SPECIFIC ARARS			
Federal Regulatory Requirements	RCRA Hazardous Waste Management: TSDF Standards 40 CFR Sections 264.19, 95, 96(a), 96(c), 97, 98, 99, 111, 114, 117, and 310. (Note that RCSA 22a-449(c)104 refers to the federal RCRA Regulations)	These sections establish standards for capping of hazardous substances. Specifically, they establish standards for a construction quality assurance program, groundwater monitoring, and closure/post-closure.	The construction and design of any cap of hazardous substances will comply with the substantive provisions of these requirements. Post-construction groundwater monitoring of the cap will also be conducted to comply with the substantive requirements.
	Connecticut Remediation Standard Regulations (22a-133k-2(f)(2)(B)(i-iv)	These provisions provide standards for the use of an engineered control (i.e., a cap) to cover polluted soils.	Any low-permeable cap will meet the substantive requirements of this provision.
Criteria, Advisories, and Guidance	Technical Memorandum: Revised Landfill Cap Design Guidance Proposed for Unlined Hazardous Waste Landfills in EPA Region 1 (February 5, 2001).	Provides guidance for landfill cap design for unlined hazardous waste landfills at Superfund sites in EPA Region 1.	Remedial alternatives involving on-property capping will consider this guidance during the design.
	EPA Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments (EPA/530-SW-89-047)	Presents technical specifications for the design of multi-barrier covers at landfills at which hazardous wastes are disposed.	Remedial alternatives involving on-property capping will consider this guidance during the design.

Appendix C
Table E
ARAR Add-Ons for Remedial Actions Including Corrective Action Management Units (Camus)
Raymark Industries Superfund Site
Stratford, Connecticut

AUTHORITY	REQUIREMENT	REQUIREMENT SYNOPSIS	CONSIDERATION
ACTION-SPECIFIC ARARS			
Federal Regulatory Requirements	RCRA Hazardous Waste Management, CAMU Standards: 40 CFR Section 264.552 (Note that RSCA 22a-449(c)104 refers to the federal RCRA Regulations.)	The CAMU provisions establish standards for the design of CAMUs and treatment of CAMU-eligible waste consolidated into a CAMU. CAMUs require liners and leachate collection unless the Regional Administrator approves alternative requirements. CAMU-eligible waste that would otherwise require treatment under the RCRA Land Disposal Restrictions and that contains "principal hazardous constituents" must be treated according to certain CAMU treatment standards. The Regional Administrator may adjust such treatment standards.	Any remediation waste containing principal hazardous constituents will be sent off-site for treatment and disposal at an out-of-Town location and not consolidated into the CAMU.
State Regulatory Requirements	Connecticut Remediation Standard Regulations (22a-133k-2(f)(2)(B)(i-iv)	These provisions provide standards for the use of an engineered control (i.e., a cap) to cover polluted soils.	Any CAMU cap will meet the substantive requirements of this provision.
Criteria, Advisories, and Guidance	Technical Memorandum: Revised Landfill Cap Design Guidance Proposed for Unlined Hazardous Waste Landfills in EPA Region 1 (February 5, 2001).	Provides guidance for landfill cap design for unlined hazardous waste landfills at Superfund sites in EPA Region 1.	This guidance will be considered during the design of the CAMU cap.
	EPA Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments (EPA/530-SW-89-047)	Presents technical specifications for the design of multi-barrier covers at landfills at which hazardous wastes are disposed.	This guidance will be considered during the design of the CAMU cap.

APPENDIX D

TOXIC SUBSTANCE CONTROL ACT (TSCA) DETERMINATION

RAYMARK INDUSTRIES, INC. SUPERFUND SITE
FINAL TSCA 40 C.F.R. §761.61(c) DETERMINATION

EPA issued a Proposed Plan and an Administrative Record for four properties within Operable Unit 6 (Additional Properties) of the Raymark Industries, Inc. Superfund Site. The Proposed Plan also proposed an interim remedy for other properties that contain Raymark waste where potential exposures are a concern. The comments were generally in favor of the remedies for the four properties, although many comments advocated a more comprehensive cleanup plan and more off-site disposal. As a result, after considering all comments received, EPA has issued a Record of Decision (ROD) selecting a remedy for the four properties and interim action at other properties. The ROD incorporates a Responsiveness Summary that more fully responds to the comments received.

Consistent with 40 C.F.R. §761.61(c) of the Toxic Substance Control Act (TSCA), I have reviewed the above-referenced ROD and Administrative Record. As required by TSCA Section 761.61(c), I have determined that the remedies selected in the ROD for the four properties do not pose an unreasonable risk of injury to health or the environment as long as the following conditions are met:

1. Engineering controls for dust suppression shall be used during excavation activities and air quality shall be monitored until backfilling is complete to ensure that air emission levels meet air quality performance standards.

2. Engineering controls for the collection and management of liquids from dewatering of soils containing Raymark waste, surface water runoff, dust suppression water, and decontamination water shall be used during excavation to ensure that the PCB concentrations in any dewatered liquids, surface water runoff, dust suppression water, and decontamination water from the Site complies with performance standards before discharge.

3. Soil stockpiles shall be placed on an impermeable liner and securely covered during temporary storage for characterization. Hay bales or other erosion control devices shall be placed around all stockpiles.

4. Decontamination procedures for excavation equipment shall be used to ensure that contamination does not spread to public roads and other uncontaminated areas.

5. For the capping remedy at 576/600 East Broadway, institutional controls shall be implemented that protect the remedy by restricting, without limitation, disturbance of

the cap, residential use of the properties, and the use of groundwater. Also, operation and maintenance for the cap shall include, at a minimum, groundwater monitoring, maintenance of ground surfaces, and monthly inspections and annual reporting of existing conditions. As required by CERCLA, five year reviews of conditions at the properties shall be conducted.

6. For the remedy at Beacon Point AOC2, institutional controls shall be implemented that restrict excavations, residential use of the properties, and the use of groundwater. Annual inspections and reporting and groundwater monitoring for the first two years after remedy implementation shall be conducted. As required by CERCLA, five year reviews of conditions at the properties shall be conducted.

7. For the excavation remedy at Third Avenue, if implemented, groundwater monitoring for at least two years shall be conducted. As Raymark waste will not remain after remedy implementation, institutional controls and five year reviews are not required for the Third Avenue property.

8. As for properties where interim actions will occur as described in the Record of Decision, final actions shall be taken at such properties at a later date. The interim action properties shall be subject to quarterly reporting.

James T. Owens, III
Director, Office of Site Remediation and Restoration
EPA New England

7/21/11
Date

APPENDIX E:

STATE CONCURRENCE LETTER

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

July 19, 2011

H. Curtis Spalding
Regional Administrator
USEPA Region 1
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Dear Mr. Spalding,

The Connecticut Department of Environmental Protection (CT DEP) concurs with the remedial action for source control, selected by EPA, for a portion of operable unit 6 of the Raymark Industries Inc. Superfund Site, in Stratford, Connecticut, and interim actions at the remaining Raymark Industries disposal areas. The source control remedial action for a portion of Raymark operable unit 6 is described in detail in the "Raymark Industries, OU 6 – Additional Properties, Stratford, Connecticut, Proposed Plan" dated September 2010, and in the Record of Decision titled "EPA NEW ENGLAND, REGION 1, RAYMARK INDUSTRIES, INC. SUPERFUND SITE, RECORD OF DECISION FOR FINAL SOURCE CONTROL ACTIONS AT FOUR PROPERTIES WITHIN OPERABLE UNIT 6 (ADDITIONAL PROPERTIES) AND INTERIM ACTIONS AT OTHER LOCATIONS CONTAINING RAYMARK WASTE, STRATFORD, CONNECTICUT".

Concurrence with EPA's selected remedial action for source control at the portion of the Raymark Industries operable unit 6 and interim actions at the remaining properties that comprise the Raymark Industries Inc. Superfund site, shall in no way affect the Commissioner's authority to institute any proceeding to prevent or abate violations of the law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of any permit issued by the Commissioner.

Yours truly,

Daniel C. Esty
Commissioner

DCE:rhc

APPENDIX F:

ADMINISTRATIVE RECORD INDEX

AND GUIDANCE DOCUMENTS

Raymark Industries
NPL Site Administrative Record File
Record of Decision (ROD)
Operable Unit 6 – Additional Properties
(Partial)

Index

ROD Dated July 2011
Released: July 2011

Prepared by
EPA New England
Office of Site Remediation & Restoration

Introduction to the Collection

This is the administrative record for the Raymark Industries Superfund Site, Stratford, Connecticut, Operable Unit 6 – Additional Properties (Partial), Record of Decision (ROD), released July 2011. The file contains site-specific documents and a list of guidance documents used by EPA staff in selecting a response action at the site.

This record should replace the Record of Decision (ROD) Proposed Plan, released September, 2010. This record includes, by reference, the administrative record of the following response actions: Raybestos Memorial Field Removal Action, issued June 18, 1990; The Raymark Removal Action, issued November 1992; the Raymark and Satellite Sites Removal Action, issued October 28, 1993; the Raymark Industries OU1 (Facility) Record of Decision (ROD), issued July 3, 1995; and the Raymark Industries OU2 (Groundwater) Removal Action, issued September 2, 2003.

The administrative record file is available for review at:

EPA New England Office of
Site Remediation & Restoration
5 Post Office Square, Suite 100 (OSRR02-3)
Boston, MA 02109-3912
(by appointment)
617-918-1440 (phone)
617-918-0440 (fax)
www.epa.gov/region01/superfund/resource/records.htm

Stratford Public Library
2203 Main Street
Stratford, CT 06615
203-385-4164 (phone)
http://stratfordlibrary.com

An administrative record file is required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA).

Please note that the compact disc(s) (CD) containing this Administrative Record may include index data and other metadata (hereinafter collectively referred to as metadata) to allow the user to conduct index searches and key word searches across all the files contained on the CD. All the information that appears in the metadata, including any dates associated with creation of the indexing data, is not part of the Administrative Record for the Site under CERCLA and shall not be construed as relevant to the documents that comprise the Administrative Record. This metadata is provided as a convenience for the user and is not part of the Administrative Record.

Questions about this administrative record file should be directed to the EPA New England site manager, Ron Jennings (617) 918-1242.

01: SITE ASSESSMENT

File Break: 01.03

286292 **SITE ASSESSMENT OF SITE INVESTIGATION (SI) AT DALEY DEVELOPMENT PROPERTY KNOWN AS RAYBESTOS MEMORIAL FIELD, FROG POND ROAD**

Author: ENVIRONMENTAL ASSURANCE INC
Addressee:
Doc Type: SITE INSPECTION (SI)
REPORT

Doc Date: 07/26/1990 **# of Pages:** 59
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.01

457795 **COMMENTS REGARDING THE CLEANUP OF OPERABLE UNIT (OU) 6 IN STRATFORD CONNECTICUT**

Author: JAMES R MIRON STRATFORD (CT) TOWN OF
Addressee: MICHAEL JASINSKI US EPA REGION 1
Doc Type: LETTER
CORRESPONDENCE

Doc Date: 11/29/2007 **# of Pages:** 4
Weston Number:

465075 **DEFINITION OF RAYMARK WASTE**

Author: RONALD JENNINGS US EPA REGION 1
Addressee:
Doc Type: MEMO
CORRESPONDENCE

Doc Date: 05/13/2010 **# of Pages:** 5
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.01

465076 MEMO CAPTURING TELEPHONE CONVERSATION WITH RON UNTERMAN OF MONSANTO CO. REGARDING AROCLOR MIXTURES

Author: JOHN GILBERT GEOINSIGHT INC
Addressee: RONALD JENNINGS US EPA REGION I
Doc Type: MEMO
CORRESPONDENCE
Doc Date: 03/05/2010 **# of Pages:** 1
Weston Number:

File Break: 03.02

230873 FINAL BENCH-SCALE TREATABILITY STUDY REPORT FOR THERMAL TREATMENT

Author: HALLIBURTON NUS CORP
Addressee: US EPA
Doc Type: REPORT
Doc Date: 10/01/1994 **# of Pages:** 86
Weston Number:

230874 FINAL TREATABILITY STUDY REPORT FOR BENCH-SCALE SOLIDIFICATION AND STABILIZATION

Author: HALLIBURTON NUS CORP
Addressee: US EPA
Doc Type: REPORT
Doc Date: 08/01/1994 **# of Pages:** 95
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.02

470132 **STABILIZATION/SOLIDIFICATION MIX DESIGN PH DATA (WITH TRANSMITTAL LETTER)**

Author: W ALLEN MARR GEOTESTING EXPRESS INC
Addressee: HEATHER FORD HALLIBURTON NUS CORP
Doc Type: CORRESPONDENCE
SAMPLING DATA
Doc Date: 06/17/1994 **# of Pages:** 124
Weston Number:

File Break: 03.04

465764 **REPORT TO HALLIBURTON NUS ON BENCH-SCALE LOW TEMPERATURE THERMAL DESORPTION TREATABILITY STUDY**

Author: KIBER ENVIRONMENTAL SERVICES INC
Addressee: HALLIBURTON NUS CORP
Doc Type: REPORT
Doc Date: 05/01/1994 **# of Pages:** 378
Weston Number:

File Break: 03.06

10949 **FINAL AREA 1 REMEDIAL INVESTIGATION (RI), VOLUME 1 OF 3, TEXT, RAYMARK - FERRY CREEK - OPERABLE UNIT 3 (10/04/1999 TRANSMITTAL ATTACHED)**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 10/01/1999 **# of Pages:** 249
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

10952 **FINAL AREA 1 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 3, TABLES AND FIGURES, RAYMARK - FERRY CREEK - OPERABLE UNIT 3**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 10/01/1999
Weston Number:
# of Pages: 255

10953 **FINAL AREA 1 REMEDIAL INVESTIGATION (RI), VOLUME 3 OF 3, APPENDICES A, B, AND C, RAYMARK - FERRY CREEK - OPERABLE UNIT 3 (PART 1 OF 4)**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 10/01/1999
Weston Number:
# of Pages: 181

11463 **FINAL AREA 1 REMEDIAL INVESTIGATION (RI), VOLUME 3 OF 3, APPENDICES D AND E, RAYMARK - FERRY CREEK - OPERABLE UNIT 3 (PART 2 OF 4)**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 10/01/1999
Weston Number:
# of Pages: 370

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

11464 FINAL AREA 1 REMEDIAL INVESTIGATION (RI), VOLUME 3 OF 3, APPENDIX F, RAYMARK - FERRY CREEK - OPERABLE UNIT 3 (PART 3 OF 4)

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 10/01/1999 **# of Pages:** 363
Weston Number:

11501 AREA 2 REMEDIAL INVESTIGATION (RI), VOLUME 1 OF 2, PART 1 OF 2, TEXT, DRAFT FINAL, RAYMARK-FERRY CREEK OPERABLE UNIT 3 [TABLES & FIGURES INDEXED SEPARATELY]

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 253
Weston Number:

11502 AREA 2 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDICES, DRAFT FINAL, RAYMARK-FERRY CREEK OPERABLE UNIT 3 [PART 1 OF 3]

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 503
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

11511 **AREA 2 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDICES, RAYMARK-FERRY CREEK OPERABLE UNIT, DRAFT FINAL [PART 2 OF 3]**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 510
Weston Number:

11518 **FINAL AREA 1 REMEDIAL INVESTIGATION (RI), VOLUME 3 OF 3, APPENDICES G AND H, RAYMARK - FERRY CREEK - OPERABLE UNIT 3 (PART 4 OF 4)**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 10/01/1999 **# of Pages:** 158
Weston Number:

11530 **AREA 2 REMEDIAL INVESTIGATION (RI), VOLUME 1 OF 2, PART 2 OF 2, TABLES & FIGURES, DRAFT FINAL, RAYMARK-FERRY CREEK OPERABLE UNIT 3**

Author: NUS/TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 250
Weston Number:

11537 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 1 OF 2, TEXT, PART 1 OF 2, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 200
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

11542 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 1 OF 2, TABLES AND FIGURES, PART 2 OF 2, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 178
Weston Number:

11549 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDICES A, B & C, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL [PART 1 OF 6]**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REM INVEST/FS STUDY (RI/FS)
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 62
Weston Number:

11556 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDIX D - PART 1 OF 3, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL [PART 2 OF 6]**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 305
Weston Number:

11578 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDIX D - PART 2 OF 3, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL [PART 3 OF 6]**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 267
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

11615 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDIX D - PART 3 OF 3, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL [PART 4 OF 6]**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 220
Weston Number:

11616 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDIX E, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL [PART 5 OF 6]**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REM INVEST/FS STUDY (RI/FS)
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 41
Weston Number:

11617 **AREA 3 REMEDIAL INVESTIGATION (RI), VOLUME 2 OF 2, APPENDIX F, RAYMARK-FERRY CREEK-OPERABLE UNIT 3, DRAFT FINAL [PART 6 OF 6]**

Author: NUS/TETRA TECH INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 11/01/2000 **# of Pages:** 340
Weston Number:

18024 **FINAL REMEDIAL INVESTIGATION (RI), RAYMARK - OPERABLE UNIT 4 - BALLFIELD SITE, PART 1 OF 3**

Author: NUS/TETRA TECH INC
Addressee: US EPA REGION 1
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 08/01/1999 **# of Pages:** 350
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

18025 **FINAL REMEDIAL INVESTIGATION (RI), RAYMARK - OPERABLE UNIT 4 - BALLFIELD SITE, PART 2 OF 3**

Author: NUS/TETRA TECH INC
Addressee: US EPA REGION 1
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 08/01/1999
Weston Number:
# of Pages: 256

18034 **FINAL REMEDIAL INVESTIGATION (RI), RAYMARK - OPERABLE UNIT 4 - BALLFIELD SITE, PART 3 OF 3**

Author: NUS/TETRA TECH INC
Addressee: US EPA REGION 1
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 08/01/1999
Weston Number:
# of Pages: 194

70008 **REMEDIAL INVESTIGATION (RI) REPORT, RAYMARK - OPERABLE UNIT 9, SHORT BEACH PARK AND STRATFORD LANDFILL**

Author: TETRA TECH INC
Addressee: US EPA
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 07/01/2005
Weston Number:
# of Pages: 1455

213059 **REMEDIAL INVESTIGATION (RI) REPORT, VOLUMES 1 AND 2 OF 2, OPERABLE UNIT (OU) 2 - GROUNDWATER**

Author: TETRA TECH NUS INC
Addressee:
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 01/01/2005
Weston Number:
# of Pages: 4210

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.06

236984 **FINAL REMEDIAL INVESTIGATION (RI) OPERABLE UNIT 6 - ADDITIONAL PROPERTIES, VOLUMES 1 AND 2**

Author: TETRA TECH NUS INC
Addressee: US EPA REGION 1
Doc Type: REPORT
REMEDIAL INVESTIGATION (RI)
Doc Date: 06/01/2005 **# of Pages:** 2412
Weston Number:

242203 **COVER LETTER FOR FINAL REMEDIAL INVESTIGATION (RI) REPORT DATED JUNE 2005**

Author: US EPA REGION 1
Addressee:
Doc Type: LETTER
CORRESPONDENCE
Doc Date: 06/01/2005 **# of Pages:** 1
Weston Number:

File Break: 03.07

244440 **DRAFT TECHNICAL MEMORANDUM WETLAND EVALUATION - FERRY CREEK - OU3**

Author: BROWN & ROOT ENVIRONMENTAL
Addressee: US EPA
Doc Type: REPORT
Doc Date: 06/01/1998 **# of Pages:** 215
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 03.08

468301 **INTERIM ACTION COSTS**

Author: US EPA REGION 1
Addressee:
Doc Type: COST DOCUMENTATION
Doc Date: 06/01/2010 **# of Pages:** 1
Weston Number:

File Break: 03.10

465078 **ECOLOGICAL CONSIDERATIONS FOR 576/600 EAST BROADWAY**

Author: BART HOSKINS US EPA REGION 1 - OFFICE OF ENVIRO MEA
Addressee: RONALD JENNINGS US EPA REGION 1
Doc Type: MEMO
CORRESPONDENCE
Doc Date: 05/06/2010 **# of Pages:** 2
Weston Number:

490410 **FINAL RAYMARK PHASE 3, ECOLOGICAL RISK ASSESSMENT REPORT: CHARACTERIZATION OF AREAS C-F, TECHNICAL REPORT AND APPENDICES A-E (TRANSMITTAL LETTER ATTACHED)**

Author: SCIENCE APPLICATIONS INTERNATIONAL CORP
Addressee: US ARMY CORPS OF ENGINEERS
Doc Type: REPORT
RISK/HEALTH ASSESSMENT
Doc Date: 10/05/1999 **# of Pages:** 433
Weston Number:

03: REMEDIAL INVESTIGATION (RI)

File Break: 04.04

470129 **MEMO REGARDING NATIONAL REMEDY REVIEW BOARD RECOMMENDATIONS FOR PROPOSED CLEANUP ACTION**

Author: DAVID E COOPER US EPA
Addressee: JAMES T OWENS US EPA REGION 1
Doc Type: CORRESPONDENCE
MEMO
Doc Date: 01/08/2008 **# of Pages:** 6
Weston Number:

470130 **MEMO REGARDING COMMENTS TO NATIONAL REMEDY REVIEW BOARD FOR REVIEW OF PROPOSED PLAN**

Author: BETSY WINGFIELD CT DEPT OF ENVIRONMENTAL PROTEC
Addressee: RONALD JENNINGS US EPA REGION 1
Doc Type: CORRESPONDENCE
MEMO
PUBLIC (AND OTHER) COMMENTS
Doc Date: 11/19/2007 **# of Pages:** 11
Weston Number:

04: FEASIBILITY STUDY (FS)

File Break: 04.04

469034 **PRELIMINARY DRAFT MEMO REGARDING EVALUATION OF THE EFFECT OF SOIL REMEDIAL MEASURES AT THE RAYMARK SUPERFUND SITE ON REDUCING RISK OF EXPOSURE TO CONTAMINATED GROUNDWATER**

Author: TETRA TECH NUS INC
Addressee:
Doc Type: CORRESPONDENCE
REPORT
MEMO
Doc Date: 04/11/2006 **# of Pages:** 11
Weston Number:

04: FEASIBILITY STUDY (FS)

File Break: 04.04

469035 **SUMMARY OF SYNTHETIC PRECIPITATION LEACHING PROCEDURE / TOXICITY CHARACTERISTIC LEACHING PROCEDURE (SPLP/TCLP) SAMPLE RESULTS**

Author: US EPA REGION 1
Addressee:
Doc Type: SAMPLING DATA
Doc Date: 09/01/2010 **# of Pages:** 1
Weston Number:

469036 **MEMO REGARDING REGION 1 RESPONSE TO NATIONAL REMEDY REVIEW BOARD RECOMMENDATIONS**

Author: JAMES T OWENS III US EPA REGION 1
Addressee: AMY LEGARE US EPA - HEADQUARTERS
Doc Type: CORRESPONDENCE
MEMO
Doc Date: 09/10/2010 **# of Pages:** 21
Weston Number:

469037 **MEMO REGARDING ESTIMATION OF RAYMARK WASTE VOLUME REQUIRING OFF-SITE TREATMENT AND DISPOSAL BASED ON THE ALTERNATIVE UNIVERSAL TREATMENT STANDARDS**

Author: US EPA REGION 1
Addressee:
Doc Type: CORRESPONDENCE
MEMO
REPORT
Doc Date: 09/01/2010 **# of Pages:** 3
Weston Number:

04: FEASIBILITY STUDY (FS)

File Break: 04.05

469001 **PROPOSED REMEDY COMPLIANCE WITH CONNECTICUT REMEDIATION STANDARD REGULATIONS (RSRS)**

Author: PATRICK F BOWE CT DEPT OF ENVIRONMENTAL PROTECT
Addressee: LARRY BRILL US EPA REGION 1
Doc Type: LETTER
CORRESPONDENCE
Doc Date: 07/09/2010 **# of Pages:** 5
Weston Number:

File Break: 04.06

469011 **FEASIBILITY STUDY (FS), RAYMARK INDUSTRIES, OPERABLE UNIT (OU) 6 - ADDITIONAL PROPERTIES, STRATFORD, CONNECTICUT (08/24/2010 TRANSMITTAL LETTER ATTACHED)**

Author: NOBIS ENGINEERING INC
Addressee: US EPA REGION 1
Doc Type: REPORT
FEASIBILITY STUDY (FS)
Doc Date: 08/01/2010 **# of Pages:** 1472
Weston Number:

490408 **FEASIBILITY STUDY (FS) REPORT, RAYMARK, OPERABLE UNIT (OU) 6 - ADDITIONAL PROPERTIES, STRATFORD, CONNECTICUT (07/15/2011 TRANSMITTAL LETTER ATTACHED)**

Author: NOBIS ENGINEERING INC
Addressee: US EPA REGION 1
Doc Type: REPORT
FEASIBILITY STUDY (FS)
Doc Date: 07/01/2011 **# of Pages:** 1539
Weston Number:

04: FEASIBILITY STUDY (FS)

File Break: 04.09

471301 **PROPOSED PLAN**

Author: US EPA REGION 1
Addressee:
Doc Type: REPORT
PUBLIC INFORMATION
PROPOSED PLAN

Doc Date: 09/01/2010 **# of Pages:** 23
Weston Number:

08: POST REMEDIAL ACTION

File Break: 08.07

474251 **FACT SHEET FOR THE OPERATION AND MAINTENANCE OF SUB-SLAB DEPRESSURATION (SSD) SYSTEMS**

Author:
Addressee:
Doc Type: PUBLIC INFORMATION
FACT SHEET
INSTITUTIONAL CONTROL(S)

Doc Date: 01/01/2011 **# of Pages:** 1
Weston Number:

File Break: 08.09

457744 **STRATEGIC REDEVELOPMENT INITIATIVE PILOT PROJECT, STRATFORD, CONNECTICUT**

Author: HRP ASSOCIATES INC
Addressee: MAGUIRE GROUP INC
RAFFERTY SPECIALTY FINANCE CO INC
STRATFORD (CT) TOWN OF
Doc Type: REPORT

Doc Date: 05/08/2003 **# of Pages:** 56
Weston Number:

09: STATE COORDINATION

File Break: 09.01

490409 **STATE CONCURRENCE WITH EPA'S SELECTED REMEDIAL ACTION FOR SOURCE CONTROL, OPERABLE UNIT (OU) 6 - PARTIAL**

Author: DANIEL C ESTY CT DEPT ENERGY & ENVIRONMENTAL PR(
Addressee: CURT SPALDING US EPA REGION 1
Doc Type: LETTER
CORRESPONDENCE

Doc Date: 07/19/2011 **# of Pages:** 1
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.03

469014 **NEWS RELEASE: EPA TO SEEK PUBLIC INPUT FOR CONTAMINATION AT RAYMARK SITE IN STRATFORD, CONN.**

Author: US EPA REGION 1
Addressee:
Doc Type: PRESS RELEASE
PUBLIC INFORMATION

Doc Date: 09/07/2010 **# of Pages:** 4
Weston Number:

469032 **NEWS CLIPPING: FEDS PROPOSE CAP FOR PORTION OF RAYMARK WASTE**

Author: BRITTANY LYTE CONNECTICUT POST
Addressee:
Doc Type: NEWS CLIPPING
PUBLIC INFORMATION
ARTICLE - NEWS/ PERIODICAL

Doc Date: 09/10/2010 **# of Pages:** 2
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.03

469039 **NEWS CLIPPING: EPA TO PRESENT NEW CLEANUP PLANS OF RAYMARK SITES ON WED. [WEDNESDAY]**

Author: TIM LOH CONNECTICUT POST
Addressee:
Doc Type: NEWS CLIPPING
ARTICLE - NEWS/ PERIODICAL
PUBLIC INFORMATION

Doc Date: 09/13/2010 **# of Pages:** 1
Weston Number:

469040 **PRESS RELEASE: JOINT STATEMENT BY MAYOR HARKINS, SAVE STRATFORD LEADER ERIN HOLROYD ON EPA PROPOSED RAYMARK REMEDIATION PLAN FOR OPERABLE UNIT (OU) #6**

Author: JOHN A HARKINS STRATFORD (CT) TOWN OF
Addressee: ERIN HOLROYD SAVE STRATFORD
Doc Type: PUBLIC INFORMATION
PRESS RELEASE

Doc Date: 09/13/2010 **# of Pages:** 2
Weston Number:

469042 **PUBLIC NOTICE OF 30 DAY PUBLIC COMMENT PERIOD ON THE PROPOSED CLEANUP PLAN**

Author: CONNECTICUT POST
Addressee: US EPA REGION 1
Doc Type: PUBLIC INFORMATION
PRESS RELEASE

Doc Date: 09/14/2010 **# of Pages:** 1
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.03

470133 **NEWS CLIPPING: EPA TO UNVEIL LATEST RAYMARK PLAN**

Author: JOHN KOVACH STRATFORD STAR
Addressee:
Doc Type: ARTICLE - NEWS/ PERIODICAL
NEWS CLIPPING
PUBLIC INFORMATION
Doc Date: 09/08/2010 **# of Pages:** 2
Weston Number:

470134 **NEWS CLIPPING: EPA SOLICITING COMMENTS FOR $4.6M CONNECTICUT (CT) CLEANUP**

Author: HARTFORD BUSINESS.COM
Addressee:
Doc Type: ARTICLE - NEWS/ PERIODICAL
NEWS CLIPPING
PUBLIC INFORMATION
Doc Date: 09/08/2010 **# of Pages:** 1
Weston Number:

490400 **NEWS CLIPPING: STRATFORD HELD HOSTAGE BY THE EPA**

Author: TOM SMITH SAVE STRATFORD
Addressee:
Doc Type: PUBLIC INFORMATION
NEWS CLIPPING
ARTICLE - NEWS/ PERIODICAL
Doc Date: 10/01/2010 **# of Pages:** 1
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.03

490401 NEWS CLIPPING: RESIDENTS DEMAND DETAILED PLAN FOR TOXIC CLEANUP

Author: BRITTANY LYTE CONNECTICUT POST
Addressee:
Doc Type: NEWS CLIPPING
PUBLIC INFORMATION
ARTICLE - NEWS/ PERIODICAL
Doc Date: 10/07/2010 **# of Pages:** 1
Weston Number:

File Break: 13.05

6011 RAYMARK BULLETIN 31, TEMPORARY ACTION AT SHORE ROAD

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 03/01/2000 **# of Pages:** 4
Weston Number:

6012 RAYMARK BULLETIN 24, RAYMARK SUPERFUND SITE: AN OVERVIEW & UPDATE

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 12/01/1999 **# of Pages:** 20
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10891 **RAYMARK BULLETIN NO 1**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 10/03/1995 **# of Pages:** 2
Weston Number:

10892 **RAYMARK BULLETIN NO 2**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 10/13/1995 **# of Pages:** 2
Weston Number:

10893 **RAYMARK BULLETIN NO 3**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 10/27/1995 **# of Pages:** 2
Weston Number:

10894 **RAYMARK BULLETIN NO 4**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/03/1995 **# of Pages:** 2
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10895 **RAYMARK BULLETIN NO 5**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/14/1995 **# of Pages:** 2
Weston Number:

10896 **RAYMARK BULLETIN NO 6, SPECIAL EDITION**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/30/1995 **# of Pages:** 3
Weston Number:

10897 **RAYMARK BULLETIN NO 8**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 01/26/1996 **# of Pages:** 2
Weston Number:

10898 **RAYMARK BULLETIN NO 9**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 02/23/1996 **# of Pages:** 2
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10899 **RAYMARK BULLETIN NO 10**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 03/20/1996 **# of Pages:** 2
Weston Number:

10900 **RAYMARK BULLETIN NO 11**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 04/02/1996 **# of Pages:** 2
Weston Number:

10901 **RAYMARK BULLETIN NO 12**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 04/10/1996 **# of Pages:** 3
Weston Number:

10902 **RAYMARK BULLETIN NO 13**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 05/10/1996 **# of Pages:** 2
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10903 **RAYMARK BULLETIN NO 14**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 06/19/1996 **# of Pages:** 2
Weston Number:

10904 **RAYMARK BULLETIN NO 15**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 08/01/1996 **# of Pages:** 1
Weston Number:

10905 **RAYMARK BULLETIN NO 19**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 05/30/1997 **# of Pages:** 3
Weston Number:

10906 **RAYMARK BULLETIN NO 20**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 10/01/1997 **# of Pages:** 4
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10907 **RAYMARK BULLETIN NO 21, EPA TO EXPAND OFF-SITE INVESTIGATIONS**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/01/1998 **# of Pages:** 4
Weston Number:

10921 **RAYMARK BULLETIN NO 7**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 12/22/1995 **# of Pages:** 2
Weston Number:

10922 **RAYMARK BULLETIN NO 16**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/14/1996 **# of Pages:** 3
Weston Number:

10923 **RAYMARK BULLETIN NO 17**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 12/31/1996 **# of Pages:** 4
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10924 **RAYMARK BULLETIN NO 18**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 01/17/1997 **# of Pages:** 1
Weston Number:

10925 **RAYMARK BULLETIN NO 23, CLEANUP ALTERNATIVES AT THE SHORE ROAD STUDY AREA: A DISCUSSION OF PROS AND CONS**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 09/01/1999 **# of Pages:** 4
Weston Number:

10926 **RAYMARK BULLETIN NO 25, STORING RAYMARK WASTE AT CONTRACT PLATING, INC**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/01/1999 **# of Pages:** 2
Weston Number:

10927 **RAYMARK BULLETIN NO 26, TECHNICAL ASSISTANCE GRANTS, TECHNICAL OUTREACH SERVICES FOR COMMUNITIES, AND RAYMARK SITE CONTACTS**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/01/1999 **# of Pages:** 2
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

10928 **RAYMARK BULLETIN NO 27, LOGISTICS OF SHORE ROAD AREA CLEANUP**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/01/1999
Weston Number:
# of Pages: 7

10929 **RAYMARK BULLETIN NO 28, RAYMARK - SHORE ROAD, NON-TIME-CRITICAL REMOVAL ACTION FACT SHEET**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/01/1999
Weston Number:
# of Pages: 4

10930 **RAYMARK BULLETIN NO 29, AIR MONITORING & SAMPLING DURING RAYMARK SITE CLEAN UP**

Author: US EPA REGION I
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 11/01/1999
Weston Number:
# of Pages: 3

10931 **RAYMARK BULLETIN NO 30, UPDATE ON THE SALE OF THE RAYMARK FACILITY PROPERTY**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 09/01/1999
Weston Number:
# of Pages: 6

13: COMMUNITY RELATIONS

File Break: 13.05

42940 **RAYMARK BULLETIN NO 40, EPA CONTINUES EVALUATION OF SOIL GAS, INDOOR AIR AND GROUNDWATER**

Author: US EPA REGION I
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 03/01/2003 **# of Pages:** 5
Weston Number:

57289 **RAYMARK BULLETIN NO 42**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 12/01/2003 **# of Pages:** 4
Weston Number:

236957 **RAYMARK BULLETIN #43 - OPERABLE UNIT 6 REMEDIAL INVESTIGATION REPORT**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 02/01/2004 **# of Pages:** 8
Weston Number:

236958 **RAYMARK BULLETIN #44 - INVESTIGATIONS NEARING COMPLETION**

Author: US EPA REGION 1
Addressee:
Doc Type: FACT SHEET
PUBLIC INFORMATION
Doc Date: 01/01/2004 **# of Pages:** 20
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

284279 **FACT SHEET: FREQUENTLY ASKED QUESTIONS (FAQ) #1, ENVIRONMENTAL HEALTH AND SAFETY ISSUES**

Author: CT DEPT OF ENVIRONMENTAL PROTECTION
Addressee: CT DEPT OF PUBLIC HEALTH
STRATFORD HEALTH DEPARTMENT
US EPA REGION 1
Doc Type: PUBLIC INFORMATION
FACT SHEET
Doc Date: 08/01/2007 **# of Pages:** 4
Weston Number:

284280 **FACT SHEET: FREQUENTLY ASKED QUESTIONS (FAQ) #2**

Author: CT DEPT OF ENVIRONMENTAL PROTECTION
Addressee: US EPA REGION 1
Doc Type: PUBLIC INFORMATION
FACT SHEET
Doc Date: 02/01/2008 **# of Pages:** 2
Weston Number:

296191 **RAYMARK BULLETIN # 45, SHORT BEACH PARK AND STRATFORD LANDFILL, OPERABLE UNIT 9 REMEDIAL INVESTIGATION, HUMAN HEALTH RISK ASSESSMENT**

Author: US EPA REGION 1
Addressee:
Doc Type: PUBLIC INFORMATION
FACT SHEET
Doc Date: 09/01/2005 **# of Pages:** 4
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.05

296192 RAYMARK E-MAIL UPDATE

Author: JIM MURPHY US EPA REGION 1
Addressee:
Doc Type: PUBLIC INFORMATION
FACT SHEET

Doc Date: 02/15/2008 **# of Pages:** 1
Weston Number:

298187 RAYMARK SUPERFUND SITE COMMUNITY UPDATE

Author: US EPA REGION 1
Addressee:
Doc Type: PUBLIC INFORMATION
FACT SHEET

Doc Date: 11/01/2008 **# of Pages:** 2
Weston Number:

File Break: 13.11

263716 RESPONSE TO RAYMARK SUPERFUND TEAM (RST) RECOMMENDATIONS

Author: IRA W LEIGHTON US EPA REGION 1
Addressee: GINA MCCARTHY CT DEPT OF ENVIRONMENTAL PROTECT
RAYMARK SUPERFUND TEAM
Doc Type: LETTER
PUBLIC (AND OTHER) COMMENTS
CORRESPONDENCE

Doc Date: 02/20/2009 **# of Pages:** 3
Weston Number:

13: COMMUNITY RELATIONS

File Break: 13.11

457745 **RAYMARK SUPERFUND TEAM (RST) RECOMMENDATIONS**

Author: RAYMARK SUPERFUND TEAM
Doc Date: 12/29/2008 **# of Pages:** 3
Addressee: REGINA MCCARTHY CT DEPT OF ENVIRONMENTAL PROTECTION
ROBERT W VARNEY US EPA REGION 1
Weston Number:
Doc Type: MEMO
CORRESPONDENCE

457746 **FINAL REPORT, RAYMARK ADVISORY COMMITTEE (RAC)**

Author: RAYMARK ADVISORY COMMITTEE (RAC)
Doc Date: 09/04/2007 **# of Pages:** 23
Addressee:
Weston Number:
Doc Type: REPORT

468319 **TOWN OF STRATFORD RESPONSE TO RAYMARK SUPERFUND TEAM (RST) RECOMMENDATIONS**

Author: JAMES R MIRON STRATFORD (CT) TOWN OF
Doc Date: 02/05/2009 **# of Pages:** 3
Addressee: IRA W LEIGHTON US EPA REGION 1
GINA MCCARTHY CT DEPT OF ENVIRONMENTAL PROTECTION
Weston Number:
Doc Type: LETTER
CORRESPONDENCE

13: COMMUNITY RELATIONS

File Break: 13.11

470131 MEMO REGARDING RAYMARK ADVISORY COMMITTEE (RAC) RECOMMENDED ALTERNATIVES

Author: JOHN GILBERT GEOINSIGHT INC
Addressee: DAVID MACLEAN GEOINSIGHT INC
RONALD JENNINGS US EPA REGION 1
Doc Type: CORRESPONDENCE
LETTER
Doc Date: 06/27/2005 **# of Pages:** 10
Weston Number:

17: SITE MANAGEMENT RECORDS

File Break: 17.02

480686 FENCE AND SIGNAGE 30 YEAR PV ANALYSIS (REVISED)

Author: US EPA REGION 1
Addressee:
Doc Type: COST DOCUMENTATION
Doc Date: 05/28/2010 **# of Pages:** 31
Weston Number:

File Break: 17.08

265295 RCRA PART A APPLICATION (TRANSMITTAL LETTER ATTACHED)

Author: JOHN GULLESH RAYMARK CORP
Addressee: ANDREW HOFFMAN US EPA REGION I
Doc Type: FORM
Doc Date: 11/08/1985 **# of Pages:** 5
Weston Number:

Number of Documents in Administrative Record: 105

EPA Region 1 AR Compendium GUIDANCE DOCUMENTS

EPA guidance documents may be reviewed at the EPA Region I OSRR Records and Information Center in Boston, Massachusetts.

TITLE	DOCDATE	OSWEREPAID	DOCNUMBER
INTERIM FINAL GUIDANCE FOR CONDUCTING REMEDIAL INVESTIGATIONS AND FEASIBILITY STUDIES UNDER CERCLA.	01-Oct-88	OSWER #9355.3-01	2002
GUIDANCE ON REMEDIAL ACTIONS FOR SUPERFUND SITES WITH PCB CONTAMINATION	01-Aug-90	OSWER #9355.4-01	2014
SUPERFUND LDR GUIDE #5 DETERMINING WHEN LAND DISPOSAL RESTRICTIONS (LDRs) ARE APPLICABLE TO CERCLA RESPONSE ACTIONS	01-Jul-89	OSWER #9347.3-05FS	2218
CERCLA COMPLIANCE WITH OTHER LAWS MANUAL (DRAFT)	08-Aug-88	OSWER #9234.1-01	3002
CERCLA COMPLIANCE WITH OTHER LAWS MANUAL PART II: CLEAN AIR ACT AND OTHER ENVIRONMENTAL STATUTES AND STATE REQUIREMENTS	01-Aug-89	OSWER #9234.1-02	3013
CERCLA COMPLIANCE WITH OTHER LAWS MANUAL. RCRA ARARS: FOCUS ON CLOSURE REQUIREMENTS. DUPLICATE OF 3017.	01-Oct-89	OSWER 9234.2-04FS	C011
SUPERFUND LDR GUIDE #7. DETERMINING WHEN LAND DISPOSAL RESTRICTIONS (LDRS) ARE RELEVANT AND APPROPRIATE TO CERCLA RESPONSE ACTIONS. DUPLICATE OF 2220.	01-Dec-89	OSWER 9347.3-08FS	C139
EXECUTIVE ORDER 11990 - PROTECTION OF WETLANDS	24-May-77		C472
MANAGEMENT OF REMEDIATION WASTE UNDER RCRA	14-Oct-98	EPA 530-F-98-026	C486
USE OF THE AREA OF CONTAMINATION (AOC) CONCEPT DURING RCRA CLEANUPS	13-Mar-96		C487
USE OF THE AREA OF CONTAMINATION (AOC) CONCEPT DURING RCRA CLEANUPS	13-Mar-96		C487
REVISED ALTERNATIVE CAP DESIGN GUIDANCE PROPOSED FOR UNLINED HAZARDOUS WASTE LANDFILLS IN THE EPA REGION I	05-Feb-01		C524
GUIDE TO PREPARING SUPERFUND PROPOSED PLANS RECORDS OF DECISION AND OTHER REMEDY SELECTION DECISION DOCUMENTS	01-Jul-99	OSWER 9200.1-23P	C525
EXECUTIVE ORDER 11988, FLOODPLAIN MANAGEMENT	24-May-77	EO 11988	C578

TITLE	DOCDATE	OSWEREPAID	DOCNUMBER
A GUIDE TO DEVELOPING AND DOCUMENTING COST ESTIMATES DURING THE FEASIBILITY STUDY	01-Jul-00	OSWER 9355.0-75	C582
REVISED INTERIM SOIL LEAD GUIDANCE FOR CERCLA SITES AND RCRA CORRECTIVE ACTION FACILITIES	01-Jul-94	OSWER 9355.4-12	C589
A GUIDE TO PRINCIPLE THREAT AND LOW LEVEL THREAT WASTES	01-Nov-91	9380.3-06FS	C622
MEMORANDUM OF AGREEMENT BETWEEN THE DEPARTMENT OF THE ARMY AND THE ENVIRONMENTAL PROTECTION AGENCY, THE DETERMINATION OF MITIGATION UNDER THE CLEAN WATER ACT, SECTION 404(B)(1) GUIDELINES	06-Feb-90		C730
MEMORANDUM: OSWER DIRECTIVE: CLARIFICATION TO THE 1994 REVISEDINTERIM SOIL LEAD (Pb) GUIDANCE FORCERCLA SITES AND RCRA CORRECTIVE ACTION FACILITIES	01-Aug-98	OSWER 9200.4-27P	C736

APPENDIX G:

CTDEEP's letter of July 9, 2010

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

July 9, 2010

Larry Brill
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mailcode: OSRR07-1
Boston, MA 02109-3912

RE: Raymark NPL (Superfund) Site - Operable Unit (OU) 6
Proposed remedy compliance with the CT RSRs

Dear Mr. Brill,

The Raymark Operable Unit 6 consists of 24 properties in Stratford that historically received fill material that originated at the Raymark Industries site. The Raymark NPL site is defined as any location where Raymark Waste came to be placed. This fill material consists of industrial waste containing; metals, PCBs, asbestos, dioxin, SVOCs and other contamination.

The Remediation Standard Regulation (22a-133k-1 through 3) of the Regulations of Connecticut State Agencies (RSRs), provide remedial criteria for pollutants in soil among other media and other requirements. Soil numeric remedial criteria exists for both direct exposure (human contact with soil)(DEC) and pollutant mobility (leaching from soil into groundwater)(PMC). During the investigation of OU6, it was determined that Raymark Waste does have the potential to leach contaminants above criteria.

DEC exceedences will be complied with consistent with the RSRs by 1) Removal of Raymark waste exceeding numeric DEC from the parcel, or 2) use of an engineered control or by isolating the Raymark waste (defined as soil in the RSRs) from direct contact, in conjunction with the recording of an Environmental Land Use Restriction (ELUR) prohibiting activities that could compromise the remedy or results in disturbance of the Raymark waste.

Numerous analytical tests have been performed on Raymark waste during the Remedial Investigation. The results from these tests demonstrate the capacity of Raymark waste to leach inorganic element pollutants above baseline numeric PMC criteria. Compliance with PMC can be achieved by, 1) demonstration that the waste does not leach above standards, 2) removal &/or treatment of leachable waste above the seasonal high water table in a GB groundwater area, 3) variances and methods for developing alternate criteria other than the aforementioned baseline criteria, under limited conditions. The Engineered Control Variance, Alternate Pollutant Mobility Criteria for GB Areas, and Alternate Dilution or Dilution Attenuation Factor for GB Areas, are methods that were evaluated.

In the Draft Raymark OU6 Feasibility Study, the following remedial options are evaluated:

1) Do nothing
2) Limited action and monitoring – e.g. sign, fence, institutional controls, monitor
3 & 4) Engineered Control /ELUR– e.g. Low permeability cap
5 & 6) Excavation to the water table located 4 feet or greater below ground/ELUR– Back fill with clean soil
7 & 8) Direct Exposure Remedy/ELUR - Excavation of 2 feet of waste in paved areas and 4 feet in vegetated areas
9 & 10) Hybrid - 4 ft excavation throughout OU6/ELUR

Of these possible remedial actions, Option 1 (do nothing) is ruled out as it is not protective of human health and the environment since risk has been established.

Option 2 (Limited Action) is not fully protective of human health and the environment and therefore also ruled out as a final remedial action.

Of the remaining possible remedial actions, Options 3/4 (engineered control) and Options 5/6 (excavation to the seasonal high water table) would be compliant with the RSRs on all the properties and are therefore determined to be protective of human health and the environment. Due to the high cost for long-term maintenance and monitoring associated with an Engineered Control Remedy and the potential risk to human health and the environment should the engineered control fail, CT DEP recommended Remedial Option 5 (excavation to the seasonal high water table), as the preferred method for achieving compliance with ARARs at the majority of the OU6 properties. Excavation to the water table would also result in the complete removal of all Raymark waste on eight (8) OU6 properties.

During the public informational meetings to discuss the potential remedies for OU6, residents along with their local and state elected officials, raised concerns about the large volumes of waste that would be transported over local roads and consolidated within the Town of Stratford. During a subsequent series of meetings with state and local elected officials, citizens appointed by the town, and Connecticut and US Environmental Officials, the agencies (CTDEP & USEPA) agreed to assess other alternatives to remediate the properties. EPA and DEP reevaluated the possible remedial actions in an effort to minimize the volume of soil that would be excavated while still maintaining protection of human health and the environment. As a result of this reevaluation, Options 7/8 and 9/10 were developed for consideration.

Assumptions used in the development of Remedial Options 7 through 10 are;

1) Assumptions apply only to properties identified as part of Raymark NPL (Superfund) site, Operable Unit 6.
2) All Raymark OU6 properties are located within a GB groundwater designated area.
3) Groundwater is not a potential drinking water resource, and there are no other existing uses of the groundwater.
4) The average depth to the seasonal high groundwater on OU6 properties is 6 ft below ground surface.
5) Replacing a majority of the Raymark waste above the water table with clean fill will substantially reduce the mass of Raymark contaminants potentially available to enter the groundwater by leaching.

6) Replacing the shallow Raymark waste with clean fill, will result in reducing contamination entering Ferry Creek by erosion.
7) Removing a large portion of the waste above the water table will reduce the timeframe required to achieve compliance with the appropriate standards.
8) Up-stream from the tide gates, Ferry Creek has been relocated by filling the historic channel with waste, including industrial waste from Raymark, to facilitate commercial development of the properties.
9) Under CERCLA section 121 (42 U.S.C. 9621) the president has the ability to select an "alternative remedial action". CERCLA 121 (b)(2). "In making such a selection, the President may take into account the degree of support for such remedial action by parties interested in the site". CERCLA 121(b)(2). These parties are identified in EPA guidance as the "state" and the "community." "If known after the completion of the RI/FS, state and community acceptance of the alternatives should be considered with the results of the balancing criteria evaluation to identify the preferred alternative. After the public comment period, state and community acceptance are again considered, along with any new information, and may prompt modification of the preferred alternative." *EPA Guidance: A Guide to Selecting Superfund Remedial Actions*, Directive: 9355.0-27FS, April, 1990.
10) During the 2008 State Legislative Session, a bill was passed, codified as Section 22a-901 of the CGS that prohibits the placement of over 1,000 cubic yards of asbestos containing material from one site to another site that abuts or adjoins residential property and at a height of more than four feet above existing grade, without approval of a two-thirds majority of the legislative body of the municipality in which the property is located.

Remedial alternatives 7/8

This remedial option would excavate Raymark waste down to 4 feet in areas with a vegetated surface and excavate Raymark waste to 2 feet in areas with a paved surface and then backfill to meet previous grade with surface treatment. To insure protection of human health, the four feet of fill and the pavement and 2 feet of fill, must be maintained in good condition to prevent exposure to the underlying waste. An ELUR would need to be recorded to restrict contact with waste left in place. Raymark waste remaining above the water table will have the potential to leach contaminants into the groundwater.

Direct Exposure Criteria (DEC)

Generally, such a remedy would be considered protective of direct exposure to the waste beneath the top 2 feet with pavement. However, given the specific facts of the OU6 sites, the Department does not have reasonable confidence that such a remedy would be protective for direct exposure. The most significant issue is durability and longevity, due to the combination of following factors:

- Multiple property owners (approximately 24) that would have this remedy in OU6; no one single owner with control over the site as a whole;
- The OU6 sites are located in various locations throughout town that are not contiguous;
- The OU6 properties are of mixed use, including commercial/retail, recreational, residential, vacant and municipal and uses may change in the future;

- In contrast with CERCLA, under the typical state law scenario a property owner voluntarily selects a remedy and has "buy in" to recording the ELUR and the restrictions thus greater likelihood of compliance;
- The waste is largely all industrial waste, with high levels of asbestos, PCBs, lead and other contaminants; it is not lightly polluted soil;
- Effort and costs are obligations of the property owners, to continuously and properly monitor, maintain, repair and replace the paved surfaces forever;
- Effort and costs are required to properly manage and dispose of waste fill below the top 2 feet that is likely to be encountered/excavated during relatively routine property maintenance and improvement activities (landscaping, fencing, walkway construction, etc);
- Access to underground utilities will require disturbance of waste remaining above the utilities;
- Freeze/thaw cycle generally affects the top three feet in this part of New England, so waste left in place from 2-3 feet below ground surface would be expected to move towards the surface over time, meaning that failure to maintain a paved surface due to above factors – coupled with the nature of the Raymark waste – lessens the protectiveness of this remedy alternative; and
- Each area remediated to a different depth will require; individual A-2 Surveys, Meets & Bounds for each area and specific language in the ELUR to identify each of these areas and the corresponding restrictions on each section. The practicality of site development remaining consistent is limited.

Pollutant Mobility Criteria (PMC)

Remedial Option 7/8 does not provide adequate protection to the waters of the State as evidenced by the significant amount of waste that will remain above the water table with the potential to leach. Pavement, in areas proposed for two foot excavation is not impermeable. Additionally, alternative 7/8 is not a permanent remedy, first because upon future transfer of an OU6 property with a remedy that complies with only DEC, but not PMC, additional remedial actions will be required to comply with the Connecticut Property Transfer Act (CGS 22a-134), thus potentially requiring additional handling and movement of the Raymark waste below two feet. Second, because future uses of the property would be significantly limited by this remedy and full use of the property could require additional remediation be performed by an owner for even minor changes in use.

Remedial alternative 9/10

Raymark Waste is removed to a depth of 4 feet in all areas (paved and unpaved) except under buildings, and is replaced with clean backfill.

Direct Exposure Criteria (DEC)

As a result of replacing the upper 4 feet of Raymark waste, no paved surface maintenance is required in order to maintain a compliant and protective remedy. An ELUR is needed to prohibit excavation greater than 4 feet below the ground surface without proper written approval by DEP and EPA and waste management controls. This remedy complies with DEC. Also, routine property maintenance and improvement activity occurs in the top four feet (landscaping, fences, walkways, etc), so will neither interfere with the remedy nor encounter waste left in place. Also, freeze/thaw cycle generally affects the top three feet in this part of New England, so waste left in place would not be expected to move towards the surface.

Pollutant Mobility Criteria (PMC)

In Alternative 9/10, the upper four feet of Raymark waste would be removed from the unsaturated zone on the properties and replaced with clean fill. This proposed remedy results in the removal of approximately two-thirds (2/3) of all Raymark waste, currently subject to potential leaching above the water table at the OU6 properties. This reduction in volume would result in the removal of approximately 2/3 of the mass of the contaminants above the water table, therefore, giving a shortened duration for rain water to be in contact with waste as it infiltrates through the soil and into the groundwater. This reduction in mass will result in a decrease in the concentration of contaminants potentially mobilized from the remaining waste. To establish an alternate PMC criteria, as allowed by section 22a-133k-2(c)(2)(D) of the RSRs, DEP staff evaluated the dilution in groundwater contaminant concentration derived from non-Raymark waste areas within the total drainage sub-basin(s) to develop an alternate dilution attenuation factor for a GB area appropriate for this site. Additionally, engineered controls (with impermeable caps) on several other properties within the Raymark NPL site, including a significant OU6 property, OU1 where a cap has been installed, OU4 & 9 where the presumptive remedy is an engineered control, are expected to further reduce the potential movement of contaminants from soil into groundwater. While excavation of the upper 4 feet of material will not remove all Raymark waste which is located above the seasonal high water table, the combination of the proposed excavation with additional capping of contaminated soils at other locations is expected to sufficiently reduce the amount of pollutants leaching from the unsaturated zone to allow for compliance with the Pollutant Mobility Criteria requirements within the regulations.

Conclusion

As noted above, the state DEP prefers alternative 5 (Excavation to the Seasonal High Water Table) as the preferred alternative for remediation of the Raymark OU6 properties. Due to the requests from state elected officials (House and Senate Legislators), local elected officials (Mayor and Town Council) and residents, the agencies agreed to evaluate other alternatives or remedial approaches that could prevent or abate any threat to human health and the environment. As such, Alternative 9 is an acceptable remedial approach for purposes of achieving compliance with the RSRs on this federal Superfund site as long as the properties are maintained and monitored.

Sincerely,

Patrick F. Bowe
Director
Remediation Division
Water Protection and Land Reuse