

North Down Borough Council 2006 updating and screening assessment.



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INTRODUCTION AND BACKGROUND

Under the Environment (Northern Ireland) Order 2002, District Councils in Northern Ireland are required to carry out a Review and Assessment of their local air quality. The process is set out in the Department of the Environment's Local Air Quality Management Policy Guidance LAQM PGNI(03).

Where an area within the district is identified as being at risk of exceeding an air quality objective, the local authority must declare an air quality management area (AQMA). During the First round of reviews and assessments North Down Borough Council reached the following conclusions in its first stage review in accordance with the then current technical guidance "Department of the Environment, Transport and the Regions Review and Assessment: Pollutant Specific Guidance LAQM.TG4 (00) May 2000"

- This report identifies a requirement for a Second Stage review and assessment of nitrogen dioxide, PM₁₀ and sulphur dioxide where a risk of exceedances of the relevant air quality objectives has been identified. The risk of the air quality objectives for carbon monoxide, benzene, 1,3-butadiene and lead being exceeded by the end of 2005 are considered negligible.
- **Nitrogen Dioxide**
Results from the traffic flow data indicate there is a risk of exceedance of both the one-hour and annual average standard for nitrogen dioxide, near major roads in areas where population exposure may occur. Further assessment is required to investigate the likely exceedance of these standards.

This will take the form of further monitoring via, a diffusion tube study and screening modelling within the stage two reviews, in accordance with Government guidance. This will result in expenditure to purchase of additional diffusion tubes together with the cost of analysis.

- **Particles (PM10)**
It is evident that from the First Stage review and assessment that there is a risk of exceedances of the objective for PM₁₀ in relation to domestic coal burning and road traffic. In addition, there are a number of industrial sources that merit further study within the context of a second stage review.

Further investigation should take the form of further monitoring and screening modelling within a stage 2 assessment in accordance with government guidance. The monitoring is likely to require the purchase of automatic sampling and measurement equipment for the purpose. It may be possible to do this in co-operation with other authorities to mitigate the cost of the equipment.

- **Sulphur Dioxide**

It is evident that from the First Stage Review and assessment, that there is a risk of exceedences of the objective for SO₂ in relation to domestic coal burning.

North Down Borough Council has satisfied the Environment and Heritage Service, following the first round of air quality reviews and assessments, that there are no exceedences of air quality objectives across the borough.

The objective of this current round of assessment is to consider any matters that have changed since Round 1, which may lead to a risk of an air quality objective being exceeded. Such changes include the consideration of new objectives, new monitoring data, new sources or significant changes to existing sources within North Down and surrounding authorities. This assessment considers each of these matters on a pollutant-by-pollutant basis, in the same way as the original review carried out in 2000.

The focus of the last round of air quality assessment was the exposure of members of the public to potential exceedences of the national air quality objectives. Air quality objectives are health based, and therefore public exposure remains the focus for this assessment. Relevant locations are considered for each pollutant and individual objective in turn in accordance with the LAQM.TG(03) Update –: Updated Screening Assessment Checklist January 2006

INDIVIDUAL POLLUTANTS

Each pollutant is considered in turn, and the checklists available within the recently revised technical guidance provide the structure for assessing each pollutant in turn. An indication as to the need to undertake a detailed assessment is provided at the end of each pollutant section.

Consideration is made of the 2010 objectives for nitrogen dioxide and the proposed 2010 PM10 objectives, although these are not yet regulated in the United Kingdom. The proposed UK objectives for ozone and PAH are not considered as part of this assessment.

Carbon Monoxide (CO)

The current policy measures in place are considered sufficient in ensuring that the objective for CO is achieved by the target date of 31 December 2003 across the UK.

Relevant Carbon Monoxide (CO) Objective

UK Maximum daily running 8-hour mean to be achieved by 31 December 2003: is 10mg/m³

| | |
|---|--|
| Monitoring data | Carbon monoxide is not monitored locally within North Down Borough Council |
| Very busy roads or junctions in built-up areas | There are no sufficiently busy roads in North Down Borough Council. (i.e. single carriageway roads where the AADT>80,000, or dual carriageways where the AADT>120,000 or motorways where the AADT>140,000). The busiest road in the authority is the A2 (Holywood Bypass), which has an AADT of 40,000(latest figure, 2004). |

Updating & Screening Summary for Carbon Monoxide

The assessment has indicated that the CO objective is unlikely to be exceeded in 2003 at any location in the borough, and therefore a detailed assessment will not be required.

Benzene

Petrol-engine vehicle exhausts are considered to constitute a significant source of benzene emitted in the UK. However, emissions from road traffic are considered unlikely to cause exceedences of the benzene air quality objective, even alongside the most heavily trafficked roads across the UK.

Relevant Benzene Objectives

UK running annual mean Objective to be achieved by 31 December 2003:
 16.25 µg/m³ UK annual mean Objective to be achieved by 31 December 2010: 5 µg/m³

| | |
|---|--|
| Monitoring data (outside an AQMA) | Benzene is not monitored locally within North Down Borough Council Area |
| Very busy roads or junctions in built-up areas | There are no sufficiently busy roads in North Down Borough Council. (i.e. single carriageway roads where the AADT>80,000, or dual carriageways where the AADT>120,000 or motorways where the AADT>140,000). The busiest road in the authority is the A2 (Holywood Bypass), which has an AADT of 40,000(latest figure, 2004). |
| Industrial Sources | There are no petrochemical or other works that emit sufficient emissions of benzene within North Down Borough Council, or in neighbouring authorities, to consider for the purpose of this assessment. |
| Petrol stations | The largest petrol stations in residential areas have been examined (those with an annual throughput of over 1000 m ³ as on Part C register). Because there is no exposure within 10 m of any of the pumps, there will be no |

| | |
|--|--|
| | requirement to assess this source further. A list of petrol filling stations is included in the list of Prescribed processes in the Borough in Appendix 1. |
| Major fuel storage depots (petrol only) | There are no major fuel depots within the borough |

Updating & Screening Summary for Benzene

The assessment has indicated that the benzene objectives are unlikely to be exceeded in 2003 or 2010 at any location in the district, and therefore a detailed assessment will not be required.

1,3-Butadiene

Vehicle exhausts are the main source of 1,3-butadiene in the UK, although 1,3-butadiene is an important and significant industrial chemical handled in bulk at a small number of industrial premises. Concentrations of 1,3-butadiene measured at all urban background and roadside locations across the UK already experience concentrations $<2.25\mu\text{g}/\text{m}^3$, and the objective is not expected to cause a problem for local authorities in Round 2.

Relevant 1,3-Butadiene Objective

UK Running annual mean Objective to be achieved by 31 December 2003:
 $2.25\mu\text{g}/\text{m}^3$

| | |
|--|--|
| Monitoring data (outside an AQMA) | 1,3-butadiene is not monitored locally within North Down Borough Council |
| New industrial sources | There are no new industrial processes within North Down Borough Council, or in neighbouring authorities, to consider for the purpose of this assessment. |
| Industrial sources with substantially increased emissions | There are no industrial sources with substantially increased emissions to consider for the purpose of this assessment. |

Updating & Screening Summary for 1,3-Butadiene

The assessment has indicated that the 1,3-butadiene objective is unlikely to be exceeded in 2003 at any location in the district, and therefore a detailed assessment will not be required.

Lead (Pb)

There are no AQMAs declared in respect of either of the lead objectives, with emissions of lead restricted to specific industrial activity such as alloys, battery manufacture and tank lining and piping.

Relevant Lead (Pb) Objectives

UK Annual mean Objective to be achieved by 31 December 2004: 0.5µg/m³ UK Annual mean Objective to be achieved by 31 December 2008: 0.25µg/m³

| | |
|--|--|
| Monitoring data (outside an AQMA) | Lead is not monitored locally within North Down Borough Council |
| New industrial sources | There are no new industrial processes within North Down Borough Council, or in neighbouring authorities, to consider for the purpose of this assessment. |
| Industrial sources with substantially increased emissions | There are no industrial sources with substantially increased emissions to consider for the purpose of this assessment. |

Updating & Screening Summary for Lead

The assessment has indicated that the lead objectives are unlikely to be exceeded in 2004 and 2008 at any location in the borough, and therefore a detailed assessment will not be required.

Nitrogen Dioxide (NO₂)

National studies have shown that whilst the annual mean objective of nitrogen dioxide is likely to be met at urban background locations (outside of London), the objective may be exceeded at roadside locations close to busy road links. The objectives for which this assessment applies are listed below, and relevant locations with respect to the NO₂ objectives are considered by the checklist approach as recommended in the technical guidance.

Relevant NO₂ Objectives

Hourly mean

UK Objective to be achieved by 31 December 2005 (<18 times a year) 200µg/m³

EU Objective to be achieved by 31 December 2010 (<18 times a year) 200µg/m³

Annual mean

UK Limit Value to be achieved by 31 December 2005: 40µg/m³

EU Limit Value to be achieved by 31 December 2010: 40µg/m³

| | |
|--|---|
| Monitoring data (outside an AQMA) | Are any annual mean concentrations greater than 40 µg/m ³ NO See Results Below Are there more than 18 exceedences of 200 µg/m ³ , or are |
|--|---|

| | |
|--|---|
| | any 99.8 th percentiles greater than 200 µg/m ³ ? NO See Results Below |
| Narrow congested streets with residential properties close to curbs | There are no narrow congested streets with residential properties close to curbs >10 000 AADT |
| Road Junctions | A 'busy' junction can be taken to be one with traffic flows of more than 10,000 vehicles per day. There are no junctions within the Borough with these types of flows with exposure at a relevant location within 10m of the Junction. See Figures below for aerial photography of relevant junctions. |
| Busy streets where people may spend 1-hour or more close to traffic | There is no relevant exposure in the Borough in Relation to this parameter. |
| Roads with high flow of buses and/or HGVs | There are no roads in the borough with high flows of buses or HGV's > 25% AADT HGV's |
| New roads constructed or proposed since first round of review and assessment | There have been no new roads constructed or proposed since the first round of reviews and assessments. |
| Roads close to the objective during the first round of review and assessment Roads with significantly changed traffic flows | There are no Roads close to the objective during the first round of review and assessment with significantly changed traffic flows |
| Bus Stations | There are no bus stations in North Down with relevant exposure within 10m. |
| New industrial sources | New Flue gas desulpherisation plant has been installed at Kilroot power station. We have been informed by the EHS that this is likely to increase background NO ² on the North Down Borough Council coast by 1-2µg/m ³ due to reduced efflux temperatures and velocities at the power station. This will not cause any area to exceed the 40µg/m ³ |

| | |
|--|--|
| | objective |
| Industrial sources with substantially increased emissions | There are no industrial sources with substantially increased emissions to consider for the purpose of this assessment. |
| Aircraft | The boundary of Belfast City Airport is within 1km of residential development within Holywood. The current traffic amounts to 2.3 Million passengers together 10000 tonnes of with cargo. Therefore this source does not require further assessment. |

Monitoring data (outside an AQMA)

Air Quality is monitored at the locations Indicated on the facing page.

| MONITOR TYPE | LOCATION | NETWORKED |
|---|--|-----------|
| SO2 AND SMOKE BUBBLER | ELECTRICITY SUB STATION AT SULLIVAN UPPER SCHOOL | YES |
| NO2 & PM10 AUTOMATIC | MARINE PARADE SUBWAY | NO |
| NO2 DIFFUSION TUBE | 5 MARINE PARADE HOLYWOOD | NO |
| NO2 DIFFUSION TUBE | A2 STATION ROAD | NO |
| NO2 DIFFUSION TUBE | A2 SEAHILL | NO |
| NO2 DIFFUSION TUBE | BALLYROBERT ORANGE HALL | NO |
| NO2 DIFFUSION TUBE | WESTCHURCH RATHMORE ROAD | YES |
| NO2 DIFFUSION TUBE | AVA BAR DUFFERIN AVENUE | YES |
| PM10 & SO2 AUTOMATIC MONITORING STATION | 62-70 CHURCH STREET | NO |
| SO2 AND SMOKE BUBBLER | EBENEZER GOSPEL HALL 89 CHURCH STREET | YES |
| NO2 DIFFUSION TUBE | KOSMOS 50 BINGHAM STREET | YES |
| NO2 DIFFUSION TUBE | ST COLUMBANUS CHURCH | YES |

Automatic Data. This is monitored at location indicated at the green spot.

NORTH DOWN HOLYWOOD A2 01 January to 31 December 2005

These data have been fully ratified by netcen

| POLLUTANT | NO _x | NO | NO ₂ |
|------------------------------|-------------------------|------------------------|------------------------|
| Number Very High | - | - | 0 |
| Number High | - | - | 0 |
| Number Moderate | - | - | 0 |
| Number Low | - | - | 7842 |
| Maximum 15-minute mean | 1060 µg m ⁻³ | 585 µg m ⁻³ | 180 µg m ⁻³ |
| Maximum hourly mean | 924 µg m ⁻³ | 510 µg m ⁻³ | 151 µg m ⁻³ |
| Maximum running 8-hour mean | 626 µg m ⁻³ | 337 µg m ⁻³ | 118 µg m ⁻³ |
| Maximum running 24-hour mean | 468 µg m ⁻³ | 246 µg m ⁻³ | 94 µg m ⁻³ |
| Maximum daily mean | 448 µg m ⁻³ | 232 µg m ⁻³ | 93 µg m ⁻³ |

| | | | |
|--------------|-------------------------|-------------------------|-------------------------|
| Average | 67 $\mu\text{g m}^{-3}$ | 26 $\mu\text{g m}^{-3}$ | 27 $\mu\text{g m}^{-3}$ |
| Data capture | 89.5 % | 89.5 % | 89.5 % |

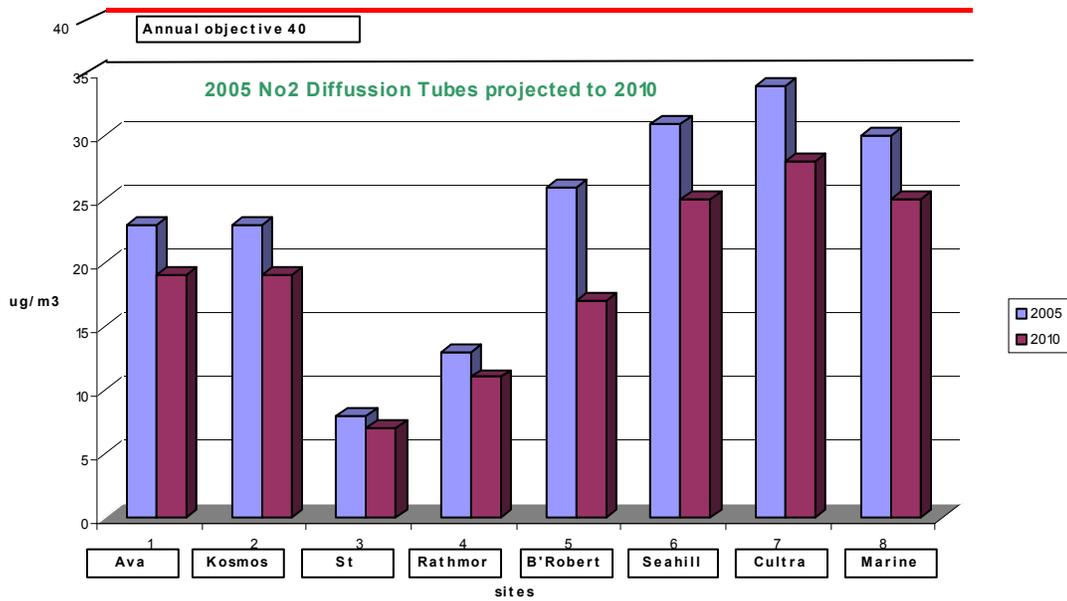
+ PM₁₀ instrument is a TEOM
All mass units are at 20°C and 1013mb
NO_x mass units are NO_x as NO₂

| Pollutant | Air Quality Regulations (Northern Ireland) 2003 | Exceedences | Days |
|------------------|--|-------------|------|
| Nitrogen Dioxide | Annual mean > 40 $\mu\text{g m}^{-3}$ | 0 | - |
| Nitrogen Dioxide | Hourly mean > 200 $\mu\text{g m}^{-3}$ | 0 | 0 |

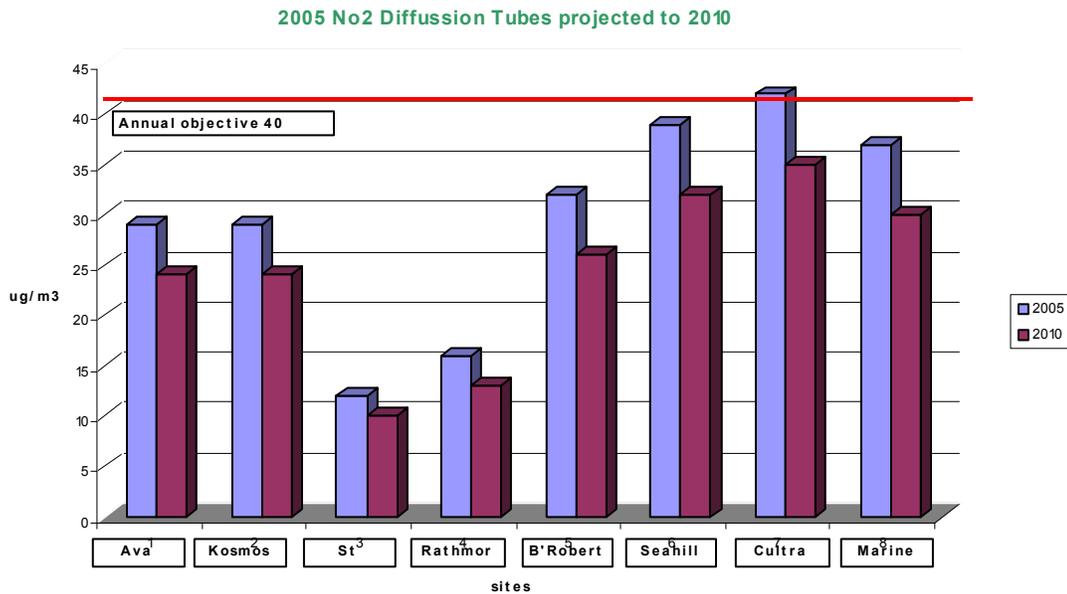
NO₂ Tube Data

Two bias factors have been applied to the NO₂ Diffusion Tube data. A co location study was carried out in 2005 with the Automatic Station at A2 Holywood. This indicated an adjustment factor of 0.674, which is somewhat, less than 0.81 the Eastern Group adjustment factor. Co-Location studies in Castlereagh and Lisburn indicated bias adjustment factors of 0.82 and 1.06 respectively. Combining these factors together with North Down Speke in Liverpool and averaging them produces an adjustment factor of 0.81. The NO₂ tube results are produced using both factors. It would be my view that the 0.674 adjustment factor more accurately reflects the actual measurements. The diffusion tube at marine parade and the automatic station with the co-location tubes are 90m away from each other on the same side of the road. The annual average NO₂ level measured at the automatic station and ratified by Netcen for 2005 was 27 $\mu\text{g}/\text{m}^3$. Using the bias adjustment (0.674) obtained at this station the annual average level measured by diffusion tube was 30 $\mu\text{g}/\text{m}^3$ which reasonably closely concurs with the automatic station at that location.

Measured and projected values (0.674) Correction factor



Measured and projected values (0.81) Correction factor



Updating & Screening Summary for nitrogen dioxide

While the guidance indicates that there is no need for further assessment in relation to NO₂ it would be the intention to continue with monitoring for a period to clarify the co-location bias adjustment. NO₂ tubes have also been installed at either end of Rathgael Rd See aerial photograph below to assess exposure to NO₂ at the properties adjacent to this section of road which has a AADT>10,000 but no properties closer than 10m to any junction.

Particulates (PM₁₀)

Given existing national policy measures, and combined with worst case scenario weather conditions, exceedences of the PM₁₀ annual mean objective and 24-hour mean objective are possible in areas adjacent to busy roads, particularly within major urban areas. The objectives for which this assessment applies are listed below, and relevant locations with respect to the PM₁₀ objectives are considered by the checklist approach as recommended in the technical guidance.

Relevant PM₁₀ Objectives

24-hour mean

UK Objective to be achieved by 31 December 2004 (<35 times a year) 50µg/m³
Provisional UK Objective to be achieved by 31 December 2010 (<7 times a year) 50µg/m³

Annual mean

UK Objective to be achieved by 31 December 2004: 40µg/m³
Provisional UK Objective to be achieved by 31 December 2010: 20µg/m³

| | |
|---|--|
| Monitoring data (outside an AQMA) | See Results Below |
| Road junctions | A 'busy' junction can be taken to be one with traffic flows of more than 10,000 vehicles per day. There are no junctions within the Borough with these types of flows with exposure at a relevant location within 10m of the Junction. |
| Roads with high flow of buses and/or HGVs | There are no roads in the borough with high flows of buses or HGV's >20% AADT |
| New roads constructed or proposed since first round of review and assessment | There have been no new roads constructed or proposed since the first round of review and assessment. |
| Roads close to the objective during the first round of review and assessment | There are no Roads close to the objective during the first round of review and assessment with significantly changed traffic flows. However, monitoring results indicate that the provisional objectives for 2010 would be exceeded for the A2 Bangor to Belfast Road. |
| Roads with significantly changed traffic flows | There are no roads with significantly changed traffic flows within the borough. |
| New industrial sources | There are no new industrial sources within the borough. |
| Industrial sources with | There are no industrial sources with substantially increased emissions. |

| | |
|--|---|
| substantially increased emissions | |
| Areas of domestic solid fuel burning | Areas of Domestic solid fuel burning are largely similar to the first round review and certainly in excess of 50 households in the most densely populated 500m2 areas within the borough. |
| Quarries/landfill sites/opencast coal/handling of dusty cargoes at ports etc. | There is a large quarry at Craigantlet within the Borough. There are houses within 200m of the block making facility at the quarry but not the main crushing and grading plant. There have been no complaints about dust from the quarry in the last 10 years. Therefore this source does not require further assessment. |
| Aircraft | The boundary of Belfast City Airport is within 1km of residential development within Holywood. The current traffic amounts to 2.3 Million passengers together 10000 tonnes of with cargo. Therefore this source does not require further assessment. |

Monitoring data (outside an AQMA)

The monitoring locations are located at A2 Marine Parade and Bangor Clandeboye RD. Shown as Green and Blue dots respectively on the aerial photograph facing page 9

Produced by netcen on behalf of North Down BC

NORTH DOWN BANGOR 01 January to 31 December 2005

These data have been fully ratified by netcen

| POLLUTANT | PM ₁₀ + |
|------------------------------|------------------------|
| Number Very High | 0 |
| Number High | 11 |
| Number Moderate | 91 |
| Number Low | 7539 |
| Maximum 15-minute mean | 631 µg m ⁻³ |
| Maximum hourly mean | 181 µg m ⁻³ |
| Maximum running 8-hour mean | 126 µg m ⁻³ |
| Maximum running 24-hour mean | 82 µg m ⁻³ |
| Maximum daily mean | 73 µg m ⁻³ |
| Average | 18 µg m ⁻³ |
| Data capture | 87.1 % |

+ PM₁₀ instrument is a TEOM
All mass units are at 20°C and 1013mb

| Pollutant | Air Quality Regulations (Northern Ireland) 2003 | Exceedences | Days |
|---|---|-------------|------|
| PM ₁₀ Particulate Matter (Gravimetric) | Daily mean > 50 µg m ⁻³ | 14 | 14 |
| PM ₁₀ Particulate Matter (Gravimetric) | Annual mean > 40 µg m ⁻³ | 0 | - |

NORTH DOWN HOLYWOOD A2 01 January to 31 December 2005

These data have been fully ratified by netcen

| POLLUTANT | PM ₁₀ + |
|------------------------------|-------------------------|
| Number Very High | 20 |
| Number High | 3 |
| Number Moderate | 81 |
| Number Low | 8337 |
| Maximum 15-minute mean | 1961 µg m ⁻³ |
| Maximum hourly mean | 1294 µg m ⁻³ |
| Maximum running 8-hour mean | 305 µg m ⁻³ |
| Maximum running 24-hour mean | 114 µg m ⁻³ |
| Maximum daily mean | 68 µg m ⁻³ |
| Average | 20 µg m ⁻³ |
| Data capture | 97.1 % |

+ PM₁₀ instrument is a TEOM
All mass units are at 20°C and 1013mb
NO_x mass units are NO_x as NO₂

| Pollutant | Air Quality Regulations (Northern Ireland) 2003 | Exceedences | Days |
|---|---|-------------|------|
| PM ₁₀ Particulate Matter (Gravimetric) | Daily mean > 50 µg m ⁻³ | 11 | 11 |
| PM ₁₀ Particulate Matter (Gravimetric) | Annual mean > 40 µg m ⁻³ | 0 | - |

Updating & Screening Summary for PM₁₀

Current monitoring results indicate that the borough would fail the 2010 provisional objective at relevant locations. It would seem prudent therefore to proceed with detailed review of this pollutant.

Sulphur Dioxide (SO₂)

Northern Ireland is different from the rest of the UK in that there is still considerable reliance on solid fuel for space heating. Over recent years this

reliance has reduced due to favorable oil prices and the introduction of natural gas as a heating source. Due to recent price increases it is likely that the rate of uptake of oil and gas for space heating may reduce, stop, or be reversed.

Relevant SO₂ Objectives

15-minute mean

UK Objective to be achieved by 31 December 2005 (<35 times a year): 266µg/m³

1-hour mean

UK Objective to be achieved by 31 December 2004 (<24 times a year): 350µg/m³

24-hour mean

UK Objective to be achieved by 31 December 2004 (<3 times a year): 125µg/m³

| | |
|--|--|
| Monitoring data (outside an AQMA) | See Results Below |
| New industrial sources | There are no new industrial sources within the borough. |
| Industrial sources with substantially increased emissions | There are no industrial sources with substantially increased emissions. |
| Areas of domestic solid fuel burning | A fuel use survey completed in May 2002 in the most densely populated 1km ² within the Borough that comprised 1677 dwellings. This Survey indicated that 14% of Households used coal as a sole heating source roughly 59 houses per 500m ² with a further 22% (98 houses per 500m ²) using coal as a secondary means of heating. This is below the technical guidance figure of 100 houses per 500m ² and this together with very low measured SO ₂ levels indicates that there is no need for more detailed assessment of this pollutant in relation to domestic emissions. |
| Small boilers >5MW (thermal) | There are no known coal or fuel oil boilers over 5 MWth in the district. |
| Shipping Railway locomotives | The Belfast to Bangor railway terminus is situated in Bangor. There are 79 trains per day entering and leaving this station. While some trains may be stationary at the platform for 15 minutes or more there is no potential for outside exposure to the public within 15m of the platform. Therefore this source does not require detailed assessment. |

Monitoring data (outside an AQMA)

Produced by netcen on behalf of North Down BC

NORTH DOWN BANGOR 01 January to 31 December 2005

These data have been fully ratified by netcen

| POLLUTANT | SO ₂ |
|------------------------------|------------------------|
| Number Very High | 0 |
| Number High | 0 |
| Number Moderate | 0 |
| Number Low | 30355 |
| Maximum 15-minute mean | 152 µg m ⁻³ |
| Maximum hourly mean | 74 µg m ⁻³ |
| Maximum running 8-hour mean | 42 µg m ⁻³ |
| Maximum running 24-hour mean | 26 µg m ⁻³ |
| Maximum daily mean | 24 µg m ⁻³ |
| Average | 5 µg m ⁻³ |
| Data capture | 88.6 % |

+ PM₁₀ instrument is a TEOM
All mass units are at 20°C and 1013mb

| Pollutant | Air Quality Regulations (Northern Ireland) 2003 | Exceedences | Days |
|-----------------|--|-------------|------|
| Sulphur Dioxide | Hourly mean > 350 µg m ⁻³ | 0 | 0 |
| Sulphur Dioxide | Daily mean > 125 µg m ⁻³ | 0 | 0 |
| Sulphur Dioxide | Annual mean > 20 µg m ⁻³ | 0 | - |

Updating & Screening Summary for SO₂

The assessment has indicated that the SO₂ objectives are unlikely to be exceeded in 2004 and 2005, at any location in the borough, and therefore further detailed assessment will not be required. However, monitoring at the Bangor automatic station will continue as this unit is located along side the Teom that will continue to monitor the area in relation to the PM₁₀ objective.

Conclusion

The Updating and Screening Assessment for North Down Borough Council indicates that the objectives for five pollutants regulated by the Environment (Northern Ireland) Order 2002 will be met by their target years. These pollutants are.

Carbon Monoxide

Benzene

1,3, Butadiene

Lead

Sulphur Dioxide* (which will continue to be monitored by virtue of its location with the PM₁₀ Monitor)

The following pollutants will require detailed assessment.

Nitrogen Dioxide
PM₁₀

This is on the basis of having considered changes to the emission sources; relevant exposure, new objectives and any other changes that have taken place since the first round of assessment. North Down Borough Council will continue to assess changes to pollutant levels in relation to statutory duties, pollutant specific guidance and changes to roads, industry and housing.

APPENDIX 1

NORTH DOWN BOROUGH COUNCIL ENVIRONMENTAL HEALTH DEPARTMENT

PETROLEUM 'C' TYPE AUTHORISATIONS RENEWALS FOR THE YEAR 2006

| NO | Premises | X | Y | Date Paid & No. of Receipt |
|----|---|--------|--------|---|
| | (Shell Bangor) 139 Belfast Road, Bangor | 349518 | 381048 | MILL31 IN PROCESS OF BEING REBUILT |
| | (Ballyholme Filling Station) 2 Ballyholme Road BANGOR | 351012 | 381979 | MAXO01 |
| | (Riverside Filling Station) 200 Donaghadee Road BANGOR | 352423 | 381535 | RIVE01 |
| | (Abbeyhill Spar/BP Filling Station) 71/79 Newtownards Road BANGOR | 350130 | 380578 | MILL31 |
| | (Railside Service Station) 18a Belfast Rd, Bangor BT20 3PU) | 349924 | 381186 | MILL31 |
| | (Tesco Filling Station) Bloomfield, Bangor | 35177 | 380095 | TESC02 |
| | (Clandeboyne Filling Station) 173 Clandeboyne Road | 349361 | 380177 | KELS01 |
| | (Asda Petrol Filling Station) 10 Castle Street, BANGOR | 350601 | 381611 | ASDA01 |
| | (Shell Gransha) 70 Gransha Road, Bangor | 351791 | 380249 | MILL31 |
| | (Crawfordsburn Filling Station) 90 Ballyrobert Road Crawfords burn BANGOR | 346559 | 381371 | MCCO24 |

| | | | | |
|--|---|--------|--------|---------------|
| | (Redburn Filling Station) 339 Old Holywood Road HOLYWOOD | 339476 | 377711 | MAXO01 |
| | (Barkers Torgrange Filling Station) 41 Bangor Road HOLYWOOD | 340998 | 379650 | MCNE11 |
| | (Kinnegar Filling Station) 49 Belfast Road HOLYWOOD | 339102 | 378209 | MAXO01 |
| | (Barkers Marino) 96 Bangor Road Holywood) | 341031 | 379812 | MCNE11 |
| | (Craigantlet Filling Station) 82 Ballymiscaw Road HOLYWOOD | 342287 | 376824 | CRAI23 |
| | (Bryansburn Filling Station) 139 Bryansburn Road BANGOR | 349112 | 381535 | MAXO01 |
| | (BP Filling Station) 100 Rathgael Road BANGOR | 349011 | 379587 | MILL31 |