Ikenberry Dining Hall

Building Gross Sq. Ft: 139,557

Retrocommissioning Team Visit Period: December 2019—

Principal Building Use: Student Dining

Building & Occupant Overview

The Ikenberry Dining Hall (SDRP) is a LEED Silver-certified building located in Ikenberry Commons on the University of Illinois campus. It was built in 2010 and features a variety of sustainable design elements, including recycled materials, water-efficient plumbing fixtures, energy-efficient lighting and heating/cooling systems, and a white reflective roof. The SDRP is a popular dining destination for students, faculty, staff, and visitors alike. It offers a variety of dining options, including seven micro-style restaurants with a variety of cuisines, a grab-and-go market, and a coffee shop. The SDRP also features a variety of seating areas, such as the indoor dining area as well as study and lounge areas.

Retrocommissioning Specifics & Results

Melink kitchen exhaust hoods had failed and were constantly exhausting air at full speed. This required the team to coordinate with kitchen staff to understand operation, adjust temperature settings, and replace failed IR sensors.

Fan powered boxes with malfunctioning motors had their fans removed to convert them to traditional VAVs.

Exhaust air dampers were separated from return dampers to allow the unit exhaust to be turned off and pressurize the building.

In total, the Retrocommissioning Team has been successful in reducing costs by over $616,000 as of September 2023, with a projected savings of $120,000 annually, corresponding to a substantial 49.55% reduction in total energy consumption in the first year.

Project Highlights

- ☐ Scheduled kitchen exhaust fans off during unneeded times
- ☐ Calibrated Melink kitchen hood controls to turn on based on heat and smoke presence
- ☐ Reduced supply airflow to kitchen areas during breaks
- ☐ Turn off kitchen lights during breaks
- ☐ Relocated thermostats on south wall out of sunlight
- ☐ Converted fan powered boxes to VAVs
- ☐ Turned off unnecessary EFs to storage closets
- ☐ Upgraded control system to BACnet
- ☐ Redirected long-throw diffusers towards doors
- ☐ Added and calibrated CO2 sensors
- ☐ Added occupancy sensors to study rooms
- ☐ Adjusted building pressure control
- ☐ Calibrated VAVs and AHUs