United Kingdom National Plan for the phase-out of substances identified as candidates for substitution

Having considered potential strategies for reducing the discharge of substitutable substances in line with OSPAR Recommendation 2006/3, the UK has decided to base its National Plan for the prioritisation of phase-out of substances identified as candidates for substitution on the following criteria:

- perceived difficulty of phase-out
- securing the replacement of candidates for substitution in preference to eliminating operational discharges to the marine environment
- the persistence, bioaccumulation and toxicological (PBT) properties of the chemicals.

The UK National Plan also incorporates **justification** of continued use and/or discharge as an additional element: for those substances **where replacement and/or eliminating discharges to the marine environment is not currently feasible**, offshore operators or their chemical suppliers will annually be required to:

- confirm the efforts made to phase out the use and/or discharge of the candidate for substitution
- confirm the nature and timing of planned research and development studies or trials to supplement those efforts confirm whether any measures have been taken to reduce the use and/or discharge of the candidate for substitution; **and**
- **confirm the technical and/or safety issues that make it necessary to continue to use and/or discharge the candidate for substitution**.

Criteria for assigning levels and interim target dates are shown in Table 1.

Highly persistent

- <20% biodegradation in 28 days (OECD 306, marine BODIS, freshwater data OECD 301 and 310 or any other accepted marine protocols), or
- <20% biodegradation in 28 days (freshwater data OECD 301 and 310), or
- if half-life values >60 and 180 days from simulation tests in marine water and sediment respectively (e.g. OECD 308, 309).

Moderately persistent

- Biodegradation ≥20% but <60% in 28 days (OECD 306, marine BODIS or any other acceptable marine protocol), or in the absence of valid results for such tests

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- ≥20% but ≤60% in 28 days (OECD 301B, 301C, 301D, 301F, 310, freshwater BODIS), or
- ≥20% but <70% in 28 days (OECD 301A, 301E).

Bioaccumulating

- Log P_{ow} ≥3, or
- surfactant (as defined by OSPAR)

unless

- molecular weight >700 g/mol, or
- bioconcentration factor is <100, or
- weight of evidence indicates the substance does not bioaccumulate.

Toxicity

- Lowest LC_{50}/EC_{50} <10mg/l.

Table 1: UK National Plan level criteria and interim target dates

Priority level	Ecotoxicological properties	Interim target
Level 1 (highest priority)	**a**. Organic substances that are highly persistent, bioaccumulating and toxic	Chemicals to be replaced; or discharges to the marine environment eliminated, or continued use and/or discharge to be formally justified by end December 2010
Level 2	Organic substances that are: **a. moderately persistent,** bioaccumulating and toxic; or **b. highly persistent and** bioaccumulating; or **c. highly persistent and** toxic	Chemicals to be replaced, or discharges to the marine environment eliminated, or continued use and/or discharge to be formally justified by end December 2012
Level 3	Organic substances that are: **a. moderately persistent** and bioaccumulating; or **b. moderately persistent** and toxic; or **c. bioaccumulating and** toxic	Chemicals to be replaced, or discharges to the marine environment eliminated, or continued use and/or discharge to be formally justified by end December 2014
Level 4 (lowest priority)	Organic substances that are: **a. highly persistent organic** substances; or **b. inorganic substances** with toxicity <1mg/l	Chemicals to be replaced, or discharges to the marine environment eliminated, or continued use and/or discharge to be formally justified by end December 2016