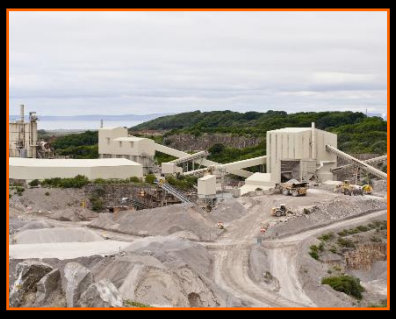
HYCONTROL
LEVEL MEASUREMENT SOLUTIONS






Cereal Manufacturer Waste Water

Foam Control Cost Saving Application



CEREAL MANUFACTURER WAKES UP TO FOAM CONTROL EFFICIENCY

Purpose-designed foam measurement technology from **Hycontrol** has resulted in cost savings of approximately £30,000 in the effluent plant of one of Europe's largest cereal manufacturing sites. Managers at the site, which produces thousands of tonnes of breakfast cereal every year for distribution across the continent, are now considering expanding their use of the patented foam technology.

Water and waste treatment are often carried out at large food manufacturing sites, and cereal is no different. Foaming in effluent tanks, in particular, can become a major problem if left unchecked. Foamy, dirty overspills are a very messy occurrence, and clean-ups of such events are costly in terms of both time and money. Liquid overspills create health and safety risks by putting employees in danger of injury from slips and falls. Additionally, serious pollution can result if foam escapes into the environment.

The most common method of reducing and removing foam, and the risks that it generates, is to dose the effluent or process with antifoaming chemicals, breaking up the foam as it forms and preventing it from rising to a troublesome level. This is usually done by dosing the chemical into the foaming process automatically, often on a timer basis. Chemicals are usually added in quantities based on the maximum expected demand. This does result in existing foam subsiding and being kept down. Unfortunately, this method is not only an inefficient solution to the problem, but it can also create additional concerns.

The first, obvious problem arising from automatic dosing is that of cost. Antifoam is an expensive commodity and costs can rapidly balloon into a massive unwanted and unforeseen overhead. In some cases, overuse of antifoam can also have a negative effect on the process, and consideration must also be given to the long-term detrimental effect that the disposal and dispersal of these chemicals can have on our health and the environment.

With all of these considerations in mind, engineers at the manufacturer recognised that more could be done to increase efficiency and control costs at their on-site effluent treatment plant. The company agreed to trial Redditch-based level measuring manufacturer Hycontrol's SureSense foam control system. A controller and two-metre-long probe were set up on one effluent tank, linked to control an antifoam dosing pump.

Unlike competing products, Hycontrol's high-sensitivity foam sensors have been designed specifically to measure foam, and are not simply modified or adapted liquid level sensors. This technology was originally developed for use in biochemical fermenters but has been used in a wide range of industries since. This level of sensitivity means that the system will dose antifoam only when foam is present at a pre-determined level. Clear benefits, financially and environmentally, can be achieved through the use of a reactive system that doses antifoam only when it is required.

Measuring the level of foam is only the first challenge that this technology has to overcome. It is also vital to avoid false readings caused by the build-up of foam and other substances on the probe. Hycontrol's IMA (Intelligent Multi-Action) sensing is the backbone of many of Hycontrol's foam monitoring products and allows for the reliable measurement of foam even when a sensor is covered with a thick, sticky layer of fouling. It enables the sensor to discriminate between the residual deposits of foam/product build-up on the sensor itself and the foam being created in the process. Effectively the foam sensor ignores the inevitable fouling that accrues during normal operation. In spite of heavy coatings of dense, sticky residue, the foam probe will keep measuring foam throughout the process cycle.

In this case, the foam system has proven a notable success: in the two years that the system has been in place it has proven to be consistently reliable and accurate. Antifoam usage on the tank has been reduced by approximately 92%, with a saving of around £30,000 per year. The customer is now considering utilising the upgraded SureSense+ foam control system to oversee the antifoam pumps on their two remaining on-site effluent tanks.

A representative said: "Having initially been sceptical as to just how effective Hycontrol's foam control technology could really be, I've been very pleasantly surprised by the accuracy and reliability of the system. We've had to make a few minor adjustments due to changes in the foam density, but otherwise, it has proven to be very successful. The budget savings on antifoam expenditure have already covered the equipment costs several times over!"

For more information on Hycontrol's foam control technology, please visit **www.foamcontrol.co.uk.**

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