

SUGAR INCIDENT - ENVIRONMENTAL INCIDENT

What the Flavour plant is used for

The flavour is manufactured in batches, or parts thereof. A full batch being approximately 25000 kg's depending on the product being made.

The flavour is made in 1 of 4 mixing tanks and is stored in 3 storage tanks. However not all of the tanks can be directed to all of the processes.

A batch flavour takes approximately 2 hours to make and consists of Wort, Salt, Sugar, Water form the basic flavour batch, glucose and honey being added to some products. The salt and sugar are stored in silos. The batches are quality checked for salt content and pH. The pH basically checks the longevity of the flavour and if it is fit to use.

Incident

On the 2nd November during the flavour production the operator noticed there was a blockage of the sugar feed from the silos to the sugar scales. Upon investigation it has been found that the dust explosion vent had activated which resulted in a release of sugar dust being emitted onto the cooker floor roof area. Approximately 1 tonne of sugar had been found on the cooker floor roof. The east balancing pond valve was closed immediately as a precaution. The area has been cleaned and the food sent to animal feed.

From the investigation it has been found that dust extraction had become blocked due to warm air being emitted from the scales on the 1st floor and cold air being emitted from the 2nd floor. The sugar had then started too crystallised in the ducting. Furthermore the high level probe located in the sugar receiver had failed which allowed the system to block and continued to receive sugar from the silos.

From the testing of the east balancing pond it indicated that the pollutant had made its way to the balancing pond. A decision was taken to empty some of the contents of the balancing pond to the WWTP. This totalled a volume of approximately 120 tonnes. However this was removed over a period of time due excessive rain fall and the balancing pond being closed.

Root Cause Analysis

Remedial Actions Taken (Containment):

- A full inspection of the sugar scales has been completed
- East balancing pond was immediately closed
- The area was subsequently isolated to prevent further pollution
- The roof area has been deep cleaned
- The east balancing pond routine testing indicated that the pollutant had reached it. Subsequently as a precaution measure the east balancing pond

has had a volume of approximately 120 tonnes removed to the WWTP for further processing.

Actions Taken to Prevent Re-occurrence (Countermeasure):

- Dust extraction system has been cleaned out and lagged to prevent the crystallisation.
- The high level probe has been repaired and made fail safe.