

Letter Health Consultation

BEC TRUCKING SITE

TOWN OF VESTAL, BROOME COUNTY, NEW YORK

**Prepared by
State of New York Department of Health**

NOVEMBER 30, 2010

Prepared under a Cooperative Agreement with the
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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.

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LETTER HEALTH CONSULTATION

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 **STATE OF NEW YORK
DEPARTMENT OF HEALTH**

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

Richard F. Daines, M.D.
Commissioner

James W. Clyne, Jr.
Executive Deputy Commissioner

November 23, 2010

Mr. Gregg Townsend
Environmental Engineer
NYS Department of Environmental Conservation
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, NY 13204

Re: Letter Health Consultation
BEC Trucking Site
NY State Site # 704007
Vestal (T), Broome County
EPA ID# NYD980768675

Dear Mr. Townsend:

At the request of the New York State Department of Environmental Conservation (DEC), the New York State Department of Health (DOH), in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR), evaluated the potential for people to come into contact with and be exposed to contaminated soil and groundwater at the Binghamton Equipment Company (BEC) Trucking site in the Town of Vestal, Broome County. DOH and ATSDR previously prepared a Preliminary Health Assessment for the site in 1989 (ATSDR 1989), and concluded that the site might pose a health concern for neighboring residents and on-site workers. This letter is a summary of the DOH updated evaluation of the potential for current and future exposure to contaminants at the site.

Site Background and Statement of Issues:

Prior to the mid-1960's the BEC Trucking site was an unimproved marshland. The original owner, Haial Trucking, later to become BEC Trucking, was a manufacturer of truck parts. Haial Trucking filled in some of the marshlands with various fill materials, including fly ash from a local power company. This material was dumped across the site to bring the pre-existing grade up to a level above the marsh.

The site is in an industrial portion of Broome County, on Stewart Road, in the Town of Vestal. The site is a fenced-in lot in a low lying area. The site is bordered by a marsh to the west, another gravel lot separated from the site by a drainage ditch to the east, Stewart Road to the south, and a steep hill about twenty feet high to the north (Figure 1). Miscellaneous construction equipment and supplies are stored on the site. Currently, the surrounding properties are either not accessible for use or are used for outdoor storage of construction related materials. The site has a fence to deter trespassing and there are currently no workers consistently on the site.

BEC Trucking had several municipal contracts for maintenance work with local cities and towns. Quantities of waste hydraulic oil and waste motor oil were reportedly generated as a result of this operation. In addition, BEC Trucking painted the truck bodies that it fabricated; paint thinner was used in this process. BEC Trucking routinely stored drums containing waste engine oil, cutting oil, and other liquid waste materials on the site. In 1981, BEC Trucking filed for bankruptcy.

Concerns related to contamination at the BEC Trucking property began in 1982, when the Town of Vestal found evidence of possible illegal dumping of miscellaneous debris and the improper storage of approximately 50 drums containing what appeared to be petroleum and chemical products. This discovery led to a DEC inspection of the site which determined that 20 of the drums contained waste oils, enamel reducers, paint thinners and waste solvents. Many of the drums were rusted and leaking, and the surrounding soil was oil-soaked. There were also allegations of illegal dumping of waste liquids onto the soil at the site. The site was added as a Class 2 site on the Registry of Inactive Hazardous Waste Disposal sites (Class 2 category is a classification for sites where the disposal of hazardous waste has been confirmed and the presence of such hazardous waste or its components or breakdown products represent a significant threat to the environment or to health). In 1983, the United States Environmental Protection Agency (EPA) excavated the stained soil and removed the drums from the site as part of an emergency removal action. The EPA listed the site on the National Priorities List (NPL) on June 1, 1986.

The site was purchased by COGS, Inc. in 1983, following a foreclosure auction on the property. A portion of the property was transferred to Downside Risk, Inc. and a small parcel of adjacent property was purchased from Broome County in 1986 by James Walsh, which was subsequently transferred to Downside Risk, Inc.

In August 1983, COGS, Inc. contracted with a DEC-approved waste hauler to remove the surface drums. Some stained soil located around the drums was excavated and contained in four drums on-site; these drums were removed by EPA in March 1991.

A remedial investigation and feasibility study (RI/FS) was conducted at the site in 1988 to determine the nature and extent of the contamination at and emanating from the site, to determine what threat the site poses to public health and the environment, and to evaluate remedial alternatives. Based upon the results of the RI/FS, it was concluded that as a result of the previous cleanup activities conducted at the site, the

BEC Trucking site did not pose a significant threat to human health or the environment. Accordingly, on September 28, 1989, EPA signed a Record of Decision (ROD) for this site, selecting "No Further Action." This alternative included performing no further remedial action at the site to remove, remediate, or contain any contaminated soils. The ROD also called for the development and implementation of a monitoring program to ensure that the selected remedy continues to be protective of human health and the environment. The monitoring program included the collection of surface-water, groundwater, and sediment samples along the western and northern margins of the site, and at various locations in the adjacent wetlands, during high- and low-flow conditions initially and again in five years.

Groundwater, surface water, and sediment samples were collected from the site in May and August 1991 as part of the monitoring program. Based on the sampling results, which indicated that significant contaminant migration was not occurring at the site, the site was deleted from the NPL on October 14, 1992.

In 1994, the site was reclassified by DEC as a Class 4 site on the Registry of Inactive Hazardous Waste Disposal sites (Class 4 category is a classification is for a site that has been properly closed but that requires continued site management, consisting of operation maintenance, and monitoring). EPA completed the monitoring program in accordance with the ROD in May and September 1996 concluding that there was no significant migration of contaminants from the site.

In 2006, Mr. Jim Walsh of Downside Risk expressed interest in constructing a building (maintenance shop) on the site, and was advised by the Town of Vestal that he would need permission from the DEC based on the site's Registry status. On September 15, 2006, Mr. Walsh petitioned the DEC to remove the site from DEC's list of inactive hazardous waste sites. In a January 22, 2007 letter, DEC denied the petition because *"The Record of Decision states that, 'a monitoring program will be established to ensure that this remedy continues to be protective of human health and the environment.' However the information submitted in the petition is incomplete in that the monitoring data is out-of-date and not adequately representative of current environmental conditions."* In July 2009, DEC initiated a review of the site to determine the need for further actions and subsequently consulted DOH for a public health evaluation.

Soil Sampling:

As part of the RI, shallow soil samples were collected from 31 locations across the site at depths that ranged from 0-0.5 feet to 0-2 feet. Four of the 31 samples were collected off-site, but near the site. The samples were analyzed for volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs) and metals. A comparison of the results to the Part 375 Soil Cleanup Objectives (SCOs, DEC 2006a) indicates that arsenic was the only compound that exceeded its corresponding SCO for commercial use (i.e., 16 milligram/kilogram (mg/kg)). The 6 NYCRR Part 375 SCOs

are contaminant-specific remedial action objectives for soil based on a site's current, intended or reasonably anticipated future use.

Arsenic in on-site shallow soil samples ranged from 4 mg/kg to 50 mg/kg and averaged 11.2 mg/kg; 4 of 27 on-site samples exceeded SCOs. The exceedances were limited to six locations as shown on the attached Figure 1. Arsenic levels in off-site shallow soil samples from ranged from 11 mg/kg to 34 mg/kg and averaged 20 mg/kg; two of four samples exceeded SCOs. However, there is no documented use of arsenic on-site and fly ash, the presumed source of the arsenic, was used as fill material on and near this site.

Additionally, subsurface soil samples were collected in 1989 from 21 boring locations at one to two-foot intervals at depths of up to 11 feet. Arsenic was detected above the commercial SCO of 16 mg/kg. There were only six exceedances in the 31 samples that were analyzed, with concentrations ranging from 19 to 111 mg/kg. These were located in the same general areas as the shallow soil sample exceedances.

Groundwater Sampling:

The 1988 RI also included the installation of six groundwater monitoring wells and the collection of on- and off-site groundwater during two sampling events. Benzene, which presents a groundwater consumption risk under the future-use scenario, was found in only one on-site monitoring well at a relatively low level. The benzene, however, appears to be related to off-site activities (a leaking underground storage tank on the adjacent Kay Terminals property). That property owner took subsequent remedial measures to address residual benzene contamination.

In accordance with the ROD, additional groundwater monitoring was performed in May and August 1991 and in May and September 1996. Groundwater samples from an on-site monitoring well in the central portion of the site, immediately down-gradient of the area that was filled with fly ash, showed levels of arsenic above NYS drinking water standards. Groundwater moves to the north, toward the wetland, however, elevated levels of arsenic were not detected in the monitoring wells in the wetland. The arsenic contamination in groundwater appears to be localized and no arsenic plume has been identified.

Arsenic concentrations ranged from 28.5 to 195 microgram per liter ($\mu\text{g/L}$) in unfiltered water samples and from 19.4 to 152 $\mu\text{g/L}$ in filtered water samples. The EPA and NYS public drinking water standard for arsenic is 10 $\mu\text{g/L}$.

Because the groundwater data are from 1996, these data may not be representative of current groundwater conditions.

Exposure Pathways:

There are no known completed exposure pathways for the site because the site is fenced and is mostly unused. Groundwater is not currently used for drinking water.

Exposures to on-site workers and trespassers could have occurred in the past through dermal contact and/or ingestion and inhalation of surface soil contaminated with arsenic, and possibly other chemicals where the soil was stained. However, following the removal action work conducted by EPA, a chain link fence was constructed around the site to deter trespassing on the site.

If the on-site groundwater is used as a drinking water source in the future, people could be exposed to arsenic at levels above NYS drinking water standard. Any such use of the groundwater is, however, considered unlikely since future potable water wells would likely utilize the uncontaminated bedrock aquifer or the facility would be connected to the Town of Vestal municipal water system. Off-site groundwater is not impacted.

If the site is developed for commercial or other purposes in the future, based on existing on-site soil data, on-site workers and other people on the property could be exposed to soil containing arsenic at levels above SCOs.

The potential for contact with arsenic in off-site soil exists, based on existing data; however, exposure is likely limited because adjacent areas are vegetated or paved. Additional data are needed to evaluate the degree of off-site contamination.

Public Health Implications:

In consideration of possible future change in the use of the property, 6 NYCRR Part 375 SCOs (DEC 2006a) contaminant-specific remedial action objectives for soil are based on a site's current, intended or reasonably anticipated future use. In developing the SCOs, DEC and DOH 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 exposure duration, 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.

DOH 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 for commercial purposes. The SCOs were developed in consideration of public health. Therefore, commercial use SCOs should be protective of public health for current and future uses of the site as long as use of the property is commercial or industrial. Conversely, the identification of chemical constituents in site media at concentrations which exceed SCOs indicates that additional mitigation or remedial actions may be necessary to limit potential future exposures to contaminants in the affected site media.

Conclusion:

DOH and ATSDR conclude that, under current conditions, and based on existing data, the BEC Trucking Site is not expected to harm people's health. This is because the previous cleanup activities conducted at the site have removed drums and the associated contaminated soil, the site is fenced and trespassers and occasional on-site workers are expected to have only limited exposure to on-site contaminants.

However, if the site is developed for other uses, including actively using it for commercial purposes, people could have increased exposure to on-site surface soil that is contaminated with arsenic at levels above NYS SCOs for commercial use and to on-site groundwater that is contaminated with arsenic at levels above NYS drinking water standards.

Although exposure to nearby off-site soils is likely limited because adjacent areas are vegetated or paved, additional data are needed to evaluate the degree of off-site contamination.

Based on the potential for future exposures, the site should not be removed from the DEC list of inactive hazardous waste sites until the potential for future human exposure to arsenic in on-site and off-site soils and on-site groundwater is re-evaluated.

Recommendation:

The DOH and ATSDR recommend that surface soil samples should be collected off-site to determine the extent of arsenic contamination in the areas where elevated levels of arsenic were detected in 1988.

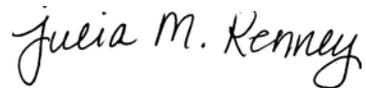
The DOH and ATSDR recommend that surface soil samples be collected in on-site locations where elevated levels of arsenic were detected in 1988.

The current groundwater conditions should be reviewed and possibly new data collected since the data are from 1996 and may not be representative of current groundwater conditions.

The DOH and ATSDR recommend that fencing surrounding the site should remain in place to reduce the potential for trespassing to occur until these other recommended actions are taken.

If you have any questions, please call me at (518) 402-7860.

Sincerely,



Julia M. Kenney
Public Health Specialist
Bureau of Environmental Exposure Investigation

Attachments: Figure 1

ec: S. Bates / D. Miles / G. Laccetti/K. Anders/FILE
D. Luttinger / T. Johnson
G. Ulirsch
L. Graziano

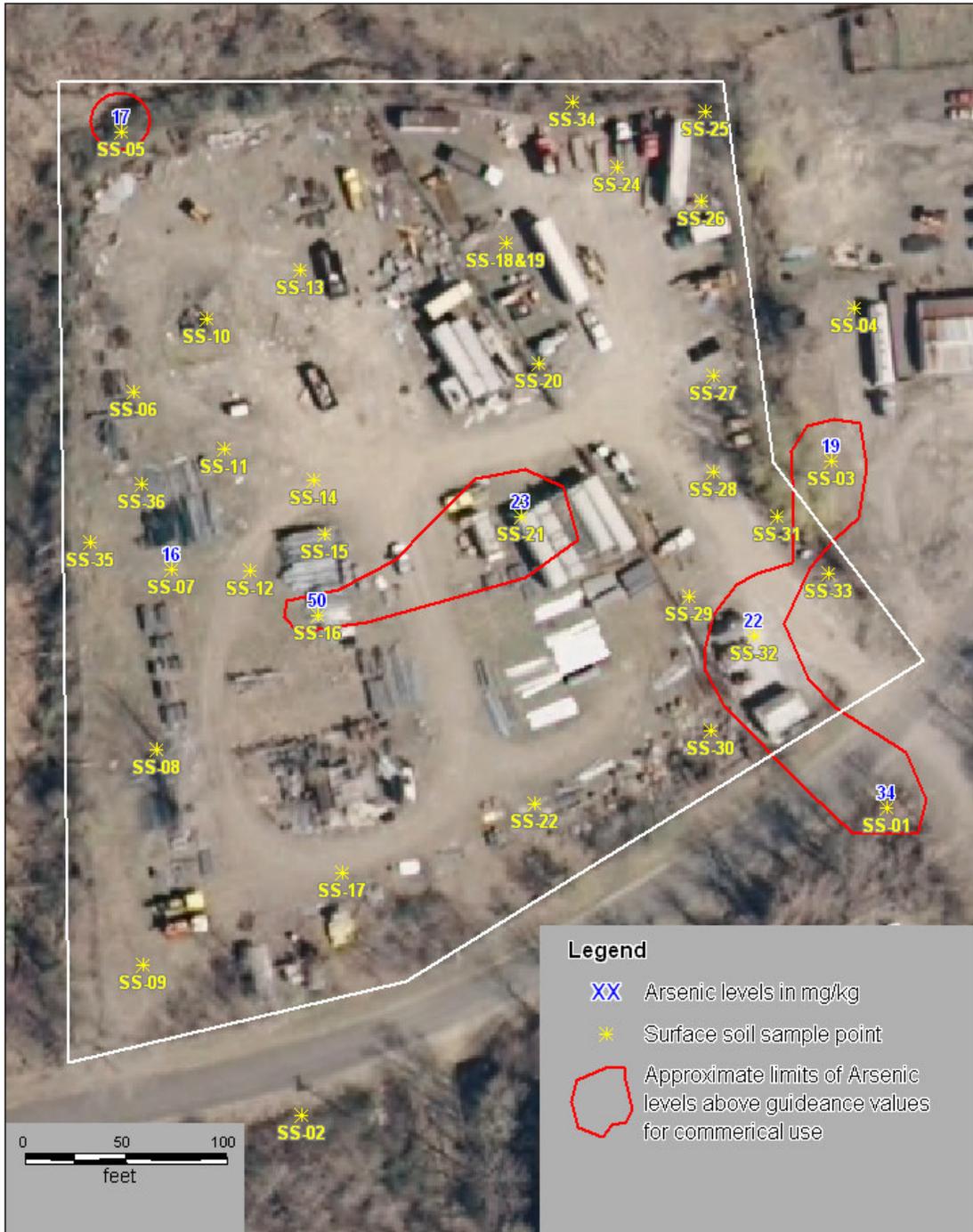
References:

ATSDR (Agency for Toxic Substances and Disease Registry). 1989. Preliminary Health Assessment for BEC Trucking site, Broome County, Vestal, New York. Prepared by the New York State Department of Health under a cooperative agreement with the ATSDR. June.

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

DEC (New York State Department of Environmental Conservation) DER-10/Technical Guidance for Site Investigation and Remediation. May 3, 2010. DEC Program Policy. http://www.dec.ny.gov/docs/remediation_hudson_pdf/der10.pdf

Figure 1.
 BEC Trucking site map showing locations of surface soil sampling points
 and arsenic results that exceed NYS SCO's for commercial use.



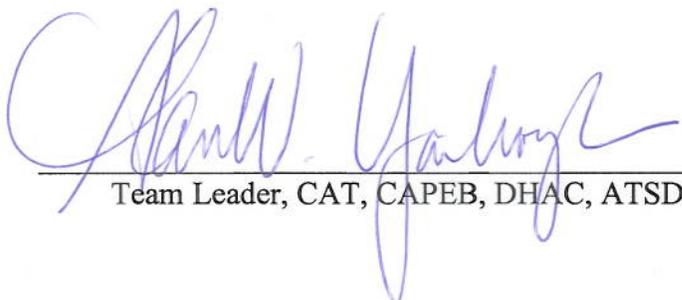
CERTIFICATION

The letter health consultation for the BEC Trucking site, Vestal, New York, 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