

Every Breath You Take

Industry and government collaborating to monitor air quality



James Waterman Photo

The provincial government and the oil and gas industry are collaborating on an air monitoring study to determine the long-term impacts on air quality from trace amounts of compounds such as hydrogen sulphide found in natural gas in northeast British Columbia.

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James Waterman

The natural gas that is heating homes and heating the economy in British Columbia isn't the only substance found deep in those underground reservoirs. Its neighbours include compounds ranging from water to carbon dioxide (CO2) and hydrogen sulphide (H2S) that natural gas producers must remove before selling that fuel to the customers.

The industry and the provincial government, curious about the impact trace amounts of those compounds might be having on overall quality in the Peace Region as that sector continues to grow, has set a new air monitoring program in motion that aims to address that question and the concerns of local residents.

"Initially, the focus is mostly on the oil and gas activity and trying to characterize impacts in the region from that activity specifically," said Gail Millar of the Ministry of Environment in Prince George.

The program was announced on June 6, 2012, which was known as Clean Air Day, and a working group that features local representatives of the oil and gas industry and various other stakeholder organizations was brought together in December.

The responsibilities of the working group include identifying air pollutants to monitor and determining appropriate locations for the monitoring stations. Two of the three stations will be south of the Peace River and the other station will be north of that waterway.

"We don't have them sited yet," said Millar.

"Currently, they're actually in Prince George," she continued. "And there's a lot of preparation work that has to be done to get them ready to be able to monitor in the field."

Millar explained the working group has only had a pair of meetings at this point, but will be coming together again in April to choose locations for the stations.

The stations will measure total reduced sulfur (TRS) and sulfur dioxide (SO2).

According to the Ontario Ministry of Environment website, TRS compounds are not usually hazardous to human health, but they do cause strong rotten egg odors. Sources include swamps and bogs, as well as industrial activities associated with oil and gas, steel and pulp and paper.

The United States Environmental Protection Agency (EPA) website indicates that SO2 can cause a variety of respiratory problems.

The stations will also provide information on wind speed, wind direction, relative humidity and temperature.

"These ones are real time," Millar said of the monitors.

"What they will give us is an hourly average."

Millar noted that information could be delayed by an hour or two, but the stations will essentially transmit data to the ministry in real time to be displayed on their beairquality.ca website.

"Anyone can have access and look to see what the current conditions are," she said.

This project is a bit different than most air monitoring programs.

"We're not planning to be monitoring right in Fort St. John or Dawson Creek," said Millar.

"Not right in the communities," she continued. "And when you do ambient air quality monitoring, a very typical approach is to monitor in the communities first where most people are. But the focus right now is more the oil and gas."

That is why the three year study will focus on areas outside the communities.

"After the three years, there will be more questions," said Millar.

"Do we continue monitoring? Do we need to monitor more? Should we move into where the communities are or [not just focus] specifically [on] oil and gas? Those bigger, broader questions will start coming out.

"But you really have to start at step one. And the concern is the oil and gas industry. So, that's where we're focusing initially."

Funding for the project isn't just coming from the provincial government, but also through the BC Oil and Gas Commission (OGC), the Canadian Association of Petroleum Producers (CAPP) and the Science and Community Environmental Knowledge Fund (SCEK).

SCEK is an industry-sponsored fund administered by the OGC, CAPP and the Explorers and Producers Association of Canada (EPAC).

"It certainly will provide some very credible information about ambient air quality up in that region, and it's something that we don't actually know a lot about," said Millar.

"It takes a while for you to collect enough data to assess what's happening."

The ministry hopes the monitoring program will start to answer questions about local air quality concerns and help the government make decisions around issues such as public health, pollution management and other environmental impacts.

"It really will depend on the information we gather and input from the communities in terms of if we're going to continue with monitoring," said Millar.

"It will guide that process as well."

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