

**SUNDRE PETROLEUM OPERATORS GROUP  
COMMUNITY AFFAIRS COMMITTEE  
CAROLINE – BEAVERHILL LAKE B POOL ADVISORY COMMITTEE**

**PERFORMANCE MEASURES**

*This is a living document*

**SPOG Vision**

**A long-term relationship  
based on mutual trust, honesty and respect,  
by way of sharing pertinent information  
and resolving issues  
to benefit all stakeholders.**

**UPDATED: MARCH 1, 2003**

## 1. PERFORMANCE MEASURES OVERVIEW

- The B Pool Advisory Group (Advisory Group) has developed the following performance measures to evaluate drilling and development operations in the Caroline -- Beaverhill Lake Sour Gas B Pool (B Pool).
- The first principle of these measures is the Sundre Petroleum Operators Group (SPOG) community affairs vision, and the values and goals it implies. The vision is: "A long-term relationship based on mutual trust, honesty and respect, by way of sharing pertinent information and resolving issues to benefit all stakeholders."
- The resident and community members of the Advisory Group are prepared to help implement these requests, recommendations and suggestions.
- The records of Advisory Group meetings at which these Performance Measures were discussed and developed contain helpful elaboration and clarification and are available as an appendix to this document.
- The *Common Facilities Proposal* of January 16, 1999 contains a helpful presentation of resident and community expectations. While not formally endorsed by the Advisory Group, many elements will be reflected in the joint Hunt Oil Company of Canada development plan for their lands in the Pool.
- The Area Development Plan developed by Hunt Oil Company of Canada at the request of the Alberta Energy and Utilities Board (AEUB) is an important companion to this document.
- These performance measures represent the expectations of the community for operators in the B Pool. It is the objective of the Advisory Group that these, and similar, measures be accepted and adopted, through an orderly process, for application to all drilling and development in the SPOG area.
- Hunt Oil Company of Canada (Hunt Oil) has agreed to use its best efforts, within the limits of technology and the desire of surface rights owners from whom they acquire rights, to meet these measures in B Pool operations, and when they cannot be met, to provide an explanation.
- This is a living document and the measures will be refined and revised on the basis of well-by-well and facility-by-facility experience.

- These measures will be communicated to the SPOG community affairs committee and the board to encourage application on a level playing field.
- The members of the community caucus will take the initiative to communicate these performance measures to landowners, land users and members of the community who would be affected by activities.
- The Chairman is instructed to circulate these performance measures to local authorities and community bodies with an interest in B Pool activities.

## **2. GENERAL MEASURES**

- The Advisory Group operates as a synergy group with Operator, Community and EUB represented at the table.
- These performance measures are separate and apart from regulatory and legal guidelines for development.
- Hunt Oil has an Area Development Plan for the project. It includes a Public Involvement Plan that expresses principles and values to guide the operators' relationship with the affected community. The Public Involvement Plan includes the work of the Advisory Group and also sets out procedures and processes consistent with these Performance Measures for relationships with affected stakeholders outside the SPOG area and Advisory Group.
- The EUB's *Guide 56* and *Guide 60*, the Canadian Association of Petroleum Producers *CAPP Guidelines for Effective Public Involvement* and the *CAPP – IPAC Guidelines for the Preparation of Emergency Response Plans for Sour Gas Drilling Completion and Servicing*, the *Public Safety and Sour Gas* report and the SPOG *Fair Play* booklet provide additional context for the Performance Measures.
- Hunt Oil should hire its B Pool contractors carefully: evaluate their sense of responsibility and keep them advised of community sensitivities.
- Honesty, safety and respect are top priorities throughout the operation.
- Membership in the Advisory Group should be extended south of the Red Deer River to include stakeholders affected by Phase 2 operations who may be located outside the SPOG south boundary.

- Hunt Oil leadership and the SPOG community leadership should endorse and embrace values of honesty, integrity and respect through regular communication with one another, and by example.
- Hunt Oil and the SPOG community should deal fairly, openly and honestly.
- Hunt Oil should follow and exceed industry guidelines, laws and regulations.
- Hunt Oil should honor existing and future commitments to the community and the community should honor existing and future commitments to Hunt Oil.

### **3. Community Relations**

- The B Pool Advisory process is one part of the community relations program the operators will undertake. The performance measures are separate and apart from regulatory and legal guidelines for development.
- The Hunt Oil has an Area Development Plan for the project. It includes a Public Involvement Plan that expresses principles and values to guide the operators' relationship with affected communities outside SPOG boundaries.
- The Public Involvement Plan includes the Advisory Group and sets out procedures and processes consistent with the Performance Measures for relationships with stakeholders outside the SPOG area and Advisory Group.
- Some B Pool development operations have an impact on communities outside the SPOG boundary, and some mitigating measures, such as flaring and emissions reductions in the three inline well tests in 2000, convey a benefit beyond the SPOG boundaries. The Advisory Group cannot speak for landowners, land users and residents outside the boundaries.
- Members of the Advisory Group should share the benefits gained through these Performance Measures and help implement them outside the boundaries in adjacent communities when requested.
- Open Houses should be held for each significant step in Phase 2 development to provide early public notification and to ensure that all affected stakeholders are part of the advisory and performance measures processes.

- B Pool Open Houses are open to all interested parties in Alberta, and the B Pool Advisory Group should encourage SPOG to continue to invite all interested parties to its Neighbours Day and open houses.
- The reconciliation of land use conflicts is a primary concern, of equal weight to emissions, plant proliferation and public safety. All land users and future land uses need to be evaluated, including recreation, forestry, residential, gravel pits, municipal growth, road expansions and transportation facilities.

#### **4. LOCAL BENEFITS**

- Hunt Oil should provide local employment opportunities when possible.
- Hunt Oil should make contributions to local events and initiatives.
- Hunt Oil should compensate landowners fairly for their land, and for accidents and spills that may occur.

#### **5. PHASE TWO DEVELOPMENT OVERVIEW**

- With respect to Phase Two development, south of the James River, the community's primary concerns are air and noise emissions from production facilities (compressors, dehydrators, etc.), impacts of activities and facilities on surface and aquifer water systems, a pipeline crossing of the James River, location of gathering system and pipeline, plant and facilities proliferation.
- Population and land use densities are higher on the southern end of the B Pool reef, and drilling and testing operations face a correspondingly higher challenge with respect to public and residential safety and impacts on cattle operations, municipal development including light industrial and commercial facilities, recreation, and other community activities and interests.

#### **6. EMERGENCY RESPONSE PLANS**

- The Emergency Response Plan (ERP) for B Pool operations should meet or exceed regulatory requirements and industry standards, and should incorporate input provided by surface rights owners, neighbors, the Advisory Group and the public.

- It has been the practice of the Energy and Utilities Board and the operator that B pool wells have an Emergency Planning Zone (EPZ) of between 4 km and 4.2 km, calculated using dispersion models. The community opposes further reductions, and with reference to well locations on McDougal Flats, stipulates that the ERP should incorporate measures for the Town of Sundre.
- It is noted that resident and community members of the Advisory Group believe that one radius for ERP planning – approximately 4 km to 4.2 km - should apply to all sour wells, level one and above.
- The EPZs should be flexibly mapped, taking into account the impact of topography (air drainage) and wind direction on the dispersion of emissions. It should also take into account the location of egress and exit roads for residents whose homes may be outside the zone but must cross it to get in and out of their area.
- Notification measures should include residents who live on a property some of which is inside the zone, but whose actual homes and buildings are outside. Community members will assist operators identify families with special concerns.
- Contact all persons who could have evacuation problems during a release or loss of well control, some of whom may live outside the radius.
- Knowledgeable local residents are willing to help the operator in fine-tuning its ERP address resident and community concerns.
- In the event of an uncontrolled release, there should be monitoring of impacts on human and animal health. There are many unresolved issues on this matter including payment of the costs of such monitoring.
- The measurement of impacts is an active and evolving area of research, and incident-monitoring methods should take into account currently available results. The data collected from air monitoring during the incident should be preserved for future reference.
- Use cell phones or other measures to contact farmers in the field during rapidly developing emergency incidents.

- There is a general concern about the preparedness of Sundre, Caroline and other population concentrations for major incidents and evacuations.
- ERPs and EPZs for critical-zone well servicing and incidents involving production and gathering systems should be reviewed and discussed by the B Pool Advisory Group.
- Hunt Oil will communicate effectively with all EPZ residents in the event of an emergency.
- The effectiveness of the ERP will be evaluated through regular drills.
- Hunt Oil will maintain a 24-hour emergency telephone line at 1-877-797-9717.

## **7. COMPENSATION**

- Compensation is a major issue – key to the building of trust and respect. The community is anxious to avoid litigious situations. It does not endorse frivolous attempts to extract money. It recognizes that there are differences of opinion on impacts. It wants to find the best way to deal with compensation.
- Parties to a compensation dispute should be forthright with one another.
- Parties to a compensation dispute should admit to accidents.
- Parties to a compensation dispute should be prepared to compensate promptly for losses when they do occur.
- The Energy and Utilities Board Informational Letter *IL 89-20* represents the regulatory standard, and is a useful reference.
- Impacts and disturbances of oil and gas related land uses might be complex and therefore difficult to assess. Often they may not be resolved in a single meeting between the landowner and the operator's agent.
- Resolving compensation for land use may require the opinion of professional advisors with special expertise.

## **8. GENERAL OPERATIONS**

- Hunt Oil is asked to make a courtesy call to immediate neighbors prior to key stages of activity (i.e.: rig moves, spudding, entering critical zones, fracing, testing, abandonment, tie-in, construction of field facilities).
- Hunt Oil is asked to advise immediate neighbors upon termination of operations.
- Hunt Oil is asked to mark all vehicles with company and contractor names.

## **9. PRE-SPUD MEASURES**

- In addition to the contacts required by the EUB and surface rights acquisition regulations, the Advisory Group recommends pre-spud and pre-operation contact and meetings with residents and businesses within the 4.2 km ERP radius, to discuss operations, safety issues and advise the community on best practices and procedures during an emergency.
- The most important notification with relation to the B Pool and sour gas wells is notification shortly prior to entering critical H<sub>2</sub>S zones.
- The sites of access roads, rigs, tie-in lines, sumps and other field facilities should take into account waterways, domestic water supply, drainage patterns and other sensitive areas (farm facilities, bogs, timber, habitat).

## **10. DRILLING OPERATIONS**

- Hunt Oil is asked to find ways to minimize the nuisance factors.
- Hunt Oil is asked to evaluate the use of signs for safety, to check on signs and repair or replace them as necessary.
- Hunt Oil is asked to take care in the siting of mufflers – pointing away not toward neighbours.
- Hunt Oil is asked to control dust near residences.
- Hunt Oil is asked to control litter.
- Hunt Oil is asked to keep roads clear of “divots”, especially during major traffic movements.

- Hunt Oil is asked to have a weed control plan.
- Hunt Oil is asked to- notify neighbors prior to entering critical zones.
- Hunt Oil is asked to conduct air monitoring with suitably sited monitors.
- If there is a commitment not to flare but flaring becomes necessary, Hunt Oil is asked to for prior notification and an explanation of why the plan changed.
- Notwithstanding EIB standards, the experience of some farming operations in the SPOG area is that land farming of drill cuttings has a negative impact on soil productivity and is regarded by some as a poor oil field practice.

### **11. Well Completion**

- Hunt Oil and the Advisory Group will discuss testing and well completion in more detail in the context of an overall development plan for the B Pool.
- The community members of the Advisory Group seek a firm commitment to no flaring; no testing to atmosphere; an industry-wide search for alternatives for cleaning up the hole prior to testing, and for solution gas flares. The community recognizes the limits of technology, but expects a best practices, best-efforts commitment to avoid flaring wherever there is an alternative.
- For the B Pool, Hunt Oil has made best efforts, best practices undertaking to avoid flaring where there is an alternative (such as in-line testing).
- When flaring is unavoidable, Hunt Oil is asked for prior notification to the neighbors (unless an emergency) and a follow-up individual contact or meeting to explain why flaring was undertaken.

### **12. Well Testing**

- Public safety and the mitigation of impacts are the primary concern of all advisory group members including the community, the operator, and the EUB.
- The impacts of well testing to be mitigated by the operator include air emissions, noise, water use, traffic and the disruption of immediately adjacent residents during night operations.
- When possible, in line sour gas well testing is preferred by the community.

- It is recognized that during an inline test some flaring is required at certain operating stages, for the safety of the crew and the public and in emergencies.
- Where inline testing is not possible incineration, reinjection or other alternatives to flaring should be investigated and the findings and options discussed with the Advisory Group.
- During flaring, air monitoring should be conducted as part of the safety procedure.
- During drilling of a well, prior to completion and testing, the Advisory Group should discuss impacts and mitigation at a regular meeting.
- Equipment and procedures used during testing of the critical sour gas zone should meet or where there is available, proven technology, exceed regulatory guidelines and industry best practices.
- Hunt Oil is asked to conduct an onsite meeting, open to all residents and land uses within the ERP zone and other stakeholders ,about two weeks prior to the commencement of testing operations.
- The agenda should include introduction of key personnel and explanations of testing procedures, mitigation of impacts, safety measures such as blowout prevention, air monitoring and evacuation, and the proposed testing schedule. The agenda should also include an explanation by the operator of measures to mitigate the impacts of the operation.
- The meeting should address outstanding issues and concerns of the operator and the stakeholder.
- The Advisory Group should appoint representatives from the immediate area who can visit the wellsite, while following appropriate safety procedures, to discuss concerns arising.
- When an incident results in a significant change in schedule, mitigation measures or in a breach of regulatory standards, the operator or affected stakeholders should advise the Chair of the Advisory Group.
- The Chair will be responsible to gather the facts, communicate the facts to the other advisory group members and call meetings to deal with issues arising.

- Following completion of the well, the operator and immediately affected stakeholders should discuss their issues and concerns, including a report from the operator on the test including an emissions log, the success of mitigation, and appraisals of incidents.

### **13. WELL TIE-INS, FIELD FACILITIES TRANSMISSION LINES AND PROCESSING**

- Hunt Oil will participate with the Advisory Group in detailed discussions of tie-ins, field facilities and processing, in the context of the area development plan for the B Pool.
- Hunt Oil is asked to use best practices to eliminate emissions into air, soil and water from wellsites, field plants, batteries and pipeline operations.
- The community does not want construction of a new sour gas processing plant in this area.
- As a matter of principal, this community prefers existing plants processing large new volumes of sour gas from the B Pool and other discoveries in the area. When new capacity is directed to-called “grandfathered” plants, they should be upgraded to meet the EUB’s highest sulphur capture standard.
- With respect to flaring and processing issues, the B Pool Advisory Group takes cognizance of the work of the Clean Air Strategic Alliance and the Parklands Airshed Management Zone. These groups, similar to this Advisory Group, are community-based multi-stakeholder, initiatives to find cooperative solutions to the impacts of resource development.
- The above-mentioned two groups may play an important role in influencing public policy and corporate decisions and their programs may have a bearing on future oil and natural gas development in the region including and surrounding the B Pool.
- Hunt Oil is asked to use existing pipeline corridors and river crossings wherever possible, to eliminate unnecessary duplication.
- The B Pool Advisory Group advocates a coordinated or common SPOG-area emergency response plan that shares common elements including maps, resident information, marshalling locations.

- Hunt Oil is asked to drill B Pool wells in a north to south sequence.
- Hunt Oil is asked to end the use of portable compressors.
- Where practical, Hunt Oil is asked to explore the use of shared facilities.
- The EUB and Alberta Environmental Protection are asked to provide adequate inspection and enforcement personnel.
- The Advisory Group advocates combining current and future Caroline A Pool drilling and development programs in the B Pool advisory process.
- The Advisory Group advocates a combined area land use planning process and performance measures for all resource activities that generate cumulative community and resident impacts.
- Pipeline completion should include: (a) restoration of land to its original following construction (including weed control, preventing compacting and quality seed); (b) preventing or controlling impact of heat on vegetation; (c) better pipeline monitoring and detection.
- Hunt Oil and the B Pool Advisory Group will discuss pipeline completion in more detail in the context of the area development plan.

#### **14. SOUR GAS GATHERING SYSTEMS**

- The community recognizes that measures to reduce well site flaring to the minimum possible within present technological capability (as the first step to eliminating flaring) require the construction of sour gas gathering systems for in line testing, re-injection and other alternatives to flaring.
- Rights-of-way selected for gathering systems should include evaluation of arable soil, surface water and forestation impacts and avoid or mitigate impacts that negatively affect land productivity and other land users such as farm operations.
- The Advisory Group and other members of the community should defer to the wishes of directly affected landowners on right of way selection.
- Sour service pipeline failure is the primary concern of the community with respect to gathering systems.

- Corrosion is the primary threat to the integrity of sour gas gathering systems and the community expects operators to utilize aggressive corrosion mitigation programs, including constant monitoring, evaluation and adjustment from day one of operation.
- The community expects operators to remain current on all aspects of metallurgy and other engineering and technology with respect to materials selection. Operators are expected to meet and exceed engineering standards for pipe wall materials, thickness and all other aspects of pipeline integrity.
- The community expects operators to meet and exceed pipeline construction best practices.
- In the event of a pipeline failure, the community expects prompt and complete disclosure of the incident, and of all operations with respect to containment, repair and future mitigation.
- 3<sup>rd</sup> party incidents accounted for 8% of pipeline failures in Alberta from 1980 to 1997. While data collected by and presented to the Advisory Group was inconclusive, there is an unresolved question with respect to burial depths that the Advisory Group will continue to review.

## **15. FACILITIES' SAFETY**

- Hunt Oil Company of Canada is asked to conduct hazard assessments during facilities design.
- Hunt Oil should investigate and the best available operating equipment for B Pool facilities.
- Hunt Oil is asked to implement a comprehensive preventive maintenance program.
- Hunt Oil is asked to maintain a rigorous corrosion mitigation program.
- Hunt Oil is asked to conduct scheduled tests of control equipment, including regular ESD devices and pipeline block valves.
- Hunt Oil should regularly review Best Available Control Technology and regulatory requirements.

## **16. TRAFFIC**

- Hunt Oil is asked to evaluate the use of road signs on a site specific basis.
- Hunt Oil is asked to employ the appropriate means of dust control on roads.
- Hunt Oil is asked to review risks associated with speed and reckless driving with employees and contractors at safety meetings.
- Hunt Oil is asked to develop an enforcement policy to address traffic safety related concerns with employees and contractors.
- Traffic management should take into account special measures that may be required on school bus routes.
- The Advisory Group notes that the community supports random drug and alcohol testing for motor vehicle operators in oil and gas operations.

## **17. NOISE**

- The AEUB Guide 38 Noise Control Directive will be used as the guideline and reference to mitigate noise disturbances.
- Unless there is an overriding environmental impact reason, such as frost management, construction activity should be limited to the hours between 7 AM and 10 PM.
- Nearby residents will be advised of significant noise-causing activities, and these will be scheduled to create the least-possible disturbance to neighbors.
- All internal combustion engines will be fitted with appropriate muffler systems.

## **18. WATER USE, SURFACE AND GROUNDWATER IMPACTS**

- Operators and their contractors are expected to obtain permits for water well required for drilling and facilities operations.
- Placement of access roads, drilling rigs, tie-in lines, sumps and other field facilities should take into account waterways, domestic water supply, drainage patterns and other sensitive areas such as farm facilities, bogs, timber and natural habitat.
- Sumps should be avoided when appropriate and containment berms for tanks should be appropriately designed and sited to protect susceptible areas.

- Operators and their contractors are expected to obtain the requisite Alberta Environment permits for the drilling and abandonment of wells.
- All abandoned water wells should be properly abandoned and preferably left cased from surface to prevent contamination of potable water sources.
- All potable water wells within 400 metres of a proposed well location will be tested prior to construction.
- Water for large-scale operations such as processing and waterflood should not be extracted from aquifers that are in use for farm and residential operations. Where possible, such water requirements should be met from saltwater aquifers.
- Hunt Oil is asked to fresh water sparingly and to mitigate waste.
- Water trucks require access to streams and lakes: care should be taken to keep those accesses clear and to keep the trucks clean and free of weeds.

## **19. Air**

- An air-monitoring program that includes the collection of baseline data, good documentation and the suitable placement of air monitoring stations will be implemented before entering the critical sour gas zone during drilling operations.
- Hunt Oil is asked to make every attempt to minimize flaring and venting.
- Hunt Oil is asked to meet or exceed the Red Deer Policy for the AEUB Flaring Guide 60.

## **20. VEGETATION AND SOIL DISTURBANCE**

- Hunt Oil is asked to take care to conserve topsoil and practice good land conservation and reclamation techniques on its surface leases.
- Hunt Oil is asked to share or use common access and rights-of-way wherever possible.
- Hunt Oil is asked to have a program for planning well site locations that minimizes the number of locations needed to produce the reservoir.

- The amount of disturbed area required for all facilities should be as small as practical.
- Minimum disturbance techniques should be used on exploration wells sites to prevent topsoil removal and promote re-vegetation and restoration.
- Reclamation and restoration of well sites should involve the initiation of vegetation recovery similar to adjacent cover within one year following abandonment of an activity.

## **21. GAS PROCESSING**

- The Community's primary concerns with respect to the processing of gas from the B Pool are facilities proliferation and flaring.
- The Community expects the operators to review all gas processing options without a pre-commitment. The options include review of all existing plants in the region and expansion of existing plants utilizing no-flare options such as the addition of amine units.
- The Community recommends against the construction of a new stand-alone (green field) plant.
- The Community expects that existing plants processing new gas from the B Pool would be de-grandfathered with respect to H<sup>2</sup>S emission standards.
- The B Pool Advisory Group will review all aspects – economic, environmental, and technological, etc. – with respect to all options and give consideration to fair and reasonable proposals before making its recommendations.

## **22. INCINERATION**

- In locations where the testing of sour gas wells cannot be achieved through in-line testing because of distance from plant, the incompatibility of the raw gas stream or other such practical logistical factors, the community strongly urges the use of other flaring reduction and prevention measures such as reservoir re-injection and incineration.

- The community acknowledges the limitations of current incineration equipment, including limits as to volume capacity and flare stack height relative to desired dispersion, and urges aggressive measures to advance technological capability.
- The community notes the current incineration experience of operators in the SPOG has encountered undesirable side effects such as noise, and urges aggressive measures to advance technological capability.
- The community expects the operators to put safety first for the crews operating incineration equipment.

### **17. Public and Animal Health**

- Hunt Oil will avoid flaring and venting where there is an appropriate alternative.
- Hunt Oil will meet, at a minimum, the Red Deer Solution Gas Flaring Policy pursuant to Guide 60 Flaring Guide Requirements.
- Hunt Oil will employ best available flaring technology.
- Hunt Oil will notify directly affected residents and stakeholders in flaring becomes necessary during drilling or other planned events
- Hunt Oil will conduct in-line testing of sour gas wells if the infrastructure is available.
- Hunt Oil will engage in industry, government and community initiatives that address flaring impacts and technology.
- Hunt Oil Company and the community members of the B Pool Advisory Group will support the implementation of the Provincial Public Safety and Sour Gas Advisory Committee's recommendations on public and animal health.
- Hunt Oil Company and the community members of the B Pool Advisory Group will support the Caroline Livestock Study and its decisions, findings and future.

## **18. PROCESS**

- This is a living document and the Advisory Group will continuously improve it.
- This version of the performance measures is dated March 1, 2003 and there is substantial agreement between members of the B Pool Advisory Group including resident and community members, EUB staff and Hunt Oil Company of Canada on its application to drilling and development of the B Pool.
- These measures will be tested, revised and improved through the practical experience of their application to the development of the Caroline – Beaver Hill B Pool, and the implementation of the area development plan.
- The application of these measures is not a matter of law or regulation; however, Hunt Oil and the community will make their best effort to meet the measures, within the limits of available technology.
- The forum for discussion and improvement of these measures will be at the regular meetings of the Advisory Group, which are open.
- Members of the Advisory Group will urge other operators who engaged in exploration and drilling of the B Pool join the process, endeavor to meet the measures and submit their development plans to the Advisory Group for discussion and endorsement.
- The Advisory Group is responsible for communications to educate the community and other operators about these performance measures and to solicit participation in the process by other operators in the B Pool.