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Submission on the Suggested Changes to the Climate Change (Stationary Energy and Industrial Processes) Regulations

Ministry for the Environment

On behalf of the New Zealand Geothermal Association

6 August 2010

Introduction

The following submission made by the New Zealand Geothermal Association comments on suggested changes to the Climate Change (Stationary Energy and Industrial Processes) Regulations only with respect to geothermal matters. We would like to thank officials for the opportunity to comment on these regulations.

The New Zealand Geothermal Association (NZGA) is an independent, non-profit association that provides information on geothermal phenomena and utilisation for industry, government and educational organisations. In addition, the NZGA, as a member of the International Geothermal Association, contributes to the international exchange of information within the geothermal development industry. NZGA membership comprises participants, regulators, and interested parties within the geothermal community. It totals 278 members currently.

Overall Comment

NZGA's comments on suggested changes to the Climate Change (SEIP) Regulations are restricted to geothermal matters. In this case, at the instigation of Contact Energy, Ministry for the Environment is looking to simplify regulations around default emissions factors at Wairakei Power Station.

For our records, the proposal is to change Schedule 2, Table 6, Part A by replacing:

Class Geothermal fluid used by	Emissions factor	Unit
Wairakei G14	0.0050	tCO ₂ e/t steam
Wairakei A and B	0.0050	tCO ₂ e/t steam
Any other plant or process using geothermal steam to produce electricity or industrial heat	0.0300	tCO ₂ e/t steam

with:

Class Geothermal fluid used by	Emissions factor	Unit
Wairakei A and B and G14	0.0050	tCO ₂ e/t steam
Any other plant or process using geothermal steam to produce electricity or industrial heat	0.0300	tCO ₂ e/t steam

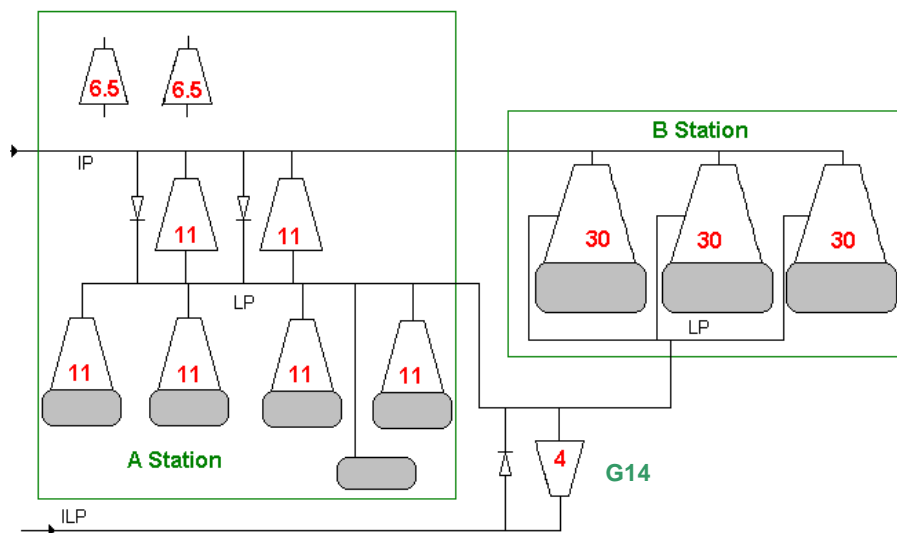
The explanation for the change given by MfE is as follows: "The change is desirable because the affected participant has indicated that the distinction is unnecessary. A separate DEF for

Wairakei G-14 serves no purpose as the emission properties are the same as the rest of the steam used at the station”.

While NZGA is broadly supportive of these changes, we believe greater rigour should have been taken in the drafting of these changes, and the explanation of them. There are fundamental principles that have been ignored, in terms avoiding association of any non-emitters with a default emissions factor.

Specific Comment

Firstly, we do not accept that the reason for the change is adequately captured in this explanation. Actual gas contents in various lines can be quite different at Wairakei, but for simplicity an overall averaged factor has been assessed. As shown in the figure below, G14 is in series with the Wairakei A and B stations. If G14 is separately listed as currently shown then Contact will be forced to pay using the DEF for steam passing through G14, then pay again for steam passing through A and B stations. As all steam and gas passing through G14 then goes on to pass through A and B stations then Contact is effectively paying twice for the steam and gas that passes through G14. Lumping all of Wairakei A and B and G14 together effectively makes them a single black box for which total incoming steam must be measured and for which the details of flow do not matter, and avoids double counting.



We accept that this change is a co-operative change between Contact and MfE, and that it achieves the correct goal of avoiding double counting of gas that passes through unit G14 by lumping all generation under one category. However, there is a broad principle that non-emitters should not be associated with an emissions charge.

The Wairakei G14 turbogenerator replaced pressure reducing valves at the station as part of improved efficiency measures, and steam will go to either A or B Station after it passes through G14. Steam and associated gas is not emitted but simply passes through the unit before passing in to the other stations. The steam and gas that passes through G14 has already been accounted for in the assessment of the default emissions factor for Wairakei A and B stations.

Within A Station, the IP turbines are also non-emitters passing steam and gas to the LP turbines, but this distinction is usefully blurred by treating all of A Station as a black box under the “A Station” label. Emissions at both A and B Stations are primarily associated with gas extracted from the condensers.

To reflect the principle that non-emitters should not be associated with an emissions factor, NZGA would support an amended collective description that had no specific mention of G14,

so suggest that the amended line should refer to “**Wairakei station site**” as a phrase intended to include the relevant plant, rather than “Wairakei A and B and G14”.

In addition to these comments, the second line of the amended table related to “any other plant or process” is not a change and should not be shown as a change. This second line is a potentially catch all description such that the modified table as shown could stand alone with this line substituting for all other plant. As described (unintentionally) in the proposed amendments, the table as shown could become the new Schedule 2, Table 6, Part A. This is part of a larger table covering a range of fields for which there should be no thought of immediate change. The only changes to Schedule 2, Table 6, Part A relate specifically to Wairakei so changes should either just show the Wairakei changes or should show the complete table changes.

We would be happy to discuss details of this submission, and we accept that it will be publicly disclosed.

Yours faithfully

A handwritten signature in black ink, appearing to read 'B R' followed by a long horizontal line.

Brian White
Executive Officer
New Zealand Geothermal Association