



Odour from Roadstone Coating Plant

The Skene Group Ltd operate a hard rock quarry at Banknock in central Scotland and made application to Falkirk Council for additional 'added value' process operations including a roadstone coating plant. The application was refused on grounds which included concerns that process odours would have an unacceptable impact on nearby residential areas. Skene appointed The Airshed to advise on likely odour impacts and to represent them at a public inquiry.

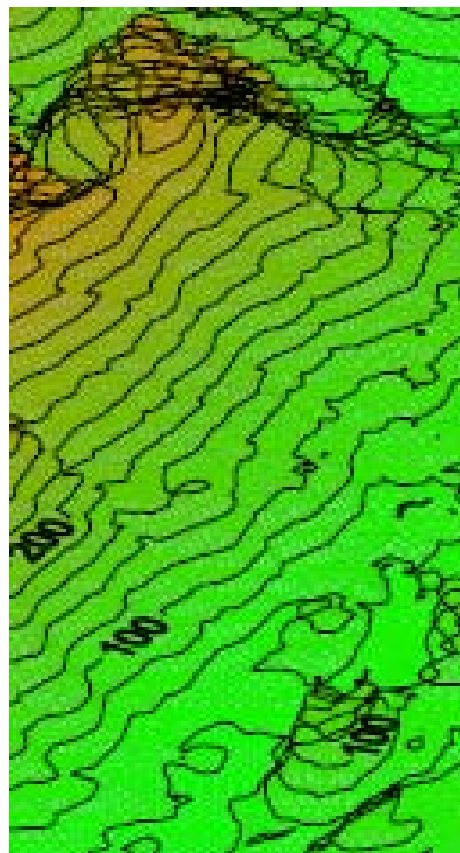
Roadstone coating plants produce road paving materials consisting of a mixture of size-graded, high quality aggregates and bitumen which is heated and mixed in measured quantities. Aggregates typically constitute over 92 percent by weight of the total mixture.

Roadstone coating plants have two major categories of emissions: point sources vented to the atmosphere through the stack from the drier; and fugitive sources.

Ducted emissions are collected by an induced draft fan at the base of the stack. The most significant source of emissions from a batch mix plant is from the rotary drum drier. Other potential process sources include the hot-side conveying, classifying, and mixing equipment, which is vented to the stack along with the drier gas. Fugitive emissions arise during truck load-out and from the bitumen storage tanks.

Process emissions from the proposed process were based on USEPA AP42 emission factors. Odour impacts were assessed against SEPA Guidance, World Health Organisation Air Quality Criteria, and Scottish Air Quality Objectives. An advanced dispersion model was used to predict the likely odour concentration at sensitive receptors. The effects of terrain, meteorology, surface roughness conditions and receptor height were considered in the model sensitivity analysis.

Based on this study, The Airshed concluded that odour from the process was highly unlikely to be significant and that the Planning Authority had acted unreasonably in using odour impacts as a reason for refusal. This conclusion was not contested at inquiry by the Planning Authority's expert witness. The Reporter at the Inquiry concluded that odour was unlikely to affect local amenity.



The Airshed