

REGULATORY APPRAISAL

ENVIRONMENTAL PROTECTION, WALES

THE AIR QUALITY STANDARDS (WALES) REGULATIONS 2007

Background

1. The Air Quality Framework Directive (Council Directive 96/62/EC) established the policy framework for ambient air across the European Union. The subsequent daughter Directives, namely:

- Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (first Daughter Directive);
- Directive 2000/69/EC of the European Parliament and of the Council of 16 November 2000 relating to limit values for benzene and carbon monoxide in ambient air (second Daughter Directive); and
- Directive 2002/3/EC relating to ozone in ambient air (third Daughter Directive),

set standards and limit values for twelve air pollutants. These Directives have already been transposed into legislation in Wales. Those Regulations also incorporate the requirements of Commission Decision 2001/744/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation. These Regulations will transpose the fourth daughter Directive.

Purpose and intended effect of the measure

2. These Regulations transpose, into domestic legislation in Wales, Council Directive 2004/107/EC (fourth Daughter Directive) relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons (PAHs) in ambient air. PAHs are a group of approximately 10,000 chemical compounds. Most PAHs in the environment are from incomplete burning of materials containing carbon such as oil, wood and coal.

3. They:

- establish limit values (i.e. a maximum concentration in ambient air that all EU Member States should try to achieve), from 31 December 2012, for the concentrations of arsenic, cadmium, nickel and benzo(a)pyrene. Benzo(a)pyrene is an example of a polycyclic aromatic hydrocarbon (PAH). It has been chosen as a representative of PAHs as it is a measurable indicator of the level of PAHs. These measures are to avoid, prevent or reduce harmful effects on human health and the environment as a whole. The limit values are set at: 6ng/m^3 for concentrations of arsenic, 5ng/m^3 for cadmium, 20ng/m^3 for nickel and 1ng/m^3 for benzo(a)pyrene;

- ensure, with respect to arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons, that ambient air quality is maintained where it is good and that it is improved in other cases;
 - determine common methods and criteria such as monitoring, modelling and emissions inventories to assess concentrations and depositions of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air ; and
 - ensure that adequate information on concentrations and depositions of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air are obtained and made available to the public. This information will be obtained through monitoring and modelling and will be made available to the public via the Air Quality Archive website, and also other means such as reports, press releases, Ceefax, televisions reports and the Defra website.
4. These Regulations revoke and consolidate the current Regulations i.e. The Air Quality Limit Values (Wales) Regulations 2002, The Air Quality (Ozone) (Wales) Regulations 2003 and The Air Quality Limit Values (Wales) (Amendment) Regulations 2005.
 5. These Regulations place a duty on the Welsh Assembly Government to meet limit values by the due dates. There would also be duties to carry out monitoring and reporting for pollutants across Wales, which is undertaken by the UK Government in consultation with Assembly officials.

Risk Assessment

6. These Regulations help address the harmful effects on human health and the environment from air pollution, specifically arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons (PAHs) in ambient air, which amongst other effects, are known to cause cancer. If these Regulations are not implemented, these pollutants would continue to produce detrimental effects. Moreover, EU Member States are obligated to transpose the Directive into national law and failure to do so could result in infraction proceedings against the National Assembly for Wales.

Options

7. In respect of this legislation the “Do nothing option” is not an option as it would lead ultimately to infraction proceedings against the National Assembly for Wales by the European Commission. Therefore, the “Make the legislation” option, to implement the changes required to comply with European legislation, is being recommended.

Benefits

8. Benefits of implementing these Regulations can be broken down to the following:
 - **Health and environmental benefits** – According to the best information available at the current time, the limit values, set out by the Directive, are likely to be met under existing UK policy commitments and trends. As such, the concentrations of arsenic, cadmium, nickel and (benzo(a)pyrene, which is

a polycyclic aromatic hydrocarbon, are not expected to change directly in response to implementation of this Directive. However, the enhanced level of information on ambient concentrations and deposition of the pollutants covered by this Directive is of potential benefit to a number of stakeholder groups. For example, such information could be used in decisions regarding location of future housing developments, location of existing populations, types of farming practices etc. and may lead to some indirect health and environmental benefits. This has been seen, for example, by the influence of NO_x (oxides of nitrogen) and PM₁₀ (particulates) ambient concentration data on the past planning decisions of some developments. Due to the high levels of uncertainty associated with the use of such information, and the subjective nature of the anticipated benefits, it is not possible to quantitatively estimate these benefits at this time.

- **Financial benefits** – There is potentially a positive impact on the businesses that manufacture, install and maintain the monitors required to assess pollutant levels. However, it is understood that there are very few Wales based firms that produce such equipment and the main potential benefits to Wales based firms will be restricted to the companies in Wales installing, operating and maintaining the monitors. Only a small number of additional monitors are expected to be required, therefore, the financial benefits for a small number of firms in Wales, while positive, are anticipated to be limited.

Costs

9. There are no financial implications for the Assembly as a result of implementing these Regulations. However, there will be costs for the UK Government in setting up and operating additional monitoring sites to monitor the additional pollutants required under the fourth Daughter Directive. The costs will be met through the UK air quality monitoring budget, which is administered by Defra on behalf of all UK countries. The estimated costs to the UK Government, of additional monitoring required, in Wales are estimated to be £85-250k.
10. There will be no costs to industry as a result of implementing these Regulations. The limit value requirements, set out by the fourth Daughter Directive, are likely to be met under existing UK policy commitments and trends, based on best current information available. As such, additional emission reduction measures would not be required beyond those implemented under existing policy commitments.
11. There is potentially a positive impact on the businesses that manufacture, install and maintain the monitors required to assess pollutant levels. However, it is understood that there are very few Wales based firms that produce such equipment and the main potential benefits to Wales based firms will be restricted to the companies in Wales installing, operating and maintaining the monitors. Only a small number of additional monitors are expected to be required, therefore, the financial benefits for a small number of firms in Wales, while positive, are anticipated to be limited.

Competition Assessment

12. It is not anticipated that the implementation of these Regulations will have any significant competitiveness impacts between Wales and rest of EU markets and Wales and rest of the world markets. As such no impacts or requirements to change operations are anticipated to arise for the emission source sectors of interest to these Regulations thus resulting in negligible or no competitiveness impacts for these sectors.
13. Any competitiveness impacts are only expected to be related to firms involved in the manufacture, supply, installation, operation and maintenance of monitoring equipment. There are very few Wales based firms that manufacture air quality monitoring equipment and, therefore, a proportion of these potential benefits will be for international companies providing such equipment. A small net benefit for firms that install, operate and maintain the additional monitors is anticipated, although the number of additional monitors is relatively small and likely to form a small element of the turnover and operating profits of the relevant companies. The management and running costs associated with operating, maintaining and monitoring are also subject to a competitive bidding process. As installation and operation of the air quality networks is assumed to be completed domestically by Member States it is not considered likely that this Directive creates additional opportunities for Wales companies internationally. For these reasons no significant competitiveness impacts are expected for Wales firms in this sector.

Consultation

With Stakeholders

14. A 12 week consultation on the proposed Regulations was undertaken from 19 September 2006 to 19 December 2006. A list of consultees is attached at Annex A to the Regulatory Appraisal. There were two responses received to the consultation in Wales. Both were supportive of the proposal to introduce these Regulations. However, a local issue was raised about levels of nickel present in the local ambient air, which is being addressed outside of the consultation process. There were no regulatory changes as a result of the consultation.
15. In addition, industry, environmental groups and stakeholders were involved in the detailed preparation of the fourth Daughter Directive along with Member States through the European Commission's Air Quality Steering Group and the sub-groups set up to provide reports on each of the pollutants. These groups played an important role in establishing the framework requirements and levels at which the Daughter Directive's limit values have been set. A range of industry stakeholders in Wales including operators and regulators have been involved in a number of local and national forums, whose views have been fed into the European Commission's Steering Group process. The WLGA are also formally represented on the UK Air Quality Forum, which again had the opportunity to feed into the EU Steering Group process.

With Subject Committee

16. These Regulations were notified to the Environment, Planning and Countryside Committee, via the list of forthcoming legislation, on 28 September 2006

(EPC(2)-12-06, (p.3) (Annex 2), item No.23), and have remained on the list ever since. These Regulations were not identified for detailed scrutiny.

Review

17. The Minister for Environment, Planning and Countryside will assess compliance with these Regulations, limit values and obligations in Directive 2004/107/EC, through the UK's national monitoring network and system of Local Air Quality Management provided under Part IV of the Environment Act 1995. The European Commission will review progress on implementing Directive 2004/107/EC in light of scientific progress and emerging evidence on health effects.

Summary

18. These Regulations transpose, into domestic legislation in Wales, Council Directive 2004/107/EC (fourth Daughter Directive) relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons (PAHs). They ensure that adequate information is obtained on levels in ambient air of key pollutants that pose risks to human health (including carcinogenic risks) and the environment, and would demonstrate that health and environmental effects of these pollutants are reduced through meeting limit value requirements.

Annex A

List Of Consultees

Age Concern
All Wales Ethnic Minority Association
Arena Network
Association of National Park Authorities
Asthma UK Cymru
Black Environment Network
Black Voluntary Sector Network in Wales
Brecon Beacons National Park
British Heart Foundation
British Lung Foundation
British Medical Association
Campaign for the Protection of Rural Wales
Cardiff University
Chartered Institute of Environmental Health Wales
Chartered Institution of Water and Environmental Management
Chemical Industries Association
Chief Environmental Health Officers of Local Authorities
Chief Executives of Local Authorities
Commission for Racial Equality Wales Office
Country Land & Business Association
Countryside Council for Wales
Disability Rights Commission
Energy Saving Trust Wales
Environment Agency Wales
Environmental Industries Commission Ltd
Equal Opportunities Commission
Farmers Union of Wales
Federation of Small Businesses
Friend of the Earth Cymru
Greenpeace Wales
Groundwork Wales
Health and Safety Executive
Keep Wales Tidy
Local Health Boards in Wales
Minority Ethnic Women's Network Wales
NFU Cymru
NSCA
Pembrokeshire Coast National Park
Plaid Cymru
Regional Health Boards in Wales
RICS Wales
Snowdonia National Park
Sustainable Energy
The Carbon Trust in Wales
The Lesbian, Gay, Bisexual Forum Equal Opportunities

The Wales Environmental Standards Group
TUC Cymru
Wales Council for Voluntary Action
Wales Environment Trust
Wales Environmental Link
Wales Social Partners Unit Ltd
Wales Women's National Coalition
Welsh Conservative Party
Welsh Labour Party
Welsh Liberal Democrats
Welsh Local Government Association
West Wales ECO Centre
WWF Cymru