



**Public Safety and Sour Gas  
Implementation Plan  
Quarterly Progress Report  
October – December 2001**

**January 24, 2002**

**ALBERTA ENERGY AND UTILITIES BOARD**  
Public Safety and Sour Gas Implementation Plan  
Quarterly Progress Report

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Published by

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## Introduction

This is the Alberta Energy and Utilities Board (EUB) third quarterly report on the progress of implementing the recommendations from the Provincial Advisory Committee on Public Safety and Sour Gas (Advisory Committee). It gives the status of work completed and under way during the October-December 2001 period.

The EUB in its Year-1 Implementation Plan (April 2001) stated that work would begin on 50 of the Advisory Committee's recommendations within the first 12 months. At the end of December (9 months through the fiscal year-1 plan), there has been action on 48 recommendations (including Recommendation 31, which was not originally part of the year-1 plan). To date, 11 of the 87 recommendations have been completed.

Recommendation #12 (Establish coordinated, consistent medical response to H<sub>2</sub>S exposure) was scheduled to have begun during the July-September quarter, but its start has been delayed.

The various working groups are actively engaging stakeholders in implementation of the recommendations. This continues the EUB's commitment to have an open and consultative policy. In November, the EUB's work and that of the Advisory Committee received international recognition through an award issued by the Institute of Petroleum based in London, England. Further details of the '2001 International Communications Award for Excellence and Innovation in Public Consultation' can be found on their Web site at <[www.petroleum.co.uk](http://www.petroleum.co.uk)>.

At the end of the next reporting period (January-March 2002), the EUB will issue its first annual report. This report will provide a description of the work undertaken so far to implement the year-1 plan and the status of the ongoing initiatives. It will also present the proposed Year-2 Implementation Plan.

The EUB's Year-1 Implementation Plan and previous quarterly reports are available on the EUB Web site at <[www.eub.gov.ab.ca](http://www.eub.gov.ab.ca)> and the Advisory Committee Web site at <[www.publicsafetyandsourgas.org](http://www.publicsafetyandsourgas.org)>.

## Recommendations Completed to September 2001

A summary of the recommendations completed up to September 2001 is presented in Table 1.

**Table 1: Recommendations completed to September 2001**

Group	Recommendation(s)	Description
• Sour Gas	#6	Plant proliferation
• Development Planning and Approval	#35	Prelicence review of critical well licence applications
• Sour Gas Operations	28	EUB give highest priority to sour gas complaints
• Emergency Preparedness	#54, #60, #61	Interim policy on ERP review and reduced EPZs
• Information, Communication, and Consultation	#29	EUB field staff involvement in landowner-operator discussions and multistakeholder groups
	#37	EUB involvement in mediation of application issues
<b>Total complete</b>	<b>8</b>	

## Recommendations Completed September 2001 to December 2001

**Recommendation 25—Increase sour gas inspections:** The EUB's Field Surveillance Branch has completed modifications to its inspection prioritization model to provide for increased inspection frequency for sour gas operations. Processes for notifying the public of inspection results have also been developed, along with a public contact database for tracking purposes. All Field Surveillance staff have now been trained on the computer tracking system, and the public contact program has been implemented.

An additional element associated with this recommendation is the enhancement of the emergency response plan audit and testing processes being addressed under Recommendations 55 and 56. The EUB will incorporate the results of this work into the inspection prioritization model as soon as they are available.

**Recommendation 26—Increase inspections of new and noncompliant operators:** The EUB Field Surveillance inspection priority system has been modified to assign increased priority (and therefore frequency) to inspecting the operations of new and noncompliant operators. This increases the overall number of inspections and new field inspectors have been hired to support this effort.

**Recommendation 27—Implement 100% inspection rate for critical wells near people:** Revised EUB field inspection priority criteria now require a minimum of one inspection of drilling operations at all critical sour wells where people are located within the emergency planning zone of the well. If a critical well is being drilled in an area with a higher population density, the EUB may inspect the drilling operations more than once. The inspection process also includes follow-up discussion with randomly selected residents within the emergency planning zone of the well inspected in the next quarter.

## Status of Recommendations Under Way at December 31, 2001

### Health Effects and Sour Gas Research

**Recommendations 9, 59—Update health effects table and develop SO<sub>2</sub> health effects knowledge and evacuation criteria:** An environmental and health consulting firm has been retained by Alberta Health and Wellness to undertake a comprehensive literature review and analysis of contemporary work on health effects (acute and chronic) of H<sub>2</sub>S and SO<sub>2</sub>. A multi-disciplinary advisory committee of experts is in place to guide the consultant's work and assess the findings. The advisory committee will then make recommendations to Alberta Health and Wellness regarding what information would be the most appropriate to consider in revising Alberta's H<sub>2</sub>S and SO<sub>2</sub> health effects tables and on establishing SO<sub>2</sub> evacuation criteria.

**Recommendations 10, 11—Develop sour gas research strategies:** Specific actions to advance these recommendations are on hold pending the results of the literature review and analysis now under way for Recommendations 9 and 59.

**Recommendation 67—Develop personal H<sub>2</sub>S monitors:** Alberta Health and Wellness continues to be encouraged by the results of this project to date. Phase 2 of the three-phase project is ongoing. Laboratory testing of the prototype continues. A portable prototype is anticipated early in 2002. Field testing of the portable unit will begin a few weeks after delivery of the unit to Alberta Health and Wellness.

## Sour Gas Development Planning and Approval

**Recommendation 5—Taskforce investigation of improved surface/subsurface planning:** The proposed terms of reference for this initiative require further work before advancing to the stage of forming the taskforce. In the meantime, the EUB Law Branch is undertaking a review of property rights as they pertain to various surface and subsurface development activities. It is anticipated that this may form one piece of relevant background information for the work of the taskforce.

**Recommendations 17, 18, 19—Standardize dispersion modelling and risk assessment:** Significant progress has been made in developing a standard dispersion protocol. The protocol will be based on a screening hazard and risk analysis that an applicant will be required to perform before undertaking an optional detailed risk assessment. The standard cases have yet to be defined, but they will include realistic worst-case scenarios. The methodology will be capable of modelling real gas effects for wells, pipelines, and facilities using commercially available software and a spreadsheet provided by the EUB.

Further work is also under way to collate incident data. This initiative will ensure that the latest information is available when calculating failure probabilities for application in risk analyses.

The draft protocol has been developed by a consultant, and the work undertaken so far has been subject to both expert and EUB peer review. The next phase in the development of the protocol will require stakeholder engagement. An information session to provide an overview of the work to date will be held on February 13, 2002, as part of the emergency response planning guide information session (Recommendations 57, 63, and 64). The EUB plans to hold a workshop to review the methodology and to provide stakeholders with the opportunity to test the concepts that have been developed. The current plan is to hold the workshop in mid 2002.

It is worth noting that the work to date has aimed at developing the tools to allow the EUB and stakeholders to perform a screening hazard analysis of sour gas facilities based on a set of defined cases. Eventually, the objective will be to apply these analyses to determine emergency planning zones based on revised health effect end points being addressed under Recommendations 9 and 59.

**Recommendations 7, 32, 33—Well licence applications require area/project plans:** The EUB staff team is considering potential changes to application requirements to improve area and project planning in sour gas developments. Any changes will be incorporated into *Guide 56: Energy Development Application Guide*. The recent focus has been on project planning, with the intent of having all well licence applications for sour gas near people to have the complete project described and, where practical, have related facility applications filed together. The team found it necessary to consider specific changes to the application guide to develop a more complete document for stakeholder consultation; consultation is expected to start in the first quarter of 2002. The team considerations include having area and project planning information to facilitate public consultation and to better utilize existing sour gas infrastructure in an area to avoid unnecessary proliferation. Utilization of existing infrastructure is the subject of Recommendation 7, and for this reason Recommendation 7 has been linked with Recommendations 32 and 33.

**Recommendation 34—EUB/government/agency coordinated policy and application review**: An EUB team was established and has developed an inventory of provincial government departments and agencies that currently have a linkage to EUB application processes. Contacts have been made with most of these departments and agencies and a strategy is now in place to sequentially review and improve intergovernment liaison. This will involve the medical community, local authorities (e.g., counties and municipalities), Alberta Environment, and other organizations.

The EUB has met with Alberta Health and Wellness and the regional health authorities regarding this initiative. The Council of Medical Officers of Health has also discussed this project. The plan is to have Alberta Health and Wellness set up regular working meetings to ensure that this project is successfully driven forward.

**Recommendation 36—Worker training/certification information requirement during critical sour well licensing**: The EUB has undertaken a preliminary review of the current regulations and requirements pertaining to suitably qualified and experienced personnel involved in the design, licensing, and drilling of critical sour gas wells. Work has started on identifying any gaps that exist, and if there are deficiencies, development of an action plan to resolve these issues through stakeholder engagement will follow.

**Recommendations 39, 40—Rewrite Guide 29: Hearings and Inquiries and make hearings user friendly**: The EUB has reviewed the existing *Guide 29* and has determined the necessity for an expanded, guide to EUB hearings. The new draft guide addresses all aspects of the hearing process from the preapplication and application phases to the decision and appeal process. The EUB has also recognized the continuing need for a short pamphlet that describes the hearing and local intervener cost process as a companion piece to the guide. In addition, a series of frequently asked questions has been developed to proactively deal with public inquires about the EUB's processes.

The entire package will be forwarded to stakeholders for review in early 2002. Among the stakeholders to be surveyed are local interveners who have participated in EUB hearings over the last two years. The draft documents will be forwarded to interveners at upcoming hearings before the Board for their feedback. Following the public consultation stage, the EUB will make any necessary revisions to the materials and then present the final documents to the public at large through a series of open houses and seminars.

## **Sour Gas Operations**

**Recommendation 22—Review adequacy of third-party damage prevention for sour gas pipelines**: Drafting of amendments to the Pipeline Act and Regulations is complete. These amendments will introduce requirements for all pipeline operators to register their pipelines with Alberta One-Call and will require any pipeline operator undertaking a ground disturbance to first notify Alberta One-Call. The EUB has also gathered information to assess the merit of certification requirements for parties undertaking ground disturbance operations and will be seeking stakeholder input on this issue. The proposed amendments are being reviewed by internal stakeholders. Amendments will be released for review by external stakeholders in the next quarter.

**Recommendation 31—Increase the availability of information regarding enforcement actions**: This recommendation was not originally planned for inclusion in the year-1 plan. However, the EUB's Corporate Compliance Group has proposed a process for publicly

reporting company names and enforcement actions for all level 3 and 4 non-compliance events. Details of the proposed process have been provided to stakeholders for review and comment. Feedback is expected within the next quarter.

**Recommendation 68—Enhance EUB capability to monitor for complaint response/compliance:** The second EUB air monitoring truck has been delivered and the equipment is being installed and tested.

During January to March 2002, a comprehensive air monitoring schedule will be developed to optimize the effectiveness of the EUB's air monitoring equipment.

**Recommendation 85—Complaint/incident response programs for Aboriginal communities:** The EUB has begun comprehensive Aboriginal culture awareness training for its staff, with 25 staff from various business areas attending the initial two-day session in September 2001. As of December 2001, all Field Surveillance staff had completed their Aboriginal awareness training. Three more Aboriginal awareness sessions are planned for staff including EUB executives and Board members.

Additionally, the EUB has held workshops with the Dene' Tai and the Louis Bull First Nations. Plans are also in place to continue with joint EUB and Indian Oil and Gas Canada workshops.

## **Emergency Preparedness**

**Recommendation 15—Follow-up on major releases:** A number of relevant EUB business areas are continuing with development of proposed incident follow-up processes for uncontrolled releases from wells, pipelines, and production facilities. The EUB expects to finalize the procedures during the first quarter of 2002, with full implementation in place by midyear. The new protocol will also be reflected in the *Alberta Emergency Support Plan for the Upstream Petroleum Industry* which is scheduled for release in the second quarter of 2002.

**Recommendations 55, 56—Assess capability to implement emergency response plan (ERP) and increase ERP audit/tests:** Development of ERP audit and testing processes is continuing in conjunction with work on the new ERP guide (Recommendations 57, 63, and 64). A draft protocol will be available for stakeholder review by the second quarter of 2002.

**Recommendations 57, 63, 64—ERP guide and requirements to coordinate responder roles:** The drafting of a consolidated ERP guide is almost complete. An information session is scheduled for February 13, 2002, to present the draft ERP guide to external stakeholders for review and feedback. A subsequent workshop on the guide is tentatively scheduled for late spring.

**Recommendation 87—Emergency preparedness infrastructure for Aboriginal communities:** An initial meeting was held with federal and provincial government departments and agencies. A summary report will be prepared outlining the responsibilities and current levels of actions now taking place that may address this recommendation.

## Information, Communication, and Consultation

**Recommendation 16—Review, organize, and enhance access to EUB data:** A fundamental building block of comprehensive sour gas information systems is a complete and accurate gas analysis database. The EUB has recently completed entering a backlog of necessary gas analysis information into its database. This information will undergo further data quality and accuracy verification. The EUB has also initiated a project to develop an Internet-based spatial information system for EUB sour gas data. Through a “Request for information/request for proposal” process, this project will deliver a pilot information system to support further consultation and definition of requirements. The request for proposal has been completed and made public. The process to review and evaluate proposals will now begin.

**Recommendations 69, 70, 74—Establish EUB public consultation staff resource team:** The EUB Staff Resource Team (SRT) has received a draft report of the consultant’s gap analysis of existing EUB documents pertaining to citizen engagement and public notification. Based on the initial findings of this draft analysis, the SRT team asked for some modifications to be made before the final report is issued in early January 2002. The team will hold a stakeholder workshop in the spring of 2002 to present draft baseline consultation requirements to stakeholders. This will begin formulation of clearer and tighter requirements for public notification and citizen engagement.

**Recommendations 72, 81—Public consultation materials, EUB role, and suggested questions:** The EUB has written a draft document containing a series of landowner questions. Stakeholder input that the EUB has received on this draft document clearly indicated the desire to have additional work done to the questions. This required additional effort for the project. The initial stakeholder input phase is now complete, and writing of the new questions has been completed prior to a second round of stakeholder input. Once the second round of stakeholder input has been completed, further required changes will be made to the document. The EUB expects to have the document ready for release in the spring of 2002.

A short promotional video on the role of the EUB has been completed and is being shown at EUB open house presentations across the province. The video was also part of the EUB submission on the Public Safety and Sour Gas work made to the second annual Institute of Petroleum Awards competition based in London, England. The submission resulted in the EUB winning the Institute’s prestigious 2001 International Communications Award for Excellence and Innovation in Public Consultation. The video will form part of a longer educational video on the EUB and energy development in Alberta that is currently planned for completion by the end of 2002. Work has also begun on a new booklet and brochure describing the role of the EUB to complement the video, as well as on a children’s energy educational activity book and Web site.

**Recommendation 73—Establish EUB information office:** A team of EUB staff from key information management and public interface business areas has been assembled to lead the work on this initiative. In October 2001, the team began to develop strategies for the effective and reliable management of information requests and information dissemination. In November 2001, the team held a joint meeting with the Staff Resource Team responsible for reviewing public consultation under Recommendation 69, two members of the original Public Safety and Sour Gas Advisory Committee, and the EUB’s Aboriginal consultant. The objective was to discuss and to clarify the intent of Recommendation 73. In December 2001, a discussion document was presented to the

team, and it will be expanded upon. The EUB will be engaging a consultant to survey synergy groups and community coalitions to determine their information needs. Research is also continuing into best practices of other regulatory bodies in providing public information.

**Recommendation 79—Determine local benefits from sour gas development:** A stakeholder steering committee was created with representation from municipal governments, the University of Calgary, industry associations, the public at large, the provincial government, and First Nations. An independent consultant was contracted by the EUB to facilitate interaction among committee members, chair meetings, deal with process matters, and assist the committee in preparing a final report. The committee is currently tasked with defining the scope of the study and the methodology to be employed to carry out the work. EUB economics staff will undertake required data collection and economic analyses. While this initiative is still in its early stages, the committee has met on two occasions. Matters such as group expectations and process have been discussed, and a number of committee members have made presentations that described the analytical techniques that could be useful.

**Recommendations 45, 46, 47, 48—Perception of EUB's neutrality:** The EUB has identified a need for improved communication with its stakeholders, especially the public, to better present what the EUB is and what it does. To achieve this, the EUB is developing a 3-year strategic communication plan. The plan includes actions such as staff training, communicating the role of the EUB, and communicating its commitment to ensuring public safety. Implementation of the plan will commence in 2002 and continue beyond this year.

Recommendation 48 suggested a review of the matter of funding of the EUB with a possible objective of returning to a more equitable share of the EUB's total funding requirement between industry and government. The EUB is continuing to work with the Minister of Energy to evaluate alternatives to the existing funding model. A review committee has been established to provide direction on this matter.