

Stoke City

The Airshed was appointed by Caulmert Ltd to conduct an air quality impact assessment for a proposed under-pitch heating system at Stoke City's football training ground. This proposed the installation of two 2.2 MW kerosene fuelled boilers to provide ground heating in colder periods. The assessment included a worst case assessment which assumed the system would be used between October and May in any year.

Stoke City wished to ensure that the emissions from the plant would comply with UK and European air quality standards at any off-site receptor, as well as ensuring no adverse impacts on the health or fitness of players.

The initial design proposed that emissions from the units would be released from two short stacks at a height of 4.9m above ground level. A dispersion modelling exercise was conducted for the proposed installation using ADMS 5.1 and a single year of hourly sequential meteorological data from a nearby meteorological station (Shawbury) as agreed with the local authority responsible for local air quality. Three stack heights were considered: 4.9m, 6m and 7m. The results from this simple stack height iteration demonstrated that increasing the stack height above 4.9m would be of minimal benefit.

