



**Project:**  
**USSGW -**  
**Storm Water Lift Station**

**Owner:**  
**U.S. Steel - Gary Works**

**Installer:**  
**Martin Products Corp.**

**System:**  
**EnviroLastic® AR425**

**Completed:**  
**October, 1997**



United States Steel, Gary Works, has survived as one of the few large integrated steel mills left in the world. To be a fully integrated steel mill means that they run a Coke Plant. The coking process requires large stock piles of coal. The fines from these stock piles is known as coke breeze and the Indiana Department of Environmental Management (IDEM) noticed some in the adjacent Grand Calumet River.

The resulting consent decree called for a system of collection pipes and lagoons to collect storm water and prevent coke breeze from being washed into the river. The heart of the collection system is a lift station at the low point in the coke yard which pumps storm water to the lagoons so the coke breeze can settle out prior to the water being discharged.

The potential problem with the precast concrete lift stations was that if they ever experienced ground water infiltration, their content would quickly change from storm water to hazardous material due to known levels of ground water contaminants.

Prior experience in the plant with EnviroLastic led the engineers on the project to specify 80 mils of EnviroLastic to coat every square inch of the outside of the precast concrete, including the bottom. A membrane envelope was created on the structure to keep ground water out of the system.

Another unique aspect of the project was that Martin Products, the licensed EnviroLastic applicator, coated the precast units at the precast concrete manufacturer's plant before they were shipped to U.S. Steel. Once on-site the units were set into the excavation, Martin Products' crew sprayed all the seams to finish the membrane. This approach allowed the bottom to be done at the precast concrete manufacturer's plant where they had the equipment to handle the 40,000 pound pieces.