



MEDIA RELEASE

Ambient Formaldehyde Testing Results

The Ministry of Environment (MOE) is conducting further sampling of ambient formaldehyde at a variety of locations in Prince George this year. This is in response to high levels reported during tests taken in July-August of 2008. Priority is given to testing sites based on public complaints about odour. To date sampling has been conducted on May 26, June 4 and 17, July 7, 8 and 19 of 2010. This release includes information from the July 7, 8 and 19 sampling events.

Formaldehyde is a volatile organic compound (VOC). It is a colourless and flammable gas at room temperature and is characterized by a pungent odour at higher concentrations. Formaldehyde is a common substance. It is produced mainly through natural processes yet can also be produced by human caused processes such as combustion and off-gassing from building materials and consumer products. For more information on formaldehyde refer to: <http://www.bcairquality.ca/reports/aqofl.html>.

The following table presents a summary of formaldehyde measurements from sampling events on **July 7, 8 and 19, 2010**. Duplicate samples were collected at each location and labelled as A and B (and C and D when two sites were sampled in one day). Two sites were sampled on July 8 and July 19. Testing on all three days was conducted during poor air quality conditions. For comparison purposes, monitoring results obtained on July 8, 2010 by the Millar Addition Citizen's Coalition (MACC) along with the People's Action Committee for Healthy Air (PACHA) using a different type of sampler are also included. The MOE formaldehyde sample results for these days ranged from 1.15 – 2.97 µg/m³ and fall well under the BC Action Level (one-hour) of 60 µg/m³. Two sample results were inconclusive due to compromised sample integrity.

FORMALDEHYDE RESULTS: July 7, 8 and 19, 2010

Date	Location	BC Action Level (1-hr)	BC Episode Level (1-hr)	Sampler	Sample Results (MOE: 1 hr avg)
Jul/7/10	Corner of Patricia and Cedar	60 µg/m ³	370 µg/m ³	MOE	A: 1.37 µg/m³ B: 2.18 µg/m³
	N/A			MACC/PACHA	Did not sample in coordination with MOE
Jul/8/10	1 – End of Patricia	60 µg/m ³	370 µg/m ³	MOE	A: inconclusive * B: inconclusive *
	2 – Patricia and Queensway			MOE	C: 2.97 µg/m³ D: 2.88 µg/m³
	Patricia and Birch			MACC/PACHA	Below detection limit (detection limit 12 ug/m ³)
Jul/19/10	1 – End of Patricia	60 µg/m ³	370 µg/m ³	MOE	A: 1.42 µg/m³ B: 1.50 µg/m³
	2 – End of 17 th Avenue			MOE	C: 1.26 µg/m³ D: 1.15 µg/m³
	N/A			MACC/PACHA	Did not sample in coordination with MOE

*The results are inconclusive due to compromised sample integrity

Additional analysis of the data and subsequent quality assurance/quality control was performed to ensure accuracy of the test results. The samples were analyzed for other aldehydes, for which there are no BC objective levels. Results from the July 7, 8 and 19 sampling events for the other measured aldehydes are summarized in Appendix A. Corresponding raw data for these days is included in Appendix B. Samples are named by dates.

Formaldehyde air quality objectives

The Province has a two-tiered ambient air quality objective for formaldehyde. The action level (one-hour average of 60 µg/m³) is the target used when managing the level of formaldehyde in an airshed. The episode level (one-hour average of 370 µg/m³) corresponds to the concentration that starts to be of concern to the health of the general population; at this level, it is recommended that immediate steps be taken to reduce the release of formaldehyde into the atmosphere.

WorkSafe BC uses two different standards for formaldehyde as occupational limits: a short-term ceiling of 1230 µg/m³ (1 ppm) and an eight-hour time weighted average of 369 µg/m³ (0.3 ppm).

Health effects of formaldehyde

At low levels, formaldehyde can cause irritation of the eyes, nose, throat and skin. Those with asthma may be more sensitive to these effects. Public health officials would not expect to see any long-term health effects as a result of short-term exposure to formaldehyde.

Long-term exposure to very high levels of formaldehyde can cause chest severe pains and headaches, vomiting, coma and possible death; according to some research, it can also cause cancer, most commonly in the throat and nose.

Formaldehyde is unstable in the atmosphere and it is more of a health concern indoors than outdoors. For further information on formaldehyde and its health effects, please visit <http://www.hc-sc.gc.ca/ewh-semt/pubs/contaminants/psl2-lsp2/formaldehyde/index-eng.php>.

PG AIR's role in the formaldehyde sampling program

Analyses of the samples may take three weeks or longer depending on lab circumstances. Data will be forwarded to PG AIR for release after a routine MOE quality control review. PG AIR will then communicate the results and the raw data to the public through media releases and on the PG AIR website (www.pgairquality.com). All technical inquiries and interpretation of results should be directed to the MOE.

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