SITE MANAGEMENT PLAN

Revised Draft Iroquois Gas Pipeline/Perimeter Site (December 2006)

1.0 Overview and Objectives

The Iroquois Gas Pipeline/Perimeter Site is a right of way approximately 20 feet from eastern most curb of the roadway running northward up Food Center Drive (FCD), approximately 3,800 feet, to a point on East Bay Avenue where it makes a 90 degree turn south across East Bay Avenue into a parcel immediately adjacent to the Hunts Point Voluntary Cleanup Site known as Operable Unit 2 of Parcel E (Site E OU-2). The property currently owned by City of New York is being utilized as the main thorough fare around the Hunts Point Cooperative Market Area. The location of the site is shown on Figure 1-1.The site has been characterized during several previous investigations. The user of this Site Management Plan (SMP) should refer to the Interim Remedial Engineering Report for the Perimeter Site Bronx, NY (January 2005).

The objective of this SMP is to set guidelines for the management of soil/fill material during any activities which would breach the surficial cap (engineering control or cover system) at the Site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH).

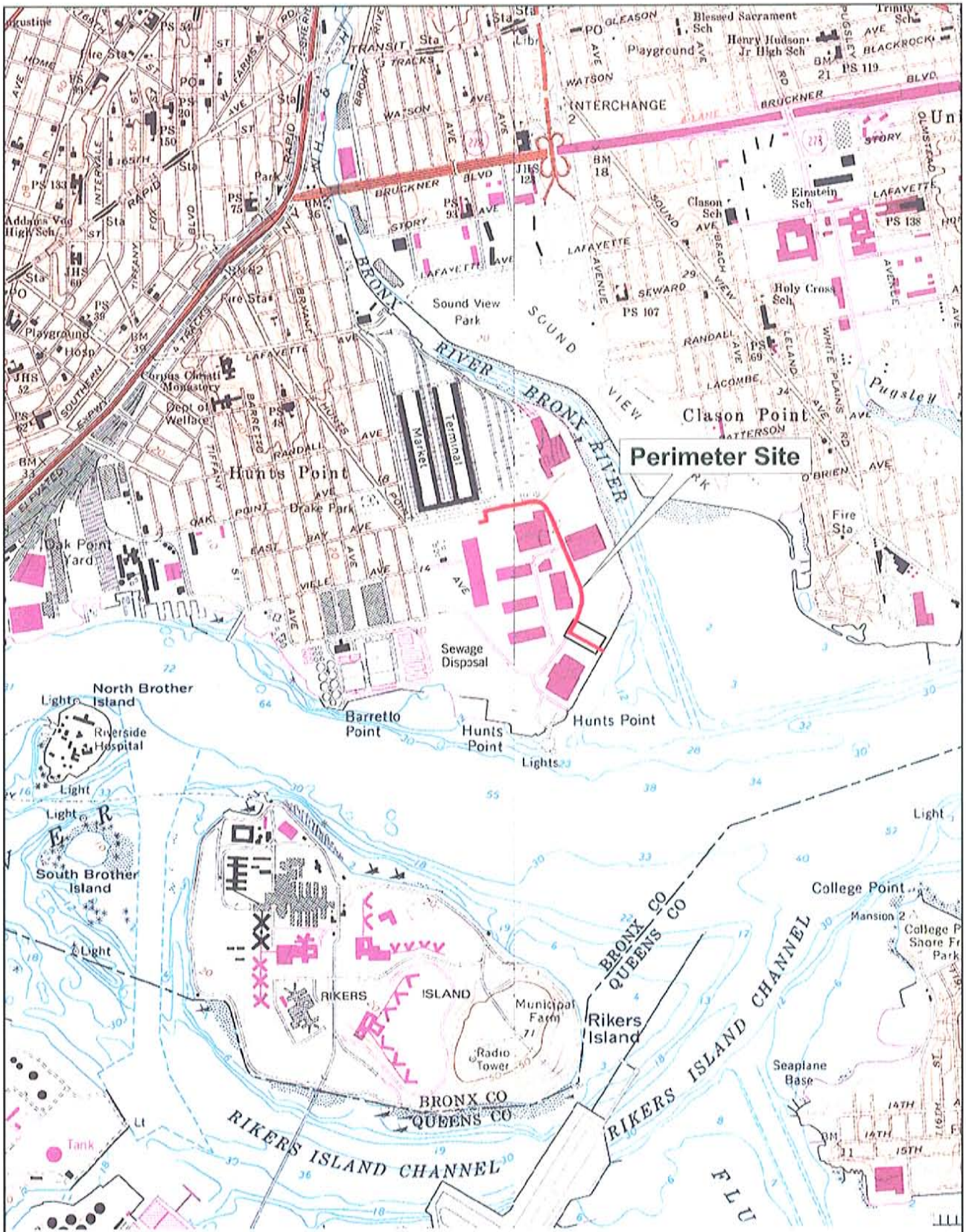
2.0 Nature and Extent of Contamination

Based on data obtained from previous investigations and remediation conducted at the site, an Interim Remedial Engineering Report, dated January 2005 was developed by Henningson, Durham and Richardson Architecture & Engineering LLC | Lawler Matusky and Skelly Engineers, LLP (HDR|LMS). Three types of material of potential concern were observed during the excavation activities. The following categories were assigned to the material based on visual observation and are as follows: Coal Tar; Purifier Waste, and; a mixture of both Coal Tar and Purifier Waste.

Coal tar is a product of the destructive distillation of bituminous coal. It is a dark reddish brown to black, oily, viscous liquid that does not readily mix with water. It has a very strong odor, which many people find similar to mothballs or driveway sealant. Coal tars, derived from both coal carbonization and carbureted water gas processes, are complex mixtures of organic chemicals. The following two major classes of chemical compounds found in coal tar are:

- Volatile organic compounds (VOCs) characterized by benzene, toluene, ethylbenzene and xylene, which are identified by their initials as the BTEX compounds, and
- Semi-volatile organic compounds (SVOCs) known as polycyclic aromatic hydrocarbons or PAHs.

Purifier Waste is typically found as a mixture of wood chips with a very strong, unpleasant burnt odor. Once exposed at the ground surface, the waste will often develop an iridescent blue color known as "prussian blue". It contains significant quantities of chemically complexed Cyanide compounds. In addition to containing complexed Cyanide, water which comes into contact with purifier waste is often acidic. If the acidic water discharges to a stream or other surface water body, it may cause harm to fish and wildlife.



Map source: USGS 7.5 minute quadrangle series, Central Park, NY-NJ, 1966, photorevised 1988.

\\781020\\graphics\ReportFigures\Fig1SiteLocation.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Perimeter Site Location** Hunts Point	Figure 1

There are three major means by which a toxic substance can come into contact with or enter the body. These are called routes of exposure and are as follows:

1. Inhalation (breathing) of gases, vapors, dusts or mists is a common route of exposure. Chemicals can enter and irritate the nose, air passages and lungs. They can become deposited in the airways or can be absorbed through the lungs into the bloodstream. The blood can then carry these substances to the rest of the body.

2. Direct contact (touching) with the skin or eyes is also a route of exposure. Some substances are absorbed through the skin and enter the bloodstream. Broken, cut or cracked skin will allow substances to enter the body more easily.

3. Ingestion (swallowing) of food, drink, or other substances is the third route of exposure. Chemicals that get in or on food, cigarettes, utensils or hands can be swallowed. Substances can be absorbed into the blood and then transported to the rest of the body.

The constituents of potential concern (COPCs) for soil consist primarily of VOCs (BTEX compounds), SVOCs (PAHs), Metals, and complexed Cyanide compounds.

Results of ground water sampling indicate that constituents in the soil/fill material have impacted ground water quality above applicable NYSDEC Technical Operational Guidance Series 1.1.1 (TOGS 1.1.1) standards for ground water, requiring treatment prior to use.

3.0 Contemplated Use

The principal use of the Site prior to any investigation and remediation was as a paved multi-lane roadway servicing the Hunts Point peninsula. The construction and remediation also included the installation of an underground high pressure gas pipeline along the route described below. Any work performed in or near this area should not be performed without properly identifying all underground utilities.

As part of the redevelopment project, the Site has been and continues to be identified for restricted industrial use as a major roadway within the Hunts Point Cooperative Market Area. There is a median to the west with a significant number of underground utilities. A number of commercial enterprises and municipally operated facilities are located in the area including; the Hunts Point Produce Market, Fulton Fish Market, Hunts Point Meat Market, and NYCDEP Sewage Treatment Plant. The roadway itself is approximately 6 lanes wide (including a central median) with the Site portion being the outer 2 lanes from a point approximately six hundred feet north of Farragut Avenue to a point approximately 200 feet beyond the entrance of the Atlantic & Pacific Tea Co. At this point, the site crosses the roadway to the south where it enters a gated roadway east of the Consolidated Edison compressor station.

4.0 Purpose and Description of Surface Cover System

The purpose of the surface cover system is to eliminate the potential for human contact with fill material, eliminate the potential for contaminated runoff from the property, and prevent infiltration of surface water through the fill and replacement of the roadway surface. The cover system consists of an asphalt layer over the traffic portion of the route with a minimum of 6 inches of asphalt and sub base material, concrete sidewalks where the pipeline crossed these areas, and in one location a railroad track.

The cover also consists of approximately 2 feet of fill material followed by concrete slabs to protect

the underground gas line that was placed below it. The remainder of the excavation below the slabs was backfilled around the gas pipeline with "flowable" fill (wet concrete).

5.0 Management of Soils/Fill and Long-Term Maintenance of Cover System

The purpose of this section is to provide environmental guidelines for the management of subsurface soils/fill and the long-term maintenance/replacement of the cover system during and after any future intrusive work which breaches the cover system.

The SMP includes, but is not limited to, the following conditions:

- Any breach of the cover system, including for the purposes of construction or utility work, requires that upon completion of the effort, the cover be replaced as it was originally installed. Backfill material used must be from an acceptable source, free of potential industrial sources of chemical or petroleum contamination (refer to Sections 5.1 through 5.3 for additional excavation/backfill-specific requirements). The repaired area must be covered with a similar layering of material comparable to that which was removed, and the repairs carried out in accordance with applicable City specifications for the surface removed.
- During construction activities, control of surface erosion and run-off of the entire area must be maintained at all times.
- Site soil/fill that is excavated and is intended to be removed from the property must be managed, stockpiled, characterized, and properly disposed of in accordance with NYSDEC regulations.
- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety. A general Health & Safety Plan (HASP) to be reviewed by any contractor involved in subsurface work and used by that contractor as a base for preparing an individual HASP has been prepared and is attached with this SMP. The contractor will have in their possession a HASP that has been reviewed by workers involved in intrusive work where the site cover materials will be disturbed.
- The Owner (City of New York) shall annually, or such time as NYSDEC may allow, complete and submit to the NYSDEC Certification Report beginning in the year 2007. The Certification Report shall contain a statement certifying that the institutional controls put in place, pursuant to the, Voluntary Cleanup Agreement Index No. D2-0023-00-04 (VCA) and the Declaration of Covenants and Restrictions imposed upon the fee title to the site and recorded in the Office of the New York City Register, as specified in the VCA, are still in place, have not been altered and are still effective. Additionally, the Certification Report shall specify that the remedy and protective cover have been maintained, and that the conditions at the site are fully protective of public health and the environment.

If the cover system has been breached during the period covered by that Certification Report, the owner of the property shall include the following in that certification report:

a certification that all work was performed in conformance with this SMP.

In addition, a deed restriction will be implemented in accordance with the requirements of the New York State Voluntary Cleanup Program (VCP) limiting the future use of the property identified in the metes and bounds description in the NYSDEC Voluntary Cleanup Agreement (VCA) for this Site (excluding the area used as staging for the Iroquois project which is now Operable Unit 3 of Parcel E, or Site E OU-3) to use as a roadway. The property that is subject to this deed restriction is

shown on Figure 1. The area encompassed by the meat market is shown on Figure 2. The deed restriction will be identified by adjacent parcel lot and block numbers due to the current site not being identified as a specific lot and block number. In the event that in the future the City of New York identifies this Site as a specific tax lot and block number, that designation will be made. However, at this time, it is intended by the City of New York to place a deed restriction on the properties located within the Hunts Point Food Distribution Center Meat Market and the Iroquois Pipeline / Perimeter Site.

5.1 Excavated and Stockpiled Soil/Fill Disposal

Soil/fill that is excavated as part of development that includes waste material as described in Section 2.0 of this document that cannot be used as fill below the cover system will be further characterized prior to transportation off-site for disposal at a properly permitted facility. All fill will be segregated according to the contractor's chosen disposal facility requirements. Prior to any fill material being removed from the Site, each disposal facility will provide to the contractor the maximum concentrations allowed for compounds and analytes listed in Table 2 as well as the minimum sampling frequency and analytical requirements. The analytical requirements and limits will be in accordance with the facilities most current operating permit for its destination State. The Contractor will review all analytical results in comparison to the allowable facility concentrations and will determine if the material is permissible at the subject facility. No material will be removed to a NYSDEC-registered recycling facility with the exception of road base material (asphalt) or existing above grade structures (concrete). Following disposal of material, the records associated with the disposal will be made available for review should they be requested.

5.2 Sub-grade Material for Reuse

On-Site excavated sub-grade material used to backfill excavations or placed to increase grades or elevation shall meet the following criteria:

1. Excavated on-Site soil/fill which appears to be visually impacted with either coal tar or purifier waste materials as described in Section 2.0 of this SMP shall be segregated from material proposed to be used as backfill, sampled, and analyzed for proper off-Site disposal (as described in Section 5.1 of this SMP).

2. The remaining material can be used as backfill in accordance with NYCRR Solid Waste Management Facilities Part 360 1-15(b)(8), which allows for the re-use of non-hazardous, contaminated soil which has been excavated as part of a construction project, other than a department-approved or undertaken inactive hazardous waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site.

5.3 Imported Material for Use as Backfill

Imported material for use of backfill on the Site must adhere to the following conditions. Off-Site soils intended for use as site backfill cannot otherwise be defined as solid waste in accordance with 6 NYCRR Part 360-1.2(a).

1. Registered Facility Source:

   Any off-Site material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. For example, uncontaminated C&D as defined in 6 NYCRR

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HDR | LMS
Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering, Inc.
One Blue Hill Plaza
Pearl River, NY 10965

Site Layout

HUNTS POINT • MEAT MARKET

Figure 2

Part 360-16.2 (c) that has been processed by a NYSDEC-registered C&D recycling facility may be used provided it meets the existing New York State Department of Transportation (NYSDOT) Standard Specification as described below in Section 5.3.2.

This material is not acceptable to be used in the upper (top) foot of fill and must be placed beneath the approved engineered surface cover, unless it is sampled as described in 3a and meets the criteria in 3c or 3d.

2. Recycled Portland Cement Concrete Aggregate (RCA):

   If Recycled Portland Cement Concrete Aggregate (RCA) is used beneath the top foot or approved engineering surface and it comes from other than a New York State Department of Transportation project, documentation showing that the material comes from a NYSDEC permitted or registered facility is required. Off-site material imported for filling and grading purposes shall conform to Section 304 of New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). Section 304 option B, "single layer of Type I Sub-base Course" provides 3 alternate types of material suitable for backfill material. Material originating as RCA from a registered facility with less than 10% fine-grained sediments by weight passing through a 200 sieve does not require analytical testing.

   a. Alternate A: at least 95% by weight, of (RCA) and free from organic and other deleterious material. This material may contain up to 5% by weight asphalt and/or brick;

   b. Alternate B: a mixture of RCA conforming to Alternate A above mixed with stone, sand, gravel, or blast furnace slag. This material may contain up to 5% by weight asphalt and/or brick; and/or

   c. Alternate C: bituminous material that is reclaimed from bituminous pavement and/or shoulders (Reclaimed Asphalt Pavement, or RAP) on a project constructed by the Department of Transportation and is well-graded from coarse to fine and free from organic or other deleterious material, including tar. This material is at least 95%, by weight, reclaimed bituminous material and has a maximum top size, at time of placement, of 50mm." If Alternate C is used, documentation of its being from a Department of Transportation source must be provided (This is similar to the reference for RCA).

Table 1: NYSDOT Gradation Table 304-1

Sieve Size No.	Sieve Size Designation	Percent Passing by Weight (%)
N/A	100 mm	-
N/A	75 mm	100
N/A	50 mm	90 - 100
N/A	6.3 mm	30 - 65
40	425 μm	5 - 40
200	75 μm	0 - 10

3. Non-Regulated Soil and Sand:

   If the contractor designates a source of soil to be used as fill, it shall be further documented in writing to only contain soil and no man-made materials (such as construction and demolition (C&D) debris). Sand from an operating gravel pit or similar facility operating under a mining permit must contain less than 7% fine-grained sediments by weight passing through a 200 sieve. Also covered under this section is material from non-commercial locations where there is no information available. These materials as described in this section (Section 5.3.3), shall be subject to the following acceptance criteria:

   a. Soils will be subject to the collection of one (1) representative composite sample per source per 1000 cubic yards. The sample(s) should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, arsenic, barium, beryllium, cadmium, chromium (Hexavalent and trivalent), copper, lead, manganese, total mercury, nickel, selenium, silver, zinc, and total cyanide in accordance with the quality assurance standards set forth in 40 CFR Part 136 and the most current NYSDEC Analytical Services Protocol (ASP). Soil analyses shall be reported as Category A deliverables specified in the most current NYSDEC ASP. The soil will be acceptable for use as backfill for depths below the one foot surface cover if analytical results indicate that the contaminants, if any, are present at concentrations below those described in Table 2: Backfill Analytical Parameters. Table 2 was created through collaboration between the NYSDEC, NYSDOH, NYCEDC and HDR|LMS.

   b. If any of the parameters exceed the thresholds set in Table 2, and there is still a desire to use the soil below the top foot, a written request will be made to the NYSDEC which will include a full description of the soil, its source, volume and analytical data. The NYSDEC will review the data and provide a written response within a reasonable time of the request.

   c. If the results of the analyses indicate the soil meets or is below the concentrations listed in Table 2, then it will be acceptable for use within the upper foot if open soil is desired. A Geotextile fabric of permeable membrane shall be placed on the surface of the material below the top foot to prevent mixing from frost heave or other settling related actions.

   d. If any of the parameters exceed Table 2, and there is still a desire to use the soil in the upper foot, a written request will be made to the NYSDEC which will include a full description of the material, its source, volume and analytical data. The NYSDEC will review the data and provide a written response within a reasonable time of the request.

4. Non-Regulated Gravel and Rock:

   If the contractor designates a source of soil to be used as fill, it shall be further documented in writing to only contain soil and no man made materials (such as construction and demolition (C&D) debris). Crushed gravel or rock from an operating gravel pit or similar facility operating under a mining permit does not require analytical testing. Sand from an operating gravel pit or similar facility operating under a mining permit is not included in this section (refer to Section 5.3.3).

Table 2: Backfill Analytical Parameters

Contaminant	CAS Number	Backfill Limit
Metals		
Arsenic	7440-38-2	16
Barium	7440-39-3	400
Beryllium	7440-41-7	47
Cadmium	7440-43-9	7.5
Chromium, hexavalent [1]	18540-29-9	19
Chromium, trivalent [1]	16065-83-1	1500
Copper	7440-50-8	270
Total Cyanide	57-12-5	27
Lead	7439-92-1	450
Manganese	7439-96-5	2000
Total Mercury		0.73
Nickel	7440-02-0	130
Selenium	7782-49-2	4
Silver	7440-22-4	8.3
Zinc	7440-66-6	2480
PCBs / Pesticides		
2,4,5-TP Acid (Silvex)	93-72-1	3.8
4,4'-DDE	72-55-9	17
4,4'-DDT	50-29-3	47
4,4'-DDD	72-54-8	14
Aldrin	309-00-2	0.19
Alpha-BHC	319-84-6	0.02
Beta-BHC	319-85-7	0.09
Chlordane (alpha)	5103-71-9	2.9
Delta-BHC	319-86-8	0.25
Dibenzofuran	132-64-9	210
Dieldrin	60-57-1	0.1
Endosulfan I	959-98-8	102
Endosulfan II	33213-65-9	102
Endosulfan sulfate	1031-07-8	200
Endrin	72-20-8	0.06
Heptachlor	76-44-8	0.38
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	1

Table 2: Backfill Analytical Parameters (continued)

Contaminant	CAS Number	Backfill Limit
Volatile organic compounds [2]		
1,1,1-Trichloroethane	71-55-6	0.68
1,1-Dichloroethane	75-34-3	0.27
1,1-Dichloroethene	75-35-4	0.33
1,2-Dichlorobenzene	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02
cis-1,2-Dichloroethene	156-59-2	0.25
trans-1,2-Dichloroethene	156-60-5	0.19
1,3-Dichlorobenzene	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12
Carbon tetrachloride	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene	100-41-4	1
Hexachlorobenzene	118-74-1	3.2
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether	1634-04-4	0.93
Methylene chloride [3]	75-09-2	0.05 [3]
n-Propylbenzene	103-65-1	3.9
sec-Butylbenzene	135-98-8	11
tert-Butylbenzene	98-06-6	5.9
Tetrachloroethene [3]	127-18-4	1.3 [3]
Toluene	108-88-3	0.7
Trichloroethene [3]	79-01-6	0.47 [3]
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Vinyl chloride	75-01-4	0.02
Xylene (mixed)	1330-20-7	1.6

Table 2: Backfill Analytical Parameters (continued)

Contaminant	CAS Number	Backfill Limit
Semi-Volatile Organic Compounds		
Acenaphthene	83-32-9	98
Acenapthylene	208-96-8	107
Anthracene	120-12-7	500
Benz(a)anthracene	56-55-3	1
Benzo(a)pyrene	50-32-8	1
Benzo(b)fluoranthene	205-99-2	1.7
Benzo(g,h,i)perylene	191-24-2	500
Benzo(k)fluoranthene	207-08-9	1.7
Chrysene	218-01-9	1
Dibenz(a,h)anthracene	53-70-3	0.56
Fluoranthene	206-44-0	500
Fluorene	86-73-7	386
Indeno(1,2,3-cd)pyrene	193-39-5	5.6
m-Cresol	108-39-4	0.33
Naphthalene	91-20-3	12
o-Cresol	95-48-7	0.33
p-Cresol	106-44-5	0.33
Pentachlorophenol	87-86-5	0.8
Phenanthrene	85-01-8	500
Phenol	108-95-2	0.33
Pyrene	129-00-0	500

Footnotes:

All backfill limits are in parts per million (ppm)

ND = Non-Detect

[1] = The backfill limit for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific backfill limit for hexavalent chromium.

[2] = Any VOCs present that require a dilution to be performed for the analysis will cause the material to be considered not acceptable for use as fill beneath or within a 10-foot radius of a building, foundation or structure that is not open to the air for free ventilation on the Site.

[3] = Any material to be considered for use as fill beneath or within a 10-foot radius of a building, foundation or structure that is not open to the air for free ventilation on the Site, with specific VOC air guideline values prescribed by the most current NYSDEC/NYSDOH soil vapor intrusion guidance, may not have concentrations exceeding the method detection limit (MDL) (i.e. being detectable) as defined by the most current NYSDEC Analytical Services Protocol (ASP).

Notes:

- Allowable values for imported soils are determined by comparing either the Track 1 or the Track 2 use-based Protection of Public Health value (based on the site's achieved cleanup track) with the Protection of Groundwater value and selecting the lower of the two (for sites with no ecological resources). If the site was cleaned up to protect ecological resources, then the ecological resource value would be used, where it is lower than both the groundwater protection and public health protection values.
- The following material may be imported, without chemical testing, to be used as backfill beneath pavement or the final soil cover (i.e. the uppermost 1 or 2 feet, depending on the site's use restriction):
  a. Rock or stone, consisting of virgin material from a permitted mine or quarry;
  b. Recycled concrete, brick or asphalt from a NYSDEC-registered C&D processing facility which conforms to Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). This material must contain less than 10% (by weight) material which would pass through a size 200 sieve.

When any soil or material from an off-site source is proposed to be used for backfilling an excavation, the following procedure will be instituted for approval of the material:

The designated NYC representative will be contacted when the source has been chosen and before any material is imported. As long as the property remains under NYC ownership, the City will be responsible for then having a qualified Environmental Professional (EP) review the backfill information and present at the site to document the process for the annual certification. The EP will have the following qualifications;

- He/she will have a working familiarity of the site conditions, remedy, and conditions of the approved Engineering Report, Site Management Plan or final Report that outlines the redevelopment conditions and the recertification requirements that must be met.
- Be familiar with NYSDEC Part 360 and the definitions of C&D, recycling facility operating criteria, and the types and analytical criteria for acceptable backfill material and for a facility accepting excess material.
- Have the experience on previous projects to understand and be able to visually identify material that would not be acceptable immediately upon inspection. Such material includes; petroleum impacted material, material mixed with industrial waste, and material that does not qualify as uncontaminated C&D even after processing.
- Be able to review documents from the source facility/location to determine the applicability of the material proposed for backfill and in comparison to the registration, in addition to the validity of the facility documents as they are presented.
- The EP will have the ability to request any additional applicable information to assist in making the determination for the acceptance of the fill material.

Following approval of backfill material, the EP will document the specific information that is relevant to the Periodic Recertification including:

1. Facility providing material
2. Copy of facility Registration (current if applicable)
3. Volume of material imported for fill.
4. Pertinent sampling data that applies to the acceptance of the material (Table 2).
5. Volume of material that was disposed of off site and all pertinent sampling data.
6. Disposal Facility accepting excess material.
7. Map of the site showing dimensions and locations of where work was performed.
8. A statement relating to the recapping of those areas where work has taken place that they maintain the approved conditions.
9. The imported fill material was physically inspected and physically meets all of the criteria for unregulated material such as: no odors of petroleum or other chemicals, staining or discoloration.

The Periodic Certification will also include the signature and stamp of a New York State P.E. that states the original conditions of the approved closure are being maintained and that any areas that have been opened have been backfilled with proper material and properly recapped.

POST VCP

HEALTH AND SAFETY PLAN TEMPLATE
(TO BE USED BY CONTRACTORS AS A REFERENCE FOR THEIR OWN EMPLOYEE PLAN)

Site Name: Hunts Point Perimeter Site **Site Location:** Bronx, NY

HASP Preparer: Brian Montroy/Kevin McCarty/LMS **Preparation Date:** April 2005

APPROVALS:

Project Manager: Kevin McCarty/LMS Engineers

Safety Officer: John Guzewich/LMS Engineers

CONTRACTOR/ PERSONNEL:

On-Site Coordinator: To be named by the Contractor

On-Site Health and Safety Officer: To be named by the Contractor

SCOPE OF WORK (brief description of work plan and tasks to be accomplished):

To be assigned by others in the case future activities will breach the cover system at the site.

HAZARDOUS/SUBSTANCES (known or suspected, contaminated media, etc.):

Coal tar and/or purifier waste may be encountered at the site. Coal tar can be a solid or semi-liquid with a string npthalene/asphalt like odor. It generally contains a group of semi-volatile organic compounds (SVOC) referred to as polycyclic aromatic hydrocarbons (PAHs). Coal tar may also contain benzene, toluene, ethyl-benzene, and xylene (BTEX) compounds. Purifier waste is known to contain cyanide, other heavy metals, PAHs and BTEX and is often acidic.

HAZARD ASSESSMENT (toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):

See the most current version of National Institute for Occupational Safety and Health (NIOSH), Guide to Chemical Hazards for compounds reported in the analytical tables for the **Interim**

Other hazards:

Contractor must evaluate work and conditions for any hazards not limited to chemical exposure

SITE WORK ZONES: (designate exclusion zone, contamination reduction zone and support zone)

Support zone – Dependant upon the work being performed, the support zone will consist of an area used to stage support vehicles and equipment.

Contamination reduction zone - Will be comprised of any area used to decontaminate equipment and personnel.

Exclusion Zone - Will consist of a limited area immediately where work is being performed and safety equipment or precautions are needed (i.e. hard hats, safety shoes, glasses, etc)

SITE ACCESS: (describe procedures to control site access)

Access will be dependant upon the work being performed.

MONITORING PROCEDURES (If required by the Safety Officer)

Monitoring the site for identity and concentration of contamination in exposed media:

The Contractor will have his Safety Officer assess the need for air monitoring such as :A photoionization detector (PID) to monitor for the presence of VOCs. A portable gas monitor (PGM) for the presence of flammable gas concentrations and hydrogen sulfide.

Medical monitoring procedures for evidence of personnel exposure i.e., analyses specific to site not covered in general annual physical:

Should be evaluated by the Safety officer in accordance with company policy

Personnel monitoring procedures:

Should be evaluated based on the work being performed.

DECONTAMINATION AND DISPOSAL

Decontamination Procedures (contaminated personnel, surfaces, materials, instruments, equipment, etc.):

All sampling equipment will be decontaminated using a cold water de-ionized water wash with a non-phosphate detergent. Personnel will wash with soap and water after work is completed. PPE will be decontaminated or disposed of after use.

Disposal Procedures (contaminated equipment, supplies, disposables, washwater):

Water used for decontamination will be discharged to the ground surface at the site. PPE will be disposed of in an appropriate manor.

EMERGENCY PROCEDURES

In event of personnel exposure (skin contact, inhalation, ingestion, specific procedures for specific chemicals):

Skin Contact - Wash with soap and water.

Inhalation - Remove to fresh air, monitor ABCs (Airway, Breathing and Circulation).

Ingestion - Call 911 and monitor ABCs.Skin Contact:

In event of personnel injury:

Check ABCs (Airway, breathing, and circulation). Perform first aid if required.

Contact local ambulance by calling 911 if professional help is required.

In event of potential or actual fire or explosion:

Evacuate to the site entrance. The HSO will account for all personnel before leaving the site.

The fire department will be contacted by calling 911.

In event of potential or actual ionizing radiation exposure:

Not applicable.

In event of environmental accident (spread of contamination outside sites):

Stop the spread of the chemical to the extent possible if the containment of the chemical may be performed safely.

Notify NYSDEC

Contact the fire department

Contact LMS (Jim Morrison, Karen Wright, or John Guzewich)

EMERGENCY SERVICES (complete here or have separate list available on-site)

Emergency Medical Facility (include map or written description of route to hospital)

	Location	Telephone
Hospital:	St. Barnabus Hospital 1967 Turnbull Avenue Bronx, New York	(718) 409-2633

Directions:

From site in Bronx:

Northwest of Food Center Drive and turn right onto Halleck St.
Go straight onto Edgewater Road.
Turn right onto Bruckner Blvd.
Take I-278 East/Bruckner Exp. towards the Throgs Neck Bridge.
Exit at White Plains Rd/Castle Hill Ave.
Merge onto Bruckner Blvd.
Turn right onto White Plains Rd.
Turn left onto Turnbull Ave.

See Figure 2 for route to Hospital.

Ambulance:	911
Fire Department	911
Police Department	911
Poison Control Center	(800) 336-6997

PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS SUBSTANCES
(As Applicable)

Personnel Authorized to Enter Site (specific conditions of site would preclude most LMS trained persons from entering site and would allow only certain personnel, list here)

Not applicable.

ALTERNATIVE WORK PRACTICES

(Describe alternative work practices or instruments not specified in this form. Indicate work practices specified in the chapter for which proposed alternative work practices will serve as substitute).

Not applicable.

TASK-SPECIFIC LEVEL OF PROTECTION AND ACTION LEVELS

(Attach table including specific description of protective gear and action levels or downgrade LOP)

See Table 2.

SITE MAP

(Attach a site map. Map should be properly scaled and keyed to local landmarks).

See Figure 1.

TRAINING

(Provide description of minimum training, reference OSHA Sections).

29 CFR 1910.120 e(3)
29 CFR 1910.120 e(4)
Standard first aid and adult CPR

AFFIDAVIT

All personnel who enter site must sign attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

AFFIDAVIT

I, _____ , (name) of _____

(company name) have read the Health and Safety Plan (HASP) for the _____

(site description and project description). I have also read the LMS generic HASP. I agree to conduct all on-site work in conformity with the requirements of both HASPs. In addition, I acknowledge that failure to comply with the designated procedures in the Health and Safety Plans may lead to my removal from the site.

Signed _____

Date _____