



Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428
July 26, 1999

Southeast Regional Office

610-832-6212
Fax 610-832-6143

Mr. Michael J. Cawley, ARM
Vice-President, Risk Management
Eastern Enterprises, Inc.
9 Riverside Road
Weston, MA 02193

Re: Philadelphia Coke Company
City and County of Philadelphia
(Termination of Groundwater
Monitoring Requirements)

Dear Mr. Cawley:

The Department has reviewed all relevant groundwater monitoring data from the Philadelphia Coke Company (PCC) in the City and County of Philadelphia. The PCC groundwater monitoring program was required under the United States Environmental Protection Agency's (US EPA) Resource Conservation and Recovery Act (RCRA) program. The Department has conducted Comprehensive Groundwater Monitoring Evaluation (CME) inspections at PCC under the US EPA RCRA program since 1991. The main groundwater contaminants evaluated by the Department at PCC included benzene, ethylbenzene, toluene, trichloroethylene, tetrachloroethylene, 1,1-dichloroethane and cis-1, 2-dichloroethylene. Other contaminants evaluated by the Department at PCC included sodium, potassium, calcium, ammonia-nitrogen, sulfate, chloride, pH, specific conductance, total organic halogens (TOX), total organic carbon (TOC), iron, manganese, turbidity, arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc. The PCC groundwater monitoring program was conducted on a quarterly basis from 1985 to 1998; in 1998, the Department approved an annual groundwater monitoring program for PCC.

During its review of PCC groundwater monitoring data, the Department has found that concentrations of the majority of the aforementioned contaminants have significantly decreased from 1985 to 1998. Concentrations of iron, manganese, specific conductance, potassium, sodium, calcium, magnesium, sulfate and chloride have continued to remain elevated, even after the removal of wastes (spent iron oxides, contaminated soils and coal tar decanter sludge) from the PCC site in 1988, during RCRA clean-up activities at PCC. Additionally, the Department received closure certification for the PCC site's solid waste management units (SWMUs) (including the surface impoundment and waste piles where coal tar decanter sludge and spent iron oxides were stored) in 1989.



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Presently, the Department has found that concentrations of benzene (16 ug/l) and naphthalene (36 ug/l) in groundwater samples from PCC well MW-2R are above the Safe Drinking Water Act's (SDWA) Maximum Contaminant Levels (MCLs) (benzene: 5 ug/l; naphthalene: 20 ug/l); however, these contaminants were only found in well MW-2R and have not migrated to PCC sampling points downgradient (wells MW-1R and MW-3). Also, none of the other PCC wells (MW-2D, MW-4, MW-5 and MW-6) were found to have any appreciable levels of benzene or naphthalene (or any other organic contaminants) in their groundwater samples since 1994. Therefore, the Department has determined that groundwater contamination at the PCC site that is attributable to naphthalene and benzene is localized, and has been for the past five years.

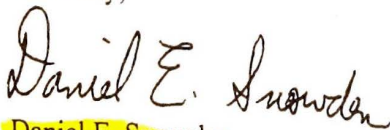
The Department further evaluated iron, manganese, sodium, potassium, magnesium, calcium, sulfate, chloride and specific conductance concentrations in groundwater samples from the PCC wells; it was found that elevated concentrations of all of these contaminants were found to persist throughout the PCC groundwater monitoring program, both before and after RCRA clean-up activities. Therefore, the Department has determined that the elevated concentrations of the aforementioned contaminants in groundwater at the PCC site are a natural phenomenon, and, that the overall groundwater quality situation at the PCC site is a stable one.

The Department shall terminate the groundwater monitoring requirement for the PCC site. After the 1999 annual sampling event, PCC will no longer be subject to CME inspections or any additional groundwater monitoring.

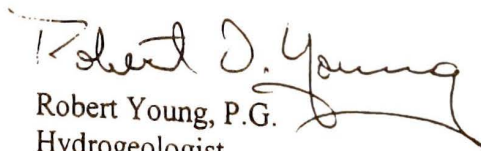
This review was completed under the auspices of a registered professional geologist.

If you have any questions about the Department's decision on this matter, please contact me at 610-832-6170.

Sincerely,



Daniel E. Snowden
Hydrogeologist
Waste Management Program



Robert Young, P.G.
Hydrogeologist
Water Management

- cc: Mr. Wentzel
- Mr. Page
- Mr. Pagano
- Ms. Roncetti
- Mr. Furlan
- Mr. Hon Lee (U.S. EPA)
- Re 30 (RN99WM)203-13