

Odour Impact Assessment



Kier London commissioned The Airshed to advise on practicable options for complying with planning conditions imposed on a new residential development in Hornsey Street, Islington. The site was located adjacent to a Waste Transfer Station at the south end of Hornsey Street.

Planning conditions imposed by Islington Borough Council required measures to protect residents from odour from the refuse vehicles travelling to and from the transfer station.

The Airshed conducted dispersion modelling to predict the likely odour concentration from ground floor to roof height (10 storeys). Emission estimates from the road vehicles assumed that odour might come from residues adhering to the external container walls; the vehicle tyres and body; and wastes carried.

The emission estimates were based on the number of vehicles; their capacity; and two indicative emission rates: a best guess scenario and a worst-case scenario. A model sensitivity analysis was conducted for the likely errors arising from emission rate, meteorological data, surface roughness, temperature of release, building effects and receptor height.

The worst case impact assessment indicated that odour was unlikely to exceed $1.5\text{OU}_E/\text{m}^3$ 1 hour 98%ile at first floor level (5m above road level) even assuming worst case emissions. The local planning authority commissioned an independent review of the study which agreed with this conclusion.

The Airshed's assessment demonstrated that the anticipated odour concentration at the most exposed elevation would be unlikely to cause annoyance and advised on the optimum location for air intakes for any ventilation systems. On the basis of this assessment whole house ventilation systems were proposed for houses in five flats nearest the road at first floor level.

