

Mound Facility Bldg 105 Retro-Commissioning

Miamisburg, OH

Commissioning Completion: 2008

Size: 26,600 SF



Project Description

The Mound Facility (MMCIC) was originally designed as a campus under the Department of Energy. A central power plant originally provided brine and steam to all of the buildings on the campus. As part of a decentralization plan, MMCIC initiated a project to sever the mechanical service feeds to the individual buildings and install stand-alone systems.

In 2000, new boiler and chiller plants were installed in Building 105, while the existing air handling units were maintained. The new chiller plant included a 161-ton packaged chiller that utilizes two separate screw-type compressors in series. It was reported that both compressors realized failure within the first two years of operation, and new compressors were installed under warranty. Subsequently, one of the compressors failed again.

Initially, MMCIC contracted Tri-Tech to identify the cause of failure of the compressors. After Tri-Tech's initial investigation, it determined the facility was not being adequately controlled throughout, resulting in inadequate environmental controls and failure of existing equipment. Tri-Tech developed a retro-commissioning plan to address the overall HVAC systems throughout the facility.

The commissioning plan included abandoning the pneumatic control system; installation of a DDC system, including retrofitting existing control components with new actuators; and implementing a Building Management System (BMS).