In the early 1990s a high number of episodes of poor air quality occurred in heavily populated urban and industrial zones. The UK government introduced the framework of a Local Air Quality Management (LAQM) approach to tackle these episodes. This paper evaluates the extent of industrial activity contribution to air quality problems within the LAQM context, following the declaration of nearly 130 Air Quality Management Areas (AQMAs) in England and Wales. An appraisal of the Department for Environment, Food and Rural Affairs (Defra) air quality review and assessment archive and progress database indicates the location, pollutants and Air Quality Objective (AQO) exceedences arising from industrial sources. Although over three-quarters of AQMAs are traffic related, there is a small number of industrial related AQMAs. The appraisal results are challenged by questionnaire surveys involving local authorities classified as having industrial sources contributing to air quality within their areas and the co-located Environment Agency (EA) offices. Close scrutiny of links between such authorities and Zones of Industrial Pollution Sources (ZIPS), defined by the EA as the regulator of the most complex and potentially polluting industrial sources, will be investigated. Relevant experiences from other European countries facing similar air pollution problems will also be highlighted in this paper.