

St Joseph's Institution International School Malaysia

***Enabling youth to learn and to learn how to live, empowering
them to become people of integrity and people for others.***



Haze Policy

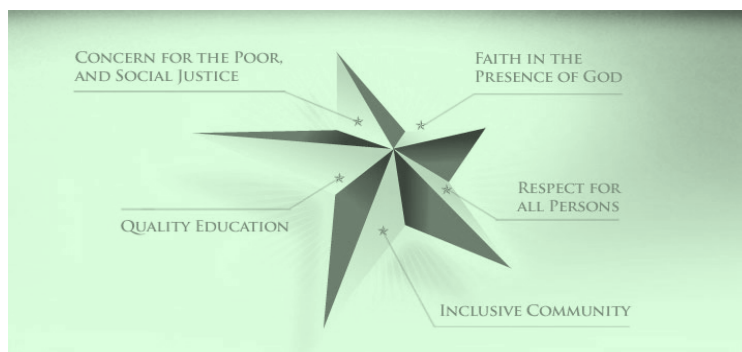
Signed: _____ Elementary School Principal

Signed: _____ High School Principal

Date of Policy: 8/16

Date of Review: 8/17

This policy is written in the spirit of putting into practice our Lasallian core values



Overview

Each year Malaysia can be affected by smoke haze from forest fires in the region. This usually occurs during the period of May to October. The prevailing winds blow the smoke from the fires in Malaysia's direction and this can negatively impact the health of our students and staff, (see **Appendix 1** for effects of smoke haze). Malaysia uses an integrated air quality reporting index, known as the Pollutant Standards Index (PSI). The PSI reflects a total of six pollutants. These are:

1. Particulate Matter (PM₁₀)
2. Fine Particulate Matter (PM_{2.5})
3. Sulphur Dioxide (SO₂)
4. Nitrogen Dioxide (NO₂)
5. Ozone (O₃)
6. Carbon Monoxide(CO)

The National Environment Agency (NEA) publishes the hourly PM_{2.5} concentrations. These reading are also averaged for the 3-hour PSI and the 24-hour PSI readings.

Incorporating Air Quality Information into School Life

- At SJIIM we are very mindful of the health of all the students and staff. Responsibility for this rests with parents, teachers, the nurse and leadership.
- Mobile air filters will be situated in all classrooms to ensure pollution is kept to a minimum in school.
- Parents ensure that the nurse is aware of any respiratory conditions that affect their students. The School Nurse ensures that the student medical database is up to date so that teachers are aware of students in their classes who have respiratory conditions, e.g. asthma.

The Principal will...

- Make teachers aware of the guidelines for minimising their health risks on days of smoke haze.
- Monitor the 3-hour PSI levels and implement the appropriate response, (**Appendix 2**).
- Provide staff with up to date medical information on students in their care.
- Ensure air filters are appropriate and functional.

School Response to Different Air Quality Levels (See Appendix 2)

For 3-Hourly PSI Readings Between 1 and 50

We monitor the NEA readings, but there is no impact on outside sport and play.

For 3-Hourly PSI Readings Between 51 and 100

The Senior Leadership Team, Head of Physical Education are kept aware of the NEA readings, whilst collecting our own on-site data, every 3 hours. At this PSI level, added precautions are taken, including ensuring that teachers advise students to:

- Take more drink breaks
- Go to the nurse if they have any breathing issues
- Not participate in strenuous exercise if feeling unwell

The Teaching Staff will...

- Monitor students with known medical issues such as asthma and cardiac conditions. Students may go to the Library at break and lunch.
- Advise students to drink more water and if affected to remain indoors during breaks. (Haze may cause irritation of the eyes, nose and throat in healthy individuals.)
- Swap outside duties if affected by haze with a known medical condition.

The Leadership Team will...

Contact outside providers and advise them of school protocols.

For 3-Hourly PSI Readings Between 101 and 125

The Senior Leadership Team continues to monitor the PSI levels on-site (every 3 hours) and the following occurs:

- Outdoor activity is minimised, breaks may continue outdoors.
- Some classrooms and communal indoor areas available during break and lunch.

For 3-Hourly PSI Readings Between 126 and 200

- The Senior Leadership Team continues to monitor the PSI levels on-site (every 2 hours) and the following occurs:
- All outside sports to cease
- Sports to be relocated to gym
- Students to remain inside during break and lunch.

For 3-Hourly PSI Readings Above 200

The Senior Leadership Team continues to monitor the PSI levels on-site (every 1 hour) and the following occurs:

- All outdoor activities and events are cancelled
- Additional guidance from the MOE, specific to a current haze incident is followed.

For 3-Hourly PSI Readings Above 300

The school may close. The Principal will consult with various individuals and/or relevant authorities and ask for recommendations. Such a decision will normally be made at around 6.00pm on the day before school is to be closed. The school will contact parents to inform them of the closure email and SMS. The staff will attend school and prepare home learning for the students. Learning activities will continue online through our online virtual learning platforms, during haze incidents and even when the school is closed. Students will need to access the secure site with their user account information.

Information on the Haze Levels can be found at:

<http://aqicn.org/city/malaysia/selangor/petaling-jaya/>

Appendix 1 - Information on the Effects of Smoke Haze

Health impacts are related to concentrations as well as duration of exposure, in addition to health status of the individual. The 24-hour measurements are a reflection of the total exposure of an individual to PM levels. The health advisories adopted by NEA are based on 24-hour PSI and 24-hours PM_{2.5} measurements as scientific and epidemiological studies on the health effects of particulate matter have been based on these measurements.

The 3-hour PSI is an indicative index. It is the state of the air quality at a particular time. While there have been few studies done on the health effects of exposure to short-term spikes in PM levels, it is this reading that is most relevant to us at school. We will use the 3-hour PSI index so spikes in PM level will see us take action in line with our policy.

The main pollutant of concern to health during a smoke haze is the fine particulate matter or PM₁₀ particulate (of size 10 micron and below). The health effect depends on the severity of the smoke haze as described by the PSI (Pollutant Standards Index) reading. At PSI of 101 and above, the air quality is deemed unhealthy.

Respiratory masks, such as N95 masks, are designed to keep out the fine particulate matter and hence protect the wearers from breathing in the smoke haze particles in the air. The mask should be changed when it gets soiled or distorted in shape. Surgical masks and paper masks do not provide adequate protection from the haze particles.

Haze particles can affect the heart and lungs, especially in people who already have chronic heart and lung disease e.g. asthma, chronic obstructive pulmonary disease (COPD), heart failure.

There may be up to 1-3 day time lag between exposure to haze and health effects and symptoms. N95 masks are not needed for short exposure like commuting from home to school or work, travel from bus-stop to shopping mall. N95 masks are also not needed in an indoor environment.

A healthy person who has to be outdoors for several hours when the air quality is in the hazardous range (PSI >300) may reduce exposure by wearing a N95 mask.

People with chronic lung or heart disease, elderly, and pregnant women should avoid or minimize outdoor activity when the air quality is unhealthy (PSI>200). If they have to be outdoors for several hours, they may reduce exposure by wearing a N95 mask.

Haze Policy

Appendix 2 - School Response to Different Air Quality Levels

3-Hour PSI	General School Action	Specific Action - Students with Chronic Lung Disease (inc. Asthma) and Heart Disease
<p style="text-align: center;">≤ 50 (Good/Moderate)</p>	<p style="text-align: center;">Normal activities.</p>	<p style="text-align: center;">Normal activities.</p>
<p style="text-align: center;">51-100 (Good/Moderate) (On-site monitoring - 3hr)</p>	<p style="text-align: center;">Students are to be advised to drink more water.</p>	<p style="text-align: center;">Students with susceptible conditions are monitored and advised to drink more water. If necessary, all breaks are to be indoors.</p>
<p style="text-align: center;">101-125 (Unhealthy) (On-site monitoring - 3hr)</p>	<p style="text-align: center;">Prolonged or strenuous outdoor activity and/or physical exertion is to be minimised.</p>	<p style="text-align: center;">No prolonged or strenuous outdoor physical exertion. All breaks are to be indoors.</p>
<p style="text-align: center;">126-200 (Unhealthy) (On-site monitoring - 2hr)</p>	<p style="text-align: center;">NO outdoor activities. All breaks to be indoors.</p>	
<p style="text-align: center;">201-300* (Very Unhealthy) (On-site monitoring - 1hr)</p>	<p style="text-align: center;">NO outdoor activities. All breaks to be indoors.</p>	
<p style="text-align: center;">> 300* (Hazardous) Possible School Closure</p>	<p style="text-align: center;">NO outdoor activities. All breaks to be indoors.</p>	

* When the PSI reading of PM_{2.5} is above 200, the MOE / MOH Specific Incident Guidance is followed.