

**ADVISORY COMMITTEE ON PUBLIC SAFETY AND SOUR GAS
EVALUATION OF EUB'S IMPLEMENTATION PROGRESS**

1 INTRODUCTION

The Alberta Energy and Utilities Board (EUB) formed the Advisory Committee on Public Safety and Sour Gas (the Advisory Committee) in January 2000 to review and make recommendations respecting the sour gas regulatory system as it relates to public health and safety. The Advisory Committee included representation from a broad spectrum of stakeholder groups.

In December 2000, the Advisory Committee issued a *Findings and Recommendations Final Report* which described the Committee and its mandate, briefly outlined the process the Committee used to conduct its work, and provided a set of final recommendations to the EUB. The recommendations numbered 87 in total.

2 IMPLEMENTATION

In its *Findings and Recommendations Final Report* the Advisory Committee made the following requests of the EUB regarding the implementation of its recommendations:

- The EUB serve as the reporting agency for all recommendations in the report, including those that, in whole or part, require action by others.
- The EUB issue public quarterly status reports respecting the planned actions and current progress on each recommendation. This reporting should be continued until implementation or action has been taken on all the recommendations. The first such report should include an overall implementation plan, including time-lines.
- The EUB establish a method of measurement for actions taken to implement each recommendation to assess if the actions are accomplishing the expectations of each recommendation. This assessment should be included in the quarterly status reports.

The Advisory Committee also indicated that it intended to meet annually until all the recommendations are implemented or acted on, to evaluate the actions taken by the EUB towards implementation, and to provide an evaluation report to the EUB and all stakeholders.

Upon receiving the recommendations of the Advisory Committee, the EUB accepted all of them and established the Public Safety Implementation Team (PSIT) to develop a plan of action and co-ordinate the on-going implementation of the recommendations. The EUB grouped the recommendations into the following five categories:

- Health Effects and Sour Gas Research
- Sour Gas Development Planning and Approval
- Sour Gas Operations
- Emergency Preparedness
- Information, Communication and Consultation

In April 2001, the PSIT published the *Public Safety and Sour Gas Implementation Plan* proposing to start work on 50 of the 87 recommendations in the first year of a multiyear program. It issued quarterly Reports throughout the year, and in April 2002, issued the first *Annual Progress Report*.

3 EVALUATION OF EUB'S IMPLEMENTATION PROGRESS

Throughout the past year members of the Advisory Committee individually followed the progress towards implementation. Some were involved in the implementation of specific recommendations. Others provided comments to the EUB on an informal basis. Following receipt of the EUB's *Annual Progress Report* the Advisory Committee met as a group. The meeting included presentations on implementation progress from EUB and Alberta Health and Wellness staff, followed by private Advisory Committee discussion of progress to date.

This report presents the Advisory Committee's evaluation of progress by the EUB in implementing the Advisory Committee's recommendations. It is structured to first give an overall reaction to implementation progress. That overall reaction is followed by more detailed comments or concerns regarding the implementation of specific or groups of recommendations.

3.1 Overall Evaluation

Advisory Committee discussion on the overall implementation progress, to date, included considerable praise ranging from 'extremely pleased' to 'amazing' and 'excellent'. It is the general view that the EUB is 'on target' with the 3-year implementation plan, and that the significant dedication of staff and financial resources to the project demonstrates the high level of commitment by the EUB's Chairman and Board members. Advisory Committee members are pleased with the degree of enthusiasm and ingenuity put forth by many staff members involved with the implementation. The Advisory Committee notes that overall, the greatest strides have been made in operational areas while the health effects (and other areas involving a number of departments and agencies) have lagged somewhat.

As a general concern, the Advisory Committee sees a need for improvement in the area of performance measures to ensure that implementation actions fulfill recommendation intents, and that they continue to remain effective once in place. Also, more clarity should be provided where some recommendations await the work on others.

3.2 Specific Comments and Concerns

Although the Advisory Committee is generally satisfied with the implementation progress, it has a number of comments and concerns regarding specific areas. Those comments and concerns are provided in the following material, with the objective of assisting in the ongoing implementation of the Advisory Committee's recommendations. For convenience, the relevant recommendations are also included. It should be noted that the complete text of some recommendations is not shown. The complete text may be found in the appendix of the EUB's *Annual Progress Report*, or in the *Public Safety and Sour Gas Findings and Recommendations Final Report December 2000*. (These reports are available at the EUB's Calgary Office and Field Centers, and on its website at www.eub.gov.ab.ca).

3.2.1 Health Effects and Sour Gas Research

Recommendations 9 and 59 (First year starts), 10, 11, and 12 (Deferred) and 13 (Forecasted for a third year start).

- 9 *The EUB work with Alberta Health and Wellness, regional health authorities, Alberta Environment, Alberta Human Resources, industry, and other stakeholders to ensure that comprehensive health effects information (qualitative and quantitative) is developed, as soon as practical due to its urgency.*
- 59 *The EUB work with Alberta Health and Wellness, regional health authorities, and other stakeholders to develop clear requirements and evacuation criteria to address the hazard of SO₂ as a result of ignition.*
- 10 *The EUB, Alberta Health and Wellness, Alberta Environment, Alberta Agriculture, Food and Rural Development, Alberta Research Council, regional health authorities, industry, and other interested parties including Alberta universities, jointly establish an independent Scientific Review and Advisory Committee to provide recommendations on required research programs related to sour gas and health.*
- 11 *The EUB work with the Alberta Government to ensure financial support is available to address gaps in research respecting the health effects of sour gas. Such research should complement the multi-government Western Canada Study on Animal and Human Health Effects Associated with Exposure to Flare Emissions.*
- 12 *Alberta Health and Wellness work with regional health authorities and physicians, through the Alberta Medical Association, to ensure a consistent, appropriate, and coordinated response to individuals exposed to major H₂S releases.*
- 13 *The EUB work with Alberta Health and Wellness and Alberta Human Resources to establish a high-level exposure registry to track individuals who have been knocked down or had other substantial exposures to sour gas.*

Comments and Concerns:

The Advisory Committee notes that the H₂S report is due by the end of June, with the SO₂ report to follow by the end of September (acute and chronic effects to acute exposure). Additionally, that the resulting final H₂S and SO₂ Health Effects tables are expected by year-end. The Advisory Committee points out that because many other public safety and sour gas recommendations depend upon the Health Effects tables, and because the tables are so important to the public, this work needs to be completed as quickly as is possible. Future sour gas research, dependent upon the H₂S and SO₂ final reports, and health effects work for sour gas mixtures and products of incomplete combustion, should (at the very least) be in the planning stage. This would allow research to move ahead as soon as possible.

The Advisory Committee reminds Alberta Health and Wellness that the final Health Effects tables need to provide for quantitative toxic load calculations for use in EPZ and risk assessment work.

The Advisory Committee does not agree that work on recommendations 12 and 13 (medical response to H₂S exposure and ‘knock-down’ registry) need await the new Health Effects tables before proceeding.

The Advisory Committee suggests that the immediate formation of the recommended Scientific Review and Advisory Committee would assist in advancing the work.

Recommendation 67 (First year start)

67 *The EUB, with the assistance of industry and researchers, promote and support the development of exposure monitors that can be used to measure personal exposure of the public to sour gas-related substances in a practical manner.*

Comments and Concerns:

The Advisory Committee notes that the monitors being developed will only measure H₂S while the recommendation called for the measure of sour gas-related substances. Consideration should be given to expanding this work to include other substances found in sour gas mixtures.

3.2.2 Sour Gas Development Planning and Approval

Recommendation 5 (First year start)

5 *The immediate formation of a task force of senior decision makers that would investigate the possibility of improving coordination between subsurface and surface planning and development.*

Comments and Concerns:

The Advisory Committee appreciates the importance of this particular recommendation and the very complex issues involved. Also, that there is potential for this recommendation's outcome to impact the way other recommendations are implemented. All said, the Advisory Committee questions the apparent slow rate of progress in proceeding with this recommendation, particularly considering possible expansion plans by the City of Calgary into sour gas areas. In the expanded text of this recommendation, many possible actions for work needed to address this recommendation are described. While some actions are major, others are less so and are already in use in other parts of the province. The Advisory Committee sees no indication that these possible actions are being looked at.

The Advisory Committee specifically recommended the formation of a task force of senior decision makers to look at this matter. There is no indication that such a task force has been formed. Whatever means are chosen to advance this recommendation, the Advisory Committee stresses the importance of expediting the work as well as including all stakeholder groups identified in the complete text of this recommendation.

Recommendation 34 (First year start)

34 *The EUB increase and improve coordination between itself and Alberta Environment, other involved government departments, and municipality and regional health officials.*

Comments and Concerns:

Based on the EUB's anticipated deliverable for this recommendation, the Advisory Committee questions the original clarity of its two-part recommendation. A description of the Advisory Committee's intent for recommendation 34 is as follows:

Where policy development is concerned, the Advisory Committee wants to see the meaningful inclusion of other departments/agencies in the development of EUB policy. The Advisory Committee believes that their successful involvement in policy development would largely remove the need for these same departments/agencies to intervene at EUB hearings since their positions would be represented in EUB policy. It is therefore essential that Municipal Governments, RHA's, AH&W, Aboriginal Groups (at a senior level), and others, be involved in the establishment of policy. For recommendation 34, success in the policy-making arena is considered of paramount importance relative to the application component of this recommendation.

Where applications are concerned, it is recognized that notwithstanding the involvement of other departments/agencies in policy development, there will be cases where they wish to be involved in the review of specific applications. The Advisory Committee therefore recommended development of processes for their early, efficient and effective involvement.

In the implementation work underway, the Advisory Committee notes an emphasis by the EUB on information exchange at the application stage. It should be observed that successful completion of the first part of this recommendation (policy development) would likely change the dynamics of information exchange and coordination at the application stage since the positions of involved departments/agencies would be represented in EUB policy.

Recommendations 17, 18 and 19 (First year starts)

- 17 *The EUB, in cooperation with stakeholders, develop a framework and methodology for standardizing dispersion modelling and probabilistic risk assessment that will provide clarity to the industry and the public.*
- 18 *The EUB require that users of sour gas hazard and probabilistic risk assessment techniques clearly state their methods and assumptions.*
- 19 *The EUB be responsible for reviewing and updating its standard models and methods regularly.*

Comments and Concerns:

The Advisory Committee recognizes that the completion of this work is dependant on the completion of certain other recommendations (e.g., 9). It believes however, that much of the work on the recommendations could go forward so that the final product can be available as soon as other prerequisite work is completed. The Advisory Committee notes that this work is proceeding, and encourages its continuance so that the final product is available as soon as possible.

3.2.3 Sour Gas Operations

Recommendation 24 (Forecasted for a second year start)

- 24 *The EUB publicize the requirements to get an existing pipeline or well reclassified to sour service, in order to dispel the appearance that it is easy to do so.*

Comments and Concerns:

The Advisory Committee notes that the deliverable and the recommendation are not directly linked. The Advisory Committee wanted the reclassification requirements, including any necessary upgrading, to be made more widely known, not necessarily revised and documented.

3.2.4 Emergency Preparedness

Recommendations 64 (First year start)

- 64 *The EUB continue its initiative to work with stakeholders to develop clear, complete, and concise guidelines and requirements for ERP development and implementation.*

Comments and Concerns:

The Advisory Committee notes that considerable effort and progress has been made in the area of EPZs and the new ERP guide, including an interim guide and stakeholder review. The Advisory Committee was informed that 15 ERP issues were identified through the stakeholder review. Of these, nine were directly related to sour gas. There was some uncertainty as to how these are being handled. The Advisory Committee emphasizes the importance of dealing with all of these issues, including the non-sour gas matters, and reporting back to stakeholders.

3.2.5 Information, Communication and Consultation

Recommendation 79 (First year start)

79 *The EUB initiate a study involving industry, government, the public, and municipal representatives to determine the nature of local benefits, such as reduced property taxes and local business opportunities, to communities impacted by sour gas development.*

Comments and Concerns:

A study group was established to implement this recommendation and it somewhat altered the intent. The Advisory Committee generally agrees with the change of this recommendation's intent from 'local' benefits to 'net' benefits. The Advisory Committee believes that the study group determining net benefits should include the cost of sour gas setbacks (where land development is sterilized or significantly restricted), recognizing that this matter is also addressed in Recommendation 53.

The Advisory Committee also notes the intention to evaluate the human health effects and quality-of-life impacts in qualitative terms. While the Advisory Committee accepts that this may be useful, it cautions that these effects can't be clearly identified in quantifiable terms. This is why the Advisory Committee made so many recommendations in its report (to better identify and reduce such negative impacts).

With respect to the land values study (a separate EUB initiative), the Advisory Committee would like to see the report findings incorporated into the study for Recommendation 79, even if this slightly delays publishing the final report. (Recommendation 79 is also discussed in section 3.3 of this report).

Recommendation 72 (First year start)

72 *The EUB develop a list of suggested questions to assist the public during the public consultation process.*

Comments and Concerns:

The Advisory Committee was shown a version of the questions and checklist (a checklist was not intended by the recommendation). The Advisory Committee is generally satisfied with the

questions but concerned with the checklist. The Advisory Committee notes that because the questions cover more than sour gas development alone, they should be initiated with a ‘phased’ approach beginning with the ‘most sour’ developments. As for the checklist, the Advisory Committee has concerns that it could be misused, and therefore feels it should either be eliminated, or handled carefully – and separately - from the questions. The Advisory Committee also sees a number of ‘yes’ or ‘no’ answers to checklist questions that may be more appropriately graded from ‘very satisfied’ to ‘very dissatisfied’.

Recommendation 81 (First year start)

81 *The EUB develop a brochure for the public that focuses on the role of the EUB and provides contact names and phone numbers to be given out when industry does public consultation.*

Comments and Concerns:

While the Advisory Committee is impressed with the expansion of the original intent of this recommendation, its position is that there remains a need for a brief brochure.

3.3 Specific Comments and Concerns Related to Aboriginal (First Nations and Metis) Interests

All of the public safety and sour gas recommendations have the potential to affect Aboriginals and their communities. The Advisory Committee notes that there has been a good start with implementation on many recommendations related specifically to Aboriginal interests. The Advisory Committee points out that where implementation of any recommendation involves stakeholder groups, or the establishment of task forces, steering committees or the like, consideration needs to be given for appropriate Aboriginal involvement whenever their interests could be impacted. The Advisory Committee recommends that, where indicated, appropriate Aboriginal involvement be pursued. One initiative already underway where Aboriginal involvement is missing, is Recommendation 79 – the net benefits study. The Advisory Committee is of the view that the steering committee should be expanded to include First Nations representation (at a senior level) – even at this late date. (Recommendation 79 is discussed in section 3.2.5 of this report).

The Advisory Committee also notes that with respect to consultation (Recommendation 69 and 70), the table showing completed, current and future tasks, as well as deliverables, shows no specific involvement of aboriginal people. The Advisory Committee emphasizes the need for their involvement to ensure the development of proper requirements for consultation between industry and aboriginal peoples.

The Advisory Committee recognizes that there are some complex jurisdictional issues surrounding Aboriginal interests. The Advisory Committee believes that these complexities should not be allowed to impede progress toward implementation of any of the recommendations, and that the complexities need to be understood, and (if necessary) resolved.

The Advisory Committee also observes that for some Aboriginal issues, consultation with government departments and agencies must occur at very senior political levels for optimal results.

4 CONTENT, FREQUENCY AND UTILITY OF REPORTING BY THE EUB

The Advisory Committee is satisfied with the current level of reporting frequency and content. It believes that the EUB's progress reports and the Advisory Committee's evaluation reports should be sent to all participants in the public consultation portions of the process. Also, the EUB should make the reports available through open houses already being conducted by EUB field staff, and at other meetings that involve parties potentially impacted by sour gas. Whenever possible, feedback on the reports should be invited.

The Advisory Committee observed that in some instances, the quarterly reports did not correctly correlate with the annual report. Improved attention in this area should be given in the future.

The Advisory Committee believes that a separate report (or section) focusing only on the recommendations as they relate to Aboriginal issues, would greatly assist, and suggests this change be incorporated as soon as is practical in the EUB's quarterly and annual reporting procedures.

5 FUTURE EVALUATION REPORTS FROM THE ADVISORY COMMITTEE

Meeting annually to discuss the EUB's *Annual Report on Implementation* is considered by the Advisory Committee to be both useful and thought provoking. The meeting's presentations and subsequent discussion provided much needed information for members to communicate with their colleagues and publics. The Advisory Committee intends to review, meet and report on, the next annual report.

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