

UK COMMENTS FOR THE TECHNICAL GROUP FOR THE AARHUS CONVENTION WORKING GROUP ON POLLUTANT RELEASES

1. Substances and thresholds

The list of about 150 substances used for operator reporting to the Environment Agency for England and Wales is attached as an Excel spreadsheet. Please note the thresholds are generally lower than those for EPER. We are undertaking work to ensure our list of substances covers all the EPER requirements as well as keeping our own.

One of the issues we are investigating is where the Environment Agency list identifies separate substances, and the EPER list contains groups, for example: EPER lists 'organotin compounds', and the Agency list has 'tributyl tin' and 'triphenyl tin'.

We propose the EPER list is used for Step 1, possibly with the groups of substances replaced by the actual chemicals of concern.

We would be content for the list to be extended to include any of the substances on the Environment Agency list.

We will be able to provide details of the context for including these substances (both the legal or agreed reporting requirements such as Kyoto Convention, and the environmental reason for their inclusion) prior to the Technical Group.

2. Activities covered

We propose that for the first meeting of the technical group, only activities for Step 1 should be discussed. If agreement can be reached, then this can be submitted to the Working Group.

For Step 1, the UK is content with the list of facilities used in the EU IPPC Directive (96/61/EC, included in Annex 1 to the Aarhus Convention). We are also including urban waste water treatment works (sewage treatment works) and by 2003 will include those above 15,000 population equivalent. Finally, we are starting reporting of radionuclides from significant radioactive substance regulated sites (47 major facilities reporting in 2001, widening to 1500 smaller sites including research facilities and hospitals by 2003).

Step 2 will require further consultation. For Step 2, the rest of Annex 1 includes those facilities defined in the EU Environmental Impact Assessment Directive. These are not necessarily the most significant sources of diffused pollutant emissions. Step 2 should seek to include traffic and domestic sources such as combustion.

3. Transfers (on and off site)

The UK supports the inclusion of information on transfers on and off site. However, we have reservations about the definition of 'transfer' in Article 5 of the working document.

We would propose the wording to be:

“Transfer” means:

- (a) Off-site movement of wastes and by-products for use, reuse, storage, treatment, energy recovery, recycling or disposal;
- (b) On-site movement of wastes and by-products for use, reuse, storage, treatment, energy recovery, recycling or disposal;

Further, we propose waste and by-products are referred to either by an internationally accepted classification such as those in Basle Convention or European Waste Catalogue, or by their source (such as blast furnace slag, incinerator bottom ash, incinerator air pollution control residues).

We wish the transfer of potential pollutants in or as products to be deleted. It is unclear if ‘pollutants in or as products’ means the major components (such as pesticides as products) or trace components which might be formed in manufacture. A PRTR is not an appropriate instrument to control product effects and there is no cost benefit to show that this appropriate. There are other legal instruments controlling product safety, such as pesticides. We would wish to consider the Scandinavian experience with product lists. Any inclusion of products in a PRTR instrument should be in Step 3.

We are aware of the problem of defining waste and by-products, but this can be addressed using lists or source of the materials. However, the cost benefit for requiring all wastes, by-products and products to be analysed comprehensively has not been shown. Wastes are usually subject to special regulation according to their hazard (Waste Management and Hazardous Waste Management legislation is usually in place in all the UNECE countries). It is extremely useful to know how and where these materials arise and are managed and this is properly a subject for a PRTR. However, the science is not yet available to achieve mass balances for all substances involved in complex process (such as waste incineration). This may be something to work towards in the future and should be addressed in Step 3.

4. Validation of data.

The UK proposes that the quality and accuracy of the data remains the responsibility of the operator. However, we accept there is a need to validate the data received, especially to ensure transcription errors are avoided.

We propose a process similar to that outlined below, and we believe carried out in many other UNECE countries.

Data Collection:

Currently each operator makes their annual return on a paper form downloaded from the Environment Agency website or available from their local inspector. This is returned by post. From 2001 onwards we intend to provide the option for direct input via the website, and expect 80% take up.

Validation Process:

1. The data contained in the annual release report provided by the operator is input into the ISR database and is compared electronically with the data entered the previous year. Check flags are generated electronically for the reasons below. Flags need to be

removed before the report can be verified locally by Area PIR staff for inclusion on the Agency database.

- Where BRT (below reporting threshold) entered and a release was entered in the previous year.
 - Where the release entered is < 50% of last years release amount.
 - Where the release entered is > 150% of last years release amount.
 - Where the release entered is high (>5 times) compared with the threshold reporting value and no release was entered in the previous year.
 - Where the release entered is below the threshold value.
- 2 Any further auditing of the data that is done by the local PIR Inspector to ensure the results are as accurate as possible.
 - 3 The release data is extracted for particular industry sector processes and made available to the appropriate internal Industry Group for checking national and technical consistency from their detailed knowledge of the sector.
 - 4 Informal inspection of outlying data to identify potential gross errors by staff working nationally on the Pollution Inventory.
 - 5 The data provided by the IPC operator in hardcopy is made available on the internet to that operator for a final inspection check before going live on the Agency's website.

Any potential data correction revealed by these steps should then be taken forward by the local PIR inspector in discussion with the operator.

Current work.

Despite these checks there are still concerns that significant errors in release reporting are contained in the published data. We have started work to identify how the most significant release changes can be brought most efficiently (using IT) to the attention of the local PIR inspector as a further QA tool.

List of Substances and Thresholds on the Pollution Inventory

A. Environment Agency Pollution Inventory

Releases to Air

Releases to Controlled Waters, Sewer and Land
(same lists apply to all): and
Disposal, Recovery or Reuse of Waste

POLLUTION INVENTORY

SUBSTANCE TO AIR	ANNUAL REPORTING THRESHOLD
ammonia	1 tonne
carbon monoxide	10 tonnes
carbon dioxide	10 000 tonnes
carbon disulphide	100kg
carbon tetrachloride	100kg
dinitrogen oxide	10 tonnes
hydrogen chloride	1 tonne
methane	10 tonnes
nitrogen oxides (except N ₂ O)(Reported as NO ₂)	10 tonnes
nitrogen oxides (LCPD only)	N/A
particulates - total	10 tonnes
phosgene	100kg
PM10s(Particulates <10pm)	1 tonne
sulphur dioxide	10 tonnes
sulphur dioxide (LCPD only)	N/A
sulphur hexafluoride	100kg
ozone	50kg
GROUPS OF ORGANIC COMPOUNDS	
total VOCs (Volatile organic compounds)	1 tonne
dioxins (reported as TEQ)	0.01g
HFCs (hydrofluorocarbons)	100kg
HCFCs (hydrochlorofluorocarbons)	100kg
CFCs (chlorofluorocarbons)	100kg
PFCs (perfluorocarbons)	100kg
halons	100kg
PCBs (polychlorinated biphenyls)(reported as TEQ)	
polycyclic aromatic hydrocarbons (PAHs) reported as mass of benzol(a)pyrene)	100g
NAMED ORGANIC COMPOUNDS	
Acetaldehyde (ethanol)	100kg
Aceonitrile	100kg
Acrylonitrile	100kg
Aldrin	100kg
amitrole (aminotriazole)	100kg
Aniline	100kg
Atrazine	100kg

azinphos-methyl	100kg
Benzaldehyde	100kg
Benzene	100kg
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	100kg
benzo(a)pyrene	100kg
benzyl chloride	100kg
1,3-butadiene	100kg
butene (all isomers)	100kg
1-chloro-2,3-epoxypropane (epichlorohydrin)	100kg
SUBSTANCE TO AIR	ANNUAL REPORTING THRESHOLD
chloroethene (chloroethylene, vinyl chloride)	100kg
chloroform (trichloromethane)	100kg
Chloromethane	100kg
cyanamide	100kg
cyanamide (ACGIH, OSHA)(calcium salt)	100kg
DDT (all isomers)	100kg
diallate	100kg
1,4-dichlorobenzene	100kg
1,2-dichloroethane (ethylene dichloride)	100kg
dichloromethane (methylene chloride or dichloride)	100kg
dichlorvos	100kg
dieldrin	100kg
diethyl sulphate	100kg
dimethyl disulphide	100kg
dimethyl sulphate	100kg
dimethylformamide	100kg
dinoseb	100kg
1,4 dioxane	100kg
endosulfan	100kg
endrin	100kg
2-ethoxyethanol	100kg
2-ethoxyethylacetate	100kg
ethyl acrylate	100kg
ethyl toluene (all isomers)	100kg
ethylene	100kg
ethylene oxide	100kg
formaldehyde	100kg
hexachlorobenzene	100kg
hexachlorocyclohexane (all isomers)	100kg
2-hydroxyethylacrylate	100kg
l-butylaldehyde (2-methylpropanal)	100kg
iodomethane	100kg
isophorone di-isocyanate	100kg
maleic anhydride	100kg
methyl bromide	100kg
4-4'-methylenediphenyl di-isocyanate	100kg
4,4'-methylenebis[2-chloroaniline]	100kg
methyl isocyanate	100kg
methylamine	100kg

nitrobenzene	100kg
2-nitropropane	100kg
pentachlorophenol	100kg
pentanal (valeraldehyde)	100kg
pentene (all isomers)	100kg
phenol	100kg
phorate	100kg
2-propen-1-ol (allyl alcohol)	100kg
propene	100kg
propylene oxide	100kg
simazine	100kg
styrene	100kg
1,1,2,2-tetrachloroethane (tetrachlorethane)	100kg
tetrachloroethane (tetrachloroethylene, perchloroethylene)	100kg
toluene diamine (all isomers)	100kg
SUBSTANCE TO AIR	ANNUAL REPORTING THRESHOLD
toluene di-isocyanate (all isomers)	100kg
1,1,1-trichloroethane (methyl chloroform)	100kg
trichloroethylene	100kg
trichlorotoluene	100kg
trimethylbenzene (all isometrs)	100kg
xylene (all isomers)	100kg
METALS & THEIR COMPOUNDS (AS METAL)	
Antimony	10kg
Arsenic	1kg
Beryllium	1g
Boron	10kg
Cadmium	100g
Chromium	10kg
copper	10kg
Lead	10kg
Mercury	100g
Manganese	100kg
Nickel	10kg
Selenium	1kg
Vanadium	100kg
Zinc	100kg
Organic compounds	Individual substance released over 5 tonnes
Acid forming gases	Individual substance released over 1 tonne
SUBSTANCE TO WATER SEWER & LAND	
ANNUAL REPORTING THRESHOLD	
Halogens	Individual substance released over 1 tonne
Aldrin	0.5g
Atrazine	60.0g
Azinphos-methyl	4.0g
Azinphos-ethyl	0.5g
Benzene	1.0kg
Bentazone	1.0kg
Biphenyl	1.0kg

Carbon tetrachloride	250.0g
Chloroform	4.0kg
Chloronitrotoluenes	1.0kg
4-chloro-3-methylphenol	1.0kg
2-chlorophenol	1.0kg
Chlorofenvinphos	10.0g
2,4D (non ester)	1.0kg
2,4D (ester)	400.0g
DDT (all isomers)	0.5g
Demeton	200.0g
Diazinon	10.0g
1,2-dichloroethane	2.0kg
2,4-dichlorophenol	1.0kg
Dichlorvos	0.5g
Dieldrin	2.5g
Dimethoate	400.0g
endosulfan	0.5g
Endrin	0.5g
Fenitrothion	0.5g
Fenthion	0.5g
Hexachlorobenzene	20.0g
Hexachlorocyclohexanes	20.0g
Hexachlorobutadiene	4.0g
SUBSTANCE TO WATER SEWER & LAND	ANNUAL REPORTING THRESHOLD
Isodrin	0.5g
Linuron	800.0g
Malathion	0.5g
Mecoprop	1.0kg
Mevinphos	8.0g
Napthalene	1.0kg
nonylphenol ethoxylate	1.0kg
Nonylphenols	1.0kg
Octyphenols	1.0kg
Omethoate	4.0kg
Parathion	0.5g
parathion methyl	1.5g
Pentachlorophenol & its compounds	50.0g
Permethrin	10.0g
Polychlorinated biphenyls	2.0g
Simazine	80.0g
Triazophos	2.0g
tributyltin compounds	5.0g
Trifluralin	4.0g
triphenyltin compounds	5.0g
Tetrachloroethylene	9.0kg
Toluene	1.0kg
Trichlorobenzene (all isomers)	1.0kg
1,1,1-trichloroethane	200.0g
1,1,2-trichloroethane	200.0g

Trichloroethylene	11.0kg
Xylenes	1.0kg
METALS AND THEIR COMPOUNDS (AS METAL)	
arsenic	6.0kg
cadmium	1.0kg
chromium	20.0kg
copper	20.0kg
lead	20.0kg
mercury	130.0g
Nickel	20.0kg
Zinc	20.0kg