Issue 4 Topic Paper

Habitats Regulation Assessment

Whether the HRA (CD5.1) allows each of the four sites identified in WCS4 to be considered for thermal treatment facilities

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Question 1: Technology Stance

It is understood that the CS is technology neutral. It is also appreciated that the Joint Municipal Waste Management Strategy is also technology neutral. A clearly stated purpose of the CS is to identify sites suitable for the strategic management of MSW (CD10.17, paragraph 10). Having regard to the conclusions of the HRA, is the decision not to rule out thermal treatment facilities with a capacity of some 150,000 tonnes per annum at each of the identified sites in policy WCS4 justified?

Background

1.1 The statutory requirements in relation to the HRA are identified in CD13.10 (item (v) page 5). In particular the main consideration of the potential suitability of thermal treatment is considered in the HRA report prepared by independent consultants to support the publication of the WCS (CD 5.1). The issue of technology neutrality within the CS and how this impacts upon allocated sites has been discussed within the Issue 3 Topic Paper (Question 3.4) (CD13.13).

1.2 The conclusions of the HRA report (CD5.1 B3 Conclusion (pages B25-B26) summarises the outcome of the technical baseline and the air-modelling work. B3 Conclusion of the report clearly recommends that thermal waste management is not ruled out at any of the strategic sites identified in the WCS and that further detailed assessments would be required on case-by-case basis at application stage.

1.3 This is outlined in the Regulation 30 (e) statement (CD 1.11 paragraphs 3.124 – 3.137). The consideration of the responses from both the Environment Agency (EA) and Natural England is also considered in CD1.11. In summary both of these bodies advise that in broad terms the HRA report is acceptable as a higher level instrument to guide the preparation of the WCS and that more detailed site assessments would be required at planning application stage should any proposals come forward. In particular the final two paragraphs of the EA representation to the WCS (CD1.14 149/12/GENERAL) supports the approach and recommendations of the HRA report (CD5.1). The detailed EA and Natural England representations relating to HRA and the WPA consideration are contained in CD6.1 (Pages 298-299, 307-317 (EA) & 331-340 (NE)).

Approach taken in the HRA report (CD5.1)

1.4 The approach taken in the HRA to the quantification of impacts relating to airborne pollutants was more than adequate for a strategic level study. Methods and criteria were adopted that would be appropriate, in most respects, for a detailed planning application relating to an individual development proposal with defined

characteristics. Strategic level studies do not have the benefit of knowing the exact design details of any waste plant that may be built, but can determine if there is a reasonable likelihood that a thermal plant could meet the requirements of the Habitats Regulations/Directive.

1.5 In the case of the WCS, the desire to be as comprehensive and convincing as possible leads to the use of a number of scenarios for development proposals. Each of these is inevitably a simplification of any actual proposal that might come forward in the future. The range and number of deviations from the assumed configuration of a thermal treatment process used in the HRA to an actual one, is sufficient to create a range in the magnitude of predicted impacts. It should not be assumed that the scenarios adopted for the HRA are definitive in relation to a future planning application and it is inevitable that the predicted impacts from any future real proposal will differ from those presented in the HRA –even for a facility with the same stack height and throughput as one of those adopted as a scenario in the HRA.

1.6 In any assessment such as this one, the magnitude of predicted impacts may be sufficiently large in relation to relevant assessment criteria that it is immediately possible to conclude that developing a thermal treatment process would be impossible for a given site. In most cases, however, the distinction is less clear and simply leads to the conclusion that impacts may or may not be significant depending on the design of the plant and also the outcome of an Appropriate Assessment. It should not be forgotten that an air pollution impact of 1% of the accepted assessment criterion does not automatically signify harm – only the need to take the assessment process further into an Appropriate Assessment for a planning application. In this case, the conclusion regarding some development sites' suitability is also crucially dependent on the reliance placed on one of two dispersion models. This aspect is discussed further below in paragraph 1.7.

1.7 The dispersion modelling exercise carried out as part of the HRA does not lead to the conclusion that a thermal treatment process of any size can be discounted completely at any of the sites examined, purely on the grounds that the integrity of a Natura 2000 site would be compromised by air pollution impacts. Instead, it reveals that some of the sites *may* have a problem with taking an application forward, depending on two factors:

- the size and design of a given facility; and
- the resolution of the question as to which is the most plausible modelling result.

The dispersion modelling carried out and reported by ERM shows very clearly that impacts on the relevant SACs, eg Cotswolds Beechwoods, are slight and *could* easily be less than 1% for a real proposal.

1.8 Both ADMS and AERMOD are well recognised and widely accepted dispersion models for most regulatory applications in the UK. One is not generally favoured over the other, either by users or regulators. It is, however, understood by modellers that results between the two will differ. In most cases, these differences are modest and are mutually supportive. Occasionally, they will diverge considerably and this is one of those occasions. In these circumstances, it is not appropriate simply to take the most pessimistic result in the development of a strategy. Both results are equally plausible, based on the pedigree of both models and the available validation studies for each of them. Instead, it would be open to any prospective developer to investigate the issue further using a more sophisticated model to simulate better the effect of dispersion over this terrain feature, ie the Cotswold escarpment. Neither ADMS nor AERMOD is recognised as being wholly satisfactory in this situation and other significantly more resource intensive modelling tools could be deployed for individual development proposals to resolve this uncertainty for specific receptor locations. Such tools are not, however, appropriate for use in a strategic assessment such as the HRA.

Approach taken in the Waste Core Strategy (CD1.1)

1.9 From the findings of the HRA process the key development criteria contained in the WCS was prepared in agreement with the independent consultant (ERM) who prepared the HRA report. This is contained in Appendix 5 under 'general development criteria' which applies for all four inset maps. This includes the criteria that: *"The HRA has not precluded the development of thermal treatment facilities at any waste site, but for these proposals it must be demonstrated that there will be no significant effect on European Sites either alone or in combination with other plans or projects".*

1.10 This guidance is re-emphasised in general under the key development criteria which apply to each of the Inset Maps alongside the Natura 2000 sites which are particularly pertinent at these locations and would need to be considered at planning application stage. No particular upper limit is proposed as it is considered that the WCS makes it quite clear that this is an important issue which needs to be considered at detailed planning application stage. Any proposal for thermal treatment will need to consider HRA issues early in the process and ensure that there are no potential significant effects on the integrity of a European site. This can only be assessed fully at planning application stage.