

# R.T. Patterson Company, Inc.

## Engineers and Consultants

### CLIENT

US Steel Corporation – Gary Works

Gary, Indiana

### PROJECT

84" Pickle Line Modification

### PROJECT SCOPE

The project involved modifications to an existing pickle line. These modifications consisted of mechanical and electrical upgrades for increased productivity and quality control. To increase productivity, several mechanical and electrical upgrades were required. As a result of increased line speed, modification to the existing looper car capacity, tracking, tension control, drive packages, control systems and diagnostics were modified. Quality control resulted in the existing pickle tanks to be replaced, and a totally new solution control being implemented.

This project was very interesting from the stand point of engineering design, due to the existing conditions. This line supplied a product to several other mills within the corporation. The outage window being narrow in time span required innovative methods to be used to replace the pickle tanks, increase looping cars capacity and minimize the amount of electrical items on the critical path.



### RTP SCOPE OF WORK

RTP scope included developing a feasibility study with a preliminary estimate, construction schedule and outage schedule. Project management was required, including structural inspection and repair recommendations to develop specifications and prepare the technical evaluation, expediting and maintenance of schedules and estimates.

Multi-discipline installation engineering consists of single line diagrams, embedded conduit, lighting, general arrangements, motor sensor lists, conduit and cable schedules, cable tray layouts, exposed conduit layouts, demolition and staging drawings. Extensive field documentation was required to support the staging drawings. Mechanical piping, machine design, structural, foundation and architectural disciplines were also involved including discipline related construction & start-up assistance.

Duration of engineering was approximately 12 months.



**Project Value: \$30 Million**