



FACT SHEET

Brownfield Cleanup Program

Frito-Lay, Inc. Site
Site Number: C224133
Brooklyn, NY 11237

July 2010

Remediation Report under Review: Report Recommends Cleanup of Brownfield Site Contamination

The New York State Department of Environmental Conservation (NYSDEC) is reviewing a report that recommends cleanup action at the Frito-Lay Inc. site (“Site”), located at 202-218 Morgan Avenue in Brooklyn, New York under New York’s Brownfield Cleanup Program (BCP). See figure 1 for site location.

The report, called a “Remedial Investigation Report, (RIR)” was submitted to NYSDEC on behalf of Frito-Lay, Inc. (“Applicant”). The report describes the results of the site investigation and recommends action to address contamination.

Highlights of the Investigation Report

- 1) Describe the investigation activities completed
- 2) Describe the nature and extent of contamination at the Site
- 3) Provide information about off-site contamination issues
- 4) Recommend whether cleanup of contamination is required

Remedial investigation activities included:

- A total of sixteen (16) soil borings were drilled to facilitate the collection of on-site soil materials. The soil samples were examined to determine the physical properties of the site soil materials and to screen samples to be submitted for chemical analysis. Analytical results were compared to NYSDEC Soil Cleanup Objectives.
- Three (3) subsurface soil vapor samples were collected within the Site boundaries and submitted for chemical analysis of soil vapors.
- Six (6) on-site and two (2) off-site groundwater monitoring wells were installed for the purpose of collecting groundwater samples. The groundwater samples were submitted for chemical analysis and the results compared to the NYSDEC Class GA groundwater quality (drinking water) standards to identify contaminant impacts to the groundwater.

Brownfield Cleanup Program: New York’s Brownfield Cleanup Program (BCP) encourages the voluntary cleanup of contaminated properties known as “brownfields” so that they can be reused and redeveloped. These uses may include recreation, housing, business or other uses.

A **brownfield** is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination.

For more information about the BCP, visit:
www.dec.ny.gov/chemical/8450.html

- Four (4) sediment samples were collected from the English Kills which is adjacent to the Site. The sediment samples were submitted for chemical analysis. The results of this analysis were compared to the NYSDEC's Technical Guidance for Screening Contaminated Sediments.
- Two (2) surface water samples were collected from the English Kills and submitted for chemical analysis. The surface water results were compared to the NYSDEC Surface Water Criteria.
- A qualitative Human Health Exposure Assessment was performed as part of the environmental characterization of on-site soil and soil vapor, on- and off-site groundwater, and off-site sediments and surface water to evaluate their potential impact on human health and the environment. The human health evaluation examined Chemicals of Potential Concern (COPC) with regard to exposure pathways and potential human receptors in relation to current and future land use scenarios.

The work was performed by representatives of Frito-Lay with regulatory oversight provided by the NYSDEC and the NYSDOH.

Remedial Investigation Findings

Completion of the Remedial Investigation (RI) facilitated the characterization of soil, soil, vapor sediments, surface water, and groundwater at the Site.

The site soil investigations identified urban fill material and native soils. The fill material included bricks, cinders, wood, steel, etc. The presence of contaminants associated with petroleum by-products, electrical transformer fluids, and metals, such as, arsenic, lead, and mercury were identified on site.

The soil gas vapor samples identified the presence of petroleum related by-products identified in each of the soil vapor sampling locations. The source of the soil gas vapors has not been identified.

The groundwater table is present at approximately 11 feet below the surface of the Site. The presence of contaminants associated with petroleum by-products and metals, such as, arsenic and lead in excess of the Class GA groundwater standards were detected in the on-site groundwater. The presence of contaminants associated with degreasers, petroleum by-products and metals, such as, lead in excess of the Class GA groundwater standards were also detected in off-site and upgradient groundwater monitoring wells across Morgan Avenue suggesting an off-site source.

The presence of contaminants associated with electrical transformer fluids and metals, such as, arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc in excess of NYSDEC Sediment Criteria were detected in sediment samples. The surface water results did not identified the presence of contaminants in excess of NYSDEC Surface Water Standards.

The qualitative human health exposure assessment identified selected COPCs in the soil vapor and overburden fill material/native soils. Based on the proposed site development plans, potentially complete exposure pathways were identified for trespassers and site workers if the Site is not remediated. Other receptor populations were evaluated but only exposure to surface and subsurface soil via ingestion, dermal contact or inhalation were found to be likely, if site-

specific remediation does not occur. The actual and/or potential human health and ecological exposures include the following:

- Dermal contact of site-related chemicals in surface and subsurface soil may occur for construction and utility workers during work activities. Trespassers may have dermal contact with chemical residuals in soils.
- Incidental ingestion of site-related chemicals in surface and subsurface soils may occur for construction or utility workers during excavation activities. Trespassers may have incidental ingestion of chemical residuals in soils.
- Exposure to concentrations of volatilized chemicals residuals during excavation activities in impacted soils to construction and utility workers.
- Exposure to chemical residuals on airborne particles during excavation activities to construction or utility workers. Trespassers may be exposed to airborne particulates, as well as, potential exposures to construction workers, future workers, and visitors.
- Inhalation of vapors in indoor air may occur to Employees of local businesses outside the Site boundaries and individuals or future occupants if future construction occurs at the Site.
- Ingestion, inhalation, and contact to chemical residues in groundwater may occur to construction workers and utility workers.
- Environmental exposure receptors, such as terrestrial plants and animals, and aquatic biota in the adjacent English Kills are highly unlikely.

Remediation of the Frito-Lay 202-218 Morgan Avenue site is recommended to protect human health and the environment.

Next Steps

NYSDEC will complete its review, make any necessary revisions, if appropriate and approve the investigation report. The approved RIR will be made available to the public (see “Where to Find Information” below). The Applicant may then develop a cleanup plan, called a “Remedial Action Work Plan”. This plan describes how contamination will be addressed, with NYSDEC and the New York State Department of Health (NYSDOH) overseeing the work. NYSDEC will present the draft cleanup plan to the public for its review and comment during a 45-day comment period.

NYSDEC will keep the public informed throughout the investigation and cleanup of the Site.

Background

NYSDEC previously accepted an application from the Applicant to participate in the BCP. The application proposes that the Site will be used for industrial purposes.

The NYSDEC and NYSDOH are currently reviewing the RIR submitted by representatives of Frito-Lay. The report documents the activities and results of investigations completed at the 202-218 Morgan Avenue Site for the purpose of characterizing the nature, extent, and potential impacts of contaminated surface and subsurface soil, soil vapor, sediments, surface water, and groundwater. The Site, which encompasses approximately 2.85 acres, is currently vacant, and was historically used as a building supply/brick supply facility, a manufacturing company, a scrap metal yard, an auto painting business, a garbage transfer station, a solid waste storage

facility, and a scrap metal recycling facility. Past historical uses of surrounding properties included a chromium-plating business, machine shops, metal finishing shops, foundries, and electrical equipment manufacturing. Current uses of surrounding properties are predominantly heavy manufacturing.

The Site, which was admitted into the BCP in August 2009, has been the focus of investigation activities since that time. Investigative activities were also performed at the Site in October 2003 and December-January 2006-2007 prior to entry into the BCP. The most recently completed RI field sampling activities (November 2009) were based on the NYSDEC-approved Remedial Investigation Work Plan approved in August 2009 which described the scope of work and specific investigation activities required to evaluate Site soil, soil vapor, sediments, surface water, and groundwater.

A copy of the RIR and other appropriate documents (BCP application package) is available in the site document repository location at the address indicated below.

FOR MORE INFORMATION

Where to Find Information:

Project documents are available at the following location(s) to help the public stay informed.

Document Repository:

Brooklyn Public Library Bushwick Branch
Patricia Sacco, Library Information Supervisor
340 Bushwick Avenue
Brooklyn, NY 11206
(718) 602-1348

Hours of Operation:

Sunday: Closed
Monday: 1 PM to 8 PM
Tuesday: 10 AM to 6 PM
Wednesday: 10 AM to 6 PM
Thursday: 1 PM to 6 PM
Friday: 10 AM to 6 PM
Saturday: 10 AM to 5 PM

Project Contacts:

Comments and questions are always welcome and should be directed as follows:

Project-related Questions

Mr. Kevin Sarnowicz
New York State Department of
Environmental Conservation
Division of Environmental Remediation,
12th Floor
625 Broadway
Albany, NY 12233-7016
(518) 402-9774
kpsarnow@gw.dec.state.ny.us

Site-related Health Questions

Mr. Albert Demarco
New York State Department of Health
Bureau of Environmental Exposure
Investigation
Flanigan Square, Room 300
547 River Street
Troy, NY 12180-2216
(518) 402-7500

If you know someone who would like to be added to the site contact list, have them contact the NYSDEC project manager above. We encourage you to share this Fact Sheet with neighbors and tenants, and/or post this Fact Sheet in a prominent area of your building for others to see.

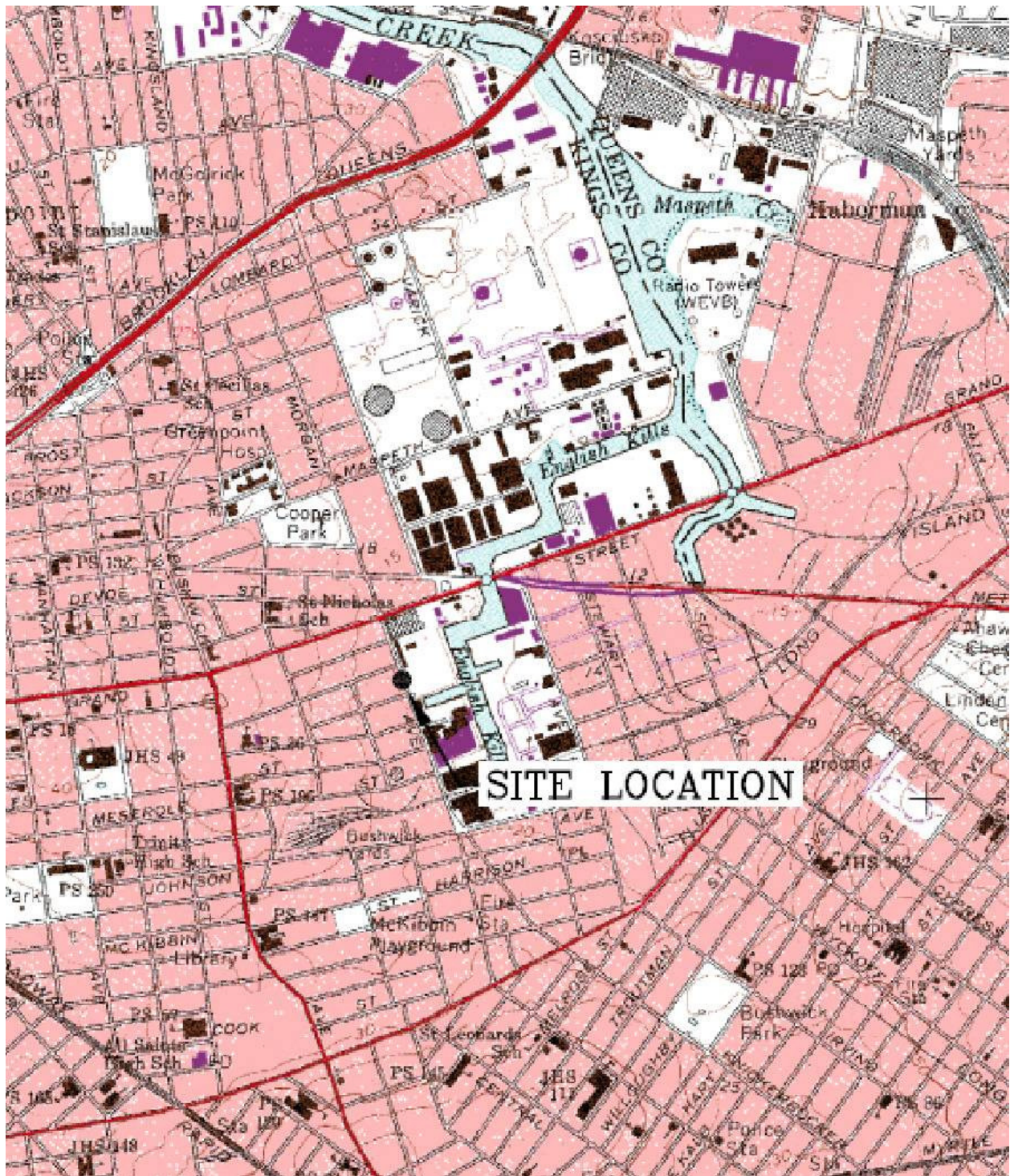


FIGURE 1 – SITE LOCATION MAP

**FRITO-LAY, INC.
202-218 MORGAN AVENUE
BROOKLYN, NEW YORK**