

MBIE,

I am a professional engineer who consults for the geothermal industry in New Zealand. Over the years I have worked on the front end engineering, development and construction of geothermal projects for all of the generation companies in some form or another.

In regards to the 7 consultation questions in the Geothermal Strategy:

1. I support the 3x strategic outcomes.
2. I support the 5x action plan goals.
3. I would like the following added to the horizon:
  - a. Horizon 1: In regards to “Ensuring regulatory and system settings are fit for purpose” I think that geothermal should be removed from the Pipelines Regulations as it is an overlap with PECPR (please see my email below which I sent to Hon Brooke van Velden last month for further.) The pipelines regulations and referenced standards are mainly designed for buried petrochemical pipelines not geothermal piping. This causes significant friction with Pipelines certifiers and the regulator; its application to geothermal is a double up of PECPR and is not fit for purpose. Application of these regulations causes unnecessary expenditure on consulting to perform redundant risk studies, generate Pipelines specific paperwork and engage third party Certification, while changing the actual safety outcome very little. Spend on this is generally in the 100s of thousands of dollars per new pipeline.
  - b. Horizon 2: The Electricity Industry Act/ Energy Industry Participation Code, may need some clarification to help allow direct supply of electricity in appropriately limited amounts, when also supplying geothermal heat (instead of requiring a grid connection). E.g. A generating station feeding low temperature hot water to a 3<sup>rd</sup> party user is prevented from directly supplying power to the same user, the 3<sup>rd</sup> party instead is required to connect to the grid. This grid connection often has high additional costs in remote areas where many geothermal plants are located (Mokai, Rotokawa, Ngawha etc.) vs. plants/clusters closer to town (e.g. Tauhara/He Ahi). Easing this pathway direct supply of combined heat and power to downstream users would help enable place based geothermal clusters in remote areas. These remote areas also tend to be economically depressed areas, where additional industry and job opportunities would be beneficial.
4. Yes this seems clear
5. No comment
6. No comment
7. See above regulatory challenges
8. No comment

Very Best,

Daniel Pearl, CPEng

----- Forwarded message -----

From: Daniel <[danielsethpearl@gmail.com](mailto:danielsethpearl@gmail.com)>

Date: Tue, Jul 8, 2025 at 4:06 PM

Subject: Overlap of Pressure Equipment and Pipelines Regulations in Geothermal

To: <[b.vanvelden@ministers.govt.nz](mailto:b.vanvelden@ministers.govt.nz)>

Dear Hon Brooke van Velden,

I am an engineer who practices in the geothermal industry. I recently read your release “Health and safety reform: shifting WorkSafe expectations and operational focus,” and the “Letter of Expectations for WorkSafe New Zealand.” I am contacting you as I believe that your background and interest in this area may help resolve an issue my industry has with overlapping regulations between Pressure Equipment, Cranes, and Passenger Ropeways (PECPR) and Pipelines Regulations. Potentially this is something that could be fixed along with your proposed changes in the Health and Safety at Work Reform Bill.

All piping and pressure vessels operated in the geothermal industry fall under the PECPR Regulations. This is an appropriate regulation for our industry; compliance is widespread and well understood. The majority of our equipment is exempt from the Pipelines Regulations by definition of being “*wholly within the boundary of the plant*” (e.g. within the owner’s/operator’s land). Where geothermal equipment has to cross shared land, it also comes under the scope of the Pipelines Regulations. This is causing a double up of regulatory management systems, guidelines, and much confusion.

The petroleum industry is exempt from PECPR in Schedule 2 “*Equipment excluded from regulations -Pipelines authorised by the Petroleum Act 1937 and pipelines to which the Gas Act 1992 applies*” but geothermal does not operate under the Gas Act, and hence our industry has to comply with both PECPR and Pipelines Regulations for the same piece of equipment. I am not sure of the intent of the government when drafting the two regulations, but this double up seems more like an oversight than intentional as the Pipelines Regulations were clearly designed with the petroleum industry in mind.

The main pain point is that the WorkSafe department (and 3<sup>rd</sup> party certifiers) overseeing Pipelines do not recognize many of the codes and standards used to manage geothermal PECPR equipment, and instead under their [safe work instrument](#) want our industry to comply with AS/NZS 2885 *Pipelines – Gas and Liquid Petroleum*. AS/NZS 2885 is a code developed for managing the risks of buried petrochemical piping, we operate steam and hot water piping above ground. Other than both being pipes there is little similarity. AS/NZS 2885 is inappropriate for managing the risks of our industry, but compliance is forcing us to undertake many unnecessary studies, QA/QC, and develop unnecessary procedures and policies to try and meet this standard.

To be clear, a geothermal operator can fully comply with PECPR and the WorkSafe *Approved Code of Practice for Pressure Equipment (Excluding Boilers)* but be deemed to be not in compliance with the Pipelines act via AS/NZS 2885 and the Pipelines code of practice “*Guidelines for a Certificate of Fitness for High-Pressure Gas and Liquids Transmission Pipelines.*” Square peg in a round hole does not begin to define how obtuse this is.

Note WorkSafe claims in essence that AS/NZS 2885 covers external risks not detailed in PECPR and its Approved Code of Practice, but a geothermal operator is also required to manage risks

so far as is reasonably practicable under other regulations such as Health and Safety at Work Act 2015, so I think this is a moot point.

Potential solutions:

1. Amend Health and Safety in Employment (Pipelines) Regulations 1999 to fully exempt geothermal pipelines operating under PECPR
2. Instruct WorkSafe Pipelines department to amend their Pipelines Safe Work Instrument to recognize their own Approved Code of Practice for Pressure Equipment as appropriate for the design, construction, operation, maintenance, suspension, and abandonment of geothermal pipelines

I would be happy to discuss this in more detail if you wish.

Very Best,

Daniel Pearl, CPEng