

PROBLEM Solution

Project:
AMOCO Oil Company-
Cooling water pipe
junction box

Owner:
AMOCO Oil Co.

Installer:
Martin Products Corp.
Grafton, WI

System:
EnviroLastic® AR 425

Completed:
January, 1997



The AMOCO Oil Company has had a refinery in Whiting, Indiana, for over 100 years. The heritage of the area is similar to most American industrial communities. The benefits of high wage occupations and corporate community involvement are coupled with high environment impact. In this case, oil on the water table.

This facility uses water from Lake Michigan as do many of the steel mills and power plants around the lake. A 36 inch diameter pipe carrying single pass cooling water travels to several units within the refinery. When a slight oil sheen at the outfall was noticed, it was a big problem. If this pipe is shut off, half of the refinery goes down. The source was traced back to infiltrating ground water in a concrete junction box where several loops come together. The problem was how to rehabilitate a leaking underground concrete structure which is 60 or 70 years old, while the water flow cannot be shut down.

The solution was to bring together experienced contractors to excavate around the outside of the structure to a point a couple of feet below the low point of the water table, pump and treat ground water to keep the excavation open, and seal the outside surface of the concrete. The critical choice of a coating with the flexibility to maintain its integrity through hard winter freeze/thaw cycles was simplified by EnviroLastic AR 425.

Martin Products, the licensed EnviroLastic applicator, prepared the surface by sandblasting and spray applied EnviroLastic AR 425 to a thickness of 100 mils. The 100% solids, fast cure, flexible coating bridged cracks and filled voids in the old concrete. When the backfill was completed, the oil sheen was gone, problem solved.