

NEW ENTRANT VERIFICATION REPORT		NE2-004-R1
New Entrant Register Number	Verified NESAs Priority	Verified CHPSAs Priority
NE2-004	1	Not applicable
<b>Date:</b>	13 February 2009	
<b>RE:</b>	Application for a free allocation of EU allowances from Ireland's New Entrant Set Aside 2008-12	

Application Details	
Installation name:	Glanbia Ballyragget
Installation address:	Ballyragget Co. Kilkenny
GHG permit Register number:	IE-GHG101-03
Class of activity:	Combustion installations with a rated thermal input exceeding 20 MW (except hazardous or municipal waste installations)
NESA application received:	4 April 2008
Letters (Request for Further Information) issued:	28 May 2008, 21 July 2008, 05 September 2008
Further information received:	14 July 2008, 07 August 2008, 17 October 2008, 30 October 2008, 6 November 2008, 28 November 2008
New Entrant proposed start date:	26 May 2008

**Description of the development/increase in capacity:**

- The new entrant application is in relation to the installation of increased combustion capacity to meet the additional demand requirements of the new cheese and Milk Protein Concentrate (MPC) process lines.
- A new natural gas boiler (emission point reference A1-6) with a gross thermal input capacity of 17.06 MW has been installed.

**Consents submitted:**

Planning permission: Planning permission was not required for the new boiler as it is housed in an existing boiler house.

## Site Inspection:

*Date of Site Inspection:* 23 October 2008

*Application Representatives:* Mr John Finlay

*EPA Representatives:* Ms Annette Prendergast

*Basis for Priority on New Entrant Application Register:* This was the only valid application for a development, which did not require planning permission received within one month of the Final Allocation Decision being taken. In accordance with Appendix 3 Rule (d) of the National Allocation Plan it was assigned priority number 1. (See NAP Appendix 3 (1) Rule (d))<sup>1</sup>

*Site Tour Observations:* The boiler A1-6 was observed to be in place and in operation. The new cheese and MPC processes were observed to be in place and operational.

*Documentation Examined:*

(i) Substantiated Valid Business Reason:

Glanbia Ingredients (Ballyragget) Limited applied to Enterprise Ireland for grant funding, from the Dairy Fund for Capital Investment. A detailed market analysis was included as part of the grant application. The grant application shows that the new cheese and MPC processes were carried out to expand both the capacity and the capability of the cheese operations and to enter new markets for milk protein delivery through MPC's. The grant application and the acceptance copy of the grant offer were viewed on-site.

(ii) Substantiated New Entrant Start Date: 23 April 2008

Basis for Substantiation: Saacke Limited burner commissioning report. Weekly production reports highlighting the start of the new cheese and MPC processes.

(iii) Basis for Projections:

Projected emissions from the natural gas boiler are based on a ramp-up of steam demand required for the new cheese and MPC processes until they reach full processing capacity in 2010.

Production reports, production forecasts and manufacturers design data were examined for substantiation of steam demand for cheese and MPC production.

## Detailed Calculation of Projected Emissions

### ***Applicant methodology for calculation of projected emissions:***

Projected emissions for the natural gas boiler A1-6 are based on a ramp-up of steam demand required for new cheese and MPC processes until they reach full processing capacity in 2010. The yearly total steam demand is set out in the table below.

Year	2008	2009	2010	2011	2012
Steam demand (t)	8,598	11,590	14,296	14,296	14,296

Using steam tables and assuming a boiler efficiency of 0.9 (from the manufacturer's information on boiler input and output capacity), the net energy input is 771.1728 kWh net/tonne steam. The annual energy demand is converted to TJ (multiply by 0.0000036) and then to tonnes of CO<sub>2</sub> by multiplying by the natural gas factor of 57.1296 tonnes

CO<sub>2</sub>/TJ. The natural gas factor is the site-specific factor based on continuous gas analysis data from March to September 2008.

**Example of 2008 calculation**

$8,598 \text{ (t steam)} * 771.1728 \text{ kWh net/t steam} * 0.0000036 * 57.1296 \text{ t CO}_2/\text{TJ}$

Projected CO<sub>2</sub> emissions for 2008 are 1,364 tonnes CO<sub>2</sub>

***Applicant Projected tonnes CO<sub>2</sub>/annum:***

2008	2009	2010	2011	2012
1,364	1,838	2,267	2,267	2,267

***EPA methodology for calculation of projected emissions:***

In order to determine increased capacity cheese production (used to calculate steam demand for the new process) the Operator subtracted 2007 actual cheese production of 22,022 tonnes from projected production for 2008, 2009 and 2010. However the existing cheese production capacity for 2007 is stated as 23,189 tonnes of cheese and this is the figure that the EPA subtracted from 2008, 2009 and 2010 projected production, to determine the increase in cheese production capacity.

The MPC process started 9 weeks before the boiler start date as determined by complete commissioning of the burner. Therefore the production of 364 tonnes of MPC (relating to the first 9 weeks of production) was subtracted from total projected MPC production for 2008 to ensure that projected emissions were calculated only for combustion of natural gas in boiler A1-6 and not for additional use of existing boiler capacity.

EPA projected emissions are calculated using the following total steam demand figures:

Year	2008	2009	2010	2011	2012
Steam demand (t)	6,712	10,719	13,631	13,631	13,631

**Example of 2008 calculation**

$6,712 \text{ (t steam)} * 771.1728 \text{ kWh net/t steam} * 0.0000036 * 57.1296 \text{ t CO}_2/\text{TJ}$

Projected CO<sub>2</sub> emissions for 2008 are 1065 tonnes CO<sub>2</sub>

***EPA Projected tonnes CO<sub>2</sub>/annum:***

2008	2009	2010	2011	2012
1,065	1,700	2,162	2,162	2,162

## Recommendation

The new entrant set aside application is found to have the necessary consents in place and to have a substantiated start date as detailed above. The applicant steam demand projections are judged to be reasonable and are well within the UK benchmark values for a combustion plant of 17.06 MW thermal input capacity.<sup>ii</sup> A valid business reason is available. It is recommended that the new entrant set aside allocation be taken from NESA and be based on the following Relevant Emission (tonnes CO<sub>2</sub>/annum):

2008	2009	2010	2011	2012
1,065	1,700	2,162	2,162	2,162

**Signed:** \_\_\_\_\_ Date: 13 February 2009

**Annette Prendergast**  
Inspector

**Reviewed:** \_\_\_\_\_ Date: 13 February 2009

**Dr Maria Martin**  
Senior Manager

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<sup>i</sup> Ireland's National Allocation Plan for Emissions Trading 2008-2012. Final Allocation Decision 4 March 2008. <http://www.epa.ie/whatwedo/climate/etscheme/naps/>

<sup>ii</sup> Appendix D1: New Entrant Benchmark Spreadsheet of EU Emissions Trading Scheme Approved Phase II NAP 2008-2012, DEFRA.