



Air Pollution Policy

MONITORING POLLUTION LEVELS:

The *Ministry of Natural Resources and Environment - Pollution Control Department (PDC)* regional office in Chiang Mai is responsible for monitoring and disseminating to the public the air pollution information/forecast.

The Air Quality Index (AQI) and the Particle Matter (PM10) information will be gathered daily during peak air pollution season and, when there is elevated air pollution, conveyed to the school-wide community.

To gather timely data, the following website will be used: http://aqmthai.com/public_report.php.

REDUCING STUDENT EXPOSURE:

Decisions for reducing exposure to air pollution will be based upon:

- individual student risk
- air quality index chart for particle matter

Students at highest risk will be protected:

- History of known or current respiratory disease
- Young age
- Those participating in sports or activities which require exertion for extended periods of time.

There is a daily trend for pollution levels in Chiang Mai. Levels rise from about 4am peaking around 9-10.00am. Levels then decrease until about 1-2.00pm where they stay until the evening time. While all activities will be monitored, special attention will be given to morning ones when pollution levels are higher.

The schedule below is created based on the Air Quality Guide for Particle Pollution recommended by the United States Environment Protection Agency (EPA) using Air Quality Index (AQI) measurements. This system has now become the standard for schools through its color system: **Green**, **Yellow**, **Orange**, **Red**, and **Purple** days.



Air Quality Guide for Particle Pollution		
Good	0-50	None
Moderate	51-100	Unusually sensitive people should consider reducing prolonged or heavy exertion
Unhealthy for Sensitive Groups	101-150	People with heart or lung disease, older adults, and children should reduce prolonged or heavy exertion.
Unhealthy	151 to 200	People with heart or lung disease, older adults, and children should avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion
Very Unhealthy Alert	201 to 300	People with heart or lung disease, older adults, and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.

Also included are resources for equivalent level ranges for PM 2.5 and PM 10 both for hourly and daily averages measurements.

Air Quality Index Levels of Health Concern	Numerical AQI Value	Concentration ($\mu\text{g}/\text{m}^3$) Hourly PM2.5 or PM10	Concentration ($\mu\text{g}/\text{m}^3$) Daily PM2.5 or PM10	Cautionary Statement	Health Effects Statement
Good	0 - 50	0 - 38	0 - 12	None	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	51 - 100	39 - 88	12.1 - 35.4	Unusually sensitive people should consider reducing prolonged or heavy exertion	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 - 150	89 - 138	35.5 - 55.4	People with heart or lung disease, older adults, and children should reduce prolonged or heavy exertion. The general public is not likely to be affected.	Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly .
Unhealthy	151 - 200	139 - 351	55.5 - 150.4	Everyone may begin to experience health effects; people with heart of lung disease, older adults, and children should avoid prolonged or heavy exertion.	Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increase in respiratory effects in general population.
Very Unhealthy Alert	201 - 300 301 - 500	352 - 526	150.5 - 250.4	<u>Health alert.</u> People with heart or lung disease, older adults, and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.	Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.
Hazardous	301 - 500	526 +	250.5 (+)	<u>Health warnings of emergency conditions.</u> Everyone should avoid any outdoor exertion, people with respiratory or heart disease, the elderly and children should remain indoors.	

School Action

❖ **GREEN DAYS** (AQI: 0-50 Good)

On Green Days there are no activity restrictions.

❖ **YELLOW DAYS** (AQI: 51-100 Moderate)

On Yellow Days there are no activity restrictions. The School will monitor for individual symptoms.

❖ **ORANGE DAYS** (AQI: 101 to 150 Unhealthy for Sensitive Groups)

On Orange Days the School will be aware and monitor for individual symptoms. Students with a history of reactions to ozone exposure (often 24hours post exposure) will be assessed at the medical center and encouraged to minimize their exposure via reduced exertion and exposure.

- Consideration given to Elementary School recess times being held inside.
- Air purifiers should be in use in the ECC homerooms.

❖ **RED DAYS** (AQI: 151 to 200 Unhealthy)

On Red Days the School will limit exposure for all students to one hour at heavy exertion levels. This includes sports that require high intensity workouts for long periods - basketball, soccer, running and swimming. Potential solutions to limit exposure include but are not limited to:

- ECC and Elementary School recess times could be held inside.
- Elementary students should have a quick lunch in the canteen and then return to the classroom for the rest of lunchtime.
- Consider having physical education/training inside for morning classes when the pollution levels are usually highest
- Consider lowering exertion during practice e.g. skill building rather than cardiovascular endurance training.

❖ **PURPLE DAYS** (AQI: 201 to 300 Very Unhealthy)

On Purple Days all outdoor Physical Education should be moved indoors with exception of swimming.

- After school sports events will be rescheduled/canceled.
- ECC and Elementary recess times will be held inside.
- Elementary students should have a quick lunch in the canteen and then return to the classroom for the rest of lunchtime.
- 3ply face masks should be utilized when moving outside around campus.

❖ **BLACK DAYS** (AQI: 301 - 500 Hazardous)

On Black Days the School will limit activities for all students.

- After school sports events will be rescheduled/canceled.
- Break times schoolwide will be held inside.
- Physical Education will be canceled for ECC-G8.
- Physical Education for High School will be indoors.
- All students should have a quick lunch in the canteen and then return to the classroom for the rest of lunchtime.
- 3ply face masks should be utilized when moving outside around campus.