AK Steel Chooses 36" PVC

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In an industry that has seen difficult times, AK Steel stands out as an American steel manufacturer that has arrived. Through intelligent business decisions based on long-term performance, they have fared much better than most of their competition. At a time when many are shrinking away, AK Steel has managed to expand.

In the spring of 2001 a planned expansion at their Rockport, Indiana facility resulted in the need for additional effluent drainage. The AK Steel Design Team along with its consultants — Eichleay Engineers & Constructors and GAI Consultants — determined that a 36-inch line would be required. The line would pass through some environmentally sensitive areas and an important archeological site along its seven-mile route from plant to outfall.

A bottle tight pipeline, which would provide long-term performance with low maintenance and operation costs, was the solution AK Steel and its consultants were seeking. Gasketed PVC manufactured in accordance with ASTM F679 was determined to be the ideal product for this application. Approximately 34,000 feet of 36-inch PVC pipe with a locked-in-place "rieber" gasketing system was utilized on the project.

AK Steel selected Reynolds, Incorporated to construct the line. Reynolds is a highly acclaimed national contracting company who is very familiar with large diameter pipe projects. It was very important to AK Steel that the right contractor be selected because completion of the line was required to move forward with its plant expansion. Construction began in September of 2001 and was completed in April of 2002. Patrick Stalker, Project Manager for Reynolds, used several crews to complete the project within the required time frame.

The line had burial depths ranging from six feet to approximately twenty-six feet. A clean INDOT number eight crushed stone, with a maximum particle size of 3/4-inch, was used for embedment. The line crossed under a railroad in a couple of locations, which required a casing. In addition, several manhole connections were made, which proved to be easy with the solid-wall, cast-iron-outside-diameter, 36-inch PVC. Before the line would be accepted, the entire length underwent a low-pressure-air test. It passed with flying colors.

The decision to use 36-inch PVC has already proven to be the best short-term decision and, with time, will prove to be the best long-term decision as well.