

Hydraulic Fracturing

I recently spoke about hydraulic fracturing in Parliament and I feel my views are summed up in that statement.

The words below are taken from the uncorrected Hansard and because most of my speech was delivered from notes I have corrected any errors or removed any irrelevant comments.

I have also added some notes from the Government Fact Sheets at the end highlighting some improvements in the processes that have happened since the issue of Hydraulic fracturing was raised in Parliament three or four years ago.

Mr WOOD (Nelson): Madam Speaker, the issue of hydraulic fracking has created a lot of discussion. I will probably have a different opinion to others as I will not be supporting this bill but I will not be supporting Labor's viewpoint on this particular matter. I do have some concerns and some of them are similar to the concerns of the environmental defenders office which I think is a good office – one person in particular, David Morris – who are not about picking sides but looking at legislation as it is. I have discussed the issue of fracking with many people and there are some people you cannot discuss it with and that is one reason I do not want to get put into the anti-fracking group. That is not me. I think fracking has a future in the Northern Territory. It already exists in the Northern Territory, but I want to make sure the systems we have in place not only satisfy me as a member of this parliament but satisfy the general public that the processes will protect the environment and make the process safe are transparent and upfront.

I have drifted away from my notes but I know about the Hawke inquiry. I do not agree with people I have met who say it is biased. Whilst it may have some bias, everyone has a bias. The recommendations were good. One thing Hawke said was that fracking can go ahead as long as it has rigid regulations. Those regulations (should) have come forward tonight. I cannot discuss them although I believe they are on the website. I have been looking at the draft regulations, and this is one of the disadvantages of our system (system – means Parliamentary system). *(Note: the final regulations were not available on the night and still not available)*

I can debate this relatively small amendment tonight which gives the minister powers to introduce the regulation and have powers of discretion, and we can go into consideration in detail and discuss the amendment for as long as we like. However, I cannot discuss the regulations because I do not have them and they are not officially here. If I need to get them I have to talk to the people on the third floor. People will remember when the increase in the number of pokies was passed in this House, to get that to come back to parliament (for debate) was quite an effort.

A standing committee will look at these regulations, but if they pass them and I want to debate them in this House it would not be in this sittings of parliament and I do not know how that works – changing from one parliament to another. When it comes back all I can do is debate for 30 minutes or so but there is no consideration in detail stage. I cannot break the regulations up for some thorough analysis and debate. That is going to be difficult thing for me.

On the other hand I recognise that Tina Hunter, Professor of Law and Energy at Aberdeen University, has been through these regulations. I have read her report, the government's response to that report, and generally speaking she has said that these regulations are world class. She put in some recommendations and I am sure people will ask where they are in relation

to the regulations. Unless you looked at the regulations this afternoon on the website – I have not had a chance to do that – I can't say whether that is true or false.

We are here to talk about the act but if this amendment to the act goes forward then obviously the regulations, schedules and guidelines I would imagine would all fall into place.

I will give you what I believe are the things that are missing. I say that carefully because I do know that in the draft regulations there is a section called regulated activity and it says that:

A plan must give a comprehensive description of each regulated activity to which it relates and includes:

(a) the location of each activity

(b) general details of the construction and layout of any facility associated with the activity

(c) an outline of and proposed timetable for the operational details of the activity

(d) if the activity is hydraulic fracturing, the details of the chemicals or other substances that may be in or added to any treatment fluids to be used for the activity.

This (debate) is not particularly easy because we are looking at a type of approach which Tina Hunter has also recommended. It is a broad brush approach which technically allows people to be innovative in looking at other ways of doing things, and also being able to say in the process that they are reducing risk as much as possible.

I will read Tina Hunter's executive summary so that people can gain an understanding that this is not straight forward. This is trying to use the best method to ensure that we do not go down a path that would cause problems in our environment:

The draft Petroleum (Environment) Regulations that are analysed in this report have been drafted to address the regulation of petroleum operations in the Northern Territory. They are a solid regulatory tool for future petroleum activities, and represent a quantum leap from the Northern Territory regulations of old. They herald in a new era of objective-based regulation, which has been assessed by the World Bank to be the most suitable form of regulation to foster petroleum development. In addition, these Regulations are the first for onshore petroleum to implement the concepts of Ecologically Sustainable Development, and for that the Northern Territory Department of Mines and Energy should be applauded.

The fundamental aspects of the Regulations are sound, and the use of risk-based regulation is a welcomed addition in regulating petroleum activities. Such risk-based regulation will ensure environmental harm will be minimised and give the Northern Territory government enhanced scope and the capacity to implement best practice in the regulation of petroleum activities in the Northern Territory.

The regulations need to be supplemented by detailed guidelines which will need to be developed once the regulations are completed. These guidelines need to provide an overview of the approval process of the environment management plan which lies at the heart of the regulations, and the requirements for the content of the environment management plan.

The success of the implementation of these sound regulations depends on continued resourcing of the regulator, the energy directorate. This means that as onshore petroleum activities increase staffing levels at the regulator will also need to be increased.

I will come back to that a little later. We are looking at world-class regulations. This is why I am

saying I have some issues that need to be addressed which are not addressed here. I do not want to put that effort down. That is why, and I will not support the Labor side either, because from my point of view, we have not done this with enough protection at the present time.

I will give you an example. It is out of Tina Hunter's report. It comes under The Legal Status and Enforceability of Regulations. She said:

The subordinate legislation, the regulations, are enforceable.

Fair enough:

However, any soft law instrument such as guidelines, schedules and the like are not. Their legal status is that of advisory.

I asked today to get some advice on schedules and was told that if they are in the regulations then they can be enforced. That statement makes me wonder whether there can be schedules outside of the regulations that are only advisory. I am concerned about that. The reason I am concerned is that the guidelines are good. The guidelines have been around for a while, and I presume – I am not sure – they have not changed at all.

The guidelines are *The Guiding Principles for the Onshore Oil and Gas Industry*. If you want to know something about well design, it tells you the basic operating principles for well design. But it is purely a guideline. That is my concern but it is also the concern of the Environmental Defender's Office.

I will give you an idea of what I would like to see in the act or at least the regulations so that the minister has a requirement to do these things (and) should preferably be in the act, because there is less discretion.

Tina Hunter did a talk to the Cattlemen's Association earlier this year. This is her PowerPoint presentation. I have her talk on tape but have not been able to transcribe it. She says, 'What about the wells? Wells are the most important thing. Well-cementing steel and barriers are critical' and she cannot stress that enough. She said you must ensure wells do not leak. Environmental impacts flow from well control, or the lack thereof. Aquifer contamination can be avoided. The basis is well inspection, which is not compulsory in Australian jurisdictions.

They are the two issues that are important. There is no doubt that a well can be properly constructed. I would like to see the procedure and the details firmly in place. The regulations are intended to give people room to move and that can perhaps be built into them.

There is a basic principle for well design. In the West Australian on-shore gas code of practice for hydraulic fracturing there is whole series of international standards employed in Western Australia for on-shore petroleum activities. There are specifications for materials and testing of well cement. It is API specification 10: requirements for manufacturing eight classes of well cements and applications of the API monogram including chemical and physical testing requirements. I do not know whether these exist in the Northern Territory. Specifications exist to ensure that cement used in the structure of a well has some sort of basis which can be relied on.

Not only should the well be constructed properly but it must be seen to be constructed properly. That is also a concern. When a floor was poured in this building you would hope an inspector was here, watching it be poured. The inspector approves the floor as being poured according to

specification. That is critical. The inspector must also be qualified, not someone just out of university that does not have much to do. At the moment we do not have many wells so you will not have large numbers of people but if you want my support then you have to have some details about the inspectorate in this legislation and what the qualifications of that inspectorate would be so you know someone cannot pour a well until a qualified inspector is onsite to make sure it has been poured correctly.

There are also issues about waste water design principles and regulations. I cannot imagine that being too much of a burden because we know the fracking process requires water to be pumped down a pipe, it fractures the rock and then the pipe is emptied of water. As the gas companies have said to me, they cannot afford to have water in the gas pipe. They spend millions of dollars and the last thing they want is water in the pipe. That water is removed and I would like to see some principles around what happens to water to make sure it cannot seep into the ground water and it is protected from things like heavy rain and maybe some guidelines around what the water can be used for. It can be used again and maybe it can be used in another well. That is fine but I would like to see a bit more on the specifics of that perhaps in the act rather than just in the regulations.

There are issues about chemical storage. Chemicals are not used just for fracking. I do not know if the minister will comment but we have the *Geothermal Energy Act*. In South Australia they drill holes 4 km into the ground and they pump water down those pipes later and it goes around and around until you eventually have to get rid of it. It is a lot of water going 4 km down, 4 km back up and a couple of kilometres across. That is the theory behind geothermal. In South Australia the Hydraulic Fracking and the Geothermal Act come under the one act. I think it is the Gas and Geothermal Act. They put the two together. I know people worry about what is happening, but we already have an act which allows drilling through aquifers into, in this case, granite.

The *Geothermal Energy Act* has a section named Part 6 Technical Works Program and geothermal operation plans in the act not the regulations. I cannot say I know that some of these things are in the (our new) regulations – I have not seen them – and they may be suitable because in the draft regulations there is something under Schedule 1 called Regulated Activity and maybe that covers some of these issues. However, I am yet to be convinced they are there.

Another issue I and other people have raised is methane discharge and the control principles for making sure the least amount of gas as possible is released. The industry might say it does not want to release the gas because it is valuable and that is fine. They are in the business of trying to make sure there is no waste. If they can capture gas and sell it that is a good thing. Again, I am not sure that is something we should leave too general but bring it into the act with some controls over it more than being in the regulations and it being up to the minister to decide.

I am happy to be proven wrong on these issues because this is not easy to get through. You are going through an act, regulations and you only have a draft copy, there is a schedule and some guidelines and how they interact and would work in practice is not always that easy to understand.

Another thing I would like to see is a defined rehabilitation process. One of the states has a requirement for rehabilitation of a well when it is finished. Again, I do not see that there. It may be regulated activity, but some of these things need to be more specific. How would the bore be rehabilitated? It is 30 years on and technology will change by then, but we need to have it as a definite requirement and it would need to be inspected as that happens.

Another area is to make sure we have serious penalties for breaches; that is important. The government obviously gets a bond from these companies. I do not know how that works, but it (the

bond) could be put into an investment account to earn interest. If that interest was used to fund the inspectorate – Tina Hunter argues that should be an independent inspectorate. If you have that money from the bond or trust that is a way of the industry funding a process which means the wells can be inspected on a regular basis. That is really important. Tina mentions it in her recommendations. I am not sure where it is the new regulations because I do not have them.

The other thing that is really important – I raised this with the industry and they said there is something in Queensland. I believe this is what the industry needs to convince people that they are interested in making sure the industry does not affect the environment in a bad way is a gas fields commission. A gas fields commission would look at these things: the allocation of tenure which gives resource companies the right to explore for and produce the gas; environmental impact assessments and the inclusions of conditions in environmental authorities to prevent or mitigate impacts on the environment; best practice for communication between companies and landholders, and conditions that companies must abide by in their involvement with landholders; assessment of the potential impact on groundwater and provisions to protect landholders' access to groundwater; standards for drilling, using and decommissioning gas wells; safety standards; and greenhouse gas storage.

I am interested in having something like that in the Northern Territory. I will give you an idea of the powers and functions:

The commission has the following functions set out in the Gasfields Commission Act:

- facilitating better relationships between landholders, regional communities and the onshore gas industry*
- reviewing the effectiveness of government entities in implement regulator frameworks that relate to the onshore gas industry*
- advising ministers and government entities about the ability of landholders, regional communities and the onshore gas industry to co-exist within an identified area*
- making recommendations to the relevant minister that regulatory frameworks and legislation relating to the onshore gas industry be reviewed and amended*
- make recommendations to the relevant minister and onshore gas industry about leading practice and management of the onshore gas industry*

I could go on:

Convening landholder, regional communities and the onshore gas industry for the purpose of resolving issues; partnering with other entities for the purpose of conducting research related to the onshore gas industry.

That would be a positive thing to have in the Northern Territory. This is not in the act. I know it could come in later, but we need to ensure we have set-ups that cover many of the issues that we are concerned about.

Another one of the issues is where are our baseline assessments? Are they in this act? Are they in the regulations? The Department of Environment and Heritage Protection issues a guideline. I know it is only a guideline, but it is a baseline assessment guideline. It says:

What is baseline assessment? Why are baseline assessments required?

What is baseline assessment? It is the level and quality of water in the bore.

Obviously, it is not just for fracking. This comes under the *Water Act*. We need a process which says we have baseline assessment as a requirement so before you go into an area you know what the quality of the water and the environment is like so you have a measurement of the controls up front

so that if something happens you can say, 'This is the change that has occurred because ...' a particular thing happened. It does not have to be hydraulic fracking; it could be mining, a road or lots of things that affect the environment. But you have a baseline you can compare it with.

Time is short, but I will read out David Morris' summary. I had a good talk with him yesterday. He submitted a very long report. He made an off-the-cuff remark – I hope he does not mind me saying it. He said if he had to do the report for money it would be about \$30 000 worth of report. He only got some sort of acknowledgment yesterday. He would love to know whether that report was taken seriously – and I can ask whether it went in the bin. I hope they have looked at what he had to say. He is a great bloke. I do not always agree with him, but he is a genuine fellow who works independently. There are pressure groups in our community and I do not always agree with those pressure groups. When you hear what he has to say, you will agree it is a reasonable approach.

He is not saying fracking should not occur. He is saying it is an industrial process. Any industrial process needs to be assessed properly. I will read his summary and key comments.

'There is plenty to commend the draft regulations. The EDO, the Environmental Defenders' Office, recognises the significance effort that has gone into the development of the draft regulations. Particularly we wish to recognise the following aspects of the draft regulations which are of great importance and benefit to the establishment of a world-class regulatory regime for oil and gas operations in the Northern Territory:

The recognition and specific inclusion of ecologically sustainable development principles into the draft regulations and the increased transparency of process achieved by the mandated requirement to publish environment management plans and the requirement that decisions be accompanied by a statement of reasons.

The clear intention to require comprehensive stakeholder engagement ...

In terms of constructive criticism, the five main issues the EDO identified are:

- 1. The draft regulations do not define what is meant by 'acceptable' or 'as low as reasonably practical'.*
- 2. Our continued scepticism of the merits of an approach which does not specify in the regulations any minimum requirements that must be met by operators but instead requires them to achieve environmental outcomes which are always 'acceptable', a word that has been questioned before.*
- 3. An over-reliance on the minister to make good decisions.*
- 4. The absence of a sufficiently qualified independent body to assist the minister in making decisions about the adequacy of EMPS*
- 5. The absence of a third party review right to challenge the merits of decisions.*

These were his major recommendations:

It is clear there are some drafting errors that need attention; however, these comments have not sought to be too pedantic in terms of these minor changes, or minor issues. Our major recommendations are as follows:

The introduction of a hybrid regulatory approach which incorporates some prescriptive, enforceable operation requirements into the regulations particularly requirements regarding well integrity, requirements for baseline testing, use and disposal of water, chemical use and limitations on fugitive air emissions and use of flaring, the introduction of a third party merits review of the approval of an EMP, the introduction of an expert advisory panel [exactly what I am talking about in Queensland. It may be slightly different but has the same principle] and penalties under the regulations which should be substantially increased

I am not against fracking per se. It is a form of developing gas resources in the Northern Territory. I believe that with the science we have today it can be done carefully, properly and safely. Unless I know those three things are guaranteed to not only be put into our act, regulations and guidelines – I would hope the guidelines are a requirement under the act. That just requires some wording to make sure the guidelines are taken into account. If all those things I have spoken about ...

Mr WESTRA van HOLTHE: A point of order, Madam Speaker! I request an extension of time for the member for Nelson.

Motion agreed to.

Mr WOOD: If these processes take on what the environment defenders office has said – I have been speaking to people who are genuinely concerned but they are not putting up a yellow triangle in their front yard, but they are interested because they can see the benefits of gas as an industry in the Northern Territory.

People will argue there is no economic reason (for gas exploration) but gas companies are not going to come to the Northern Territory if there is no economic reason and gas will continue to be a form of energy used in Australia because it is essential for cooking and heating. Regardless of renewable energy, it will still be used for that and in industry. Many of the industries have to have gas to provide the heat they need in the processes they use so it will be required. That does not mean we are lax in making sure the provision of that gas for the Australian or overseas economy is done in a way which threatens the Northern Territory environment.

That is why I think the major recommendations from the Environmental Defenders Office – which by coincidence is very similar to what I have been talking to people about. If they are included in this system and we take on some of the other things we talked about like making sure the penalties are there and there is enough penalty to discourage people from doing the wrong thing then this can happen. I am not convinced, with what we have been given today, that is where we should go.

I know sometimes we knock the industry. I pulled this off (the internet) today – Western Australian onshore gas. This is by APPEA. Some people do not like APPEA but it is the oil and gas industry and it comes up with some good things as well. They have issued a code of practice for hydraulic fracking. I looked through this and it is good. It may not be perfect for those who do not like fracking, but something like this would be good to have included – this is a code of practice – in our legislation.

It talks about the legislation, the community, landholder and stakeholder interaction, sourcing and use of water, use of chemicals in hydraulic fracking, fluid flow back and produce fluids contaminant, industry standards and guidance and the regulatory framework, fugitive emissions, continuous improvement and definitions.

You will remember the government decided it would be slow in introducing this legislation, but it has made the industry take notice that it has a responsibility, if it wants to come into the Territory

and take gas from the ground, to also tell people what its intentions are and be open and transparent about what it will do.

I am not a great supporter of (*the moratorium on*) fracking. I have some documents. This is a paper from the website for ABC Rural and Dr Tina Hunter, who was giving the talk at the Cattlemen's Conference, quote:

Went on to say that the moratorium on fracking, as proposed by NT Labor should they win government, was not the answer. Fracking exploration provided useful data which helped to develop a regulatory regime. My concern with a moratorium, and I am against the moratorium, is because how do you get knowledge and build your scientific profile and get the necessary data if you cannot undertake the activity that will give you that data.

An interesting note came from the ACCC on 26 April this year. Its recommendations – I will read what it said first:

The Australian Competition and Consumer Commission have called for the lifting of gas moratoria and have warned against introducing domestic gas reservation.

On Friday 22 April, the ACCC released its long-awaited report of the Inquiry into the East Coast Gas Market.

This document found that onshore regulatory restrictions and hydraulic fracturing bans in NSW, Victoria and Tasmania – as well as a proposed fracking ban in the Northern Territory – had increased uncertainty and contributed to reducing investment in gas operations.

“While the inquiry acknowledges that there are understandable reasons for policy positions like moratoria, blanket moratoria and regulatory uncertainty act to curtail gas exploration and new production,” ACCC Chairman Rod Sims said.

The ACCC also said gas reservation policies should not be introduced, “given their likely detrimental effect already on uncertain supply.”

The recommendations came from that.

It is one thing to say that we need to improve these regulations and the act; it is another thing to have a moratorium. I believe that there is a certainly amount of populism there. By saying that look it is a controversial issue and by pulling back saying that we will not do anything for five years will take us through this election without too much controversy.

I think that we need to face up to the issue. The two issues are that there are people opposed to it and I understand where they are coming from. Some of those people come from a philosophical point of view of simply (not) wanting gas. They believe that the world should run on renewables. As much as I like renewables I do not think that is actually a practical outcome.

Some people have genuine concerns. I have stood with people and straight away they are into you like a ton of bricks because you say well what about we do this, like some of the things I have been putting to the Environment Defenders Office. There is no (alternative) way and they put you in a corner straight away.

I do not want to end up stuck in a corner over this. I am fluid on this.

We know the science is there, we know that fracking will occur and has occurred in the Northern Territory. What we need to do is balance our concerns with what is needed to promote our economy in the Northern Territory. The Territory cannot be always relying on the funds from the Commonwealth.

We have to keep looking at ways of driving our economy for employment and to replace other things as they drop off, like INPEX. We do need to make sure that our economy is growing, but of course we have to balance that with a system that will not put at risk our environment. Madam Speaker, I hope people understand where I am coming from. I do thank the government for its briefing but I can tell you that until I genuinely believe that some of the things I have spoken about today are included here, there is really no way that I can say that I support it. But as I said, I cannot support Labor's point of view either.

New Guidelines

Some recent new guidelines introduced by Government which are a response to concerns raised by the community:

The Northern Territory Government will not grant acreage release and exploration permits where there is a land use conflict, based on the following criteria:

- Urban living areas including rural residential areas – i.e. land zoned as residential and land zoned as rural residential. Where land is not zoned, but the land use is consistent with these purposes, oil and gas activities will not be permitted. Should the rural residential Landowners seek co-existence, they will have the ability to negotiate on a case by case basis through land access agreements. Oil and gas activities will not be approved in residential areas, rural residential areas or areas of other land use or classification where oil and gas developments are not compatible.
- Areas of intensive agriculture – the Department of Mines and Energy will assess the compatibility of land use; however, intensive agriculture will exclude some operations including melon farms, mango orchards and aquaculture operations. Should the landholders agree to exploration on their land, they will have the ability to negotiate on a case by case basis through agreed land access agreements?
 - Areas of high ecological value - as determined through the Northern Territory's robust environmental assessment process following implementation of the Hawke review into the Northern Territory's environmental assessment and approvals processes.
 - Areas of cultural significance as advised by the Aboriginal Areas Protection Authority
 - Areas that include assets of strategic importance to nearby residential areas – e.g. areas with high potential for other uses – tourism related development such as Bitter Springs at Mataranka.

The Government has announced its intention to remove the exemption in the Water Act relating to mining and petroleum activities. Under this arrangement, responsibility for those provisions will be delegated by the Controller of Water Resources to the appropriate office holders within DME (in a similar manner to the delegation of powers for waste discharge licences to the EPA). Consistent with current practice, this means that for mining activities, all impacts on ground and surface water must be clearly addressed as part of a Mining Management Plan.

There are also changes to land access agreements with pastoralists. Access to Aboriginal Land comes under the Land Rights Act and is not changed.

Note: I have written to the Minister asking for a copy of the regulations. I don't know whether they have been finalised. I understand there will be more regulations coming. I am grateful for the advice from David Morris at the Environmental Defenders Office and will continue seeking his view to make sure what is being proposed does fit, as Professor Tina Turner said, world's best practice.