

**Scotgen (Dumfries) Ltd**

**Dargavel Energy from Waste Facility**

**Commissioning Progress Monthly Report for August 2010**

## Contents

1. Summary
2. Introduction
3. Commissioning Activities undertaken during August
4. Tests undertaken during August
5. Results of tests undertaken during August
6. Justification for delays from the notified dates
7. Condition 3.9.3(g) criteria. (Any completed commissioning activities or tests).

## 1. Summary

Commissioning activities were recommenced during March and continued throughout August. The amendment of the boiler front end on an interim basis was completed physically in February. The interim amendment has been adopted and confirmed as part of a Regulation 12 application made by Scotgen to SEPA.

A gasification trial was already underway on Stream 2 at the start of the month, where a sequence of 22 cycles were completed successfully. This was repeated with Stream 1 commencing on the 6<sup>th</sup> of August and continuing through to the 20<sup>th</sup> of August. 31 cycles were completed on this trial. This trial was brought to a normal phased shutdown when the boiler was ready for cleaning. Both streams then operated together for a 12 day period processing between them some 35 chambers. Stream 2 performed a series of trials over 25 cycles between the 12<sup>th</sup> and the 23<sup>rd</sup> of August. Stream 1 began a further trial on the 28<sup>th</sup> of August; this trial was in progress at the end of the month and continued into September. During August a total of 71 cycles were completed successfully. Each of these series of gasifications included a sequence of cycles across each stream of 4 primary chambers (PGC's 1-4 & PGC's 5-8) to include a waste fuel mix that included material with a hazardous waste content. Time off-line for each Stream was spent cleaning and inspecting the amendment of the boiler front end with some refractory replacement work undertaken on S2 towards the end of the month, stream were brought back on line once all items were satisfactorily returned ready for further duty.

There were breaches of the permit during August. These have been reported separately to SEPA.

The turbine package remains under construction.

## 2. Introduction

Scotgen have been issued a Permit by the Scottish Environmental Protection Agency (SEPA) to operate a waste gasification facility at Dargavel, Dumfries. The Permit number is PPC/A/1022412. Clause 3.9.5 requires the operator to submit a monthly report during the Commissioning period. This is the fourteenth report and covers the month of August 2010.

## 3. Commissioning Activities undertaken during August

A series of gasification trials were carried out on both streams. Gasifiers containing both wholly non hazardous fuel and mixed hazardous and non hazardous fuel was used through out all of these trials. The initial chambers were loaded with wholly non hazardous material with remaining chambers containing a mixture of hazardous and non hazardous materials. Both streams were operational together for a period. In excess of 70 cycles were completed during the period of August. Only minor modification was carried out during August, the intention being to monitor the stability of the changes made previously. These were modifications made to the combustion air management and control resulting in improvements in the performance of the cycles experienced and improvements in the syngas quality, reducing the burner operation in the SCC (Secondary combustion chamber). Data gathering for commissioning continues. Contractor performance trials are still to be undertaken

on the main gasification and combustion side equipment. This item is restricting the timetabling of other performance trials on the plant as a whole. Scotgen have provided to SEPA a scheduled timetable for the completion of the commissioning activities including the testing required under the permit.

#### 4. Tests undertaken during August

No specific tests as required by the Permit, section 3.9, were completed during August.

#### 5. Results of tests undertaken during August

No specific tests as required by the Permit, section 3.9, were completed during August.

#### 6. Justification for delays from the notified dates

No further delays were experienced other than ongoing breaks between batches for control software development, these were minor during August. Inspection and cleaning of the boiler sections is ongoing between gasification trials with replacement of cooling tubes being carried out as and when necessary. Some refractory replacement work was carried out in August.

#### 7. Condition 3.9.3(g) criteria. (any completed commissioning activities or tests).

No tests have been completed against the criteria of Condition 3.9.3 (g).