Minutes of Meeting #4
CASA Flaring/Venting Project Team
February 5, 2001
Meeting Held at CAPP, Calgary

Attending:

Michael Brown	Energy and Utilities Board
Gur Dhaliwal	Alberta Resource Development
Kim Eastlick	Energy and Utilities Board
Frank George	Canadian Association of Petroleum Producers
Martha Kostuch	Prairie Acid Rain Coalition
Christine Macken	Clean Air Strategic Alliance
Tom Marr-Laing	Pembina Institute
Henry Pirker	South Peace Environmental Association
Gary Sargent	Alberta Cattle Commission
Ron Schmitz	Husky Energy/CAPP
John Squarek	Small Explorers & Producers Association of Canada
Regrets	
Chow-Seng Liu	Alberta Environment
Kevin McLeod	Alberta Health & Wellness
Rod Sikora	Key Span Energy Canada/Midstream petroleum sector
Ralph Smith	Wildrose Agricultural Producers

Action Items

Task	Who	Deadline
1.1 Maintain a decision log to ensure accurate record of all decisions made by the Team, and distribute with Minutes.	Christine Macken	Ongoing
3.3 Identify consulting needs and associated costs and revise budget accordingly.	Co-chairs and industry reps	Ongoing
Data/Information Needs 4.1 Revise proposal for Information and Data needs, and develop time schedule for generating the information. Review the brainstormed list to ensure that all items have been captured. 4.2 See if data is available on the allocation between casing gas venting and tank venting. 4.3 Provide data (CD-ROMs) on the number of individual wells associated with paper batteries.	EUB Ron Schmitz EUB	March 9, 2001 March 9, 2001

4.4 See if data is available with respect to methane from abandoned wells.	John Squarek	March 9, 2001
4.5 Invite Bruce Peachey of New Paradigm to make a presentation on the venting technologies and associated costs.	Frank George	March 9, 2001
4.6 Review the Updates and Clarification document with a view to making recommendations at the March 9th, 2001 meeting.	All Team Members	March 9, 2001
4.6 Team members are to consider what further information and analysis is needed to facilitate a discussion of the 'eliminate only by exception' approach	All Team Members	March 9, 2001

1 WELCOME/INTRODUCTIONS

a) Agenda

The order of items 3 and 4 was reversed, and the agenda was approved as distributed.

b) Minutes of November 20

The minutes of the January 04, 2001 meeting were amended as follows:

- The word "upstream" in item 1(c) will be changed to "downstream".
- Item 3(b) 2000 is amended to 2001.
- The second paragraph on page 6 should read: *Samples were tested at multiple points throughout the plume and it was determined that the point efficiency ranged from 99% to 66% depending on where measured.*
- In the 5th paragraph on page 6, the second sentence is corrected "…at levels *above* the method detection limit…
- The 3rd paragraph on page 7 is corrected to read. *Operating on natural gas the turbines achieve 99% combustion efficiency and is similar to the combustion efficiency rate using incineration.*

The minutes of the meeting were adopted as amended.

c) Report on Action items

- Action item 1.1 and 3.3 are ongoing.
- Action items 3.1 and 3.2 are complete
- Action items 3.4 and 3.5 are complete and are discussed under agenda item 2.
- Action item 3.6 Dr. Kostiuk will be invited to the April meeting. Dr. Kostiuk's interim report will be available on the PTAC website on February 21, 2001.

2 WORK PLAN

(a) Solution Gas Flaring - Update on Reductions

Kim Eastlick reported that the bulk of reductions have occurred through conservation at facilities with larger sources. To address the Team's information needs, Kim introduced a

proposal for addressing information and data requirements. The Team provided comments under the following information headings:

1. Flaring

Data should be gathered in the following categories, including information on the change in each category since 1996. This data will be provided by the EUB and through the work being conducted at U of A.

-Size of flare
-Number of flares
-Geographic region
-Data on batteries. The EUB will provide data on CD-rom for the number of flare batteries from 1996 to 2000.

A possible future step would be to gather data on opportunities for conservation in areas with high volumes that are not currently conserved.

With respect to the evaluation of flares within 500 m of residences, data was requested on which of these flares are conserved and which is status quo. The EUB has started this analysis.

2. Venting

The EUB will provide data on vented volumes and the Team will wait to see the initial data before identifying further categories. Compiling data on the number of vent sites is complicated because of the number of wells tied to individual batteries.

Action item: Ron Schmitz will see if data is available on the allocation between casing gas venting and tank venting.

The EUB will provide data on the number of individual wells associated with paper batteries.

3. Emission Reduction Approaches

A. Flare conservation projects that have been undertaken.

- The EUB will see if data can be differentiated between gas recovered, sold, re-injected, and associated volumes.
- Number of power generation projects. Data was requested on the number of micro-turbine projects, their size and their economics.

4. Reporting Information

EUB will provide the data for this category.

5. Well Test Flaring

Geographic location and density were added as categories. The EUB will try to separate the data for sweet and sour gas well tests.

The following information headings were added to the proposal:

6. Gas Plant Utilization

7. Flaring/Venting Reduction Technologies

Members enquired about the possibility of an economic analysis of the various reduction opportunities. Bruce Peachy may be able to provide some of this information. This item will be addressed at the March 2001 meeting.

Action item: Frank George will invite Bruce Peachy of New Paradigm to make a presentation on the venting reduction technologies available and their costs.

8. Combustion Efficiency Research

Dr. Kostiuk will provide information at the April meeting.

9. Future Data Needs

Identification of future data needs will depend on options identified by the Team under item 4 on the agenda (Options for a Management Framework).

Action item: John Squarek will see if data is available with respect to methane from abandoned wells.

10. Health Effects Information

Alberta Health and Wellness.

Action item: Kim Eastlick will revise the Information and Data Requirements proposal to capture the comments at today's meeting. Kim will review the items from the brainstormed list developed at the December 2000 meeting to ensure that all items have been captured.

(b) EUB Guide 60

The document "Revised Updates and Clarifications to EUB Guide 60 Upstream Petroleum Industry Flaring Guide" (GB2001-6) was distributed. The spreadsheet at the end of the document is an exampled prepared by EUB, and is not part of Guide 60.

Michael Brown made a presentation in which he outlined the key changes in Guide 60.

- Public Notification requirements. A member identified the need for residents to still be notified well-by-well, in addition to the one-time notification requirement for multiple well projects in an area.
- Simplified Assessments for Air Flow Conditions. A simplified tool has been developed for companies doing a short 3 to 4 day routine well test.
- Companies are now required to take into account plume height, and not just stack height.
- The guide stipulates actions to be taken to avoid 'predicted' exceedances - i.e. weather conditions that could lead to an exceedence. A member enquired if the

EUB can stipulate that a well not flare if there is a weather inversion. Companies have to take into account weather conditions, and the flaring program must be designed to meet the requirements of the 1 hr and daily ambient standard.

A copy of Mike's presentation is attached to these minutes.

The Revised Updates and Clarifications document (GB2001-6), as well as Guide 60 are on the table for review by the Project Team. The Team will review the Updates and Clarifications Document with the intent of identifying issues and making recommendations at the March 2001 meeting. The next step will depend on the outcome of the Team's review of Guide 60 and the scope if it's findings. It is possible that entirely new pieces could be developed and would go into a new Guide 60.

Action item: All team members are to review the Updates and Clarification document with a view to providing feedback and making recommendations at the March 9th, 2001 meeting.

3. Management Framework

A round table discussion was held to identify strategic options for a Flaring/Venting Management Framework. A key item was whether the current framework - a decision-tree analysis with reduction targets accompanied by regulatory backstops - or some other strategic direction is warranted. The following views were provided:

- Eliminate flaring and venting and only allow by exception. Public perception, expectations and economics are completely different than in 1997/98. Controlling flaring and venting is part of the cost of producing oil and gas. Treat it the same as produced water and allow only by exception. Stakeholders could then focus their energies on identifying the exceptions and economic analysis of reductions technologies would not be needed.

- The current framework takes into account price fluctuations and price forecasts. If the price of oil and gas increases then more projects become more economical.

- The issue is full project economics versus the incremental conservation. Either approach gets to the same place. Prefer to stick with the current framework.

- The issue is what we know about effects and what effects and at what cost. Not aware of any public concern about venting.

- Challenges the assumption that there is widespread public agreement or shared perception to eliminate. The question is whether we start at zero and move back, or start at a target and move towards zero.

- Wants to revisit full cost accounting in support of taking a different philosophic approach to the framework.

- Have to look at the effects, including economic impacts, versus the cost of eliminating.

- The current Guide 60 allows for 'eliminate except by exception'. Each operator has to demonstrate that a flare isn't economical on an incremental basis.

- The Team should evaluate and gather information to analyze both approaches.

- The Team should set reasonable objectives and allow operators to decide how to get there.

- Flaring is a waste of a resource. It could be shut-in until prices are better. The precautionary principle needs to be applied.

- The real and perceived impacts of flaring need to be balanced.

- If we pursue the 'eliminate except by exception' approach then we will shut-in oil production.

- The Team's terms of reference stipulate that the Team is to address 'firm reduction targets' it does not say 'eliminate'.

- The terms of reference also require the Team to assess the Framework.

- Our first task is to evaluate if the Framework has been successful. Why are we trying to fix something if it isn't broke?

- A report on general public perception was generated for the Provincial Advisory Committee on Public Safety and Sour Gas. It might be more generally true that there are some regions or some sorts of flaring that need an aggressive approach.

- Ambient air standards are not adequate. People are still getting sick.

- Not prepared to talk about elimination without a major economic study. Energy industry wants an approach that is economical efficient for the industry.

- There are health and environmental improvements and successes because of the earlier agreement, and this is proof that flaring and venting should be eliminated.

- It is counterproductive to pursue the 'eliminate' approach because it decreases flexibility and doesn't work towards economic efficiency.

- Flaring and venting may not end up under the same management framework. Want to see all the data and information on effects.

For the next meeting, the Team members were requested to think about the kind of information and analysis that is needed to facilitate a later discussion of the 'eliminate except by exception' approach. The following pieces of information are needed:

1. Full cost accounting
2. Reduction potential
3. Effects issues
4. Information or a survey on public perception.

Action item: Team members to consider what further information and analysis is needed to facilitate a discussion of the 'eliminate except by exception' approach.

4 BUDGET/RESOURCES NEEDED

The budget will remain at $30,000 with a notation that any shortfall will be provided by stakeholders as required. The budget and a status report will be submitted to the CASA board for information purposes, and not for approval.

6 OTHER BUSINESS

(a) Information on Flare Gas Composition

Ron Schmitz distributed a chart he had prepared showing an analysis of the composition of flare gas.

(b) CASA Annual Report

The Team will not make a submission for the 2000 CASA annual report.

7 NEXT MEETING

The following items will be on the agenda for next meeting:

1. Information on venting technology options and associated costs (New Paradigm's work)
2. Information/Data Needs based on proposal discussed at today's meeting, including a time schedule for producing the various information and data.
3. The Team's thoughts on other information and analysis needed for a management framework.
4. Guide 60. Preliminary discussion and recommendations.

The meeting will be held on March 9th, 2001 in Calgary and will commence a 9:00 am.

Team members were alerted that the April meeting would likely be held at the Mechanical Engineering boardroom at the University of Alberta, Edmonton. The tentative meting date is Monday, April 2.