



**AMBER VALLEY  
BOROUGH COUNCIL**

**2011 Air Quality Progress Report**  
for  
*Amber Valley Borough Council*

In fulfillment of Part IV of the Environment Act 1995  
Local Air Quality Management



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<b>Report Reference number</b>	PR2011
<b>Date</b>	2011

## **Executive Summary**

This report fulfils the requirements of the Local Air Quality Management (LAQM) process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents.

Since there has again been little change since the Progress Report 2010, the pollutants have not been considered on an individual basis but a conclusion has been reached about the overall need for a detailed assessment.

There is little likelihood of any air quality objectives being exceeded and it would therefore not be justifiable to proceed to a detailed assessment for any of the identified pollutants.

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# 1 Introduction

## 1.1 Description of Local Authority Area

The borough of Amber Valley is located on the eastern side of Derbyshire, between Derby to the south and Chesterfield to the north. The area is comprised of four main towns; Alfreton, Belper, Heanor and Ripley, and is divided into twenty-five wards. Amber Valley covers just over 260 square kilometres and, apart from the towns, is largely rural in character. The present population, taken during 2004, is 118,200.

The borough has a wide range of industrial sectors including instrument engineering, timber and furniture manufacture, hotels and catering, business services, textiles and clothing. Almost 500 companies are located within 20 industrial estates, with a further 400 located on singular sites or within the urban areas.

Major roads include the A38, providing a link between Derby and junction 28, A6, A609 and A610. The A52 between Derby and Ashbourne cuts through the southern-most tip of the borough. The only rail stations in the area are at Belper, which is on the busy east coast mainline, and at Alfreton, with through trains to London, Manchester and the north.

## 1.2 Purpose of Progress Report

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the Local Air Quality Management process.

They are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, the Local Authority (LA) should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

## 1.3 Air Quality Objectives

The air quality objectives applicable to Local Air Quality Management (LAQM) in England are set out in the Air Quality (England) Regulations 2000 (SI 928), and the Air Quality (England) (Amendment) Regulations 2002 (SI 3043). They are shown in Table 1.1. This table shows the objectives in units of micrograms per cubic metre  $\mu\text{g}/\text{m}^3$  (for carbon monoxide the units used are milligrams per cubic metre,  $\text{mg}/\text{m}^3$ ). Table 1.1. includes the number of permitted exceedences in any given year (where applicable).

**Table 1.1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in England.**

<b>Pollutant</b>	<b>Concentration</b>	<b>Measured as</b>	<b>Date to be achieved by</b>
<b>Benzene</b>	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	5.00 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2010
<b>1,3-Butadiene</b>	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
<b>Carbon monoxide</b>	10.0 $\text{mg}/\text{m}^3$	Running 8-hour mean	31.12.2003
<b>Lead</b>	0.5 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2008
<b>Nitrogen dioxide</b>	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2005
<b>Particles (PM<sub>10</sub>) (gravimetric)</b>	50 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
<b>Sulphur dioxide</b>	350 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005



## **1.4 Summary of Previous Review and Assessments**

The area is semi-rural with four small towns as the main urban areas, no significant road links, no congestion problems or large industry.

Monitoring exercises, from the first round of Review and Assessment, included stage 2 reports for sulphur dioxide, particulates and nitrogen dioxide and a stage 3 assessment of nitrogen dioxide. These indicated that all pollutant levels were either currently, or anticipated to be, well below the standards by the relevant objective dates.

The results of the Updating and Screening Assessment completed in 2003 showed no change to these conclusions and the Progress Reports in 2004 and 2005 again showed no need for a 'Detailed Assessment'. The NO<sub>2</sub> diffusion tube survey conducted to inform the compilation of the Progress Report 2005 also indicated that the concentrations measured at all sampling locations are below the air quality standards.

The Updating and Screening Assessment completed in 2006 did not identify any significant changes which may have impacted in the borough's air quality, it was not proposed to proceed to a detailed assessment for any of the pollutants listed. The Progress Reports of 2007 and 2008 did not identify any significant changes that would require the Council to consider a Detailed Assessment before the next full round of review and assessment.

The Updating and Screening Assessment 2009 and Progress Report 2010 did not identify any potential exceedances of the National Air Quality Objectives in Amber Valley. There was no requirement to proceed to Detailed Assessment.

Based on the findings of previous reports, the resources needed to undertake an air-monitoring scheme in Amber Valley could not be justified.

## **2 New Monitoring Data**

### **2.1 Summary of Monitoring Undertaken**

The 2010 Progress Report concluded that it was unlikely that any National Air Quality Objectives would be exceeded in Amber Valley, as such it was not deemed necessary to conduct any air monitoring in the past 12 months.

#### **2.1.1 Summary of Compliance with AQS Objectives**

The Updating and Screening Assessment 2009 and Progress Report 2010 concluded that the cost of a monitoring programme could not be justified based on the very low likelihood that National Air Quality Objectives would be breached in the borough. As such there is no new monitoring data to discuss.

### **3 New Local Developments**

#### **3.1 Road Traffic Sources**

There are no newly identified road traffic sources.

#### **3.2 Other Transport Sources**

There are no newly identified airports, railways or ports.

#### **3.3 Industrial Sources**

There are no new or proposed industrial installations for which planning approval has been granted, and for which an air quality assessment has been carried out, within the District or nearby in a neighbouring authority

There are no industrial installations with substantially increased emissions or new relevant exposure in the District or nearby in a neighbouring authority.

#### **3.4 Commercial and Domestic Sources**

There are no new/newly identified commercial or domestic sources.

#### **3.5 New Developments with Fugitive or Uncontrolled Sources**

There are no new/newly-identified developments with fugitive or Uncontrolled Sources.

## **4 Local / Regional Air Quality Strategy**

Amber Valley Borough Council does not have a Local Air Quality Strategy. There are no areas of the District considered to be close to the exceedence levels.

## 5 Planning Applications

There have been no planning applications, made to Amber Valley Borough Council, in the last twelve months that were considered to have the potential to significantly impact on air quality. No air quality assessments have been included with any planning application submitted to Amber Valley Borough Council.

Derbyshire County Council has consulted Amber Valley Borough Council on two planning applications in the past twelve months that have been submitted to them.

### **Pye Bridge Gasification**

This application was described in the Progress Report 2010. Emissions to air from the installation would be controlled under an Environmental Permit, regulated by the Environment Agency. However Amber Valley Borough Council have requested an Air Quality Assessment to allow us to decide if those aspects of the development that will fall outside the permit (traffic movements) would cause a significant worsening of any Air Quality Objective.

This application has not yet been determined.

### **Smalley Opencast Extension**

As discussed in the Progress Report 2008 and the Updating and Screening Assessment 2009; UK Coal is currently extracting approximately 1,000,000 tonnes of coal, over a 4.5-year period, by opencast methods at the 122-hectare Lodge House Opencast site. This is being undertaken under planning permission granted by Derbyshire County Council.

Derbyshire County Council consulted Amber Valley Borough Council on an application to extend the current opencast. The proposed working scheme aims to recover approximately 748,000 tonnes of coal by surface mining methods over a 42-month period the proposed extension area is 78-hectares in size.

A Dust Management & Action Plan is operational at the site and monitoring includes the use of Sticky Pads\Strips and a TOPAS instrument; with a proposal to include a TEOM.

Planning permission was granted to this application and included the following conditions relating to air quality:

- No development shall take place until a scheme for the suppression and control of dust (including PM10 particles) and the monitoring and recording of dust levels has been submitted to and approved in writing by the Mineral Planning Authority.

The Scheme shall be based on the Dust Management and Action Plan of September 2011 and shall include:

- (I). The measures to be taken to suppress and control dust;

- (II). The qualifications and experience of the personnel to be engaged in undertaking the monitoring and recording;
- (III). The equipment to be used to monitor dust levels and the arrangements for calibration;
- (IV). The number and location of monitoring points
- (V). The frequency of monitoring and reporting to the Mineral Planning Authority; and
- (VI). The steps to be taken in the event that complaints, due to dust, are received by the developer including the triggers for the action up to and including the temporary suspension of operations.

The results of monitoring and records of any incidents known to the developer relating to dust, shall be maintained and made available for inspection by the Mineral Planning Authority between reporting intervals at the site office during normal site operating hours.

The scheme shall be implemented as approved in writing by the Mineral Planning Authority.

- There shall be no burning of waste on site.

### **George Farm Opencast**

Derbyshire County Council has received a planning application for an opencast scheme to be known as the George Farm Reclamation Site. The proposed site will be located approximately 12km to the North East of Derby and 2km to the West of Heanor town centre, the nearest urban area. The site comprises an area of approximately 35 hectares centred at National Grid Reference 441150, 346780. The site is intended to be worked to provide indigenous coal.

Amber Valley Borough Council are currently considering the air quality aspects of the proposed development. We will pass our observations to Derbyshire County Council in due course.

This application has not yet been determined.

## 6 Air Quality Planning Policies

In accordance with the advice given in Planning Policy Statement 23: Planning and Pollution Control (PPS 23) the Council recognises the roles of the planning system and pollution control legislation in seeking to protect the environment from the threat of pollution.

In considering development proposals which may lead to a material increase in pollution, the Borough Council will take into account advice from its environmental services officers and other consultees in the application process; this is set out in the following Policies:

### Policy EN16

Planning permission will not be granted for development that would be likely to lead to a material increase in levels of air, water, noise, light or other forms of pollution.

Where potentially polluting development is permitted in response to economic and wider social needs, conditions will be imposed on planning permissions to ensure that pollution levels created by development can be minimised

Potentially polluting development will not be permitted in proximity to existing residential or other sites sensitive to pollution, where such uses cannot reasonably co-exist

### Policy EN17

Planning permission will only be granted for development close to existing sources of pollution, where the proposed use is compatible with the existing operation.

The Borough Council will impose conditions on planning permissions, as necessary, to ensure that future occupiers of development are protected from existing sources of pollution

## **7 Conclusions and Proposed Actions**

### **7.1 Conclusions relating to New Local Developments**

Amber Valley Borough Council can confirm that no local developments are predicted to increase the concentration levels of any ambient pollution as listed in the regulations.

### **7.2 Other Conclusions**

This report has considered all the potential issues within the Borough that may impact on air quality. The area is semi-rural with four small towns as the main urban areas, no significant road links, no significant congestion problems or large industry, there is no reason to believe there will be any exceedances of any National Air Quality Objectives, therefore there is no requirement to procedure to Detailed Assessment.

### **7.3 Proposed Actions**

Based on the findings of this report, and previous reports, the resources required to implement an air-monitoring scheme in Amber Valley cannot currently be justified. This decision will remain under review, and any relevant emerging information will be considered.

Amber Valley Borough Council's next course of action is to produce the Updating and Screening Assessment report in mid 2012.



## 8 References

- AVBC USA 2006
- AVBC Progress Report 2007
- AVBC Progress Report 2008
- AVBC Updating and Screening Assessment 2009
- AVBC Progress Report 2010
- AVBC Local Plan 2006
- Defra (2003) Local Air Quality Management. Technical Guidance. LAQM.TG (03).
- Defra (2009) Local Air Quality Management. Technical Guidance. LAQM.TG (09)
- National Atmospheric Emissions Inventory website, <http://www.naei.org.uk/>
- <http://www.airquality.co.uk/laqm/tools.php>