



Mike Doyle is the President of the CAGC – the Canadian Association of Geophysical Contractors - representing the business interests of the seismic industry within Canada. The CAGC website may be found at www.cagc.ca.

Earlier this year we had a chance to submit a paper to the BC Government on their One Reg for Oil and Gas Initiative. We worked in coordination with the CAPP GEO group and in particular Lucy Hart made a tremendous contribution through her leadership in bringing together the paper. It was an excellent opportunity to set the geophysical industry apart from the bigger realm of the Oil and Gas Industry. In any case here are the highlights from the paper.

1. Recognize the Seismic Industry as a **unique** stakeholder operating under the Oil and Gas umbrella
 - The BC Occupational Health and Safety Regulations currently governing the Seismic Industry were derived from industries outside of Seismic. Mining and Construction contributed to the development of the current explosives regulations. Regulations governing the removal of forest cover were developed for Forestry and generically applied to seismic operations. Although these regulations fit well for the industries that contributed to their development, they do not support the unique nature of the Seismic Industry.
 - The unique nature of the Seismic Industry is unjustifiably impacted by regulations that address surface disturbance. LIS or Low Impact Seismic techniques such as timber avoidance, low ground pressure vehicles and heli-portable operations, have all been developed by the Seismic Industry as methods for reducing the acquisition footprint.
 - As the Oil and Gas industry becomes more global, domestic operations find themselves in the unique position of having to compete for project funding. In any given year numerous global jurisdictions (most recently Australia) have initiated major regulatory reviews, directed at reducing the regulatory burden on seismic operations in the hope of attracting oil and gas investment.
 - In BC, the Seismic Industry is regulated by the Oil and Gas Commission (OGC). This is in contrast to the Alberta model, which recognizes the unique nature of seismic operations and regulates it under Sustainable Resource Development (SRD) rather than the Energy and Utilities Board (EUB) and/or Energy. SRD regulates surface damage (e.g. vegetation and soil disturbance). This model establishes a clear separation in governance between the Seismic Industry and the production-oriented industry – in recognition of the different issues and impacts associated with the different stages of exploration and development.

2. Engage the Seismic Industry in all regulatory reviews that will or have the potential to impact operations.

- Oil and gas companies acquire seismic data to make informed bids for land sales and to determine drilling locations. Expedience is critical to the success or failure of many projects. Compounding this issue is the short 90 day operating window characteristic of many areas in BC. The average approval time from program submission to permission in BC is excessive and in some cases can take as long as 45 to 60 days, with amendments being slightly less. Geophysical approvals in Alberta are consistently provided within 10 working days of submission.
 - Increasing regulatory requirements that are directed at reducing surface disturbance and the delays and costs associated with increased expectation for consultation, pose a very real impediment to the timely approval of seismic programs.
 - OGC statistics suggest only small linear increases in the number of seismic programs being shot but they have failed to account for, or acknowledge, the dramatic increase in the number of kilometres per program. Seismic programs have become larger and more complex but this has not been reflected in OGC staffing levels or the approval processes that apply to seismic programs.
 - Statistics obtained from the OGC website (<http://ogcasrv1.ogc.gov.bc.ca>) indicate progressive increases in the total proposed kilometres:

2001 / 2002	27,633
2002 / 2003	40,128
2003 / 2004	55,492
 - Opportunities exist within the Seismic Industry to reduce the exploration cycle by engaging in all-season operations. While seismic programs can be shot off-season, costs normally increase by 300-500%. Current BC royalty credits that encourage all season drilling and other related activities could be successfully applied to the Seismic Industry.
3. Re-design stumpage rates to more accurately reflect the Seismic Industry's reduction of impact and cumulative effects.
- The Seismic Industry has invested heavily in the research and development of low impact seismic (LIS) equipment, to reduce the loss of merchantable forest and to decrease the disturbance of the soil and ground cover. This LIS equipment and the timber avoidance technique used however, have resulted in increased operating costs that are much higher than the timber damage assessment savings.
4. Reduce program revisions through the development of a results based application process for seismic programs that includes a standard set of conditions agreed to by the Seismic Industry and the OGC.
- Changes to a seismic program occur for a myriad of reasons. Companies often submit applications for a larger program than they plan to shoot because the revision process is perceived as onerous and time consuming. 2002 statistics indicated that companies shot only 40 percent of the 2D program length or 3D area that they applied for.

- Statistics obtained from the OGC website (<http://ogcasrv1.ogc.gov.bc.ca>) indicate dramatic increases in revisions in relationship to new approvals:

	New Approvals	Revisions
2001 / 2002	178	140
2002 / 2003	165	228
2003 / 2004	149	274

- An approval for a seismic program increase is time-consuming whereas a reduction is noted on a final plan and often has little or no consequence. A 10 km addition to the edge of a 3D program requires a complete approval that may take as much time as the original project approval.
 - Approval time for a large seismic program is not much different from that of an application for a smaller program; therefore, companies apply for larger areas than they really need. For example, a 100 sq. km 3D program may take 30 working days for approval whereas a 150 sq. km program may take 32 days—a difference of only two days even though the program area is 50% larger.
 - In Alberta, seismic programs can be increased in length by 10 km and receive a verbal approval. Program increases greater than 10 km require a formal revision, however, a temporary authorization may be granted so the work can be ongoing while the revision paperwork catches up. A very large change requires a formal revision, however, these are usually approved in 10 days or less if most of the program has the same geographic makeup. In some cases, a sensitive area may be encountered such as a heritage site or natural area and although special conditions may be attached, the approval process still takes 10 days or less.
5. Regulate seismic activities through the development of a results-based compliance structure that includes a predetermined set of standard conditions, with coordinating policies between government, the Seismic Industry and First Nations.

From The Thursday Files:

There will come a time when you believe everything is finished. That will be the beginning.

- Louis L'Amour