

**WRITTEN QUESTION TO THE MINISTER FOR TRANSPORT AND TECHNICAL SERVICES BY DEPUTY G.C.L. BAUDAINS OF ST. CLEMENT  
ANSWER TO BE TABLED ON TUESDAY 22nd OCTOBER 2013**

**Question**

Would the Minister advise the date the incinerator was accepted from the suppliers and what criteria, if any, were used to confirm it was fit to be accepted?

**Answer**

The Energy from Waste plant achieved Take-Over on 29th July 2011. Take-Over is when the plant is handed over from the contractor CSBC (Jersey) limited to the purchaser the Transport and Technical Services Department.

Prior to Take-Over the plant is tested and checked to ensure that it is fit for purpose and operational. These checks and tests are independently verified and the plant officially achieves Take-Over when the Project Manager issues the Take-Over Certificate.

To achieve Take-Over the contractor must undertake Take-Over and Operability tests to demonstrate that the plant works in the manner specified in the contract. The Take-Over tests and Operability tests are undertaken following the issue of the Completion of Construction Certificate.

The Take-Over and operability tests include the following:-

*Functional Tests including:*

- *Operation of all systems by functional groups.*
- *Successful switch-over between all duty/standby systems at over 90% Maximum Continuous Rating (MCR).*
- *Operation of each boiler up to 110% thermal load.*
- *Start-up of the plant using the supervisory control system and following the operating instructions, within the indicated start-up time.*
- *Start-up and shutdown of each boiler with other boilers in operation, without affecting the operation of the other boilers or the steam turbine.*
- *Safe shutdown of the Plant according to the operating instructions.*
- *Emergency shutdown of the complete plant.*
- *Demonstration of flue gas cleaning systems, including loading consumables and emptying residues in a safe and environmentally acceptable manner.*
- *Safe operation of bottom ash system, including metal separation.*
- *Testing of the fire alarm systems, fire pumps and fire prevention systems to demonstrate their adequacy.*
- *Continuous operation of the turbine bypass with all boilers at MCR.*
- *Steam turbine generator temperatures stabilise at acceptable levels with all boilers operating at MCR.*

*Operability Tests including:*

*The Contractor shall demonstrate over a period that the Plant is capable of safe and reliable operation under all specified conditions and within the emission limits of the Waste Incineration Directive. During this period all operations and control functions shall be demonstrated to the Purchaser for the purpose of training the Purchaser's shift personnel. These shall include but not be restricted to:*

- 1) Operation at or above 90 per cent. All boilers shall operate at a minimum of 90% of MCR with the turbine in operation with no bypass for a period of not less than fourteen days. A maximum of one stop per boiler is allowed during this period with any stop time being added on to the duration of the test.*
- 2) On-line maintenance tasks of the Plant.*
- 3) Cold start-up of all plant and systems.*
- 4) Operation of each boiler up to MCR independently.*
- 5) Normal shut-down and restart of each boiler independently and with the other boiler(s) at MCR.*
- 6) Emergency procedures and emergency shut-down.*
- 7) Operation at or above 90 per cent. (MCR) of each boiler, including software tests that demonstrate that the Operator is prevented by the software from running the plant at conditions adverse to the plant life (e.g. too little oxygen or firing rate too high).*
- 8) Operation at maximum turn-down to demonstrate Guaranteed Performance Levels in Schedule 17.*
- 9) Operation at or above 90 per cent. All boilers continuously operating at MCR using the turbine bypass during a turbine trip without boiler safety valves opening, together with the procedure for bringing the turbine back on-line.*
- 10) Turbine Load Rejection Test.*
- 11) Trip to emergency power supply and the procedure for bringing the 33kV supply back on-line*

*A period of fourteen days of continuous safe and stable operation with all boilers operating at or above 90 per cent (evaluated as daily average) with the turbine generating power shall be achieved during the Operability Test. During this period, all monitored emissions shall remain within the guaranteed emission limits. One stop per boiler is allowed during this period and the time for any such stoppage (from stop time to when the boiler is at MCR again) will be added on to the period. If the operation of all boilers at or above 90% MCR is not achieved, emissions exceed the guaranteed limits or more than one stop occurs per boiler, the Operability Test period shall restart from the beginning.*

Since Takeover the plant has been undergoing comprehensive Performance Tests. The final performance test that the plant has to pass started on Monday 14th October 2013 and is expected to last for two weeks. This final test is to prove that the amount of lime added to the flue gas scrubbing system is within the specified amounts as detailed in the contract. This test was delayed because the contractor exercised their contractual right to modify the lime injection system prior to the test. Once this test is passed and the Performance Test Certificate is issued the plant goes into a further one year Availability Test where the general overall reliability is assessed. When the results of the availability test have been examined and certified by the Project Manager a Final Certificate is issued and the contractor may apply for the final payment.