Abatement Techniques for Emissions to Air and Water

Air Scrubber for Peracetic Acid Vapours:

The bottle sterilisation process for Line 1 uses Peracetic Acid solution which generates a PAA heavy vapour within an enclosed area of the filling equipment.

This vapour is blown upwards through a column filled with media while a recirculated liquid phase flows counter-currently down the scrubber. In our chemical scrubber this liquid phase is dilute Sodium Hydroxide. The media provides an interface contact between the vapour and liquid phases and provides a high surface area for this exchange.

The chemical reaction which takes place is:

$CH3\text{-}COOOH + NaOH \rightarrow CH3\text{-}COOO\text{-}Na+ + H2O$

The water (H20) is released as a water vapour while the sodium peracetate remains in solution and is periodically flushed down the drain for treatment in the Waste Water Treatment Plant.

Boiler Stacks:

There are no abatement processes on the boiler stacks.

Water:

Water Emissions through foul drains are all collected at the Waste Water Treatment Plant which is an Activated Sludge Plant where the water is treated and only discharged if within the limits of our consent