

R.T. Patterson Company, Inc.

Engineers and Consultants

CLIENT

AK Steel Corporation
Butler, PA

PROJECT

No. 4 Cooling Tower Replacement Project

PROJECT SCOPE

The Project consisted of replacing an existing 8,000GPM crossflow Cooling Tower (identified as the No. 4 Cooling Tower) with more modern, modular Cooling Tower units. The No. 4 Cooling Tower was operating at roughly 37.5% of its originally designed output, to be replaced with two (2) new 2,500GPM modular Cooling Tower units, with a future provision set in place for a third unit, should demand require it.

AKBW's No. 4 Cooling Tower was isolated from service and dismantled down to its 44-J Building's corrugated, metal roof. During the transition period from the No. 4 Cooling Tower's service to the new modular units' service, a temporary Cooling Tower skid was utilized, serving as a proxy unit, while maintaining the current demands of the facilities.

The two (2) new, modular Cooling Tower units were installed in the same location as the No. 4 Cooling Tower. Prior to the installation of the new units, a series of new structural supports and new roof were erected, built off the 44-J Building's existing trusses. Additionally, new access walkways and supports, piping [and supports], electrical feeds, equipment and lighting were installed to support the service of the new modular units.



RTP SCOPE OF WORK

RTP provided the following installation engineering services:

- Field investigations for the preparation of General Arrangement & layout drawings
- Project Management services
- Preparation and maintenance of Project EPC schedule
- Generation of Construction Specifications and Preliminary Cost estimates
- Structural Steel and Architectural Design drawings
- Process and Utility piping design and installation drawings
- Electrical design and installation drawings to support the new Cooling Tower installation
- Project also included RTP supplied programming, start-up and commissioning services.
- Project commissioned March 2019.

