



**Systems Commissioned:**

- Office and lab air-handling units (AHUs)
- Lab fan coil units (FCUs)
- Lab exhaust fans
- Heat recovery skid
- Plant steam and condensate
- Plant chilled water
- Heating hot water
- Domestic hot water and pumping systems
- Lighting/daylighting controls
- Electrical sub-metering
- Process systems/equipment
- Clean steam generator
- Water pretreatment skid (softeners, RO, pumps, HX)
- Treated water storage tank
- Instrument and distribution pumps
- UV light
- Autoclaves with CSG
- Wastewater collection
- Emergency generator
- ATSS
- Uninterruptible power supply (UPS)
- Fume hoods / BSC
- Air compressor and dryer
- Vacuum skid and receiver
- 5% CO2 manifold
- HPN2 manifold
- N2, O2, CO2, LN2 bulk tanks
- Process chilled hot water skid
- Walk-in freezers/refrigerators
- Walk-in environmental rooms
- SRVs associated with above equipment

Commissioned: Q2 2022

**Honors:**

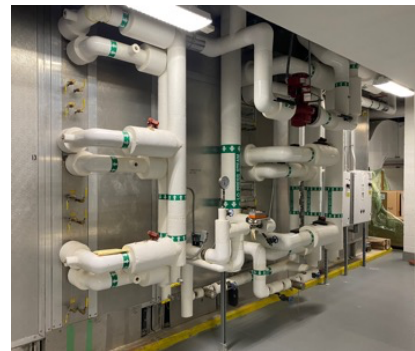
LEED Silver Certification

**B46 Vaccines Expansion  
PA**

The project involved phased renovation of the B46 facility using Integrated Project Delivery (IPD) and Lean Construction methodology. The entire project team was required to identify and plan for safe tie-in and start-up activities as each subsequent phase was brought online. The Owner committed to seek LEED Silver Certification, LEED-V4 for BD+C: New Construction and Major Renovation.

PrecisCx performed paperless commissioning services – a first for the site – as part of the LEED process, which incorporated Fundamental and Enhanced Commissioning Option 1, Path 1. The PrecisCx team performed system walkdowns and phased functional testing, participated in safety inspections with the project team and for Factory Acceptance Testing (in the U.S. and abroad), provided for gas and water sampling and site acceptance testing and start-up activities, reviewed submittals, and generated and executed installation checklists.

This project had the unique challenge of being in active construction as the COVID-19 pandemic shutdowns began. The project was deemed critical to the site; as a result, risk-mitigation measures were put in place by the owner to ensure the safety of all project team members. These measures included limiting on-site personnel to as-needed-only to perform the task of the day. This required careful coordination by PrecisCx to ensure that all participating subcontractors were available during testing. The use of paperless commissioning software allowed for timely turnaround of input into the owner’s asset management programs and allowed the extended commissioning team real-time access to the commissioning status of each system and piece of equipment. Open issues and deviations were able to be quickly itemized and addressed by field personnel.



**Project Reference**

Confidential

**Project Data**

Size: 104,500 square feet  
 Category: Pharma/Biotech  
 Scope: Renovation | BSL-2  
 Type: Paperless LEED Commissioning  
 Cost: \$150MM

**PrecisCx Team**

Principal in Charge: Kari Donovan, PE, CxA  
 CQV Engineer: Jon Carmody  
 CQV Engineer: Lauren Schilling  
 CQV Engineer: Stephen Obermeier  
 CQV Engineer: Robert Tarlo