OPPORTUNITIES FOR SMOC – PRTR LINKAGES

Alan Penn

Cree Regional Authority
Montréal (Québec), Canada

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Dioxins, Furans and the SMOC – PRTR programmes

1. **Use of inventory data should reflect, and be consistent with, physical and chemical context of production, release, transport and eventual deposition.**

2. **We should not lose sight of routes of biological uptake and of eventual human exposure; inventories should inform the analysis of pathways of human exposure.**

3. **SMOC has role to play in communication / coordination of government initiatives, including exchange of scientific and technical information – important complementary role to that of PRTR.**

Open-air combustion and release of Dioxins and Furans

1. **Production of dioxins and furans through open-air combustion of household and municipal wastes is an 'emerging issue'.**

2. **The scope of the problem is not yet well defined, but northern/remote settlements which routinely use fire in waste management could prove to be the major residual uncontrolled source of atmospheric emissions.**

3. **We will need to explore constructively ways of defining the geographical scope of this issue and of evaluating its relevance for human exposure. This is a Canadian issue, but has implications for Mexico and the United States as well.**

Inventories as evolving management instruments

1. **Open-air waste combustion must also seen in relation to the use of fire in agriculture (e.g. stubble burning) and forest fires – an important element in northern forest ecosystems.**

2. **One test of emission inventories is their capacity to address both the well-defined point sources and the diffuse and largely uncontrolled sources from open air combustion.**

3. **A combination of geographical indicators will be needed – but there is also a critical need for good field data on production, release and transport/deposition. An avenue for further research.**

Sampling, analysis and emission factors

1. **Work is still needed, however, on point sources and on sampling and analytical protocols – we rely heavily on the use of emission factors, which themselves are a source of uncertainty.**

2. **Communities, especially the more remote communities, need to be in a position to evaluate for themselves the data in emission inventories, and understanding the limitations and uncertainties in the data.**

3. **Inventories should be designed for evolution over time with additional knowledge, but this is also an issue in communications.**

Agriculture, food and pathways of human exposure

1. **Human exposure appears to be primarily through market foods (e.g. dairy, poultry, beef).**

2. **Geographical determinants of exposure (i.e. the geography of food production and processing) appear important potential influences on patterns of human exposure).**

3. **The PRTR programme would benefit from the integration of information on relevant agricultural factors, as well as emerging data on the exposure of human populations.**

4. **There are a number of striking parallels here with Mercury.**

Some Recommendations

1. **PRTR and SMOC are complementary initiatives, and SMOC could be used as framework for periodic critical review of inputs to the PRTR data base;**

2. **Non-point and uncontrolled sources (waste combustion, fire in agriculture, forest fires) appear to be sources which will have to be addressed in more detail.**

3. **PRTR documents should explain relevant sampling and analytical issues, and support use of emission factors.**

4. **Direct more attention to biological uptake and routes of human exposure.**

5. **Are there populations which should be considered especially vulnerable because of the nature of their food supplies? – an unresolved question.**