



Hosokawa Containment provide Contained Waste Handling Solution

Working closely with a multinational biotech production company, Hosokawa Containment have developed a bespoke contained waste handling system which requires minimum operator intervention and maintains low personnel exposure levels to potential airborne contamination. The waste containment and collection system is designed to minimise the release of airborne contaminants during the waste collection process.

The liquid waste is pumped to a double outlet inside a laminar air flow booth, in turn each outlet is connected through a series of safety interlocks to an empty IBC which is manually placed on a weigh scale and connected by an airtight seal. A preset volume of waste is pumped into the IBC with the weigh scales acting as a safety back up, switching off the flow and ensuring overfill is prevented. Safety sensors prevent the flow of waste without the presence and connection of an unfilled IBC. Air displaced from the IBC is drawn off by an extraction system and passed through a HEPA filter to prevent airborne contamination.

Once the IBC is filled and the flow of waste stopped, spray balls wash the chute and outlet valve with water to ensure that no waste product contaminates the top of the IBC on seal removal. The operator is then able to break the seal on the outlet of the IBC in order to fit the sealing cap. At this point a localised extraction



system removes the air within the area of operation, providing a further safeguard for operators against contamination by any airborne substances.

For safety reasons the Hosokawa Containment system allows for only one IBC to be filled at once, however once one container has been filled and sealed, the filling of a second container can commence immediately.

The Hosokawa Containment waste collection and containment system underwent strict Factory Acceptance Tests in the presence of not only the customers project engineers / biological experts but also biological experts from the Health and Safety Executive.

The project was completed to tight deadlines determined by the customer as part of their preparation for full scale production of the vaccines to commence in January 2006.

Said Andy Bennett, Hosokawa Containment, 'With operator safety of paramount importance the customer was very pleased with the safe handling solution we were able to design and build. The tight deadline to which we adhered was achievable because the Hosokawa engineers and those of the customer worked in close partnership and liaised closely with the Health and Safety Executive throughout the project.'