

March 31, 2017

CM3 Project #: RCP1701

Canadian Food Inspection Agency 3851 Fallowfield Road Ottawa, ON K1Z 1A1

Attn: Mr. Blair Murphy, Project Manager Blair.Murphy@inspection.gc.ca

#### Asbestos Abatement Summary Report Auditorium and Eight Washrooms, Building 201 3851 Fallowfield Road, Ottawa, Ontario

# **Introduction**

CM3 Environmental Inc. (CM3) was commissioned by the Canadian Food Inspection Agency (CFIA) to provide inspection and air monitoring services during the asbestos removal project in the auditorium and the men's and women's washrooms located on the first, second, third and fourth floors. The asbestos abatement work was completed in association with building upgrades, and renovation activities.

Information gathered by Others identified the following building materials as asbestos-containing, and were the focus of the abatement project:

- Auditorium: Textured ceiling and wall finishes (5% chrysotile asbestos), and carpet mastic (0.67% chrysotile asbestos)
- Washrooms: Joint compound on drywall finishes (1% chrysotile asbestos), fire stop (1.56% chrysotile asbestos.

Given the quantity, and nature of the asbestos-containing materials (ACMs) Type 2 and Type 3 asbestos abatement measures and procedures were implemented as per Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Project and in Buildings and Repair Operations". A licenced, trained, and insured asbestos abatement contractor, By-Spec Construction Limited, was retained by the CFIA to complete the removal. CM3 provided inspection, abatement oversight, and industrial hygiene sampling throughout the asbestos abatement operations.

### Project Scope and Amendments

The objective of the project was to removal all ACMs in order to provide an asbestos hazard-free work area prior to renovations. The abatement operations were designed to be completed in two phases.

Phase 1 consisted of the removal of all drywall finishes in the washrooms, in association with the fire stop in the adjacent pipe chases. Due to the configuration of the supply ductwork in the

washrooms, the likelihood that the ductwork would be unaltered and reused, and the non-friable nature of the brown duct sealant it was determined that the brown duct sealant would not be removed as part of this project. Type 2 asbestos abatement measures and procedures were implemented, and initiated in each washroom. No more than two washrooms were closed for asbestos abatement operations at any time. During the initial stages of the Type 2 work suspect ceramic tile grout and adhesive were uncovered. Bulk sampling and third-party laboratory analysis of the material determine that the ceramic tile adhesive on the poured concrete walls was confirmed to contain 3% chrysotile asbestos. Since the material was directly applied to the pour concrete walls, powered chipping equipment was required for removal, and as such Type 3 asbestos abatement measures and procedures were required, as per O. Reg 278. A change order was prepared, and the removal of such material was incorporated into this project. In order to facilitate CFIA lab operations, and schedule the Type 3 operations, and phase 3 of this project were planned for a later date.

Phase 2 of the project consisted of the Type 3 operations in the auditorium to remove the textured wall and ceiling finishes, along with the carpet mastic. The abatement operations were completed successfully within the time allotted. At the culmination of the abatement suspect black mastic was observed on a portion of the perimeter auditorium walls. Bulk sampling and third-party laboratory analysis confirmed that the black mastic was confirmed to contain 6% chrysotile. The black mastic was a non-friable product, and considering the relatively small quantity present, it was deemed that Type 1 asbestos abatement measures and procedures were sufficient for the removal. A change order was prepared, and the removal of such material was completed.

Phase 3 of the project was a continuation of the work in the washrooms, which included the Type 3 removal of the asbestos containing ceramic tile adhesive from the concrete block walls using power operated chipping equipment. In order to accommodate laboratory operations and personnel a phased approach was implemented for abatement operations, which included the closure of two washrooms at a single time. The abatement operations were completed successfully within the time allotted.

In addition, CM3 completed inspection and air monitoring after regular work hours during the Type 2 removal of asbestos-containing sheet vinyl floor. The sheet vinyl floor was removal from doorway thresholds throughout the building 201 laboratory. Reportedly, the material was left in place as part of a previous project, but it was later determined that it would be removed. The sheet vinyl flooring was removed over four weekend work-shifts.

#### Abatement Inspection

CM3 completed daily inspections throughout the duration of Type 2 and Type 3 abatement activities in the auditorium, and washrooms.

Abatement inspections focused on, but were not limited to the following: regulatory compliance, scope of work, engineering controls (i.e. barriers, negative air pressure, decontamination facilities, etc.), health and safety, personal protective equipment, dust suppression, and waste handling.

All inspection and air monitoring reports are presented in Appendix A of this report.

## Air Monitoring

The air samples were collected using an air-sampling pump calibrated to a known flow rate (15 litres per minute). The samples were collected using 0.8 µm pore size, 25 mm diameter mixed cellulose ester (MCE) membrane filter, held by black, anti-static, 2-inch open-faced filter holder.

Samples were analyzed for total fibre content by the phase contrast microscopy (PCM) method of detection in accordance with U.S. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Method 7400, Issue 2 *Asbestos and other Fibres by PCM*. The Limit of Detection (LOD) for PCM analysis depends on sample volume and quantity of interfering dust, and is < 0.01 fibre/cc for atmospheres free of interferences.

Blank filters were also submitted for analysis to ensure that no contamination of the filters occurred during manufacturing, sampling or analytical procedures. Analytical results have been corrected for any background fibre counts recorded for the blank filters.

As outlined in Ontario Regulation 278/05, Type 3 asbestos abatement requires air clearance sampling post abatement activities. Each PCM air clearance sample must have a minimum of 2,400 Litres of air drawn through it and, all PCM air clearance samples must be below 0.01 fibres per cubic centimeter of air (f/cc). Based on the size of an asbestos abatement enclosure, a minimum amount of air samples must be collected as outlined in Table 3 of Ontario Regulation 278/05. In this case, post abatement air sampling was completed as part of phase 2 in the auditorium, and in each washroom as part of phase 3.

Clearance sampling collection was conducted following aggressive air sampling procedures outlined in Section M.1.5, Appendix M, of the "Guidance for Controlling Asbestos-Containing Materials in Buildings", Publication number EPA 560/5-85-24, Published in June 1985 by the US Environmental Protection Agency as per the Ontario Regulation 278/05.

### <u>Closure</u>

Based on Ontario Regulation 278/05, the scope of work, air sample results, and visual inspection the project is complete. At no time during asbestos abatement operations did ambient air samples exceed the occupation exposure limits (OEL) for asbestos (0.1f/cc). Further, all Type 3 post abatement air clearance sampling was confirmed to be below the criteria (0.01f/cc).

Please note that asbestos containing brown duct sealant remains within the washrooms. Should the scope of work be changed it is possible that addition asbestos abatement activities may be warranted.

Finally, all waste was removed off-site following regulation 278/05, however waste management of materials that contain asbestos is regulated by Ontario Regulation 347 as amended, made under the Environmental Protection Act. Section 17 of this regulation outlines the requirements for proper handling, transportation and disposal of materials that contain asbestos. It is up to the producer of the waste to ensure it is disposed of in accordance with these laws.

## **Limitations**

This report has been prepared and the work referred to in this report has been undertaken by CM3 Environmental Inc. for the CFIA. It is intended for the sole and exclusive use of the CFIA and its **authorized agents** for the purpose(s) set out in this report. Any use of, reliance on or decision made based on this report by any person other than the CFIA for any purpose, or by the CFIA for a purpose other than the purpose(s) set out in this report, is the sole responsibility of such other person or the CFIA. The CFIA and CM3 Environmental Inc. make no representation or warranty to any other person with regard to this report and the work referred to in this report and they accept no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report.

Any conclusions or recommendations made in this report reflect CM3 Environmental Inc.'s judgment based on the following limited investigations: visual site inspection(s) on the date(s) set out in this report; examination of public records; and interviews with individuals having information about the site. While efforts have been made to substantiate information provided by third parties, CM3 Environmental Inc. makes no representation or warranty as to its completeness or accuracy.

This report has been prepared for specific application to this site. Unless otherwise stated, the findings cannot be extended to previous or future site conditions; portions of the site which were unavailable for direct investigation; subsurface locations which were not investigated directly; or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site; and substances addressed by the investigation may exist in areas of the site not investigated or in quantities not ascertained.

Nothing in this report is intended to constitute or provide a legal opinion. CM3 Environmental Inc. makes no representation as to the requirements of or compliance with environmental laws, rules, regulations or policies established by federal, provincial or local government bodies. Revisions to the regulatory standards referred to in this report may be expected over time. As a result, modifications to the findings, conclusions and recommendations in this report may be necessary.

Other than by the **CFIA and its authorized agents** and as set out herein, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of CM3 Environmental Inc.

Respectfully submitted, CM3 Environmental Inc.

Prepared by:

Joel Marcellus Environmental Technologist

Reviewed by:

Richard Pope, C.E.T. **Project Manager** 

Appendix A Inspection Reports



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 1 December 13, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation				
	Yes	No	Comments	
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.	
Negative Pressure		$\boxtimes$	Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.	
PPE				
	Yes	No	Comments	
Disposable Suits			No Concerns.	
Respirators	$\boxtimes$		Yes. Half-face negative pressure.	
Health and Safety Plan	$\boxtimes$		Located on-site.	
Other Hazards	$\boxtimes$		Ladders and Electrical	
Air Monitoring				
	Yes	No	Comments	
Air samples were collected in the hallway during demolition activities	$\boxtimes$		See table below.	
Other				
	Yes	No	Comments	
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium	



Dust Suppression Amended wat	ter should be used throughout.
------------------------------	--------------------------------

Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-01	4 <sup>th</sup> Floor Hallway, Exterior Men's Washroom	900	<0.01		
PCM-02	4 <sup>th</sup> Floor Hallway, Exterior Men's Washroom	900	<0.01		

Comments: For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- 2. Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 600L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 9:30am. Demolition is progressing well. The majority of drywall finishes have been removed from the ceiling and walls.
- 4. No concerns with regards to abatement operations at this time.

# Actions

- 1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.
- 2. Asbestos abatement activities will continue tomorrow within the 4<sup>th</sup> floor Women's washroom.

Approvals

**Richard Pope, A.Sc.T. Project Manager** 



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 2 December 14, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation				
	Yes	No	Comments	
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.	
Negative Pressure			Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.	
PPE				
	Yes	No	Comments	
Disposable Suits	$\square$		No Concerns.	
Respirators	$\boxtimes$		Yes. Half-face negative pressure.	
Health and Safety Plan	$\boxtimes$		Located on-site.	
Other Hazards	$\boxtimes$		Ladders and Electrical	
Air Monitoring				
	Yes	No	Comments	
Air samples were collected in the hallway during demolition activities			See table below.	
Other				
	Yes	No	Comments	
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium	



Dust Suppression	Amended water should be used throughout.
------------------	--

Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-03	4 <sup>th</sup> Floor Hallway, Exterior Women's Washroom	900	<0.01			
PCM-04	4 <sup>th</sup> Floor Hallway, Exterior women's Washroom	900	<0.01			

**Comments:** For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 600L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 8:40am. Demolition is underway in the 4<sup>th</sup> floor women's washroom.
  - a. One bank of lockers in the women's washroom was not emptied by building occupants. As such, the lockers are locked and inaccessible. In order to remove the drywall finishes behind, access to the bolt mounting system within the locker units is required. Therefore, the lockers have been sealed, and the drywall finishes will remain for the time being. Additional removal will be required at a later date.
- 4. Abatement operations are complete in the 4<sup>th</sup> floor men's washroom area. The area is adequately clean and free of debris. The washroom is open to regular use.
- 5. No concerns with regards to abatement operations at this time.

# Actions

- 1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.
- 2. Asbestos abatement activities will continue tomorrow within the 4<sup>th</sup> floor Women's washroom.

Approvals

Site Inspector:

Richard Pope, A.Sc.T. Project Manager



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 3 December 15, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation				
	Yes	No	Comments	
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.	
Negative Pressure			Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.	
PPE				
	Yes	No	Comments	
Disposable Suits	$\square$		No Concerns.	
Respirators	$\square$		Yes. Half-face negative pressure.	
Health and Safety Plan	$\boxtimes$		Located on-site.	
Other Hazards	$\boxtimes$		Ladders and Electrical	
Air Monitoring				
	Yes	No	Comments	
Air samples were collected in the hallway during demolition activities	$\boxtimes$		See table below.	
Other				
	Yes	No	Comments	
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium	



	Dust Suppression	$\boxtimes$		Amended water should be used throughout.
--	------------------	-------------	--	--

Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-05	3rd Floor Hallway, Exterior Men's Washroom	900	<0.01			
PCM-06	3rd Floor Hallway, Exterior Men's Washroom	900	<0.01			

**Comments:** For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 600L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 9:00am. Demolition is underway in the 3<sup>rd</sup> floor men's washroom.
- 4. Abatement operations are complete in the 4<sup>th</sup> floor women's washroom area. Drywall remains behind the bank of lockers at the right upon entry into the room. The area is adequately clean and free of debris. The washroom is open to regular use, however additional abatement is required.
- 5. Samples of suspect asbestos-containing mastic, and ceramic tile adhesive were collected for asbestos content analysis. Sample results will be made available within 24hrs.
- 6. No concerns with regards to abatement operations at this time.

# Actions

- 1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.
- 2. Asbestos abatement activities will continue tomorrow within the 3<sup>rd</sup> floor Women's washroom.

Approvals

Mar lige

**Richard Pope, A.Sc.T. Project Manager** 



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 4 December 16, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure		$\boxtimes$	Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.		
PPE					
	Yes	No	Comments		
Disposable Suits			No Concerns.		
Respirators	$\square$		Yes. Half-face negative pressure.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards			Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway during demolition activities	$\square$		See table below.		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		



Dust Suppression Amended wat	ter should be used throughout.
------------------------------	--------------------------------

Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-07	3rd Floor Hallway, Exterior women's Washroom	900	<0.01			
PCM-08	3rd Floor Hallway, Exterior women's Washroom	900	<0.01			

**Comments:** For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 600L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 8:45am. Demolition is underway in the 3<sup>rd</sup> floor women's washroom.
- 4. Ceramic tile adhesive / leveling compound (grey coloured) was confirmed to contain 3% chrysotile asbestos. This material is present on the concrete walls where ceramic tiles are present, and is not visible on concrete blocks. An investigation was completed. The levelling compound appears to be located only at the top portion of tiles. Additional destructive investigation required.
- 5. No concerns with regards to abatement operations at this time.

### Actions

- 1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.
- 2. Modifications to the scope of work and asbestos abatement operations are required in order to address the asbestos-containing levelling compound.

Approvals

Richard Pope, A.Sc.T. Project Manager



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 5 December 19, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure		$\boxtimes$	Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.		
PPE					
	Yes	No	Comments		
Disposable Suits			No Concerns.		
Respirators	$\square$		Yes. Half-face negative pressure.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards			Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway during demolition activities	$\square$		See table below.		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		



Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-09	1 <sup>st</sup> Floor Hallway, Exterior men's Washroom	900	<0.01			
PCM-10	1 <sup>st</sup> Floor Hallway, Exterior men's Washroom	900	<0.01			

**Comments:** For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 9:25am. Demolition is underway in the 1<sup>st</sup> floor men's washroom.
- 4. No concerns with regards to abatement operations at this time.

# Actions

- 1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.
- 2. Modifications to the scope of work and asbestos abatement operations are required in order to address the asbestos-containing levelling compound.

Approvals

**Richard Pope, A.Sc.T. Project Manager** 



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 6 December 20, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure			Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.		
PPE	•				
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators	$\square$		Yes. Half-face negative pressure.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards			Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway during demolition activities			See table below.		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		



Dust Suppression	$\square$		Amended water should be used throughout.
------------------	-----------	--	--

Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-11	1 <sup>st</sup> Floor Hallway, Exterior women's Washroom	900	<0.01			
PCM-12	1 <sup>st</sup> Floor Hallway, Exterior women's Washroom	900	<0.01			

**Comments:** For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 9:00am. Demolition is underway in the 1<sup>st</sup> floor women's washroom.
- 4. Drywall ceiling finishes were not removed exterior the 1<sup>st</sup> floor men's washroom. Additional removal required in order to meet the scope.
- 5. No concerns with regards to abatement operations at this time.

## Actions

1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.

Approvals

Richard Pope, A.Sc.T. Project Manager



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 7 December 21, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.
PPE		-	
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\boxtimes$		Yes. Half-face negative pressure.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards			Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below.
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium



Dust Suppression	$\boxtimes$		Amended water should be used throughout.
------------------	-------------	--	--

Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-12	2 <sup>nd</sup> Floor Hallway, Exterior men's Washroom	900	<0.01	
PCM-14	2 <sup>nd</sup> Floor Hallway, Exterior men's Washroom	900	<0.01	

**Comments:** For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- 3. CM3 was on-site at approximately 9:00am. Demolition is underway in the 2<sup>nd</sup> floor men's washroom.
- 4. One additional fire stop removal is required on the 4<sup>th</sup> floor. All others reportedly complete.
- 5. Drywall ceiling finishes were not removed exterior the 1<sup>st</sup> floor men's washroom. Additional removal required in order to meet the scope.
- 6. No concerns with regards to abatement operations at this time.

# Actions

1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.

Approvals

Richard Pope, A.Sc.T. Project Manager



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 8 December 22, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 2 W/Rs Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Taylor Collins
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) eight washrooms located in Building 201. Chrysotile asbestos is present within non-friable drywall joint compound, and non-friable fire stop at pipe penetrations.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			Not required for Type 2 abatement operations. Although, some negative air pressure is provided by HEPA equipped vacuum cleaner operation.
PPE	•	-	
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\boxtimes$		Yes. Half-face negative pressure.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below.
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium



Dust Suppression	$\square$		Amended water should be used throughout.
------------------	-----------	--	--

Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-15	2 <sup>nd</sup> Floor Hallway, Exterior women's Washroom	900	<0.01	
PCM-16	2 <sup>nd</sup> Floor Hallway, Exterior women's Washroom	900	<0.01	

Comments: For the purpose of perimeter air samples all samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to the airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks.

## **General Observations**

- 1. No breeches were observed on or in the containment all joints were sealed properly with spray glue and three layers of tape.
- 2. Two (2) phase contrast microscopy air samples were collected using high volume air sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to the airborne fibre concentration exterior the containment was identified.
- CM3 was on-site at approximately 9:45am. Set up is complete in the 2<sup>nd</sup> floor women's washroom. Removal and tear down is complete of the 2<sup>nd</sup> floor men's washroom.
   Drywall ceiling finishes were not removed exterior the 1<sup>st</sup> floor men's washroom. Additional
- removal required in order to meet the scope.
- 5. No concerns with regards to abatement operations at this time.

## Actions

1. CM3 will complete inspection and air monitoring daily during contaminated asbestos abatement activities.

Approvals

Taylor Collins, B.E.S. **Environmental Technician** 



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 9 December 28, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05	$\boxtimes$		No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\boxtimes$		No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities	$\boxtimes$		See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\boxtimes$		Amended water should be used throughout.

9. Inspection & Air Monitoring - Dec 28, 2016



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-17	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01	
PCM-18	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01	

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. CM3 was on-site at approximately 8:45am to conduct a pre-contamination inspection of the Type 3 asbestos containing located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.02 inches of water.
- 5. By-Spec was given permission to begin contaminated work within the containment.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 7. No concerns with regards to abatement operations at this time.

# Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

# Approvals

Id Monulle

Joel Marcellus Environmental Technician



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 10 December 29, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05	$\boxtimes$		No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\boxtimes$		No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities	$\boxtimes$		See table below
Other			
	Yes	No	Comments
Waste Issues	$\boxtimes$		All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\boxtimes$		Amended water should be used throughout.

10. Inspection & Air Monitoring - Dec 29, 2016



Air Sample Summary Table			
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)
PCM-19	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01
PCM-20	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. CM3 was on-site at approximately 8:45am to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.02 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. No concerns with regards to abatement operations at this time.

### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Ted Manuel

**Joel Marcellus Environmental Technician** 



**Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 11 December 30, 2016

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

11. Inspection & Air Monitoring - Dec. 30, 2016.docx



Air Sample Summary Table			
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)
PCM-21	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01
PCM-22	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. CM3 was on-site at approximately 8:00am to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. No concerns with regards to abatement operations. The bulk of the removal is complete, and it is anticipated the cleaning phase will commence later today.

### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

# Approvals

Richard Pope, A.Sc.T. Project Manager



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 12 January 3, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Taylor Collins
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\square$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

12. Inspection & Air Monitoring - Jan. 3, 2017



Air Sample Summary Table			
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)
PCM-23	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01
PCM-24	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. CM3 was on-site at approximately 9:50am to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. No concerns with regards to abatement operations. The removal is complete, cleanup has started and is well underway.
- 7. By-spec will still need to remove the carpet adhesive in the auditorium after the cleanup of the textured ceiling is complete.

### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Site Inspector:

Taylor Collins, B.E.S Environmental Technician



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 13 January 4, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Comments No concerns identified.
No concerns identified.
HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
Comments
No Concerns.
Yes. Full-face respirator with P-100 is the minimum requirement.
Located on-site.
Ladders and Electrical
Comments
See table below
Comments
All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Amended water should be used throughout.

13. Inspection & Air Monitoring - Jan. 4, 2017



Air Sample Summary Table			
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)
PCM-25	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01
PCM-26	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. CM3 was on-site at approximately 1:30pm to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. By-spec personnel were performing waste transfer this afternoon in preparation for the cleaning of the area.
- 7. There are no further concerns at this time.

# Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Ind Monullet

Site Inspector: Joel Marcellus Environmental Technician



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 14 January 5, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Bd, Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Yes	No	Comments	
		No concerns identified.	
$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.	
PPE			
Yes	No	Comments	
		No Concerns.	
$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.	
$\square$		Located on-site.	
$\square$		Ladders and Electrical	
Yes	No	Comments	
$\boxtimes$		See table below	
Yes	No	Comments	
		All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium	
$\boxtimes$		Amended water should be used throughout.	
	Yes         ∅         ✓         Yes         ∅         ✓         ✓         Yes         ∅         ✓         Yes         ∅         ✓         Yes         ∅         ✓ <tr< td=""><td>Yes       No         Image: Second second</td></tr<>	Yes       No         Image: Second	

14. Inspection & Air Monitoring - Jan. 5, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-27	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01	
PCM-28	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01	

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- 1. CM3 was on-site at approximately 2:00pm to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. By-spec is currently working on removing the carpet adhesive from the floor. ACM texture finishes from the ceiling and walls have been removed and the waste has been placed in the bins located at the site.
- 7. No further concerns at this time.

# Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Jed Monulle

Joel Marcellus **Environmental Technician** 



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 15 January 6, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Taylor Collins
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\square$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring	-		
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

15. Inspection & Air Monitoring - Jan. 6, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-29	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01	
PCM-30	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01	

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. CM3 was on-site at approximately 10:15am to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. By-spec has grinded about half of the carpet adhesive. Cleanup of the excess dust is underway and removal of the last section of adhesive will continue.
- 7. No further concerns at this time.

# Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Site Inspector:

Taylor Collins, B.E.S Environmental Technician



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 16 January 9, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

ve air units are running ent. Negative air
ve air units are running ent. Negative air
ve air units are running ent. Negative air
or with P-100 is the
ved from work area dures as per O.Reg in is located exterior the
be used throughout.

16. Inspection & Air Monitoring - Jan. 9, 2017.docx


Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-31	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		
PCM-32	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. CM3 was on-site at approximately 13:15am to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. The floor grinding continues. By-Spec reports that the grinding is a slow process, in order to attain complete abatement.
- 7. No further concerns at this time.

# Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

W My

Site Inspector:

Richard Pope, A.Sc.T. Project Manager



Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 17 January 10, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities	$\square$		See table below
Other	•		
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

17. Inspection & Air Monitoring - Jan. 10, 2017.docx



Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-33	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		
PCM-34	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

#### **General Observations**

- 1. CM3 was on-site at approximately 13:00hrs to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. Grinding of floor mastic continues.
- 7. No further concerns at this time.

#### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Richard Pope, A.Sc.T. Project Manager



Final Visual Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 18 January 11, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 Auditorium Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE	-		
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below
Other	•		
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression			Final cleaning has been completed throughout

18. Final Visual Inspection & Air Monitoring - Jan. 11, 2017.docx



Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-35	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		
PCM-36	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

#### **General Observations**

- 1. CM3 was on-site at approximately 14:00hrs to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. The work area appears clean and free of debris. Minor debris was observed, which was addressed at the time of this inspection by By-Spec.
- 7. The scope of work appears complete.
- 8. Suspect asbestos containing non-friable black tar was observed on the lower portion of the perimeter auditorium walls. Three samples of the material were collected for asbestos content analysis.

## Actions

 By-Spec was given approval to apply the lockdown agent. Given the size of the area, it is anticipated that application will take the better part of the day tomorrow. A settling period will be allow prior to post abatement air sampling, which will be conducted Friday, January 13<sup>th</sup>.

# Approvals

Site Inspector:

Richard Pope, A.Sc.T. Project Manager



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 19 January 12, 2017

Project Name:	Asbestos Abatement Project – Type 3 Auditorium
Project Location:	Canadian Food Inspection Agency (CFIA)
-	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	: Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring	-		
	Yes	No	Comments
Air samples were collected in the hallway during abatement.			See table below
Other	•		
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Lockdown agent has been applied

19. Visual Inspection & Air Monitoring - Jan. 12, 2017.docx



Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-37	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		
PCM-38	1 <sup>st</sup> floor hallway, Exterior auditorium	900	<0.01		

**Comments:** For the purpose of perimeter air samples are air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

#### **General Observations**

- 1. CM3 was on-site at approximately 10:00hrs to conduct a contaminated inspection of the Type 3 asbestos containment located in the auditorium.
- 2. A three-stage decontamination facility is in place consisting of a dirty room, shower and clean room. The containment is well sealed and no breaches were observed. Water is connected and shower is operational. A viewing window is present.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containment and exhausting outdoors. Negative air pressure within the containment is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. By-Spec is not on-site at this time.
- 7. The lockdown agent has been spray applied within the containment. A settling period will be allow prior to post abatement air sampling.

# Actions

1. Post abatement air sampling will be completed during the morning of January 13, 2017.

Approvals

Richard Pope, A.Sc.T. Project Manager



#### Post Abatement Air Sampling Report CM3 Project # RCP-1701

Report # 20 January 13, 2017

Project Name:	Asbestos Abatement Project – Type 3 Auditorium
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) textured finishes, overspray and carpet adhesive from the ceiling, walls and floor of the auditorium.

ied.
gative air units are running nment. Negative air nt.
rator with P-100 is the ent.
ical
emoved from work area ocedures as per O.Reg e bin is located exterior the
as been applied

20. Post Abatement Air Sampling - Jan. 13, 2017.docx



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-39	Inside Containment	2400	<0.01			
PCM-40	Inside Containment	2400	<0.01			
PCM-41	Inside Containment	2400	<0.01			
PCM-42	Inside Containment	2400	<0.01			
PCM-43	Inside Containment	2400	<0.01			

**Comments**: The clearance criteria for Type 3 Asbestos Abatement (<0.01 f/cc) is outlined in Ontario Regulation 278/05 "Asbestos on Construction Projects and in Buildings and Repair Operations".

All air samples collected and analyzed were confirmed to be within the above noted criteria. Therefore, there are no concerns with regards to airborne fibre concentrations at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks. The analytical report is attached.

### **General Observations**

- 1) No breeches were observed in the containment.
- 2) Negative air units were operating throughout the duration of post abatement air sampling.
- 3) The work area is generally clean and free of debris.
- 4) Five (5) phase contrast microscopy (PCM) air samples were collected within the containment using high volume air pumps calibrated to 15 litres per minute. Each sample was collected for 160 minutes to yield 2400L air samples.
- 5) Aggressive air sampling techniques were employed as per O.Reg 278/05.
- 6) According to the criteria for post Type 3 abatement air testing outlined in O.Reg. 278/05, all samples collected were confirmed to be acceptable.
- 7) By-Spec was informed of the air sampling results and given permission to remove the containment.

# Actions

1. Removal of black tar adhesive on the walls will be completed following Type 1 asbestos abatement measures and procedures. These efforts should be completed in conjunction with the dismantling of the Type 3 equipment and facilities.

# Approvals

Site Inspector:

Richard Pope, A.Sc.T. Project Manager



Pre-Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 21 February 21, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 4 <sup>th</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) drywall and tile grout.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards	$\boxtimes$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway during demolition activities			See table below		
Other	•				
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-44	4 <sup>th</sup> floor hallway, Exterior men's washroom	900	<0.01			
PCM-45	4 <sup>th</sup> floor hallway, Exterior women's washroom	900	<0.01			

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- CM3 was on-site at approximately 1:00pm to conduct a pre-contaminated inspection of the two (2) separate Type 3 asbestos containments located in the 4<sup>th</sup> floor men's washroom and women's washroom.
- 2. Each washroom has a three-stage decontamination facility in place consisting of a dirty room, shower and clean room. Both containments were observed to be well sealed and no breaches were detected. Water is connected and showers are operational.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside the containments. Negative air pressure within both containments is greater than 0.03 inches of water.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. By-spec personnel were given permission to begin work inside of the containments.
- 7. By-spec will be starting contaminated work on Wednesday February 22<sup>nd</sup>, 2017.
- 8. There are no further concerns at this time.

#### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Jed Monulles

Joel Marcellus **Environmental Technician** 



**Pre-Contaminated Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 22 February 22, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 4 <sup>th</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) drywall and tile grout.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards	$\boxtimes$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway during demolition activities			See table below		
Other	•				
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-46	4 <sup>th</sup> floor hallway, Exterior men's washroom	900	<0.01			
PCM-47	4 <sup>th</sup> floor hallway, Exterior women's washroom	900	<0.01			

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- CM3 was on-site at approximately 11:00am to conduct a contaminated inspection for the two (2) separate Type 3 asbestos containments located in the 4<sup>th</sup> floor men's washroom and women's washroom.
- 2. Work was being conducted in the men's washroom at the time of the inspection. Workers were using electric chippers to remove the asbestos-containing tile grout from the walls. Water is connected inside of the containment and was being used to control dust.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside of both containments. Negative air pressure within both containments is greater than 0.03 inches of water.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. CM3 will be returning to the site tomorrow for another contaminate inspection and to collect perimeter air samples.
- 7. There are no further concerns at this time.

#### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Jed Monully

Joel Marcellus **Environmental Technician** 



Pre-Contaminated Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 23 February 23, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3 4 <sup>th</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) drywall and adhesive on concrete walls.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below
Other	•	•	
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-48	4 <sup>th</sup> floor hallway, Exterior men's washroom	900	<0.01			
PCM-49	4 <sup>th</sup> floor hallway, Exterior women's washroom	900	<0.01			

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- 1. CM3 was on-site at approximately 9:00am to conduct a contaminated inspection for the two (2) separate Type 3 asbestos containments located in the 4<sup>th</sup> floor men's washroom and women's washroom.
- 2. Work was being conducted in both the men's washroom and women's washroom at the time of the inspection. Workers were using electric chippers to remove the asbestos-containing tile adhesive from the walls. Water is connected inside of the containment and was being used to control dust.
- 3. All required H&S equipment is onsite and appropriate signage is in place.
- 4. HEPA equipped negative air units are running inside of both containments. Negative air pressure within both containments is greater than 0.03 inches of water.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. A suspected asbestos containing material was discovered in the women's locker room behind the drywall during the removal. CM3 collected samples of the material and submitted the material for asbestos content analysis. The results are expected on Friday.
- 7. CM3 will be returning to the site tomorrow for another contaminated inspection and to collect perimeter air samples.

#### Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Site Inspector:

Jed Manulle

Joel Marcellus Environmental Technician



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 24

February 24, 2017

- Project Name:	Asbestos Abatement Project – Type 3 4th Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	: Richard Pope
CM3 Site Inspector:	Joel Marcellus & Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) drywall and ceramic tile adhesive on the poured concrete walls.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\square$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during demolition activities			See table below
Other	•	•	
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

24. Inspection & Air Monitoring - Feb 24, 2017.docx



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-50	4 <sup>th</sup> floor hallway, Exterior men's washroom	900	<0.01			
PCM-51	4 <sup>th</sup> floor hallway, Exterior women's washroom	900	<0.01			

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- CM3 was on-site at approximately 9:30am to conduct a contaminated inspection for the two (2) separate Type 3 asbestos containments located in the 4<sup>th</sup> floor men's washroom and women's washroom.
- 2. Work was being conducted in both the men's washroom and women's washroom at the time of the inspection. Workers were using electric chippers to remove the asbestos-containing tile adhesive from the walls. Water is connected inside of the containment and was being used to control dust.
- 3. HEPA equipped negative air units are running inside of both containments. Negative air pressure within both containments is greater than 0.03 inches of water.
- 4. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 5. A suspected asbestos containing material was discovered in the women's locker room behind the drywall during the removal. CM3 collected samples of the material and submitted the material for asbestos content analysis. The material was confirmed to contain 5% chrysotile, and is visual similar to the material currently being removed. Considering the small quantity (<50ft<sup>2</sup>) that is present in only this one washroom, By Spec and CM3 agree that this material will be removed without a revised contract.
- 6. CM3 will be returning to the site tomorrow for another contaminated inspection and to collect perimeter air samples.

# Actions

1. CM3 will complete inspection and air monitoring daily during the contaminated asbestos abatement activities.

Approvals

Jed Marullet

Joel Marcellus, Environmental Technician



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 25 February 27, 2017

### Background

Type 3 removal of asbestos-containing materials (ACMs) drywall and ceramic tile adhesive on the poured concrete walls.

Site Isolation						
	Yes	No	Comments			
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.			
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.			
PPE						
	Yes	No	Comments			
Disposable Suits	$\square$		No Concerns.			
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.			
Health and Safety Plan	$\square$		Located on-site.			
Other Hazards	$\boxtimes$		Ladders and Electrical			
Air Monitoring						
	Yes	No	Comments			
Air samples were collected in the hallway during demolition activities			See table below			
Other						
	Yes	No	Comments			
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium			
Dust Suppression	$\square$		Amended water should be used throughout.			
24 Inspection & Air Monitoring - Eeb 24, 2017 - Copy						

24. Inspection & Air Monitoring - Feb 24, 2017 - Copy



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-52	4 <sup>th</sup> floor hallway, Exterior men's washroom	900	<0.01			
PCM-53	4 <sup>th</sup> floor hallway, Exterior women's washroom	900	<0.01			

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- CM3 was on-site at approximately 2:30pm to conduct a final visual inspection for the two (2) separate Type 3 asbestos containments located in the 4<sup>th</sup> floor men's washroom and women's washroom.
- 2. CM3 inspected both the men's washroom and women's washroom. All asbestos containing adhesive and drywall joint compound had been removed from the walls and both areas were observed to be clean and free of debris.
- 3. By-spec personnel were given permission to apply the locking agent inside of both containments.
- 4. HEPA equipped negative air units are running inside of both containments. Negative air pressure within both containments is greater than 0.03 inches of water.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 6. CM3 will be returning to the site tomorrow to complete final air clearance sampling within both the men's and women's washrooms.

#### Actions

1. CM3 will complete final air clearance following the contaminated asbestos abatement activities.

Approvals

Ted Manulle

Joel Marcellus, Environmental Technician



Post Abatement Air Sampling CM3 Project # RCP-1701

Report # 26 February 28, 2017

Project Name:	Asbestos Abatement Project – Type 3 4th Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) drywall and ceramic tile adhesive on the poured concrete walls.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits			No Concerns.		
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\boxtimes$		Located on-site.		
Other Hazards	$\boxtimes$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Post Abatement air samples were collected inside both washroom Type 3s			See table below		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		

26. Final Air Clearance (4th Fl.) - Feb. 28, 2017.docx



Air Sample Summary Table						
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)			
PCM-54	4 <sup>th</sup> Floor, Women's W/R (Inside containment)	2400	<0.01			
PCM-55	4 <sup>th</sup> Floor, Women's W/R (Inside containment)	2400	<0.01			
PCM-56	4 <sup>th</sup> Floor, Women's W/R (Inside containment)	2400	<0.01			
PCM-57	4 <sup>th</sup> Floor, Men's W/R (Inside containment)	2400	<0.01			
PCM-58	4 <sup>th</sup> Floor, Men's W/R (Inside containment)	2400	<0.01			
PCM-59	4 <sup>th</sup> Floor, Men's W/R (Inside containment)	2400	<0.01			

**Comments**: The clearance criteria for Type 3 Asbestos Abatement (<0.01 f/cc) is outlined in Ontario Regulation 278/05 "Asbestos on Construction Projects and in Buildings and Repair Operations".

All air samples collected and analyzed were confirmed to be within the above noted criteria. Therefore, there are no concerns with regards to airborne fibre concentrations at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks. The analytical report is attached.

# **General Observations**

- 1) The scope of work appears complete in each washroom. The work areas are generally clean and free of debris.
- 2) Negative air units were operating throughout the duration of post abatement air sampling.
- 3) Three (3) phase contrast microscopy (PCM) air samples were collected within each containment using high volume air pumps calibrated to 15 litres per minute. Each sample was collected for 160 minutes to yield 2400L air samples.
- 4) Aggressive air sampling techniques were employed as per O.Reg 278/05.
- 5) According to the criteria for post Type 3 abatement air testing outlined in O.Reg. 278/05, all samples collected were confirmed to be acceptable.
- 6) By-Spec was informed of the air sampling results and given permission to remove the containment.

# Actions

1. Plumbing fixtures must be re-instated in both 4<sup>th</sup> floor washrooms, and fixtures must be removed in the 3<sup>rd</sup> floor washroom before asbestos abatement operations may continue.

# Approvals



Pre-contamination Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 27 March 2, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 3 <sup>rd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation						
	Yes	No	Comments			
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.			
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.			
PPE						
	Yes	No	Comments			
Disposable Suits	$\boxtimes$		No Concerns.			
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.			
Health and Safety Plan	$\boxtimes$		Located on-site.			
Other Hazards			Ladders and Electrical			
Air Monitoring						
	Yes	No	Comments			
Air samples were collected in the hallway.	$\boxtimes$		See table below			
Other		-				
	Yes	No	Comments			
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium			
Dust Suppression	$\square$		Amended water should be used throughout.			



Air Sample Summary Table							
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)				
PCM-60	3 <sup>rd</sup> floor hallway, Exterior men's washroom	900	<0.01				
PCM-61	3 <sup>rd</sup> floor hallway, Exterior women's washroom	900	<0.01				

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. CM3 was on-site at approximately 9:40am to complete a pre-contamination walk-through inspection of the two 3<sup>rd</sup> floor washrooms located in the Lab at building 201.
- 2. Minor deficiencies were observed by CM3 and corrected by By-Spec during the site walk-though.
- Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- 4. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 5. By-Spec was given the approval to proceed with the contaminated phase of work within each washroom Type 3.

# Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

Richard Pope, C.E.T. Project Manager



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 28 March 3, 2017

•	
Project Name:	Asbestos Abatement Project – Type 3, 3rd Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation	-	-		
	Yes	No	Comments	
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.	
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.	
PPE				
	Yes	No	Comments	
Disposable Suits	$\boxtimes$		No Concerns.	
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.	
Health and Safety Plan	$\boxtimes$		Located on-site.	
Other Hazards	$\boxtimes$		Ladders and Electrical	
Air Monitoring				
	Yes	No	Comments	
Air samples were collected in the hallway adjacent the containment.			See table below	
Other				
	Yes	No	Comments	
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium	
Dust Suppression	$\square$		Amended water should be used throughout.	

28. Inspection & Air Monitoring - Mar. 3, 2017.docx



Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-62	3 <sup>rd</sup> floor hallway, Exterior men's washroom	900	<0.01		
PCM-63	3 <sup>rd</sup> floor hallway, Exterior women's washroom	900	<0.01		

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 3. By-Spec was actively removing ceramic tile adhesive in the women's washroom. Contaminated work has not yet started in the men's washroom.
- 4. The bulk of waste should be double bagged and removed prior to the end of the work shift.

# Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

Site Inspector:

Id Marulle

Joel Marcellus, Environmental Technician



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 29 March 6, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 3 <sup>rd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression			Amended water should be used throughout.
20 Inspection 8 Air Manitaring Mar 6 2017			

29. Inspection & Air Monitoring - Mar. 6, 2017



Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-64	3 <sup>rd</sup> floor hallway, Exterior men's washroom	900	<0.01		
PCM-65	3 <sup>rd</sup> floor hallway, Exterior women's washroom	900	<0.01		

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 3. By-Spec has completed removal and final cleaning within the women's washroom. A visual inspection was completed and By-Spec was given permission to apply the locking agent.
- 4. Contaminated work is underway in the men's washroom. The bulk of waste should be double bagged prior to the end of the work shift.

# Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

Ind Marulle

Joel Marcellus **Environmental Technician** 



Final Air Clearance & Air Monitoring Report CM3 Project # RCP-1701 Report # 30 March 7, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 3 <sup>rd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Tyler Emond
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\square$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Post Abatement air samples were collected inside the 3 <sup>rd</sup> floor women's washroom Type 3. Background air samples were also collected in the hallway adjacent to the containments.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the



		Auditorium
Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-66	3 <sup>rd</sup> floor hallway, Exterior men's washroom	900	<0.01	
PCM-67	3 <sup>rd</sup> floor hallway, Exterior women's washroom	900	<0.01	
PCM-68	3 <sup>rd</sup> Floor, Women's W/R (Inside containment)	2400	<0.01	
PCM-69	3 <sup>rd</sup> Floor, Women's W/R (Inside containment)	2400	<0.01	
PCM-70	3 <sup>rd</sup> Floor, Women's W/R (Inside containment)	2400	<0.01	

**Comments**: The clearance criteria for Type 3 Asbestos Abatement (<0.01 f/cc) is outlined in Ontario Regulation 278/05 "Asbestos on Construction Projects and in Buildings and Repair Operations".

All air samples collected and analyzed were confirmed to be within the above noted criteria. Therefore, there are no concerns with regards to airborne fibre concentrations at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks. The analytical report is attached.

# **General Observations**

- 1. The scope of work appears complete in the 3<sup>rd</sup> floor women's washroom. The work area is generally clean and free of debris.
- 2. Three (3) phase contrast microscopy (PCM) air samples were collected within the women's washroom containment using high volume air pumps calibrated to 15 litres per minute. Each sample was collected for 160 minutes to yield 2400L air samples.
- 3. Aggressive air sampling techniques were employed as per O.Reg 278/05.
- 4. According to the criteria for post Type 3 abatement air testing outlined in O.Reg. 278/05, all samples collected were confirmed to be acceptable.
- 5. By-Spec was informed of the air sampling results and given permission to remove the containment.
- 6. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

# Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.



Approvals

T.E.

Site Inspector:

Tyler Emond, Environmental Technician



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 31 March 8, 2017

•	
Project Name:	Asbestos Abatement Project – Type 3, 3 <sup>rd</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.
21 Increation 8 Air Manitaring Mar 9 2017			

31. Inspection & Air Monitoring - Mar. 8, 2017



Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-71	3 <sup>rd</sup> floor hallway, Exterior men's washroom	900	<0.01		
PCM-72	3 <sup>rd</sup> floor hallway, Exterior women's washroom	900	<0.01		

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 3. By-Spec has completed removal and final cleaning within the men's washroom. A visual inspection was completed. The area was found to be clean and free of debris and By-Spec was given permission to apply the locking agent.

# Actions

1. CM3 will complete a final air clearance inspection in the men's washroom on Thursday February 9<sup>th</sup>, 2017.

Approvals

Ed Monulle

Joel Marcellus **Environmental Technician** 



Final Air Clearance & Air Monitoring Report CM3 Project # RCP-1701 Report # 32 March 9, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 3 <sup>rd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Tyler Emond
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation				
	Yes	No	Comments	
Is area prepared for Type 3 removal in accordance with O.Reg 278/05	$\boxtimes$		No concerns identified.	
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.	
PPE				
	Yes	No	Comments	
Disposable Suits	$\boxtimes$		No Concerns.	
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.	
Health and Safety Plan	$\boxtimes$		Located on-site.	
Other Hazards	$\square$		Ladders and Electrical	
Air Monitoring				
	Yes	No	Comments	
Post Abatement air samples were collected inside the 3 <sup>rd</sup> floor men's washroom Type 3. Background air sample was also collected in the hallway adjacent to the containment.	$\boxtimes$		See table below	
Other				
	Yes	No	Comments	
Waste Issues	$\boxtimes$		All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the	



		Auditorium
Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-73	3 <sup>rd</sup> floor hallway, Exterior men's washroom	900	<0.01		
PCM-74	3 <sup>rd</sup> Floor, Men's W/R (Inside containment)	2400	<0.01		
PCM-75	3 <sup>rd</sup> Floor, Men's W/R (Inside containment)	2400	<0.01		
PCM-76	3 <sup>rd</sup> Floor, Men's W/R (Inside containment)	2400	<0.01		

**Comments**: The clearance criteria for Type 3 Asbestos Abatement (<0.01 f/cc) is outlined in Ontario Regulation 278/05 "Asbestos on Construction Projects and in Buildings and Repair Operations".

All air samples collected and analyzed were confirmed to be within the above noted criteria. Therefore, there are no concerns with regards to airborne fibre concentrations at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM", including two field blanks. The analytical report is attached.

# **General Observations**

- 1. The scope of work appears complete in the 3<sup>rd</sup> floor men's washroom. The work area is generally clean and free of debris.
- 2. Three (3) phase contrast microscopy (PCM) air samples were collected within the men's washroom containment using high volume air pumps calibrated to 15 litres per minute. Each sample was collected for 160 minutes to yield 2400L air samples.
- 3. Aggressive air sampling techniques were employed as per O.Reg 278/05.
- 4. According to the criteria for post Type 3 abatement air testing outlined in O.Reg. 278/05, all samples collected were confirmed to be acceptable.
- 5. By-Spec was informed of the air sampling results and given permission to remove the containment.
- 6. One (1) phase contrast microscopy (PCM) air sample was collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Sample was timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

#### Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

19and



Tyler Emond, Environmental Technician



Pre-Contamination Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 29 March 6, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 2 <sup>nd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation				
	Yes	No	Comments	
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.	
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.	
PPE				
	Yes	No	Comments	
Disposable Suits			No Concerns.	
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.	
Health and Safety Plan	$\boxtimes$		Located on-site.	
Other Hazards	$\square$		Ladders and Electrical	
Air Monitoring				
	Yes	No	Comments	
Air samples were collected in the hallway adjacent the containment.			See table below	
Other				
	Yes	No	Comments	
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium	
Dust Suppression	$\square$		Amended water should be used throughout.	

33. Inspection & Air Monitoring - Mar. 14, 2017.docx


Air Sample Summary Table							
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)				
PCM-77	2 <sup>nd</sup> floor hallway, Exterior men's washroom	900	<0.01				
PCM-78	2 <sup>nd</sup> floor hallway, Exterior women's washroom	900	<0.01				

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- 2. No breeches in the containment observed.
- 3. Water for shower should be turned on prior to contaminated phase of work.
- 4. Additional air-lock barriers required at decontamination chamber entrance at the men's washroom.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

### Actions

- 1. By-spec may begin the contaminated phase of work once items 3 and 4 above have been addressed.
- 2. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

Richard Pope, C.E.T. Project Manager



Pre-Contamination Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 34 March 15, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 2 <sup>nd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager: CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client: Contractor:	CFIA By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation						
	Yes	No	Comments			
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.			
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.			
PPE						
	Yes	No	Comments			
Disposable Suits			No Concerns.			
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.			
Health and Safety Plan	$\boxtimes$		Located on-site.			
Other Hazards	$\boxtimes$		Ladders and Electrical			
Air Monitoring						
	Yes	No	Comments			
Air samples were collected in the hallway adjacent the containment.			See table below			
Other						
	Yes	No	Comments			
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium			
Dust Suppression	$\square$		Amended water should be used throughout.			

34. Inspection & Air Monitoring - Mar. 15, 2017



Air Sample Summary Table							
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)				
PCM-79	2 <sup>nd</sup> floor hallway, Exterior men's washroom	900	<0.01				
PCM-80	2 <sup>nd</sup> floor hallway, Exterior women's washroom	900	<0.01				

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- 2. No breeches in either containment observed.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

### Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

d Marulles

Joel Marcellus **Environmental Technician** 



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 35 March 16, 2017

•	
Project Name:	Asbestos Abatement Project – Type 3, 2 <sup>nd</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.	$\square$		See table below
Other		•	
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

35. Inspection & Air Monitoring - Mar. 16, 2017.docx



Air Sample Summary Table							
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)				
PCM-81	2 <sup>nd</sup> floor hallway, Exterior men's washroom	900	<0.01				
PCM-82	2 <sup>nd</sup> floor hallway, Exterior women's washroom	900	<0.01				

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- 2. No breeches in either containment observed.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 4. Removal of ceramic tiles is nearly complete in the women's washroom. Final cleaning to commence during today's work shift. Removal is on-going in the Men's washroom.

## Actions

1. CM3 will complete daily inspection and air monitoring during the contaminated phase of work.

Approvals

Site Inspector:

Richard Pope, C.E.T. Project Manager



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 36 March 17, 2017

•	
Project Name:	Asbestos Abatement Project – Type 3, 2 <sup>nd</sup> Floor Washrooms
Project Locati	on: Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project M	lanager: Richard Pope
CM3 Site Inspe	ector: Richard Pope
Project Owner	: CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\boxtimes$		No Concerns.
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

36. Inspection & Air Monitoring - Mar. 17, 2017.docx



Air Sample Summary Table							
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)				
PCM-83	2 <sup>nd</sup> floor hallway, Exterior men's washroom	900	<0.01				
PCM-84	2 <sup>nd</sup> floor hallway, Exterior women's washroom	900	<0.01				

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. Sufficient negative air pressure in each containment at this time. Negative air pressure within both containments is greater than 0.03 inches of water. The pressures should be monitored regularly during demolition activities, and filters should be changed as required.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 3. The scope of work appears complete in the women's washroom. The work area is generally clean and free of debris. By-Spec may apply the lockdown agent within the women's washroom.
- 4. The final cleaning phase of abatement is on-going in the Men's Washroom.

# Actions

- 1. Post abatement air clearance sampling will be completed within the women's washroom on Monday, March 20<sup>th</sup>.
- 2. Post abatement visual inspection is also expected to be completed Monday, March 20th.
- 3. Air monitoring will be completed on Saturday, March 18<sup>th</sup> as part of the sheet vinyl flooring removal at the doorway thresholds.

Approvals

Richard Pope, C.E.T. Project Manager



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 37 March 20, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 2 <sup>nd</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation						
	Yes	No	Comments			
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.			
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.			
PPE						
	Yes	No	Comments			
Disposable Suits			No Concerns.			
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.			
Health and Safety Plan	$\boxtimes$		Located on-site.			
Other Hazards	$\boxtimes$		Ladders and Electrical			
Air Monitoring						
	Yes	No	Comments			
Air samples were collected in the hallway adjacent the containment.			See table below			
Other						
	Yes	No	Comments			
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium			
Dust Suppression	$\square$		Amended water should be used throughout.			

37. Inspection & Air Monitoring - Mar. 20, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-85	2 <sup>nd</sup> floor hallway, exterior men's washroom	900	<0.01	
PCM-86	2 <sup>nd</sup> floor hallway, exterior women's washroom	900	<0.01	
PCM-87	Final air clearance, women's washroom	2400	<0.01	
PCM-88	Final air clearance, women's washroom	2400	<0.01	
PCM-89	Final air clearance, women's washroom	2400	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- 1. CM3 was onsite at approximately 08:30 to conduct post abatement air sampling following the completion of the asbestos abatement in the 2<sup>nd</sup> floor women's washroom and to conduct perimeter air sampling in the hallway during abatement activities within the 2<sup>nd</sup> floor men's washroom.
- 2. Three (3) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 160 minutes to yield a 2400L sample volume. Aggressive air sampling techniques were employed as per O.Reg 278/05. There were no concerns regarding the airborne fibre concentration within the the women's washroom. By-Spec was informed of the air sampling results and given permission to remove the enclosure.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 4. The scope of work appears complete in the men's washroom. The work area is generally clean and free of debris. By-Spec may apply the lockdown agent within the men's washroom.

# Actions

1. Post abatement air clearance sampling will be completed within the men's washroom on Tuesday, March 21<sup>st</sup>.



Approvals

Jad Marullep

Joel Marcellus Technician



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 38 March 21, 2017

-	nd
Project Name:	Asbestos Abatement Project – Type 3, 2 <sup>nd</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

38. Inspection & Air Monitoring - Mar. 21, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-90	2 <sup>nd</sup> floor hallway, outside of containment	900	<0.01	
PCM-91	2 <sup>nd</sup> floor hallway, outside of containment	900	<0.01	
PCM-92	Final air clearance, men's washroom	2400	<0.01	
PCM-93	Final air clearance, men's washroom	2400	<0.01	
PCM-94	Final air clearance, men's washroom	2400	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. CM3 was onsite at approximately 09:00 to conduct post abatement air sampling following the completion of the asbestos abatement in the 2<sup>nd</sup> floor men's washroom and to conduct perimeter air sampling in the hallway.
- 2. Three (3) phase contrast microscopy (PCM) air samples were collected inside of the containment using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 160 minutes to yield a 2400L sample volume. Aggressive air sampling techniques were employed as per O.Reg 278/05. There were no concerns regarding the airborne fibre concentration within the men's washroom. By-Spec was informed of the air sampling results and given permission to remove the enclosure.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 4. There will be no air monitoring conducted tomorrow. CM3 will return to the site to conduct a precontamination inspection on Thursday March 23<sup>rd</sup> for the washrooms on the first floor.

### Actions

1. Pre-contamination inspections for the washrooms on the first floor will be completed on Thursday March 23<sup>rd</sup>.

Approvals

Red Maralle

Site Inspector:

Joel Marcellus Technician



Pre-Contamination Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 39 March 23, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 1 <sup>st</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope, C.E.T.
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure	$\boxtimes$		HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\square$		Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.

39. Inspection & Air Monitoring - Mar. 2, 2017.docx



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-95	1st floor hallway, outside of containment	900	<0.01	
PCM-96	1 <sup>st</sup> floor hallway, outside of containment	900	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. Both Type 3 work areas were setup within the requirements of Ontario Regulation 278/05.
- 2. Additional air barriers were installed at the entrance to each containment.
- 3. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

# Actions

1. Inspection and air monitoring will be completed daily during the Type 3 abatement operations.

Approvals

<b>Richard Pope, C.E.T</b>
Project Manager



**Pre-Contamination Inspection & Air Monitoring Report** CM3 Project # RCP-1701 Report # 40 March 24, 2017

Project Name: Project Location:	Asbestos Abatement Project – Type 3, 1 <sup>st</sup> Floor Washrooms Canadian Food Inspection Agency (CFIA) Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope, C.E.T.
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation		-	
	Yes	No	Comments
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\square$		Located on-site.
Other Hazards	$\square$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway adjacent the containment.			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\square$		Amended water should be used throughout.
40 Inspection 8 Air Monitoring Mar 24 2017			

40. Inspection & Air Monitoring - Mar. 24, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-97	1st floor hallway, outside of containment	900	<0.01	
PCM-98	1 <sup>st</sup> floor hallway, outside of containment	900	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. Sufficient negative air pressure in both containments at this time. Negative air pressure within both containments is greater than 0.03 inches of water. Negative air pressure should be monitored regularly during demolition activities.
- 2. Demolition is being conducted within both containments at this time.
- 3. No breeches in either containment were observed.
- 4. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

# Actions

1. Inspection and air monitoring will be completed daily during the Type 3 abatement operations.

# Approvals

Site Inspector:

Ed Monulle

Joel Marcellus Project Coordinator



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 41 March 24, 2017

• Project Name	Ashestos Abatement Project – Type 3, 1 <sup>st</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CEIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope, C.E.T.
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators	$\boxtimes$		Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards	$\square$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway adjacent the containment.			See table below		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		
41. Inspection & Air Monitoring - Mar. 27, 2017					



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-99	1st floor hallway, outside of containment	900	<0.01	
PCM-100	1 <sup>st</sup> floor hallway, outside of containment	900	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. Sufficient negative air pressure in both containments at this time. Negative air pressure within both containments is greater than 0.03 inches of water. Negative air pressure should be monitored regularly during demolition activities.
- 2. No breeches in either containment were observed.
- 3. The scope of work has been completed in the women's washroom. CM3 completed the visual inspection. The work area was observed to be clean and free of debris and By-Spec was given permission to apply the locking agent.
- 4. Demolition is being conducted within the men's washroom.
- 5. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

### Actions

1. Inspection and air monitoring will be completed daily during the Type 3 abatement operations.

Approvals

Jed Monulles

**Joel Marcellus Project Coordinator** 



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 42 March 28, 2017

• Project Name	Ashestos Abatement Project – Type 3, 1 <sup>st</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CEIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager	Richard Pope, C.E.T.
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards	$\boxtimes$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway adjacent the containment.			See table below		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		
12 Inspection & Air Monitoring - Mar 28, 2017					

42. Inspection & Air Monitoring - Mar. 28, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-101	1st floor hallway, outside of containment	900	<0.01	
PCM-102	1 <sup>st</sup> floor hallway, outside of containment	900	<0.01	
PCM-103	Final air clearance, women's washroom	2400	<0.01	
PCM-104	Final air clearance, women's washroom	2400	<0.01	
PCM-105	Final air clearance, women's washroom	2400	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

# **General Observations**

- 1. CM3 was onsite at approximately 09:00 to conduct post abatement air sampling following the completion of the asbestos abatement in the 1<sup>st</sup> floor women's washroom and to conduct perimeter air sampling in the hallway during abatement activities within the 1<sup>st</sup> floor men's washroom.
- 2. Three (3) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 160 minutes to yield a 2400L sample volume. Aggressive air sampling techniques were employed as per O.Reg 278/05. There were no concerns regarding the airborne fibre concentration within the women's washroom. By-Spec was informed of the air sampling results and given permission to remove the enclosure.
- Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 4. Demolition is being conducted within the men's washroom.

### Actions

- 1. Inspection and air monitoring will be completed daily during the Type 3 abatement operations.
- 2. CM3 will complete final visual inspection of the men's washroom on Wednesday March 29<sup>th</sup>.



Approvals

Jud Monuter

Joel Marcellus Project Coordinator



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 43 March 29, 2017

•	
Project Name:	Asbestos Abatement Project – Type 3, 1 <sup>st</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
-	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope, C.E.T.
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards	$\square$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway adjacent the containment.			See table below		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		
43 Inspection & Air Monitoring - Mar 29, 2017					

43. Inspection & Air Monitoring - Mar. 29, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-106	1st floor hallway, outside of containment	900	<0.01	
PCM-107	1 <sup>st</sup> floor hallway, outside of containment	900	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

## **General Observations**

- 1. Sufficient negative air pressure in the containment at this time. Negative air pressure within men's washroom containment is greater than 0.03 inches of water. Negative air pressure should be monitored regularly during demolition activities.
- 2. The scope of work has been completed in the men's washroom. CM3 completed the visual inspection. The work area was observed to be clean and free of debris and By-Spec was given permission to apply the locking agent.
- 3. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.

# Actions

1. CM3 will complete the final air clearance inspection in the men's washroom on Thursday March 30<sup>th</sup>, 2017.

# Approvals

Jed Monull

Joel Marcellus Project Coordinator



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 44 March 30, 2017

•	
Project Name:	Asbestos Abatement Project – Type 3, 1 <sup>st</sup> Floor Washrooms
Project Location:	Canadian Food Inspection Agency (CFIA)
-	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope, C.E.T.
CM3 Site Inspector:	Joel Marcellus
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

## Background

Type 3 removal of asbestos-containing materials (ACMs) ceramic tile adhesive on the poured concrete walls in the washrooms.

Site Isolation					
	Yes	No	Comments		
Is area prepared for Type 3 removal in accordance with O.Reg 278/05			No concerns identified.		
Negative Pressure			HEPA equipped negative air units are running inside of the containment. Negative air pressure is sufficient.		
PPE					
	Yes	No	Comments		
Disposable Suits	$\square$		No Concerns.		
Respirators			Yes. Full-face respirator with P-100 is the minimum requirement.		
Health and Safety Plan	$\square$		Located on-site.		
Other Hazards	$\square$		Ladders and Electrical		
Air Monitoring					
	Yes	No	Comments		
Air samples were collected in the hallway adjacent the containment.	$\boxtimes$		See table below		
Other					
	Yes	No	Comments		
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg 278/05 daily. Waste bin is located exterior the Auditorium		
Dust Suppression	$\square$		Amended water should be used throughout.		
11 Inspection & Air Monitoring - Mar 30, 2017					

44. Inspection & Air Monitoring - Mar. 30, 2017



Air Sample Summary Table				
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)	
PCM-108	Final air clearance, men's washroom	2400	<0.01	
PCM-109	Final air clearance, men's washroom	2400	<0.01	
PCM-110	Final air clearance, men's washroom	2400	<0.01	

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. CM3 was onsite at approximately 09:00 to conduct post abatement air sampling following the completion of the asbestos abatement in the 1<sup>st</sup> floor men's washroom.
- 2. Three (3) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 160 minutes to yield a 2400L sample volume. Aggressive air sampling techniques were employed as per O.Reg 278/05. There were no concerns regarding the airborne fibre concentration within the women's washroom. By-Spec was informed of the air sampling results and given permission to remove the enclosure.
- 3. There are no further concerns at this time. The asbestos abatement has been completed.

# Approvals

Jed Monulle

Joel Marcellus Project Coordinator



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 1

February 25, 2017

Project Name:	Asbestos Abatement Project – Type 2 (1 <sup>st</sup> Floor)
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope, C.E.T.
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) sheet vinyl flooring at various laboratory doorways inn Building 201. The flooring remains at the doorways in small quantities (<1m2) where it was left in place as part of previously completed Type 3 operations. Due to the nature of the removal and the day to day operations the work is completed after regular working hours.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure		$\boxtimes$	Not required for Type 2 operations. Although, a HEPA equipped vacuum is utilized to provide some negative pressure within the work area.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators	$\square$		Yes. Half-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during abatement activities	$\boxtimes$		See table below
Other			
	Yes	No	Comments
Waste Issues	$\boxtimes$		All waste is to be removed from work area following proper procedures as per O.Reg

1. Inspection & Air Monitoring - Feb 25, 2017.docx



		278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-1	1 <sup>th</sup> floor hallway, East side	1200	<0.01		
PCM-2	1 <sup>th</sup> floor hallway, East side	1200	<0.01		

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

#### **General Observations**

- 1. CM3 was on-site at approximately 9:30am to collect air samples in the hallway during asbestos abatement operations.
- 2. At this time, By-Spec was actively working along the east side of the hallway on the 1<sup>st</sup> floor. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 80 minutes to yield a 1200L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 3. No concerns with regards to the abatement operations. According to By-Spec all the thresholds will be completed on the first floor during this work shift.

### Actions

1. Removal will continue on the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> floors at a later date. No schedule has been determined at this time.

Approvals

tor:

Richard Pope, C.E.T. Project Manager



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 2 March 4, 2017

Project Name:	Asbestos Abatement Project – Type 2 (3 <sup>rd</sup> Floor)
Project Location:	Canadian Food Inspection Agency (CFIA)
CM3 Project Manager CM3 Site Inspector: Project Owner: Client: Contractor:	Building 201, 3851 Fallowfield Rd., Ottawa, ON Richard Pope, C.E.T. Joel Marcellus CFIA CFIA By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) sheet vinyl flooring at various laboratory doorways inn Building 201. The flooring remains at the doorways in small quantities (<1m2) where it was left in place as part of previously completed Type 3 operations. Due to the nature of the removal and the day to day operations the work is completed after regular working hours.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure			Not required for Type 2 operations. Although, a HEPA equipped vacuum is utilized to provide some negative pressure within the work area.
PPE			
	Yes	No	Comments
Disposable Suits			No Concerns.
Respirators			Yes. Half-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring	-		
	Yes	No	Comments
Air samples were collected in the hallway during abatement activities			See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg

1. Inspection & Air Monitoring - Feb 25, 2017 - Copy



		278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-1	3 <sup>rd</sup> floor hallway, East side	900	<0.01		
PCM-2	3 <sup>rd</sup> floor hallway, West side	900	<0.01		

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

#### **General Observations**

- 1. CM3 was on-site at approximately 10:30am to collect air samples in the hallway during asbestos abatement operations.
- At this time, By-Spec had completed the work on the 3<sup>rd</sup> floor hallway. CM3 collected two (2) air samples from the east side and the west side hallways of the 3<sup>rd</sup> floor. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 3. No concerns with regards to the abatement operations. All asbestos containing flooring had been removed from the thresholds on the 3<sup>rd</sup> floor.

### Actions

1. Removal will continue on the  $2^{nd}$  and  $4^{th}$  floors at a later date.

Approvals

Ted Manulle

Joel Marcellus Project Coordinator



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 3 March 11, 2017

•	
Project Name:	Asbestos Abatement Project – Type 2 (2 <sup>nd</sup> Floor)
Project Location:	Canadian Food Inspection Agency (CFIA)
	Building 201, 3851 Fallowfield Rd., Ottawa, ON
CM3 Project Manager:	Richard Pope, C.E.T.
CM3 Site Inspector:	Richard Pope
Project Owner:	CFIA
Client:	CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

Type 2 removal of asbestos-containing materials (ACMs) sheet vinyl flooring at various laboratory doorways inn Building 201. The flooring remains at the doorways in small quantities (<1m2) where it was left in place as part of previously completed Type 3 operations. Due to the nature of the removal and the day to day operations the work is completed after regular working hours.

Site Isolation			
	Yes	No	Comments
Is area prepared for Type 2 removal in accordance with O.Reg 278/05			No concerns identified.
Negative Pressure		$\boxtimes$	Not required for Type 2 operations. Although, a HEPA equipped vacuum is utilized to provide some negative pressure within the work area.
PPE			
	Yes	No	Comments
Disposable Suits	$\square$		No Concerns.
Respirators	$\square$		Yes. Half-face respirator with P-100 is the minimum requirement.
Health and Safety Plan	$\boxtimes$		Located on-site.
Other Hazards	$\boxtimes$		Ladders and Electrical
Air Monitoring			
	Yes	No	Comments
Air samples were collected in the hallway during abatement activities	$\boxtimes$		See table below
Other			
	Yes	No	Comments
Waste Issues			All waste is to be removed from work area following proper procedures as per O.Reg

3. Inspection & Air Monitoring -March 11, 2017.docx



		278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table					
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)		
PCM-1	2 <sup>nd</sup> floor hallway, North side	900	<0.01		
PCM-2	2nd floor hallway, East side	900	<0.01		

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

#### **General Observations**

- 1. CM3 was on-site at approximately 9:00am to collect air samples in the hallway during asbestos abatement operations.
- 2. At this time, By-Spec was completing removal along the east hallway.
- 3. CM3 collected two (2) air samples from the north side and the east side hallways of the 2<sup>nd</sup> floor.
- 4. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 5. No concerns with regards to the abatement operations at this time.

### Actions

1. Removal will continue on the 4<sup>th</sup> floor at a later date.

Approvals

Richard Pope, C.E.T. Project Manager



Inspection & Air Monitoring Report CM3 Project # RCP-1701 Report # 4

Project Name: Project Location:	Asbestos Abatement Project – Type 2 (2 <sup>nd</sup> Floor) Canadian Food Inspection Agency (CFIA)
CM3 Project Manager: CM3 Site Inspector: Project Owner: Client:	Building 201, 3851 Fallowfield Rd., Ottawa, ON Richard Pope, C.E.T. Joel Marcellus CFIA CFIA
Contractor:	By-Spec Construction Services Ltd.

#### Background

March 18, 2017

Type 2 removal of asbestos-containing materials (ACMs) sheet vinyl flooring at various laboratory doorways inn Building 201. The flooring remains at the doorways in small quantities (<1m2) where it was left in place as part of previously completed Type 3 operations. Due to the nature of the removal and the day to day operations the work is completed after regular working hours.

Site Isolation							
	Yes	No	Comments				
Is area prepared for Type 2 removal in accordance with O.Reg 278/05	$\boxtimes$		No concerns identified.				
Negative Pressure		$\boxtimes$	Not required for Type 2 operations. Although, a HEPA equipped vacuum is utilized to provide some negative pressure within the work area.				
PPE							
	Yes	No	Comments				
Disposable Suits	$\boxtimes$		No Concerns.				
Respirators	$\boxtimes$		Yes. Half-face respirator with P-100 is the minimum requirement.				
Health and Safety Plan	$\boxtimes$		Located on-site.				
Other Hazards	$\boxtimes$		Ladders and Electrical				
Air Monitoring							
	Yes	No	Comments				
Air samples were collected in the hallway during abatement activities	$\boxtimes$		See table below				
Other							
	Yes	No	Comments				
Waste Issues	$\boxtimes$		All waste is to be removed from work area following proper procedures as per O.Reg				

4. Inspection & Air Monitoring -March 18, 2017



		278/05 daily. Waste bin is located exterior the Auditorium
Dust Suppression	$\boxtimes$	Amended water should be used throughout.

Air Sample Summary Table							
Sample ID	Sample Location	Volume (L)	Results (fibres per cubic centimeter of air, f/cc)				
PCM-1	4 <sup>th</sup> floor hallway, North side	900	<0.01				
PCM-2	4 <sup>th</sup> floor hallway, East side	900	<0.01				

**Comments:** For the purpose of background air samples the air samples are compared to the criteria outlined in DM Directive 57 (<0.05f/cc) and Ontario Regulation 490/09 (0.1f/cc).

#### No concerns with regards to airborne fibre concentration at this time.

All air samples were collected and analyzed following NIOSH procedure 7400, Method A "Asbestos and Other Fibres by PCM" including two filed blanks.

### **General Observations**

- 1. CM3 was on-site at approximately 10:00am to collect air samples in the hallway during asbestos abatement operations.
- 2. At this time, By-Spec was completing removal along the east hallway.
- 3. CM3 collected two (2) air samples from the north side and the east side hallways of the 4<sup>th</sup> floor.
- 4. Two (2) phase contrast microscopy (PCM) air samples were collected using high volume sampling pumps calibrated to collect 15 litres of air per minute. Samples were timed for 60 minutes to yield a 900L sample volume. No concerns with regards to airborne fibre concentration exterior the containment was identified.
- 5. No concerns with regards to the abatement operations at this time.

Approvals

Jed Marulles

Joel Marcellus **Environmental Technician**