**A case study of how air quality readings can rise to dangerous levels inside a house when a wood heater is lit:**

A well-known approved brand (compliance test plate attached) 250 square meter rated, free-standing wood heater (1.6gm/h emissions, 61% efficiency) was installed and smoke smell was reported inside the house.

The installer checked the flue and the retailer checked the heater. Despite this, the smoke smell inside the house continued.

It was agreed the owner would run a laser particle counter in the vicinity (3 to 4 feet) of the heater for some time prior to the retailer and installer coming back together. The readings were noted and would later be compared in their presence after the heater was lit.

No smoke spilled from the wood heater on lighting.

A few minutes after firing, the smoke smell was immediately obvious. For brevity just the 'lighting stage' of the particle counts is listed below...

The particle counts did not drop back to what they were before the heater was lit until after the heater ran out of fuel.

Needless to say the wood heater, two story flue kit and installation costs were fully refunded to the owner by the heater manufacturer after the heater was removed by the installer and returned to the retailer.

  Date       Time    0.5micron   2.5micron  
07/02/14   17:05,         874,           82

07/02/14   17:06,         892,           59

07/02/14   17:07,         865,           74

07/02/14   17:08,         883,           75

07/02/14   17:09,         943,           90

07/02/14   17:10,         933,         100

07/02/14   17:11,         976,          101 -----Wood heater was lit. 07/02/14   17:12,         966,        101

07/02/14   17:13,         979,           98

07/02/14   17:14,         989,         107

07/02/14   17:15,       1030,         125

07/02/14   17:16,       4843,         129

07/02/14   17:17,     14572,         178

07/02/14   17:17,     15417,         203

07/02/14   17:18,     28974,         310

07/02/14   17:19,     41396,         419

07/02/14   17:20,     50964,         644

07/02/14   17:21,     50594,         633

07/02/14   17:22,     55492,         761

07/02/14   17:23,     49740,         537

07/02/14   17:24,     47197,         452

07/02/14   17:25,     47637,         467

07/02/14   17:26,     48193,         474

07/02/14   17:27,     48643,         513

07/02/14   17:28,     51608,         582

07/02/14   17:29,     49823,         565

07/02/14   17:30,     48430,         686

07/02/14   17:31,     49885,         714

Cleanairtas has consistently argued that our wood heater approval standards must state that zero emissions are to occur in the vicinity of a wood heater during certification testing. This dynamic test should also be mandatory after any wood heater is installed.

Car makers wouldn't be allowed to inject car fumes directly into the vehicle cabin would they?