

Executive summary

Stantec provided the mechanical engineering for the Saskatchewan Centre for Innovations in Cyclotron Science. This project included an addition and renovations to the existing Animal Resource Centre at the University of Saskatchewan.

To accommodate classified and unclassified Good Manufacturing Practice (GMP) areas for research and production of radio-pharmaceuticals and radio-chemicals for medical diagnostics and research.

Ventilation systems for the facility consist of a central supply and exhaust air handling unit with the exhaust terminating with high plume fans and carbon filtration on the exhaust.

Pressure independent Venturi type air valves serve the various lab areas for fume hood, equipment exhaust, room ventilation and corridor / room to room pressurization. Room pressure relationships had to be maintained to meet Health Canada (GMP) and Canadian Nuclear Safety Commission (CNSC) requirements.

Heating is provided by central plant steam to water heat exchangers with distribution to heating coils in the air handling units and reheat coils at air valves. A heat reclaim piping system is in place to allow recapture of heat from the exhaust air stream. Cooling for building and process loads is provided by a fluid cooler and chiller that stage to make use of free cooling.

The facility plumbing systems consists of hands free sink operation, fluid containment systems, medical gas systems from a central tank storage area, high purity compressed air and acid resistant sanitary.