

Just a Thought
By Kevin Delahunt

Environment Canada issued an Air Quality Health Index (AQHI) of 38 for Fort McMurray on Tuesday May 17, 2016. The AQHI is a scale to create awareness of the air quality in a specific area and the negative health risks associated with the monitored air pollutants. It is updated hourly and is an analysis of the combined impact of 3 common air pollutants that were found to be the best indicator of human health risks in the air we breathe:

- Ozone (O₃)
- Particulate Matter (PM_{2.5}, PM₁₀)
- Nitrogen Dioxide (NO₂)

The AQHI of 38 in Fort McMurray caught me somewhat off-guard as I incorrectly thought the index was strictly 1-10; with 1-3 being a low health risk, 4-6 moderate, and 7-10 high. Obviously 10 and higher is an extreme risk to health and I would dare say that you might not want to venture outside without a HEPA mask or supplemental breathing equipment.

We often associate the AQHI strictly for the "At Risk Population"; the elderly, children, asthmatics and those with pre-existing heart or lung conditions. We need to re-evaluate this thinking as each of us need to be conscious of the health risks associated with an elevated AQHI. As the AQHI rises from moderate to high outdoor activities, for even the healthiest of individuals, should be reduced, eliminated, or rescheduled.

Calgary is not immune to an elevated AQHI and our air can be, and has been, impacted by forest fires as recently as last summer (Washington State and southern B.C.). With the right wind conditions our AQHI could change quickly compliments of what is going on in Northern Alberta. In building operations, the concern should be the removal of particulate matter generated by wildfire smoke. On the positive side most commercial buildings with a MERV 13 or better filtration system will remove PM_{2.5} in the 80-90% range and close to 100% of PM₁₀. As the AQHI rises the safest place will be in your building. You might hear a mother yelling at her kids to "go inside and get some fresh air!"

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