Former Lewis Chemical  
12 & 0 Fairmount Court  
Hyde Park  

March 2010 Update  
City of Boston DND REMS  

Thomas Barrasso –Senior Environmental Program Manager  
Reay Pannesi-Senior Project Manager of Land Sales
Property Location Overview

1224 FAIRMOUNT COURT
18-10598000
AREA = 24.264 SqFt
Property History

• Leather Tannery: 1940s-1960s
• Lewis Chemical: Solvent recovery from waste liquids: 1963-1983
  • MA DEP Revokes Lewis Chemical hazardous waste handling license and Lewis Chemical ceases operation: 1983
  • Building owner leases property to various tenants
• City of Boston receives property through tax foreclosure: 2000
SUMMARY OF COMMUNITY MEETINGS (1)

- **October 29, 2003:** DND Director met with HP business leaders, Southwest Boston Community Development Corp., HP Mains Streets to obtain feedback on the site redevelopment and obtain support for applying for EPA grant funds.

- **November 14, 2003:** Community notification letter sent to neighborhood to elicit comments on possible reuses.

- **December 4, 2003:** Community meeting to explain MGL Chapter 30B property disposition process, obtain community input for site reuses.
SUMMARY OF COMMUNITY MEETINGS (2)

- **February 3, 2005**: DND received a Public Improvement Plan (PIP) petition request.
- **March 8, 2005**: Community meeting explaining the environmental testing plan and the PIP.
- **April 5, 2005**: Public meeting to present draft PIP.
- **April 24, 2007**: Community meeting to present Interim Phase II Environmental Report.
- **April 27 & June 23, 2009**: Community meetings to review the subsurface investigation and explain the sub-slab remediation system.
Grant Wins

• **2004** – U.S. EPA Site Assessment Grant
  – Conduct assessments of the site

• **2006** - U.S. EPA Site Assessment Grant
  – Conduct follow-up assessments and sampling

• **2008** – Former Lewis Chemical Cleanup Grant
  – Site specific cleanup activity
    • Installation and 1 year operation of Soil Vapor Extraction System (SVE)
City of Boston
Site Investigation History:

- **2002**: “Phase I Brownfields Site Assessment,” completed by Environmental Strategies & Management

- **2007**: “MCP Interim Phase II Comprehensive Site Assessment MA DEP RTN# 3-1616/Method 3 Risk Characterization completed by Environmental Strategies & Management

- **2009**: – “Supplemental Soil Investigation” completed by Woodard & Curran, Inc.
FLOW CHART

FLOW CHART OF THE CHECKLIST SCREENING PROCESS

FIGURE 5

Enter Site

Property a listed site?

YES

NO

Property near sites of concern?

YES

NO

Knowledge of adverse site history?

YES

NO

File review of property and/or nearby sites of concern

Possible impact to property?

YES

NO

NO REC
No Recognizable Environmental Condition

Possible REC

Emergency Condition

MCP Trigger 7 yr (22 yr) 30 days

ASTM Phase I

No REC

LIA

NO MDEP Reporting

RESP

Funding Filter

Priority Level 1

Priority Level 2

Priority Level 3

Standby List

Marketing OED Support

RAO

Tier I

Tier II

Tier III

Assessment
Risk Characterization
Remediation

LIA

Tier IA

Tier IB

Tier IC

Environmental Assessment

A: EPA Monies

B: WA Monies

C: City Monies

Ready for Housing Commercial or Open Space Development
MCP FLOW CHART

Front End
Reporting Trigger

Up to 1 Year
Public Involvement Activities May Take Place at Any Point In This Process

Comprehensive Response Actions
Up to 5 Years

Notification

2 Hour

72 Hour

120 Day

No

LRA Complete?

Yes

No Reporting Required

IRA

and/or

RAM

RAO

Score

Tier I

PERMIT

DEP Decision

TIER II

Assessment

Risk Characterization

Remediation

RAO

Downgradient Property Status
Site Assessment
Imminent Hazard Evaluation

RAO - Response Action Outcome
LRA - Limited Removal Action
IRA - Immediate Response Action
RAM - Release Abatement Measure
Defining “SITE”
MA DEP & U.S. EPA

• What makes a property a “site”?
  – Source
  – Migration
  – Targets
Site Areas of Concern

• 3 Areas of concern assessed and remediated –
  – UST, Suspected Fill Area, and Suspected Drum Area
• Soil and groundwater beneath the building footprint contaminated with volatile organic compounds (VOC)
  – Toluene, Trichloroethylene (TCA), Trichloroethane (TCE), Perchloroethylene (PCE)
• Discrete areas of soil contaminated with heavy metals and Polychlorinated Biphenyl (PCB)
UST Removal
8000 Gallon Petroleum UST
Bedrock Monitoring Well Installation and Soil Borings
In Building Monitoring Well Installation and Soil Borings
Test Pits and Exploration
Site Overview
Concerns for Human Health and the Environment

- Volatile organic compound (VOC) vapors from the soil and groundwater under the building
  - Building access must be, and is restricted, no reuse of building possible
- Impacts to the Neponset River
  - Reduction of source material under the building
- Contaminated Soil
  - Property access restricted
The Contamination

Trichloroethylene (TCE)

Cis-1,2-Dichloroethylene (DCE)

Vinyl Chloride (VC)

Ethene
Polychlorinated Biphenyls (PCB)

Former Lewis Chemical site: Aroclor 1248 and 1242 detected
Beneath the Building
Actual Cross Section
Phase II Investigations & Remediation

• City of Boston Remediation with EPA Cleanup Grant Funds
  – $200,000 EPA and COB $40,000
  • Focus is to reduce the TCE source material beneath the building
  • 2008-2009: We determined the nature and extent of the contamination, designed the SVE remediation system, and designed the power grid to run the machinery.
Reducing the Source – Soil Vapor Extraction (SVE)
Remediation Execution

Activity and Timetable:

1. Electric Power Installation
   1. Fieldwork begins this Thursday March 25
   2. Estimated completion: March 31
2. SVE Installation estimated start:
   1. Main SVE installation: May 21
   2. System activation and testing: June 4
   3. System run and monitoring: 1 full year
3. SVE Evaluation and Plume Data Analysis