

Personal Snapshot of History of Precaution in Canada

- ◆ Precaution has long been an integral – and largely invisible - aspect of risk assessment
- ◆ Tainted blood scandal (“Krever Inquiry”, 1997) triggered specific focus on use of Precaution
- ◆ Rio definition of Precaution appears in CEPA99
 - Large disagreement about “cost effective”
- ◆ Other issues encouraged debate on alternatives
- ◆ Culminating in discussions co-ordinated by Privy Council Office in 2003
 - “A Framework for the Application of Precaution in Science-based Decision Making about Risk”
 - Available on http://www.pco-bcp.gc.ca/default.asp?Language=E&Page=publications&Sub=precaution&Doc=precaution_e.htm

Examples of what I mean by “Other Issues”

- ◆ Global Climate Change
- ◆ Major env issues (fish stocks conservation, forests)
- ◆ Food quality (BSE, GMOs), Water Quality
- ◆ Management of “toxic chemicals”
 - Highly relevant in light of recent actions to evaluate large numbers of chemicals
 - ◆ “Categorization/screening of DSL”; REACH
 - ◆ I will comment on a recent Canadian screening risk assessments in light of GoC document
- ◆ Above range is from highly predictive and uncertain, to quite well described: a stern test for Precaution
- ◆ Timeliness is a reality: we will always lack info

Highlights of PCO Document - 1

- ◆ Five general principles of application
 - Precaution a legitimate and distinctive part of RM
 - Guided by society's chosen level of risk protection
 - Based on science info/evaluation, which evolves over time
 - Re-evaluation mechanisms should exist
 - High degree of transparency, accountability, public involvement is required

Highlights of PCO Document - 2

- ◆ Five general principles for precautionary measures
 - Subject to reconsideration
 - Proportional to severity of risk being addressed, plus chosen level of protection
 - Non-discriminatory and consistent
 - ◆ Domestic and International aspects
 - Cost-effective and efficient
 - If multiple options, take least trade restrictive

Example: Application of PCO Principles to Chemical RM - 1

- ◆ “Sufficiently sound” or credible scientific basis should be interpreted as a body of scientific information – whether empirical or theoretical – that can establish reasonable evidence of a theory’s validity, **including its uncertainties** and that indicates the potential for such a risk. (Sec.3.0 and Principle 4.3)
- ◆ In order to capture the **full diversity of scientific thought and opinion**, the basis for decision making should be drawn from a **variety of scientific sources** and experts from many disciplines. Decision makers should give particular weight, however, to peer reviewed science and reasonableness in their judgments. (Sec. 3.0 and Principle 4.3)

Example: Application of PCO Principles to Chemical RM - 2

- ◆ Available scientific information must be evaluated with emphasis on securing high quality scientific evidence (not quantity). **Reports should summarize the existing state of knowledge, provide scientific views on the reliability of the assessment and address remaining uncertainties and areas for further scientific research or monitoring.** (Principle 4.3)
- ◆ Two-way sharing of information and the **inclusion of a range of perspectives in the decision-making** process can become the cornerstone of openness and transparency for the decision-making process and **enhance credibility of and trust in the decisions that the Government makes.** (Principle 4.5)

Example: Application of PCO Principles to Chemical RM - 3

- ◆ EU Industry position on recent ban of 3 phthalate plasticizers in children's toys:

*" Banning a substance which has been scientifically risk assessed as safe, thereby forcing manufacturers to use alternatives about which less is known, does nothing to protect the **health** of children"*

Conclusions

1. The concept of Precaution forces scientists to address philosophical issues directly
 - What is known/knowable (science); vs
 - What could/should be be done (values)
2. A DMF/RMF is vital to ensure good process
3. Scientists must remain acutely aware of need to provide clear language summaries of what is known (eg assumptions, science uncertainties, safety factors used) in order to provide clarity around the "science input" to a Decision
4. The PCO doc provides good guidance to allow Precaution to be given appropriate weight
 - ◆ The elusive balance of "certainty and flexibility"

Problems Needing to be Addressed in WHO framework

1. Definitions: be careful and consistent
2. Precaution (however defined) exists **within** a DMF, not the other way round
3. Discuss science vs values more thoroughly
4. Discuss “benefits” must be addressed at higher level where appropriate
 - ◆ Tools like BCA/CEA are good tools to help chose between alternatives, but often do not address higher-level concerns