

THE EUROPEAN ENVIRONMENTAL NOISE DIRECTIVE

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ABSTRACT

The European Environmental Noise Directive

The EU Green Paper on Future Noise Policy stated that environmental noise caused by traffic, industry and recreation was one of the main local environmental problems in Europe. 170 million EU citizens were said to be living in areas where the noise levels were high enough to generate serious annoyance.

The Directive Relating to the Assessment and Management of Environmental Noise has now completed its negotiations and challenge is to put it into operation.

This paper will look at what is required by the directive and its impact in Member States.

INTRODUCTION

The EU Green Paper on Future Noise Policy¹ stated that environmental noise caused by traffic, industry and recreation was one of the main local environmental problems in Europe. Around 20% of the EU's citizens were said to be exposed to noise levels that scientists and health experts consider unacceptable, at which most people become annoyed, sleep is said to be disturbed and health may be at risk.

The Green Paper recommended a more strategic approach focusing on protecting individuals exposed to noise rather than just attempting to reduce noise at source, which is the aim of existing EU noise control legislation. Such legislation includes directives to reduce the noise emitted from vehicles, aircraft and outdoor equipment.

In 1997 the European Parliament approved the general approach proposed in the Green Paper and requested that a Directive should be developed to take a more strategic approach through

the establishment of comprehensive information about noise exposure levels of individuals across the EU and the action being taken. This would facilitate the exchange of information between Member States as well as enabling the Commission to collect the data. Together with information about action taken at local level, this data could inform future EU measures to reduce noise at source.

THE ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL NOISE DIRECTIVE

The Directive (COM(2000)468 final) concerns noise from road, rail and air traffic and from industry. It focuses on the impact of such noise on individuals, complementing existing EU legislation which sets standards for noise emissions from specific sources.

The Directive requires:

- the determination of exposure to environmental noise, through noise mapping (more precisely sound immission contour maps), and, in due course, by methods of assessment common to the Member States;
- provision of information on environmental noise and its effects to the public;
- adoption of local action plans, based upon noise mapping results, with a view to preventing and reducing environmental noise where necessary and particularly where exposure is great;
- preservation by the Member States of environmental noise quality where it is good;
- collection of data by the Commission to inform future Community policy.

The directive applies to:

- large urban areas – agglomerations (initially with more than 250,000 inhabitants but in the second stage for those with more than 1000,000 inhabitants); and in addition,
- for the areas near to major transport noise sources outside agglomerations.

Major transport sources within agglomerations will additionally be needed to be mapped and plans produced as for such sources outside agglomerations.

Following a report³ by an expert working group, the Directive introduces two noise indicators to be used in common throughout the Member States. The first, L_{den} , (equivalent continuous sound level during the day, evening and night with a weighting of 5dB for the evening and 10dB for the night) is intended to characterise the noise in relation to 'annoyance'. The second, L_{night} (equivalent continuous sound level during the night) is intended to relate to 'sleep disturbance'.

The Directive deals with strategies and long-term approaches to reduce noise in the domestic environment for the majority of the population. It does not address individual cases, complaints and neighbourhood noise nor noise in the working environment.

Within seven years of the Directive coming into force, the Commission will submit a report on the implementation of the Directive and in particular to assess the need for further Community action on environmental noise such as:

- long-term and medium-term goals for the reduction of the number of persons harmfully affected by environmental noise, taking particularly into account the different climates and different cultures;
- additional measures for a reduction of the environmental noise emitted by specific sources, in particular outdoor equipment, means and infrastructures of transport

- and certain categories of industrial activity, building on those measures already implemented or under discussion for adoption;
- the protection of quiet areas in open country.

IMPLEMENTATION OF THE DIRECTIVE

Strategic Noise Maps

The Directive requires that the first strategic noise maps are produced by 2007 reflecting the position in the previous year. The maps must reflect the new approach and use the EU noise indicators Lden and Lnight. A report² on the production of such maps in Birmingham was published in 2000.

Action Plans

The first action plans will be required in 2008 and include a compulsory public consultation although the actual measures are at the discretion of the competent authorities.

Maps and action plans must be "made available and disseminated to the public".

Implementation

Member States are faced with a number of important decisions regarding implementation of the Directive. A consultation⁴ on this topic was issued last year in England. Such decisions include:

- The balance between central and local responsibilities

Whilst there are still considerable uncertainties in the balance between central and local responsibilities, however this is resolved, it will be crucial that those who will be expected to use the maps and crucially, develop and implement action plans based on them should feel strong psychological ownership of the data, process and results.

- Definition of Day, Evening and Night

The directive provides some flexibility in the definition of "day", "evening" and "night". It will be necessary to reach a consensus on agreed definitions for these periods.

- Definition of Agglomerations

The directive leaves the definition of an agglomeration very much to Member States. The UK Government has commissioned a report⁵ to examine the options to define and identify agglomerations to be mapped under the directive.

The report took a density of 500 persons per square kilometre⁷ to qualify as urban and identified 3 options for defining agglomerations:

- 1 the population density of Local Authorities;
- 2 the population density of ward or similar level administrative boundaries;
- 3 the total population of discrete areas of continuous urban land (as used in the Air Quality Daughter Directive).

It was assumed that for the practical purpose of noise mapping, the geographical extent of agglomerations to be mapped should be restricted to urbanised areas (or non-urban areas entirely surrounded by built-up areas) and where residential houses, schools and hospitals are most likely to be located. As a result option 3 was identified as the approach most likely to deliver a practicable definition of urban agglomerations. The alternative approaches had the drawback of including non-urban land parcels within the agglomerations. Option 3 also had the advantage of maintaining consistency with current UK practice.

- **Competent Authorities**

The Directive requires that there be a single competent authority responsible for mapping each agglomeration even when agglomerations cross Local Authorities' administrative boundaries. In addition it requires separate maps for major roads, major railways and airports within the agglomeration. Whilst it is not critical how the individual parts of the work are undertaken, it will then be necessary to bring the constituent parts of the agglomerations' maps and plans into a single coherent document. For this there seem to be three options:

- the various local authorities do so voluntarily;
- new bodies are created with a legal duty to undertake this work; or
- central government in some form, perhaps through a Government Agency, which if necessary could be given additional powers, undertakes the work.

- **Other issues**

The directive will also require Governments to determine:

- how synergies and conflicts with other environmental actions should be handled⁶;
- the definition of Industrial premises;
- the basis for mapping and producing action plans for ports;
- the definition of "regional" and "national" roads;
- how railways and airports will be mapped and which bodies will be responsible for action plans;
- where Member States have some form of devolution how responsibilities will be shared between the Central Government and the Devolved Administrations.

References

- 1 Commission of the European Communities, Directorate General XI. Future Noise Policy. *European Commission Green paper. Brussels 1996*

- 2 Environmental Services Department, Birmingham City Council. A report on the production of noise maps of the City of Birmingham. *Department of the Environment, Transport and the Regions: London. February 2000.*
- 3 Commission of the European Communities, Directorate General XI. Position Paper on EU Noise Indicators. *Working Group on Noise Indicators. 27 August 1999.*
- 4 Towards a National Ambient Noise Strategy. A consultation paper from the Air and Environmental Quality Division. *Department for Environment, Food and Rural Affairs: London. November 2001*
- 5 Identifying the options available for determining population data and identifying agglomerations in connection with EU proposals regarding environmental noise. *AEA Technology for the DETR, SE, NAW & DoE N.I January 2001*
- 6 Determination of the Potential Synergies and Conflicts between Noise and Air Quality Action Plans. *WS Atkins for the DETR, SE, NAW & DoE NI; United Kingdom. March 2001*
- 7 Census of Key Statistics for Urban and Rural Areas. *Office of National Statistics London: 1997.*
- 8 The Costs and Benefits of Traffic Policies which Reduce Noise Exposure. *Mott MacDonald for the Department of Transport, Environment and the Regions. June 2001.*