

Prioritisation of Hazardous Substances within OSPAR: the DYNAMEC process

Robin Law

New DYNAMEC Manual

- Dynamic Selection and Prioritisation Mechanism for Hazardous Substances (revised 2006)
- OSPAR Publication 256-2006
- OSPAR has developed this mechanism to identify hazardous chemicals and to prioritise those of highest concern for immediate action

DYNAMEC

- This selection and prioritisation mechanism has 3 steps:
 1. Properties of persistence, bioaccumulation and toxicity (P, B & T)
 2. Ranking according to actual occurrence and effects in the marine environment
 3. Selection of substances from the ranked list judged to require priority action by OSPAR

P, B & T criteria

- Persistent: half-life of 50 days or more
- Bioaccumulative: $\log K_{ow} \geq 4$
or $BCF \geq 500$
- Toxic: Aqueous – acute $L(E)C_{50} \leq 1$ mg/l
long-term $NOEC \leq 0.1$ mg/l
Mammalian: carcinogenic, mutagenic or
reproductive toxicity; chronic toxicity

Prioritisation

- Ranked lists taken forward
- Information on calculated exposures and monitored concentrations (water and sediment) taken into account
- Advice given to Hazardous Substances Committee
- Revisions to list of Chemicals for Priority Action