**The Air Quality Standards Regulations (Northern Ireland) 2010**

**A consultation Paper**

Should you require a copy of this document in a more accessible form, the following formats are available on request: Large print, disk, Braille and audiocassette. The document may be available on request in minority ethnic languages to those who are not proficient in English. The Department will translate executive summaries of key publications into Ulster-Scots upon request. Information and additional copies of the document can be requested by textphone on 028 9054 0642.

**February 2010**



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***Chapter 1***

**Introduction**

1.1 The Department of the Environment (“the Department”) is consulting on draft regulations transposing Council Directive 2008/50/EC on ambient air quality and cleaner air for Europe (“the Directive”).

1.2 The Directive entered into force on 11 June 2008 and consolidates and repeals previous legislation with the exception of Council Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (the fourth daughter directive).

 1.3 The Directive simplifies existing EU legislation by consolidating into a single directive the Framework Directive and the first three daughter directives (Council directives 1996/62/EC, 1999/30/EC, 2000/69/EC and 2002/3/EC), along with the Council Decision on the exchange of information (Council Directive 97/101/EC). The provisions of the fourth daughter directive are expected to be incorporated into the Directive at a later date. The Directive will be subject to review by the European Commission in 2013.

**Need for Regulations**

1.4 The purpose of this consultation is to invite comments on the transposition of the Directive.

1.5 The Air Quality Standards Regulations (Northern Ireland) 2007 transposed and consolidated the requirements of previous European Directives (including Directive 2004/107/EC). As most of this legislation is now being replaced by the Directive, we propose to revoke the Air Quality Standards Regulations (Northern Ireland) 2007 and make new Air Quality Standards Regulations (Northern Ireland) 2010 that will include the requirements of the Directive and Directive 2004/107/EC.

1.6 The Directive also introduces new provisions reflecting the experiences of member states in implementing existing air quality legislation and improved scientific understanding of the health effects of PM2.5, plus:

* a new control framework for PM2.5;
* the requirement to discount natural sources of pollution, such as sea salt, when assessing compliance against limit values; and
* options for time extensions for meeting compliance deadlines for particulate matter (PM10) (to 2011)nitrogen dioxide (NO2) and benzene (to 2015), subject to strict conditions and assessment by the Commission.

1.7 The Directive must be transposed by 11 June 2010 and in order to meet this deadline we are consulting on a shortened 8-week consultation period.

1.8 The Air Quality Standards Regulations (Northern Ireland) 2010 are intended to work in conjunction with a number of UK-wide provisions which Defra have been consulting on. These are:

* provisions establishing the UK’s average exposure indicator and national exposure reduction target for PM2.5;
* those relating to UK-wide measures to attain the national exposure reduction target and ensure that the average exposure indicator for 2015 does not exceed 20µg/m3(1); and
* those relating to transboundary air pollution.

1.9 The Defra consultation document also includes an Impact Assessment applicable to the whole of the UK. This document can be viewed at www.defra.gov.uk/corporate/consult/airquality-transposition/index.htm.

**Equality Issues**

1.10 Under Section 75 of the Northern Ireland Act 1998, public authorities have a statutory duty to promote equality of opportunity. A screening for Equality Impact Assessment has been undertaken and it is not considered that the proposed Air Quality Standards Regulations (Northern Ireland) 2010 will impact on equality of opportunity on any of the groups specified in section 75. A copy of the screening paper is attached at Annex 1.

1.11 The Equality Commission will receive copies of this consultation document as part of the consultation exercise. Any comments that the Commission might have will be taken into account.

**(1) micro gram per metre cubed**

**Human Rights Issues**

1.12 The Human Rights Act 1998 implements the European Convention on Human Rights. The 1998 Act makes it unlawful for any public authority to act in a way that is incompatible with these Rights. A screening exercise has been completed which concluded that the proposed Regulations are compatible with the Human Rights Act. A copy of the screening paper is attached at Annex 2.

**Rural Proofing**

1.13 It is considered that there are no negative impacts on rural productivity or the provision of services to the rural community as a result of these proposals.

**Comments requested on the Consultation**

1.14 It is intended that transposition should meet the minimum requirements of the Directive (2008/50/EC), the fourth Daughter Directive (2004/107/EC) and Council Decision (97/101/EC). Do you think that the draft Air Quality Standards Regulation (Northern Ireland) 2010 achieve this?

1.15 Do you consider Defra’s assessment of the impacts of transposing the Directive, as set out in their consultation Impact Assessment, is thoroughly considered? If not, please provide any additional evidence that you think needs to be considered.

**How to respond to this consultation**

1.16 Responses are invited to this consultation paper by **1st** **April** **2010** and should be sent to the address below. Early responses would be most welcome and a summary of the responses will be published on the Department’s website. All comments and representations received during the consultation will be considered in finalising the draft Regulations.

1.17 Before you submit your response, please read the notes regarding the confidentiality of consultations, which provides guidance on the legal position of any information given by you in response to this consultation. If you are responding on behalf of a group or organisation, please indicate this on your response.

By post:

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Please send your response using only one of these options.

1.18 Enquiries regarding the content of this consultation document, or requests for further copies should be made to Beth Hodgett at the above address, or by telephone at (028) 90254796.

1.19 Should you require a copy of this document in an alternative format, it can be made available on request in large print, disc, Braille and in audiocassette or telephone for the hearing impaired.

1.20 The document may be available on request in minority languages for those who are not proficient in English. The Department will translate executive summaries of key publications into Irish or Ulster-Scots upon request. Information and additional copies of the document can be requested by textphone on (029) 90540642.

1.21 Hard copies of the consultation document are available from the address above. The consultation document is available on our website at <http://www.doeni.gov.uk/foi.htm>

1.22 A list of consultees that have been contacted directly in relation to this consultation is attached at Annex 3. However, views from anyone interested in these proposals are very welcome.

**Freedom of Information Act 2000 – Confidentiality of Consultation Responses**

1.23 The Department will publish a summary of responses following completion of the consultation process. Your response, and all other responses to the consultation, may be disclosed on request. The Department can only refuse to disclose information in exceptional circumstances. **Before** you submit your response, please read the paragraphs below on the confidentiality of consultations as they will give you guidance on the legal position about any information given by you in response to this consultation.

1.24 The Freedom of Information Act gives the public a right of access to any information held by a public authority, namely, the Department in this case. This right of access to information includes information provided in response to a consultation.

1.25 The Department cannot automatically consider as confidential information supplied to it in response to a consultation. However, it does have the responsibility to decide whether any information provided by you in response to this consultation, including information about your identity, should be made public or treated as confidential.

1.26 This means that information provided by you in response to the consultation is unlikely to be treated as confidential, except in very particular circumstances. The Lord Chancellor’s Code of Practice on the Freedom of Information Act provides that:-

* the Department should only accept information from third parties in confidence if it is necessary to obtain information in connection with the exercise of any of the Department’s functions and it would not otherwise be provided;
* the Department should not agree to hold information received from third parties “in confidence” which is not confidential in nature; and
* acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified by the Information Commissioner.

1.27 For further information about confidentiality of responses, please contact the Information Commissioner’s Office, or see the web-site at:-

<http://www.ico.gov.uk>

***Chapter 2***

**Background**

2.1 The Department intends to transpose the Directive by introducing, under Section 2(2) of the European Communities Act 1972, new Regulations to replace the Air Quality Standards Regulations (Northern Ireland) 2007.

2.2 The 2007 Regulations were introduced to transpose the fourth daughter Directive (2004/107/EC), but the opportunity was then taken to consolidate, in a single set of Regulations, all other existing EU ambient air quality legislation. Except where the Directive introduces changes to existing provisions, the substance of the draft Regulations remains unchanged from the 2007 Regulations.

2.3 The draft 2010 Regulations are intended to provide an appropriate legal framework to ensure the obligations imposed by the Directive can be fully and properly transposed across the UK.

2.4 Consistent with existing legislation, the Department will be designated as the competent authority for Northern Ireland for the purposes of Article 3 of the Directive for:

* assessment of ambient air quality;
* approval of measurement systems (methods, equipment, networks and laboratories);
* ensuring accuracy of measurements;
* analysis of assessment methods;
* co-ordination within Northern Ireland of any community-wide assurance programmes;
* co-operation with other member states and the Commission;

Also, functions relevant to the assessment and maintenance of ambient air quality shall continue to fall to the relevant Northern Ireland departments.

***Air quality assessment***

2.5 The draft Regulations allow for different assessment methods of air quality including measuring, mathematical modelling, a combination of the two, or estimates. Assessments are mandatory in built-up areas with more than 250,000 inhabitants or in areas where concentrations are close to the limit values. Guidance is provided by the Commission to assist in implementation of any assessment requirements.

2.6 The assessment provisions have been updated to include new reference measurement methods towards harmonising methodology throughout the EU, and new data quality objectives and amendments to the siting arrangements for monitoring stations to enable more robust assessment of air quality.

2.7 In assessing ambient air quality, the UK makes use of the provision in the Directive to supplement monitoring data with modelling. Both monitored and modelled data are then reported to the Commission. By using this provision, the UK may reduce the number of sampling points by 50% which has two advantages. Firstly this reduces costs, as modelling is more cost-effective than monitoring, and secondly it improves the spatial resolution as the number of data points throughout the territory is increased.

***District councils and industry roles***

2.8 All obligations in the draft Regulations in relation to air quality management are attributed to the Department. However, district councils have statutory duties for local air quality management (LAQM) under the Environment (Northern Ireland) Order 2002. The LAQM regime is a key factor in enabling Northern Ireland to comply with the Directive. District councils are required to carry out regular reviews and assessments of air quality in their areas against standards and objectives prescribed in the Air Quality Regulations (Northern Ireland) 2003 (as amended). Many of these objectives mirror the limit values prescribed by the Directive. Where any objective is unlikely to be met by the relevant deadline, district councils must designate those areas as air quality management areas (AQMAs) and take action to work towards meeting the objectives.

2.9 The Department has the power, under Article 14(5) of the Environment (Northern Ireland) Order 2002, to direct district councils to take appropriate steps for the implementation of Community Treaties and international agreement binding on the UK.

2.10 The LAQM framework across the UK is currently subject to review. Subject to the recommendations from that, it is our intention to explore at a later date the scope for, and implications of, streamlining the relationship between EU limits and the Environment (Northern Ireland) Order 2002 LAQM regime into one legislative framework. The question of whether the intention in the National Air Quality Strategy in 2007 to establish a new PM2.5 objective should be enshrined in legislation will be one issue for examination. Consideration would also need to be given to district council duties in relation to PM2.5.

2.11 The new Directive contains no direct obligations for industry. However, regulators will take the prescribed air quality standards into account when determining permits or other controls on emissions, under other legislation, in order that limit values are not exceeded.

***Postponement of attainment deadlines and exemption from the obligation to apply certain limit values.***

2.12 Article 22 of the Directive recognises that achieving compliance with the limit values for PM10**,** NO2 and benzene by their attainment dates (2005 for PM10 and 2010 for NO2 and benzene) has been a challenge for most member states across all of their territories. This provision allows member states to apply for additional time to meet these limit values.

2.13 England, Scotland and Wales (along with other member states) applied for an extension to the PM10 compliance date of 2005 for those few parts of the UK where PM10 limit values have been exceeded since 2005. However, as no exceedences have been reported for Northern Ireland since the limit values came into force the UK application only extended to England, Scotland and Wales.

2.14 The UK expects to consult in 2010 on an application to secure additional time to meet the NO2 limit values. For benzene, the UK has been in compliance since 2007 and so we do not anticipate a need to use the provisions in Article 22 for this pollutant.

***A new control framework for PM2.5***

2.15 While it has been acknowledged that the limit value approach has been effective in driving significant improvements in air quality over recent years, we are now in a position where all attention is focused on action to address the few remaining hotspots (as reflected in the time extension notification for England, Scotland and Wales). The new exposure reduction framework largely mirrors that in the 2007 National Air Quality Strategy. It aims to achieve a general reduction in concentration of PM2.5 in the urban background (which are urban areas where levels of exposure are representative of the exposure of the general urban population) to ensure that large sections of the population get public health benefits from improved air quality.

***PM 2.5 sources***

2.16 The consultation Impact Assessment, which applies to all of the UK, explores the impacts of the new obligations on PM2.5.

2.17 Man-made sources of PM2.5 include emissions from the combustion of fossil fuels through road transport, power plants, industrial processes and domestic heating. One of the major sources of PM2.5 within urban areas is diesel fuelled heavy duty vehicles. Local construction and demolition activities can also lead to elevated PM2.5 concentrations, although construction and demolition dusts tend to be larger than 2.5µm (1).

2.18 Measures to reduce PM2.5 concentrations from road transport are likely to have the biggest effect on concentrations at roadside sites and least impact at rural sites.

2.19 Part of PM2.5 comprises secondary particles, formed through chemical reactions in the atmosphere between gases including ammonia, sulphur dioxide and nitrogen oxides. Due to the time taken for these reactions to occur, effects may be caused a long way from the sources of the pollutant precursors. As such, there can be a significant transboundary element to this component, subject to meteorological conditions such as wind direction and speed. Reductions in this

component of particulate matter are therefore best addressed by action taken at a European or wider international level through national emission ceilings.

***PM2.5 and exposure reduction***

2.20 The proposed Air Quality Standards Regulations (Northern Ireland) 2010 will place full responsibility for achieving limit values and target values for all pollutants at sites in Northern Ireland on the Northern Ireland departments. However, the national exposure reduction target and exposure concentration obligation relate to average exposure across the UK, and cannot be achieved by measures taken solely in Northern Ireland.

(1) micron = one millionth of a metre

2.21 The Northern Ireland departments role therefore, is to ensure that all necessary measures, not entailing disproportionate costs, are taken in Northern Ireland with regard to these objectives with a view to attaining the national exposure reduction target, and that all appropriate measures are taken in relation to Northern Ireland with a view to meeting the exposure concentration obligation.

2.22 While these measures are restricted to local and regional measures any appropriate UK-wide measures to bring down exposure to PM2.5 across the UK as a whole will be taken by the Secretary of State in consultation with the Devolved Administrations. The Secretary of State has ultimate responsibility for ensuring that the UK as a whole meets its exposure concentration obligation.

2.23 In Defra’s consultation document, Regulations 23, 24 and 25(3) of the draft English Regulations, set out the Secretary of State’s UK-wide role with regard to PM2.5 exposure reduction. Part 4 of the draft Air Quality Standards Regulations (Northern Ireland) 2010 sets out the role of the Department with regard to PM2.5 exposure reduction.

***Air quality plans***

2.24 Part 5 of the Air Quality Standards Regulations (Northern Ireland) 2010 requires the Department, following consultation with other Northern Ireland departments, to draw up and implement air quality plans (formally referred to as plans and programmes). These plans should indicate the measures that will be taken where limit values or target values, plus any margin of tolerance, are exceeded in any given zone or agglomeration. Where the attainment deadline has expired the plans must set out measures to keep the exceedence period as short as possible. Where the attainment date is in the future, the plans must set out measures to achieve the relevant limit or target value. Plans need to be produced without delay and be available to the public and reported to the Commission within two years of the exceedence being reported.

2.25 Within the UK, zones and agglomerations do not generally comprise a single administration authority. Plans for each zone are in practice collated centrally by Defra based on an analysis of regional or local authority/district council plans and/or information on specific relevant industrial installations, and any regional or national measures. Following public consultation these are submitted to the Commission as required. It is the intention to continue with this approach.

2.26 Most recently, at the end of 2008, the UK submitted plans and programmes to the Commission for mitigating NO2 exceedences reported in 2006. They include references to local authority/district council action plans and the measures to improve air quality which are set out on the 2007 UK Air Quality Strategy website (<http://defra.gov.uk/environment/airquality/strategy/>).

***Short term action plans***

2.27 Regulation 26 now makes it discretionary (rather than obligatory) for the Department to draw up Short Term Action Plans for pollutants where there is a risk of exceedence of a limit value (for sulphur dioxide (SO2), NO2, PM10, PM2.5 lead(Pb), carbon monoxide (CO) and benzene) or target value (PM2.5 and ozone (O3)). Short-term action plans are intended as rapid-response policy tools aimed at reducing the immediate risk of a predicted, short-lived exceedence of a limit value, target value and/or alert threshold. This change reflects the view that, in practice, there are very few circumstances in which the adoption of a short-term action plan will make any significant difference to the improvement of air quality or public health achieved through other, longer-term means, as set out in the relevant air quality plans.

2.28 Where there is a risk of exceedence of the alert thresholds for NO2 and SO2 the Department remains obliged to draw up short-term action plans. The Department retains discretionary powers in the case of plans for O3 alert threshold exceedences.

2.29 In the event of deciding that a short-term action plan is required, the Department, in consultation with other relevant Northern Ireland departments, would prepare an action plan in relation to a specific area.

2.30 In the case of urban, non-industrial sites, exceedences of the limit values for particulate matter show that short-term events are driven mainly by secondary pollutants and, in particular, secondary aerosols originating from outside the UK, and that the contribution of pollutants from local sources is small. For a short-term action plan to be effective emissions from all the contributory sources (including those outside the UK) need to be addressed. A short-term action plan for exceedences reported in the urban, non-industrial sites would therefore need to address emissions across a disproportionately large area. In addition, emissions which result in transboundary secondary inorganic aerosols will have been emitted anything up to several days before the exceedence occurs and no short-term action plan would be able to affect these.

2.31 In general terms, compliance with annual average limit values is not conducive to short-term action plans. Compliance with the NO2 limit value, for example, will require concerted action over a long time period so, by definition, any action plan cannot be short-term. For these reasons, the general approach will be not to adopt short-term action plans for urban, non-industrial sites.

2.32 In the case of exceedences attributable to industrial sources, significant individual sources fall under the Pollution Prevention and Control Regulations (Northern Ireland) 2003, which require each to have a permit containing emission limit values (ELVs) for pollutants likely to be emitted in significant quantities. It is open to the regulator to vary permits if the need arises, and the Department has powers to direct the regulator to do so. The Department could thus direct a tightening of ELVs as part of a short-term action plan. However, ELVs are set by regulators on the basis of the use of best available techniques (BAT) for pollution control and so will in any case provide a high level of environmental protection. Moreover, regulators are obliged, periodically, to review permit conditions, particularly in the light of developments in BAT. It is therefore considered generally unlikely that the Department would need to intervene to include tightening of ELVs as part of a short-term action plan.

2.33 It is our view that, in practice, there are few, if any, circumstances in which a short-term action plan would significantly aid the achievement or maintenance of the air quality limit values. We would, however, consult with relevant Northern Ireland departments to produce short-term action plans should the need arise.

***Natural sources of air pollutants***

2.34 Article 20 of the Directive recognises that natural sources of pollution (such as sea salt and African dust) may be assessed but not controlled. Where natural contributions to pollutants in ambient air can be determined and, where exceedences are due in whole or part to these contributions, they must now be deducted when assessing compliance with limit values. In the UK the main natural contribution to pollutants is sea salt. Scientific evidence suggests that this element of particulate matter pollution is relatively harmless to human health and the environment.

2.35 Under air quality reporting arrangements with the Commission, the UK Government is obliged to provide the Commission with evidence of how natural sources contribute to reported exceedences in limit values. This requirement will not change the way data is collected, but an additional annual assessment will be undertaken to ascertain what exceedences may be caused by natural sources and would therefore not trigger infringement proceedings. Annual reports will continue to be available from the intranet on the European Environment Agency’s Central Data Repository (<http://cdr.eionet.europa.eu/gb/eu/annualair>) and as part of the more detailed annual report available from the Air Quality archive (<http://www.airquality.co.uk/annualreport/index.php>).

***Consultation Impact Assessment***

2.36 The consultation Impact Assessment applies to the whole of the UK and addresses the impacts of the natural source deductions and the new PM2.5 obligations. It compares the impact arising from the transposition of the Directive with the impact of not transposing the Directive.

2.37 The impacts of the UK notification to seek additional time to meet the limit value for PM10 were previously addressed in a separate Impact Assessment in relation to that notification. (<http://www.defra.gov.uk/corporate/consult/air-quality/annexc-consultation-impactassessment.pdf>). As the UK will also be submitting a notification for additional time to meet the NO2 limit value a separate assessment will be produced in association with that.

2.38 The UK Impact Assessment for transposing the Directive estimates the total net benefit of at least £875 million between 2010 and 2030 with potential additional benefits if time extensions are secured for meeting PM10 and NO2 limit values.

***Chapter 3***

**The proposed Regulations**

Draft Statutory Rules of Northern Ireland

2010 No. 000

ENVIRONMENTAL PROTECTION

The Air Quality Standards Regulations (Northern Ireland) 2010

Made - - - - \*\*\*

Coming into operation - \*\*\*

1. The Department of the Environment makes the following Regulations in exercise of the powers conferred by section 2(2) of the European Communities Act 1972([[1]](#footnote-1)).

The Department of the Environment is designated([[2]](#footnote-2))for the purposes of section 2(2) of the European Communities Act 1972 in relation to the environment.

PART

General

Citation, commencement and application

1. — These Regulations may be cited as the Air Quality Standards Regulations (Northern Ireland) 2010 and shall come into operation on [ ].
	1. The Interpretation Act (Northern Ireland) 1954([[3]](#footnote-3)) shall apply to these Regulations as it applies to an Act of the Northern Ireland Assembly.

Definitions

1. In these Regulations—

“ambient air” means outdoor air in the troposphere, excluding workplaces as defined by Directive 89/654/EEC where provisions concerning health and safety at work apply and to which members of the public do not have regular access;

“arsenic, cadmium, nickel and benzo(a)pyrene” mean the total content of those elements and compounds within the PM10 present in ambient air;

“average exposure indicator” means the indicator calculated by the Secretary of State under Regulation 23 of the Air Quality Standards Regulation 2010([[4]](#footnote-4))

“chemical speciation concentrations” means the concentrations of different chemical components or species of particulate matter;

“Directive 2004/107/EC” means Directive 2004/107/EC of the European Parliament and of the Council relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air;

“fixed measurements” means measurements taken at fixed locations, either continuously or by sampling from time to time, to determine levels of pollutants in accordance with the relevant data quality objectives;

“indicative measurement” means measurement which meet data quality objectives that are less strict than those required for fixed measurements;

“margin of tolerance” means the percentage of the limit value by which that value may be exceeded in a given year;

“national exposure reduction target” means the target established by the Secretary of State under Regulation 24 of the Air Quality Standards Regulations 2010;

“oxides of nitrogen” means the sum of the volume mixing ratio (ppbv) of nitrogen monoxide (nitric oxide) and nitrogen dioxide expressed in units of mass concentration of nitrogen dioxide (µg/m3);

“PM10” means particulate matter which passes through a size-selective inlet as defined in the reference method for the sampling and measurement of PM10, EN 12341, with a 50% efficiency cut-off at 10µm aerodynamic diameter;

“PM2.5” means particulate matter which passes through a sixe-selective inlet as defined in the reference method for the sampling and measurement of PM2.5, EN 14907, with a 50% efficiency cut-off at 2.5µm aerodynamic diameter;

“particulate matter” means PM2.5 and PM10;

“pollutant” means any of the following—

* + 1. Sulphur dioxide,
		2. Nitrogen dioxide,
		3. Oxides of nitrogen,
		4. Particulate matter,
		5. Lead,
		6. Benzene,
		7. Carbon monoxide,
		8. Arsenic,
		9. Cadmium,
		10. Mercury,
		11. Nickel,
		12. Benzo(a)pyrene or other polycyclic aromatic hydrocarbons,
		13. Ozone,

“polycyclic aromatic hydrocarbons” means those organic compounds composed of at least two fused aromatic rings made entirely from carbon and hydrogen;

“the Department” means the Department of the Environment;

“the Directive” means Directive 2008/50/EC;

“total gaseous mercury” means elemental mercury vapour (Hg0) and reactive gaseous mercury, i.e. water-soluble mercury species with sufficiently high vapour pressure to exist in the gas phase.

Designation of competent authorities

1. The Department is designated as the competent authority for the purposes of the Directive([[5]](#footnote-5)) on ambient air quality and cleaner air for Europe, and for the purposes of Directive 2004/107/EC([[6]](#footnote-6)) relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

Responsibility for implementation of the ambient air quality and cleaner air for Europe Directive

1. For the purposes of Article 3 (Responsibilities) of the Directive,
	* 1. the Department shall be the competent authority responsible for—
			1. assessment of ambient air quality;
			2. approval of measurement systems (methods, equipment, networks and laboratories);
			3. ensuring the accuracy of measurements;
			4. analysis of assessment methods;
			5. co-ordination of European Community-wide quality assurance programmes organised by the European Commission, save in so far as that co-ordination entails communication with the European Commission;
		2. where a Northern Ireland department has functions relevant to the assessment and maintenance of ambient air quality, it shall exercise those functions so as to ensure compliance with the requirements of the Directive.

Zones and agglomerations

1. — The Department shall, for the purposes of these Regulations, divide the territory of Northern Ireland into zones and agglomerations.
	1. A zone will be classified as an agglomeration if it is a conurbation with a population in excess of 250,000 inhabitants.
	2. In these Regulations references to a zone includes a zone which has been classified as an agglomeration.

PART

Assessment of ambient air quality

CHAPTER

Sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide

Assessment thresholds

1. — The Department shall classify each zone according to whether or not the upper or lower assessment thresholds specified in Section A of Annex II to the Directive are exceeded in relation to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, PM10, PM2.5, lead, benzene and carbon monoxide in ambient air.
	1. The Department shall review the classification of zones in paragraph (1) at least every five years, and shall do so more frequently than every five years if there are significant changes in the activities which may affect levels of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide in ambient air.
	2. When reviewing the classification of zones in accordance with paragraph (2), the Department shall comply with Section B of Annex II to the Directive.

Assessment criteria

1. — The Department shall assess the level of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, PM10, PM2.5, lead, benzene and carbon monoxide in ambient air in all zones.
	1. In all zones where the level of those pollutants exceeds the upper assessment threshold referred to in regulation 5, fixed measurements must be used, but may be supplemented by modelling or indicative measurements or both, in order to provide adequate information on the spatical distribution of the ambient air quality.
	2. In all zones where the level of those pollutants is below the lower assessment threshold referred to in regulation 5, modelling or estimation techniques or both may be used instead of measurement.
	3. In all other zones a combination of fixed measurements together with modelling or indicative measurements or both may be used.
	4. In addition to the measurements referred to in paragraphs (1) to (4), the Department shall measure PM 2.5 at rural background locations away from significant sources of air pollution, in order to provide information on an annual average basis on the total mass concentration and chemical speciation concentrations of that pollutant.
	5. For the purposes of paragraph (5), measurements shall be carried out in accordance with the criteria set out in sections A to C of Annex I, and Annex IV to the Directive.
	6. Save as provided for in paragraph (8), for the purposes of paragraph (6), measurements shall be taken in accordance with the reference measurement methods specified in Section A and Section C of Annex VI to the Directive.
	7. Alternative methods to those referred to in paragraph (7) may be used if—
		1. they give equivalent results; or
		2. in the case of particulate matter, they display a consistent relationship to the reference method and are corrected to give equivalent results.
	8. Where measurements are supplemented by modelling or indicative measurement the Department shall take account of the results of those supplementary methods in assessing ambient air quality for the purposes of these Regulations.

Location and number of sampling points

1. — The Department shall install sampling points in accordance with Schedule 1 for the assessment of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide.
	1. In zones where fixed measurement is the sole source of information for the assessment of air quality, the number of sampling points must be more than or equal to the minimum number specified in Section A of Annex V to the Directive for the purpose of assessing compliance with limit values and alert thresholds.
	2. In zones other than agglomerations where fixed measurement is the sole source of information for the assessment of air quality, the minimum number of sampling points specified in Section C of Annex V to the directive for the purpose of assessing compliance with critical levels for the protection of vegetation shall be installed.
	3. In zones where the information from fixed measurement is supplemented by information from modelling or indicative measurement or both, the number of sampling points in Section A of Annex V may be reduced by up to 50% provided that the following conditions are met—
		1. the supplementary methods provide sufficient information for the assessment of air quality in relation to limit values or alert thresholds;
		2. the supplementary methods provide sufficient information to inform the public as to the state of ambient air quality; and
		3. the number of sampling points to be installed and the spatial resolution of other techniques are sufficient for the concentration of the relevant pollutant to be established in accordance with the data quality objectives specified in Section A of Annex I of the Directive and enable assessment results to meet the criteria in Section B of the same Annex.
	4. For the measurement of PM2.5 in rural background locations, the Department shall install a sampling point every 100,000km2.

CHAPTER

Ozone

Assessment criteria

1. — The Department shall ensure that fixed measurements are taken in any zone where the concentrations of ozone have exceeded the long-term objectives specified in Section C of Annex VII to the Directive during any of the previous five years of measurement.
	1. Save as provided for in paragraph (3) for the purposes of paragraph (1), measurements must be taken in accordance with the reference measurement methods specified in point 8 of Section A of Annex VI to the Directive.
	2. Alternative methods to those referred to in paragraph (2) may be used provided the conditions set out in Section B of that Annex are complied with.

Location and number of sampling points

1. — The Department shall install sampling points in accordance with the criteria set out in Annex VIII to the Directive.
	1. In zones where fixed measurement is the sole source of information for the assessment of air quality, the number of sampling points shall be more than or equal to the minimum number specified in Section A of Annex IX to the Directive.
	2. In zones where the concentrations of ozone have been below the long-term objectives for each of the previous five years of measurement, the number of sampling points shall be determined in accordance with the criteria set out in Section B of Annex IX to the Directive.
	3. In zones where the information from fixed measurement is supplemented by information from modelling or indicative measurement or both, the number of sampling points referred to in paragraph (2) may be reduced provided that the following conditions are met—
		1. the supplementary methods provide sufficient information for the assessment of air quality in relation to target values, long-term objectives, information and alert thresholds;
		2. the number of sampling points to be installed and the spatial resolution of supplementary methods are sufficient for the concentration of ozone to be established in accordance with the data quality objectives set out in Section A of Annex I to the Directive and to enable assessment results to meet the criteria specified in Section B of the same Annex; and
		3. there is at least one sampling point in each zone, with a minimum of one sampling point per two million inhabitants or one sampling point per 50,000km2, whichever produces the greatest number of sampling points.
	4. The Department shall ensure that nitrogen dioxide is measured at no less than 50% of the sampling points required under Section A of Annex IX to the Directive.
	5. The measurement referred to in paragraph (5) shall be continuous except at rural background locations.
	6. The Department shall ensure that concentrations of the ozone precursor substances listed in Annex X to the Directive are measured at at least one sampling point.
	7. The Department may choose the location and number of sampling points for measurements of ozone precursor substances and shall take into account the objectives and methods set out in Annex X to the Directive.

CHAPTER

Arsenic, cadmium, nickel, mercury, benzo(a)pyrene and other polycyclic aromatic hydrocarbons

Assessment thresholds

1. — The Department shall classify each zone according to whether or not the upper and lower assessment thresholds specified in Section 1 of Annex II to council Directive 2004/107/EC are exceeded in relation to arsenic, cadmium, nickel and benzo(a)pyrene.
	1. The Department shall review the classification of zones in paragraph (1) every five years, and shall do so more frequently than every five years if there are significant changes in the activities which may affect levels of the pollutants referred to in paragraph (1) in ambient air.
	2. When classifying zones in accordance with assessment thresholds, the Department shall comply with Section II of Annex II to Council Directive 2004/107/EC.

Assessment criteria

1. — The Department shall assess concentrations of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air.
	1. In zones where the levels of arsenic, cadmium, nickel and benzo(a)pyrene are above the lower assessment thresholds, a combination of fixed measurements together with indicative measurements as referred to in Section I of Annex IV to Council Directive 2004/107/EC or modelling, or both, may be used to assess the level of those pollutants in ambient air.
	2. In zones where the levels of those pollutants are below the lower assessment thresholds, modelling or objective estimation techniques may be used instead of measurement.

Data quality objectives

1. When assessing levels of arsenic, cadmium, nickel, benzo(a)pyrene and other polycyclic aromatic hydrocarbons and gaseous mercury, the Department shall apply the data quality objectives and other standards contained in Annex IV to Council Directive 2004/107/EC.

Location and number of sampling points

1. The location and number of sampling points for the assessment of arsenic, cadmium, nickel and benzo(a)pyrene shall be determined in accordance with Annex III to Council Directive 2004/107/EC.

Monitoring of polycyclic aromatic hydrocarbons

1. — The Department shall monitor concentrations of other relevant polycyclic aromatic hydrocarbons in addition to benzo(a)pyrene as it thinks fit, including at least the following—
	* 1. benzo(a)anthracene,
		2. benzo(b)fluoranthene,
		3. benzo(j)fluoranthene,
		4. benzo(k)fluoranthene,
		5. indeno(1,2,3-cd)pyrene,
		6. dibenz(a,h)anthracene.
	1. Monitoring sites shall be located together with sampling points for benzo(a)pyrene.
	2. Monitoring sites shall be selected so that geographical variations and long-term trends in the concentrations of polycyclic aromatic hydrocarbons can be identified.
	3. Monitoring sites shall be selected in accordance with the criteria in Sections I to III of Annex III to Council Directive 2004/107/EC.

Background monitoring

1. — The Department shall operate background sampling points to provide the indicative measurements of—
	* 1. concentrations of—
			1. arsenic, cadmium, nickel and benzo(a)pyrene;
			2. the polycyclic aromatic hydrocarbons in paragraph (1) of regulation 14; and
			3. total gaseous mercury.
		2. total depositions of—
			1. arsenic, cadmium, nickel and benzo(a)pyrene within the PM10 fraction;
			2. the polycyclic aromatic hydrocarbons in paragraph (1) of regulation 14; and
			3. mercury.
	1. For the purposes of paragraph (1) the Department shall ensure that—
		1. at least one sampling point is installed for every 100,000km2; and
		2. each sampling point is located in accordance with Annex III to Council Directive 2004/107/EC.

Reference methods for sampling

1. Measurements of arsenic, cadmium, mercury, nickel, benzo(a)pyrene and other polycyclic aromatic hydrocarbons in ambient air and disposition of those pollutants shall be made in accordance with the reference measurement methods set out in Annex V to Council Directive 2004/107/EC.

PART

Duties of the Department in relation to limit values etc

Duty in relation to limit values

1. — Northern Ireland departments shall ensure that levels of sulphur dioxide, nitrogen dioxide, benzene, carbon monoxide, lead and particulate matter do not exceed the limit values set out in Schedule 2 subject to the margins of tolerance specified in that Schedule.
	1. In zones where levels of the pollutants mentioned in paragraph (1) are below the limit values set out in Schedule 2, the Department shall ensure that the levels are maintained below those limit values and shall endeavour to maintain the best ambient air quality compatible with sustainable development.

Duty in relation to target values

1. — Northern Ireland departments shall ensure that all necessary measures not entailing disproportionate costs are taken to ensure that concentrations of PM2.5, ozone, arsenic, cadmium, nickel and benzo(a)pyrene do not exceed the target values in Schedule 3 from the dates specified in that Schedule and in relation to the relevant objectives and averaging periods specified in that Schedule.
	1. In zones where the target value for arsenic, cadmium, nickel or benzo(a)pyrene is met, the Department shall maintain the levels of those pollutants below those target values and shall endeavour to achieve the best ambient air quality compatible with sustainable development.

Date of application for limit values and target values

1. The limit values and target values in regulations 18 and 19 apply—
	* 1. from the date specified in the relevant Schedule for each limit value or target value concerned; or
		2. when these Regulations come into operation, if no date is specified.

Duty in relation to long-term objectives for ozone

1. — Northern Ireland departments shall ensure that all necessary measures not entailing disproportionate cost are taken to attain the long-term objectives for ozone set out in Schedule 4 in relation to the relevant objectives and averaging periods set out in that Schedule.
	1. In zones where the long-term objectives for ozone have been attained, the Department shall, insofar as factors including meteorological conditions and the transboundary nature of ozone pollution permit—
		1. ensure that they continue to be met;
		2. maintain the best ambient air quality compatible with sustainable development; and
		3. maintain a high level of protection for the environment and human health.

Duty in relation to information and alert thresholds

1. Where any of the information or alert thresholds in Schedule 5 are exceeded in relation to the relevant averaging periods set out in that Schedule, the Department shall inform the public by means of radio, television, newspapers or the internet.

Duty in relation to critical levels for the protection of vegetation

1. The Department shall ensure that the critical levels set out in Schedule 6 are not exceeded in relation to the relevant averaging periods and margins of tolerance set out in that Schedule.

PART

National Exposure Reduction for PM2.5

Duty on the Department to limit exposure to PM2.5

1. — Northern Ireland departments shall ensure that all necessary measures not entailing disproportionate costs are taken in relation to Northern Ireland with a view to attaining the national exposure reduction target by 2020.
	1. Northern Ireland departments shall ensure that all appropriate measures are taken in Northern Ireland with a view to ensuring that the average exposure indicator for 2015 does not exceed 20µg/m3.

PART

Plans

Air quality plans

1. — The Department, after consultation with other Northern Ireland departments, shall draw up and implement an air quality plan for any zone where the levels of sulphur dioxide, nitrogen dioxide, benzene, carbon monoxide, lead, PM10, PM2.5 or ozone in ambient air exceed any of the limit values or target values in Schedules 2 or 3 in relation to that pollutant, taking into account any relevant margin of tolerance, whether or not the attainment date for that limit value or target value has passed.
	1. Where the attainment date for a limit value has passed, the air quality plan shall set out the measures intended to ensure compliance with limit value as soon as possible.
	2. Air quality plans shall include the information listed in Schedule 7.
	3. Wherever possible, air quality plans shall be consistent with other plans drawn up in accordance with obligations imposed under the Directive on the limitation of emissions of certain pollutants into the air from large combustion plants([[7]](#footnote-7))Council Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants([[8]](#footnote-8)) and Council Directive 2002/49/EC on assessment and management of environmental noise([[9]](#footnote-9)).
	4. Where an air quality plan is required in relation to more than one pollutant, the Department shall, where appropriate, draw up and implement an integrated plan in relation to all pollutants concerned.

Short term action plans

1. — Where in any zone, there is a risk that levels of sulphur dioxide or nitrogen dioxide will exceed the alert thresholds set out in Schedule 5, the Department shall draw up and implement a short term action plan.
	1. A short term action plan shall set out the measures intended to reduce the risk of alert thresholds being exceeded, or in the event of the levels being exceeded, to reduce the duration of such an incident.
	2. Where, in any zone, levels of ozone exceed the alert threshold set out in Schedule 5 or there is a risk that they will exceed that threshold, the Department shall draw up and implement a short term action plan taking into accounts Decision 2004/279/EC([[10]](#footnote-10)), if of the opinion that it is reasonably likely that the risk, severity or duration of the excess level of ozone can be reduced taking into account geographical, meteorological and economic conditions.
	3. For the purposes of paragraph (3), the threshold must be exceeded or be predicted to exceed the alert threshold for at least three consecutive hours.
	4. Short term action plans may also be drawn up where there is a risk that any of the limit values or targets values set out in Schedule 2 or 3 will be exceeded.

Public participation in drawing up air quality and short term action plans

1. — The Department shall consult the public where it proposes to prepare, modify or review an air quality plan or a short term action plan.
	1. Where paragraph (1) applies, the Department shall—
		1. Inform the public as to the proposal, any relevant background information and the right of the public to participate in the drawing up of the plan;
		2. Specify the means by which the public can participate in the consultation, including an address for responses, and a reasonable timescale for the consultation;
		3. Take account of the results of the consultation in drawing up the plan
	2. When the plan is published, the Department shall also provide information to the public as to the reasons for the contents of the plan together with information about the public participation process that has been carried out.

PART

Public information

Public information

1. — The Department shall make the following available to the public and interested organisations—
	* 1. up to date information given on at least a daily basis, and if possible on an hourly basis on concentrations of sulphur dioxide, nitrogen dioxide, PM10 and if possible, PM2.5, ozone and carbon monoxide;
		2. up to date information on concentrations of benzene and lead, presented as an average over the last 12 months, and updated every 3 months or if possible every month;
		3. up to date information as to any amendment to the attainment dates for limit values for nitrogen dioxide or PM10;
		4. up to date information on concentrations and deposition rates of arsenic, cadmium, nickel, mercury, benzo(a)pyrene and other polycyclic aromatic hydrocarbons;
		5. information about cases where target values for arsenic, nickel and benzo(a)pyrene are exceeded, together with reasons for such cases, the area concerned, and appropriate information regarding effects on health and the environment;
		6. information on measures taken to achieve target values for arsenic, cadmium, nickel and benzo(a)pyrene;
		7. information about actual or predicted instances where pollutants exceed alert or information thresholds;
		8. air quality plans;
		9. short term action plans.
	1. The information in paragraph (1)(g) shall be made available in accordance with Schedule 8.
	2. Information shall be distributed free of charge in a clear and comprehensible manner via any easily accessible media including the internet or other appropriate means of telecommunication taking into account the requirements of council Directive 2007/2/EC on establishing an infrastructure for spatical information in the European Community([[11]](#footnote-11)).
	3. For the purposes of this Part, “interested organisations” includes environmental organisations, consumer organisations, organisations representing sensitive populations, relevant healthcare bodies and industrial organisations.

Annual reports

1. — The Department shall publish annual reports for all the pollutants.
	1. Annual reports shall contain the following information—
		1. Details of all the cases where levels of pollutants have exceeded limit values, target values, long term objectives, information and alert thresholds set out in Schedules 2 to 5 for the relevant averaging periods.
		2. A summary assessment of the effects of the cases referred to in paragraph (a).
	2. Annual reports may contain further information where appropriate, including assessments on forest protection and information as to ozone precursor substances listed in Section B of Annex X to the Directive as the Department thinks appropriate.

PART

General

Revocations

1. The Air Quality Standards Regulations (Northern Ireland) 2007([[12]](#footnote-12)) are revoked.

Sealed with the Official Seal of the Department of the Environment on 1st May 2010.

 Denis McMahon

 A senior officer of the Department of the Environment

 SCHEDULE Regulation 8(1)

Sampling points for measurement of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide in ambient air

PART

1. Ambient air quality must be assessed at sampling points located in accordance with this Schedule, except those listed in paragraph 2.
2. Compliance with limit values directed at the protection of human health does not need to be assessed at the following locations.
	* 1. any location situated within areas where members of the public do not have access and there is no fixed habitation;
		2. on factory premises or at industrial locations to which all relevant provisions concerning health and safety at work apply;
		3. on the carriageway of roads and on the central reservations of roads except where there is normally pedestrian access to the central reservation.
3. Insofar as they are relevant, the principles set out in the Schedule also apply to indicative measurement and modelling.

PART

Macroscale siting of sampling points

Sampling points for the protection of human health

1. Sampling points directed at the protection of human health must be sited to provide data on—
	* 1. the areas within zones where the highest concentrations occur to which the population is likely to be directly or indirectly exposed for a period which is significant in relation to the averaging period of the limit value; and
		2. levels in other areas within the zones which are representative of the exposure of the general population.
2. Sampling points shall in general be sited to avoid measuring very small micro-environments in their immediate vicinity. Where possible, the Department shall locate sampling points so as to be representative of air quality in a street segment of no less than 100m in length at traffic-orientated sites or an area of at least 250m2 at industrial sites.
3. Sampling points in urban background locations shall be located so that their pollution level is influenced by the combined contribution from all sources upwind of the station. The pollution level should not be dominated by a single source unless such a situation is typical for a larger urban area. Those sampling points shall as a general rule, be representative for several square kilometres.
4. Where the objective is to assess rural background levels, the sampling point shall not be influenced by agglomerations or industrial sites in its vicinity i.e. closer than five kilometres.
5. Where contributions from industrial sources are to be assessed, at least one sampling point shall be installed downwind of the source in the nearest residential area. Where the background concentration is not known, an additional sampling point shall be situated within the main wind direction.
6. Sampling points shall also, where possible, be representative of similar locations not in their immediate vicinity.
7. Account shall be taken of the need to locate sampling points on islands, where it is necessary for the protection of human health.

Protection of ecosystems and vegetation

1. Sampling points targeted at the protection of ecosystems or vegetation must be sited more than 20km from agglomerations or more than 5km from other built-up areas, industrial installations or motorways or major roads with traffic counts of more than 50,000 vehicles per day. The Department shall locate sampling points so as to be representative of air quality in a surrounding area of at least 1000km2. A sampling point may be sited at a lesser distance or to be representative of air quality in a less extended area, taking account of geographical conditions or opportunities to protect particularly vulnerable areas. Account shall be taken of the need to locate sampling points on islands.

Microscale siting of sampling points

1. Insofar as is practicable, sampling points shall be situated in accordance with the following criteria—
	* 1. The flow around the inlet sampling probe must be unrestricted (free in an arc of at least 270o) without any obstructions affecting the airflow in the vicinity of the sampler and the inlet sampling probe must normally be some metres away from buildings, balconies, trees and other obstacles and at least 0.5m from the nearest building in the case of sampling points representing air quality at the building line;
		2. In general, the inlet sampling point shall be between 1.5m (the breathing zone) and 4m above the ground. However, higher positions (up to 8m) may be necessary in some circumstances. Higher siting may also be appropriate if the station is representative of a large area;
		3. The inlet probe shall not be positioned in the immediate vicinity of sources in order to avoid the direct intake of emissions unmixed with ambient air;
		4. The sampler’s exhaust outlet must be positioned so that recirculation of exhaust air to the sampler inlet is avoided;
		5. In relation to the location of traffic orientated samplers sampling points must be at least 25m from the edge of major junctions and at least 10m from the kerbside.
2. The following factors may also be taken into account—
	* 1. interfering sources;
		2. security;
		3. access;
		4. availability of electrical power and telephone communications;
		5. visibility of the site in relation to its surroundings;
		6. safety of public and operators;
		7. the desirability of co-locating sampling points for different pollutants; and
		8. planning requirements.

 SCHEDULE Regulation 18(1) and (2)

Limit values

Sulphur dioxide

|  |  |  |
| --- | --- | --- |
| Averaging period | Limit value | Margin of tolerance |
| One hour | 350µg/m3 not to be exceeded more than24 times a calendar year | 150µg/m3 (43%) |
| One day | 150µg/m3 not to be exceeded more than 3 times a calendar year |  |

Nitrogen dioxide

|  |  |
| --- | --- |
| Averaging period | Limit value |
| One hour | 200µg/m3 not to be exceeded more than 18 times a calendar year |
| Calendar year | 40µg/m3 |

Benzene

|  |  |
| --- | --- |
| Averaging period | Limit value |
| Calendar year | 5µg/m3 |

Carbon monoxide

|  |  |
| --- | --- |
| Averaging period | Limit value |
| Maximum daily eight hour mean(1) | 10mg/m3 |

(1) The maximum daily eight hour mean concentration of carbon monoxide shall be selected by examining eight hour running averages, calculated from hourly data and updated each hour. Each eight hour average so calculated will be assigned to the day on which it ends i.e. the first calculation period for any one day will be the period from 17:00 on the previous day to 01:00 on that day, the last calculation period for any one day will be the period from 16:00 to 24:00 on that day.

Lead

|  |  |  |
| --- | --- | --- |
| Averaging period | Limit value | Margin of tolerance |
| Calendar year | 0.5µg/m3 | 100% |

PM10

|  |  |  |
| --- | --- | --- |
| Averaging period | Limit value | Margin of tolerance |
| One day | 50µg/m3 not to be exceeded more than 35 times a calendar year | 50% |
| Calendar year | 40µg/m3 | 20% |

PM2.5

|  |  |  |  |
| --- | --- | --- | --- |
| Averaging period | Limit value | Margin of tolerance | Date by which limit value is to be met |
| Stage 1Calendar year | 25µg/m3 | 20% on 11 June 2008, decreasing on the next 1 January and every 12 months thereafter by equal annual percentages to reach 0% by 1 January 2015 | 1 January 2015 |

 SCHEDULE Regulation 19(1)

Target values

Arsenic, cadmium, nickel and benzo(a)pyrene

|  |  |  |
| --- | --- | --- |
| Pollutant | Target value for the total content in the PM10 fraction averaged over a calendar year | Date by which target value should be met |
| Arsenic | 6ng/m3 | 31st December 2012 |
| Cadmium | 5ng/m3 | 31st December 2012 |
| Nickel | 20ng/m3 | 31st December 2012 |
| Benzo(a)pyrene | 1ng/m3 | 31st December 2012 |

Ozone

|  |  |  |
| --- | --- | --- |
| Objective | Averaging period | Target value |
| Protection of human health | Maximum daily eight hour mean | 120µg/m3 not to be exceeded on more than 25 days per calendar year averaged over three years |
| Protection of vegetation | May to July | AOT 40 (calculated from 1h values) 18,000µg/m3.h averaged over five years |

PM2.5

|  |  |
| --- | --- |
| Averaging period | Target value |
| Calendar year | 25µg/m3 |

 SCHEDULE Regulation 21(1)

Long term objectives for ozone

|  |  |  |  |
| --- | --- | --- | --- |
| Objective | Averaging period | Long term objective | Date by which long term objective should be met |
| Protection of human health | Maximum daily eight hour mean within a calendar year  | 120µg/m3 | Not defined |
| Protection of vegetation | May to July | AOT 40 (calculated from 1h values) 6000µg/m3 | Not defined |

 SCHEDULE Regulation 22

Information and alert thresholds

Alert thresholds for Sulphur dioxide and Nitrogen dioxide

To be measured over three consecutive hours at locations representative of air quality over at least 100km2 or an entire zone, whichever is smaller.

|  |  |
| --- | --- |
| Pollutant | Alert threshold |
| Sulphur dioxide | 500µg/m3 |
| Nitrogen dioxide | 400µg/m3 |

Information and alert thresholds for Ozone

|  |  |  |
| --- | --- | --- |
| Purpose | Averaging period | Threshold |
| Information | 1 hour | 180µg/m3 |
| Alert | 1 hour | 240µg/m3 |

 SCHEDULE Regulation 23

Critical levels for the protection of vegetation

Critical levels for the protection of vegetation

|  |  |  |
| --- | --- | --- |
| Averaging period | Critical level | Margin of tolerance |
| Sulphur dioxide:Calendar year and winter (1 October to 31 March) | 20µg/m3 | None |
| Oxides of nitrogen:Calendar year | 30µg/m3 NOx | None |

 SCHEDULE Regulation 25(3)

Information to be included in air quality plans

1. Localisation of excess pollution—
	* 1. region;
		2. city (map); and
		3. measuring station (map, geographical co-ordinates).
2. General information—
	* 1. type of zone;
		2. estimate of the polluted area (km2) and of the population exposed to the pollution;
		3. useful climatic data;
		4. relevant data on topography; and
		5. sufficient information on the type of targets requiring protection in the zone.
3. Responsible authorities (names and addresses of persons responsible for the development and implementation of air quality plans).
4. Nature and assessment of pollution—
	* 1. concentrations observed over previous years (before the implementation of the improvement measures);
		2. concentrations measured since the beginning of the project; and
		3. techniques used for the assessment.
5. Origin of pollution—
	* 1. list of the main emission sources responsible for pollution (map);
		2. total quantity of emissions from these sources (tonnes per year); and
		3. information on pollution imported from other regions.
6. Analysis of the situation—
	* 1. details of those factors responsible for exceeding the limit value or target value (transport, including cross-border transport, formation); and
		2. details of possible measures for improvement of air quality.
7. Details of those measures or projects for improvements which existed prior to 11th June 2008—
	* 1. local, regional, national and international measures; and
		2. observed effects of those measures.
8. Details of those measures or projects adopted with a view to reducing pollution following 11th June 2008—
	* 1. listing and description of all the measures set out in the project;
		2. timetable for implementation;
		3. estimate of the improvement of air quality planned and of the expected time required to attain these objectives.
9. Details of the measures or projects planned or being researched for the long term.
10. List of the publications, documents and work etc. used to supplement information required by this Schedule.

 SCHEDULE Regulation 28(2)

Alert and information thresholds for nitrogen dioxide, sulphur dioxide and ozone

1. In cases where the information threshold or the alert threshold for ozone is exceeded the details set out in paragraphs 3 to 6 shall, as a minimum, be made available to the public on a sufficiently large scale.
2. In cases where either the information or alert thresholds are predicted to be exceeded, the information set out in paragraphs 3 to 6 shall be provided where practicable.
3. information on any exceedance—
	* 1. the location or area of the exceedance;
		2. the type of threshold exceeded (information or alert threshold);
		3. the time at which the exceedance began and its duration; and
		4. the highest 1-hour and 8-hour mean concentration.
4. Forecast for the following afternoon, day or days—
	* 1. the geographical area of expected exceedances of an information or alert threshold;
		2. the expected change in pollution, that is, improvement, stabilisation or deterioration.
5. Information on the type of population concerned, possible health effects and recommended conduct in particular—
	* 1. information on the population groups at risk;
		2. description of likely symptoms;
		3. recommended precautions to be taken by the population concerned; and
		4. where to find further information.
6. Information provided under this Schedule shall also include—
	* 1. information on preventive action to reduce pollution or exposure to it;
		2. an indication of main source sectors; and
		3. recommendations for action to reduce emissions.

EXPLANATORY NOTE

(This note is not part of the Order)

These Regulations implement the following Directives:

Council Directive 2008/50/EC on ambient air quality and cleaner air for Europe (this Directive replaces Council Directive 96/62/EC on ambient air quality assessment and management, Council Directive 1999/30/EC relating to limits for sulphur dioxide, nitrogen dioxide, oxides of nitrogen, particulate matter and lead in ambient air, council Directive 2002/3/EC relating to ozone in ambient air).

Council Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

These Regulations replace the Air Quality Standards Regulations (Northern Ireland) 2007 (S.R. 2007 No.265) which are revoked.

 Part 1 of the Regulations deals with definitions and designates the Department as the competent authority for the purposes of Council Directives 2008/50/EC and 2004/107/EC.

Part 2 of the Regulations deals with assessment of ambient air quality. Chapter 1 relates to assessment of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide. Chapter 2 relates to assessment of ozone, and Chapter 3 relates to assessment of arsenic, cadmium, nickel, mercury, benzo(a)pyrene and other polycyclic aromatic hydrocarbons.

Part 3 of the Regulations sets out the duties Northern Ireland departments shall take in relation to the limit values, target values, long-term objectives, information and alert thresholds and critical levels for the protection of vegetation which are set out in Schedules 2 to 6.

Part 4 of the Regulations deals with requirements in relation to PM2.5 in addition to the limit value and target value for this pollutant. The additional requirements in this part relate to the attainment of the national exposure reduction target in Northern Ireland and compliance with a limit on the average exposure indicator for 2015.

Part 5 of the Regulations imposes requirements on the Department, after consultation with other Northern Ireland departments, to draw up air quality plans in relation to limit values and target values and short term action plans in relation to alert thresholds. Short term action plans may also be sued in relation to limit values and target values.

Part 6 of the Regulations relates to public information.

Schedule 1 of the Regulations sets out the requirements for the siting of sampling points for the assessment of sulphur dioxide, nitrogen dioxide, oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide.

Schedules 2 to 6 set out limit values etc.

Schedule 7 sets out the information to be included in air quality plans.

Schedule 8 sets out the public information to be provided in relation to concentration of pollutants.

**ANNEX 1**

**EQUALITY IMPACT ASSESSMENT**

**SCREENING FOR EQUALITY IMPACT ASSESSMENT**

Northern Ireland Act 1998 (Section 75) – Statutory Equality Obligations

Draft Air Quality Standards Regulations (Northern Ireland) 2010.

1. Introduction

Section 75 of the Northern Ireland Act 1998 requires all public authorities in carrying out their functions relating to Northern Ireland to have due regard to the need to promote equality of opportunity between:

* Persons of different religious beliefs.
* Persons of different political opinions.
* Persons of different racial groups.
* Persons of different ages.
* Persons of different marital status.
* Persons of different sexual orientation.
* Men and women generally.
* Persons with a disability and persons without.
* Persons with dependants and persons without.

To satisfy this requirement, government departments carry out Equality Impact Assessments of policies and legislation to test whether they could have an adverse impact on equality of opportunity between any of the nine groups listed above. While it is acknowledged that Section 75 puts a duty on public authorities to look at all its policy areas and not just those relating to equality issues, it is accepted that not all policies need to be assessed to the same extent. Screening aims to identify those policies that are likely to have the greatest impact on equality of opportunity and therefore should be subject to a full Equality Impact Assessment

2. Brief Summary of the draft Regulations

The draft Air Quality Standards Regulations (Northern Ireland) 2010 which will replace the Air Quality Standards Regulations (Northern Ireland) 2007, transpose the requirements of Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe. They also incorporate provisions of the fourth daughter directive relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (2004/107/EC).

3. Aims of the draft Regulations

The draft Regulations are intended to provide an appropriate legal framework to ensure the obligations imposed by the Directive can be fully and properly transposed across the UK.

The new Regulations will replace the Air Quality Standards Regulations (Northern Ireland) 2007 and will incorporate provisions of the fourth daughter directive. They also introduce new controls for PM2.5 (fine particles).

4. Screening Analysis

* 1. Is there any evidence of higher or lower participation or uptake by different groups within any of the nine categories?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **YES** |  |  | **NO** | **✓** |

* 1. Is there any evidence that particular groups have different needs, experiences, issues and priorities in relation to the particular main policy area?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **YES** |  |  | **NO** | **✓** |

The proposed regulations aim to ensure protection of the environment and human health by introducing draft legislation for Northern Ireland. There is no evidence that particular groups have different needs, experiences, issues and priorities in relation to this topic.

* 1. Is there an opportunity to better promote equality of opportunity or good

relations by altering policy or working with others in Government or the community at large?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **YES** |  |  | **NO** | **✓** |

* 1. Have consultations in the past with relevant groups, organisations or

 individuals indicated that particular policies create problems which are

 specific to them?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **YES** |  |  | **NO** | **✓** |

5. Equality Impact Assessment Decision

5.1 Full Equality Impact Assessment procedure is confined to those policies considered likely to have significant implications for equality of opportunity.

As a result of the screening analysis in Section 4, it is considered that there will be no significant implications for equality of opportunity arising from the introduction of the new provisions contained in the draft of the Air Quality Standards Regulations (Northern Ireland) 2010. The scheme does not, therefore, need to be submitted for a full Equality Impact Assessment.

**ANNEX 2**

**SCREENING FOR Human Rights IMPLICATIONS**

# HUMAN RIGHTS ACT 1998

Air Quality Standards Regulations (Northern Ireland) 2010.

**1. Introduction:**

1.1 The purpose of this paper is to review the Human Rights implications of the proposed draft Regulations.

1.2 The draft Air Quality Standards Regulations (Northern Ireland) 2010 will transpose Directive 2008/50/EC on ambient air quality and cleaner air for Europe. They will revoke the Air Quality Standards Regulations (Northern Ireland) 2007.

1.3 The Regulations are intended to work in conjunction with a number of UK-wide provisions contained in the English draft Air Quality Standards Regulations 2010 relating to the UK’s average exposure indicator and national exposure reduction target for PM2.5.

**2. Human Rights Assessment**

2.1 The Department considers that its proposals are fully compliant with theEuropean Conventionon Human Rights.

**ANNEX 3**

**Consultees**

|  |  |
| --- | --- |
| Executive Ministers and Junior Ministers | Leaders of Parties in the Assembly |
| Other Northern Ireland Parties not in the Assembly | NI MPs and MEPs who are not Party Leaders or MLAs |
| Members of the NI Assembly | Assembly Business Office |
| NI Assembly Library | Office of the First Minister and Deputy First Minister |
| North/South Ministerial Council | Northern Ireland Office |
| Legal Deposit Libraries | Departmental Libraries |

|  |  |
| --- | --- |
| Government Departments | District Judge (Magistrates Court) |
| District Councils | Northern Ireland Ombudsman |
| The Executive Council of the Inn of Court of NI | The General Consumer Council for NI |
| The Law Society of NI | NI Chamber of Commerce and Industry |
| The Head of the School of Law University of Ulster | NI Association of Citizens Advice Bureaux |
| HM Council of County Court Judges | Food Standards Agency NI |
| Civil Law Reform Division | The Director of Policy, NI Council for Voluntary Action |
| Northern Ireland Law Commission | NI Human Rights Commission |
| Belfast Solicitors Association | The Chief Commissioner, Equality Commission for NI |
| School of Law Queen’s University of Belfast | Confederation of British Industry, NI Branch |
| Business Development Group Northern Ireland Court Service | Federation of Small Businesses |
| Law Centre (NI) | NI Chamber of Trade |
| Northern Ireland Court Service | Assistant General Secretary |
| NI Local Government Association | Community Relations Council |
| DGLS Ministry of Defence | Society of Local Authority Chief Executives |
| NI Judicial Appointments Commission | HM Revenue & Customs |
| Catholic Bishops of NI | Participation & the Practice of Rights Project |
| NI Environment Link | Environmental Health Officers |
| Education & Library Boards | Head of Transportation Unit |
| Northern Ireland Environment Agency | NI Federation of Housing Associations |
| Planning Appeals Commission | Translink |
| Belfast City Airport | City of Derry Airport |
| Belfast International Airport | Belfast Harbour Commissioners |
| Equality Forum NI | Environment & Planning Law Association of NI |
| NI Local Government Association | NI Human Rights Commission |
| Institute of Civil Engineers | Chartered Institute of Environmental Health |
| Construction Employer’s Federation | NI Association Engineering Employer’s Federation |
| NI Retail Trade Association | Sustainable Energy Association |
| British Deaf Association NI | Age Concern Northern Ireland |
| Bahai’s Office for NI | Association of Chief Officers of Voluntary Organisations |
| Chinese Welfare Association | Belfast Hebrew Congregation |
| Coalition on Sexual Orientation | Mr Tom GillenThe Disability Committee of the NI Committee |
| Coiste-na n-iarchimi | Disability Action |
| Community Technical Aid | Indian Community Centre |
| Gingerbread NI | Methodist Church In Ireland |
| MENCAP | NI Anti-Poverty Network |
| Men’s Project | POBAL |
| Multi-Cultural Resource Centre | NI Committee of the Irish Congress of Trade Unions |
| NI Rural Women’s Network | NI African Cultural Centre |
| NI Gay Rights | NI Human Rights Commission |
| NI Association for Mental Health | NI Islamic Centre |
| NI Council for Ethnic Minorities | Presbyterian Church in Ireland |
| Office of the Archbishop of Armagh | Staff Commission for Educ & Lib Boards |
| Rural Development Council | Polish Association NI |
| Woman’s Forum NI | Senior Citizens Consortium |
| Ulster Farmers Union |  |

1. () 1972 c.68 [↑](#footnote-ref-1)
2. () S.I. 2008/301 [↑](#footnote-ref-2)
3. () 1954 c.33 (N.I.) [↑](#footnote-ref-3)
4. () S.I. 2010/xxx [↑](#footnote-ref-4)
5. () OJ No L 152, 11.6.08, p.1 [↑](#footnote-ref-5)
6. () OJ No L 23, 26.1.05, p.3 [↑](#footnote-ref-6)
7. () OJ No L 309 27.11.01, p.1 [↑](#footnote-ref-7)
8. () OJ No L 309 27.11.01, p22 [↑](#footnote-ref-8)
9. () OJ No L 189 18.7.02, p.12 [↑](#footnote-ref-9)
10. () OJ No L 87, 25.3.04, p.50 [↑](#footnote-ref-10)
11. () OJ No L 108, 25.4.07, p.1 [↑](#footnote-ref-11)
12. () S.R. 2007 No. 265 [↑](#footnote-ref-12)