

## Public Meeting Invitation

**Thursday,  
February 28, 2008  
7:00 p.m.**

Freeport Memorial Library  
144 West Merrick Road  
Freeport, NY 11520  
(516) 379-3274

The New York State Departments of Environmental Conservation and Health (NYSDEC and NYSDOH) will discuss the proposed remedy for the Columbia Cement Company Inc., Site. At the meeting, representatives from the NYSDEC and NYSDOH will:

- Describe results of the site investigations;
- Explain the proposed remedy;
- Answer your questions about the remedy;
- Receive your verbal or written comments about the proposal.

### **PUBLIC COMMENT PERIOD**

**From:** February 19, 2008  
**To:** March 21, 2008

# FACT SHEET

February 15, 2008

COLUMBIA CEMENT  
COMPANY INC., SITE  
SITE No. 130052  
159 Hanse Avenue,  
Freeport, NY 11520

## Remedy Proposed for the Columbia Cement Company Inc., Site Operable Unit 1

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### Public Meeting, Comment Period Announced

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The New York State Department of Environmental Conservation (NYSDEC), working cooperatively with the New York State Department of Health (NYSDOH), has proposed a remedy designed to address contamination identified at the Columbia Cement Company Site Operable Unit 1 (OU1) in Freeport, New York (*see location map on page 5*).

**The Proposed Action:** Highlights of the proposed remedy includes *in situ* chemical oxidation for the soils, *in situ* bioremediation for the groundwater, a sub-slab depressurization system for the existing building and an environmental easement with periodic certification. This proposal is described in the site's Proposed Remedial Action Plan (PRAP). The PRAP was developed following a detailed investigation of the site. The PRAP evaluates different options to clean up the site and presents the alternative preferred by the NYSDEC and NYSDOH.

*See pages 2 and 3 of this fact sheet for a summary of the PRAP, site background, and summary of the site investigation. The full PRAP is available for your review at the document repositories listed on page 4.*

**Your Opportunities to Comment on the Proposed Remedy:** Release of the PRAP begins a process to finalize selection of the remedy for the site. Your comments and input about the proposed remedy are important and encouraged.

Your oral and written comments about the PRAP are welcome at the **public meeting** (see sidebar) and during a **public comment period** which runs until March 21, 2008. Written comments also may be mailed until the end of the comment period to:

Girish Desai, P.E.  
NYSDEC, Division of Environmental Remediation  
SUNY @ Stony Brook, 50 Circle Road  
Stony Brook, NY 11790

**What Happens Next:** All comments received during the public comment period will be considered as the remedy for the Columbia Cement Company site is finalized. Public input will be factored into the record of decision (ROD) which will describe the remedy selected and why it was chosen. NYSDEC will respond to comments in a responsiveness summary included in the ROD.

## Site History

The Columbia Cement Company Site (site), which is approximately two acres in size includes a industrial building which formerly housed the Columbia Cement Company. The building is currently vacant. Investigations to date indicate that soil, groundwater and soil vapor at the site have been contaminated with volatile organic compounds (VOCs) including 1,1,1-trichloroethane (1,1,1-TCA) and its degradation products related to past spill/disposal practices at the site. Groundwater and soil vapor contamination have also been identified off-site. To better facilitate the remediation of the contaminants, the site was separated into two Operable Units. Operable Unit 1 (OU1) refers to the Columbia Cement Company property and the remaining Operable Unit 2 (OU2) for this site is the off-site area immediately surrounding the site. As a result of the spill of 1,1,1-TCA and the site investigation, the New York State Department of Environmental Conservation (NYSDEC) listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York in 1992. A Class 2 site is a site that requires action because hazardous waste presents a significant threat to the public health or environment.

The NYSDEC and the Burmah Castrol Holdings, Inc. entered into a Consent Order on May 29, 1998. The Order obligates the responsible parties to implement a full remedial program. Burmah Castrol Holdings, Inc. was the parent corporation of Columbia Cement Company, Inc. In 2001, BP purchased all Burmah Castrol holdings.

## Site Investigation

Burmah Castrol Holdings, Inc. and its successor BP conducted the Remedial Investigation (RI) for OU1 and OU2 between 1998 and 2007. The RI for OU2 is expected to be complete during the summer of 2008. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI included the sampling of subsurface soils, groundwater, soil vapor, indoor air and ambient air. The main categories of contaminants that exceeded Standards, Criteria, and Guidance (SCGs) are VOCs. Additional activities were also conducted under the Feasibility Study (FS) between 2005 and 2007. The field activities and findings of the investigation are described in the RI report and the FS report.

**Sub Surface Soils :** The main source of contamination was the spill of 1,1,1-TCA. Compounds detected at concentrations exceeding the soil SCGs include 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), chloroethane (CA), toluene and xylenes. Most of the highest concentrations were detected in samples collected from depths ranging from 10 to 20 feet below grade surface (bgs). The highest 1,1,1-TCA concentration of 7,000 parts per million (ppm) was detected in a boring in the source area at 10.0 to 13.7 feet bgs. Subsurface soil contamination identified during the RI/FS will be addressed in the remedy selection process.

**Groundwater:** The groundwater investigation was conducted as part of the overall Columbia Cement site RI which encompassed both OU1 and OU2. The primary constituents identified in the groundwater were 1,1,1-TCA and its degradation products. On-site groundwater exhibits concentrations of site related VOCs at concentrations above the NYSDEC Ambient Water Quality Standards and Guidance Values. The nature and extent of groundwater VOC contamination changed between 1999 and 2006 sampling events. Specifically, the levels of 1,1,1-TCA decreased significantly while the concentrations and extent of degradation product CA has increased. The most recent data (June 2006), indicate that CA was detected in the source area at 1900 parts per billion (ppb) levels above the NYSDEC Ambient Water Quality Standards and Guidance Values of 5 ppb. A CA plume extends from the source area west along the southern site boundary and extends off-site. Groundwater contamination identified during the RI/FS will be addressed in the remedy selection process.

**Soil Vapor:** In September 2005 and August 2006, soil vapor/sub-slab vapor, indoor air and outdoor ambient air sampling was conducted within OU1 and OU2. Soil vapor sampling indicated that VOCs are present in shallow soil throughout the site. Concentrations of spill-related compounds was greatest in samples in and around the spill area, but are detected throughout OU1. In a sub-slab vapor sample, 1,1,1-TCA, 1,1-DCA and CA were detected at 86,200 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), 30,600  $\mu\text{g}/\text{m}^3$  and 10,500  $\mu\text{g}/\text{m}^3$ , respectively. The indoor air sampling results indicate the presence of low levels of VOCs. In addition, the presence of some of these same compounds in outdoor ambient air samples suggests that their presence may not be related to sub-slab conditions, but rather the industrial setting of the site. Soil vapor contamination identified during the RI/FS will be addressed in the remedy selection process.

## Summary of Proposed Remedial Action

The PRAP identifies the remedy preferred by the NYSDEC and NYSDOH to remediate the soil, groundwater and soil vapor. The proposed alternative was chosen following a detailed investigation of the site and evaluation of alternatives for remediating the contamination.

The elements of the proposed remedy include:

1. A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

2. *In situ* chemical oxidation (ISCO) of contaminated subsurface soils in the source area. ISCO is based on the delivery of chemical oxidants to contaminated media in order to achieve destruction or breakdown of contaminants into non-toxic products.

3. *In situ* bioremediation of contaminated groundwater at the site. *In situ* bioremediation involves injecting slow-release oxygen compounds into the contaminated portion of the aquifer to treat chloroethane.

4. Imposition of an institutional control in the form of an environmental easement that would require: (a) limiting the use and development of the property to commercial use, which would also permit industrial use; (b) compliance with the approved site management plan; (c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (d) the property owner to complete and submit to the NYSDEC a periodic certification of institutional and engineering controls.

5. Development of a site management plan which would include the following institutional and engineering controls: (a) continued evaluation of the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified; (b) monitoring of soil, soil vapor, groundwater and indoor air; (c) identification of any use restrictions on the site; (d) vapor intrusion management, including but not limited to, an active sub-slab depressurization system (SSDS) in the existing building to prevent soil vapor intrusion inside the building; and (e) provisions for the performance monitoring and continued proper operation and maintenance of the sub-slab depressurization system,

including any required post-installation indoor air quality sampling.

6. The property owner would provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal would: (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with NYSDEC approved modifications; (b) allow the NYSDEC access to the site; and (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the NYSDEC.

7. The operation of the components of the remedy would continue until the remedial objectives have been achieved, or until the NYSDEC determines that continued operation is technically impracticable or not feasible.

## Costs and Funding for the Site Remedy

The present worth to construct and implement the proposed remedy is estimated at \$760,000. The cost to construct the remedy is estimated to be \$660,00 and estimated average annual costs for years one to three is \$27,000 and for years four to seven is \$13,000. BP is the PRP for the site and is responsible for funding the remedy for the site. The current use of the property is industrial.

## Health Issues

This industrial property is only partially fenced, but exposure to surface contamination is not expected since the spill area is paved. Direct contact and/or inhalation exposures for workers on-site could result from excavation activities beneath the site. A community air monitoring plan will be implemented during any excavation activities, which provides for real-time monitoring so that actions can be taken to stop or minimize air-borne releases. Currently, the site is not occupied and soil vapor intrusion into the building is not documented, although elevated levels of contaminants exist in soil vapor under the foundation. There are no known, or potential, ingestion routes as this area

receives public water which is required to be routinely sampled for volatile organic compounds and meet Safe Drinking Water standards prior to distribution to the public.

[www.health.state.ny.us/environmental/about/docs/exposure.pdf](http://www.health.state.ny.us/environmental/about/docs/exposure.pdf)

For more information on exposure, please visit the NYSDOH exposure webpage at:

**Document Repositories:** *To review the complete PRAP and other site information:*

Freeport Memorial Library-Reference Section  
144 West Merrick Road  
Freeport, New York 11520  
Phone: (516) 379-3274  
Hours: Mon, Tues, Thurs, & Fri: 9 a.m. - 9 p.m.  
Wednesday: 10 a.m. - 9 p.m.  
Saturday  
Sept-June : 9 a.m. - 5 p.m.  
July-August: 9 a.m. - 1 p.m.  
Sun (Sept - May): 1 p.m. - 5 p.m.

NYSDEC Region One  
Headquarters  
Division of Environmental Remediation  
SUNY @ Stony Brook  
50 Circle Road  
Stony Brook, NY 11790  
Attention: Girish Desai  
Phone: (631) 444-0243  
Mon - Fri: 8:30 a.m. - 4:45 p.m.

**For More Information:** *Call or write the following staff for more information about:*

**Meeting/Comment Period/  
Technical Information:**

Girish Desai, P.E.  
Project Manager  
NYSDEC Region 1  
SUNY @ Stony Brook  
50 Circle Road  
Stony Brook, New York 11790  
Phone: (631) 444-0243  
E-mail: [gvdesai@gw.dec.state.ny.us](mailto:gvdesai@gw.dec.state.ny.us)

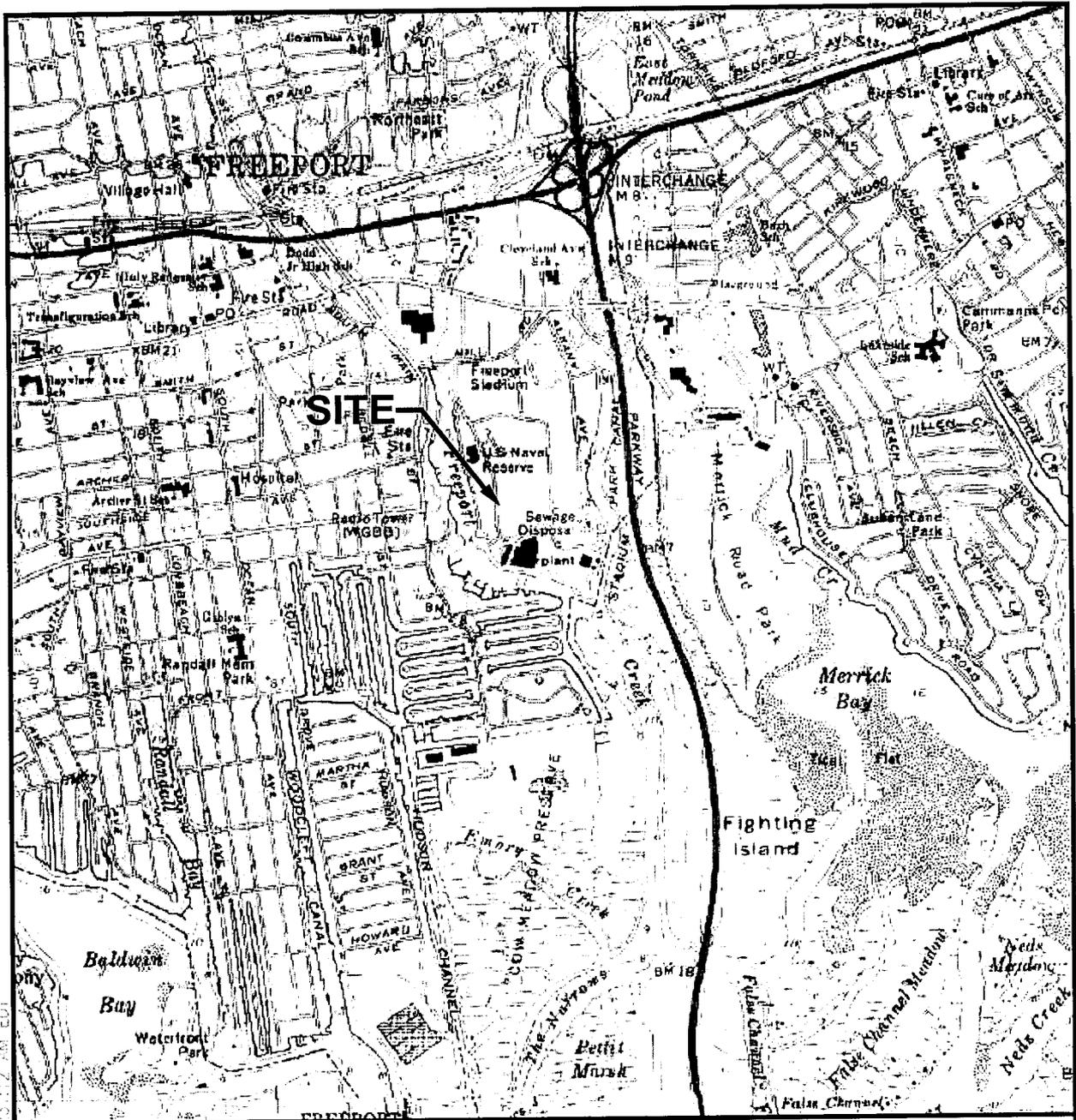
**Health-Related Information:**

Sharon McLelland  
NYSDOH  
Flanigan Square  
547 River Street  
Troy, New York 12180-2216  
Phone: (800)458-1158 ext. 27880  
E-mail: [spm03@health.state.ny.us](mailto:spm03@health.state.ny.us)

**Citizen Participation:**

William Fonda  
NYSDEC Region 1  
SUNY @ Stony Brook  
50 Circle Road  
Stony Brook, New York 11790  
Phone: (631) 444-0350

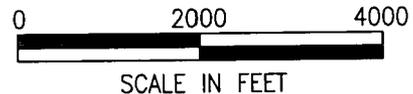
**PLEASE NOTE: In the event of severe weather conditions on February 28, 2008, the meeting will be rescheduled to 7 p.m., March 6, 2008, at the same venue.**



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QUADRANGLE LOCATION



**FORMER COLUMBIA CEMENT COMPANY, INC.**  
 159 HANSE AVENUE  
 FREEPORT, NEW YORK

**SITE LOCATION MAP**

REFERENCE:  
 U.S.G.S. 7.5 MINUTE QUADRANGLE:  
 FREEPORT, N.Y., 1994



12 COMMERCE DRIVE  
 CRANFORD, NJ, 07016  
 PHONE: (908) 272-8300  
 FAX: (908) 272-3940

DATE: 11/08/03  
 JOB: 18564-060-175

**FIGURE 1**