

The Buildings of Dalhousie University

F Building

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Address: 1360 Barrington St.

Start Date: Completion Date: 1910
1909

Architect: Renovation Date(s): 1919; 1921; 1924;
Herbert E. 1926/27; 1953; 1962 & more (see text)
Gates

Contractor:



Chemical Engineering and Centre for Energy Studies, n.d.



Chemical [Engineering] Building, n.d.

Building History

Work on the brick, one-story F Building was completed in 1910. Designed by architect Herbert E. Gates, it was originally built to accommodate the Nova Scotia Technical College's Mechanical Engineering Department and a power plant, as well as laboratories for materials strength, hydraulics and heavy equipment.

In 1919, "half of the ground floor was converted into a machine shop for the training of [World War I] veterans . . . A few years later this machine shop was used by engineering students when machine tool operation became a regular course in the Mechanical and Electrical Engineering Departments" (Baker 6).

In 1921, a second story of 6,000 square feet was added at a cost of \$30,000. The floor was made up of six staff offices, four large lecture rooms and two drafting rooms, and the building's laboratory facilities remained on the ground floor. At that point, the building was 154 feet long and 40 feet wide.

In late 1924, a brick wing 1.5 stories high was added to serve as a boiler house. This resulted in the rearrangement of the steam and hydraulic laboratories, and the machine shop was awarded both more room and more effective working space. The work was done by Keefe Construction Company; the new boilers were installed in the summer of 1926.

During the 1926/27 academic year, the space vacated by the boilers in the old power and heating plant was divided into two floors by the addition of a steel frame and a reinforced concrete floor. The upper story housed a hydraulics laboratory, while the lower one held materials testing machinery and machine tools. Most of the renovation work and the installation of the new equipment were done by the College's regular staff.

In 1953, the Civil Engineering Department's drafting rooms and classrooms were transferred from the second floor to the A.L. Macdonald Building, leaving the entire second floor of the F Building to the Mechanical Engineering Department. Also at this time, some equipment was moved out of the F Building's ground floor and a heat-engine laboratory was set up in the vacated space (Baker 7).



Installation of Boiler in Chemical [Engineering] and Centre for Energy Studies Building, c1972-1973

In January 1961, all of the Mechanical Engineering Departments facilities - except the heat- engine lab - were moved to the newly-constructed A and B administrative buildings. In the early spring of 1962, work began on renovating the building's second floor to provide offices and a new, integrated physical science laboratory space for the Department of Chemical Engineering. The physical work was done by the provincial Department of Public Works, and it was completed in September 1962. The official opening was performed by Nova Scotia Premier R. L. Stanfield on February 8, 1963. Also in attendance were College President George W. Holbrook, Dr. M.R. Foran, Head of the Chemical Engineering Department, and Dr. H.F. Manske, Vice President of the Chemical Institute of Canada.

In the summer of 1964, the ground floor - except for the heat-engine lab - was renovated to provide more space for the Chemical Engineering department. The space was used for the installation of new organic and organic process laboratories, plus new facilities for graduate students.

In December 1965, an extension was added to house a four-story Unit Operations Laboratory for the Chemical Engineering Department, which allowed that lab to leave the space it occupied in the Murray (G) Building. The laboratory was completed, equipped and ready for use by September 1966, thanks largely to the design, planning and implementation guidance of Dr. I.J. Harris of the Chemical Engineering Department, who spent three years on the project. The laboratory addition was officially opened on August 26, 1966 by College President George W. Holbrook, Nova Scotia Premier Robert L. Stanfield, Mr. J.A. Armstrong, Executive Vice President of Imperial Oil Ltd. and Mr. George Zinck of Mardo Construction, the construction firm which built the addition. The main laboratory space in the addition was 40 feet high, with four floor levels which could be set at intermediate heights and be reached from four galleries. Steel grid floor sections and railings could be placed to make platforms for required apparatus. A smaller laboratory for smaller pieces of equipment was also part of the facility. The building as a whole was designed and built to be able to change with rapid technological advancements in engineering education. Being made primarily out of glass, plastics, stainless steel and copper, the building was also intended to resist corrosion and decay.

Over 1968 and 1969, new classrooms for the Chemical Engineering Department were constructed on the F Building's mezzanine floor. After the transfer of Mechanical Engineering laboratory facilities to the new H.R. Theakston (C1) Building, the space vacated by that department was used for additional Chemical Engineering undergraduate and graduate laboratories.

During the 1974/75 academic year, the F Building had four graduate student offices constructed and one laboratory both renovated and outfitted with new equipment and services.

In 1979, the Centre for Energy Studies (CES) was established at the Nova Scotia Technical College. Work then began on providing the CES with office space and a 2,500 square-foot solid fuel Combustion Test Laboratory, funded by a \$210,000 capital grant from a joint federal-provincial energy information program, in the site of the College's former heating plant. A 1,000 square-foot mezzanine floor is also erected, with the support of the Nova Scotia Department of Mines and Energy. The Laboratory - the only one of its kind in Eastern Canada at the time - was intended to provide efficiency and emissions ratings on wood and other non-liquid fuels for government agencies and private sector companies. Its official opening was held on November 10, 1980, attended by the Hon. Ken Streach and Mines and Energy Minister Mr. Ron Barkhouse, both representing the Province of Nova Scotia, as well as Senator and former Nova Scotia Premier Henry D. Hicks.

During the 1980/81 academic year, physical space for the Chemical Engineering Department's Coal Research Laboratory is constructed, allowing coal research activities to be concentrated in one area of the building, and the offices of the CES moved from O'Brien Hall (M Building) to the main floor of the F Building, adjacent to the Combustion Test and Coal Research Laboratories.

During the 1981/82 academic year, a one-story addition is made to the building to house a one-metre flame tunnel for the research activities of the CES. Further renovations were also carried out to provide the CES with more office space.

During the 1982/83 academic year, the CES moved the solid fuel Combustion Test Laboratory out of the building to a facility on Kempt Road in Halifax, due to insufficient space on the campus of the Nova Scotia Technical College, which changed its name to the Technical University of Nova Scotia in 1980.

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