CONTAINMENT OF SOURCE

High level containment

A high level containment is a physical containment or enclosure of the source of emission. The air within the enclosure is not actively ventilated or extracted. The substance is contained within a sealed and enclosed system.

High level containment

This class includes metal smelting furnaces or atomization units. The material transfer is entirely enclosed with high containment valves (e.g. split butterfly valves and direct couplings, which consist of two sections which connect together to allow the opening of the valve). At the end of the material transfer the two valves are separated, forming a seal on both the process equipment and the material container. The system is designed to minimize the surface area which can contact the material or pairs of valves with wash space between them.

Effectiveness

Mean: 99,9%

90% — 100%

Resources

Wouter Fransman, TNO Quality of Life (The Netherlands) et al., « Development of a mechanistic model for the Advanced REACH Tool (ART) ».

Best Practices

1. The enclosure is not opened during the activity
2. A measurement system (pressure…) must be installed to ensure proper confinement
3. Depending on the containment size, an adjoining locker rooms could be designed
4. Maintenance and cleaning of the containment should be carefully studied and others risk management measures should be installed for these tasks
5. Workers should be trained

Back to CONTAINMENT