EP007: Non-Technical summary of application

This application by Molecular Products is for a bespoke low impact installation permit as required by the Environmental Permitting (England and Wales) Regulations 2016. The company will operate a chemical manufacturing process within an installation. The process will manufacture a material called Sofnocat 423, which is a catalyst designed to be used in an enclosed area to treat gases which are harmful to human health (eg carbon monoxide, hydrogen).

The process involves mixing several metal compounds with acid, physically forming them into pellets, then heating in an oven. After cooling the material is crushed and sieved to achieve a required size. These pellets are treated with hydrogen, followed by air to give the final product.

Spent catalyst can be regenerated by using selected portions of the above process.

The process has been previously operated by Molecular Products on the same site in Harlow, but in a different location under permit EPR/CP3734ZT. The nature and scale of operation is the same so any products that have an impact on the environment (NOx, ammonia, nitric acid) will be the same and produced in the same quantities. The quantities of these detrimental gases released into the air are deemed to be insignificant by the Environment Agency's criteria.

The total amount of product produced per annum will be less than 600 kg, and there are no discharges to water. There are no issues with noise or odour from the proposed installation. The energy usage will be less than 3MW. These are the reasons for the classification of the installation as Low Impact.

Key technical standards involved in the process are:

Size of the pellets as controlled by sieving, the control of temperature of the oven, Temperature of the catalyst during hydrogen treatment and Pressure and flowrate of the hydrogen/nitrogen mixture.

The activity is operated at the small-scale Low Impact as specified by this application. Following a risk assessment, the result is an overall low risk to the local people and environment**.**