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Geologists and Environmental Scientists
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April 22, 2014

Ms. Helene Forst
Long Island Businesses
for Responsible Energy, Inc.
176 Newtown Lane
East Hampton, NY 11937

Re: Utility Pole Investigation and Soil Sampling, East Hampton, New York

Dear Ms. Forst:

As per your request, Dermody Consulting has completed an investigation of recently-installed utility poles in the Town of East Hampton. The investigation included an inspection of many of the new poles, and soil sampling adjacent to three selected poles.

Utility poles were recently installed along various residential streets in the Town of East Hampton. The poles were reported to have been installed during the last few months. The poles have been treated with the wood preservative pentachlorophenol (also known as penta). The United States Environmental Protection Agency (EPA) states that penta “is extremely toxic to humans from acute (short-term) ingestion and inhalation exposure.” In addition to inspecting the utility poles, the soil in the vicinity of selected poles was sampled to determine if the use of this chemical on the poles has resulted in the contamination of the adjacent soil.

Dermody Consulting visited the area of the recently-installed utility poles on April 10, 2014. During the inspection, it was noted that the poles contained a dark amber color, apparently due to their recent treatment with penta. There was also a significant chemical odor that was noticeable at least 15 feet away from the pole in at least one location. In addition, a small mound of soil was present around most poles to a height of approximately 6 to 12 inches above the surrounding grade. At several locations, dark stained soil was observed within the mounded soil around the pole. At other poles, there was a “halo” of wet, chemical-saturated soil around the poles that extended a distance of approximately of four inches away from the pole. This appears to represent areas where liquid containing penta may have been poured onto the soil to percolate into the underlying soil adjacent to the subsurface portion of the poles.

The three utility poles selected for sampling were as follows:

- PSEG Pole 30 on Town Lane
- PSEG Pole 39 at the intersection of Windmill Lane/Town Lane

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- PSEG Pole 41 on Gingerbread Lane

At each pole, two samples were obtained on April 11, 2014. A shallow (approximately 0 to 3 inches below grade) and a deep (approximately 12 to 18 inches below grade) soil sample were collected from the base of the poles approximately six inches from the edge of the poles. Care was taken to assure that the sampling trowels did not come in contact with the poles when obtaining the soil samples. A strong chemical odor was noted in the vicinity of each of the poles. The samples were collected with polyethylene or metal hand trowels. Prior to obtaining each sample, the trowels were decontaminated using a Liquinox and water wash followed by a water rinse.

The samples were transferred to laboratory-supplied glassware, placed in an ice-filled cooler, and delivered to York Analytical Laboratories, Inc., a New York State Department of Health ELAP-approved laboratory. A chain-of-custody form was completed to document the sequence of sample possession. The samples were laboratory analyzed for semi-volatile organic compounds by EPA Method 8270.

Table 1 summarizes the soil sample results. The laboratory report is provided in Attachment A. Photographs from the sampling are shown in Attachment B.

The results indicate that significantly elevated concentrations of penta were detected in the soil at both shallow and deep locations at two of the three poles. Poles 30 and 39 contained high levels of penta. Penta was not detected at Pole 41. In addition, elevated concentrations of bis(2-ethylhexyl) phthalate were detected at Pole 39. This chemical may have been a component of the penta formulation used on this pole.

The penta concentrations at Poles 30 and 39 ranged in concentrations from 29,900 micrograms per kilogram (mcg/kg) to 250,000 mcg/kg. These concentrations represent significant exceedances of the New York State Department of Environmental Conservation 6 NYCRR Part 375.6 Unrestricted Use Soil Cleanup Objective for penta of 800 mcg/kg.

The use of penta was banned in 26 countries. It was widely used in the United States until it was banned for public use by EPA in 1987. Its use in the United States is now limited to wood preservation of utility poles and railroad ties. The presence of penta on the poles and in the soil in the vicinity of the poles appears to represent a significant risk to human health and the environment.

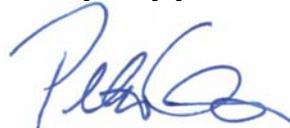
As stated previously, the EPA considers penta highly toxic and, therefore, its presence on utility poles presents an inhalation and ingestion risk. Its presence in the soil presents a dermal contact, ingestion, and inhalation risk. At the poles where penta is present, there is also a high potential for the penta to leach downward through the soil and contaminate the groundwater.

Based on these findings, the following steps are recommended to protect human health and the environment:

- An attorney should be provided with this report to determine if the release of penta to the subsurface represents a reportable contaminant release to the NYSDEC as per 6 NYCRR 613.8.
- The saturated and other highly stained soil around the poles should be removed as soon as possible to attempt to reduce the potential for exposure and groundwater contamination.
- Residences in the area hydraulically downgradient of these new poles should be evaluated to determine if these homes use private drinking water wells. Private well users risk ingestion of penta through contaminated groundwater. Residents in these areas should be advised to have frequent water sample analyses and may wish to consider drinking bottled water until it can be demonstrated that penta is not, and cannot reasonably be expected to impact their drinking water. The EPA drinking water standard for penta is 1 part per billion.
- Since this recently-applied and extremely toxic chemical coats the surface of the poles and can easily be transferred to the skin through dermal contact, safety fencing should be installed around the poles to prevent incidental contact with the poles by children or other persons, pets, and wildlife. In addition, placards should be placed on each new pole to warn residents not to touch or otherwise make contact with the pole or the soil in its vicinity.
- Residents in the area should be notified of the potential hazard associated with the new poles and they should be instructed to avoid the poles so that they do not inhale or ingest penta (penta can be ingested by dermal contact with the pole or contaminated soil, and then transferring the penta by touching the eyes, nose, or mouth).

Should you have any questions, please do not hesitate to contact me. Thank you.

Very truly yours,



Peter Dermody
Principal Hydrogeologist

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cc: Larry Penny
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