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# EPA Superfund
# Explanation of Significant Differences:

## LI TUNGSTEN CORP.
## EPA ID: NYD986882660
## OU 02
## GLEN COVE, NY
## 10/28/2002

# Explanation of Significant Differences

# LI TUNGSTEN SUPERFUND SITE

## Glen Cove, New York

U.S. Environmental Protection Agency
Region 2

November 2002

**INTRODUCTION**

In accordance with Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), if the Environmental Protection Agency (EPA) selects a remedial action and, thereafter, it determined there is a significant change with respect to that action, an explanation of the significant differences and the reasons for such changes must be published.

EPA issued a Record of Decision (ROD) in 1999 with regard to the Li Tungsten Superfund site (Site), located in the City of Glen Cove, Nassau County, New York. The remedy selected in the ROD called for, among other things, the excavation of soil contaminated with radionuclides and heavy metals. At the time of the ROD, the amount of soil to be excavated was estimated to be approximately 69,400 cubic yards (cy).

This Explanation of Significant Differences (ESD) describes an increase in the estimated volume of contaminated soil which requires excavation and disposal from the estimated amount specified in the ROD. This increase in soil volume is based on actual excavation of certain areas of the Site and refinements to estimated excavation volumes in other areas based on additional sampling and analysis. This ESD also presents revised cost information resulting from new developments that have occurred since the selection of the Site remedy in 1999.

This ESD will become part of the Administrative Record file for the Site. The entire Administrative Record for the Site includes, among other things, the ROD and other relevant documents. These documents are available for review at the following location:

Glen Cove Public Library
Reference Section
4 Glen Cove Avenue
Glen Cove, NY 11542
(516) 676-2130

Hours: Mon-Thurs, 9am-9pm
Friday, 9am-5pm
Saturday, 9am-1pm

The Administrative Record file is also available for public review at the EPA Region II office at the following location:

U.S. Environmental Protection Agency
290 Broadway, Floor 18
New York, New York 10007

Hours: 9 am -5 pm
Monday-Friday

The changes in the volume estimates and the anticipated increase in the cost of the remedy, as presented in this ESD, are not considered by EPA and the New York State Department of Environmental Conservation (NYSDEC) to have fundamentally altered the remedy selected in the ROD. The remedy remains protective of human health and the environment and complies with federal and state requirements that were identified in the ROD.

Should there be any questions regarding this Explanation of Significant Differences, please contact:

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U.S. Environmental Protection Agency
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**SUMMARY OF SITE HISTORY, CONTAMINATION PROBLEMS/AND SELECTED REMEDY**

The Site is located in the City of Glen Cove, Nassau County, New York. It consists of two separate tracts of land, one being the 26-acre former Li Tungsten facility property and the second being two areas (and any adjacent land where contamination extends) of the 23-acre former Captain's Cove condominium development/ Garvies Point dump property. The former Li Tungsten facility property is located at 63 Herbhill Road, and the Captain's Cove property is located approximately 0.5 mile to its west on Garvies Point Road.

The processing of tungsten and other metals began at the former Li Tungsten facility in 1942 and ended in 1985. Operations consisted mainly of processing tungsten ore concentrates and scrap metal containing tungsten into ammonium paratungstate (APT) and formulating APT into tungsten powder and tungsten carbide powder.

The Captain's Cove property was used as a dump site for the disposal of incinerator ash, sewage sludge, rubbish, household debris, dredged sediments from Glen Cove Creek, and industrial wastes, including wastes transferred from the Li Tungsten facility, from approximately the late 1950' s to the late 1970's. The property was purchased by Village Green Realty in 1983 to be developed as a residential condominium project. Development efforts were abandoned in the mid-1980' s when the NYSDEC designated the Captain's Cove property as a State Superfund site.

Both Site properties are located in a mostly commercial area along the north bank of Glen Cove Creek. The Creek area has been industrialized since the mid-1800's. The immediate area now includes light industry, commercial businesses, a sewage treatment plant, a Nassau County public works facility, and State or Federally-designated hazardous waste sites. Other land uses in the vicinity of the Site include marinas, yacht clubs, beaches, and the Garvies Point Preserve. There are residences within 100 feet of the former Li Tungsten facility property, along Janet Lane and The Place, and within 1,000 feet of Captain's Cove property on McLoughlin Street.

The City of Glen Cove, which has been designated as an EPA Brownfields Showcase Community, is presently implementing its 1998 Glen Cove Creek Revitalization Plan involving more than 200 acres surrounding the Creek. The Revitalization Plan projects the future use of the area as commercial redevelopment, featuring shops, restaurants, parking facilities, museums, and a hotel/conference center.

In October 1992, the Site was placed on the National Priorities List, EPA's list of significant sites. In 1993, EPA initiated a Remedial Investigation and Feasibility Study (RI/FS) to define the nature and extent of contamination on Parcels A, B and C of the former Li Tungsten facility property. Later, in 1995, EPA extended the Site definition to include the two discrete radioactive waste areas at the Captain's Cove property, known as Areas A and G, as part of the overall Site, after sampling revealed that the radioactive residuals profile found there was sufficient similarity to that of the ores and residuals found at the former Li Tungsten facility property. Areas A and G comprise about 3 acres of the Captain's Cove property and are located in the northwestern and eastern corners of the property, respectively. EPA's RI/FS of the Li Tungsten and Captain's Cove properties revealed many contaminants left behind as a result of prior Site practices. These contaminants pose a risk to human health and/or the environment. The primary contaminant categories of concern at the Site are radionuclides and heavy metals associated with spent ore residuals.

Based on the results of the RI/FS, a ROD was issued by EPA on September 30, 1999, which

selected a remedy for the Site. The major components of the selected remedy are as follows:

- Excavation of soils and sediments contaminated above cleanup levels;
- Separation of radionuclide-contaminated soil from nonradionuclide soil contaminated with heavy metals;
- Off-Site disposal of both radionuclide and metals-contaminated soil at appropriately licensed facilities;
- Off-Site disposal of radioactive waste located in the Dickson Warehouse (located at the Li Tungsten facility) at an appropriately licensed facility;
- Building demolition at the Li Tungsten facility;
- Storm sewer and sump clean outs at the Li Tungsten facility;
- Institutional controls governing the future use of the Site;
- Decommissioning of Industrial Well N1917 on Parcel A; and
- Collection and off-site disposal of contaminated surface water from Parcels B and C.

The ROD set forth that in the event that the radionuclide-contaminated soils could not be separated from the nonradionuclide, metals contaminated soils in a cost-effective manner, all the excavated soils would be disposed of together at appropriately licensed facilities.

The ROD also included provisions to expedite the implementation of the soil excavation activities for the southern portion of the former Li Tungsten facility property, which encompassed Parcel A and the lower portions of Parcels B and C, by EPA funding the remediation of these areas using Federal Superfund monies. In the ROD, the estimated volume of soil targeted for excavation in these areas was approximately 5,000-6,000 cy, which represented a relatively small fraction of the total contaminated soil volume that needed to be addressed, based on EPA's best estimate at the time. Fast-tracking this portion of the remediation, which became known as "Phase 1," would accelerate the redevelopment of what the City of Glen Cove perceives to be the most important parcels of the Site with respect to the revitalization of the Creek area. Also, this approach was consistent with EPA's "Recycling Superfund Sites" initiative. Subsequently, EPA completed remediation of only Parcel A and lower Parcel C under Phase 1, and directed the identified potentially responsible parties, or PRPs, to remediate lower Parcel B, among other areas.

In May 2000, EPA issued a unilateral administrative order (UAO) to the PRPs, directing them to perform the remedial design (RD) of the selected remedy for the Li Tungsten property, not including Phase 1. In February 2001, EPA directed the PRPs to expand the RD to include the southern portion of Parcel B on the Li Tungsten facility. The RD was completed in April 2002.

In September 2000, EPA also signed an agreement with the City of Glen Cove, which is a PRP at the Captain's Cove portion of the Site, in which the City agreed to provide up to $3 million to EPA to fund EPA's performance of a portion of the remedy selected for the Captain's Cove property. Negotiations with the remaining PRPs concerning the remaining elements of the selected remedial action (RA) were not successful, resulting in EPA's issuance in September 2000 of a second UAO which directed them to complete those portions of the remedy not being performed by EPA itself. EPA's February 2001 directive also directs the PRPs to perform additional portions of the remedy.

In May 2001, EPA completed the excavation and segregation of radioactively-contaminated soils on Parcel A and lower Parcel C of the Li Tungsten facility. To complete this action, approximately 12,000 cy of nonradioactive, heavy metals-contaminated soils were trucked off-site for disposal and approximately 1,700 cy of radioactively-contaminated soils were stored on-site in the Dickson Warehouse. The PRPs are responsible for remediating Parcel B and upper Parcel C and disposing of the radioactive wastes stored in the Dickson Warehouse. The PRPs' work plan for these tasks is currently under review.

EPA has completed the excavation of approximately 35,700 cy and approximately 16,100 cy of contaminated soils from Area A and Area G, respectively, at the Captain's Cove property. Most of this contaminated soil is presently staged at Captain's Cove awaiting off-site disposal by the PRPs. In the late Fall of 2002, EPA plans to

excavate contaminated soils at Area "A prime", or A', which is an area adjacent to the northwest corner of Area A. The Area A' soils lie outside the Captain's Cove property and under Garvies Point Road and the Fox Navigation Ferry access road. The discovery of the Area A' contaminated soils is described further below.

**DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE REASONS FOR THOSE DIFFERENCES**

The September 1999 ROD included the following volume estimates of contaminated materials requiring excavation and off-site disposal: at the former Li Tungsten facility property, it was estimated that 18,300 cubic yards (cy) of radioactive wastes and 17,300 cy of nonradioactive, metals-contaminated wastes would be excavated for disposal. At the Captain's Cove property, it was estimated that 13,200 cy of radioactive wastes and 20,600 cy of nonradioactive, metals-contaminated wastes would be excavated for disposal. Therefore, the total volumetric estimate in the ROD for wastes requiring off-site disposal was 69,400 cy (refer to table for estimated soil volumes by location).

Since the issuance of the ROD in 1999, a significant amount of the required excavation work has been performed by EPA, utilizing PRP funds and the Superfund.

EPA has excavated approximately 35,700 cy and 16,100 cy from Areas A and G, respectively, on the Captain's Cove property. During the excavation of Areas A and G, EPA determined from actual field conditions that the Area A contamination extended beyond the boundary of the property into adjacent areas. This contamination was not detected during the RI/FS nor known at the time of the issuance of the ROD. This newly identified contamination, which EPA has designated as Area A' and which is of the same type as that which EPA is addressing at Areas A and G, represents an additional volume of material (estimated at 15,000 cy) that will require excavation and disposal.

In addition, a group of PRPs has completed the RD for Parcel B and the northern half of Parcel C at the former Li Tungsten facility property. The RD provided additional data which enabled EPA to update the estimate of the ex situ volume of contaminated soils on those parcels to 40,400 cy.

Thus, the current estimate of the total excavation and disposal volume of contaminated soils from the Site is 132,100 cy, which represents a significant increase in the 69,400 cy estimate provided in the ROD. The amount of materials that have already been excavated and either staged or sent for off-site disposal equals approximately 72,800 cy (56,500 cy of radioactive wastes and 16,300 cy of non-radioactive, metals-contaminated wastes). EPA estimates that there is approximately 59,300 cy remaining to be excavated that will require off-site disposal. This estimate includes materials to be excavated from Parcel B and upper Parcel C of the Li Tungsten property, the remainder of Area G on Captain's Cove, and Area A'.

While the volume of wastes requiring excavation and disposal has increased significantly from the ROD estimate, present day costs for waste transportation and disposal are generally less than the cost figures used to estimate the total remedy cost of $28 million as cited in the ROD. EPA presently estimates that the final cost of the remedy, after accounting for the increased volumes of excavated wastes and based on current price quotes for transportation and disposal, will be in the range of $30-$40 million, primarily depending on the radioactive waste disposal facility utilized. EPA guidance suggests that the estimated cost of a remedy as specified in a ROD should be within 50% of the actual remedy cost. EPA believes that the actual remedy cost (estimated between $30-$40 million) will be within the 50% variance suggested in the guidance.

**SUPPORT AGENCY COMMENTS**

NYSDEC is aware of the revised volume and cost estimates associated with implementing the remedy selected in the September 1999 ROD, and it agrees that EPA's determination in the ROD that this material should be excavated and disposed of off-site remains the proper decision.

**AFFIRMATION DETERMINATIONS OF STATUTORY**

Considering the new information that has been developed, EPA and NYSDEC have both

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

EPA and NYSDEC believe that a change in the scope of the remedy has occurred in which the increased volume of soil requiring excavation and the increase in project cost associated with this change nevertheless do not fundamentally alter the remedy selected in the ROD or its appropriateness. Because of the extremely long half-lives (Th-232 has a half-life of 14 billion years) of the radionuclides of concern which are located in an urban setting and which overlie Long Island's sole source aquifer, segregating and permanently removing the contaminated soils from the Site to acceptable off-site disposal facilities remains the appropriate remedy.

**PUBLIC PARTICIPATION ACTIVITIES**

In accordance with the NCP, a formal public comment period is not required when issuing an ESD. However, EPA is announcing the availability of this ESD in several local newspapers, and there will be a public availability session relating to this ESD on November 20th, from 2-4 PM and from 6-8 PM in the City Council chamber, City Hall, 9 Glen Street, Glen Cove. In addition, as noted above, questions regarding this ESD may be directed to Edward Als of EPA, whose mailing address, e-mail address, and phone number are set forth above.

**VOLUME SUMMARY TABLE***

| LOCATION | ROD ESTIMATE | PRESENT ESTIMATE | STATUS |
|---|---|---|---|
| Phase 1 (Parcel A and Lower Parcel C at former Li Tungsten Facility Property) | ~5,600 cy | ~12,000 cy | Excavation completed - 12,000 cy nonradioactive metals-contaminated soil disposed offsite; 1,700 cy radioactive soil staged in Dickson Warehouse for off-site disposal** |
| Dickson Warehouse storage | ~3,100 cy | ~9,000 cy | Miscellaneous Site wastes exceeding radioactive criteria staged for off-site disposal, including the 1,700 cy radioactive soil excavated in Phase 1 |
| Remainder at the Former Li Tungsten Facility Property - (Parcel B and Upper Parcel C) | ~26,900 cy | ~40,400 cy (PRP RD Estimate) | Yet to be excavated |
| Captain's Cove - Area A | ~23,100 cy | ~35,700 cy | Excavation completed - 700 cy nonradioactive metals-contaminated soil disposed offsite; 35,000 cy radioactive soil staged on Captain's Cove for off-site disposal. |
| Captain's Cove - Area G | ~10,700 cy | ~20,000 cy | Excavation nearly completed - 3,600 cy nonradioactive metals-contaminated soil and 12,500 cy radioactive soil staged on Captain's Cove for off-site disposal. Some contaminated material (~3,900 cy) remains buried near Garvies Point Road, and also adjacent to Glen Cove Creek bulkhead underground infrastructure. |
| Captain's Cove - Area A* | 0 (not identified) | ~15,000 cy | Yet to be excavated |
| TOTAL | ~69,400 cy | ~132,100 cy | |

* all volume estimates are ex situ, i.e., post excavation

** this volume of radioactive material is accounted for under "Dickson Warehouse Storage", immediately below.