State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) Amendment 2014.

Proposed planning changers to NSW Mining Policy (as advertised in the NW Courier dated July 3rd 2014)

Sir/Madam

In making this submission on the proposed SEPP/Amendments, I found the information provided in the way of Explanations and FAQ's confusing and lacking in plain English explanations. I will give the Contact people full credit for explaining the four (4) Amendments to me.

This submission is centred round the "5 well" and the Geometric Centre changes and how the explained "intent" can be circumvented.

I have concerns that there were no definitions that apply to the SEPP/Amendments available and would suggest that definitions be provided for;

- -<u>Well</u>--- there a two main types of gas wells (vertical and horizontal [laterals]) and there are various combinations of these that make up a "well set", then there are various numbers of horizontals, all branching-off a single drilling that can and have been termed as a single horizontal well, because there is only one well head of the horizontal lead in drilling at the surface
- -<u>Horizontal wells</u> --(the number of horizontal drillings that make up a Horizontal well. In PEL 238 Santos is referring to their multi layers horizontals as being one (1) well because they enter a single well start point and then branch off that trunk well when they want to enter the selected coal seam).
- -<u>Length of a Horizontal well</u>—requirement to define at what point on the main well the Horizontal [lateral] well starts, thus giving the length of a Horizontal [lateral] well (drilling methods for horizontal wells has changed over the past 2 years with a single curved main drilling going deeper than the targeted seam so as to act as a sump and the actual Horizontal [lateral] drilling branches off that main curved drilling at a depth suitable to allow a shallower entry curve into the Coal Seam. [see the REF/EIS for the Dewhurst 22-25 Pilot) and the Dewhurst Pilot Expansion now before the Department of Planning for assessment]).

Definitions are required for;

- Vertical wells-
- Well set-
- -minimal or minim-
- -minor-

These definitions need to be addressed prior to the SEPP/Amendment being approved.

I have concerns around the geometrical centre and how this can be used to actually allow clusters and the section concerning Horizontal (lateral) wells.

With regard to the change to the measuring well proximity to the Geometric Centre, this can actually lead to clustering, either in a line or a "W" shape.

Example: a 5 single vertical well pattern placed in a rectangular form that is 3 km by 2 km has a geometric centre of 1.5 km from the long ends and 1 km from the sides and a distance greater than 1.5 km if measured along the diagonal. Now place another 5 well single vertical 3.1 km by 2.1 km rectangle so that each at the corners of the original set and the geometric centre of each additional set is now 3.05 km from the original.

As can be seen in the SEPP explanations there is the ability to "expand the surface area of an approved CSG well site which may involve disturbance of vegetation (from Explanation of the Intended Effect" attachment)". This will allow for the outer wells of a 5 well set to share the same pad.

So you can actually create a cluster and all with not being declared as State Significant and approved by the OCSG.

This is but one example using only single verticals, the same can be used for well sets comprising of verticals and horizontals if the definition of a "well" is not given.

New well drilling techniques are being developed all the time and this Amendment must take into effect this. One method being trailed is where there is only one gas producing well head with a number of horizontal leads radiating out in various directions and at various levels.

This technically is only "one well" but with many horizontal off-shoots, so imagine the clustering effect that a multi 5 well series could have-underground- and all approved by the OCSG because it is not declared State Significant.

This needs to be clarified and addressed prior to the SEPP/Amendment being approved.

There is another off-shoot of the "5 Well" OCSG approved non State Significant status that is not covered in this SEPP/ Amendment and that is the large development that may and is occurring with regard to the Infrastructure needed to support the gas wells.

An example of this is the Santos water management facility at Leewood near Narrabri NSW, 600 ML pond complex to store exploration water and all approved by the OCSG and undoubtly will come across with the Development Application for Production of CSG, as yet there is no EIS for the "treatment of this stored produced water from exploration".

These large volume "Storage Dams and their associated infrastructure need to come under the full scrutiny of the Department of Planning and Application. By way of a suggestion, a SEPP/Amendment could be created to define which NSW Government Department approves Storage Dams based on the volume of water.

e.g.: If a storage dam and treatment facility had the total capacity of 50ML. or less the approving agency is the OCSG. If greater than 50ML. the approving agency is the Department of Planning.

Then there is the total number, in any PEL, of the smaller Complex's for water treatment and storage, allowed to be approved by the OCSG. Over that number then these complexes are treated in the same way as Gas Wells and become "State Significant" with the Application going to the NSW Department of Planning for approval.

These points need to be clarified and added before the SEPP/Amendments are approved

The other area of concern is the explanation concerning "Horizontals [laterals]) as found on page 2 of the 'Explanation of the Intended Effect" where there is the explanation statement "However any modification to increase the number of production wells will not be permitted. Also, modifications which will result in any increase in the depth or lateral extent of a well will not be permitted".

This goes right back to the definitions or lack-off with regard to what is a "well" and how many off-shoots from a single drilling are determined to be defined as a "Horizontal [lateral] well".

This interpretation of the Amendment as indicated in the latter sentence of the italic quote above, can be

seen to meaning that there can be Horizontal leads taken off and existing horizontal well provided that the new horizontal is "shorter" in length and "shallower" in depth that the original. (Drilling methods for horizontal wells has changed over the past 2 years with a single curved main drilling going deeper than the targeted seam so as to act as a sump and the actual Horizontal [lateral] drilling branches off that main curved drilling at a depth suitable to allow a shallower entry curve into the Coal Seam. [see the REF/EIS for the Dewhurst 22-25 Pilot) and the Dewhurst Pilot Expansion now before the Department of Planning for assessment]).

This point needs clarifying and adjusted to suit the "now" and future developments in drilling techniques before the SEPP/Amendments are approved.

If a member of the public can find areas of concern within the SEPP/Amendments, and show ways to possibly get around the SEPP/Amendments, then surely others can too.

I am sure the intent of the SEPP/Amendments was not to allow loop-holes like those described above to occur, but it has and will if the SEPP/Amendments go ahead as written, that is if the "attached explanations" are correct.

Contact details not for publication