

NZ ETS Reporting requirements

Iron and Steel Production



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Agenda

Session One

- Prescribed documents & emissions returns
- Overview of draft regulations
- Worked example
- Discussion

Optional

ETS Reporting 101 (over lunch)

- Government agencies involved
- Functions of the Registry
- Participant Registration
- Key Dates
- Tax Treatment
- Data Retention and Compliance



Prescribed documents

- Climate Change Response Act 2002
- Climate Change (...) Regulations 2009
- Participant Registration Forms
- Emissions Return Forms
- Standards (incorporated by reference)

Non prescribed documents

- ETS Bulletin 10
- Workshop documents: emissions calculation forms
- Draft guidance materials (Beca)
- Consultant's report - Aurecon



Emissions Returns Format

Interim

- Based on calculation formulae as set out in regulations
- Reporting templates by activity – Excel based
- Signature

Long term

- On line Registry reporting tool



Draft regulations: overview

- Aurecon report – input to the revised regulations
- The draft regulations take a simplified approach
- Note the ‘pure chemical’ emission factors
- Emission equation is now structurally very simple
- Standard reporting form (see electronic version later)



Draft regulations: overview contd.

- Sufficiency of data (from Reg. 27) to report emissions (Reg. 28) and leave an auditable trail
- The model is effectively UEF-like in that you report your emissions & hence no need for UEFs



Emissions equation

$$E = (\sum(A \times B) \times EF_1) + (C \times EF_2) + (D \times EF_3)$$

$(\sum(A \times B) \times EF_1)$ = CO₂ emissions from the classes of reducing agent consumed (excluding obligation fuels)

$(C \times EF_2)$ = CO₂ emissions from tonnes of (pure) uncalcined limestone used in the process

$(D \times EF_3)$ = CO₂ emissions from tonnes of (pure) uncalcined dolomite used in the process



Example: producing iron & steel

From 3.3 of the Beca report – see draft forms and calculator

Reducing agents – 95,000 t anthracite + 56,000 t industrial coke
(anthracite obligation fuel, 60% carbon by weight & coke 80%
carbon by weight)

Limestone - 6,050 t as received: 85% pure so 5,143 t CaCO_3

Dolomite – none used

$$E = (56,000 \times 0.8 \times 3.67) + (5,143 \times 0.44)$$
$$= 166,679 \text{ tCO}_2\text{e}$$



Example: producing iron & steel

See the example of on-line calculator use



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Verification

- Currently no third party verification is required for routine emissions reporting, unlike UEF regulations
- Best practice is to commission independent verification for internal purposes and to manage subsequent audit risk



Questions for Discussion

- Emission equation suitability for both plants
- Required data sufficiency for emissions equation (to both report emissions and be auditable)
- Energy adder treatment
- How to specify the carbon content of energy adders: base it on import documentation?



Questions contd.

- Treatment of injection carbon below the alloying point (does such a point exist for Pacific Steel?)
- MgCO_3 – only an impurity associated with limestone?



So what's next?

- Submissions on draft regulations – due 13 July
- Further engagement
- Questions?

emissionstrading@climatechange.govt.nz

katherine.wilson@mfe.govt.nz



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