

Letter Health Consultation

TWIN CITY – LEATHER COMPANY SITE
GLOVERSVILLE, FULTON COUNTY, NEW YORK
EPA FACILITY ID: NYN000205962

JUNE 9, 2008

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

You May Contact ATSDR TOLL FREE at
1-800-CDC-INFO

or

Visit our Home Page at: <http://www.atsdr.cdc.gov>

LETTER HEALTH CONSULTATION

TWIN CITY – LEATHER COMPANY SITE
GLOVERSVILLE, FULTON COUNTY, NEW YORK

EPA FACILITY ID: NYN000205962

Prepared By:

State of New York Department of Health
Under Cooperative Agreement with the
U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry



STATE OF NEW YORK DEPARTMENT OF HEALTH

Flanigan Square 547 River Street Troy, New York 12180-2216

Richard F. Daines, M.D.
Commissioner

Wendy E. Saunders
Chief of Staff

April 14, 2008

Arlene R. Anderson
U.S. Environmental Protection Agency, Region II
Response and Prevention Branch
2890 Woodbridge Avenue
Edison, NJ 08837

Re: Twin-City Leather Company Site
Gloversville (C.), Fulton County
Site #: 518820N
Health Consultation

Dear Ms. Anderson:

In September of 2007, the United States Environmental Protection Agency (USEPA) requested assistance from the Agency for Toxic Substances and Disease Registry (ATSDR) and the New York State Department of Health (NYSDOH) to evaluate possible exposures associated with contaminated soil at the Twin-City Leather Company, Inc. (Twin-City Leather) site in the City of Gloversville in Fulton County New York. USEPA requested that potential current human exposure to site contaminants be evaluated with respect to four pathways: potential exposure to residents located in the area; potential current exposure to people that fish in the Cayadutta Creek; potential current exposure to trespassers on the property; and potential future exposure to workers on the property, should the site be re-occupied in the future. This letter is a summary of NYSDOH's public health evaluation of the potential current and future exposures to contamination from the site.

Site Background:

The site is located in a mixed light industrial and residential area in the City of Gloversville in Fulton County, New York. The site is approximately 1.25 acres in size with the remnants of a three-story wood and brick structure occupying the site. A majority of this structure was destroyed in a fire on October 25, 2006. Residential properties are located directly to the west of the site as well as to the south. Cayadutta Creek is also located directly to the south. Twin City Leather formerly operated as a wet tanning and leather finishing business. At this location, Twin City Leather prepared and treated animal skins with liquid and powdered chemicals mixed in solution. The skins were softened using chemicals stored on-site in mixing tanks. The site has been inactive since 2002, and a majority of the chemicals, waste and processed and non-processed animal skins were left on-site.

On October 16, 2006, the City of Gloversville, acting on the city's own local ordinances, obtained access to the site to conduct an inspection of the structural integrity of the building. Also, at this time the City asked that USEPA assist in the inspection to characterize and tentatively identify all hazardous substances abandoned on-site. During these inspections (conducted October 16 to 20, 2006), the building was observed to be in poor condition and in jeopardy of collapsing. Evidence of people trespassing into the building was observed. Several hundred tanks, vats, drums, totes, containers and vials were found scattered throughout the building, approximately half of which were estimated to contain potentially hazardous substances. USEPA sampling revealed waste material containing chrysene, anthracene, pyrene, as well as lead, mercury, chromium, arsenic and cadmium in drums and containers located throughout the building, specifically in the dye storage area, laboratory and processing areas. Three samples were also collected to determine the presence of asbestos fibers in building materials, and were found to be positive.

On October 26, 2006, the City informed USEPA by telephone that a major fire of suspicious origin had broken out at the facility on October 25, 2006. USEPA arrived on-scene the afternoon of October 27, 2006 and was able to provide to the federal, state and city representatives investigating the scene of the fire, the location and tentative identity of hazardous substances, a chemical inventory, sampling information, sampling maps and a floor diagram pertaining to the site.

USEPA indicated that due to the drastic change in building conditions as a result of the fire, the site needed to be evaluated for immediate removal eligibility. From late November to the middle of December 2006, USEPA and its contractors secured the site and conducted a facility-wide cleanup/removal of hazardous substances and other materials from within the on-site structure.

Environmental Sampling:

In August of 2007, USEPA collected 19 surface soil samples from on-site locations near the property boundary (see Figure 1 attached). The surface soil samples were analyzed for Target Analyte List (TAL) metals including hexavalent chromium and mercury. Surface soil sample results were compared to chemical-specific Soil Cleanup Objectives (SCOs) for commercial use (6 NYCRR Part 375 Environmental Restoration Programs Soil Cleanup Objectives).

SCOs are contaminant-specific remedial action objectives for soil based on a site's current, intended or reasonably anticipated future use. In developing the SCOs, New York State Department of Environmental Conservation (NYSDEC) and NYSDOH considered many factors including multiple human exposure pathways (soil ingestion, dermal contact, inhalation, homegrown vegetable consumption, home-produced animal product consumption), short-term and long-term exposures, protection of ecological resources, protection of groundwater and background levels of chemicals in rural soils. Soil cleanup objectives have been developed for several land use categories, including "unrestricted" land use, residential use, restricted residential use, commercial use and industrial use.

The soil cleanup objectives established for the commercial land use category include passive recreational uses, which are considered to be similar to casual trespassing. Since casual trespassing was known to have occurred on the site, and the future use of the site will likely be commercial, NYSDOH compared surface soil data to soil cleanup objectives established for the commercial land use category.

Those analytes with maximum concentrations in surface soil from the August 2007 sampling event that exceeded the chemical-specific SCOs (commercial use) are shown in the Table 1 below. It should be noted that hexavalent chromium was analyzed and not detected in any of the surface soil samples collected on the site.

Summary of Surface Soil Sample Data from Twin City Leather Site Compared to Restricted Commercial Soil Cleanup Objectives (SCO)

Table 1

Analyte	SCO (mg/kg)	Range * (mg/kg)	Average Result (mg/kg)
Arsenic***	16	6.3 - 667	115
Chromium (total)	1500 *	41 - 4570	943

mg/kg – milligrams/kilogram of soil

* SCO for trivalent chromium; hexavalent chromium was non detect in analytical samples

** 19 soil samples collected

***- for arsenic, because the calculated SCO is lower than the rural soil background concentration as determined by NYS DEC and NYS DOH, the rural background level is used for the commercial use soil cleanup objective. Health-based soil cleanup objective for arsenic is 5.9 mg/kg for commercial land use.

In addition to the surface soil samples collected by USEPA, the NYSDEC collected four surface water samples from the Cayadutta creek during October 2006. The first sampling event was conducted on October 27, 2006 and the second sampling event took place on October 30, 2006. During both surface water sampling events, a single sample was collected from the creek in an upstream location and a downstream location relative to the Twin City Leather Site. The surface water samples were analyzed for Resource Conservation and Recovery Act Metals and pH.

The surface water sampling revealed results below laboratory detection limits for all chemicals analyzed, with the exception of barium, which was detected at a concentration substantially below applicable standards and guidance values.

Exposure Pathways:

There are no known completed exposure pathways for the site. Potential pathways of exposure to site contaminants are discussed below:

Dermal contact, ingestion and inhalation of surface soil contaminated with metals are potential exposure pathways for people trespassing on the site and for future site workers, should the site be reoccupied. During the initial site inspection conducted by the City and USEPA it was observed that trespassing was occurring at the site therefore, exposure to surface soil may have occurred in the past. However, following the fire and prior to the removal action work conducted by USEPA, the site chain link fence was reconstructed as well as the addition of orange snow fence to deter trespassing from occurring on the Twin City Leather site.

The potential for off-site residents to be exposed to metal contaminants in site surface soil through the ingestion or inhalation of contaminated dust which has migrated off the site is considered unlikely as the

majority of the site is covered with asphalt pavement, building slabs and vegetation. Based on the available data, the potential for surface soil contaminants from the Twin City Leather site to impact off-site residential properties is unlikely, however, additional on-site data in the areas close to residential properties is needed to evaluate if off-site sampling is warranted.

Analytical data indicate that site contamination has not impacted the surface water quality of the nearby Cayudatta Creek, and therefore the potential for the Cayudatta Creek fishing community to be exposed to site contaminants in surface water is not considered likely. Analytical data on the creek sediment and near-bank soil should be collected to evaluate the potential for the exposures to the fishing community via contact with any contaminants in creek sediment and near-bank soil.

Public Health Implications:

NYSDOH used the SCOs as comparison values to evaluate the environmental sampling results for the site. The SCOs for the "commercial" land use category were used to interpret the data because future use of the site will likely continue to be commercial. The SCOs were developed in consideration of public health. Therefore, commercial use SCOs should be protective of current and future users of the site when considering exposure pathways. Conversely, the identification of chemical constituents in site media at concentrations which contravene SCOs indicates that additional mitigation or remedial actions may be necessary to limit potential future exposures to contaminants in site media.

Surface soil sample results from the site indicate that two metals were found at levels above commercial use SCOs, which were used as screening health comparison values (HCV). As indicated in Table 1, the metals found at elevated levels in site surface soils were arsenic and chromium (total) both metals identified by the USEPA during their initial hazard assessment of stored material within the site building. The commercial HCV for arsenic was exceeded in 13 of the 19 samples collected. The majority of the arsenic exceedances were located on the south side of the on-site structure along the Cayudatta creek. The commercial HCV for chromium was exceeded in four of the nineteen samples collected. As with the arsenic results, the chromium results also indicated that samples collected from the south of the on-site building along the creek revealed results above commercial use HCVs.

The lack of samples to the west corner of the on-site building property and south of the building across the Cayudatta Creek preclude assessing whether on-site contamination is present in the areas nearest to off-site homes. Therefore, an assessment of residential exposures cannot be made. Further sampling on-site is needed to define the nature and extent of contamination in these areas prior to making any determination on potential exposure. However, it is apparent that elevated metals contamination in surface soil is present south of the building adjacent to the creek.

Conclusion:

Arsenic and chromium were found in the surface soil samples collected from the Twin City Leather site at levels above commercial soil cleanup objectives. While a majority of the elevated levels of arsenic and chromium were found on the rear of the property along Cayudatta Creek additional environmental sampling is necessary to fully characterize the site and potential exposures at nearby residential properties.

The site has a fence to deter trespassing and there are no current on-site workers. Therefore, the elevated metals in on-site soils poses no apparent public health hazard. However, because soil contamination is present at levels above SCOs for commercial use, the site could be a future public health hazard for workers, site visitors and trespassers if measures, such as soil removal, are not taken to reduce potential exposures. The data are insufficient to evaluate current or potential future exposures associated with neighboring residences and the fishing community of the Cayadutta Creek making an indeterminate public health hazard under these potential exposure scenarios.

Additional on-site environmental sampling is recommended to provide data to define the nature and extent of contamination and to evaluate exposure and remedial options. Fencing surrounding the site should remain in place to reduce the potential for trespassing to occur. Evaluation of the existing data leads to the conclusion that the rear of the property along the Cayadutta Creek should be remediated to prevent human contact with site contaminants should the use of the property change or in the event that trespassing does occur.

Conclusions about future public health hazards are based on future land use being restricted to commercial or industrial use. If proposed land use is changed to residential or unrestricted, public health implications and public health category will need to be re-evaluated.

Public Health Action Plan:

The public health action plan (PHAP) for the Twin City Leather describes actions to be taken by ATSDR, USEPA and/or the NYSDOH following completion of this consultation. The purpose of the PHAP is to ensure that this health consultation not only identifies public health hazards, but provides a plan of action designed to mitigate and/or prevent adverse human health effects resulting from present and/or future exposures to hazardous substances at or near the site. The public health actions to be implemented by ATSDR, USEPA and/or NYSDOH are as follows:

- 1) ATSDR and NYSDOH will coordinate with the appropriate environmental agencies to implement the recommendations in this health consultation.
- 2) The NYSDOH will assist, if requested, with additional sampling on residential properties near the Twin City Leather Site and in evaluating the public health implications of future sampling results.
- 3) ATSDR and NYSDOH will provide a follow-up to this health consultation as needed, outlining the actions completed and those in progress. Any follow-up reports will be placed in repositories that contain copies of this health consultation and will be provided to persons who request them.

If you have any questions, please call me at (518) 402-7870.

Sincerely,



Nathan T. Freeman
Public Health Specialist
Bureau of Environmental Exposure Investigation

Attachments: Figure 1

Cc: G. Litwin / D. Miles / R. Fedigan/FILE
D. Luttinger / T. Johnson
G. Ulirsch – ATSDR, Central office
A. Block – ATSDR, Region 2

References:

NYS DEC (New York State Department of Environmental Conservation). 2006a. Superfund/Brownfield Regulation, 6 NYCRR Part 375 - Environmental Remediation Programs.
<http://www.dec.state.ny.us/website/der/superfund/>.

NYS DEC/ NYS DOH (New York State Department of Environmental Conservation/New York State Department of Health). 2006b. New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document. Available at: <http://www.dec.state.ny.us/website/der/superfund/techsuppdoc.pdf>



Legend

★ Soil Sample Location



WESTON Weston Solutions, Inc.
AGRI-CHEMICALS Federal Programs Division

In Association With
 Innovative Technical Solutions, Inc.,
 Scientific and Environmental Associates, Inc.,
 and Avatar Environmental, LLC.

**Figure 1:
 Sample Location Map**

TWIN CITIES LEATHER SITE GLOVERSVILLE, NEW YORK	
U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL SUPPORT TEAM 2 CONTRACT # EP-W-06-072	
GEN ANALYST	F. CAMPBELL
EPA QIC	A. ANDERSON
QIC SPM	D. MAYER
FILENAME	TWINCITIES.MXD

DATE PUBLISHED: 08/08/07

CERTIFICATION

The Health Consultation for the Twin-City Leather Company site was prepared by the New York State Department of Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the health consultation was initiated. Editorial review was completed by the cooperative agreement partner.


Technical Project Officer, CAT, CAPEB, DHAC

The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this health consultation, and concurs with its findings.


Team Leader, CAT, CAPEB, DHAC, ATSDR