

# Safety systems on bitumen storage tanks

## WHAT HAPPENED

During a recent review of both older and relatively new bitumen storage tank safety systems the following safety issues were found:

The bitumen contents tank gauges were not linked to the storage tank heating system. As a result, it was possible to turn on the heating system when the tank was empty and thereby create an explosive atmosphere.

Bitumen storage tanks fitted with a 'traffic light system' were checked to determine at what point the traffic light system was activated. On one of the tanks, it was found that the green light stayed on until 28 tonnes was in the tank. For example, a 38 tonne tank Safe Working Capacity the green light indicated that the tank could still take a full load of bitumen when only 10 tonnes of ullage remained.

## LEARNING POINTS / ACTIONS TAKEN

1) Ensure that the low-level cut-off on the gauging system on your tanks are linked with the heating system so that the heating system cannot be turned on when the tank is empty.

2) Review the points at which your traffic light system activates and ensure that it is specifically set to your tank size and safe working capacity (SWC).

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LOCATION: ASPHALT/COATING PLANT  
ACTIVITY: MANUAL HANDLING AND STORAGE  
SUB ACTIVITY: BITUMEN

ALERT STATUS: Normal  
DATE ISSUED: 19/04/2021 16:37:38  
INCIDENT No: 03591