

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Tuesday, October 11, 2011

From: Gary Andrew

Subject: Final

Huntsville Gas Company

426 Dallas Avenue NW, Huntsville, AL

Latitude: 34.7313370

Longitude: -86.5935230

POLREP No.:	5	Site #:	A4TG
Reporting Period:		D.O. #:	
Start Date:	2/25/2011	Response Authority:	CERCLA
Mob Date:	2/14/2011	Response Type:	Time-Critical
Demob Date:	4/28/2011	NPL Status:	Non NPL
Completion Date:	12/21/2011	Incident Category:	Removal Action
CERCLIS ID #:	ALN00040707462	Contract #	
RCRIS ID #:			

Site Description

A manufactured gas plant operated at the Huntsville Gas Company (HGC) site from 1856 to about 1948. The facility originally operated in 1856 as the Huntsville Gas Light Company, using rosin from coal to manufacture gas. In 1932, after several name changes, the facility became the Huntsville Gas company. It is not known whether a carbonization or gasification (or both) process was used at the plant. In 1946, HGC became part of the Alabama Gas Corporation (Alagasco) and the plant was abandoned as the city's distribution system switched from coal gas to propane air gas. Between 1940 and 1950, the City of Huntsville began redeveloping projects in the surrounding downtown area, removing several shanties and old antebellum homes from Dallas Avenue near the plant. The plant was disassembled between 1950 and 1970, though specific date(s) of disassembly and abandonment procedures are presently unknown; two tanks and the purifying house are still visible in a 1954 aerial photograph. In the 1970s, the Huntsville Housing Authority (HHA) constructed the Searcy Homes Development, a portion of which resides on property previously occupied by HGC.

The site is bordered on the west by an unnamed drainage ditch, which flows 200' to the southwest into Pinhook Creek. Directly across the drainage ditch is a Norfolk Southern railroad line, from which coal and other raw materials were allegedly supplied to the HGC facility. Infrastructure in the area surrounding the HGC site changed significantly between 1950 and 1970. The HGC plant was located at the intersection of Rison/Pollard Street and Spragins Street, but portions of both streets were removed prior to the construction of Searcy Homes and were replaced with Dallas Avenue and Monroe Street, which travel parallel to one-another and do not intersect. Property lines in the neighborhood were also redrawn so that the original parcel boundaries of the HGC facility no longer exist. A pre-1950 sanborn map superimposed over a post-1990 aerial image has shown that several current structures reside on the former HGC footprint: a 0.1 acre vegetable garden, a concrete basketball court, the Searcy Homes Office (426 Dallas Avenue NW), and 5 duplex buildings (424 A/B, 422 A/B, 420 A/B, 418 A/B, and 416 A/B on Dallas Avenue NW).

The Alabama Department of Environmental Management (ADEM) conducted a CERCLA Preliminary Assessment (PA) of the HGC site in February, 2003 and issued its findings to EPA in May, 2003. ADEM collected groundwater, surface water, sediment, and soil samples in September, 2004 and submitted its findings in a CERCLA Site Inspection (SI) in September, 2006 to EPA that received a low priority for further assessment. ADEM collected additional soil samples in February, 2007 and submitted a second SI in September, 2007 to EPA that received a higher priority for further assessment based on findings that high levels of Polynuclear Aromatic Hydrocarbons (PAHs) were found in a widespread area. The site was referred to EPA Emergency Response and Removal Branch (ERRB) in January, 2008. The site has been listed in the CERCLA Information System (CERCLIS) under identification number ALN00040707462.

Historical knowledge has shown that the following potential chemicals are often found at manufactured gas plant sites: arsenic, cadmium, cyanide, lead, mercury, benzene, toluene, ethylbenzene, xylene, naphthalene,

phenolic compounds, and PAHs. Analytical results for soil sample collected during the second SI indicated the presence of arsenic, chromium, mercury, cyanide, and 14 organic compounds above Alabama Risk Based Corrective Action (ARBCA) Preliminary Screening Value (PSV) for Direct Contact Exposure in Residential soils. The sample was a composite of 132 individual borings, collected at 0"-18" below ground surface (bgs), over 3 acres of the estimated HGC footprint. Concern was raised about the findings due to high levels of several constituents, particularly PAHs, being found in this particular composite sample which had a high probability for dilution.

Current Activities

On June 29, 2011 GEI conducted two sub-slab soil vapor samples, two indoor air samples and one outdoor air sample for each of three units (units 416, 422, and 424). This additional investigative action was taken due to the observation of MGP impacted residual materials which were observed at the limits of the original excavations under the buildings. GEI followed protocols approved by the OSC after consultation with ERT and START and TSS. A START contractor was on site to observe the sampling.

On October 19, 2011 a conference call was held with GEI, and EPA to discuss the results produced in the draft sampling report. TSS concluded the following:

- "Outdoor air, indoor air and sub slab samples were taken from Units #416, #422 and #424. Indoor air and subslab samples are often coupled together to aid in the determination of vapor intrusion and to enable determination of background. Results (Tables 1, 2 and 3) showed measurable levels in all locations however the levels were below or within EPA risk targets, except for location #422 due to PCE.
- Soil gas measurements collected from beneath a building will provide a good indication of what volatile chemicals could migrate into it. If COCs in the sub slab soil gas or crawl-space vapor samples are not observed to be equal to or higher than indoor air concentrations in the building, it is reasonable to conclude that any measured constituent in the indoor air samples is derived in part from other background sources.
- It is recommended that the indoor air in Unit #422 is re-sampled to determine if the presence of PCE is an outlier, an indoor air source or due to a seasonal fluctuation before mitigation can be determined."

The OSC spoke to representatives of the Huntsville Housing Authority and to ADEM about these findings. The OSC recommended that the two entities coordinate further action with this unit and that the unit remain vacant until a source can be verified or further sampling results for PCE are below the EPA RALs.

The Final Pollution Report and the Vapor Intrusion Report were received from GEI In early November 2011. The OSC has reviewed the reports and found them to be complete and that work has been performed in accordance with the AOC.

Planned Removal Actions

No further actions are anticipated.

Next Steps

Concerns for indoor air concentrations of PCE in Unit 422 will be formally referred back to ADEM for follow up.

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