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Mutatis Mutandis: The ERCB speaks (in Latin) on the subject of carbon capture and storage

By Nigel Bankes

Subject Considered:

ERCB Bulletin 2010 – 22, ERCB Processes Related to Carbon Capture and Storage (CCS) Projects, June 29, 2010

After a long period of cogitation the chief energy regulator in the province has finally provided a statement of how it proposes to approach the regulation of carbon capture and storage (CCS) projects. The message is simple: apply the current rules, so far as they are applicable to CCS (the basic idea of *mutatis mutandis*). The issue is important: several task forces and many commentators have emphasised that the proponents of CCS projects need regulatory certainty if they are to plan and implement commercial scale CCS operations. Whether this ERCB Bulletin provides sufficient guidance to industry and sufficient comfort to the citizens of the province that CCS projects will be handled safely remains to be seen.

The proposal

The Board speaks in many different ways. It speaks through regulations (to the extent that the Board rather than the Lieutenant Governor in Council has the power to make regulations: *Giant Grosmont Petroleums Ltd. v. Gulf Canada Resources Ltd.*, 2001 ABCA 174); it speaks through Directives (which may not be regulations but which clearly still have some normative effect: *Kelly v. Alberta (Energy Resources Conservation Board)*, 2009 ABCA 349), and it speaks through various information circulars including bulletins and news releases. All of these modes of address are general in the sense that they speak to the public and to relevant industries rather than to particular parties. The Board may also address itself to particular parties through orders and decisions in respect of particular applications. If the application is contested the Board generally issues written reasons which it publishes on its website; if the application is not contested the ultimate orders or approval are either not published or, if published on the website, are withdrawn from the website 30 days after the order has been made.

In this case the Board has chosen to speak by means of a Bulletin. The Bulletin covers just over two pages of text. The Bulletin incorporates and refers to a number of Directives but it makes no reference to the relevant provisions of the *Oil and Gas Conservation Act*, R.S.A. 2000, c. O- 6 (principally ss.16 (entitlement to apply for a well licence) and 39 (scheme approvals)).

The overall message in the Bulletin is that the Board already has established procedures and a proven track record in regulating the underground injection of fluids (over many years) and with respect to CO2 (as part of acid gas disposal (AGD) schemes) "for more than 20 years" and that the Board will apply these procedures to CCS projects. Within that overall message the Board

addresses six specific issues: (1) the right to dispose, (2) the application of Directive 56 (which relates to the procedures to be followed for any energy development application), (3) the application of Directive 65 (dealing with acid gas disposal projects and enhanced oil recovery projects) and Directive 51 (Injection and Disposal Wells), (4) the application of a number of regulations and Directives dealing with monitoring, reporting and safety, (5) the application of existing rules with respect to suspension, abandonment and reclamation, and (6) the application of existing rules with respect to liability.

The Bulletin acknowledges in several places that the development of a CCS regulatory approach is a work in progress and that the Board intends to learn by doing and intends to adapt and update its approach as it acquires new knowledge.

Comments

The Board has signaled for some time that it will approach the regulation of CCS projects in an incremental way. From that perspective nobody who has been following the issue should be surprised by the minimalist approach of this Bulletin. But I find that I am still amazed at just how spare and cryptic a document this is, especially when one compares it with the rule making exercises that have been taking place in the United States and in Europe. For the United States see the Environmental Protection Agency's (EPA's) Proposed Rules on CCS and my earlier ABlawg post with Trevor Ference, ERCB decision on an acid gas disposal scheme: further lessons for the regulation of carbon capture and storage schemes. For Europe see the EU's CCS Directive, the background documents to the Directive, and, most recently (June 18, 2010), a series of Guidance Documents designed to assist member governments in transposing the Directive into national law, all available here. And on the importance of public perceptions in this area see the Bellona Europe Report, Guidelines for public consultation and participation in CCS projects, November 2009.

I will comment here on five matters: (1) the tone of the document, (2) general versus individualized rules, (3) the right to dispose, (4) liability, (5) the Board or Government.

(1) The tone of the document

The first few paragraphs set the tone of the document. They convey the message that the Board knows what it is doing and therefore that we should all trust the Board. The Board evidently believes that it is unnecessary to describe the elements of a CCS project; to describe the technologies and challenges associated with the underground disposal of CCS, or the differences between CCS projects and EOR (enhanced oil recovery) and AGD projects. All of this is in stark contrast to the EPA's approach and to the approach taken in Europe. This is therefore not a very communicative document or a user-friendly document. It provides some guidance to the expert reader and the potential applicant who already knows his or her way around the Directives (and perhaps those are the only people that the Board thinks that it needs to communicate with). But it is not very useful to a member of the general public who wants to understand (or needs to be convinced of the value, importance and safety of) CCS operations and technology.

(2) General versus individualized rules

As noted above the Board speaks in different ways and promulgates both general rules and makes specific decisions in relation to particular applications. There is a trade off between these two approaches. General rules offer guidance to applicants and the public; they are transparent

and readily accessible. But individualized decisions offer the opportunity to learn by doing and the opportunity to design terms and conditions that are tailored to particular projects. The downside is that individualized Board orders are not very transparent; they are not very good tools for communicating with the public about the Board's regulatory approach (especially when, as indicated above, the Board does not routinely publish scheme approvals on its website for more than 30 days). In many cases scheme approvals only make sense when read in light of the application. The Bulletin indicates in several places that the terms of individual scheme approvals will be a key part of the regulatory approach:

> Additional site-specific or project-specific information may be required to address issues related to the public interest.
>
> The majority of project-specific operating conditions, monitoring, and reporting requirements will be set out in the scheme approval documents.
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> Additional well or scheme abandonment requirements may be specified in ERCB scheme approval documents.
>
> Additional liability issues may be addressed in energy development approval or scheme approval documents.

I expect that there will be significant public interest in the first few large scale CCS projects in Alberta. The Board might usefully commit to making the terms of scheme approvals broadly and easily available to members of the public.

(3) The right to dispose

One of the most significant property law issues in the context of CCS is the ownership of pore space for disposal purposes. From the operator's perspective the question may be framed in terms of whose permission is required before injecting CO2 into a saline aquifer or a depleted reservoir. Are the pore space storage rights owned by the owner of the surface (by and large the US position) or by the owner of the mineral rights (the so-called English rule) – and if the latter, which mineral owner?

One might be forgiven for thinking that these ownership issues are not issues for the Board and that they are issues for the legislature and for the common law courts but the snag for the Board is that ownership issues are increasingly coming before the Board, not least in the context of the still unresolved issues of coal bed methane where the vehicle for raising the issue is s. 16 of the *Oil and Gas Conservation Act* and the entitlement to produce (or inject): see for example (Decision 2007-024: Bearspaw Petroleum Ltd., Devon Canada Corporation, and Fairborne Energy Ltd., Part 2 of Proceeding No. 1457147- Review of Certain Well Licences and Compulsory Pooling and Special Well Spacing (Holding) Orders in the Clive, Ewing Lake, Stettler, and Wimborne Fields, March 28, 2007).

The issue is complex and has many dimensions. Perhaps the most significant from the perspective of the ERCB is the geographical scope of the necessary consents. Even if we assume that the relevant owner is the mineral rights owner and we have the easy case in which the mines and minerals estate has not been split, we still need to know which owners we need consents from. In the context of a producing well the concept of a spacing unit and the rule of capture provides us with the answer but spacing units make no sense in the context of an injection well.

So in the case of an injection well should the consents be confined to the bottom hole location of the injection well(s), the anticipated injection plume, or the pressure front?

The Board's guidance on these matters is very short:

> The right to dispose of CO2 into an underground geological formation must be obtained from the mineral rights owner prior to submitting a well licence application in accordance with *Directive 056* and prior to submitting a CO2 disposal scheme application in accordance with *Directive 065*.
>
> In Alberta, the mineral rights owner is either the Alberta Crown (Alberta Energy) or Freehold (private ownership). A letter to the applicant from the mineral rights owner or lessee (as described in *Directive 065*, Section 4.2.2: Equity and Safety) authorizing the CCS operations is generally acceptable to demonstrate the right to dispose of CO2.

Several observations are in order. First, the Bulletin is based on the assumption that the right to use an underground formation for disposal purposes is held by the owner of the mineral rights. While I think that this assumption is probably correct in Alberta there may be some doubts about the matter in the absence of appropriate clarifying declaratory legislation. Second, even if the disposal rights are held by the "mineral owner" there may still be a question about which is the relevant mineral owner where the mineral estate is severed into different component elements. Third, the Bulletin does not expressly address the geographical scale of the necessary consents. Directive 65 requires applicants for acid gas disposal schemes to notify all mineral owners within a 1.6 km radius but it does not suggest that consents are required from all such parties. Fourth, the suggestion that "a letter of consent" suffices for these purposes is certainly consistent with present practice but we might reasonably ask whether it is adequate on a go-forward basis. A letter of consent is nothing more than a licence and by its nature therefore (in the absence of a supporting contract) revocable at will.

(4) Long term liability

There is a significant debate in the literature about the long term liability for CCS operations. Many argue that while the operator of an injection project should assume all liabilities during the active period of injections and for a period thereafter, at some point liability, it is said, should be transferred to the government (with or without the mediation of an industry sponsored fund).

The current rules for conventional oil and gas operations are as follows: (1) the licensee assumes all liabilities for the well for so long as it remains the licensee, (2) the licensee's liability survives abandonment; (3) a licensee may have to post security for abandonment costs where its deemed liabilities exceed its deemed assets, (4) where a licensee lacks the economic capacity to carry out abandonment or re-abandonment operations the Board may require working interest owners (WIO) in the well to carry out those operations; (5) where the licensee cannot act or where WIO's carry out the abandonment, the cost of those operations (or the share of costs attributable to those who cannot act) becomes the responsibility of the industry fund (the orphan fund); (6) the liability of the Fund is limited to abandonment and reclamation matters, it does not include tortious liability or liability for other environmental harms. In sum, in conventional operations there is no transfer of liability to government and the liability of the Fund is only engaged as a default matter and in relation to a limited spectrum of liability issues.

The Board proposes that these rules will govern CCS operations in much the same way as they will govern conventional oil and gas operations. CCS operations will be covered by the Fund and potential liabilities will be pooled with conventional operations. This will also mean that in some circumstances the operator\well licensee will be required to post security for anticipated abandonment costs where the costs of abandonment and reclamation operations exceed deemed assets. This is a far cry from a transfer of liability.

(5) The Board or Government

While the ERCB is the province's key energy regulator it is not the only actor within the government. Furthermore, while it is an independent regulator, the province may choose to alter the regulatory rules within which the Board operates although it must do so by means of an amendment to the Board's constituent statutes. Other important regulatory players in the province include the Department of Energy (as the owner of pore space and a party concerned about the potential resource sterilization implications of CCS projects) and the Department of the Environment (with responsibilities for water and surface reclamation).

I understand that the Department of Energy is currently drafting legislation which will be tabled in the Fall 2010 sitting which will provide some further guidance on these matters and perhaps suggest some different policy directions. I am sure that there have been some efforts to coordinate a response to CCS projects as between Alberta Energy and the ERCB but the timing of the ERCB's release creates the risk that these two main actors will speak with different and potentially contradictory messages. Time alone will reveal the answer to that question but until we see that legislation, industry might well conclude that the rules for CCS projects are still very uncertain.

This division of responsibilities between the Department of Energy and the ERCB also begs the question of which entity should be taking a leadership role in communicating with the public and educating them about carbon capture and storage technology. At the moment there is a void: neither has assumed this responsibility. The Pembina Institute has provided valuable information and fora to discuss CCS, but government also has a role to play and at the moment the Government of Alberta is lagging behind other governments such as those in the United States, Europe and Australia. And it is a laggard despite having committed significant funding to CCS projects in the province.

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