

7 Updating and Screening Assessment for Lead

7.1 THE NATIONAL PERSPECTIVE

The agreement reached between the European Parliament and the Environment Council on the Directive on the Quality of Petrol and Diesel Fuels (part of the Auto-Oil Programme) led to the ban on sales of leaded petrol in the United Kingdom with effect from 1 January 2000. Emissions of lead are now restricted to a variety of industrial activities, such as battery manufacture, pigments in paints and glazes, alloys, radiation shielding, tank lining and piping.

Detailed assessments of the potential impact of lead emissions from industrial processes have been undertaken by the Government and the Devolved Administrations, based upon both monitoring and sector analysis studies. The former has included a 12-month monitoring survey in the vicinity of 30 key industrial sites in the UK, which has been used to supplement information already provided from the non-automatic monitoring networks. These monitoring data have generally indicated no exceedences of the 2004 or 2008 objectives, although locations in proximity to non-ferrous metal production and foundry processes were deemed to be at risk.

7.2 STANDARD AND OBJECTIVE FOR LEAD

The Government and the Devolved Administrations have adopted an annual mean concentration of $0.5 \mu\text{g m}^{-3}$ as the air quality standard for lead, with an objective for the standard to have been achieved by the end of 2004. In addition, a lower air quality objective of $0.25 \mu\text{g m}^{-3}$ has also been set, achievable by the end of 2008.

7.3 CONCLUSIONS OF THE PREVIOUS ROUNDS OF REVIEW AND ASSESSMENT FOR LEAD

The following conclusions were given for lead in the first and second rounds of Review and Assessment for King's Lynn and West Norfolk.

- The 1st stage identified one potentially significant source of lead. However, emissions from the site have since ceased and there was no need to consider this source further.
- The second round identified no new industrial sources and concluded that the risk of exceedence of the air quality objectives was negligible.

No AQMAs have been declared for lead.

7.4 SCREENING ASSESSMENT OF LEAD

7.4.1 Screening Checklist

The Technical Guidance LAQM.TG(03) requires assessment of lead to consider the following sources, data or locations:

- Monitoring Data
- New Industrial Sources
- Existing Industrial Sources with Significantly Increased Emissions or new relevant exposure

These are described in the following sections.

7.4.2 Screening Assessment of Monitoring Data

No monitoring of lead has been undertaken in King's Lynn and West Norfolk.

7.4.3 Screening Assessment of Industrial Sources

The Guidance LAQM.TG(03) lists the following processes as significant potential sources of lead:

Part A (percentage of total emissions from all UK plant in this sector to the UK total in brackets)

- Iron and steel (37)
- Non-ferrous metals (23)
- Manufacture of organic chemicals (35)

Part B

- Non-ferrous metal furnaces
- Electrical furnaces
- Blast cupolas
- Aluminium processes
- Zinc Processes
- Copper processes
- Lead glass manufacture

The Stage 1 review and assessment identified one site in King's Lynn with the potential to emit significant quantities of lead – Cooper Roller Bearings – but this source has voluntarily ceased its gunmetal smelting operation. As a result, there is no further risk of exceedence of the objectives from this source.

7.5 CONCLUSIONS FOR LEAD IN THE BOROUGH

Emissions of lead from industrial processes in King's Lynn and West Norfolk are not likely to exceed the objectives for lead to be achieved in 2004 and 2008. There are no new or proposed industrial sources of lead in the borough, or in any neighbouring authority.

A detailed assessment is not required for lead in King's Lynn and West Norfolk.

	Source, location or data that need to be assessed	Updating and Screening Assessment
A	Monitoring data outside an AQMA	This local Authority is not monitoring lead concentrations.
B	New industrial sources	There are no new or proposed industrial sources in the Borough that have the potential to emit significant quantities of lead.
C	Existing industrial sources with significantly increased emissions or new relevant exposure	There are no industrial processes of relevance for lead in the authority, or any of the neighbouring authorities.
	Conclusion	There have been no significant changes with regards to lead in this Authority. A detailed assessment is not required for King's Lynn and West Norfolk.