

## Department for Environment, Food and Rural Affairs

### Hazardous Waste Regulations

#### Guidance on Mixing Hazardous Waste

1. Regulation 19 of *The Hazardous Waste Regulations 2005*<sup>1</sup> reflects the requirements of Articles 2(2) and 2(3) of the Hazardous Waste Directive and prohibits the mixing of hazardous waste, unless the mixing is authorised by an appropriate permit (or registered exemption). The prohibition affects all those in the management chain i.e. producers, carriers and those who receive the waste (consignees);
2. Regulation 18 provides that “mixing” is considered to have occurred where any type of hazardous waste is mixed with:
  - (a) A different category of hazardous waste;
  - (b) A non-hazardous waste;
  - (c) Any other substance or material.
3. Where a production process naturally results in mixed waste, mixing will not be considered to have occurred for the purposes of these Regulations.
4. Neither the terms “mixing” nor “categories of hazardous waste” are clearly defined in the Directive. Defra recognises that in some cases, mixing different types of waste poses no risk to the environment. Any mixing must be in accordance with Article 4 of the Waste Framework Directive, which requires that waste is recovered or disposed of without endangering human health and without using processes or methods that could harm the environment and in particular:
  - (i) without risk to water, air, soil and plants and animals;
  - (ii) without causing a nuisance through noise or odours; and
  - (iii) without adversely affecting the countryside or places of special interest.
5. Mixing is prohibited:
  - (a) Where it results in an incompatible mix - in that an undesired reaction (that may result in pollution of the environment or harm to human health) or a phase separation would occur on or after mixing; or
  - (b) Where waste is mixed so as to compromise the necessary treatment of the added or receiving waste; or
  - (c) Where waste is mixed so as to reduce/hide the identity of one or more of the wastes<sup>2</sup>; or
  - (d) Where hazardous waste is mixed with non-hazardous waste with the sole purpose of diluting the hazardous waste<sup>2</sup>; or

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<sup>1</sup> The Hazardous Waste (England and Wales) Regulations 2005 (SI 2005/894)

<sup>2</sup> Mixing hazardous waste with non-hazardous waste with the sole purpose of diluting it or masking the hazardous components is not considered acceptable treatment of waste see Environment Agency guidance [http://www.environment-agency.gov.uk/ourviews/857198/1498962/?version=1&lang=\\_e](http://www.environment-agency.gov.uk/ourviews/857198/1498962/?version=1&lang=_e)

(e) Where to do so would prevent the recycling or recovery of the waste.

6. In some cases, it will be possible to mix wastes without a permit. This would occur where the activity was not regarded as mixing or the wastes mixed come from the same category. For example, it might be possible to mix wastes with different six digit List of Wastes (LoW) codes<sup>3</sup> where the wastes are not in different categories. However it should be noted that the fact that wastes have the same LoW code does not necessarily mean that they can be mixed. For example, LoW 16 05 06\* is used for laboratory chemicals consisting of or containing dangerous substances. In some cases, mixing these chemicals might involve mixing wastes which are not part of the same category and will hence result in an incompatible mix and so be prohibited.

7. The paragraphs below set out examples of waste management practices which Defra and the Environment Agency consider are not subject to the prohibition on mixing in the Hazardous Waste Regulations, either because they do not involve any mixing of different wastes or because the substances being mixed are from the same categories of hazardous waste. This list is not exhaustive and may be reviewed in the light of experience and of reasoned arguments. Producers may be able to obtain advice from their waste management contractor. If the collector is allowed to mix particular wastes, it would normally also be acceptable for the producer to do so. You can also obtain further advice from the Environment Agency on 08708 506 506.

(i) The combining or agglomeration of oil/water mixes where mainly the oil concentration differentiates between them. Such wastes would be considered to be within the same category;

However the combining or agglomeration of mineral oils with: cooking oils (vegetable or animal), halogenated oils, brake fluids, anti freeze, washer fluids or mainly oily waters would be unacceptable as such wastes would not be considered to be within the same category. Additionally, low flash point fuels e.g. petrol or solvent type materials should not be mixed with higher molecular weight petroleum products.

(ii) Combining hazardous interceptor waste with the output from associated grease traps. Again such waste would be considered to be within the same category;

(iii) Combining hazardous waste of a similar composition (e.g. mineral oils or their compatible synthetic equivalent variants) from different sources such as domestic, industrial or commercial premises or aircraft/shipping.

(iv) The collection of different categories of hazardous wastes on the same vehicle within a multiple collection round so long as the different categories of waste are not physically mixed together. For example, mineral oils would be in a separate container from solvents.

### **Separation of hazardous waste**

8. Regulation 20 requires anyone holding hazardous waste mixed other than in accordance with a permit or exemption to separate it where technically and economically feasible. Regulation 20 also requires that waste be separated where it is necessary to do so to comply with Waste Directive conditions. These conditions are those set out in Article 1(4) of the Waste Framework and which are

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<sup>3</sup> The List of Wastes (England) Regulations 2005 (SI 2005/895) transpose the European Waste Catalogue. Schedule 1 lists the wastes and codes.

set out in paragraph 4 above.

9. What is “technically and economically feasible” will vary according to the type of waste involved and the facility handling it. As a guide, Defra and the Environment Agency consider that mixed hazardous waste must therefore be separated:
  - (a) Where necessary for health and safety reasons; and/or
  - (b) Where the mixed waste presents a substantial environmental risk.
10. Where hazardous waste has been mixed, it should be separated where the mixed waste is likely to be more problematic to manage or where the mixture would prevent the recycling and recovery of the waste unless the separation would risk the health and safety of those carrying it out and/or carry any risk to the environment.
11. Hazardous waste should also be separated where it makes economic sense to do so and where separation can be achieved without risks to health and safety and/or the environment. An example here would be at a garage where waste oil filters (which are hazardous) are placed in the same receptacle such as non-hazardous wastes such as tyres. This would generate a mixed hazardous and non-hazardous waste and the whole load would be classified as hazardous (and so disposal would cost more) unless the oil filters were separated out.
12. Mixed municipal waste may contain some items of hazardous waste. Although the Regulations do not apply to the small amounts of hazardous waste disposed of by householders in their domestic waste and collected as part of the door to door mixed municipal waste collection, they do apply where municipal waste collected from industrial and commercial premises is found to include hazardous waste. In such cases, the Regulations require that the waste be separated where technically and economically feasible and necessary to comply with Waste Directive objectives. An example would be a skip outside an office containing cardboard waste with computer monitors sitting on top of the load within arms reach. Where hazardous items are visible, but not easily separable, they should still be segregated unless it is not safe to do so.
13. The Regulations will apply to separately collected fractions of domestic waste. This means that where hazardous waste is placed outside at domestic premises for separate collection by a local authority (such as, for example, a TV that is placed next to, rather than within, a wheelie bin), or where it is delivered separately to a civic amenity site, the Regulations will apply. The waste should therefore remain separate and not be put back into the mixed municipal waste stream. Care should be taken to ensure that receptacles used by the public at civic amenity sites are clearly labelled to ensure that different types of hazardous waste are placed in the correct receptacle and that hazardous waste is not mixed with other types of waste. If members of the public do place hazardous wastes in the wrong receptacles, these items would need to be separated unless their separation posed a health and safety risk to civic amenity site staff.