



SITA ISLE OF MAN

2010 ENVIRONMENTAL NOTIFICATIONS

Each of the eight incidents during 2010 was documented and reviewed, and all practicable actions have been taken to avoid a recurrence. The incidents, their causes and the steps taken are summarised below.

Biochemical oxygen demand: one incident

The biochemical oxygen demand (BOD) of water from the site's sewage treatment system exceeded the licence's BOD limit. This was due to a problem with the bucket elevator that transfers effluent to the system's settlement chamber. Two of the elevator's six containers became detached, reducing the flow rate of effluent. When a stand-by pump switched on to raise the flow rate, this caused some solids in the settlement tank to be discharged. The bucket elevator was repaired and settlement tank cleaned.

Carbon monoxide emissions: three incidents

Emissions of carbon monoxide (CO) rise when there is incomplete combustion due to disturbances in combustion control. These can be caused by a disproportionate amount of less combustible waste in the furnace at any one time, a rapid increase or decrease in waste feed rates, a loss of combustion air, and during start-up and shutdown when there is less waste on the grate. Due to the number of carbon monoxide incidents, a change in our waste licence to a different basis for measuring the CO threshold may also help our operations and emissions control staff to balance our operations and this parameter more consistently.

Sulphur dioxide and hydrogen chloride emissions: four incidents

Rises in the levels of sulphur dioxide (SO₂) and hydrogen chloride (HCl) are usually associated with problems in the gas scrubbing system. These mostly related to the quality of the alkaline lime milk solution sprayed to neutralise flue gases' acid content.

On two occasions in 2010, the atomiser – which sprays lime milk into the spray absorber – failed, reducing or stopping the dosing of lime milk. On both occasions the atomiser was repaired.

After a planned boiler clean, the steam temperature to the turbine was too low. The waste feed rate was increased to raise the temperature. A high sulphur dioxide emission resulted due to the high sulphur content of the waste that had not been properly mixed. The waste feed rate was promptly reduced, and shift teams received training to raise awareness of the need to follow waste mixing procedures and to manage waste feed rates to prevent exceedances.

The extremely cold weather at the end of the year caused the sulphur dioxide analyser to give false high readings, which were reported to the EPU as daily exceedances. As soon as the temperature in the analyser cabinet increased, the sulphur dioxide readings returned to normally observed levels. The readings were reported as an abnormal occurrence as they were falsely high.