

**Scotgen (Dumfries) Ltd**

**Dargavel Energy from Waste Facility**

**Commissioning Progress Monthly Report for July 2010**

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## 1. Summary

Commissioning activities were recommenced during March and continued throughout July. 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 1 at the start of the month, where a sequence of 28 cycles were completed successfully. This was repeated with Stream 2 commencing on the 6<sup>th</sup> of July and continuing through to the 15<sup>th</sup> of July. 19 cycles were completed on this trial. This trial was brought to a phased shutdown when a minor leak was detected on the cooling tubes. The tube bundle was replaced with a new bundle held on site in readiness. Both streams operated together for a 7 day period processing between them some 25 chambers. Stream 1 performed a series of trials over 22 cycles between the 20<sup>th</sup> and the 28<sup>th</sup> of July. Stream 2 began a further trial on the 26<sup>th</sup> of July; this trial was in progress at the end of the month and continued into August. Both streams operated together for a further 3 days processing 14 chambers. During July a total of 81 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 recommencement once all items were satisfactorily returned ready for further duty.

There were breaches of the permit during July. 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 thirteenth report and covers the month of July 2010.

## 3. Commissioning Activities undertaken during July

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 80 cycles were completed during the period of July. Further modifications continue to be 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 July

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

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

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

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

No further delays were experienced other than ongoing breaks between batches for control software development. Inspection and cleaning of the boiler sections is ongoing between gasification trials with replacement of cooling tubes being carried out as and when necessary.

#### 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).