

## **EXECUTIVE NOTE**

### **The Air Quality Standards (Scotland) Regulations 2007 (S.S.I. 2007/182)**

#### **Introduction**

The Air Quality Standards (Scotland) Regulations 2007 (“the Regulations”) have the effect of transposing European Council (EC) Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (the “Fourth Daughter Directive” flowing from the Air Quality Framework Directive (96/62/EC)) (“the Framework Directive”). The principal aim of the Fourth Daughter Directive is to achieve and maintain a high degree of protection for public health and the environment against the adverse effects of ambient air pollution.

In addition the Regulations replace and consolidate earlier regulations (the Air Quality Limit Values (Scotland) Regulations 2003 (SSI 2003/428), the Air Quality Limit Values (Scotland) Amendment Regulations 2003 (SSI 2003/547) and the Air Quality Limit Values (Scotland) Amendment Regulations 2005 (SSI 2005/300)) which were made to transpose the Air Quality Framework Directive (1996/63/EC) and the First, Second and Third Air Quality Daughter Directives (1999/30/EC, 2000/69/EC & 2002/3/EC), into one set of regulations.

In preparing the Regulations the opportunity has been taken to tidy some provisions that are in the Framework and first three Daughter Directives but which have no effect, in some cases because the passage of time has rendered them inoperative. For example, some margins of tolerance have not been transposed for those pollutants covered by the first and second Daughter Directives if the date by which the limit value should be met has already passed. That is because a margin of tolerance only has meaning before that date. Including such provisions would have added to the complexity of the Regulations with no benefit and so they have been excluded in the interests of clarity.

Similarly we have also not included provisions in directives that have expired. The 2<sup>nd</sup> stage PM<sub>10</sub> limit value was included in Annex III of the first Daughter Directive, it was not brought into effect by the first Daughter Directive itself, and would have required the passing of a new Directive. That has not happened, the second stage limit values are not in effect under European law, and have not been included in either the earlier regulations or in these.

This Executive Note only covers the new requirements imposed by the Regulations.

The Regulations are made under subsection (2) of section 2 of the European Communities Act 1972 and are subject to negative resolution procedures.

#### **Content of the Regulations**

The Air Quality Framework Directive 96/62/EC on ambient air quality assessment and management defines the policy framework for subsequent Daughter Directives to set long term air quality objectives for twelve air pollutants in the form of limit values. The Fourth Daughter Directive sets target values for nickel, cadmium, arsenic and polycyclic hydrocarbons (PAHs) for 2012 (table1).

The Regulations impose new obligations only upon Scottish Ministers, in particular the obligation to achieve the target values where possible. The new, principal requirements are:

- *Imposition of the target values (regulation 6)*

The Regulations require Scottish Ministers to attain the ‘target values’ (outlined in table 1 below) from 31 December 2012 so as to avoid, prevent or reduce harmful effects on human health and the environment as a whole.

*Table 1 – Summary of target values*

<b>Pollutant</b>	<b>Limit values (ng/m<sup>3</sup>)<sup>1</sup></b>
Arsenic	6
Cadmium	5
Nickel	20
Benzo(a)pyrene	1

- *Take necessary measures to attain the target values (regulations 7 & 9) and maintain air quality where it complies with target values (regulation 10)*

**Regulation 7** stipulates that the measures taken are measures not entailing disproportionate costs and, in so far as the relevant emissions relate to IPPC installations, the application of best available techniques in accordance with the IPPC regime.

**Regulation 9** requires that where target values are exceeded the sources of emissions are identified and the measures required by regulation 7 are directed in particular at those sources.

The duties imposed **by regulations 7 and 9** are placed on Scottish Ministers. Therefore, these Regulations do not directly place any new duty on industry unless Scottish Ministers specifically require it.

The main sources of arsenic, cadmium and nickel are discharges from industrial plants such as non ferrous metal production, iron and steel manufacturing, electricity generation and waste combustion. The main sources of mercury are from non ferrous metal production, coal combustion and crematoria. The main diffuse source of PAHs is coal fired domestic heating. There are also a small number of industrial discharges of PAH and some exposure from traffic related emissions.

There are a number of existing legislation, international conventions and policies which regulate the emissions of heavy metals and PAH to air. As a result heavy metals and PAH emissions are expected to decline significantly across the EU. For example, industrial emissions of the relevant pollutants are already regulated under the Integrated Pollution Prevention and Control Directive (IPPC) (96/61/EC). This requires industrial installations to implement Best Available Techniques (BAT) not entailing excessive costs to reduce emissions of the named pollutants.

Based on best current information available (both from the latest measurements (in 2005) of ambient concentrations and provisional modelling via a dispersion mode) the target value

requirements, set out in the Fourth Daughter Directive, are not likely to require additional emission reduction measures beyond those implemented, under existing UK policy commitments and trends, taking into account that measures entailing disproportionate costs are not required under the Fourth Daughter Directive. Key existing policy commitments and trends include the Pollution Prevention and Control (PPC) system (including Local Air Pollution Prevention and Control) for industrial sources, Sulphur Content of Marine Fuels Directive for shipping sources, and fuel switching trends to gas away from solid fuels for domestic, commercial and industrial sources.

In complying with the requirement of these regulations, on the basis of the provisions of the Directive outlined, Scottish Ministers consider that there is already a sufficient legal framework imposed on industry, in particular the existing pollution prevention and control related duties, to comply with regulations 7 and 9 and the Fourth Daughter Directive. Therefore, the attainment of target values does not place additional regulatory burdens on industry stakeholders.

- Asses air quality and deposition rates (Chapter 4 of Part 2, and Part 3)

In relation to the target values, detailed requirements in relation to assessment of concentrations in ambient air are set out in **Chapter 4 of Part 2** and must be followed within each zone (**regulation 12**). These include an obligation to assess by way of fixed measurement where concentrations exceed certain thresholds or allow Scottish Ministers to combine, or replace, measurement with modelling techniques if certain conditions are met (**regulation 13**). Specific requirements are imposed in particular for fixed measurement, especially as regards the number and location of sampling points (**regulations 14 and 15**). There are also other assessment requirements, notably in relation to data quality objectives and assessment reference methods (**regulation 16**).

Further assessment obligations are set out in Part 3. These consist of the monitoring of polycyclic aromatic hydrocarbons other than benzo(a)pyrene (which is assessed under the above provisions) (**regulation 19**) and the monitoring, at background sampling points, of all pollutants to which the Directive applies, including mercury, in respect of both the concentration of those pollutants within ambient air and their deposition (**regulation 20**).

The Framework Directive required Member States to carry out a preliminary assessment of concentrations of nickel, cadmium, arsenic and PAHs in the delineated zones and agglomerations before the Fourth Daughter Directive came into force. The purpose of this assessment was to determine the minimum number of fixed monitors that are needed for each zone and agglomeration in order to meet the requirements of the Directive. Levels have been assessed throughout Scotland by a combination of monitoring and modelling.

There are already 8 monitors within Scotland to monitor the relevant pollutants. The assessment shows that no additional fixed monitors will be required for the purposes of implementing the Fourth Daughter Directive. Fixed monitoring will be supplemented by information from other sources in all zones and agglomerations.

- Providing information to the public and relevant organisation (Part 4)

This Part requires Scottish Ministers to provide up to date information on concentrations, and deposition, of each pollutant (**regulations 21 and 23**) as well as on any exceeding of the

target values (**regulation 25**). In practice the Scottish Executive has made this information available on the internet (<http://www.airquality.co.uk>) and intends to continue to do so.

### **Financial Implications**

The target values for 2012 contained in the Directives are estimated to be met across Scotland under a business as usual scenario. Therefore no additional costs on businesses are envisaged as a result of introducing these Regulations and a Regulatory Impact Assessment is not required.

### **Consultation**

Local authorities, environmental NGOs, industry and other interested bodies were consulted on the proposals. 9 responses were submitted and all were generally content with the proposed Regulations.

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