



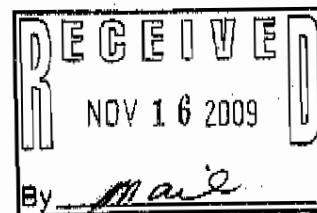
# STATE OF NEW YORK DEPARTMENT OF HEALTH

Corning Tower · The Governor Nelson A. Rockefeller Empire State Plaza · Albany, New York 12237

Richard F. Daines, M.D.  
Commissioner

James W. Clyne, Jr.  
Executive Deputy Commissioner

November 12, 2009



Debra Urbano-DiSalvo  
Village Attorney  
Village of Hempstead  
99 Nichols Court  
Hempstead NY 11551

Dear Ms. Urbano-DiSalvo:

This letter is in response to your request of October 30, 2008 for a cancer study in the area of the groundwater plume associated with the former Hempstead Intersection Street Manufactured Gas Plant (MGP) site. The plume extends into the Village of Hempstead.

The New York State Department of Health has now completed its evaluation of the request. An evaluation was conducted of information related to the potential for human exposures to contaminants associated with the site, and information was reviewed on cancer patterns in the area. Staff from the Department's Center for Environmental Health examined available information on drinking water quality, the air inside and beneath homes and commercial buildings, and contaminated soils at the site. We found no evidence of any completed pathways by which people living in the vicinity of the groundwater plume could have come in contact with site-related materials. There was thus no known potential for human exposure. The Department's Cancer Surveillance Program in the Center for Community Health examined available information on cancer in the community, including information from citizen reports. This information showed that while there were people in the community who were reported to have developed cancer, the overall pattern of these cancers was similar to what is often seen in communities. There was thus no evidence for any unusual cancer patterns. The enclosed fact sheet discusses these evaluations in greater detail.

Further study would be indicated if either the exposure criteria or the unusual cancer pattern criteria were met. Since in this case there was no evidence of either exposure to site-related contaminants among people living in the plume area or an unusual pattern of cancer diagnoses, further study is not indicated.

We are aware of the public interest in this matter. You may feel free to share the enclosed fact sheet, which explains our evaluation and the rationale for our conclusions, with your constituents. If you should have any questions about the overall evaluation process or the review of cancer information,

you may call me at (518) 474-2354. Questions about the environmental health evaluation may be directed to Ms. Sharon McLelland at 1-800-458-1158, ext. 2-7880.

Sincerely,



Aura L. Weinstein M.P.H.  
Director, Cancer Surveillance Program

Cc: Ms. McLelland  
Dr. Lillquist  
Dr. Carney (Nassau County Department of Health)

# Hempstead Manufactured Gas Plant Preliminary Cancer Evaluation

## Fact Sheet

In October 2008, the Village attorney for the Village of Hempstead requested that the New York State Department of Health (NYSDOH) conduct a cancer study in the area of the plume of contaminated groundwater associated with the Hempstead Intersection Street Manufactured Gas Plant (MGP). At that time, clean-up activities were in progress, and the village administration was concerned that nearby residents may have been at risk for health effects related to the plume. In a preliminary review, we evaluated what was already known about the contaminants associated with the site and about cancer in the community. The review considered the following questions.

### 1. Do any of the contaminants associated with the site cause cancer?

Materials associated with the Hempstead MGP site include the "BTEX" compounds (benzene, toluene, ethyl benzene and xylenes), polycyclic aromatic hydrocarbons (PAHs) including benzo(a)pyrene, and hydrogen cyanide.

- Benzene is a known human carcinogen.
- Toluene is not classifiable as to its ability to cause cancer in humans. It can affect the nervous system.
- Ethyl benzene causes cancer in animals and is a possible human carcinogen.
- There is insufficient information to determine whether xylenes cause cancer. Exposure to high levels of xylenes in the air can affect the nervous system.
- Hydrogen cyanide is not classifiable as to its ability to cause cancer in humans. There are no reports that cyanide can cause cancer in humans or animals. Exposure to high levels of cyanide in air or in food or drink can cause coma or death.
- Some PAHs, including benzo(a)pyrene, cause cancer in animals and probably cause cancer in humans.

### 2. Were people exposed to contaminants associated with the site?

Exposure is contact. People can be exposed to a chemical substance by consuming it in food or water (ingestion), breathing it in (inhalation), or getting it on their skin (skin contact). *Without human exposure, there can be no health effects.*

- A plume of groundwater contaminated with substances associated with the site extends underground for a distance of 3500 to 4000 feet south of the site. There are public water supply wells located near the site, and beyond the furthest known extent of the plume. The public water supply wells are tested on a regular basis and have not been affected by the contamination. There are no known private drinking water wells in the area.
- Sometimes, chemical substances in groundwater can make their way out of the groundwater into the air spaces surrounding soil particles and into basements and the air inside buildings. This is called soil vapor intrusion. Testing of the air within and beneath commercial and residential buildings bordering the portions of the plume where the highest

levels of contaminants were detected was conducted between 2007 and 2009. The testing found no evidence of soil vapor intrusion. In addition, soil vapor samples were collected in the city park adjacent to the site, the city park downgradient of the site and along the middle of the plume to determine whether site-related substances had moved out of the groundwater in these locations; no impacts on soil vapor were found.

- Some of the soils at the site were contaminated with site-related substances at and near the surface. These areas, however, were fenced off from the public and covered with gravel, asphalt, and/or vegetation. A majority of the heavily contaminated soils at the site were excavated as an interim remedial measure to a depth of approximately 8 feet below the surface in December 2008 and replaced with clean backfill. Further excavation is planned. The remaining soils are covered by asphalt or secured by fencing.

Based on this information, people from the surrounding community are not expected to have come into contact with contaminants associated with the site either by ingestion, inhalation, or skin contact. There are therefore no documented site-related exposures.

### **3. Is there an unusual pattern of cancer?**

Unusual patterns of cancer may include 1) an unusually large number of cases of the same kind of cancer; 2) two or more cases of a particularly rare cancer; 3) cancers occurring in people of ages where that cancer is not typically seen; 4) many cases in a short time period (one or two years).

Cancer, unfortunately, is a common disease; it occurs in every community. Finding cancers in a community does not necessarily mean that the health status of that community is different from any other community. Rather, it is necessary to look more closely at the cancers to determine whether they might indicate the possible existence of an unusual pattern such as those described above, or simply reflect what is seen in communities everywhere.

The request for an investigation did not include reports of specific residents in the area of the plume or the surrounding vicinity who had developed cancer. At public meetings held in connection with the site, people raised concerns over residents with cancer. The characteristics of the cancers, however, were consistent with what is often seen in communities. Therefore, although there were people diagnosed with cancer in the plume area, these cancers did not constitute any unusual patterns.

### **Conclusion: Is further cancer investigation required?**

Further investigation would be indicated if enough people were exposed to levels of contaminants that were high enough to cause a measurable increase in cancer. Further investigation would also be indicated if there were evidence of an unusual cancer pattern. Contamination associated with the Hempstead MGP has been present for a long time, but there is no evidence that people living in the area of the plume were exposed to any appreciable levels of contaminants by any pathway. There were reports of residents in the area who had developed different types of cancer. The pattern of cancers, however, was not unusual. Further investigation is therefore not indicated in this area.

*For further information on cancer in the community, please contact Aura Weinstein, Cancer Surveillance Program, NYSDOH, at (518) 474-2354. For health questions related to the Hempstead MGP site, please contact Sharon McLelland, Bureau of Environmental Exposure Investigation, NYSDOH, at (800) 458-1158, ext. 27880. For information on the environmental remediation project, please contact Amen Omorogbe of the New York State Department of Environmental Conservation at (518) 402-9564.*