

ID CODE
POL17-043

TITLE: POLICY ON INDOOR AIR QUALITY IN BUILDINGS

EFFECTIVE DATE	APPROVAL REQUIRED	RESPONSIBILITY FOR FOLLOW-UP
July 14, 2017	Material Resources Department	Material Resources Department

ROADMAP

	DATE	APPROVAL
ADOPTION	July 14, 2017	Material Resources Department
LAST UPDATE		

1.0 Preamble

As an employer and an owner of public buildings, the Commission scolaire du Littoral (hereinafter the “School Board”) has a duty to ensure its buildings are safe and in good condition. This duty includes maintaining good indoor air quality to preserve occupants’ health and well-being.

It is known that good indoor air quality fosters a better learning environment, which, in turn, improves students’ chances of staying in and succeeding in school.

The Auditor General of Québec and the Ministère de l’Éducation recommend putting a comprehensive and systematic approach in place to manage indoor air quality in schools.

Through the enforcement of this policy and its objectives, the School Board commits to adhering to these recommendations and to the comfort parameters stipulated by the Ministère de l’Éducation, and to pursuing its efforts to maintain good air quality in all of its buildings.

2.0 Legal framework

This policy has been established in accordance with the following:

- *Public Health Act*, CQLR c. S-2.2, and its applicable regulations;
- *Act respecting occupational health and safety*, CQLR c. S-2.1, and its applicable regulations;
- *Building Act*, CQLR c. B-1.1, and its applicable regulations:
 - *Construction Code*, c. B-1.1, r. 2;
 - *Safety Code*, c. B-1.1, r. 3;
 - *Regulation respecting safety in public buildings*, c. S-3, r. 2;
- *La qualité de l’air dans les établissements scolaires*, a guide prepared by the Ministère de l’Éducation, du Loisir et du Sport (2014).

3.0 Objectives

This policy seeks to achieve the following objectives:

3.1 Foster governance centred on maintaining a high-quality environment in all School Board buildings.

3.2 Ensure that air quality initiatives are consistent and effective.

3.3 Make sure staff understand that air quality is everyone’s responsibility and are informed of the negative effects of poor air quality.

4.0 Strategy

4.1 Education and training

- 4.1.1** Encourage and allow staff to develop and apply knowledge, attitudes and skills in the area of healthy air quality.
- 4.1.2** Foster the adoption of responsible behaviours among the School Board's staff and clientele.

4.2 Awareness

- 4.2.1** Generate, support, recognize and promote local air quality initiatives.
- 4.2.2** Partner with other organizations advocating health and good air quality (e.g. public health departments).

4.3 Management

4.3.1 Systematic and comprehensive air quality management

Apply a systematic and comprehensive approach for managing air quality that will help maintain air quality in school buildings and mitigate the effects of air contaminants on human health.

4.3.2 Air quality action plan

Establish an action plan that sets out measurable objectives, specific timelines, and the roles and responsibilities of the various parties involved, particularly with respect to the following:

4.3.2.1 Sanitary maintenance management

Adopt and maintain structured management of school building sanitation.

Among other things, adopt managerial practices that encourage the institutions' management to collaborate and get involved.

4.3.2.2 Management of regular and preventive building system maintenance

Introduce a regular and preventive maintenance plan covering the airtightness of the building envelope, the proper performance and cleanliness of building systems, inspection of components potentially affecting air quality, and minor and major repairs to building components.

4.3.2.3 Asbestos management

Satisfy regulatory requirements concerning the safe management of asbestos in schools.

4.3.2.4 Radon management

Measure radon concentrations and take remedial action in keeping with the acceptable standards set by Health Canada.

4.3.2.5 Aeration and ventilation management

Follow the Ministère de l'Éducation's recommended targets (indicated in Table 1) for minimum temperature, relative humidity, outdoor air supply, air changes and carbon dioxide (CO₂) concentrations in Québec schools.

Establish parameters for the aeration of buildings without mechanical ventilation.

These parameters are targets, and school institutions should take into consideration exceptional circumstances, such as when the outdoor temperature or humidity make it impossible to achieve these targets.

Like ambient temperature and humidity levels, CO₂ concentration will vary throughout the

TABLE 1				
COMFORT PARAMETERS RECOMMENDED BY THE MINISTÈRE DE L'ÉDUCATION				
Description	Mechanically Ventilated Facilities		Naturally (Window) Ventilated Facilities	
	Minimum temperature: 20 °C	Winter	20 °C to 24 °C	Winter
Summer		23 °C to 26 °C	Summer	Refer to current regulations
Minimum relative humidity: 20%	Winter	30% to 50%	Winter	30% to 50%
	Summer	30% to 80%	Summer	30% to 80%
Outdoor air supply	2.4 litres per second per occupant 7.5 litres per second per occupant			
	The lower limit of 2.4 litres per second per occupant for the fresh air supply was established to promote energy efficiency. This fresh air supply rate may result in complaints from occupants. Subsection 51(4) of the <i>Act respecting occupational health and safety</i> stipulates that employers must provide adequate ventilation, among other things. If such is the case, the ASHRAE recommendation may be applied.			
Air change rate	Six air changes per hour		One air change per hour	
Carbon dioxide (CO ₂) concentration	1,000 ppm			
	The CO ₂ concentration limit of 1,000 ppm is not a standard, but rather an indicator of the point at which occupants may show signs of discomfort.			

day based on the number of occupants and the activities taking place in a given room, its outer walls' exposure to the sun and the weather conditions.

4.3.2.6 Room layout and occupant activity management

Adhere to the Ministère de l'Éducation's recommendations for room layout and occupant activity.

4.3.2.7 Management of mould growth in schools

Establish appropriate prevention, investigation and decontamination practices in the event of mould in schools.

4.3.2.8 Communications management

Effectively convey information related to air quality in an objective, diligent and transparent manner, always keeping occupants' concerns and the right to be informed in mind.

5.0 Air quality requests and complaints

The School Board's material resources coordinator is responsible for assessing complaints. This person handles all requests and complaints pertaining to air quality in schools.

6.0 Adoption and effective date

This policy was adopted by way of order 17-043 on July 14, 2017.