

## **Air Pollution: Protocols and Protective Measures for Members of the School Community at the Lycée Français International de Bangkok (2025–2026)**

Madam, Sir,

For several years, the city of Bangkok has experienced periods of severe air pollution peaks, marked by high concentrations of fine particulate matter (PM2.5), mainly between December and February. The LFIB has therefore implemented a protocol and protective measures to safeguard our school community when air quality deteriorates.

### **1) Measurement of Outdoor Air Pollution Levels and Application of the Protocol**

Bangkok has numerous sensors installed in different districts of the city that provide regular readings of air pollution levels. The reference station for LFIB is operated by the company IQAir and is installed on our campus, near the sports stadium. It publishes an online measurement every hour.

The reference indicator is the PM2.5 concentration level. When the recorded level reaches the threshold defined in our protocol, an email is sent to inform staff members. Further communication is issued in the event of a change in level (increase or decrease beyond the threshold).

The pollution indicator can be freely consulted on the IQAir website:

<https://www.iqair.com/thailand/bangkok/wang-thonglang/lycee-francais-international-de-bangkok-lfib>

During periods of high air pollution, these measurements are also displayed transparently on screens at the entrances of the school.

When the pollution protocol is in effect and the “unhealthy” threshold is reached, regular measurements are taken in different classrooms in each building to monitor the effectiveness of air filtration.

### **2) Anti-Pollution Filtration Systems in All Rooms**

All classroom and office air-conditioning units on campus are equipped with anti-pollution filters effective against fine PM2.5 particles (3M Filtrete range). These filters are replaced every two months, during each school holiday period.

In addition to these filters, kindergarten classrooms and dormitories are also equipped with air purifiers, allowing for a faster reduction of pollution levels in these spaces.

The school gymnasium is equipped with an air-conditioning and air-filtration system designed to block fine PM2.5 particles.

**Note:** Air extractors in classrooms create airflow and therefore bring polluted air into the room when doors are opened. It is therefore important to remain vigilant regarding door opening times during periods of degraded air quality. Beyond certain pollution thresholds, the protocol requires turning off the extractors.

### 3) Wearing Protective Masks

In outdoor areas, only the wearing of masks can protect against air pollution. Under certain conditions defined in this protocol, only students wearing a mask will be authorized to remain outdoors during recess.

It is the responsibility of parents to provide their children with masks, the model being of their choice. It is recommended to provide spare masks. **The LFIB will not provide masks to students.**

### 4) Air Quality Classification

The air quality classification table is based on recommendations from authorities and the WHO and is aligned with best practices in place in most international schools in Thailand.

Concentration PM2.5 ( $\mu\text{g}/\text{m}^3$ )	US AQI Index	Classification	Description
0 - 9.1	0 - 50	Good	Air quality is considered satisfactory and air pollution poses little or no risk.
9.2 - 35.4	51 - 100	Moderate	Air quality is acceptable. However, for certain pollutants, there may be a moderate health risk for particularly sensitive individuals (vulnerable population).
35.5 - 45.2	101 - 125	Unhealthy for Sensitive Groups Phase 1	The general public is not likely to be affected, but sensitive individuals may experience discomfort. At-risk children may present some symptoms.
45.3 - 55.4	126 - 150	Unhealthy for Sensitive Groups Phase 2	Sensitive individuals may experience symptoms during outdoor activities.
55.5 - 100	151 - 174	Unhealthy Phase 1	Harmful effects of pollution are noticeable.
101 - 125.4	175 - 200	Unhealthy Phase 2	Harmful effects of pollution are noticeable. Increased health risk for everyone.
125.5 - 225.4	201 - 300	Very Unhealthy	Health alert: everyone may experience more serious health effects.
> 225.5	> 301	Hazardous	Health emergency conditions. The entire population is likely to be affected with serious health effects.

### 5) Protocol in Force

The protocol differentiates measures according to students with respiratory conditions, kindergarten students, and other primary and secondary students.

For each air quality classification level, the protocol specifies the requirement for wearing masks outdoors, the type of activity authorized during recess, the type of outdoor sports activity authorized, and any additional measures to be implemented.

<b>Classification : Good</b>			
<b>PM 2.5 concentration</b> 0 - 9.1 µg/m <sup>3</sup>	<b>Elementary and secondary</b>	<b>Kindergarten</b>	<b>Students with respiratory conditions</b>
<b>Mask outdoors</b>	Not required		
<b>Playground</b>	No restrictions		
<b>Outside sport activities</b>	No restrictions		
<b>Other measures</b>	None		

<b>Classification : Moderate</b>			
<b>PM 2.5 concentration</b> 9.2 - 35.4 µg/m <sup>3</sup>	<b>Elementary and secondary</b>	<b>Kindergarten</b>	<b>Students with respiratory conditions</b>
<b>Mask outdoors</b>	Not required		
<b>Playground</b>	No restrictions		Control and observation
<b>Outside sport activities</b>	No restrictions		Control and observation
<b>Other measures</b>	None		

<b>Classification : Unhealthy for Sensitive Groups - Phase 1</b>			
<b>PM 2.5 concentration</b> 35.5 - 45.2 µg/m <sup>3</sup>	<b>Elementary and secondary</b>	<b>Kindergarten</b>	<b>Students with respiratory conditions</b>
<b>Mask outdoors</b>	Not required	Recommended	
<b>Playground</b>	No restrictions		Limited activities
<b>Outside sport activities</b>	No restrictions		Adapted to low intensity
<b>Other measures</b>	Classroom windows closed		

<b>Classification : Unhealthy for Sensitive Groups - Phase 2</b>			
<b>PM 2.5 concentration</b> 45.3 - 55.4 µg/m <sup>3</sup>	<b>Elementary and secondary</b>	<b>Kindergarten</b>	<b>Students with respiratory conditions</b>
<b>Mask outdoors</b>	Recommended		
<b>Playground</b>	Limited activities		Indoor confinement
<b>Outside sport activities</b>	Adapted to low intensity		Stopped
<b>Other measures</b>	Classroom windows closed		

<b>Classification : Unhealthy - Phase 1</b>			
<b>PM 2.5 concentration</b> 55.5 – 100 µg/m <sup>3</sup>	<b>Elementary and secondary</b>	<b>Kindergarten</b>	<b>Students with respiratory conditions</b>
<b>Mask outdoors</b>	Mandatory		
<b>Playground</b>	Limited activities	Indoor confinement in designated areas	
<b>Outside sport activities</b>	Adapted to low intensity	Stopped	
<b>Other measures</b>	Classroom windows closed Random air quality checks in classrooms of each building		

## Classification : Unhealthy - Phase 2

PM 2.5 concentration 101 - 125.4 µg/m <sup>3</sup>	Elementary and secondary	Kindergarten	Students with respiratory conditions
<b>Mask outdoors</b>	Mandatory		
<b>Playground</b>	Indoor confinement in designated areas		
<b>Outside sport activities</b>	Stopped		
<b>Other measures</b>	Classroom windows closed, extractors shut off Random air quality checks in classrooms of each building		

## Classification : Very Unhealthy

PM 2.5 concentration 125.5 - 225.4 µg/m <sup>3</sup>	Elementary and secondary	Kindergarten	Students with respiratory conditions
<b>Mask outdoors</b>	Mandatory		
<b>Playground</b>	Indoor confinement in designated areas		
<b>Outside sport activities</b>	Stopped		
<b>Other measures</b>	Classroom windows closed, extractors shut off Random air quality checks in classrooms of each building		

## Classification : Hazardous

PM 2.5 concentration > 225.5 µg/m <sup>3</sup>	Elementary and secondary	Kindergarten	Students with respiratory conditions
<b>Mask outdoors</b>	Mandatory		
<b>Playground</b>	Indoor confinement in designated areas		
<b>Outside sport activities</b>	Stopped		
<b>Other measures</b>	Closure of the school upon instruction from the authorities and the French Embassy		

## 6) Definitions and Clarifications

### Students with Respiratory Conditions

This category includes any student with high sensitivity to air quality: students suffering from conditions such as asthma, cystic fibrosis, chronic lung diseases, heart rhythm disorders, or heart valve abnormalities. Parents are advised to keep their children's medical records up to date to ensure appropriate care.

### Limited Activities During Recess

No ball games, no physical games such as tag that require prolonged running.

### Low-Intensity Adapted Outdoor Sports Activities

All intense physical activity leading to a significant increase in heart rate, typically associated with cardiovascular training or exercise, is prohibited.

Vigorous physical activities must not exceed 15 minutes.

### Confinement Areas

For all measures requiring the suspension of certain sports activities or the cancellation of outdoor recess, appropriate indoor confinement areas are provided:

- Kindergarten: Motricité rooms
- Elementary school: Library (BCD), Polyvalente room, gymnastics room, gymnasium
- Secondary school: Permanence study hall, student lounge, Student study room, CCC, gymnasium

**Note:** During prolonged periods of high pollution levels, different measures regarding confinement areas may be decided by the school leadership, such as keeping students in classrooms during recess periods.