



**Minutes:** Technical Working Group Meeting  
**Date:** January 15, 2010  
**Location:** ERCB Red Deer & Midnapore Offices

---

Red Deer Attendees:	Lloyd Cumming - Public Warren Hartnell - Imperial Dale Nylund - Altagas Pam Vust - Red Deer	Marcella deJong - Dow David Helmer - AENV Aaron Rognvaldson - Husky Reg Watson - Public	Brian Goliss - Shell Shane Lamden - NOVA Al Simcoe – West Fraser Kevin Warren - Amarok
---------------------	--	--	---

Midnapore Attendees:	Gary Cross - Focus	Al Duben - ERCB	Harold Gold - Bonavista
----------------------	--------------------	-----------------	-------------------------

**Bolded Items are Action Items**

1. There was a brief delay as the video conferencing equipment at Midnapore was not relaying Red Deer's picture or sound and several attempts were made to fix the problem. The meeting was called to order by the chair Aaron Rognvaldson at 0930 and the attendees in Midnapore participated via phone only until after the break when their videoconferencing service was restored.
2. Those present introduced themselves.
3. The agenda was reviewed and accepted. Kevin indicated that if there had been enough time on the agenda he would shared a presentation he attended on the Government of Alberta's Cumulative Effects Management Strategy (CEMS) delivered by Bev Yee, Asst. Deputy Environment Minister.

**Action: Kevin will distribute the CEMS presentation via e-mail.**

4. The minutes of the November 13, 2009 meeting were accepted with the change of one action assignment from Shane to the new chair, Aaron.
5. The status of action items arising from the November 13, 2009 meeting was reviewed.

Marcella will provide information on Microsoft Live Meeting. Jennifer will have the communications committee test out some alternate electronic and web-based meeting tools. **Carry Forward** Marcella provided the info. The communications committee has not tried yet.

Kevin and Aaron will add April-September 2010 Raven scheduling to agenda of first TWG Meeting in 2010. **Done** On today's agenda.

Jennifer will provide Kevin with contact info for CALUMET Synergy group to assist in

search for a site in Bashaw area. **Done** Kevin met with Larry Walton and they selected a monitoring site at the Gadsby Lake Community Centre.

At the Nov. 26 Board Meeting Kevin will table the TWG's recommendation that the board accept the proposed budget. **Done** The Operating budget was accepted by Board

At the Nov. 26 Board Meeting Kevin will table the TWG's recommendation that the board transfer the \$74,000 from the human health fund into the capital reserve fund. **Done** There was a block to consensus on the transfer from one board member who expressed concerns that this is not a good way to fund capital costs. If we have a problem, we should look at funding sources. He also felt that some board members had gaps in their understanding of health and ozone and some of these funds could be used to help educate the board. The member will be coming back to the board with their ideas on how the funds might be used for human health activity.

After the meeting Kevin and Shane will meet to develop a list for AENV of the high level deliverables and cost estimates for OMP implementation for the government's 2010-2011 fiscal year. **Done** Kevin provided the info to AENV with an estimate of \$35K.

Kevin will table to Board the TWG's recommendation that he contact Environment Canada and negotiate an agreement providing Environment Canada access to PAMZ data for 2010 provided it is not used for a public AQHI calculation. **Carry Forward.** Kevin did not table at the November Board Meeting because of extended discussions related to the consensus block.

## 6. PAMZ AQM Program

Kevin quickly reviewed the 2010 Monitoring Program Operating Budget noting there was no work or special monitoring programs planned for 2010 outside of the core program.

Passive Network	115.5
Martha & Sites Prep/Power	109.8
McCoy & Sites Prep/Power	84.5
Red Deer	79.8
Caroline	69.7
Support	39.6
Contingency	24.9
Sub-Total AQM Program Expenses	<b>523.8</b>
Capital Expenditures	53.4

All values expressed in \$1,000

The capital items on the budget were ordered to take advantage of the current US-Canada dollar situation. Costs were \$3000 more than budget estimate. Kevin reviewed the monitoring schedule for 2010, noting that the location for the McCoy station needs to be finalized today and that will be discussed later in the meeting.

## 6.1 Caroline

At Caroline, the PM<sub>2.5</sub> analyzer was down for four days in early January; All levels observed since the last board meeting were within historical normals.

## 6.2 Red Deer

The Red Deer station exceeded the 24 hour PM<sub>2.5</sub> guidelines (30µg/m<sup>3</sup>) on Dec. 28 (42.5), Jan. 3 (30.9), Jan. 5 (30.3) and Jan. 6 (34.0). There were generally low temperatures, high relative humidity and wind speeds during this time, resulting in frequent fog and inversions.

## 6.3 Martha

In November, the Martha station was at Cheddarville where levels were at or near background. It then went to Harmattan for the month of December where there was strong correlation of NO<sub>2</sub> readings with the direction of the Harmattan Gas Plant. The levels of all measured compounds were well under any applicable air quality objectives.

AENV and ERCB began a joint investigation in December near a residence north of Sundre in response to ambient air quality complaints, and PAMZ was asked to provide assistance by deploying its Martha Air Monitoring Station. The executive agreed to reassign the Martha station to that site (Jackson Creek) for January. Whether it goes back in six months for a second month of monitoring or goes to the James River - King Site will depend on the results of the investigation. The station was installed at the Jackson Creek site on January 7. To date levels of all compounds are at or near background for the area.

Monitoring at the Delburne and Nevis sites was moved to February and March respectively. The Delburne site has already been selected and groundtruthed. There was discussion about the location of the Nevis site i.e. in or out of the valley. There was agreement that best place would be 2-5 km southeast of the plant and out of the valley.

## 6.4 McCoy

The McCoy station was at Beiseker from October to December where levels were typical of previous monitoring in similar sized towns. Some H<sub>2</sub>S was observed with both SE and SW winds (the town sewage lagoons are SE). The station is now at the Gadsby Lake Community Centre on Milton Road, about 30 km east of Highway 2; this site was chosen in consultation with a local synergy group's representative (Larry Walton) and is representative of the Calumet area. The trailer was installed January 15 and will be on site to the end of March.

## 6.5 Passives

For the passive sites, levels and patterns since the last meeting are similar to what's been seen in previous years.

## 7. Ozone Management Plan

PAMZ is implementing all the short-term actions and starting the continuous actions in the Ozone Management Plan. Sue Arrison has been hired to help develop communications

tools. An e-mail/snail mail-out will be done to all industries and municipalities in the next couple of weeks as part of a new recognition program. The intent is to recognize businesses and municipalities that are doing things to reduce ozone precursors.

Before Christmas, PAMZ received two reports from Stantec: Ozone and Ozone Precursors Monitoring Gaps Assessment, and an Ozone Precursors Trends Study.

The Ozone and Ozone Precursors Monitoring Gaps Assessment was a review of the ozone monitoring program to identify gaps in monitoring of ozone precursors and what to do about it. They looked at eight sites in Alberta and analyzed the data trends: Caroline, Red Deer, Harlech, Fenn, Hightower, Steeper, Cold Lake South, and Esther. They classified each site according to what ozone regime it is in, using diurnal-curve space technique. The idea is that you should pick sites from various regimes to get a good representation. They found limited evidence of ozone concentrations being exacerbated by photochemistry, which is what PAMZ has seen to date.

Recommendations included:

- When using portable stations to monitor ozone, monitoring should be done for at least six months (April to the end of October).
- Re-establish an upwind, remote, high elevation site in the Harlech area to better monitor ozone precursors.
- Re-establish downwind site at Fenn.

Stantec also recommended to monitor VOCs and PAN (peroxyacetyl nitrate), a compound that is usually found in high population areas. The TWG will consider this, but VOC monitoring is very expensive. PAMZ approached AENV and asked them to consider monitoring VOCs and PAN at the Red Deer station. At a minimum, it might be possible to get a couple of VOC samples collected and analyzed to see which specific VOC compounds are present and decide on further monitoring after that.

This report was submitted to AENV as a draft and there could be changes. Once it is finalized it will be released.

**Action: Kevin will ask Harry Benders to look into the possibility of adding an NOy analyzer for Red Deer through NAPS program.**

**Action: Kevin will provide Gary with the VOC Ozone Precursor list used by Environment Canada and the VOC target list used by the LICA and WBEA Airsheds.**

The Ozone Precursors Trends Study used NPRI data to look at various sectors and trends in ozone precursors. The study tracked releases of ozone precursors (NO<sub>x</sub>, VOCs, CO) as reported to NPRI from 2002-2008 (the tracking started in 2002). NPRI does not account for emissions from transportation (on and off-road), residential and small commercial space heating, construction, agriculture, and biogenic sources. Not all industrial or commercial facilities in the PAMZ region are required to report to the NPRI. Because 2002 was the first year of collection, that year's data are probably not representative so they were not used in the study.

VOC data should be treated cautiously, as it includes other compounds that are not ozone precursors (e.g., COS and CS<sub>2</sub>). In 2005, three facilities in PAMZ reported a combined very high VOC release, but nothing was released before or after and there were no comments on the releases in the NPRI reports, so the data were treated as anomalous and

removed from the final analysis. Most VOC sources identified in the study were oil and gas related. The make-up of the sectors contributing releases hasn't change much, but there have been increases in the number of facilities reporting while the volumes being reported have fallen, based on NPRI data. For NO<sub>x</sub>, the volume trend is slightly upward over time, and CO is up slightly. PAMZ won't conduct this trend analysis every year, but may repeat in five years.

In summary, from 2003-2008:

- VOC emissions decreased by 23%
- NO<sub>x</sub> emissions increased by 12%
- CO emissions increased by 4%

The number of facilities reporting for all three parameters increased during 2003-2008:

- VOCs by 18%
- NO<sub>x</sub> by 12%
- CO by 4%

This report will also be available once AENV has signed off.

BREAK

#### 6.4 McCoy continued

The TWG discussed the Stantec Report's recommendations and concluded that PAMZ finances allowed for either an upwind or downwind site right now, but not both. The decision was to deploy McCoy downwind site from April through October to see if anthropogenic ozone buildup is occurring. A location decision will be made in March for the McCoy station i.e. Fenn or other.

**Action: Kevin will contact Bob Myrick and Monique LaPalme and see what assistance Alberta Environment and Environment Canada respectively can provide in identifying a candidate site(s) for locating downwind station.**

**Action: Kevin will contact Harry Benders to see what the options are for getting some VOC samples taken at the portable and at Red Deer on same dates.**

#### 8. Presentation

Kurt Hansen of Green Inc. gave a well-received presentation on Industrial Air Pollution Control Technology. Some of the technologies around VOCs and NO<sub>x</sub> are especially relevant to PAMZ given its Ozone Management Plan seeks to reduce levels of these emissions.

#### 9. Other Business

East Central Airshed

The East Central Stakeholders Group is still looking at a vehicle (banker) for submitting an application for funding for feasibility study to AENV. There is a possibility that CASA may apply on behalf of the group.

10. Upcoming Events

- CPANS Luncheon January 20, Ramada Downtown, Calgary - Developing an Alberta Flare Calpuff Model - Mike Zelensky and Brian Zelt
- PAMZ Board Meeting 3-6 PM January 21, Kinex Arena, Red Deer
- ACE 2010 Calgary Air & Waste Management Assoc. (AWMA) Annual Conference & Exhibition June 22-25, 2010 Telus Convention Centre, Calgary, AB

11. Next Meeting - **Friday, March 26, 2010**, 0900 - 1200 hrs by Video Conference at the Red Deer, Edmonton and Calgary ERCB offices.

The meeting was adjourned at 12:10