The European Pollutant Release and Transfer Register

A publicly available display of industrial emissions

The European Pollutant Release and Transfer Register Regulation[1] (E-PRTR) came into force on 24 February 2006, replacing the European Pollutant Emission Register[2] (EPER) Decision.

Starting with 2007 data, and every year after that, operators of certain industrial facilities, mainly those that are subject to IPPC[3], are required to report to their Member State (MS) authorities:

- specific data on their annual emissions to the environment;
- transfers to offsite wastewater treatment facilities; and
- amounts of wastes produced.

The MSs then send these data to the European Commission who in turn make the data publicly available in the form of a single, integrated and fully searchable electronic database accessed from the Internet.

The current EPER database (www.eper.cec.eu.int) holds emission data for the years 2001 and 2004. E-PRTR data for 2007 should appear on the Internet on or before September 2009. Data for all following years will appear on the internet no later than 16 months after the end of the reporting year.

Quality data is essential

The aims of the E-PRTR are to facilitate public participation in environmental decision making and to contribute to the prevention and reduction of pollution of the environment.

Since the industrial facilities covered by the E-PRTR are basically those subject to IPPC, the data provided effectively become a publicly stated measure of how successful IPPC is in preventing and reducing emissions. In the public eye emissions may be considered synonymous with pollution irrespective of their actual environmental impacts which, for a given emission level, vary widely according to local conditions. Analysis of the E-PRTR data may also be used by some to make claims about the relative effectiveness of existing control measures.

Clearly, the **quality** of the data provided is of key importance as it will, in part, drive future environmental legislation applicable to industry. For example, if releases of a particular substance are overestimated, additional unnecessary regulatory controls may be implemented. Underestimation carries with it the risk of future BAT requirements that are unnecessarily stringent.

Also, the on-line database provides a single, easily accessible and user-friendly shop window, updated annually, through which the public can view industry's performance individually or comparatively at site or industrial sector level, nationally and internationally on an ongoing basis.

Main differences between E-PRTR and EPER

The E-PRTR requires annual reporting of data as opposed to once every three years under EPER.

E-PRTR covers more substances than EPER (91 in total compared to 50). Reporting thresholds for releases to water have been added for more substances and reporting thresholds for releases to land introduced.

Some clarifications and changes have been made for substances that make up group entries (e.g. polycyclic aromatic hydrocarbons) and the threshold for reporting releases of dioxins and furans has been reduced by a factor of 10.

[1] *EC Regulation 166/2006* [2] *Decision 2000/479/EC.*
[3] *IPPC Directive 96/61/EC*

Operators must also report the quantity of any 'accidental releases' separately and in addition to the total releases of any substance that exceeds the relevant reporting threshold.

The quantities of E-PRTR substances in wastewater transfers to **offsite** wastewater treatment must be reported. Although this is in fact similar to the 'indirect releases to water' under EPER, it is worth emphasising since the E-PRTR Regulation defines 'facility' as '*one or more installations on the same site that are operated by the same natural or legal person*' and the Commission E-PRTR guidance[4] interprets offsite as '*beyond the boundaries of a facility*'. The term 'offsite' therefore includes onsite wastewater treatment plants where they are operated by a separate legal entity.

Some additional activities not listed under IPPC are also captured by the E-PRTR Regulation. Amongst these, and of possible interest to our industry sector, is the inclusion of '*independently operated industrial wastewater treatment plants which serve one or more PRTR activities with capacity >10 000 m^3/day*'.

The E-PRTR Regulation [Art 5(4)] also requires that operators should prepare their data collection in accordance with '… *internationally approved methodologies* ***where available*** …', a seemingly small nuance, but one that may have consequences upon how data are collected by industry in the future. The intent here appears to be to move away from locally or nationally agreed methodologies towards a more internationally (EU-wide) harmonised approach.

During development of its guidance document, the Commission indicated that if an internationally approved method is 'available' it should be used but eventually agreed to accept that operators may use '**equivalent**' methodologies other than internationally approved ones, even when available, if certain conditions are met. The Commission has however indicated that it will re-examine this issue following their analysis of PRTR data submitted for 2007.

Among these conditions the ones of most immediate relevance to industry are:

- whether the methodology is already prescribed by the National authority in a facility's permit / licence or national or regional legal act; and
- whether the methodology is a European-wide sector specific calculation method, developed by industry experts, which has been delivered to the European Commission and relevant international organisations. Such methods may be used unless they have been rejected by the international organisation.

Because of these rules, use of in-house methods, even when authorised by the local authorities, may need to be reconsidered. This presents both a challenge and an opportunity for our industry.

CONCAWE activities

CONCAWE have produced reports on air pollutant emission estimation methods for EPER and for E-PRTR reporting by refineries, the latest version of which has just been released (CONCAWE Report 3/07). The report is accompanied by a software toolkit, available to CONCAWE Member Companies only, to assist their facilities to calculate their emissions to air of E-PRTR substances.

This work has been recognised by the European Commission as an example of a sector specific methodology. The emission factors in the CONCAWE report have also been provided to the UNECE/EMEP for inclusion in the EMEP/CORINAIR Emission Inventory Guidebook which is recognised by the Commission as an internationally approved calculation methodology.

[4] *Commission E-PRTR guidance*

Through this work CONCAWE has established a conduit through which our industry can further develop and improve a sector-wide approach to calculating emissions for E-PRTR that will be part of an internationally approved method.

Key points and recommendations to operators

It is clearly in the interest of industry to pay ever more attention to compiling complete and accurate data on releases and transfers from refinery facilities. The data will be subject to more public scrutiny and may ultimately have a direct impact on the development of future environmental regulation of our industry.

It is recommended that operators consider the following points:

1. Ensure that the data collection methodologies at each facility identify the E-PRTR substances that could be released and identify all potential release sources for these substances.

2. Become familiar with the requirements of the E-PRTR regulation and the guidance issued by the Commission in order to be ready to evaluate and respond to national requirements for implementation of the regulation.

3. Where in-house emission estimating methodologies or emission factors could be a useful addition to the current set of CONCAWE's air pollutant emission estimation guidance reports, it should be considered to publish details of such method as candidate for recognition as a 'Sector Specific' or 'Internationally Approved' methodology via inclusion in future revisions of CONCAWE Report 3/07 and the EMEP/CORINAIR Guidebook.

The future importance of E-PRTR should not be underestimated.