When did the well known motorway refrain "Mmm; smell that fresh country air!" become "It stinks around here; who do we complain to?"

When segregated from the air pollution sector, odour control as an industry is driven by public perception and legislation. Although it is an environmental industry, the emphasis is not on protecting the natural environment but more protecting our enjoyment of the environment we live in. We often like to think of the environmental sector as being required for the 'greater good'; however, there is an inherently selfish motivation for looking after the environment we reside in. This is seen by looking back at the definition of pollution.

The Pollution Prevention and Control (England and Wales) Regulations 2000 define pollution as:
"...emissions as a result of human activity which may be harmful to human health or the quality of the environment, cause offence to any human senses, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment."

Therefore it should be of no surprise that the main motivation for the control of odour is public opinion.

It can be seen by the increased interest by both Governmental bodies and the media that the issue of odour control is now more apparent.

The majority of the wastewater industry, for example, has adopted the non-statutory code of practice for odour control brought in in April 2006 (statutory in Scotland). The introduction of IPPC across a variety of sectors has also stimulated an increased interest in odour control.

That is likely to be amplified as the IPPC H4 guidance notes on odour regulation and permitting are due to be released later this year. There are many similarities within the two sets of guidelines and the wastewater industry is now becoming a model for similar odorous industries which fall under IPPC.

The new guidelines and perspective given to odour control have forced industries to look at the problem in a more scientific and analytical way. This has seen specialists being employed to manage odour control on sites and an increased importance being placed on odour surveying and dispersion modelling. That is especially true of the wastewater industry, which by its very nature is in terms of odour an extreme case and generally a more mature market than that of the other waste treatment processes.

In the wastewater industry the development of odour improvement and odour management plans not only lead to more practical and economical solutions for the prevention and control of odour on sites, but also allows treatment systems when required to be designed effectively.

This is achieved by using the information collated in the odour improvement plans to optimise existing processes and place into effect procedures for odour minimising treatment and good housekeeping on site.

These plans now allow the odour impact of a site to be seen as a whole putting odour nuisance into perspective, quantifying the economical and social effect a site has on its local community and making the solutions more economical and feasible.

Even though the H4 guidelines are still at draft stage, the main points described within them are already becoming a standard to which companies are beginning to work. As companies under IPPC are already running under these licenses they have had to go through the processes involved to comply with their existing permits.

Although the H4 document is longwinded (especially with the addition of the many appendices) it does provide a comprehensive methodology for a problem that is often hard to detect, quantify and resolve.

The inherent difference between the two guidelines is the wide range of industries and smells the H4 guidance covers. When comparing odours over such a wide range of industries and processes the main consideration comes back to public perception of odours, their strength and a human response to the hedonic tone (the repulsion factor).

It is this that causes the most problem in discerning when a site smells: the standard ‘sniff test’ undertaken by a site operative is known for producing idealistic results.

Site staff on odorous facilities are renowned for no longer noticing the smell as they have become desensitised to the prevailing odours, which has resulted in a perceived complacency towards them. This is perhaps the most challenging obstacle to overcome.

Appendix 3 of the draft document brings the factors differentiating these odour nuisances into one place and gives a logical approach on their resolution. It is important to remember that the best way to deal with odours is to prevent the generation of contaminates in the first place.

Reference is also made within H4 to the fact that odour cannot be considered in isolation from other impacts on the environment.

Unfortunately, end-point treatment of odours is not without its environmental consequences.

Often low-impact technologies are overlooked to gain a 2-3% rise in removal efficiency. There are obvious implications with the use of high-energy systems such as thermal oxidisers when treating odours and both dry chemical scrubbers and wet chemical scrubbers are reliant on processes that are in themselves detrimental to the environment. Should this not be a key consideration when choosing a suitable odour treatment system?