

Information for Waste Industry Employers

Bioaerosol Bioburden Assessments

June 2023

Bioaerosols

Every year thousands of workers are made ill after exposure to harmful bioaerosols, which can include components such as bacteria, fungi, endotoxins and glucans.

Adverse health effects that can result from exposure to bioaerosols can include Organic Dust Toxic Syndrome (ODTS) and hypersensitivity pneumonitis.

Occupational settings where bioaerosols pose a risk to workers include composting plants, high temperature incineration, material recovery facilities, household waste recycling centres and landfill sites.

Monitoring strategies available include active sampling by impaction and filtration utilising the *BS ISO 16000-18: detection and enumeration of moulds* methodology and passive sampling using surface swabs, wipes or adhesive tapes.

The benefits of monitoring include verifying and quantifying the presence of airborne contaminants, identifying sources of contamination, assessing human exposure, and monitoring the effectiveness of existing control measures.

Ensuring Compliance

Requirements under the COSHH Regulations include assessing the risk from exposure to harmful substance and preventing or controlling exposure to them.

Controls in the workplace should be implemented according to the hierarchy of control, with Respiratory Protective Equipment (RPE) being used as a last resort once all other control measures have been considered.

Specific control measures to reduce bioaerosol exposure may include:

- Local Exhaust Ventilation (LEV)
- Equipment that can separate workers from exposure, such as automated bin emptying
- Dust containment or suppression such as the use of water misting
- Systems of work that minimise dust and bioaerosol generation

Health surveillance for lung disease should be provided where there is a reasonable likelihood of disease occurring in the workplace.

An occupational hygienist can help to determine if you are compliant and protecting your staff adequately