

M505: CONTROL OF HAZARDOUS SUBSTANCES

Case Study 2 – Containment

A company operates a process which involves mixing a number of powders which are loaded into a reaction vessel.

1. Powders are delivered in 25 kg bags. Whole bags are emptied directly into the mixing vessel. For some ingredients where only part sacks are needed the powders are weighed on a scale.
2. The material is discharged into an intermediate bulk container (IBC) which is moved to another area.
3. The product is transferred from the IBC through to a packing machine which packs the material into 25 kg polythene bags.

A number of the ingredients used in the process are toxic and a major ingredient is a respiratory sensitiser. It has been decided that a containment solution is needed to control operator exposure to the materials.

Exercise - Produce a design specification for the process, indicating

1. The types of containment equipment you would recommend for the various aspects of the process.
2. Other measures that would be needed to ensure that the controls continued to be effective.

