

# **Updating & Screening Assessment 2006**

Air Quality in the Melton Borough Area  
Between January and December 2005

April 2006



The following checklist has been produced for Melton Borough Council using the format provided on the University of the West of England website at [www.uwe.ac.uk/aqm/review/blank\\_usa\\_checklist.doc](http://www.uwe.ac.uk/aqm/review/blank_usa_checklist.doc).

The guidance LAQM.TG(03) Update – January 2006 was used to complete the checklist.

Prepared by **Victoria Clarke**  
Principal Environmental Health Officer  
Melton Borough Council  
01664 502408  
[vclarke@melton.gov.uk](mailto:vclarke@melton.gov.uk)

### Updating and Screening Assessment Summary Checklist for **Carbon Monoxide**

Item	Response
A) Monitoring data	This authority is not currently monitoring CO.
B) Very busy roads or junctions in built-up areas	There are no “very busy” road junctions in the Borough, defined as being where traffic flows exceed 80,000 vehicles per day.
C) <b>Conclusion</b>	There have been no significant changes with regards to CO emissions in this authority and as such a Detailed Assessment will not be required.

### Updating and Screening Assessment Summary Checklist for **Benzene**

Item	Response
A) Monitoring data outside an AQMA	This authority is not currently monitoring Benzene.
B) Monitoring data within an AQMA	Not applicable as there are no AQMAs in the Borough of Melton.
C) Very busy roads or junctions in built up areas	There are no “very busy” road junctions in the Borough, defined as being where traffic flows exceed 80,000 vehicles per day.
D) New industrial sources.	There are no new industrial sources.
E) Industrial sources with substantially increased emissions, or new relevant exposure	There are no industrial sources in Melton which are likely to emit benzene.
F) Petrol stations	There are 3 petrol stations with an annual throughput of more than 2000m <sup>3</sup> of petrol, none is adjacent to a road with more than 30,000 vehicles per day and there is no relevant exposure within 10m of the pumps.
G) Major fuel storage depots (petrol only)	There are no Major fuel storage depots in the Borough of Melton.
H) <b>Conclusion</b>	There have been no significant changes with regards to benzene emissions in this authority, a Detailed Assessment will not be required.

### Updating and Screening Assessment Summary Checklist for **1,3-butadiene**

Item	Response
A) Monitoring data	This authority is not currently monitoring 1,3-butadiene.
B) New industrial sources.	There are no new industrial sources in the Borough of Melton which are likely to emit 1,3-butadiene
C) Industrial sources with substantially increased emissions, or new relevant exposure	There are no industrial sources in Melton or adjacent to the Borough likely to be emitters 1,3-butadiene nor are there likely to be any new operations within the area.
D) <b>Conclusion</b>	There have been no significant changes with regards to 1,3-butadiene emissions in this authority and as such a Detailed Assessment will not be required.

### Updating and Screening Assessment Summary Checklist for **Lead**

Item	Response
A) Monitoring data	This authority is not currently monitoring lead.
B) New industrial sources.	There are no new sources of lead emissions in the Borough of Melton.
C) Industrial sources with substantially increased emissions, or new relevant exposure	There are no sources of lead emissions in the Borough of Melton nor are there likely to be any new operations within the area.
D) <b>Conclusion</b>	There have been no significant changes with regards to lead in this authority and as such a Detailed Assessment will not be required.

## Updating and Screening Assessment Summary Checklist for **Nitrogen Dioxide**

Item	Response
A) Monitoring data outside an AQMA	This authority is currently monitoring NO <sub>2</sub> by diffusion tubes. See the table below (Table 1) with corrected values. There are no annual mean concentrations exceeding 40µgm <sup>3</sup> .
B) Monitoring data within an AQMA	Not applicable as there are no AQMAs in the Borough of Melton.
C) Narrow congested streets with residential properties close to the kerb	The centre of Melton Mowbray is pedestrianised. There is one street with vehicle access (less than 10,000 vehicles per day) but there are no residential properties within 5m of the kerb.
D) Junctions.	There are no junctions with flows in excess of 10,000 vehicles per day which were not assessed in the last round.
E) Busy streets where people may spend 1-hour or more close to traffic	The centre of Melton Mowbray is pedestrianised. There is one street with vehicle access (less than 10,000 vehicles per day) and it is unlikely that members of the public would be in this area for more than 1 hour
F) Roads with high flow of buses and/or HGVs.	There are no roads with high flows of HDVs. Traffic flows are not high (less than 20,000 vehicles per day), the HDV levels are less than 8%
G) New roads constructed or proposed since the previous round of R&A	There have not been any new roads constructed and a proposed new road has been quashed with a failed appeal on a planning application.
H) Roads with significantly changed traffic flows, or new relevant exposure	There are no roads with more than 25% increase in traffic flow.
I) Bus Stations	There are no bus stations in Melton Mowbray.
J) New industrial sources.	There are no new industrial processes of relevance for NO <sub>2</sub> in the authority, or any of the neighbouring authorities.
K) Industrial sources with substantially increased emissions, or new relevant exposure	There are no industrial processes of relevance in the authority, or any of the neighbouring authorities. There has been no change in this position.
L) Aircraft	There is no airport within the Authority, the nearest is Nottingham East Midlands. It is not considered to be a significant contributor to NO <sub>2</sub> in the Borough of Melton.

**TABLE 1****Comparison of Diffusion Tube Data for 2005**

LOCATION	PPB	ANNUAL MEAN (unadjusted) 2005 $\mu\text{g}\text{m}^3$	CASELLA CORRECTED VALUE 2005 $\mu\text{g}\text{m}^3$	AND  Updated NO <sub>2</sub> roadside year factors for 2005
Wilton Road, Melton Mowbray	20	38.	31	30
Leicester Road, Melton Mowbray	18	34	28	27
Sherrard Street, Melton Mowbray	22	42	18	17
32 Thorpe Road, Melton Mowbray	23	44	36	35
Norman Way, Melton Mowbray	19	36	29	28
Burton Road, Melton Mowbray	16	31	25	24
Dalby Road, Melton Mowbray	16	31	25	24
Nottingham Road, Melton Mowbray	15	29	23	22
Melton Road, Asfordby Hill	18	34	28	27
Leicester Road, Kirby Bellars	13	25	20	19
Main Road, Croxton Kerrial	15	29	23	22

1. From TG(03) A1-44 **1 ppb = 1.91  $\mu\text{g}\text{m}^3$**
2. \*Correction factors for Casella SEAL using 10% TEA in water of **0.81** published by DEFRA at [www.uwe.ac.uk/aqm/review/diffusiantube310306.xls](http://www.uwe.ac.uk/aqm/review/diffusiantube310306.xls)
3. The updated NO<sub>2</sub> roadside year factor **0.9715** has also been applied to the 2005 data.

**It can be seen there are no annual mean concentrations exceeding 40 $\mu\text{g}\text{m}^3$ .**

## Updating and Screening Assessment Summary Checklist for **Sulphur Dioxide**

<b>Item</b>	<b>Response</b>
A) Monitoring data outside an AQMA	This authority is not currently monitoring SO <sub>2</sub> .
B) Monitoring data within an AQMA	Not applicable as there are no AQMAs in the Borough of Melton.
C) New industrial sources.	There are no new industrial processes of relevance for SO <sub>2</sub> in the authority.
D) Industrial sources with substantially increased emissions, or new relevant exposure	There is the Lafarge Cement Works in Rushcliffe (north of Melton District). An AQMA has been declared around this but the boundary does not extend into this area. In May/June 2006 the kiln will be shut down and the works, presently Part A, will revert to a Part B process. The effect of this will be to <b>reduce</b> SO <sub>2</sub> emissions.
E) Areas of domestic coal burning	In the 2003 USA this was not identified as a significant source. There is no evidence that there have been significant changes.
F) Small Boilers > 5 MW (thermal).	There have been no new small boilers within this authority since the last USA
G) Shipping	The 2003 USA reported no major transport sources. There have been no significant changes since then.
H) Railway Locomotives	The 2003 USA reported no major transport sources. There have been no significant changes since then.
I) <b>Conclusion</b>	There have been no significant changes with regards to SO <sub>2</sub> emissions in this authority and as such a Detailed Assessment will not be required.

## Updating and Screening Assessment Summary Checklist for **PM<sub>10</sub>**

<b>Item</b>	<b>Response</b>
A) Monitoring data outside an AQMA	This authority is not currently monitoring PM <sub>10</sub> .
B) Monitoring data within an AQMA	Not applicable as there are no AQMAs in the Borough of Melton.
C) Busy roads and junctions in Scotland	Melton Borough is not in Scotland
D) Junctions.	There are road junctions with more than 10,000 vehicles per day. The traffic flows have not increased by an amount to be significant to the PM <sub>10</sub> levels since the last round.
E) Roads with high flow of buses and/or HGVs.	There are no roads with >20% of heavy duty vehicles and the flow of HDV is below 2000 vehicles per day.
F) New roads constructed or proposed since last round of R&A	There have been no new roads constructed or proposed in the Borough of Melton.
G) Roads with significantly changed traffic flows, or new relevant exposure.	There are no new roads with significantly changed traffic flows, or new relevant exposure in the Borough of Melton.
H) Roads close to the objective during the second round of Review and Assessment	There were no roads near the objectives during the last round.
I) New industrial sources.	Brooksby Quarry – see L below
J) Industrial sources with substantially increased emissions, or new relevant exposure	There are no new industrial processes of relevance for PM <sub>10</sub> in the authority, or any of the neighbouring authorities. There has been no change in this position.
K) Areas of domestic solid fuel burning	This was examined in the 2003 USA. The threshold density was examined and was well within the parameter. There has been no change in this position.
L) Quarries / landfill sites / opencast coal / handling	There is a quarry for sand and gravel extraction presently being developed on the A607 towards Leicester. Melton Borough Council had submitted a

of dusty cargoes at ports etc.	bid for funding for an Osiris airborne particle sampler to monitor the situation. There have been discussions with the Lafarge quarry management who have experience of other sites they operate. Their opinion is that they cannot foresee any issues with this relatively small operation.
M) Aircraft	There is no airport within the Authority, the nearest is Nottingham East Midlands. It is not considered to be a significant contributor to PM <sub>10</sub> in the Borough of Melton.
N) <b>Conclusion</b>	There have been no significant changes with regard to PM <sub>10</sub> emissions in this authority and as such a Detailed Assessment will not be required.