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Environment and Heritage Service

# Environment and Heritage Service



## **Environment (NI) Order 2002 Local Air Quality Management**

**Progress Report Guidance  
LAQM.PRGNI(04)**

**November 2004**



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# Chapter 1 Introduction

## Introduction

1.01 This guidance document is designed to assist District Councils in the preparation of air quality Progress Reports which form part of the local air quality management (LAQM) system introduced by the Environment (Northern Ireland) Order 2002 and subsequent Regulations. It supplements the two documents issued in 2003, which provide policy guidance (LAQM.PGNI(03)) and technical guidance (LAQM.TG(03)) for District Councils carrying out their LAQM duties. LAQM itself forms a key part in the UK Government's and the Devolved Administrations' strategies to achieve the air quality objectives. This Guidance applies in Northern Ireland.

## Role of Progress Reports

1.02 Progress Reports have been introduced into the LAQM system following a detailed evaluation of the first round of review and assessment<sup>1</sup>. Discussions were held with a wide range of local authorities in Great Britain. A need was identified to develop a longer-term vision for both LAQM and the review and assessment process. The process was seen to be too stop-start, with some Local Authorities completing their first round of review and assessment and then doing little for several years until the next round. This did not encourage the integration of LAQM into the routine work of Local Authorities.

1.03 The evaluation report recommended that *“careful consideration should be given to requiring an annual LAQM report instead of less frequent review and assessment reports. This would avoid the current stop-start situation affecting many authorities. It would help ensure continuity in resourcing air quality within Local Authorities so as to maintain the capacity and skills required to manage LAQM. Such a report should provide both a review and update on air quality issues, including information on developments that might affect air quality and the results of monitoring. It would ensure that changed circumstances requiring a detailed assessment were identified early and acted upon without delay. The proposal should be developed further and consulted on with Local Authorities.”* This recommendation was developed further by Defra and the Devolved Administrations. The current concept of Progress Reports, to be prepared in years when authorities are not carrying out their 3 yearly Updating and Screening Assessment or carrying out a Detailed Assessment, was introduced in the policy and technical guidance documents (LAQM.PGNI(03), LAQM.TG(03)). These guidance documents were widely consulted upon, and the longer-term vision, which included Progress Reports was welcomed

1.04 Progress Reports should assist District Councils with the LAQM process in a number of ways – see Box 1.1. This in turn should help District

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<sup>1</sup> Evaluation of the First Round of the Local Air Quality Management Process, Report for Defra, March 2002, available at [www.defra.gov.uk/environment/airquality/laqm/eval/index.htm](http://www.defra.gov.uk/environment/airquality/laqm/eval/index.htm)

Councils implement LAQM and thereby bring about improvements in air quality.

<b>Box 1.1: How Progress Reports can assist District Councils</b>
By helping retain a profile for LAQM within the council, including the retention of staff with knowledge of air quality issues.
By providing a means for communicating air quality information to members and the public.
By maximising the usefulness and interpretation of the monitoring effort being carried out by the District Council.
By maximising the value of the investment in monitoring equipment.
By making the next round of review and assessment that much easier, as there will be a readily available up-to-date source of information.
By helping District Councils respond to requests for up-to-date information on air quality.
By providing information to assist in other policy areas, such as transport and land use planning.
By providing a ready source of information on air quality for developers carrying out environmental assessments for new schemes.
By demonstrating progress with implementation of air quality Action Plans and/or air quality strategies.
By providing a timely indication of the need for further measures to improve air quality, rather than delaying until the next full round of review and assessment.

1.05 Progress Reports are not designed to represent an Updating and Screening Assessment; however District Councils **are reminded that if at any time they identify a risk of an air quality exceedence then they should proceed to a Detailed Assessment** and not delay until the next full round of review and assessment<sup>2</sup>.

### When are Progress Reports required?

1.06 Progress Reports are designed to ensure continuity in the LAQM process. They thus fill the gaps between the three yearly requirement to carry out a review and assessment of air quality. The timetable is illustrated in Box 1.2. **Progress Reports are only required in years when the District Council is not carrying out an Updating and Screening Assessment or a Detailed Assessment.** The due date for submission is the end of April in the relevant year.

<sup>2</sup> See paragraph 1.76 in LAQM.PGNI(03).

**Box 1.2: Timetable for Progress Reports within Review and Assessment System**

LAQM Activity	Completion Date	Which Authorities?
Progress Report	April 2005	All District Councils
Updating and screening assessment	April 2006	All District Councils
Detailed assessment	April 2007	Those District Councils which have identified the need for one in their April 2006 updating and screening assessment.
Progress report	April 2007	Those District Councils which identified that there was <b>no</b> need for a detailed assessment in their April 2006 updating and screening assessment.
Progress Report	April 2008	All District Councils
Updating and screening assessment	April 2009	All District Councils
Detailed assessment	April 2010	Those District Councils which have identified the need for one in their April 2009 updating and screening assessment.
Progress report	April 2010	Those District Councils which identified that there was <b>no</b> need for a detailed assessment in their April 2009 updating and screening assessment.

## The format and content of Progress Reports

1.07 The format for the Progress Report is left to the District Council to determine. In those cases where the council is already producing a regular air quality report, then it may be appropriate to amend this report to cover the requirements of a Progress Report.

1.08 This guidance sets out the **minimum reporting requirements** for Progress Reports that form part of the review and assessment process. It also discusses **recommended additional elements** that can usefully be included in Progress Reports. For those District Councils implementing air quality Action Plans, there is a separate requirement to prepare **annual Progress Reports**. It is strongly advised that those District Councils needing to report progress on Action Plans produce a single Progress Report covering both the review and assessment and Action Plan reporting requirements.

1.09 When preparing their reports, District Councils should bear in mind that **the overall aims should be to report progress on implementing local air quality management, and progress in achieving, or in many cases**

**maintaining, concentrations below the air quality objectives.** Examples of Progress Reports are available on the Review and Assessment Helpdesk web site. These can be viewed at - [www.uwe.ac.uk/aqm/review/examples/index.html](http://www.uwe.ac.uk/aqm/review/examples/index.html).

## What to do with Progress Reports?

1.10 On completion, District Councils should submit their Progress Reports to the Environment and Heritage Service for consideration. They may choose how wide they wish to circulate these reports, but it would be good practice to make copies available to the public, local stakeholders, relevant authorities and other District Council departments for information.

1.11 The Department and its assessors will appraise the reports to confirm that they follow the minimum requirements set out in Guidance and that progress is being made in working towards meeting the air quality objectives or maintaining concentrations below the objectives.

## Support for preparation of Progress Reports

1.12 District Councils are encouraged to make full use of the five Helpdesks funded by Defra and the Devolved Administrations, when preparing their Progress Reports. Contact details are provided in Box 1.3. Before contacting the Helpdesk the authority should check with the frequently asked questions (FAQs) sections of the websites to see whether their question has already been addressed.

1.13 Use should also be made of the Air Quality Archive, which houses monitoring data collected as part of the national monitoring networks, as well as a number of tools to help the review and assessment process. This is available at [www.airquality.co.uk](http://www.airquality.co.uk).

<b>Box 1.3: Helpdesks for Local Authorities</b>		
<b>Helpdesk</b>	<b>Operated by</b>	<b>Contact Details</b>
<b>Review &amp; Assessment</b>	Air Quality Consultants Ltd. and University of West of England	0117 328 3668 <a href="mailto:aqm-review@uwe.ac.uk">aqm-review@uwe.ac.uk</a> <a href="http://www.uwe.ac.uk/aqm/review">www.uwe.ac.uk/aqm/review</a>
<b>Monitoring</b>	NETCEN	0870 190 1600 <a href="mailto:aqm.helpline@aeat.co.uk">aqm.helpline@aeat.co.uk</a> <a href="http://www.airquality.co.uk">www.airquality.co.uk</a>
<b>Emissions</b>	NETCEN	0870 190 1600 <a href="mailto:aqm.helpline@aeat.co.uk">aqm.helpline@aeat.co.uk</a> <a href="http://www.airquality.co.uk">www.airquality.co.uk</a>
<b>Modelling</b>	Casella Stanger	020 7902 6119 <a href="mailto:modelhelp@stanger.co.uk">modelhelp@stanger.co.uk</a> <a href="http://www.stanger.co.uk/airqual/modelhlp">www.stanger.co.uk/airqual/modelhlp</a>
<b>Action Plans</b>	Casella Stanger	020 7902 6130 <a href="mailto:actionplanhelp@stanger.co.uk">actionplanhelp@stanger.co.uk</a> <a href="http://www.stanger.co.uk/actionplan">www.stanger.co.uk/actionplan</a>

## Chapter 2 Minimum Requirements

### Introduction

2.01 The overall aims of the Progress Report should be to:

- report progress on implementing local air quality management; and
- report progress in achieving, or in many cases maintaining, concentrations below the air quality objectives;

2.02 It is considered these aims can best be achieved by addressing two matters:

- new monitoring results; and
- new local developments that might affect local air quality.

This chapter provides guidance on what is expected under each of these headings.

### New monitoring results

2.03 Most District Councils are carrying out some form of air quality monitoring in their area. Some have been doing so for many years. In certain cases this supplements data that are available from national network sites. **The Progress Report should provide a summary of all available monitoring data in a format suitable for comparison with the relevant air quality objectives.** For example nitrogen dioxide data should be reported as annual mean concentrations, and where possible as the number of exceedences of the 1-hour objective value of  $200 \mu\text{g}/\text{m}^3$ . Reporting full hourly data, or full monthly data for diffusion tubes, is not necessary.

2.04 To maximise the value of air quality monitoring, careful attention should be paid to the type of equipment used and the locations where the monitors are placed, as well as the QA/QC and data verification procedures. Detailed guidance on these issues is provided in Appendix 1 of LAQM.TG(03), and reference should be made to this when setting up and operating monitoring equipment. Particular matters to take account of when preparing and assessing monitoring results are set out in Box 2.1.

### What to include in the Report

2.05 When reporting the monitoring data the following should be included where possible:

- details on site location including grid references and a map showing the monitoring locations. It may be possible to refer to a map in a previously published document, as long as it is readily available, e.g. published on the web;



- instrumentation used and affiliation to any monitoring network;
- summary tables of concentrations that allow ready comparison with the objectives, e.g. annual mean values for nitrogen dioxide for the measurement year;
- plots showing trends in concentrations, e.g. plots of annual mean nitrogen dioxide concentrations for the last ten years; and
- details of data capture and quality control/ratification status.

<b>Box 2.1: Matters to take into account when reporting monitoring data</b>	
<b>1</b>	When presenting automatic monitoring data, it should be made clear whether the results have been ratified. It may be necessary to have a combination of ratified and unratified data. The fully ratified data can then be updated in the next report. Information on data capture should also be provided.
<b>2</b>	Where data are available for less than 9 months, then they should be adjusted to provide an estimate of the annual mean using the procedure set out in LAQM.TG(03) (Box A1.3, page A1-16).
<b>3</b>	To help understand the results, the type of monitoring site should be specified (see Appendix A in Annex 1 to LAQM.TG(03) for definitions). For roadside sites the distance from the kerb should be provided. For industrial sites the distance to the source(s) should be specified. This information could be provided as an Appendix to the report.
<b>4</b>	Where nitrogen dioxide diffusion tube data are provided, then it should be made clear whether the results have been adjusted for laboratory bias or local bias. Where they have been adjusted, brief details should be provided of the adjustment factor used and its source. Details should also be provided of the laboratory being used, the tube preparation method and the exposure period.
<b>5</b>	Summary information should be provided on QA/QC. This can be by way of a reference to a previously published document, so long as the document is still readily available, e.g. a Stage 3 report published on the web.
<b>6</b>	Where results are presented for new monitoring sites, then a description of the sites should be provided. This should include the reason they were set up, e.g. do they represent worst-case relevant exposure locations?
<b>7</b>	When describing sites, it should be made clear whether they represent relevant exposure. For instance, if the site is kerbside, it would be appropriate to say that "the nearest relevant exposure is residential properties set back 5 m from the kerb."
<b>8</b>	For short-term objectives, e.g. 1-hour for nitrogen dioxide, the results should be presented as number of hours (or 15-mins for sulphur dioxide, or days for PM <sub>10</sub> ) above the objective value. This should only be done where data capture is >90% of a full year. If data capture is <90% or monitoring is for less than a full year, then it is only appropriate to present the results as percentiles. The following percentiles roughly equate to the objectives: 99.8 <sup>th</sup> percentiles for 1-hour nitrogen dioxide; 99.9 <sup>th</sup> percentiles for 15-min sulphur dioxide; 99.7 <sup>th</sup> percentiles for 1-hour sulphur dioxide; 99.2 <sup>nd</sup> percentile for 24-hour sulphur dioxide; and 90 <sup>th</sup> percentile for PM <sub>10</sub> . Guidance on calculating percentiles is available in LAQM.TG(03) page A1-39.
<b>9</b>	When reporting results a note should be made of any local circumstances that may have affected the results, e.g. construction activities close to a PM <sub>10</sub> monitor, or temporary changes in traffic flows during road works.

2.06 The Progress Report should draw attention to:

- results for new monitoring sites and whether they reveal any new information about air quality; and
- evidence of any trends over recent years. Care should be exercised in discussing trends, as changes in concentrations occur from year to year due to weather conditions. It is normal practice to only consider a trend as being significant when five years worth of data are available, although a longer timescale may be appropriate for some pollutants, e.g. PM<sub>10</sub>.

## New local developments

2.07 This section should deal with changes that have taken place that may affect air quality. The items to include are:

- new industrial processes included in the list in Appendix 2 of TG(03), i.e. Part A, or B or C processes;
- new developments with an impact on air quality, especially those that will significantly change traffic flows. This need only include developments that have been granted planning permission; and
- new landfill sites, quarries etc. that have been granted planning permission, and which have nearby relevant exposure (see Box 8.4 in TG(03), page 8-33).

2.08 The Progress Report should log these changes so that they can be considered more thoroughly during the next full round of review and assessment.

<b>Box 2.2: Examples of New Local developments to include in Progress Reports</b>		
	Development	Source of Information
<b>1</b>	New Part A process	Environment and Heritage Service IPRI
<b>2</b>	New Part B process New Part C process	Environment and Heritage Service IPRI District Councils
<b>3</b>	New retail development	Department of the Environment, Planning Service
<b>4</b>	New road scheme	Department of Regional Development, Roads Service
<b>5</b>	New mineral development	Department of the Environment, Planning Service
<b>6</b>	New landfill development	Department of the Environment, Planning Service
<b>7</b>	Mixed use development (residential/commercial)	Department of the Environment, Planning Service

## Chapter 3 Recommended Additional Elements

### Introduction

3.01 The guidance on the contents of a Progress Report in Chapter 2 is designed to ensure District Councils provide the minimum information to demonstrate to stakeholders the progress that is being made in addressing air quality issues within their District Council areas. The Progress Report provides, however, an ideal opportunity to report on other aspects of the work undertaken within the District Council area, which helps to improve air quality. Possible elements that could be added to Progress Reports are:

- progress on implementation of Action Plans;
- an assessment of the monitoring data in relation to likely exceedences of the objectives;
- progress on local air quality strategies;
- a list of planning applications that have the potential to affect local air quality; and
- details of transportation measures implemented or proposed in accordance with the Regional Transportation Strategy for Northern Ireland 2002-2012 and its Transport Plan.

There may be other areas of local interest that the council also wishes to incorporate into its Progress Report.

### Implementation of Action Plans

3.02 Although District Councils can submit separate Progress Reports on Action Plans, they are advised to combine the two reports into one 'Air Quality Progress Report'. The role of action plan Progress Reports was originally set out in the Policy Guidance, LAQM.PGNI(03). It is to help ensure that District Councils implement the measures within their Action Plan to the timescale indicated within the plan.

3.03 It was suggested in LAQM.PGNI(03) that the report should simply list the measures within the action plan, including the timescales by which they are due to be implemented, and then give an update on progress in terms of their implementation.

3.04 The Department also expect District Councils to include some comments within the Action Plan Progress Report detailing, where possible, the impact the measures have had/are having on local air quality. A revised suggested layout for the Action Plan element of a Progress Report is therefore provided in Box 3.1. **The Department expects District Councils to have regard to this layout when completing their Action Plan Progress Reports and the action plan element of the Air Quality Progress Report<sup>3</sup>.**

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<sup>3</sup>District Councils and Relevant Authorities should note that this layout supersedes that set out in Appendix C of LAQM.PGNI (03).

<b>Box 3.1: Recommended format for Action Plan report</b>				
<b>Action Plan measure/target</b>	<b>Original timescale<sup>a</sup></b>	<b>Progress with measure</b>	<b>Outcome to date</b>	<b>Comments</b>
Roadside emissions testing.	To be implemented by February 2005.	Roadside emissions testing programme commenced in March 2005, in collaboration with 4 neighbouring councils.	To date more than 2,000 vehicles have been tested. The failure rate is currently 4%.	An article in the local paper regarding the scheme has raised the profile within the area.
Publicity Campaign on walking/cycling.	Implementation by August 2004 and scheduled to run for 12 months.	Introduced on time and due to run 12 months.	There has been no observed reduction in traffic levels, but a snapshot review of 5 schools has indicated a 5% increase in cycling.	Leaflets available in all public places. Exhibition stands in main shopping centres. Campaign linked to work with schools/universities on sustainable travel.
Park and Ride Scheme (state which area in the authority).	To be fully implemented by June 2005.	On schedule to be implemented by June 2005.	No outcome to date.	Scheme being taken forward with support from transport planners.
Environment and Heritage Service agreed to modify permit to limit emissions.	Modification to permit to be implemented by EHS by January 2005.	Negotiations are continuing with EHS and the modification is on target to be issued.	N/A	Limit on emissions will be effective from (date).
Area speed reductions (20 mph zones in residential areas).	To commence implementation in March 2006.	Traffic calming around schools is on target to be implemented in March 2006. Additional LTP funding is required to extend the scheme to residential areas.	No outcome to date.	A generally positive response to the proposed scheme has been received from local residents.

<sup>a</sup> District Councils are encouraged to develop explicit timescales for implementation, so progress can be adequately monitored, e.g. 'January 2005' not '2005'.

<sup>b</sup> The actions and timescales in Box 3.1 are by way of examples that could go into an action plan.

## Assessment of monitoring data

3.05 The minimum requirement as set out in Chapter 2 is to report monitoring data and trends over recent years. It will also prove helpful to project the measured concentrations forward to the objective years, using the guidance in LAQM.TG(03) (Boxes 2.3, 3.3, 4.3, 6.6, 6.7, 6.8 and 8.7)<sup>4</sup>. This will provide early warning of likely exceedences that may not have been previously identified.

3.06 Councils may also find it helpful to report on their monitoring for pollutants not covered by the regulations, e.g. ozone, polycyclic aromatic hydrocarbons (PAH) etc., as well as other air quality data, e.g. odour complaints, dust deposition, etc. Councils will already be reporting such data to Members and the public, and it should be straightforward to include the information in a single report.

## Local air quality strategies

3.07 The LAQM Policy Guidance (LAQM.PGNI(03)) strongly recommends that all councils, particularly those that have not had to designate AQMAs or do not expect to designate an AQMA in future, but who have areas close to the exceedence levels, should consider drawing up a local air quality strategy.

3.08 Progress Reports provide the opportunity for the authority to report on the development of its strategy, or where the strategy is in place to report on progress with implementation of any specific measures within the strategy. The following questions could usefully be addressed:

- To what extent has your council developed an air quality strategy?
- If this has been completed, how far has it been implemented?
- How accessible is the strategy (e.g. deposited in local libraries, published on the internet)?
- When will the strategy next be reviewed?

## Planning applications

3.09 The land use planning system is recognised to play an integral part in improving air quality (see chapter 7 of Local Air Quality Management Policy Guidance LAQM.PGNI(03)). This requires close co-operation between planners and environmental health officers. Most District Councils have developed procedures to help ensure that planning applications that might have impacts on air quality are forwarded to the environmental health department for comment.

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<sup>4</sup> A calculator tool is available to carry out these calculations on the website [www.airquality.co.uk](http://www.airquality.co.uk), under Local Air Quality Management : LAQM Tools : Year Adjustment Factors

3.10 Updating and Screening Assessments and Detailed Assessments should take account of planning applications that have been approved, but not those in the pipe-line. Progress Reports, on the other hand, provide the opportunity to log planning applications for new developments to give a picture of areas where changes may take place and where combined impacts from several developments may become important.

3.11 The information provided in a planning section of the Progress Report could therefore include a list of the major developments under consideration that might affect air quality. Such a list could be based on those applications for which an air quality assessment was being provided or for which an air quality assessment had been requested.

## Transport Measures

3.12 The majority of air quality issues in the UK relate to emissions from the road transport sector and the implementation of appropriate transportation measures can help to improve air quality. District Councils may wish to make reference within the Progress Report to such measures identified in the Regional Transportation Strategy for Northern Ireland 2002 – 2012. Roads Service should be contacted in the first instance, if any interpretation of measures or plans is required.

## Appendix A Checklist

<b>Box A.1: Progress Report Checklist</b>		
<b>Item</b>	<b>Minimum Requirement</b>	<b>Recommended Additional Elements</b>
<b>New Monitoring Results</b>	<b>Data</b> (Paras 2.03-2.06 & Box 2.1)	(Para 3.05)
	<p>Present a map showing monitoring locations.</p> <p>Present summary tables of concentrations of regulated pollutants in a format to allow comparison with the objectives.</p> <p>Provide plots of summary data to show annual trends.</p>	Project forward results to the objective years using LAQM.TG(03) Guidance.
	<b>Report</b> (Para 2.06)	(Para 3.06)
	<p>Highlight results for new sites.</p> <p>Discuss trends. Take account of number of years of available data.</p>	<p>Report any results for unregulated pollutants, e.g. ozone, PAHs, etc.</p> <p>Report other air quality data, e.g. odour complaints, dust deposition results, etc.</p>
<b>New Local Developments</b>	(Paras 2.07-2.08 & Box 2.2)	
	Identify and list new developments that may affect air quality.	
<b>Action Plans</b>		(Paras 3.02-3.04 & Box 3.1)
		<p>List measures in action plan and implementation timescales.</p> <p>Provide update on progress implementing measures.</p>
<b>Local Air Quality Strategy</b>		(Paras 3.07-3.08)
		<p>Summarise Strategy or progress on preparing a Strategy or reviews of the Strategy.</p> <p>Describe consultation/publicity for Strategy.</p> <p>Report on progress on implementing measures within Strategy.</p>
<b>Planning</b>		(Paras 3.09-3.11)
		Log planning applications for new developments for which air quality assessment is being provided.
<b>Transportation Measures</b>		(Paras 3.13-3.14)
		<p>Summarise transportation measures that have a direct bearing on air quality.</p> <p>Report on progress with implementing these measures.</p>











