



Aim

The aim of this project was to carry out a high level review of current action level¹ guidance applied by the Marine Management Organisation (MMO) to the licensing of the disposal of dredged material to sea. The project aimed to recommend whether the guidance and action levels are still appropriate and effective, or whether a more detailed review and potential revision should be undertaken.

Introduction and methodology

The MMO is the licensing authority for England with regards to the disposal of dredge materials to sea and the way it regulates this activity is steered primarily by guidelines produced by OSPAR². A marine licence for the disposal of dredged materials requires characterisation of the sediments to be disposed of to enable consideration of potential adverse environmental effects of such a disposal activity. The OSPAR guidelines call for action levels to be established for chemicals on a primary list, as a minimum.

In the UK, action levels are used as part of a 'weight of evidence' approach to licensing the disposal of dredged material. Contaminant levels in dredged material below action level 1 are generally assumed to be of no concern and are unlikely to influence the licensing decision; contaminant levels between levels 1 and 2 should trigger further investigation of the material proposed for disposal at sea; and contaminants in dredged material above action level 2 are generally considered unsuitable for sea disposal without special handling and containment.

The project undertook a high level review of the current approach applied to action levels and

comparisons were drawn with approaches and action levels used by other OSPAR countries.

An existing North American dataset of co-located whole sediment toxicity and chemical information was used to consider the effectiveness of the action levels in terms of identifying potentially toxic and non-toxic sediments.

Results and conclusions

Relative to other OSPAR countries, UK action level 1 values were among the most conservative providing a high level of environmental protection. Higher rates of samples therefore exceed this threshold and require additional evaluation before disposal.

In contrast, UK action level 2 values were among the least conservative of OSPAR countries. This means a larger proportion of sediments relative to other OSPAR countries require further evaluation and a smaller proportion are refused for disposal without further evaluation.

Overall, the UK therefore has the largest proportion of sediment samples falling between the two action levels and thus subject to further evaluation. Sediment samples falling between the two action levels are currently evaluated through application of expert judgment considering historical information, the material's physical characteristics and the disposal site characteristics. No additional testing is undertaken for this purpose.

The report concluded that the existing guidance and action levels were not fit for purpose, i.e. in terms of the ability to avoid disposal of toxic sediments at sea and refusal of non-toxic sediment disposal. However it acknowledges that the overall fitness for purpose of regulatory tools such as action levels are also importantly defined by legislative requirements and policy objectives which may include consideration of

¹ Sediment quality/national assessment criteria

² The OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic – a legal mechanism supporting international cooperation on the protection of the marine environment of the North-East Atlantic.



costs and proportionate regulation as well as environmental risk.

Recommendations

The report recommended that the UK approach to action levels would benefit from a further, more detailed review of the action levels and guidance to establish whether they are fit for purpose given current policy and regulatory requirements.

Within this review, action level values should be evaluated and revisions made if appropriate. A tiered framework could be developed with clear guidance on how various lines of evidence should be applied, integrated and linked to dredged material assessment and management decisions. This will ensure that sediment contaminant data supporting disposal at sea applications are handled in a predictable, transparent and consistent manner.

A critical aspect for review is development of guidance on how sediment contaminant data that fall between action levels 1 and 2 should be considered. It was proposed that a tiered approach to action levels where additional toxicological testing is undertaken for samples falling between the two action levels may improve environmental protectiveness while also allowing better identification of non-toxic sediments suitable for disposal.

In addition, it was recommended that in any future work, action levels are evaluated using UK-specific sediments and organisms.

MMO comments

This project has provided a useful high level review of the approach to actions levels. Although there are differences between approaches taken in different OSPAR countries, the current UK approach fulfils legal obligations under OSPAR.

Action levels provide a tool for marine management decisions and reflect a policy driven approach to sustainable development of the marine environment.

The report focusses on fitness for purpose in terms of the ability of the action levels to correctly identify toxic and non-toxic sediments. In addition to environmental protection, the UK government also strives towards a marine licensing system that is proportionate and cost-effective in terms of requirements placed on marine users. Fitness for purpose is also importantly defined by legislative requirements and policy objectives which include consideration of costs, proportionate regulation as well as environmental protection.

MMO are in discussion with Defra regarding next steps for this work. Any future changes to the MMO approach to action levels would be driven by policy requirements and would necessarily be based on a more in-depth review of the balance between maximising environmental protection and improving efficiency, thus ensuring the costs to UK industry are proportionate to the risk.

Further information

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