

MINIMISATION OF AIR EMISSIONS IN THE PRODUCTION AREA

INTRODUCTION

Solea Pharma has 2 extractors in its production area, the purpose of these extractors when operating normally is only perform the renovation of the air in the production area and not extract fumes that are generated during the manufacturing process carried out in Solea Pharma.

For the latter purpose Solea Pharma has all equipment associated with production connected to a vent system that is connected to a scrubber (*see BREAST report: Liquid addition to vessels, minimization of peaks*); all the fumes generated during the process are cleaned via scrubber before being released to the atmosphere.

As a MEPA requirement, Solea Pharma needs to find the Best Available Technique to minimise the possibility of accidental emissions to the atmosphere via these extractors (where for example in case of a spill, fumes or powder are generated in the production area outside of the scrubber system).

CONSIDERATIONS

- Both extractors cannot be considered as emission points, as their purpose is only to renovate the air in the production area.
- The only fugitive emission that would occur via these extractors is only in the case of a spill where fumes or powder are generated in the production area.

PROPOSAL OF SOLEA PHARAMA

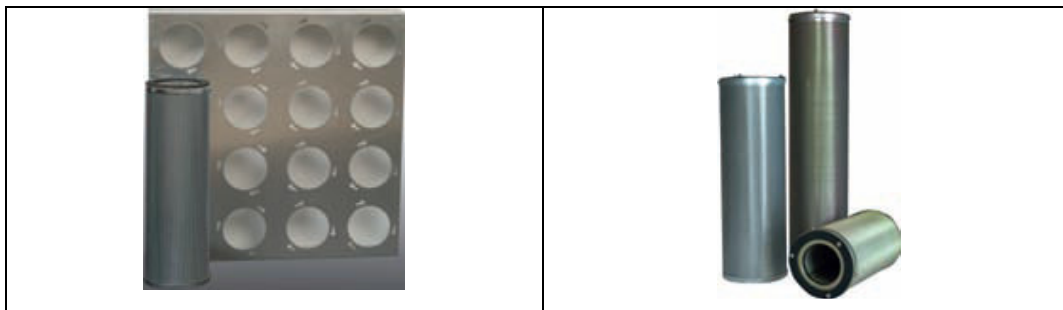
The proposal of Solea Pharma is to install an Activated Carbon Filters inline with the extractors, in such a manner that the air that is expelled by the extractor will be cleaned by the said filters before being released to the atmosphere.

Principle of use

The principal use of Activated Carbon in the environmental field is the removal of VOCs. The adsorption process reduces these pollutants to virtually non-detectable levels. The carbon adsorption is equally effective on single component emissions as well as complex mixtures of pollutants.

Filter description

The intention of Solea Pharma is to install battery of 16 filter cartridges in line with the extractors.



Individual cartridge

- Diameters: 145x85x600 mm
- Quantity: 4.5Kg of Activated Carbon
- Rated Flow 200 m³/h

Frame for 16 cartridges

- Diameters: 610x610x75 mm
- Quantity: 16 cartridges of 4.5 Kg. Total of 72 Kg of Activated Carbon
- Rated Flow 16 x 200 m³/h. Total of 3200 m³/h

This type of filter is currently being proposed, however the filter that will actually be installed may be of a different type with the same specifications.

The installation of said filters would accomplish the following:

- During normal activity in the production area, the extractors can run normally without harmful emissions.
- In case of a spill generating fumes or powder, the extractors can continue running until an operator switches them off and the spill is dealt with. During the period of time that the extractors are running, the air contaminated with VOCs or powder is cleaned via the Activated Carbon Filters before going to the atmosphere.