

# **CANADIAN FEDERAL GOVERNMENT USES WALKER CONTROLS FOR MULTI-MILLION DOLLAR, WORLD CLASS VIROLOGY LABORATORY**

## **Industry Firsts**

- First Level 4 disease research facility in the world using a commercial, off the shelf HVAC control system.
- First Level 4 facility in the world with fully automatic control.
- Canada's first Level 4 biocontainment laboratory.
- First facility in the world to combine human and animal disease research.

The Canadian Federal Government has built the Canadian Centre for Human and Animal Health in Winnipeg, Manitoba. This controls system, designed by Walker and installed by Honeywell Limited, opened in the spring of 1998 and has set a standard for other similar level 4 virology laboratories world-wide.



One section of this complex is similar to the Centre for Disease Control in Atlanta, Georgia, which is one of only twelve throughout the world that is classified as a BSL4 containment laboratory. This facility uses DDC technology to operate and maintain both the HVAC system and the Energy Management Control System (EMCS) for the complex.

Powered by: Honeywell *Custodian Plus*<sup>™</sup>, manufactured by **Walker Systems Corporation**

Walker's control system was chosen based on its ability to perform under severe loading conditions and high speed, compact Trend Logging capabilities. The system was able to perform commands and display points from several controllers while processing 720 alarms in two minutes (6 per second) in an operator workstation. The performance test included: 20 WS1616-R10s, 30 MiniSAC-60-R10s and 6 WS1600-R10s.

## **Final System Configuration**

- Over 700 DDC panels controlling over 7000 points.
- Four fixed and two portable workstations.
- 500+ intelligent RoomSTATS.



**WALKER  
SYSTEMS**

building  
intelligence

## About the Facility

- \$142 million state of the art laboratory complex at the forefront of human and animal disease research.
- Lab houses the Canadian Food Inspection Agency's National Center for Foreign Animal Disease and laboratories for Health Canada's Bureau of Microbiology.
- 6 story building covers approx. 29,300 m<sup>2</sup> (315,000 ft<sup>2</sup>).
- Complex includes biosafety Level 2, 3, and 4 laboratories including facilities for large animals.
- Facility also includes a 137 person lecture theatre, cafeteria, library, and administration offices.
- To ensure structural integrity of biocontainment areas, a foundation of concrete pillars was embedded 30 meters (100 ft) into the second level of bedrock at a cost of \$5 million. This was allowed to cure for 12 months before pouring concrete for the walls and floors.

## Benefits of Walker Product at Lab

- Over 700 Walker panels monitor and control over 7000 points. Every panel has an identical programming architecture.
- All panels communicate together on a single SmartLAN network.
- Efficient architecture eliminates redundant traffic, and maximizes system throughput while reducing cost (no protocol translation).
- Unique LAN protocol ensures immediate access for higher priority operators and alarms. It also eliminates LAN failure or slow down due to excessive congestion under peak load (emergency) conditions.
- Instant global access via graphical interface can be accomplished from any STAT or controller in the facility.
- Simple and clean product architecture streamlines system design, commissioning, operation, and maintenance.

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