Environmental Safety Guidelines

Haze Management at Sport Singapore

- 1. Singapore has been affected by severe smoke haze due to forest fires in the region periodically. This is due to the common practice of open burning to clear land for agricultural uses. It can be made worse by dry seasons, changes in wind direction and poor precipitation. Prevailing winds sometimes carry smoke haze produced by the forest fires over Singapore's skies. This is especially so during the Southwest Monsoon Season.
- 2. The Haze Management task force aims to provide timely advice and information to the general public and sports partners with regards to the participation in sporting activities / events and usage of its sports facilities during periods of haze. This is to ensure that Sport Singapore, its partners and stakeholders are better informed to deal with challenges posed by the haze.
- 3. The following Haze management protocols apply for Sport Singapore related facilities and activities. This is a guideline, any deviation shall be endorsed by senior management or the appropriate organizing management.
- 4. To date, the vast majority of studies on the health effects of short-term exposure to PM have used the 24-hour measurements. These studies do indeed demonstrate good correlation of health effects with 24-hour PM averages. In view of this, the health advisory in Singapore takes reference from the 24-hour PSI. Although there have been recent studies on sub-daily or shorter PM_{2.5} exposure, the evidence of these studies do not constitute a sufficient base of evidence for the development of health advisories.
- 5. The 1-hour PM_{2.5} concentrations reflect the PM_{2.5} levels averaged over one hour, and can give you an indication of the current air quality. However, the 1-hour PM_{2.5} concentration levels can be volatile and tend to fluctuate over the day especially during periods of transboundary haze. Short-term fluctuations will also be very heavily influenced by weather conditions. For example, there could be a short period of transiently high PM_{2.5}, only to improve rapidly in the next one to two hours. Therefore, the 1-hour PM_{2.5} concentration reading is best used as a guide to adjust your immediate activities, such as deciding if you should go outdoors for a jog now or delay that till later.

Actions to be taken when air quality is in the Good and Moderate ranges:

CAUTIONARY	Ą	ACTION BY S	SPORT SINGAPO	RE	
STATEMENT	FACILITIES		ACTIVITIES		REMARKS
	Outdoor & Non Air-Con Air-Con		Outdoor & Non Air-Con	Air-Con	
PHASE 0 : 24 HOL	JR PSI = 0-50 (GC	DOD):			
	Open	1	Proceed		Normal activities
PHASE 1 : 24 HOL	JR PSI = 51-100 (MODERAT	E):		
Normal activities	JR PSI = 51-100 (MODERATE Open		Proceed		 Sport Singapore HTF activated once the 24-hour PSI crosses 80, to prepare communication to staff and stakeholders on necessary measures. Sport Singapore will : Identify at risk staff especially lifeguards and grounds men working outdoors and/or suffering from chronic lung disease, heart disease or stroke; Ensure sufficient stock of suitable masks; Improve efficiency of air cleaning devices for enhanced protection of indoor staff; Display NEA health advisory poster; Display ActiveSG Health Advisory (Annex A); Prepare advisories and notices for display in Phase 2.

Actions to be taken when air quality is in the Unhealthy and Very Unhealthy ranges:

	ACTION BY SPORT SINGAPORE				
CAUTIONARY	FACILITIES		ACTIVITIES		
STATEMENT	Outdoor & Non Air-Con	Air-Con	Outdoor & Non Air-Con	Air-Con	REMARKS
PHASE 2 : 24 HOUR PSI =	101-200 (UN	HEALTHY):			
Healthy persons should ^reduce **prolonged or ***strenuous outdoor physical exertion Persons with heart, chronic lung disease should ^^avoid prolonged or strenuous outdoor physical exertion Children, elderly and pregnant women should ^^minimize prolonged or strenuous outdoor physical exertion	Open	Open	All Event Organizers are to conduct Risk Assessment and take risk mitigating measures	Proceed	 Sport Singapore to implement the following measures: Display NEA advisories and Haze Precautionary Measures notice at facilities to prepare patrons for the eventuality of facility closures (Annex B); Outdoor and indoor sports facilities may remain open; Event organizers are advised to conduct their own risk assessment with due consideration to this advisory in deciding whether to proceed with sports activities and to take the necessary risk mitigating measures; Event organizers may use the 1-hr PM2.5 figures together with other factors (e.g. duration of event and exposure to haze, general health of event participants) in deciding whether to proceed, scale back, postpone or cancel their events; Persons who are not feeling well should stop all sports activities and seek medical attention; Reduce prolonged or strenuous outdoor work for healthy staff; Minimize prolonged or strenuous outdoor work for elderly or pregnant staff;

	ACTION BY SPORT SINGAPORE				
CAUTIONARY	FACILITIES		ACTIVITIES		
STATEMENT	Outdoor & Non Air-Con	Air-Con	Outdoor & Non Air-Con	Air-Con	REMARKS
PHASE 3 : 24 HOUR PSI =	201-300 (VE	RY UNHEAL	THY):		 Avoid prolonged or strenuous outdoor work for staffs with chronic lung disease, heart disease; Staff who are exposed to prolonged outdoor work may don a mask as added protection if desired; Prepare advisories and notices for display in Phase 3.
Healthy persons should avoid prolonged or strenuous outdoor physical exertion Persons with heart, chronic lung disease should avoid outdoor activity Children, elderly and pregnant women should minimize outdoor activity	Close	Open	Suspend	Proceed	 Sport Singapore to implement the following measures: Outdoor sports facilities in the affected zone(s) may be opened or closed; In the event of facility closure, display closure notice at the facility (Annex C); All organized outdoor sport activities in the affected zone(s) may be cancelled / postponed; Event organizers/outdoor sports facilities may use the 1-hr PM2.5 figures together with other factors (e.g. duration of event and exposure to haze, general health of event participants) in deciding whether to proceed, scale back, postpone or cancel their events; In the event of suspension of activities, display suspension notice at the facility (Annex C). Indoor /sports facilities with air-con may remain open with risk management and risk mitigating measures;

	ACT	ION BY SPC	RT SINGAPO	RE	
CAUTIONARY STATEMENT	FACILITIES		ACTIVITIES		
	Outdoor & Non Air-Con	Air-Con	Outdoor & Non Air-Con	Air-Con	REMARKS
					 Activities in air-con environment may proceed with risk management and risk mitigating measures; Increase cleaning frequency of air ventilation devices such as air-conditioners, exhaust fans at sports facilities and offices; Persons who are not feeling well should stop all sports activities and seek medical attention; Avoid prolonged or strenuous outdoor work for healthy staffs. If outdoor work is unavoidable, they should be provided with suitable masks; Minimize outdoor work for elderly or pregnant staff; Avoid outdoor work for staff with chronic lung disease, heart disease.

Actions to be taken when air quality is in the Hazardous range:

	ACTION BY SPORT SINGAPORE				
CAUTIONARY STATEMENT	FACILITIES		ACTIVITIES		REMARKS
STATEMENT	Outdoor & Non Air-Con	Air-Con	Outdoor & Non Air- Con	Air-Con	NEWIARKS
PHASE 4 : 24 HOUR PSI >	300 (HAZARI	DOUS):			
Healthy persons should minimize outdoor activity Persons with heart, chronic lung disease should avoid outdoor activity Children, elderly and pregnant women should avoid outdoor activity	Close	Close	Suspend	Suspend	 Sport Singapore to implement the following measures: Sports facilities in the affected zone(s) may be opened or closed; In the event of facility closure, display closure notice at the facility (Annex C); All organized sports activities in the affected zone(s) may be cancelled / postponed; Event organizers/sports facilities may use the 1-hr PM2.5 figures together with other factors (e.g. duration of event and exposure to haze, general health of event participants) in deciding whether to proceed, scale back, postpone or cancel their events; In the event of suspension of activities, display suspension notice at the facility (Annex C). Increase cleaning frequency of air ventilation devices such as air-conditioners, exhaust fans at sports facilities;

CAUTIONARY	AC	TION BY SP	ORT SINGAPOF	RE	
	FACILITIES		ACTIVITIES		
STATEMENT	Outdoor & Non Air-Con	Air-Con	Outdoor & Non Air- Con	Air-Con	REMARKS
					 Healthy staff should minimize outdoor work. If outdoor work is unavoidable, they should be provided with suitable masks/respirators; Avoid all outdoor work for elderly or pregnant staff and staff with chronic lung disease, heart disease.

^{*} Refer to Updated Internal Government Guidelines on Managing Outdoor Events During Haze

** Prolonged = continuous exposure for several hours

*** Strenuous = involving a lot of energy or effort

[^] Reduce = do less

^{^^} Minimise = do as little as possible

^^^ Avoid = do not do

Annex A

HEALTH ADVISORY

Due to the current haze condition, we recommend that guests minimise vigorous outdoor activities, especially for those who have respiratory and/or heart ailments.

If your feel unwell at any time, please consult a doctor immediately.

Here are some ways that you can limit exposure to the haze on guidelines set by Ministry of Health:

- · Stay indoors as far as possible
- · Reduce physical exertion
- · Drink more water than usual
- · Cut down on coffee and alcohol
- Use N95 masks as appropriate, depending on (i) health condition, (ii) Pollutants Standards Index (PSI) Level, (iii) physical exertion and (iv) time spent outdoors.

Thank you.



<u>Annex B</u>

HAZE PRECAUTIONARY MEASURES

For our guests' safety, implement haze precautionary measures based on the PSI provided by the National Environment Agency (NEA):

24-HR PSI level above 200: All outdoor & non air-conditioned indoor facilities will be closed.

For updates on full-day closure of facilities, please visit myActiveSG.com or call the Service Quality hotline at 1800 344 1177.

We may also closed selected facilities temporarily if the situation worsens. Please contact the respective ActiveSG facility before making a trip there.

We apologise for the inconvenience. Thank you.



Annex C

TEMPORARY CLOSURE & SUSPENSION OF ACTIVITIES IN NON AIR-CONDITIONED FACILITES

Due to the current haze condition, all outdoor and non airconditioned indoor facilities and its' activities are temporarily closed and suspended for our guests' safety.

As the PSI is volatile, please contact the respective ActiveSG facility before making a trip there.

For updates on full-day closure of facilities, please visit myActiveSG.com or call the Service Quality hotline at 1800 344 1177.

We apologise for the inconvenience. Thank you.

