



"James Middleton"
<dynamco@netvigator.com>

2010/07/19 AM 08:11

To <sjyuen@legco.gov.hk>, <andrew@kbchau.com.hk>

cc

Subject For the attention of the Bills Committee on engine idling - please see herewith the Government Health advice regarding stationary vehicles (Item 8) below

Beware of Heat Stroke-- http://www.cheu.gov.hk/eng/info/accident_06.htm

What is heat stroke?

The human body can maintain the internal body temperature within safe limits. In hot environment, the temperature control centre in our body will trigger responses such as sweating and increasing breathing rate to cool down the body. In the extremely hot environment, when these responses cannot effectively cool down our body temperature, heat exhaustion or even heat stroke will occur. Symptoms of heat exhaustion include giddiness, headache; nausea, shortness of breath and mental confusion. When the body temperature reaches 41 °C or higher, the victim will have convulsion or become unconscious; he/she is then suffering from heat stroke. The body temperature must be brought down immediately and emergency medical intervention given, or else the victim's life will be in great danger.

Who is most at risk?

The obese-- The Sick --The Old -The Young

Precautions for heat stroke

Pay attention to the weather warning issued by the Hong Kong Observatory, take the following measures in hot weather to prevent heat stroke:

1. For indoor activities, open all windows, use fan or air-conditioning to maintain good ventilation.
2. Avoid doing vigorous exercise in a hot or stuffy environment. Choose an indoor venue with good ventilation.
3. Wear light-coloured and loose-fitting clothes, wide-brim hat or use umbrella while going outdoors.
4. Do not go hiking or trekking during extremely hot weather.
5. Perform outdoor activities either in the morning or in the evening
6. Drink plenty of fluid to prevent dehydration.
7. Do not drink beverages that contain too much caffeine (e.g. coffee and tea) or alcohol.
- 8. Do not stay inside stationary vehicles.**
9. Seek medical advice immediately if feeling unwell.

SCMP 19 July 2010



Heat index measurements could be posted at minibus stands

South China Morning Post
scmp.com

Observatory's heat warnings do not give accurate temperature

Updated on *Jul 19, 2010*

The government has decided on further exemptions for the proposed idling engine law.

A random figure of 33 degrees Celsius has been put forward as the level at which drivers may keep their engines running.

When the Observatory states the temperature is 33 degrees, it is actually measured in the shade. Also, the temperature is often different at various places in Hong Kong.

The week before last, when the Observatory warned that the temperature was 33 degrees in Yuen Long, it was 37 degrees indoors and 45 degrees in open sunlight (Clear the Air measured it).

How does that correlate, in real life, with 33 degrees measured in the shade?

The US Weather Service has a heat stress index calculator (the "feels-like" effect on the body).

http://www.srh.noaa.gov/epz/?n=wxcalc_heatindex

A wet-bulb temperature is the temperature you feel when your skin is wet and is exposed to moving, humid air. If we take an open-sun temperature of 45 degrees and 20 per cent humidity, this equates to a feels-like temperature of 47.2 degrees. However, with the 90 per cent humidity we get here the 45 degrees becomes a feels-like temperature to your body of 133.2 degrees. Hence the Observatory

warning of 33 degrees compounded with high humidity in the open sun in the New Territories would be far higher and potentially life-threatening to people working outdoors. We also do not have a wind-chill index where the feels-like temperature is affected by the wind speed.

Take the government's proposed 33 degrees (in the shade) level with 90 per cent humidity. That equates to 53.5 degrees which your body feels, if you are in the shade. Under the sun that will be 5 to 10 degrees higher depending how clear the air and UV level are.

The US Weather Service states that with a heat index of 54.4 degrees or higher, heatstroke is highly likely, with 40.5 to 54.4 degrees heat cramps and heatstroke are possible with prolonged exposure and or physical activity.

Therein lies the reasoning why we do not publish a heat index and wind chill index.

What would the tycoons say about their construction site workers being outdoors in these heat stress temperatures?

Rather than taking a random 33 degrees without a heat index qualification the government must adopt a heat index system incorporating humidity levels which is readily available.

It must do away with this daft hot weather/cold weather warning.

The heat index should be the guideline for engine idling and should be broadcast on the radio, with announcements at tunnels and taxi and minibus stands and franchised bus stops.

LCD displays could be placed above major intersection traffic lights.

Otherwise the traffic wardens will have to carry cesium clocks and wet-bulb heat index sensors to be able to do their jobs.

James Middleton, chairman, energy committee, Clear the Air