

Hy-Vee RBCA Tier 1 Assessment

Dubuque, Iowa - August 2014

Seneca Companies' Environmental Services team recently discovered a gasoline release at a Hy-Vee Gas location. The release was discovered when analysis of a groundwater sample from an underground storage tank (UST) excavation detected the presence of gasoline. As required by the Iowa Department of Natural Resources (IA DNR), the release was reported. Seneca then completed a Risk-Based Corrective (RBCA) Tier 1 Assessment.

An RBCA Tier 1 Assessment identifies sensitive receptors in the vicinity of the petroleum release. From there, it will use that information to determine the risk of that receptor based on the concentrations of the petroleum compounds. Receptors can be wells, basements, sanitary sewers, plastic water lines and surface water (such as streams).

A Tier 1 Assessment includes:

- 1) Field investigation to determine the maximum concentrations of chemicals in soil and groundwater
- 2) Surveying the surrounding area for receptors and comparing maximum contaminant concentrations

The site features a large UST system and required many line borings for the RBCA Assessment. In total, sixteen (16) soil borings and three (3) groundwater monitoring wells were installed near a large, active fueling kiosk. The area contained a high density of subsurface utilities and fuel lines. In order to decrease the chances of potentially severing a utility, soil borings were carefully advanced by hand for the upper five (5) feet.

The Leaking Underground Storage Tank (LUST) incident was given a "No Further Action" Certificate from the IA DNR on August 27, 2014. This means that no identified pathways (related to receptors) showed high levels of gasoline. From the initial release detection to the receipt of the No Further Action Certificate took just eighty-nine (89) days.

What is RCBA?

The Iowa Department of Natural Resources (DNR) Underground Storage Tank (UST) Section utilizes the Risk-Based corrective action (RBCA), which assesses the risk(s) posed by petroleum contamination using site-specific conditions and a tiered approach to protect human health and the environment. Based on the results of the tiered assessment, corrective action can then be used to minimize or remove risk(s).

Corrective action options can include:

- reducing contamination through active or passive methods
- using technological or institutional controls
- or monitoring

Source: [Iowa Department of Natural Resources](#)



ABOVE: The Hy-Vee Gas fueling kiosk where the project took place.

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