



Kyle Halverson, P.E., QCP

Since joining our team in 2011, Kyle Halverson has enjoyed using today's technology to positively impact our clients' comfort. He has experience drafting and designing mechanical systems for manufacturing, commercial, and healthcare facilities, as well as a design analysis of a National Hockey League stadium. He participates in our commissioning and retro-commissioning services, ensuring building systems function as they were intended. Kyle excels at analyzing data from building systems using spreadsheets and related graphs and charts, calculating building heating/cooling loads, and surveying a wide range of facilities for existing conditions and systems.

Kyle is proficient with building energy modeling, drafting and reading mechanical drawings, creating control drawings and sequences, and using test instruments as well as data loggers. He is an expert at AutoCAD, Revit, Trace 700, and various equipment selection programs. He brings enthusiasm, attention to detail, and a deep desire to learn and to help Pearson Engineering grow in the field of HVAC engineering.

In 2019, Kyle became a partner at Pearson Engineering. The staff is proud to rely on Kyle during every opportunity to investigate, test, troubleshoot, brainstorm, and design solutions to positively impact our clients' comfort and energy consumption.

EDUCATION

University of Wisconsin: BSME degree

University of Wisconsin-Madison: Qualified Commissioning Process Provider Certification (QCP)

PROFESSIONAL AFFILIATIONS

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

Wisconsin Healthcare Engineers Association (WHEA), Chapter II

WORK HISTORY

2019 Principal, Pearson Engineering
2011 Project Engineer, Pearson Engineering
2010 Student Co-op, Pearson Engineering
2008 Engineering Intern, Thyssen-Krupp Waupaca Foundry
2006 Carpenter, K & E Builders, Waupaca WI

REGISTRATION

Wisconsin No. 44595-6

SIGNIFICANT PROJECTS

ProHealth Care UW Cancer Center, Pewaukee WI. To provide Commissioning Services for a new Cancer Center Clinic, Pearson Engineering reviewed design documents, control sequences and devices, as well as design phase equipment selections. During the construction phase, the commissioning team provided functional testing services on all mechanical equipment, including chillers, cooling towers, process chillers, dry coolers, condensing hot water boilers, steam boilers, air handlers, exhaust fans, pumps, and 100% of VAVs and unit heaters. The commissioning team discovered discrepancies and worked with the construction team to resolve construction and noise issues, and reduce excess airflow. Pressurization variances were resolved with regard to the building exterior and between indoor spaces.

DN Greenwald Clinic Expansion, Mukwonago WI. Pearson Engineering was engaged to design mechanical systems for a 70,000 ft² healthcare clinic expansion. The project included connecting a new water-cooled chiller into the existing air-cooled chiller plant and adding a cooling tower, two additional condensing hot water boilers, variable volume air-handling systems, steam boiler and humidification system, snow melt system, makeup air unit, and terminal devices. The design was completed using 3D building modeling software, which included surveying and modeling all mechanical components in the existing 145,000 ft² clinic. We created control schematics, sequences of operations, and points lists for all new mechanical systems, and replaced controls on all existing systems. Once complete, Pearson Engineering also performed functional testing on all new and existing mechanical equipment.

Northwestern Mutual, Milwaukee WI. An extensive retro-commissioning project at a nineteen-story office building on Northwestern Mutual's headquarters campus, this project included functional testing of all air-handling systems, two chiller plants, and sampling of twenty percent of terminal devices. We presented a comprehensive report identifying testing results and seventeen proposed retro-commissioning measures which lead to energy savings of approximately eleven percent. Retro-commissioning measures included a mix of low-cost control-related measures and capital measures, with a combined simple payback of 6.7 years.

Lillibridge Healthcare Services, Birmingham AL. Pearson Engineering led a control upgrade of a medical office building from pneumatic to DDC. Included in this project was a new Building Automation System (BAS) that is accessible via the internet, upgrading controllers and sensors on Air Handlers, Heating System, Cooling System, VAVs, and Exhaust Fans. The building was also surveyed, and a heat load calculation was conducted to re-balance the VAV boxes throughout the building. A set of mechanical ductwork Record Drawings was also created.

Tribune Tower, Chicago IL. Services provided in a landmark gothic style building on Michigan Avenue featured converting the 1925-era high pressure steam system to low pressure. Analysis included survey and data logging to determine the current reduced steam load as the printing functions at the facility were eliminated and those spaces converted to offices. The existing high pressure system was modeled, and then the model modified to reflect new capacity and lower pressure. Bottlenecks were determined and eliminated to allow for operation at low pressure. A complete new, drastically reduced in size, low pressure steam boiler plant was installed. The project was phased to keep steam available during the conversion except for scheduled weekend shutdowns. The \$2.5 M project resulted in a 3-year payback due to a 38% annual gas savings, a utility incentive bonus of \$230,000, and operational labor savings.

Briggs & Stratton, Milwaukee WI. To reduce Natural Gas use for a facility of 1.5 million square feet of manufacturing, warehouse, and office spaces, Pearson Engineering was hired to accomplish several significant projects: Heating system replacement, Reduction of connected steam load, Conversion of the steam system from high to low pressure, Analysis of existing steam distribution system to utilize that equipment with low pressure steam, Converting industrial parts washers from high to low pressure steam, Installation of a new boiler plant, Instituting winterization energy management processes to close up the building and shut down summer ventilation equipment. The total project cost of \$3.0 million was offset by a Department of Energy (ARRA) Grant for \$1.3 million, resulting in a two-year payback.

Newcomb Office Building, Madison, WI. This LEED project included creating an energy simulation to calculate savings of the proposed design of an 11,000 SF office tenant build-out versus a baseline model (as defined by LEED). Pearson Engineering assisted in documenting points for the LEED Commercial Interiors program.