

## Retrofit to Main Coroner's Office

**L**ocated in downtown Toronto, the building houses the main coroner's office for the Ministry of Solicitor General of Ontario.

This twenty year old building houses forensic pathology labs consisting of autopsy rooms, body storage rooms, various labs, private offices as well as general offices.

As building operators for the Government of Ontario, the Management Board Secretariat - a government body - assumed responsibility for finding a solution to a long persisting indoor air quality problem at this important location.

### Indoor Air Quality for a Healthy and Comfortable Working Environment

When a building houses as diverse a range of activities from decomposed body storage rooms to secretarial offices, you can expect to have a wide range of contaminants that must be eliminated at the source for the health and comfort of the occupants.

Options other than air purification such as ventilation with heat recovery were considered and eliminated by the engineers involved because of high installation costs as well as the limited space available.

After careful deliberations, Circul-Aire's Air Purification System (A.P.S.) was the only technology selected to ensure superior indoor air quality for all the problem areas of the coroner's offices.



*Main Autopsy Room*

### Gas Phase Filtration: The Solution to IAQ

Gas Phase Filtration is the technology used to purify the air from all indoor organics, inorganics and chemical contaminants present in a building. The principle of the Circul-Aire A.P.S. (Air Purification System) is simple: the contaminated air passes through prefilters which retain dust and particles, and then the required MULTI-MIX Media stages, which chemically destroy any remaining gaseous contaminants.

A total of 6 A.P.S. units were installed in 3 different areas of the Forensic Pathology Laboratory.

Area No. 1: Decomposed Body Storage  
Contaminant source: Non-treated decomposing bodies  
Media required: MM-1355  
Number of media stages: 2  
Gross room volume: 1550 ft<sup>3</sup>  
Air changes per hour: 40  
Model installed: 1 - A.P.S.-1000

*A.P.S.-1500 installed in existing ceiling space of Autopsy Room*



Area No. 2: Main Body Storage  
Contaminant source: Treated decomposing bodies  
Media required: MM-1355  
Number of media stages: 2  
Gross room volume: 12000 ft<sup>3</sup>  
Air changes per hour: 20  
Model installed: 2 - A.P.S.-1500, 1 - A.P.S.-1000

Area No. 3: Main Autopsy Room  
Contaminant source: Formaldehyde & decomposing bodies  
Media required: MM-1355  
Number of media stages: 2  
Gross room volume: 9000 ft<sup>3</sup>  
Air changes per hour: 20  
Model installed: 2 - A.P.S.-1500

## **Designed to Meet Space Limitations & Serviceability**

In an existing building with various critical areas and diverse conflicting activities, the Air Purification System had to meet the following strict requirements.

Because of the different contaminants present as well as required long media life, two media stages with 95% efficiency final filters were required. Notwithstanding the size, all units had to be installed in very limited existing ceiling spaces.

Because of their locations, all units had to meet less than 60 dBA noise requirement.

Due to its unique design the only unit that could meet and surpass all specifications was the Circul-Aire Air Purification System, A.P.S.

## **Tech-Chek Service for Maintenance Monitoring**

The maintenance of the A.P.S. Air Purification System has also been simplified with the Tech-Chek Service supplied by Circul-Aire. With this exclusive service, media samples are tested in order to verify consumption rates. This lifetime service is monitored by a computerized program from Circul-Aire that indicates the appropriate schedule for media replacement. This customized service, supplied at no charge, not only provides a precise maintenance schedule but also ensures the performance of the A.P.S. Air Purification System.



*A.P.S.-1500 prior to installation in Main Body Storage area*

FOR MORE INFORMATION ON A SPECIFIC APPLICATION, PLEASE CONTACT YOUR LOCAL REPRESENTATIVE OR CIRCUL-AIRE.

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