

Environmental Permitting Regulations (England and Wales) 2007

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Regulatory Guidance Series, No EPR 2

Understanding the meaning of regulated facility

IMPORTANT NOTE - PLEASE READ

This explanatory note is intended for SPECIFIC INTERNAL ENVIRONMENT AGENCY use to assist officers to interpret and enforce the Environmental Permitting (England and Wales) Regulations 2007. The explanatory note is based on information contained in the EP Regulations and on current understanding. This explanatory note may be subject to change in the light of regulatory changes, future Government guidance or experience of applying the EP Regulations. However, in the interests of transparency, this explanatory note is available to others. It must be stressed that the explanatory note has no status other than as internal Environment Agency guidance to its staff, and that it remains the responsibility of operators to comply with any obligations placed upon them under the EP Regulations.

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1 Introduction

- 1.1 This note provides guidance on understanding the meaning of “*regulated facility*” under the Environmental Permitting Regulations (“the Regulations”).
- 1.2 Defra and WAG have provided guidance relevant to understanding what is a regulated facility. This can be found in:
 - the Core Environmental Permitting Guidance (“the Core guidance”);
 - the guidance on the IPPC Directive Part A(1) Installations and Part A(1) Mobile Plant (“the Part A guidance”) ; and
 - the guidance on the Waste Framework Directive (“the WFD guidance”);
- 1.3 This guidance document provides, where necessary, more detail than that provided in the Government guidance.
- 1.4 This guidance sets out:
 - what are regulated facilities;
 - what are IPPC Directive installations;
 - what is a waste operation; and
 - what is a mobile plant.
- 1.5 There are two appendices to the guidance which cover:
 - interpretation of “listed activities” in the Regulations; and
 - interpretation of installation.

2 Regulated facilities

- 2.1 Regulated facility” is the collective term used to describe all the activities that require a permit under the Regulations (paragraph 2.2 of the Core guidance).
- 2.2 No-one can legally operate a regulated facility without a permit (regulation 12 of the Regulations).
- 2.3 Regulated facility is defined in regulation 8 of the Regulations. A regulated facility can be:
- an installation;
 - mobile plant (waste and other than waste); and
 - a waste operation (other than carried on at an installation or mobile plant).
- 2.4 Exempt waste operations are not regulated facilities (paragraphs 2.18 to 2.20 of the Core Guidance).
- 2.5 Some waste operations are excluded from the definition of waste operations for the purposes of a regulated facility (paragraphs 2.21 to 2.22 of the Core Guidance). The excluded waste operations are defined in regulation 4 of the Regulations.
- 2.6 However both exemptions and excluded waste operations would be regulated under the Regulations where they are part of an installation.
- 2.7 Whether an activity is a regulated facility can be approached either from the starting point of there being an activity that might be an installation (but which if not, might be a waste operation) or from the starting point of there being an activity involving waste which might be a waste operation (provided it is not an installation, exempt or excluded). Figures 1 and 2 illustrate these 2 routes to deciding whether there is a regulated facility.

Location of regulated facilities

- 2.8 The Regulations apply to England and Wales, including the territorial waters adjacent to England and Wales. A regulated facility would require an environmental permit whether carried out at an onshore or (within the territorial waters) offshore location. The Regulations apply to activities carried out both underground and above ground. The only exceptions are in Section 1.1 Part A(1) of Schedule 1, where the interpretation note provides that certain offshore platforms are excluded, and Section 3.5 Part B, where underground activities are excluded in a similar way (see Part 2 of Appendix 1).

Figure 1 - Identifying the installation

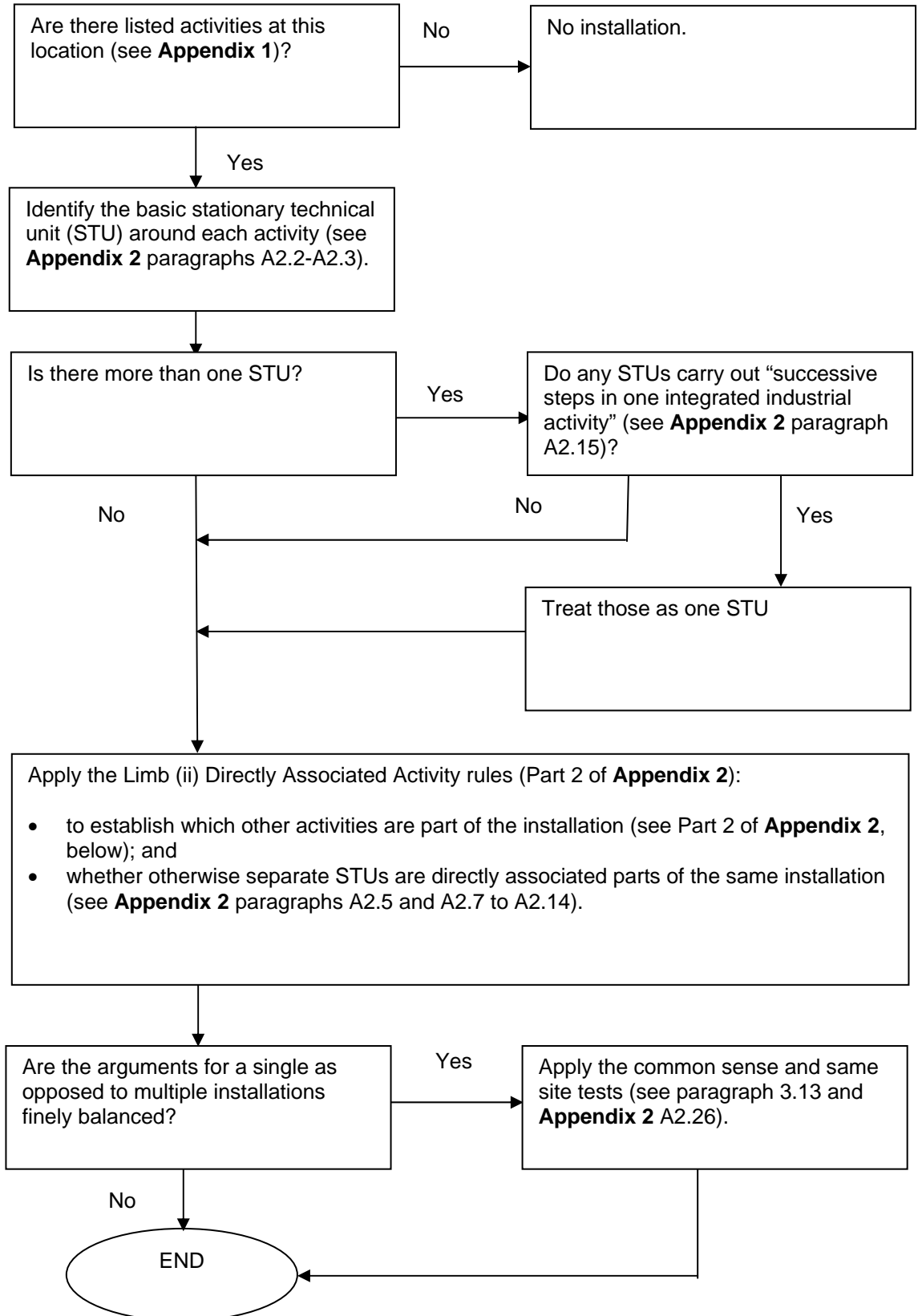
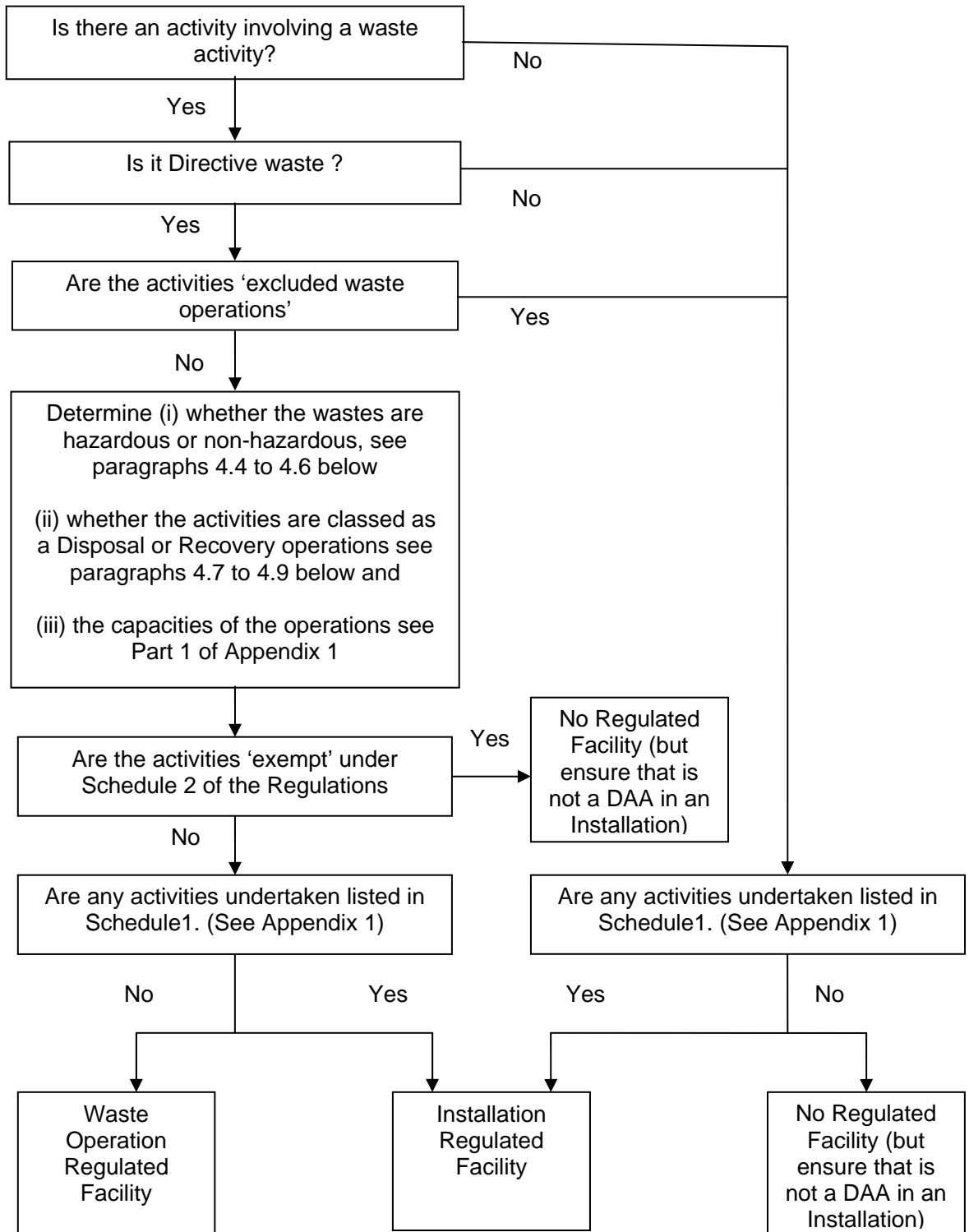


Figure 2 – Waste operation overview



3 Installations

- 3.1 Guidance on what is an installation is given in the Core Guidance (paragraphs 2.5 and 2.7) and in more detail in the Part A guidance (paragraphs 2.5 to 2.27)
- 3.2 The EC Commission has also provided guidance on the IPPC Directive¹, including guidance on the interpretation of "Installation" and related terms.

An installation

- 3.3 An installation is made up of a stationary technical unit carrying out one or more activities listed in Schedule 1 and any other location on the same site where directly associated activities are carried on (regulation 2 of the Regulations).
- 3.4 The first task in determining whether there is an installation is to identify whether there are any activities listed in Schedule 1 to the Regulations. If there is none then there is no installation.
- 3.5 Note that Schedule 1 contains a number of activities which are waste operations. These are mainly found in Chapter 5 of Schedule 1, or occasionally section 6.8 but they can be found elsewhere. There are waste recovery operations using waste as a raw material or as a fuel throughout Schedule 1. Any waste activities falling within Schedule 1 will mean that the category of regulated facility is an installation rather than a waste operation (see section 4).
- 3.6 If there is one or more listed activities then the next task is to identify the stationary technical unit (or units) for the listed activity (or activities). The stationary technical unit comprises those things that are needed for the activity to be operated at all in the manner described in Schedule 1 of the Regulations even if only for a brief period.
- 3.7 However the unit may not be able to operate on its own for a sustained period and will need to have other linked activities. The installation then comprises the stationary technical unit plus any other non-listed activities that are "directly associated".
- 3.8 Figure 1 provides an overview of the process of identifying the installation.
- 3.9 Appendix 1 to this guidance deals with the interpretation of the listed activities in Schedule 1 to the Regulations. Schedule 1 includes both generic terms and specific activity descriptions. Advice on generic terms is given in Part 1 of Appendix 1. Advice on specific activity descriptions, and in some cases on particular sections within which groups of activities are listed, and interpretation rules, is given in Part 2 of Appendix 1. Part 2 of

¹ Available at: http://ec.europa.eu/environment/ippc/general_guidance.htm
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the Appendix is an annotated reproduction of Part 2 of Schedule 1 giving interpretative advice. The annotations are in a different font and italics, to distinguish them from the original text. Interpretation of any particular listed activity description may therefore need to take account of both Parts 1 and 2 of Appendix 1.

- 3.10 Appendix 2 provides the interpretation of the stationary technical unit in Part 1 and then directly associated activities in Part 2.

Testing the proposed composition of the installation

- 3.11 Once the stationary technical unit and any directly associated activities have been identified, the composition of the Installation, or Installations, will normally be clear. However, in cases where the decision between a single installation and two (or more) installations is not clear because the evidence is finely balanced, the common sense test should be applied.
- 3.12 When applying the common sense test, the following guidelines should be considered:
- First, consider all the STUs and their DAAs separately and then consider them as one unit. If there are issues that can be addressed through permit conditions when they are treated as one unit that cannot be addressed when they are treated separately then it is normally appropriate to bring them within one Installation.
 - Secondly, test the proposed boundary of the Installation. The Installation boundary should draw in all plant and machinery carrying out Activities together with activities that are clearly connected to those Activities and can reasonably be expected to affect emissions if not properly managed.
 - Note, common utility supplies at multi-activity installations such as air, water, nitrogen and steam ring mains do not normally have the effect of joining STUs together to form one Installation.
 - The common sense test must be applied at the end of the assessment of the number and breadth of the installations - and then, only when it is truly difficult to decide if there is one installation or more using the rules of association listed in Appendix 2. The common sense test must not be used to divide an installation which has two operators, just because there is a perception that regulation of the two parts of the installation might be simpler if they are kept entirely separate.

4 Waste operations – Non–installation

- 4.1 The first step in determining if a waste operation is being undertaken is whether the operation involves a waste subject to the Waste Framework Directive. The WFD guidance deals with this in paragraphs 2.1 to 2.4 and more guidance can be found in the Government’s guidance on the meaning of waste [awaited].
- 4.2 A waste operation is defined in regulation 2 by reference to the recovery and disposal operations in the Waste Framework Directive (paragraph 2.8 of the Core guidance).
- 4.3 Any recovery or disposal of waste requires an environmental permit, unless the waste operation is specifically excluded or exempt from the need to hold a permit (see paragraphs 2.18 to 2.22 of the Core Guidance).

Hazardous and Non-hazardous waste

- 4.4 You will need to understand whether the wastes involved are hazardous or non-hazardous wastes in order to determine whether the activities are ‘exempt’ or fall within Schedule 1 of the Regulations. Exempt waste operations are not regulated facilities and waste operations falling within Schedule 1 are installations (see above).
- 4.5 Hazardous waste and non-hazardous waste generally have the same meaning as used for consignment purposes, except for incineration. Hazardous waste is defined under regulation 2 of the Regulations.
- 4.6 For further information regarding coding and classification of waste see Environment Agency Hazardous Waste: Interpretation of the definition and classification of hazardous waste (2nd Edition v 2.1)

Recovery and disposal

- 4.7 The WFD guidance explains the difference between a recovery and a disposal operation in paragraphs 2.5 to 2.17.
- 4.8 Further guidance on recovery and disposal can be found in our Guidance to determine whether a waste operation is a disposal or recovery operation ([303_05](#))
- 4.9 The distinction between a disposal and recovery is important for determining whether the operation can be an exempt waste operation or whether they are a listed activity in Schedule 1 of the Regulations (see above for the interpretation of activities in Schedule 1).

Waste operation regulated facilities

- 4.10 A site may often comprise a number of Waste Framework Directive Annex II disposal or recovery (D or R) operations. Each will be a waste operation regulated facility provided that it is not, exempt, excluded or part of an installation.
- 4.11 Each individual operation with R or D number is a waste operation and therefore each individual operation with R or D number not carried out at an installation is an individual regulated facility.
- 4.12 The term “waste facility” can be used as shorthand for a group of waste operations (not carried out at an installation) which are carried on, by the same operator on one site, as one overall operation (e.g. a transfer station). We have used this term in our EP Charging Scheme and Opra Scheme.
- 4.13 Each waste facility can include activities that are associated with its operation. Examples would be storage of raw materials, chemicals, reagents, fuels etc. If there is any doubt whether a non-waste activity is part of the waste facility, the logic behind ‘Directly Associated Activities’ set out in Appendix 2 can provide a steer.
- 4.14 Figure 2 provides an overview for waste operations.

5 Mobile plant

- 5.1 Mobile plant is defined in regulation 2 as plant which —
- a) is not an installation,
 - b) is used to carry on an activity or waste operation, and
 - c) where not used to carry on a Part A activity, is designed to move or be moved whether on roads or other land.
- 5.2 The definition of mobile plant is dealt with in paragraphs 2.10 to 2.18 of the Core guidance.

Mobile plant – Part A activities

- 5.3 It is only possible for plant undertaking a Part A activity to fall within the definition of “mobile plant” if it is not an installation.
- 5.4 EC Commission guidance² is referenced in the Core guidance and considers the meaning of “stationary”. The Commission guidance considers the question of whether plant that is designed to be moved periodically but which in practice operates from the same location for some time, should be considered to be “stationary”. Suggested tests in the Commission guidance include: the length of time the plant is expected to or does in fact, remain stationary; the nature of the activities and their environmental impact; and the degree of physical installation involved in moving and establishing the plant.
- 5.5 The precise duration of plant being located at a particular site that could lead it to be considered stationary would need to be determined according to the facts of individual cases. It should be concluded that if the plant will operate at a particular location for a significant period of time, then it should be considered stationary and permitted accordingly.
- 5.6 The environmental impact is relevant in particular to the protection of land. There is no requirement to apply to surrender a mobile plant, it is only necessary for the operator to notify us. Where the activities have the potential to impact on land quality and the plant will be operated at a single location for a prolonged period of time, environmental protection is best served by permitting the plant in a way that requires a demonstration that the land is left in a satisfactory state.
- 5.7 Although theoretically mobile, some plant may require significant engineering work to move. So, for example, does the plant just arrive on its own wheels or be transported as a single unit, or does it need a significant degree of engineering and construction to establish it as ready for use at a particular location? A plant that requires significant effort to move and which

² http://ec.europa.eu/environment/ipcc/pdf/installation_guidance.pdf
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operates at one site for a prolonged period of time should not be considered mobile.

- 5.8 A stationary technical unit forms the basis of an installation and must be, by definition, stationary.
- 5.9 In light of these tests it is anticipated that there will be very few mobile plant carrying out Part A activities.
- 5.10 The Commission guidance also concludes that whilst the term "stationary" means that the installation as a whole should be stationary (in the sense described above), the installation may still include plant or equipment which is mobile. For example, if a directly associated activity is carried out in mobile plant, it must still be regulated as part of the installation.

Appendix 1 – Interpretation of Schedule 1 to the Environmental Permitting Regulations

Part 1 - Interpretation of generic terms

Derivation of schedule 1

DERIVATION OF SCHEDULE 1

A1.1. Schedule 1 to the Regulations derives from Schedule 1 to the PPC Regulations, which brought together: (a) former IPC “prescribed processes” from the Environmental Protection (Prescribed Processes and Substances) Regulations 1991 (SI 472); and (b) the Annex I activities from the IPPC Directive. This exercise was undertaken with the main objectives of:

- transposing all Directive Annex I activities as Part A activities;
- ensuring that all IPC activities not covered by the Directive would also be subject to integrated control, while leaving LAPC activities regulated for emissions to air only; and
- trying to retain as far as possible, except where specifically decided otherwise, continuity of division of regulatory responsibility between the Environment Agency and Local Authorities, as reflected in the Part A(1), Part A(2) and Part B categorisations.

A1.2. In cases where there appears to be overlap between, or uncertainty over the meaning of listed activity descriptions, it may be helpful to consider the derivation of a listed activity as well as any relevant interpretative advice given in this document.

Interpretation of general terms

General Note 1: capacity issues

A1.3. There are frequent references in Schedule 1 to “capacity” (or analogous terms). The EC Commission has provided guidance on Interpretation and Determination of Capacity under the IPPC Directive³. This section sets out general advice, while in part 2 of this Appendix there is advice on specific issues for particular listed activities. In all cases it should be noted that “capacity” refers to potential capacity and not historical or actual production levels or throughput. This means that the design capacity of the installation will usually be the key issue, although – as explained below - the existence of a regulatory limit can also be considered.

³ Available at: http://ec.europa.eu/environment/ippc/pdf/capacity_guidance.pdf
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A1.4. "Capacity" is to be determined by the regulator on a case-by-case basis. The starting point is always the operator's description of the installation, but (potentially using its powers to require the supply of further information by the operator) the regulator must make its own determination and be prepared to defend it.

References to rate

A1.5. Any reference to a capacity which is defined in terms of a rate, whether by cubic capacity, weight per hour or heat input rate, should be taken to mean the maximum rate at which the installation **can** operate. This may be different to the rate at which the installation **actually** operates (which may be considerably lower).

A1.6. However, although an activity might normally be listed, if the rate at which the actual installation can operate is in fact below that specified in Schedule 1, then it is not a listed activity. For example, the Operator may have installed a device or otherwise limited the output or throughput. However, the regulator will need to be satisfied that the Operator can reliably prevent operation above the listed activity threshold. Such a physical or technical restriction must be secure and stable, and not easily overridden or removed.

A1.7. Regulatory restrictions may also reduce capacity to below a listed threshold. If a regulatory consent limits the operation of an activity, such that it cannot legally exceed the threshold, then it is not a listed activity. For example, a water discharge consent or trade effluent consent limiting the volume discharged, or a waste management licence limiting the amount of waste that can be stored and treated, might have this effect. Other types of regulatory consent which might operate in this way include planning permissions or groundwater consents. However, private contractual obligations do not provide a sufficient constraint.

A1.8. For batch processes which take more than a day to complete, and where the listed activity specifies a daily rate, the rate should be taken as the amount of material handled divided by the number of days or parts of days over which treatment (i.e. for the batch) takes place.

Interpretation of Specific Capacity Thresholds in Schedule 1

A1.9. Table 1 gives various examples of the interpretation of capacity in Schedule 1. Some concern rates of operation, while others (e.g. holding capacity) do not.

Table 1

<p><i>1. Boiler Plant (Section 1.1 of Schedule 1): Installed capacity normally would include all boilers, even those designated as "standby" plant. However, if fuel could not be provided to all boilers simultaneously, then it would clearly not</i></p>

be possible to achieve operation at the entire aggregate capacity, and the capacity should therefore be calculated to include only those that can be operated at any one time.

Holding capacity for production and processing of metals (Chapter 2 of Schedule 1): The "design holding capacity" means the maximum amount of metal that the furnace is designed to hold. In the case of a batch melting furnace, bath, or holding vessel this will be the same as the maximum amount of molten metal that it is designed to hold. However, in the case of a continuous melting furnace such as a shaft furnace (which has little or no holding capacity for molten metal) it should be interpreted as the maximum amount of metal, liquid or solid, that may be present in the furnace. The densest metal or alloy melted should be used for the calculation. The holding capacity should include that of any holding tanks being used to keep the metal in a molten state. Equipment used from the melting up to and including the holding vessels forms a single technical unit and all volume of such equipment should be included along with the volume in molten form of the product. It is reasonable to exclude some ullage (a small amount of unused space to allow handling) when considering the capacity of a vessel unless it is specifically designed to be operated filled to the brim.

2. Baths or holding vessels for non-ferrous metals (Section 2.2 of Schedule 1): A "bath or holding vessel" normally is not of itself used for melting. However, a bath or holding vessel which forms an integral part of a stationary technical unit where a melting activity is carried out is considered to be "used in the plant for the melting", and therefore subject to the furnace size criterion, even if direct melting is not carried out in the bath or holding vessel in question. See also Part 1 of Appendix 2 of this guidance, on what constitutes a stationary technical unit.

3. Melting non-ferrous metals (Section 2.2 A(1) (b) of Schedule 1): The reference to "20 tonnes per day for all other metals" (i.e. non-ferrous metals other than lead or cadmium) refers to the quantity of metals in aggregate.

Ceramic production (Section 3.6 A(1) (a) (ii) of Schedule 1): "Kiln capacity" in a tunnel kiln should be taken to mean the volume of the firing zone.

Incinerators (Section 5.1 of Schedule 1): Capacity should be taken to mean the incineration capacities of all the furnaces of which an incineration plant is composed. The capacity should be specified by the design and construction and confirmed by the Operator, and expressed as the quantity of waste incinerated per hour (i.e. the name plate capacity should be confirmed by the Operator).

Textile plant (Section 6.4 of Schedule 1): The threshold for textile treatment relates to the treatment capacity, e.g. for washing or dyeing. Textiles normally must be dried once treated. If the output of the installation is limited

by the physical limits of a textile drying process then this capacity determines whether or not the treatment activity is a listed activity.

Tanning treatment capacity: (Section 6.8 A(1) (a) of Schedule 1): this is calculated in terms of "Finished product" which should be taken to refer to finished leather, either as leather fit for making up consumer goods but not necessarily coated or coloured, and/or wet-blue. Where any finished product is wet leather its weight should be converted to dry weight for the purposes of calculation of capacity.

Intensive livestock rearing (Section 6.9 A(1) of Schedule 1): Capacity of intensive livestock installations is defined in terms of "places". Agricultural installations may make provision for a number of animals to be kept in separate small groups, in which case the number of places is a matter of simple arithmetic, for example laying hens in battery cages. Alternatively the installation may be in the form of open plan buildings which could accommodate a variable number of animals. In the case of such open plan installations the maximum number of places which could be provided can be estimated from the welfare code requirements for stocking density for the livestock in question. The Operator may have other limits to the capacity of the installation, such as the physical capacity of feeding stations for loose-housed sows. In such a case s/he would need to demonstrate that this prevents the installation being operated at a stocking density which would cause it to cross the threshold. It will not be satisfactory to rely simply on undertakings by those representing the company without some evidence of restriction. Note also that the capacity relates to the number of animals that can be housed at the outset of the rearing activity, and is not affected by any attrition that might result in fewer animals surviving to the end of the rearing.

Aggregation of Capacities (apart from Design Holding Capacity)

A1.10. Paragraph 4 of Part 1 of Schedule 1 provides for the aggregation of the capacities of separate activities, where they are carried out by the same person on the same site, for the purpose of determining whether as a result each of an assortment of activities is to be categorised as a Part A activity and, if so, whether Part A(1) or A(2) (aggregation would not be applied in this way to "create" a Part B activity). The rule applies not only where the word "capacity" is used, but also where capacity is expressed by an analogous term more specific to the activity in question. Thus, for example, if there were two intensive poultry units operated on the same site by the same operator, each with a maximum 30,000 places for poultry, the aggregate capacity of 60,000 places would exceed the relevant Section 6.9 activity threshold of 40,000 places.

A1.11. Note, however, that this aggregation rule specifically does not apply where the capacity is expressed as design holding capacity. This is only the case in Sections 2.1 and 2.2 of Chapter 2 of Schedule 1 (production and

processing of metals). The specific reference to design holding capacity used here is intended to achieve a precise boundary between Part A(1) and A(2) activities, which would be undermined if the aggregation rule applied. In all other aspects of Chapter 2 of Schedule 1 (and indeed throughout the rest of the Schedule) the aggregation rule will apply. Thus, for example, where the capacity is expressed by reference to the amount of metal produced (e.g. Section 2.1 Part A(1)(c)), this will include the aggregate of all the metals that can be processed in the installation.

General Note 2: Grounds for Exception: Meaning of “May Result in Release” or Similar Expressions

A1.12. There are a number of activity descriptions in Schedule 1 where the actual level of emissions determines whether there is a listed activity. For example, Section 4.2 Part A(1)(d) covers the use of lead, or use or recovery of its compounds (or those of 10 other elements), only where that “may result in the release into air of [lead or its compounds] or the release into water of any substance listed in paragraph 7 of Part 1 of this Schedule”. This type of Part A(1) activity description derives from previous UK legislation, not the IPPC Directive. In such cases, the use of the word “may” suggests that there must be a reasonable likelihood that the substance (i.e. lead or “paragraph 13 substances” in this example) will be released in amounts that might cause material harm. Small levels of releases would not make a listed activity, provided they were a predictable characteristic of the activity (including abnormal situations with a significant probability of occurrence but excluding major but very infrequent events such as stock-tank failure), and the emissions must not rely on abatement to render them essentially harmless.

A1.13. In certain cases the emission of a substance must be at a particular level for the activity to be listed. One example is Section 6.1 Part A(1)(c), where there is a listed activity for making pulp and paper only if it may result in the release into water of specified substances above specified levels. In such cases the general interpretation in paragraph A1.12 above is clearly inapplicable.

General Note 3: Assigning an Activity to the “Most Apt” Listed Activity Description

General Rules

A1.14. Paragraph 2 of Part 1 of Schedule 1 provides rules to allocate activities which appear to be covered by more than one section in Parts A(1), A(2) and/or B. If an activity appears to be described in both Part A(1) and A(2), the “most apt” description must be chosen, which is a matter of judgement. If, on the other hand, the choice is between Part A(1) and Part B, or Part A(2) and Part B, the Part A activity descriptions always overrule the Part B, even if the Part B description is arguably more apt.

A1.15. A basic approach to the “most apt” rule is to consider whether one of the descriptions is more specific or narrow. For example, disposal of animal

carcasses or animal waste, by rendering at a rate of greater than 50 tonnes per day, fits into both the narrow description at Section 6.8 Part A(2)(a), which fits precisely, and into the more general description of disposing of non-hazardous waste at Section 5.3 Part A(1)(c). The Section 6.8 description, being more specific, is therefore the “most apt” in this case.

A1.16. The allocation of an activity to the “most apt” description should be undertaken objectively. Where the test is applied the classification may determine not only who regulates, but also the charges for an application. However, none of these factors is relevant to, or should influence the “most apt” assessment. No further legal consequences flow from the classification. In other words, the determination of appropriate permit conditions should be the same, either way.

A1.17. In some cases two activity descriptions may seem similarly apt. Where this occurs, ex-IPPC Directive descriptions should generally be given precedence over ex-IPC descriptions. Thus, in Chapter 4, any activity which meets one of the ex-IPPCD descriptions in Sections 4.1(a), 4.2(a), 4.3(a), 4.4(a), 4.5(a) or 4.6(a) should be given preference over any other Chapter 4 activity description which seems similarly apt. For example, the manufacture of ammonium salts under s4.2(a)(iv) would be more appropriate than under s4.7(b), even if ammonia is used in their manufacture.

Allocating the Burning of Waste to the Most Apt Activity Description

A1.18. Note that case law has evolved very considerably in recent years, and that prior to determining which activity description is the most appropriate, consideration must be given to the question whether the substance that is being burned is, in fact, waste. If you are in any doubt, please consult Legal.

A1.19. Where waste is incinerated (i.e. the primary purpose of the plant is **disposal** of waste), the activity will fall within Section 5.1 as “incineration plant”.

A1.20. Where waste is co-incinerated (i.e. where the primary purpose of the plant (although not necessarily the burning of the waste, which may itself be either as fuel or for disposal purposes) is **generation of energy or production of material products**, the situation may be less clear. Co-incineration activities fall within the definition of “waste incineration installation” in paragraph 2(1) of Schedule 13, and “co-incineration plant” (defined in Section 5.1, but a subset of “waste incineration installation”) will most probably fall within Sections 1.1 (combustion), 3.1 (cement or lime manufacture) or 5.1 (waste co-incineration)). (N.B. “co-incineration” in this context is not the traditional Agency term, namely burning wastes in conjunction with non-waste fuels: under the Waste Incineration Directive (WID) and the Regulations a plant burning only wastes as fuel would be a “co-incineration plant”). Regulatory guidance on waste incineration has been issued and may be referred to for further advice on this point. Note also that European case law and Commission positions are still evolving on

the distinction between the incineration of waste and the use of waste as a fuel for energy for the purposes of the Waste Framework Directive. The picture is therefore a changeable one.

A1.21. The burning of tyres in a cement kiln is co-incineration under Section 3.1. The burning of tyres alone, for disposal, will most probably be incineration, even where this also generates energy, as the main purpose of the plant burning the tyres is the thermal treatment of waste for disposal, and such plant would be likely to fall under Section 5.1.

A1.22. As a general principle, co-incineration plant which falls into any specific Part A(1) activity (i.e. outside Section 5.1) will be permitted under that activity (albeit subject to the WID requirements, as co-incineration plant). So, cement kilns using wastes as fuel will be permitted under Section 3.1, while a combustion unit using wastes as fuel would probably be permitted under Section 1.1.

A1.23. However, this general principle is subject to two caveats. First, all hazardous waste co-incineration (as well as incineration) falls to Agency regulation, and therefore if the most apt activity description is not Part A(1) the co-incineration plant will be permitted under section 5.1 Part A(1)(b).

A1.24. Second, for the co-incineration of non-hazardous waste, the activity description in Section 1.1 Part A(1)(b) (combustion activities) contains a “throwback” which allocates burning a fuel manufactured from or comprising, waste, in an appliance with the specified rated thermal input, elsewhere if “*carried out as part of a Part A(2) or B activity*”. The activity in Section 5.1 A(2)(b) “*incineration of non-hazardous waste in a co-incineration plant*” is a possible alternative, but contains its own throwback: “*unless carried out as part of any other Part A activity*”.

A1.25. Where this potential exchange arises, the current legal view is that it is more appropriate for the activity to be regulated under Section 1.1 Part A(1)(b), not least because the provision in Section 5.1 is concerned with filling any gaps in implementation of the WID, and does not aim to override existing categories. If you are in any doubt about the application of this guidance, please consult Industry Regulation NPTS.

A1.26. Table 2, though not definitive, gives further examples of the general Schedule 1 Part A(1) activity descriptions which will normally be most apt for a range of activities in this area (subject to the relevant threshold being exceeded). However, individual decisions will need to be made on a case-by-case basis, remembering that co-incineration plant may fall outside section 5.1.

Table 2

Activity	Schedule 1 Reference
Incineration and Co-incineration under Section 5.1 (WID and non-WID plant)	
Incineration of hazardous waste in an incineration plant	5.1 Part A(1) (a)
Co-incineration of hazardous waste unless	5.1 Part A(1) (b)

part of any other A (1) activity	
Incineration of non-hazardous waste in an incineration plant with a capacity of 1 tph or more	5.1 Part A (1) (c)
Incineration of hazardous waste in a WID-excluded plant unless carried out as any other Sch 1 activity.	5.1 Part A (1) (d)
Incineration of non-hazardous waste in a WID-excluded plant with a capacity of 1 tph or more unless carried out as any other Sch 1 activity.	5.1 Part A (1) (e)
Co-incineration of Waste (WID Plant only)	
Co-incineration of hazardous waste as part of a non Section 5.1 Part A(1) activity	relevant Part A(1) activity
Co-incineration of hazardous waste not carried out as part of any other Part A(1) activity.	5.1 Part A(1) (b) activity
Co-incineration of non-hazardous waste carried out as part of any Part A activity	relevant Part A activity
Co-incineration of non-hazardous waste not carried out as part of any other Part A activity.	5.1 Part A(2)(b)

A1.27. Finally, it is important to determine whether the burning of waste is a discrete activity or an integral part of another activity. As shown in Table 2, burning waste for disposal at an IPPC installation, where that is a discrete activity, will normally be classified as incineration, for example burning production waste at a chemical plant. However, where the waste is being burned as an integral part of another activity (whether for disposal or as fuel), then it may be co-incineration - see paragraph A1.20 above.

General Note 4: The definition of “Manufacturing”

A1.28. Some listed “manufacturing” activities do not contain thresholds. These activities potentially fall to regulation under Regulations, no matter how small-scale they are. Specific guidance on manufacturing in the context of the chemical sector is at Note 4.4 in Chapter 4 in Part 2 of this Appendix. Outside Chapter 4, manufacturing should be taken to mean more than just making something; manufacture has to be carried out for a financial return, whether directly or indirectly, and would normally be expected to involve the creation of a product from raw materials and would therefore exclude simple packaging or re-packaging activities. Note that certain laboratory fume cupboard activities are excluded from Schedule 1; see paragraph 3(b) of Part 1.

General Note 5: Impact of the Solvent Emissions Directive on Schedule 1

A1.29. The Solvents Emissions Directive (1999/13/EC) is also implemented through these regulations.

A1.30. This Directive seeks to limit the emissions of volatile organic compounds (“VOCs”) from specified activities (with solvent consumption exceeding the

thresholds defined in the SED). The SED defines limits on the VOC emissions that these activities can release, with specific additional controls for activities that use VOCs with certain risk phrase classifications.

A1.31. Section 7 to Schedule 1 to the Regulations lists all the activities subject to SED. Most of the activities brought into Regulations by this means are placed in Part B, but where they form part of Part A(1) installations they will be regulated by the Agency and will have to fulfil the technical requirements of the SED. The production of pharmaceutical substances is listed in both Section 7 and in Section 4.5 A(1)(a) of Part 2 to Schedule 1, which makes this limited part of the chemical industry sector subject to both SED and BAT from the outset. In some circumstances there may be a complex interaction between SED and IPPC.

SCHEDULE 1

Activities

PART 1

Interpretation and application: general

Interpretation

1. *In this Schedule, “background quantity” means, in relation to the release of a substance resulting from an activity, such quantity of that substance as is present in—*

- water supplied to the site where the activity is carried on;
- water abstracted for use in the activity; and
- precipitation onto the site on which the activity is carried on.

Activities falling within more than one Part description

—(1) Where, in Part 2 of this Schedule, an activity falls within a description in Part A(1) and a description in Part A(2) that activity must be regarded as falling only within that description which fits it most aptly.

(2) Where, in Part 2 of this Schedule, an activity falls within a description in Part A(1) and a description in Part B (other than a description in Section 7) that activity must be regarded as falling only within the description in Part A(1).

Where, in Part 2 of this Schedule, an activity falls within a description in Part A(2) and a description in Part B (other than a description in Section 7) that activity must be regarded as falling only within the description in Part A(2).

If, immediately before the coming into force of these Regulations, an installation where a Part A(2) activity and a waste operation were carried out was a Part A(1) installation by virtue of paragraph 17 of Part 3 of Schedule 1 to the 2000 Regulations, that installation carries on a Part A(1) activity for the purposes of these Regulations.

Application of activities falling within Sections 1.1 to 6.9 of Part 2

An activity must not be taken to be an activity falling within Sections 1.1 to 6.9 of Part 2 if it is—

- carried on in a working museum to demonstrate an industrial activity of historic interest;
- carried on for educational purposes in a school as defined in section 4(1) of the Education Act 1996⁽⁴⁾;
- carried on at an installation or mobile plant solely used for research, development and testing of new products and processes;
- the running on or within an aircraft, hovercraft, mechanically propelled road vehicle, railway locomotive or ship or other vessel of an engine which propels or provides electricity for it;
- the running of an engine in order to test it before it is installed or in the course of its development; or
- carried on as a domestic activity in connection with a private dwelling.

⁽⁴⁾ 1996 c.56; section 4(1) was substituted by the Education Act 1997 (c.44), section 51.
Environment Agency Understanding the meaning of regulated facility

Capacity: Part A(1) and A(2) descriptions

—(1) This paragraph applies for the purpose of determining whether an activity carried on in a stationary technical unit falls within a description in Part A(1) or Part A(2) of Part 2 of this Schedule which refers to capacity, other than design holding capacity.

(2) Where a person carries out several activities falling within the same description in Part A(1) or Part A(2) in different parts of the same stationary technical unit or in different stationary technical units on the same site, the capacities of each part or unit, as the case may be, must be added together and the total capacity must be attributed to each part or unit for the purpose of determining whether the activity carried on in each part or unit falls within a description in Part A(1) or Part A(2).

For the purpose of sub-paragraph (2), no account must be taken of capacity when determining whether activities fall within the same description.

Where an activity falls within a description in Part A(1) or Part A(2) by virtue of this paragraph it must not be taken to be an activity falling within a description in Part B (other than a description in Section 7).

Operation below thresholds: effect on the installation

Where an operator is authorised by an environmental permit to carry out Part A(1) activities, Part A(2) activities or Part B activities which are described in Part 2 of this Schedule by reference to a threshold (whether in terms of capacity or otherwise) at an installation, the installation does not cease to be a Part A(1) installation, a Part A(2) installation, or a Part B installation, as the case may be, by virtue of the installation being operated below the relevant threshold unless the permit ceases to have effect in accordance with these Regulations.

Application of Part B activities: releases into the air

—(1) Subject to sub-paragraph (2), an activity must not be taken to be a Part B activity within Part 2 of this Schedule if it cannot result in the release into the air of a substance listed in sub-paragraph (3) or there is no likelihood that it will result in the release into the air of any such substance except in a quantity which is so trivial that it is incapable of causing pollution or its capacity to cause pollution is insignificant.

(2) Sub-paragraph (1) does not apply to—

an SED activity; or

an activity which may give rise to an offensive smell noticeable outside the site where the activity is carried on.

References to, or to the release into the air of, a substance listed in this paragraph are to any of the following substances—

oxides of sulphur and other sulphur compounds;

oxides of nitrogen and other nitrogen compounds;

oxides of carbon;

organic compounds and partial oxidation products;

metals, metalloids and their compounds;

asbestos (suspended particulate matter and fibres), glass fibres and mineral fibres;

halogens and their compounds;

phosphorus and its compounds;

particulate matter.

References to releases into water

References in Part 2 to, or to the release into water of, a substance listed in this paragraph or to its release in a quantity which, in any period of 12 months, is greater than the background quantity by an amount specified in this paragraph are to the following substances and amounts—

Table

<i>Substance</i>	<i>Amount greater than the background quantity (in grammes) in any period of 12 months</i>
Mercury and its compounds	200 (expressed as metal)
Cadmium and its compounds	1,000 (expressed as metal)
All isomers of hexachlorocyclohexane	20
All isomers of DDT	5
Pentachlorophenol and its compounds	350 (expressed as PCP)
Hexachlorobenzene	5
Hexachlorobutadiene	20
Aldrin	2
Dieldrin	2
Endrin	1
Polychlorinated Biphenyls	1
Dichlorvos	0.2
1,2—Dichloroethane	2,000
All isomers of trichlorobenzene	75
Atrazine	350*
Simazine	350*
Tributyltin compounds	4 (expressed as TBT)
Triphenyltin compounds	4 (expressed as TPT)
Trifluralin	20
Fenitrothion	2
Azinphos-methyl	2
Malathion	2
Endosulfan	0.5

* Where both Altrazine and Simazine are released, the figure for both substances in aggregate is 350 grammes.

References to certain substances

—(1) References in Part 2 to a substance listed in this paragraph are to any of the following substances—

- alkali metals and their oxides and alkaline earth metals and their oxides;
- organic solvents;
- azides;
- halogens and their covalent compounds;
- metal carbonyls;
- organo-metallic compounds;
- oxidising agents;
- polychlorinated dibenzofuran and any congener thereof;
- polychlorinated dibenzo-p-dioxin and any congener thereof;
- polyhalogenated biphenyls, terphenyls and naphthalenes;
- phosphorus;

pesticides.

In this paragraph, “pesticide” means any chemical substance or preparation prepared or used for destroying any pest, including those used for—

protecting plants or wood or other plant products from harmful organisms;

regulating the growth of plants;

giving protection against harmful creatures or rendering such creatures harmless;

controlling organisms with harmful or unwanted effects on water systems, buildings or other structures, or on manufactured products; or

protecting animals against ectoparasites.

PART 2
2.Activities
CHAPTER 1
Energy activities
SECTION 1.1
Combustion activities

Interpretation of Section 1.1

3. In this Section “recovered oil” means waste oil which has been processed before being used.

Part A(1)

Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts.

Unless carried on as part of a Part A(2) or Part B activity, burning any—

waste oil;

recovered oil; or

fuel manufactured from, or comprising, any other waste,

in an appliance with a rated thermal input of 3 or more megawatts, but less than 50 megawatts.

Note 1.1.1: “Appliance” is not defined in the Regulations nor in “Environmental Permitting Guidance: The IPPC Directive Part A(1) Installations and Part A(1) Mobile Plant”. The Oxford English Dictionary defines appliance as “a device or piece of equipment designed for a specific task”. “Appliance” includes gas turbines or reciprocating engines, whether compression or spark ignition.

Note 1.1.2: The reference to “rated thermal input” shall be taken to refer to gross, not net, input. From the latent heat released through condensation of combustion water vapour, “gross” for natural gas will be around 10% higher than “net”. For some hydrogen-rich streams it will be 15-20% higher, whilst for fuel oils it will be around 5% higher, and for coal or blast furnace gas hardly any higher at all.

Note 1.1.3: A flare for burning landfill gas is also an appliance. However, flares are abatement systems and therefore the gas is being burnt for disposal and not as a fuel (see Note 1.1.4 below in respect of landfill gas engines where the gas is used as a fuel), so Section 1.1 does not apply. Landfill flares incinerate waste and so could appear to fall within Section 5.1. However, “waste” for Section 5.1 is defined as including only solid or liquid wastes, and flares are therefore not covered under that section either so would only be controlled under Permits for Waste Operations under these regulations, unless as unlisted activities they form part of a landfill installation.

Note 1.1.4: It was intended that Part A(1)(b)(iii) should include energy recovery from landfill gas above 3 MW, including the generation of electricity, from all landfills that have a capacity >25000t, receive >10 tpd and are not inert-waste-only landfill. However, s1.1 Part A(1) Interpretation Note 5 in the Schedule has a drafting error which would widen this to allow >3MW engines to be listed on virtually all landfills, closed or operating. Assuming Interpretation Note 5 is changed from “these Regulations” to “this Schedule”, above should apply. Landfill-gas engines with the relevant capacity will be Section 1.1 A(1) listed activities (though not subject to WID as the waste is gas) but there is an exclusion from listing under Part B for appliances of <3MW capacity (see Part B Interpretation Note 2). However, if below 3MW, landfill gas-engines will still form part of the EP installation as they are likely to be directly associated with the landfill.

Note 1.1.5: For the purposes of this Part oils should not be taken to include vegetable oil to be used for human consumption. See the definition of “Waste Oils” in the rules on “Interpretation of Section 1.1” below.

Note 1.1.6: Where waste or waste-derived fuel is used see General Note 4 regarding whether an activity is covered by this Section or by Section 5.1.

Note 1.1.7: Section 5.1 (introduced in order to implement the WID) has the effect of transferring incineration and co-incineration plants which are subject to the WID, but which would otherwise be regulated under Part B (non-IPPC), into Part A(2) of Section 5.1. Any WID activities which would otherwise not be subject to the Regulations at all will also fall into Part A(2). (However, in both cases, if hazardous waste is burned, the activity will fall into Section 5.1 Part A(1)).

It should be noted that the movement of Part B co-incineration plant (e.g. roadstone coating plants using wastes as fuel) into Part A of Section 5.1 is simply for legal drafting purposes and does not mean that such plant have become either incineration plant or waste disposal activities. They remain co-incineration plant in the same way as Part A co-incineration plant which continue to fall under other sections of Part 1 of Schedule 1

Interpretation and application of Part A(1)

4. For the purpose of paragraph (a), where two or more appliances with an aggregate rated thermal input of 50 megawatts or more are operated on the same site by the same operator those appliances must be treated as a single appliance with a rated thermal input of 50 megawatts or more.

Note 1.1.8: This aggregation rule, specific to Section 1.1 Part A(1)(a), is slightly different to the general aggregation rule in paragraph 4 of Part 1 of Schedule 1 (see General Note 1). The effect of this specific rule is not only to aggregate the capacities of the separate combustion units, but also to treat them as a single appliance and thus as part of the same installation. In contrast, the general aggregation rule provides that the aggregate capacity is to be attributed to each part or unit, but does not require that the various units are considered to be part of the same installation. In most cases, however, similar units operated on the same site by the same operator will share common directly associated activities, which will make them part of the same installation in any case. For further guidance, see IPPC Regulatory Guidance Note No. 5 on Interpretation of "Installation" in the Regulations .

Note 1.1.9: Any appliance, including those with a rated thermal input below 3 MW, should be included in the aggregation for the purposes of this specific rule. This creates the possibility of a Section 1.1 A(1) combustion activity existing at a relatively large installation with multiple, but individually small-scale, combustion units.

Nothing in this Part of this Section applies to burning fuels in an appliance installed on an offshore platform situated on, above or below those parts of the sea adjacent to England and Wales from the low water mark to the seaward baseline of the United Kingdom territorial sea.

In paragraph 2, “offshore platform” means any fixed or floating structure which—
is used for the purposes of or in connection with the production of petroleum; and
in the case of a floating structure, is maintained on a station during the course of production,
but does not include any structure where the principal purpose of the use of the structure is the establishment of the existence of petroleum or the appraisal of its characteristics, quality or quantity or the extent of any reservoir in which it occurs.

In paragraph 3, “petroleum” includes any mineral oil or relative hydrocarbon and natural gas existing in its natural condition in strata but does not include coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation.

In paragraph (b)(iii), “fuel” does not include gas produced by biological degradation of waste in a landfill that does not require a permit under these Regulations. *[Note we consider this is a reference to this Schedule of the regulations]*

Part B

Unless falling within Part A(1)(a) of this Section—

Burning any fuel (other than a fuel mentioned in Part A(1)(b)) in—

- a boiler;
- a furnace;
- a gas turbine; or
- a compression ignition engine,

with a net rated thermal input of 20 or more megawatts, but a rated thermal input of less than 50 megawatts.

Burning any—

- waste oil;
- recovered oil;
- solid fuel which has been manufactured from waste by an activity involving the application of heat,

in an appliance with a rated thermal input of less than 3 megawatts.

Burning fuel manufactured from or including waste (other than a fuel mentioned in paragraph (b)) in any appliance with a net rated thermal input of 0.4 or more megawatts, but a rated thermal input of less than 3 megawatts—

which is used together with other appliances which each have a rated thermal input of less than 3 megawatts; and

where the aggregate net rated thermal input of all the appliances is at least 0.4 megawatts.

Interpretation and application of Part B

5. This Part does not apply to any activity falling within Part A(1) or Part A(2) of Section 5.1.

In this Part, “net rated thermal input” is the rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel and expressed as megawatts thermal.

In paragraph (c), “fuel” does not include gas produced by biological degradation of waste.

SECTION 1.2

Gasification, Liquefaction and Refining Activities

Part A(1)

Refining gas where this is likely to involve the use of 1,000 or more tonnes of gas in any period of 12 months.

Note 1.2.1: *“Gas” in this Section means not only mineral gases, obtained by mining or similar activities, but would also include biogas and mines gas.*

Note 1.2.2: *“Refining” means any activity undertaken to purify substances and separate them into their component parts. However, removing water and dust so that a gas can be used immediately as fuel, and using filters to protect machines from dust, would not be considered refining. The activity of refining gas also does not include the separation of oxygen and other gases from air. The reference to “use ... of gas” means refining such gas as feedstock and not gas burnt for ancillary purposes.*

Reforming natural gas.

Note 1.2.3: *“Reforming natural gas” should be taken to mean the conversion of methane to derivatives like hydrogen and carbon monoxide.*

Operating coke ovens.

Coal or lignite gasification.

Producing gas from oil or other carbonaceous material or from mixtures thereof, other than from sewage, unless the production is carried out as part of an activity which is a combustion activity (whether or not that combustion activity is described in Section 1.1).

Note 1.2.4: *Where gas is produced from any carbonaceous material including wood then, under the “most apt” rule, it should normally be dealt with under paragraph (e) rather than paragraph (j) of this Section.*

Purifying or refining any product of any of the activities falling within paragraphs (a) to (e) or converting it into a different product.

Refining mineral oils.

Note 1.2.5: *Some activities will both refine petroleum products and produce organic chemicals. If the chemicals are produced by the continuous separation of petroleum products by distillation or other refining processes or by the reformation of such product to produce other hydrocarbons principally for use in fuels, the activity should be treated under the “most apt” rule as falling within Section 1.2. An activity should be regarded as falling under Section 4.2 if it does not result from one of the above processes or where other reagents are added to the chemical process which are not present in either petroleum or the immediate products of distillation. For this purpose reagents should be taken to include solvents that are added to enable a reaction to proceed.*

The loading, unloading, handling or storage of, or the physical, chemical or thermal treatment of—
crude oil;
stabilised crude petroleum;
crude shale oil;
where related to another activity described in this paragraph, any associated gas or condensate; or
emulsified hydrocarbons intended for use as a fuel.

Note 1.2.6: *Subparagraph (v) includes “Orimulsion”.*

The further refining, conversion or use (otherwise than as a fuel or solvent) of the product of any activity falling within paragraphs (g) or (h) in the manufacture of a chemical.

Activities involving the pyrolysis, carbonisation, distillation, liquefaction, gasification, partial oxidation, or other heat treatment of—

coal (other than the drying of coal);

lignite;

oil;

other carbonaceous material; or
mixtures thereof,
otherwise than with a view to making charcoal.

Odourising natural gas or liquefied petroleum gas where that activity is related to a Part A activity.

Note 1.2.7: See note 1.2.4 above for the relationship between paragraphs (j) and (e).

Note 1.2.8: Pyrolysis is the application of heat to materials in the absence of air to break them down into other components. It is sometimes described as "dry distillation" and "carbonisation". The terms are applied both generally and specifically in relation to certain industries. Pyrolysis is used to produce charcoal, carbon black and coke.

Note 1.2.9: "Carbonisation" includes manufacture of carbon black.

Interpretation and application of Part A(1)

6. Paragraph (j) does not include—
- the use of any substance as a fuel;
 - the incineration of any substance as a waste;
 - any activity for the treatment of sewage or sewage sludge.

Note 1.2.10: The reference to the treatment of sewage in this interpretation rule is taken to mean that 1.2 A(1) (j) does not apply to any treatment of raw sewage or sewage sludge within a sewage treatment works.

Note 1.2.11: Paragraph (j), rather than any description listed in 5.1 applies only where a waste is subject to WID and the purpose of the activity is to produce a product or products which is/are not subsequently burned. Therefore, if a gasification/pyrolysis plant produces a number of products, any of which is subsequently burned, then the WID applies to the whole gasification/pyrolysis plant and it will fall to be permitted under Section 5.1. This is also the case where the product(s) are burned separately from the gasification/ pyrolysis plant (in remote units, whether owned by the same person or not). In such cases, the WID will apply both to the plants initially producing, as well as subsequently using, these products.

In paragraph (j), the heat treatment of oil, other than distillation, does not include the heat treatment of waste oil or waste emulsions containing oil in order to recover the oil from aqueous emulsions.

In this Part, "carbonaceous material" includes such materials as charcoal, coke, peat, rubber and wood, but does not include wood which has not been chemically treated.

Part A(2)

Refining gas where this activity does not fall within Part A(1)(a) of this Section

Part B

- (a) Odourising natural gas or liquefied petroleum gas, except where that activity is related to a Part A activity.

Blending odourant for use with natural gas or liquefied petroleum gas.

The storage of petrol in stationary storage tanks at a terminal, or the loading or unloading at a terminal of petrol into or from road tankers, rail tankers or inland waterway vessels.

The unloading of petrol into stationary storage tanks at a service station, if the total quantity of petrol unloaded into such tanks at the service station in any period of 12 months is likely to be 500m³ or more.

Motor vehicle refuelling activities at an existing service station after the prescribed date, if the petrol refuelling throughput at the existing service station in any period of 12 months is, or is likely to be, 3500m³ or more.

Motor vehicle refuelling activities at new service stations, if the petrol refuelling throughput at the service station in any period of 12 months is likely to be 500m³ or more.

Interpretation of Part B

7. In this Part—

“existing service station” means a service station—

which is put into operation; or

for which planning permission under the Town and Country Planning Act 1990⁽⁵⁾ was granted,

before 31st December 2009;

“inland waterway vessel” means a vessel, other than a sea-going vessel, having a total dead weight of 15 or more tonnes;

“new service station” means a service station which is put into operation on or after 31st December 2009, other than an existing service station;

“petrol” means any petroleum derivative (other than liquefied petroleum gas), with or without additives, having a Reid vapour pressure of 27.6 or more kilopascals, which is intended for use as a fuel for motor vehicles;

“prescribed date” means—

(a) if an application for the grant or variation of an environmental permit is made on or before 1st January 2010—

if the application is granted, the date of grant,

if the application is refused and the applicant appeals against the refusal, the date of the appeal determination or the date the appeal is withdrawn, or

if the application is refused, and the applicant does not appeal against the refusal, the day after the last day on which an appeal could have been brought; or

if no such application is made, 1st January 2010;

“service station” means any premises where petrol is dispensed to motor vehicle fuel tanks from stationary storage tanks;

“terminal” means any premises which are used for the storage and loading of petrol into road tankers, rail tankers or inland waterway vessels.

Any other expressions used in this Part which are also used in Directive 94/63/EC on the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations⁽⁶⁾ have the same meaning as in that Directive.

⁽⁵⁾ 1990 c.8.

⁽⁶⁾ OJ No. L 365, 31.10.1994, p24, as amended by Regulation (EC) No. 1882/2003 (OJ No. L 284, 31.10.2003, p1).

CHAPTER 2
Production and Processing of Metals
SECTION 2.1
Ferrous Metals

Interpretation of Section 2.1

8. In this Section, “ferrous alloy” means an alloy of which iron is the largest constituent, or equal to the largest constituent, by weight, whether or not that alloy also has a non-ferrous metal content greater than any percentage specified in Section 2.2.

Part A(1)

Roasting or sintering metal ore, including sulphide ore, or any mixture of iron ore with or without other materials.

Note 2.1.1: “Ore” means naturally occurring material which is extracted from the land or the sea bed.

Producing, melting or refining iron or steel or any ferrous alloy, including continuous casting, except where the only furnaces used are—
electric arc furnaces with a designed holding capacity of less than 7 tonnes, or
cupola, crucible, reverbatory, rotary, induction, vacuum, electro-slag or resistance furnaces.

Note 2.1.2: “Scarfig” and similar activities should normally be considered as associated activities within the installation of an integrated iron and steel works. See also IPPC Regulatory Guidance Series No. 5 on Interpretation of “Installation” in the Regulations.

Processing ferrous metals and their alloys by using hot-rolling mills with a production capacity of more than 20 tonnes of crude steel per hour.

Loading, unloading or otherwise handling or storing more than 500,000 tonnes in total in any period of 12 months of iron ore, except in the course of mining operations, or burnt pyrites.

Part A(2)

(a) Unless falling within Part A(1)(b) of this Section producing pig iron or steel, including continuous casting, in a plant with a production capacity of more than 2.5 tonnes per hour.

Operating hammers in a forge, the energy of which is more than 50 kilojoules per hammer, where the calorific power used is more than 20 megawatts.

Note 2.1.3: The reference to calorific power should be taken to refer to the power available to heat the work-piece in addition to any energy supplied to the hammering system.

Applying protective fused metal coatings with an input of more than 2 tonnes of crude steel per hour.

Note 2.1.4: “Fused metal coatings” includes hot dip galvanising.

Casting ferrous metal at a foundry with a production capacity of more than 20 tonnes per day.

Part B

(b) Unless falling within Part A(1)(b) of this Section, producing pig iron or steel, including continuous casting, in a plant with a production capacity of 2.5 or less tonnes per hour.

Unless falling within Part A(2)(a) or (d) of this Section, producing, melting or refining iron or steel or any ferrous alloy (other than producing pig iron or steel, including continuous casting) using—

one or more electric arc furnaces, none of which has a designed holding capacity of 7 or more tonnes; or

a cupola, crucible, reverberatory, rotary, induction, electro-slag or resistance furnace.

Desulphurising iron, steel or any ferrous alloy.

Heating iron, steel or any ferrous alloy (whether in a furnace or other appliance) to remove grease, oil or any other non-metallic contaminant (including such operations as the removal by heat of plastic or rubber covering from scrap cable) unless—

it is carried on in one or more furnaces or other appliances the primary combustion chambers of which have in aggregate a rated thermal input of less than 0.2 megawatts;

it does not involve the removal by heat of plastic or rubber covering from scrap cable or of any asbestos contaminant; and

it is not related to any other activity falling within this Part of this Section.

Unless falling within Part A(1) or Part A(2) of this Section, casting iron, steel or any ferrous alloy from deliveries of 50 or more tonnes of molten metal.

SECTION 2.2

Non-Ferrous Metals

Interpretation and application of Section 2.2

9. In this Section “non-ferrous metal alloy” means an alloy which is not a ferrous alloy, as defined in Section 2.1.

Part A(1)(c) to (h) and Part B do not apply to hand soldering, flow soldering or wave soldering.

Part A(1)

Unless falling within Part A(2) of this Section, producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities.

Note 2.2.1: Certain activities could be taken to be both "producing non-ferrous metals" under this activity description, and "melting non-ferrous metals" under 2.2 A(1) (b), 2.2 A(2) (a) or 2.2 B (a) (depending on the melting and holding capacities). In such cases it will be necessary to decide which description will apply for regulatory purposes. In this sense melting is a physical process involving a change in the state of the metal (and is defined to including "making alloys"), whereas producing involves bringing something into being that did not exist before. So when 2.2 A(1) (a) speaks of "producing non-ferrous metals", the implication is that the product is clearly non-ferrous metal in a way that the raw material is not. The relationship between the "producing" and "melting" activity descriptions for non-ferrous metals in general, where both could apply, is therefore as outlined in (i) - (iii) below. For lead and cadmium, however, there are additional considerations by virtue of 2.2 A(1) (d) and 2.2 A(1) (f) respectively - see Notes 2.2.4 and 2.2.6 below.

- (i) 2.2 A(1) (a) and 2.2 A(1) (b): *The distinction here is somewhat academic since an activity will fall under Part A(1) either way, and both activity descriptions have the same relevant period. The choice should simply be made on the basis of whichever description is the more apt - see General Note 4. The 2.2 A(1) (a) description will therefore be more apt where the principal purpose of a melting activity is to "produce" a non-ferrous metal. This could include production via the melting of*

secondary raw material (as defined in Note 2.2.2 below) where that material is not recognisably non-ferrous metal to start with, such that any melting and associated treatment is most aptly considered to be an operation that produces new metal. Conversely, the 2.2 A(1) (b) activity description will be more apt where the starting material is recognisably non-ferrous metal and the purpose of the melting is simply to refine it, cast it or otherwise change its physical but not substantially its chemical properties.

- (ii) *2.2 A(1) (a) and 2.2 A(2) (a): The 2.2 A(1) (a) activity description begins within the words "Unless falling within Part A(2) of this Section ...", and so any single production activity that involves melting, within the relevant capacity thresholds, will fall into the A(2) rather than the A(1) description. This can be assessed by considering whether, if the 2.2 A(1) (a) description did not exist, it would be reasonable to assign an activity to the 2.2 A(2) (a) description. If it would, then even if the 2.2 A(1) (a) description were arguably more apt, the 2.2 A(2) (a) description will prevail.*
- (iii) *2.2 A(1) (a) and 2.2 B (a): The 2.2 A(1) (a) description will prevail over the 2.2 B (a) description where both apply, even if the Part B description is arguably more apt. Thus melting that falls below the relevant 2.2 B (a) capacity threshold will nevertheless fall into 2.2 A(1) (a) if it can clearly be considered to be "producing". As described above, this requires the product to be in some way fundamentally different from the raw materials. A particular issue here concerns the melting of secondary raw materials (as defined in Note 2.2.2 below), which may or may not constitute "production" under 2.2 A(1) (a) depending on the nature of those materials, and would otherwise fall under 2.2 B (a). If a reasonable person were to be shown the secondary raw material to be placed in the furnace and asked whether it is non-ferrous metal, and the answer would be "no" or "partly", then the activity can be considered to be "production" under 2.2 A(1) (a). If the answer would be "yes" then the activity is not "production" and so remains as "melting" under 2.2 B (a). This means that melting grossly visibly contaminated scrap should be considered "production", i.e. scrap that obviously contains significant quantities of plastic, rubber, paint and other non-metallic material.*

Note 2.2.2: "Secondary raw materials" is not defined in the Regulations. However, the BREF for the Non-Ferrous Metals Industries and the Agency's Technical Guidance Note IPPC S2.03 make it clear that it encompasses all raw materials derived from previous use, i.e. any material arising from the production or use of metals, metal compounds, or products comprising or containing metallic components. This includes drosses, slags and scrap metal. Nevertheless, the simple fact that secondary raw materials are used does not automatically place an activity into 2.2 A(1) (a). The tests for inclusion in 2.2 A(1) (a) are, firstly, whether the activity is "producing" non ferrous metals by metallurgical, chemical or electrolytic activities and, secondly, whether it more appropriately falls into one of the other activity descriptions (e.g. 2.2 A(2) (a)) - see Note 2.2.1 above.

Note 2.2.3: How to determine whether metals are produced: If the result of an activity is a non-ferrous metal that is usable in a metallurgical sense, then that activity is taken to have produced non-ferrous metal even where processing raw materials which would not of themselves be described as non-ferrous metal. If such an activity produces an intermediate product, e.g. a non ferrous metal concentrate, which needs considerable further processing to produce non-ferrous metal that is usable in a metallurgical sense then that activity has not "produced a non-ferrous metal". The production instead occurs at the point where the non-ferrous metal is produced from the intermediate product.

Note 2.2.4: "Metallurgical activities" are limited to those involving heat. The cold processing of drosses and slags by crushing, milling, magnetic separation and screening to produce non-ferrous metals for further processing is, therefore, a Section 3.5 Part B (a) mineral activity (that may also

require a waste management licence). If it is carried out as part of a Part A activity, such as melting, then it would be an associated activity of the Part A activity.

The pressing of hot dross, which is carried out immediately after dross removal, is an intrinsic part of the melting activity and not a separate activity. (Dross pressing excludes air, preventing the metal from being lost by oxidation and thereby increasing recycling efficiency).

Melting, including making alloys, of non-ferrous metals, including recovered products (refining, foundry casting etc) where—

the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals; and

any furnace (other than a vacuum furnace), bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 or more tonnes.

Except where the activity is related to an activity described in Part A(2)(a), or Part B(a), (d) or (e) of this Section, refining any non-ferrous metal or alloy, other than the electrolytic refining of copper.

Producing, melting or recovering by chemical means or by the use of heat, lead or any lead alloy, if—

the activity may result in the release into the air of lead; and

in the case of lead alloy, the percentage by weight of lead in the alloy in molten form is more than 23 per cent if the alloy contains copper and 2 per cent in other cases.

Note 2.2.5: *Though the description in 2.2 A(1) (d) refers explicitly and solely to lead and lead alloy, and not to any other non-ferrous metals, it will still generally be more apt to place the melting of lead in 2.2 A(1) (b) or 2.2 A(2) (a) where relevant. This is because these activity descriptions not only also mention lead explicitly, but additionally they clearly establish an intended A(1)/A(2) division based on the holding capacity (see General Note 4). Where 2.2 A(1) (b) and 2.2 A(2) (a) do not apply, 2.2 A(1) (d) may be applicable, but see also General Note 3 on “may release”. Lead being melted below 450 °C with a fail-safe temperature control would not normally present a likelihood of releases of lead in detectable amounts that might cause harm (and therefore does not need abatement to control releases), and so would not fall within this description. Nevertheless, the activity size thresholds specified in other activity descriptions continue to apply even if there is no potential for release of lead to air. Lead melting (whether for purposes of production, recovery, or otherwise) may therefore fall under the following activity descriptions:*

- **Melting lead, or lead alloy including copper and containing > 23% lead, or other lead alloys containing >2% lead:**
 - ⇒ *in plant with a melting capacity of > 4 te/day, in furnaces with a holding capacity of ≥ 5 te: 2.2 A(1) (b) (unless the activity is more aptly described as "producing" under 2.2 A(1) (a) - see Note 2.2.1 (i) above)*
 - ⇒ *in plant with a melting capacity of > 4 te/day, in furnaces with a holding capacity of < 5 te: 2.2 A(2) (a)*
 - ⇒ *in plant with a melting capacity of ≤ 4 te/day, at > c. 450°C: 2.2 A(1) (d)*
 - ⇒ *in plant with a melting capacity of ≤ 4 te/day, at < c. 450°C: 2.2 B (a) (unless the activity can also be considered to constitute "production" under 2.2 A(1) (a) - see Note 2.2.1 (iii) above).*
- **Melting lead alloy containing copper and ≤ 23% lead, or other lead alloys containing ≤ 2% lead:**
 - ⇒ *in plant with a melting capacity of > 4 te/day, in furnaces with a holding capacity of ≥ 5 te: 2.2 A(1) (b) (unless the activity is more aptly described as "producing" under 2.2 A(1) (a) - see Note 2.2.1 (i) above)*
 - ⇒ *in plant with a melting capacity of > 4 te/day, in furnaces with a holding capacity of < 5 te: 2.2 A(2) (a)*

⇒ *in plant with a melting capacity of ≤ 4 te/day: 2.2 B (a) (unless the activity can also be considered to constitute "production" under 2.2 A(1) (a) - see Note 2.2.1 (iii) above).*

Recovering any gallium, indium, palladium, tellurium, or thallium if the activity may result in their release into the air.

Note 2.2.6: *See General Note 3 on "may release".*

Producing, melting or recovering (whether by chemical means or by electrolysis or by the use of heat) cadmium or mercury or any alloy containing more than 0.05 per cent by weight of either of those metals or both in aggregate.

Note 2.2.7: *Though the description in 2.2 A(1) (f) refers explicitly to cadmium, and otherwise only to mercury but not to any other non-ferrous metals, it will still generally be more apt to place the melting of cadmium in 2.2 A(1) (b) or 2.2 A(2) (a) where relevant. This is because these activity descriptions not only also mention cadmium explicitly, but additionally they clearly establish an intended A(1)/A(2) division based on the holding capacity (see General Note 4). However, the effect of the activity description in 2.2 A(1) (f) is that there is no size threshold for the application of IPPC to the melting of cadmium. Subject to any exclusions provided for by the interpretation rules in Part 2 of Schedule 1 (which allow e.g. exclusion of working museums), melting cadmium will always be a Part A activity, under either 2.2 A(1) (b) or 2.2 A(2) (a) if the melting capacity exceeds 4 tonnes (depending on the holding capacity), or under 2.2 A(1) (f) if the melting capacity is 4 tonnes or less. (In consequence, activity description 2.2 B (a) appears redundant in relation to melting cadmium).*

Mining zinc or tin bearing ores where the activity may result in the release into water of cadmium or any compound of cadmium in a concentration which is greater than the background concentration.

Note 2.2.8: *See General Note 3 on "may release"*

Manufacturing or repairing involving the use of beryllium or selenium or an alloy containing one or both of those metals, if the activity may result in the release into the air of any substance in paragraph 0 of Part 1; but an activity does not fall within this paragraph by reason of it involving an alloy that contains beryllium if that alloy in molten form contains less than 0.1 per cent by weight of beryllium and the activity falls within Part B(a) or (d) of this Section.

Note 2.2.8: *See General Note 3 on "may release"*

Pelletising, calcining, roasting or sintering any non-ferrous metal ore or any mixture of such ore and other materials.

Note 2.2.10: *for the purposes of this Section "Ore" means naturally occurring material which is extracted from the land.*

Interpretation of Part A(1)

10. In paragraph (g), "background concentration" means any concentration of cadmium or any compound of cadmium which would be present in the release irrespective of any effect the activity may have had on the composition of the release and, without prejudice to the generality of the foregoing, includes such concentration of those substances as is present in—

water supplied to the site where the activity is carried on;

water abstracted for use in the activity; and
precipitation onto the site on which the activity is carried on.

Part A(2)

- (a) Melting, including making alloys, of non-ferrous metals, including recovered products (refining, foundry casting, etc.) where—
- the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals, and no furnace (other than a vacuum furnace), bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 or more tonnes; or
 - the plant uses a vacuum furnace of any design holding capacity.

Part B

- (b) Melting, including making alloys, of non-ferrous metals (other than tin or any alloy which in molten form contains 50 per cent or more by weight of tin), including recovered products (refining, foundry casting, etc.) in plant with a melting capacity of 4 tonnes or less per day for lead or cadmium or 20 tonnes or less per day for all other metals.

The heating in a furnace or any other appliance of any non-ferrous metal or non-ferrous metal alloy for the purpose of removing grease, oil or any other non-metallic contaminant, including such operations as the removal by heat of plastic or rubber covering from scrap cable, if not related to another activity described in this Part of this Section; but an activity does not fall within this paragraph if—

- it involves the use of one or more furnaces or other appliances the primary combustion chambers of which have in aggregate a net rated thermal input of less than 0.2 megawatts; and
- it does not involve the removal by heat of plastic or rubber covering from scrap cable or of any asbestos contaminant.

Melting zinc or a zinc alloy in conjunction with a galvanising activity at a rate of 20 or less tonnes per day.

Melting zinc, aluminium or magnesium or an alloy of one or more of these metals in conjunction with a die-casting activity at a rate of 20 or less tonnes per day.

Unless falling within Part A(1) or Part A(2) of this Section, the separation of copper, aluminium, magnesium or zinc from mixed scrap by differential melting.

Interpretation and application of Part B

11. In this Part “net rated thermal input” is the rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel and expressed as megawatts thermal.

When determining the extent of an installation carrying on an activity within paragraph (e), any location where the associated storage or handling of scrap which is to be heated as part of that activity is carried on, other than a location where scrap is loaded into a furnace, must be ignored.

Note 2.2.11: Rule 2 above is specific to hand soldering, flow soldering or wave soldering and excludes these types of soldering from the particular activity descriptions identified. However, where the listed activity descriptions are dependent on releases to air (i.e. paragraphs (d), (e) and (g)), other soldering and tinning activities would also be excluded where they are carried out at such temperatures that metals or metal compounds cannot be released into the air or there is no likelihood of their release into the air which could cause pollution. See also General Note 3 on “may release”.

SECTION 2.3

Surface Treating Metals and Plastic Materials

Part A(1)

Unless falling within Part A(2) of this Section, surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m³.

Note 2.3.1: "Surface treating ...using an electrolytic or chemical process" means treatment in which there is a chemical reaction at the surface and the surface is altered chemically. Thus anodising (in which the aluminium surface is oxidised electrolytically) is surface treatment in this context, whilst electrolytic alkaline cleaning of a steel surface is not. This is because, although there an electrolytic reaction that produces hydrogen or oxygen gas, the surface is cleaned of grease or deposits by the physical scouring action of the bubbles; the surface itself is not altered chemically (Though this may not be the case if the polarity is reversed). Similarly electrophoretic painting is not included within this activity description because it is based on an electrostatic transport mechanism which does not chemically or electrolytically alter the surface of the metal or plastic.

Note 2.3.2: "Surface" means the base surface or any coating which is chemically bonded to it. An oxide coat is regarded as the surface, while paint is not. Thus oxide coat removal by pickling is regarded as surface treatment, while paint removal by immersion is not.

Note 2.3.3: "Treatment vats" means vats in which treatment by immersion takes place. Where the treatment – for example the application of a chemical to a surface – takes place by means such as spraying, and a vat is used simply to collect the residue from the activity, the vat is not a treatment vat.

Note 2.3.4: Surface treatment may use a number of vats in sequence for processes such as cleaning, plating and rinsing. All process steps that involve altering the surface as a result of an electrolytic or chemical process should be considered as "treating". Processes that do not involve chemical or electrolytic action do not fall under this definition. Thus the volume of the treatment vats should be calculated only as the total volume of vats used for process steps that involve alteration of the surface. Note that the 30m³ threshold is for aggregation across all activities undertaken on site by the same operator so unconnected vats which undertake any surface treatment that meets the definition will all be included.

Note 2.3.5: The following list summarises the types of immersion activity which do meet the description of "treatment" (ie. cause chemical change to the surface) and so contribute to the aggregation total for comparison with the 30m³ threshold

- *Electroplating, electroless (autocatalytic) plating, anodising, passivation, electro-polishing, pickling, activation, chromating, phosphating, bright dipping, chemical blacking, decorative oxidation, stripping (removal of plated metal), post-anodising sealing (both hot water and cold, eg. with nickel acetate solutions), and surface etching (but not "chemical milling" see Note 2.3.7,below); and*
- *Electrolytic cleaning may meet the description if voltage conditions are changed such that metal is removed as ions instead of scale being eroded by hydrogen liberation.*

The following do not meet the description of "treatment":

- *Rinsing, subsequent weak acid or alkaline dips to remove residual alkalinity or acidity, respectively, from previous treatment stages, alkaline soak cleaning of steel (and other metals that are unreactive under alkaline conditions), electrolytic alkaline soak (except where the polarity is reversible and/or conditions favour metal corrosion), bacterial cleaning, colour dying, and electrophoretic lacquering or painting.*

Note 2.3.6: The volume of the vat(s) determine whether an activity is listed, not the volume of the liquors used. The vat volume is considered to be the volume that can be contained up to the point of overflow.

Note 2.3.7: Chemical milling is carried out not to treat the surface of the materials but to reduce the dimensions. Therefore it is not a listed activity under this description. However, if the chemical milling activity uses acids of hydrogen fluoride or hydrogen chloride or other hydrogen halides as the etchant it may meet the activity description in section 4.2 Part A(1) (b)

Note 2.3.8: Cadmium platers using vats or vessels below 30m³ will still be covered by Section 4.2 Part A(1) (f) below but above this threshold applying the most apt rule (see General Note 4 above) cadmium plating would normally fit under this activity description. Where there are both cadmium plating and non-Cd surface treatment activities, s

Note 2.3.9: Activities meeting this listed description are not confined to plating, anodising or similar installations. Pickling operations before galvanising or cold-rolling of steel, for example, involve the same type of surface treatment as the pickling stage in plating shops, and should be regulated as such. Similarly, phosphating prior to painting is regarded as surface treatment.

2.3.10: If a surface cleaning activity, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is linked to other activities within this section and the consumption threshold is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations

2.3.11: Nitriding can be carried out by placing items in a furnace containing ammonia gas that is cracked to produce the required nitrogen. This technique is generally used for larger items. Alternatively it can be carried out by dipping items into molten salts or coating with salts and heating in a furnace, a technique generally used for smaller items. Neither process is analogous to immersion in vats containing solutions of treatment chemicals and therefore nitriding does not meet the listed description of surface treatment

Part A(2)

- (a) Surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m³ and where the activity is carried on at the same installation as one or more activities falling within—
 - Part A(2) or Part B of Section 2.1;
 - Part A(2) or Part B of Section 2.2; or
 - Part A(2) or Part B of Section 6.4.

Part B

- (b) Any process for the surface treatment of metal which is likely to result in the release into air of any acid-forming oxide of nitrogen and which does not fall within Part A(1) or Part A(2) of this Section.

CHAPTER 3

Mineral Industries

SECTION 3.1

Production of Cement and Lime

Part A(1)

- (c) Producing cement clinker or producing and grinding cement clinker.

Note 3.1.1: This activity description was substituted to make stand-alone grinding of cement clinker a Part A(2) activity under Part A(2) (a) below.

Producing lime—

in kilns or other furnaces with a production capacity of more than 50 tonnes per day; or
if the activity is likely to involve the heating in any period of 12 months of 5,000 or more tonnes of calcium carbonate or calcium magnesium carbonate or both in aggregate.

Part A(2)

(d) Unless falling with Part A(1) of this Section, grinding cement clinker.

Unless falling within Part A(1) of Section 2.1 or 2.2, grinding metallurgical slag in plant with a grinding capacity of more than 250,000 tonnes in any period of 12 months.

Part B

(e) Storing, loading or unloading cement or cement clinker in bulk prior to further transportation in bulk.

Blending cement in bulk or using cement in bulk other than at a construction site, including the bagging of cement and cement mixtures, the batching of ready-mixed concrete and the manufacture of concrete blocks and other cement products.

Slaking lime for the purpose of making calcium hydroxide or calcium magnesium hydroxide.

Producing lime where the activity is not likely to involve the heating in any period of 12 months of 5,000 or more tonnes of calcium carbonate or calcium magnesium carbonate or both in aggregate.

SECTION 3.2

Activities Involving Asbestos

Interpretation of Section 3.2

12. In this Section “asbestos” means any of the following fibrous silicates: actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite.

Part A(1)

Producing asbestos or manufacturing products based on or containing asbestos.

Stripping asbestos from railway vehicles except—

in the course of the repair or maintenance of the vehicle;

in the course of recovery operations following an accident; or

where the asbestos is permanently bonded in cement or in any other material (including plastic, rubber or resin).

Destroying a railway vehicle by burning if asbestos has been incorporated in, or sprayed on to, its structure.

Part B

(a) Unless related to an activity falling within Part A(1) of this Section, the industrial finishing of—

asbestos cement;

asbestos cement products;
asbestos fillers;
asbestos filters;
asbestos floor coverings;
asbestos friction products;
asbestos insulating board;
asbestos jointing, packaging and reinforcement material;
asbestos packing;
asbestos paper or card; or
asbestos textiles.

SECTION 3.3

Manufacturing Glass and Glass Fibre

Part A(1)

(b) Manufacturing glass fibre.

Manufacturing glass frit or enamel frit and its use in any activity where that activity is related to its manufacture and the aggregate quantity of such substances manufactured in any period of 12 months is likely to be 100 or more tonnes.

Part A(2)

(c) Manufacturing glass, unless falling within Part A(1) of this Section, where the melting capacity of the plant is more than 20 tonnes per day.

Part B

Unless falling within Part A(1) or Part A(2) of this Section—

(d) Manufacturing glass at any location with the capacity to make 5,000 or more tonnes of glass in any period of 12 months, and any activity involving the use of glass which is carried on at any such location in conjunction with its manufacture.

Manufacturing glass where the use of lead or any lead compound is involved.

Manufacturing any glass product where lead or any lead compound has been used in the manufacture of the glass except—

making products from lead glass blanks; or

melting, or mixing with another substance, glass manufactured elsewhere to produce articles such as ornaments or road paint.

Polishing or etching glass or glass products in the course of any manufacturing activity if—

hydrofluoric acid is used; or

hydrogen fluoride may be released into the air.

Manufacturing glass frit or enamel frit and its use in any activity where that activity is related to its manufacture.

SECTION 3.4

Production of Other Mineral Fibres

Part A(1)

(e) Unless falling within Part A(1) or Part A(2) of Section 3.3, melting mineral substances in plant with a melting capacity of more than 20 tonnes per day.

Unless falling within Part A(1) of Section 3.3, producing any fibre from any mineral.

SECTION 3.5

Other Mineral Activities

Part A(2)

- (f) Manufacturing cellulose fibre reinforced calcium silicate board using unbleached pulp.

Part B

- (g) Unless falling within Part A(1) or Part A(2) of any Section, the crushing, grinding or other size reduction, other than the cutting of stone, or the grading, screening or heating of any designated mineral or mineral product except where the operation of the activity is unlikely to result in the release into the air of particulate matter.

Any of the following activities unless carried on at an exempt location—

crushing, grinding or otherwise breaking up coal, coke or any other coal product;

screening, grading or mixing coal, coke or any other coal product;

loading or unloading petroleum coke, coal, coke or any other coal product except unloading on retail sale.

The crushing, grinding or other size reduction, with machinery designed for that purpose, of bricks, tiles or concrete.

Screening the product of any activity described in paragraph (c).

Coating road stone with tar or bitumen.

Loading, unloading, or storing pulverised fuel ash in bulk prior to further transportation in bulk.

The fusion of calcined bauxite for the production of artificial corundum.

Interpretation and application of Part B

13. In this Part—

“coal” includes lignite;

“designated mineral or mineral product” means—

clay, sand and any other naturally occurring mineral other than coal;

metallurgical slag;

boiler or furnace ash produced from the burning of coal, coke or any other coal product;

gypsum which is a by-product of any activity;

“exempt location” means—

- (a) any premises used for the sale of petroleum coke, coal, coke or any coal product where the throughput of such substances at those premises in any period of 12 months is in aggregate likely to be less than 10,000 tonnes; or

any premises to which petroleum coke, coal, coke or any coal product is supplied only for use there;

“retail sale” means sale to the final customer.

This Part does not apply to any activity carried on underground.

SECTION 3.6
Ceramic Production

Part A(1)

Manufacturing ceramic products (including roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain) by firing in kilns, where—
the kiln production capacity is more than 75 tonnes per day; or
the kiln capacity is more than 4m³ and the setting density is more than 300 kg/m³,
and a reducing atmosphere is used other than for the purposes of colouration.

Note 3.6.1: For this purpose ceramic products includes fired heavy clay goods, fired refractory materials and calcined clays.

Part A(2)

(b) Unless falling within Part A(1) of this Section, manufacturing ceramic products (including roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain) by firing in kilns, where—
the kiln production capacity is more than 75 tonnes per day; or
the kiln capacity is more than 4m³ and the setting density is more than 300 kg/m³.

Part B

(c) Unless falling within Part A(1) or A(2) of this Section, firing heavy clay goods or refractory materials (other than heavy clay goods) in a kiln.
Vapour glazing earthenware or clay with salts.

Interpretation of Part B

14. In this Part—

“clay” includes a blend of clay with ash, sand or other materials;

“refractory material” means material (such as fireclay, silica, magnesite, chrome-magnesite, sillimanite, sintered alumina, beryllia and boron nitride) which is able to withstand high temperatures and to function as a furnace lining or in other similar high temperature applications.

CHAPTER 4

The Chemical Industry

Interpretation of Chapter 4

15. In Part A(1) of the Sections of this Chapter, “producing” means producing in a chemical plant by chemical processing for commercial purposes substances or groups of substances listed in the relevant Sections.

Note 4.0: All three of the tests in Notes 4.1, 4.2 and 4.3 must be met for an activity to meet the requirement to be “producing”.

*Note 4.1: **Chemical Processing:***

“Chemical Processing” should be taken to mean that a chemical reaction takes place as a fundamental part of the activity. Mixing substances which do not chemically react should not be considered as chemical processing, nor should simple adjustment of pH following a formulation

operation or mixing operations (often to finish a product) where some minor incidental reactions do occur.

In this context “incidental” means:

- (a) only a small mass or molar proportion of the substances in the mixture are involved in any chemical reaction (after discounting water or other solvent) ; and
- (b) any products of such a reaction remain in the mixture and are not separated, extracted, or released to the environment;

Examples of incidental reactions in mixing operations are ones which change the physical characteristics of a formulation, such as viscosity, or adjusting the pH to a consumer-acceptable value.

Mixing slurries, solutions or damp solids and then treating the mixture (e.g. by heating, drying, crystallisation or precipitation) so that the substances in the product have a different molecular (including crystal) structure from their precursors is considered to be chemical processing. Examples include the production of oxide pigments, complex salt crystals or chemicals produced in calcining furnaces. The only exceptions, apart from minor pH adjustment and the "incidental" exceptions above, are where the change is minor, like changes to water of crystallisation, or is easily reversible.

Note 4.2: **Chemical Plant**

“Chemical Plant” should be taken to mean industrial plant and machinery (i.e. not domestic equipment) which is designed and constructed for the containment and control of the chemical reaction(s) that takes place as part of the chemical process. A reaction vessel would normally constitute "chemical plant" whereas a reaction on an open surface or within a mould designed to produce a final product shape would not normally constitute “producing in chemical plant”. “Industrial” plant and machinery is that which is suitable for commercial production – generally but not necessarily in tonnes per annum quantities - of a particular chemical or closely related range of chemicals. Plant for producing tonnage quantities of individual chemicals per year will clearly be industrial but the production of smaller quantities may also be carried out in “chemical plant”. For example, for laboratory or research chemicals, "industrial" plant could be arrays of standard reconfigurable laboratory glass equipment - but such plant would normally be regarded as being of industrial scale only if the total annual output of chemical products is likely to exceed 1 tonne or the production of any single product (or group of related products) is likely to exceed 100 kg in any 12 month period. However, in the pharmaceutical and plant health product sectors, where substances with specific physiological activity are the products, the "active ingredient" products are generally of high value and produced in relatively small volumes so "industrial" plant could be smaller. For "active ingredient" production, "industrial" plant should generally be taken to mean that associated with single product production likely to exceed 20 kg in any 12 month period.

- **Example 1:** A soap manufacturer producing hundreds of tonnes of soap per year would clearly be using industrial plant and machinery whereas a craft soap-producer making soap in domestic outhouses or lock-up premises with domestic equipment normally would not be.
- **Example 2:** A laboratory chemicals producer manufacturing a total of 1.5 tonnes per year of numerous catalogued chemicals, mainly in conventional small-scale laboratory glassware, and a small specialist chemical producer making 150 kg per year of a single product would both need Permits. On the other hand, an operator

who has plant and equipment which is unlikely to make in a 12 month period more than 100 kg of a single (or closely related group of) chemical product(s) and unlikely to exceed an output of 1 tonne/annum in total, should not be regarded as having "industrial" plant.

- ***Example 3:** A "research laboratory" capable of producing within a few months, two or three 10 kg batches of a single potential pharmaceutical active ingredient for a pharmaceutical company should be regarded as utilising "industrial" plant.*

Owing to the very wide variety of installations across the small-scale organic and inorganic chemical sectors, it may not always be clear from the examples above if a particular plant is "industrial plant". Where there is doubt, the matter should be referred to PIR Process Management for advice.

NB: Once an operation has been determined to meet the three Chapter 4 criteria above and the boundaries of the installation are agreed, all emissions to the environment from any activities undertaken using plant or equipment considered to be part of the installation will be emissions from the installation. For example, releases of solvent from testing or experimental activities will be subject to the Conditions of the Permit if undertaken within the installation.

Note 4.3: Commercial Purposes

"Commercial purposes" means conducting an activity, alone or with another activity, to meet a demand from another organisation or person for the chemical produced and receiving financial payment for it. An exception arises where the demand comes from market testing in which case, even though there may be no direct financial payment for it, the production activity is regarded as constituting "commercial purposes" since there is a clear intention to proceed to commercial sales subject only to the outcome of the test.

- ***Example 1:** Producing a pharmaceutical active ingredient in-house for the purposes of pre-clinical or Phase 1 or 2 clinical trials to check its toxicity or its basic therapeutic properties is not regarded as "producing" because at this stage it is still not clear if the product will become commercial. Only after Phase 3 (optimisation of dose) trials are complete is the pharmaceutical likely to be put into commercial production. Phase 3 is equivalent to market testing for a conventional effect chemical, and the point at which production is considered to move to a "commercial purpose" instead of being for research purposes.*
- ***Example 2:** Producing a pesticide in multi-kilogram quantities for the purpose of field tests by farmers would be an example of production for market testing and therefore production for "commercial purposes"; producing the same pesticide in-houses in smaller quantities to establish basic efficacy or undesirable effects, would normally be a research activity. In general, when undertaken in-house, only production intended to test or demonstrate the commercial viability of the pesticide (usually through distribution to third parties) would be likely to meet the test for "commercial purposes".*
- ***Example 3:** Making (by chemical reaction) and developing a new surfactant or other effect chemical product is only likely to be considered to have reached the "commercial purposes" stage when the substance is being produced in sufficient*

quantity for distribution to, and test-used by, a number of identified potential customers. This is analogous to the external field-trial stage for market testing of an agrochemical and would be the last stage before the effect-chemical is expected to be released for general sale.

- **Example 4:** *Producing a novel substance (or even supplying a known compound) for the R&D programme of a separate pharmaceutical company is considered to be producing for "commercial purposes", whatever the end-use of the substance supplied - but the requirement for a Permit will also depend on whether or not the installation meets the "industrial" and other criteria for "Chemical plant" (Note 4.2).*

Note 4.4: *"Manufacturing" (used in specific activity descriptions, e.g. 4.2 A(1) (h)) includes a wider range of activities than "producing" and is not limited to those involving a chemical reaction in chemical plant, even where the product can be described as being a "chemical". However, its meaning should still be taken to include "for commercial purposes". The most common scenario for the "manufacture of a chemical" is mixing or formulation - but simple dilution of acids, alkalis or salts would not usually be regarded as listed activities.*

SECTION 3.7

Ceramic Production

Part A(1)

Manufacturing ceramic products (including roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain) by firing in kilns, where—

the kiln production capacity is more than 75 tonnes per day; or

the kiln capacity is more than 4m³ and the setting density is more than 300 kg/m³,

and a reducing atmosphere is used other than for the purposes of colouration.

Note 3.6.1: *For this purpose ceramic products includes fired heavy clay goods, fired refractory materials and calcined clays.*

Part A(2)

(a) Unless falling within Part A(1) of this Section, manufacturing ceramic products (including roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain) by firing in kilns, where—

the kiln production capacity is more than 75 tonnes per day; or

the kiln capacity is more than 4m³ and the setting density is more than 300 kg/m³.

Part B

(b) Unless falling within Part A(1) or A(2) of this Section, firing heavy clay goods or refractory materials (other than heavy clay goods) in a kiln.

Vapour glazing earthenware or clay with salts.

Interpretation of Part B

16. In this Part—

“clay” includes a blend of clay with ash, sand or other materials;

“refractory material” means material (such as fireclay, silica, magnesite, chrome-magnesite, sillimanite, sintered alumina, beryllia and boron nitride) which is able to withstand high temperatures and to function as a furnace lining or in other similar high temperature applications.

CHAPTER 4

The Chemical Industry

Interpretation of Chapter 4

17. In Part A(1) of the Sections of this Chapter, “producing” means producing in a chemical plant by chemical processing for commercial purposes substances or groups of substances listed in the relevant Sections.

Note 4.0: All three of the tests in Notes 4.1, 4.2 and 4.3 must be met for an activity to meet the requirement to be “producing”.

Note 4.1: Chemical Processing:

“Chemical Processing” should be taken to mean that a chemical reaction takes place as a fundamental part of the activity. Mixing substances which do not chemically react should not be considered as chemical processing, nor should simple adjustment of pH following a formulation operation or mixing operations (often to finish a product) where some minor incidental reactions do occur.

In this context “incidental” means:

- (a) only a small mass or molar proportion of the substances in the mixture are involved in any chemical reaction (after discounting water or other solvent) ; and*
- (b) any products of such a reaction remain in the mixture and are not separated, extracted, or released to the environment;*

Examples of incidental reactions in mixing operations are ones which change the physical characteristics of a formulation, such as viscosity, or adjusting the pH to a consumer-acceptable value.

Mixing slurries, solutions or damp solids and then treating the mixture (e.g. by heating, drying, crystallisation or precipitation) so that the substances in the product have a different molecular (including crystal) structure from their precursors is considered to be chemical processing. Examples include the production of oxide pigments, complex salt crystals or chemicals produced in calcining furnaces. The only exceptions, apart from minor pH adjustment and the "incidental" exceptions above, are where the change is minor, like changes to water of crystallisation, or is easily reversible.

Note 4.2: Chemical Plant

“Chemical Plant” should be taken to mean industrial plant and machinery (i.e. not domestic equipment) which is designed and constructed for the containment and control of the chemical reaction(s) that takes place as part of the chemical process. A reaction vessel would normally constitute "chemical plant" whereas a reaction on an open surface or within a mould designed to produce a final product shape would not normally constitute “producing in chemical plant”. “Industrial” plant and machinery is that which is suitable for commercial production – generally but not necessarily in tonnes per annum quantities - of a particular chemical or closely related range of chemicals. Plant for producing tonnage quantities of individual chemicals per year will clearly be industrial but the production of smaller quantities may also be carried out in “chemical plant”. For example, for laboratory or research chemicals, "industrial" plant could be

arrays of standard reconfigurable laboratory glass equipment - but such plant would normally be regarded as being of industrial scale only if the total annual output of chemical products is likely to exceed 1 tonne or the production of any single product (or group of related products) is likely to exceed 100 kg in any 12 month period. However, in the pharmaceutical and plant health product sectors, where substances with specific physiological activity are the products, the "active ingredient" products are generally of high value and produced in relatively small volumes so "industrial" plant could be smaller. For "active ingredient" production, "industrial" plant should generally be taken to mean that associated with single product production likely to exceed 20 kg in any 12 month period.

- **Example 1:** A soap manufacturer producing hundreds of tonnes of soap per year would clearly be using industrial plant and machinery whereas a craft soap-producer making soap in domestic outhouses or lock-up premises with domestic equipment normally would not be.
- **Example 2:** A laboratory chemicals producer manufacturing a total of 1.5 tonnes per year of numerous catalogued chemicals, mainly in conventional small-scale laboratory glassware, and a small specialist chemical producer making 150 kg per year of a single product would both need Permits. On the other hand, an operator who has plant and equipment which is unlikely to make in a 12 month period more than 100 kg of a single (or closely related group of) chemical product(s) and unlikely to exceed an output of 1 tonne/annum in total, should not be regarded as having "industrial" plant.
- **Example 3:** A "research laboratory" capable of producing within a few months, two or three 10 kg batches of a single potential pharmaceutical active ingredient for a pharmaceutical company should be regarded as utilising "industrial" plant.

Owing to the very wide variety of installations across the small-scale organic and inorganic chemical sectors, it may not always be clear from the examples above if a particular plant is "industrial plant". Where there is doubt, the matter should be referred to PIR Process Management for advice.

NB: Once an operation has been determined to meet the three Chapter 4 criteria above and the boundaries of the installation are agreed, all emissions to the environment from any activities undertaken using plant or equipment considered to be part of the installation will be emissions from the installation. For example, releases of solvent from testing or experimental activities will be subject to the Conditions of the Permit if undertaken within the installation.

Note 4.3: [Commercial Purposes](#)

“Commercial purposes” means conducting an activity, alone or with another activity, to meet a demand from another organisation or person for the chemical produced and receiving financial payment for it. An exception arises where the demand comes from market testing in which case, even though there may be no direct financial payment for it, the production activity is regarded as constituting “commercial purposes” since there is a clear intention to proceed to commercial sales subject only to the outcome of the test.

- ***Example 1:*** Producing a pharmaceutical active ingredient in-house for the purposes of pre-clinical or Phase 1 or 2 clinical trials to check its toxicity or its basic therapeutic properties is not regarded as "producing" because at this stage it is still not clear if the product will become commercial. Only after Phase 3 (optimisation of dose) trials are complete is the pharmaceutical likely to be put into commercial production. Phase 3 is equivalent to market testing for a conventional effect chemical, and the point at which production is considered to move to a "commercial purpose" instead of being for research purposes.
- ***Example 2:*** Producing a pesticide in multi-kilogram quantities for the purpose of field tests by farmers would be an example of production for market testing and therefore production for "commercial purposes"; producing the same pesticide in-houses in smaller quantities to establish basic efficacy or undesirable effects, would normally be a research activity. In general, when undertaken in-house, only production intended to test or demonstrate the commercial viability of the pesticide (usually through distribution to third parties) would be likely to meet the test for "commercial purposes".
- ***Example 3:*** Making (by chemical reaction) and developing a new surfactant or other effect chemical product is only likely to be considered to have reached the "commercial purposes" stage when the substance is being produced in sufficient quantity for distribution to, and test-used by, a number of identified potential customers. This is analogous to the external field-trial stage for market testing of an agrochemical and would be the last stage before the effect-chemical is expected to be released for general sale.
- ***Example 4:*** Producing a novel substance (or even supplying a known compound) for the R&D programme of a separate pharmaceutical company is considered to be producing for "commercial purposes", whatever the end-use of the substance supplied - but the requirement for a Permit will also depend on whether or not the installation meets the "industrial" and other criteria for "Chemical plant" (Note 4.2).

Note 4.4: "**Manufacturing**" (used in specific activity descriptions, e.g. 4.2 A(1) (h)) includes a wider range of activities than "producing" and is not limited to those involving a chemical reaction in chemical plant, even where the product can be described as being a "chemical". However, its meaning should still be taken to include "for commercial purposes". The most common scenario for the "manufacture of a chemical" is mixing or formulation - but simple dilution of acids, alkalis or salts would not usually be regarded as listed activities.

SECTION 4.1

Organic Chemicals

Interpretation of Section 4.1

18. In this Section, "pre-formulated resin or pre-formulated gel coat" means any resin or gel coat which has been formulated before being introduced into polymerisation or co-polymerisation activity, whether or not the resin or gel coat contains a colour pigment, activator or catalyst.

Part A(1)

Note 4.1.1: A "**chemical**": means an individual substance or related substances obtained by, or used in, chemical processing including biochemical and electrochemical processes. A "chemical" will generally have been separated and extracted or concentrated so that it is an identifiable substance in a form which is capable of further physical or chemical processing - but a few may be available for final consumer use with little further processing (e.g. polymerisation of methyl methacrylate to produce whole sheets of transparent Perspex directly, instead of the more usual powder, chips or resin in polymer industries). "Chemicals" include substances in solution as well as solids, liquids and gases. However, chemical substances produced in situ for immediate use (e.g. pesticides in cooling towers, plating chemicals in plating vats) are not "chemicals" in the context of Chapter 4.

- **Example 1:** The fermentation of sugar products or the growing of bacteria or fungi in fermenters, followed by the separation and extraction of protein or a specific compound (e.g. penicillin or alcohol) is considered production of "a chemical", whereas similar biochemical processes that produce mixtures like vinegar, beer, or cheese or produce whole organisms like yeast, would not be (even if they were not more aptly described as "food").
- **Example 2:** A consumer product which is a mixture of effect chemicals (e.g. a formulated hair shampoo) would not normally be considered "a chemical" because the product is not an identifiable individual substance or related substances.

Producing organic chemicals such as—

hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic);
organic compounds containing oxygen, such as alcohols, aldehydes, ketones, carboxylic acids, esters, ethers, peroxides, phenols, epoxy resins;

Note 4.1.2: Biodiesel in which vegetable oil is trans-esterified with methanol or ethanol would appear to fall within this activity description as production of esters. Where such oil is merely filtered regard would have to be had to Chapter 5 section 5.3 activity descriptions although such an activity would normally appear to require a EP Permit under Schedule 3.

organic compounds containing sulphur, such as sulphides, mercaptans, sulphonic acids, sulphonates, sulphates and sulphones and sulphur heterocyclics;
organic compounds containing nitrogen, such as amines, amides, nitrous-, nitro- or azo-compounds, nitrates, nitriles, nitrogen heterocyclics, cyanates, isocyanates, di-isocyanates and di-isocyanate prepolymers;

Note 4.1.3: Quaternary ammonium salts (i.e. salts in which all 4 H-atoms have been substituted), for the purposes of Regulations Schedule 1 designation, should be taken to be organic compounds as they are almost always prepared solely from organic substances - but note that amine salts or inorganic acids (e.g. dimethylamine hydrochloride) are to be regarded as inorganic salts for the same reason as metal salts of organic acids (See Note 4.2.3).

organic compounds containing phosphorus, such as substituted phosphines and phosphate esters;

organic compounds containing halogens, such as halocarbons, halogenated aromatic compounds and acid halides;
organometallic compounds, such as lead alkyls, Grignard reagents and lithium alkyls;
plastic materials, such as polymers, synthetic fibres and cellulose-based fibres;

Note 4.1.4: *This sub-section should be used for the production of all macromolecular or polymer substances, other than epoxy resins, synthetic rubbers and di-isocyanate prepolymers. Epoxy resins fall into (ii) above, synthetic rubbers have their own sub-section ((ix) below), and partially polymerised di-isocyanates or di-isocyanate prepolymers, whilst meeting this description (or even that of sub-section (ix)) are probably most appropriately kept in the same section as the manufacture of di-isocyanates themselves (i.e. (iv) above).*

Note 4.1.5: *This sub-section should include the manufacture of alkyd, polyester and acrylic resins.*

synthetic rubbers;
dyes and pigments;
surface-active agents.

Note 4.1.6: *“Surface-active agents” must have detergent and/or surfactant properties but the compounds need not be in the final consumer form to fit this activity description.*

Note 4.1.7: *The production of salts of organic acids which have surfactant properties and are primarily made for use in soaps or detergents is included in this sub-section (and not in sub-section 4.2(a)(iv)).*

Producing any other organic compounds not described in paragraph (a).

Polymerising or co-polymerising any unsaturated hydrocarbon or vinyl chloride (other than a pre-formulated resin or pre-formulated gel coat which contains any unsaturated hydrocarbon) which is likely to involve, in any period of 12 months, the polymerisation or co-polymerisation of 50 or more tonnes of any of those materials, or any combination of those materials in aggregate.

Note 4.1.8: *This sub-section covers polymerisation outside chemical plant e.g. in final product moulds. Polymerisation of vinyl chloride to PVC powder or chips, or equivalent operations to make polystyrene or other polyalkene-containing thermoplastic chips, are covered in 4.1 A(1) (a) (viii).*

Any activity involving the use in any period of 12 months of 1 or more tonnes of toluene di-isocyanate or other di-isocyanate of comparable volatility or, where partly polymerised, the use of partly polymerised di-isocyanates or prepolymers containing 1 or more tonnes of those monomers, if the activity may result in a release into the air which contains such a di-isocyanate monomer.

Note 4.1.9: *The inclusion of di-isocyanates other than TDI in this section is determined by the respective vapour pressures of the substances relative to those of TDI and MDI at 20°C.*

Di-isocyanates known to be in use which can be considered to be comparable to TDI (2,4/2,6-Toluene-DI) are:-

HDI (1,6-Hexamethylene-); PPDI (1,4-Phenylene-);
XDI (Xylylene-); CHDI (Cyclohexane-1,4-);
HXDI (1,3-bis(isocyanatomethyl)cyclohexane-);

Di-isocyanates known to be in use which can be considered to be more like MDI (Diphenylmethane-4,4-DI), and not comparable to TDI, are:-

IPDI (*Isophorone-*); **HMDI** (*Dicyclohexylmethane-4,4-*);
NDI (*1,5-Naphthylene-*); **TMDI** (*2,2,4/2,4,4-Trimethyl hexamethylene-*);

Di-NCOs shown in bold are more common than the others (but much less common than TDI and MDI).

Note 4.1.10: This description covers activities where TDI or equivalent di-isocyanates are used to make finished objects or products designed for consumer use. Where TDI or similar di-isocyanate is used to make reactive products or intermediates (usually in liquid form and packaged in drums) which are not destined for the consumer market the most apt description is 4.1 A(1) (a) (iv) (as it is for the production of MDI- or any other di-isocyanate-derived intermediates) .

The flame bonding of polyurethane foams or polyurethane elastomers.

Recovering—

carbon disulphide;

pyridine or any substituted pyridine.

Recovering or purifying acrylic acid, substituted acrylic acid or any ester of acrylic acid or of substituted acrylic acid.

Part B

(a) Unless falling within Part A(1) of this Section, any activity where the carrying on of the activity by the person concerned at the location in question is likely to involve the use in any 12 month period of 5 tonnes or more of any di-isocyanate or of any partly polymerised di-isocyanate or, in aggregate, of both.

Cutting polyurethane foams or polyurethane elastomers with heated wires.

Any activity for the polymerisation or co-polymerisation of any pre-formulated resin or pre-formulated gel coat which contains any unsaturated hydrocarbon, where the activity is likely to involve, in any period of 12 months, the polymerisation or co-polymerisation of 100 or more tonnes of unsaturated hydrocarbon.

Unless falling within Part A(1) of this Section, any activity involving the use of toluene di-isocyanate or partly polymerised di-isocyanate if—

less than 1 tonne of toluene di-isocyanate monomer is likely to be used in any 12 month period; and

the activity may result in a release into the air which contains toluene di-isocyanate.

SECTION 4.2

Inorganic Chemicals

Part A(1)

Note 4.2.1: See Note 4.1.1 for the meaning of a "**chemical**".

(b) Producing inorganic chemicals such as—

gases, such as ammonia, hydrogen chloride, hydrogen fluoride, hydrogen cyanide, hydrogen sulphide, oxides of carbon, sulphur compounds, oxides of nitrogen, hydrogen, oxides of sulphur, phosgene;

Note 4.2.2: *The cryogenic or pressure swing adsorption separation of oxygen, nitrogen and other gases from air are physical processes where no chemical reaction takes place. Thus these are not listed activities.*

Note 4.2.2a: *Where hydrogen, CO or CO₂ are produced from hydrocarbons or other organic substances by steam reforming/shift reaction, s4.1(a)(i) [s4.1(a)(a)] is the most apt description - with the explicit exception of natural gas reforming where s1.2(b) applies.*

acids, such as chromic acid, hydrofluoric acid, hydrochloric acid, hydrobromic acid, hydroiodic acid, phosphoric acid, nitric acid, sulphuric acid, oleum and chlorosulphonic acid;

bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide;

Note 4.2.2b: *This section should not be used for calcium hydroxide*

salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate;

Note 4.2.3: *The purification of Common Salt for consumption from naturally occurring sources is not a listed activity as it does not involve chemical processing.*

Note 4.2.4: *This subsection includes the production of all metal salts of organic acids other than those (generally longer-chain molecules) whose primary use is as the surfactant agent in soaps or detergents and are covered by s4.1(a)(xi) [or k].*

non-metals, metal oxides, metal carbonyls or other inorganic compounds such as calcium carbide, silicon, silicon carbide, titanium dioxide;

halogens or interhalogen compound comprising two or more of halogens, or any compound comprising one or more of those halogens and oxygen.

Unless falling within any other Section, any manufacturing activity which is likely to result in the release into the air of any hydrogen halide (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to result in the release into the air or water of any halogen or any of the compounds mentioned in paragraph (a)(vi) (other than the treatment of water).

Note 4.2.5: *Note that although the firing of brick and tile products may release HF, such activities will not fall into this activity description if they are covered by any activity description in Section 3.6 Parts A(1), (2) or B.*

Note 4.2.6: *Although the dilution of strong HX acids to make weaker grades can be listed activities under this sub-section, only source acids that are particularly strong or above ambient temperature are likely to release HX vapour in sufficient quantities to be considered significantly harmful. Thus, dilution of 20°C 36% HCl generally will be considered not to meet this description - unless poor operational techniques cause visible or nuisance emissions of HCl*

Unless falling within any other Section, any manufacturing activity involving the use of hydrogen cyanide or hydrogen sulphide.

Unless falling within any other Section, any manufacturing activity (other than the application of a glaze or vitreous enamel) involving the use of, or the use or recovery of, any compound of any of the following elements—

antimony;

arsenic;

beryllium;

gallium;
indium;
lead;
palladium;
platinum;
selenium;
tellurium;
thallium,

where the activity may result in the release into the air of any of those elements or compounds or the release into water of any substance listed in paragraph 0 of Part 1.

Recovering any compound of cadmium or mercury.

Unless falling within any other Section, any manufacturing activity involving the use of mercury or cadmium or any compound of either element or which may result in the release into air of either of those elements or their compounds.

Note 4.2.7: In relation to PVC compounding under (d) and (f) above, operators who only use made-up sealed batches of lead, antimony or cadmium additives, and do not open or shear the "bags" prior to melting or capture within a sealed vessel, would not normally fit these descriptions as there is no significant potential for release to air. See General Note 3, above

Unless carried on as part of any other activity within this Schedule—
recovering, concentrating or distilling sulphuric acid or oleum;
recovering nitric acid;
purifying phosphoric acid.

Unless falling within any other Section, any activity (other than the combustion or incineration of carbonaceous material as defined in the Interpretation of Part A(1) of Section 1.2) which is likely to result in the release into the air of any acid-forming oxide of nitrogen.

Unless carried on as part of any other activity within this Schedule, recovering ammonia.

Extracting any magnesium compound from sea water.

Chemical Fertiliser Production

Part A(1)

(c) Producing (including any blending which is related to their production) phosphorus, nitrogen or potassium based fertilisers (simple or compound fertilisers).

Note 4.3.1: Simple blending of fertiliser without chemical reaction is not to be taken as a listed activity. (See also Note 4.1).

Note 4.3.2: This activity includes the manufacture of liquid fertilizers from waste acids, ammoniacal solutions, phosphate salts, etc.

Converting chemical fertilisers into granules.

SECTION 4.3

Plant Health Products and Biocides

Part A(1)

- (d) Producing plant health products or biocides.

Note 4.4.1: *This description applies only to the production of chemical compounds. In accordance with the meaning of "chemical" (see 4.1.1) this should be interpreted as not applying to in situ biocide generation in containment vessels, cooling or heating circuits systems, air-conditioning, etc, even when a chemical reaction is involved.*

Note 4.4.2: *“Biocides” means a chemical compound, such as a pesticide, intended to kill living things whether plant, animal or fungal.*

Note 4.4.3: *In accordance with Note 4.1, for an activity to be “producing” plant health products or biocides it must involve production in a chemical plant by chemical (including biochemical) processing. This means that an activity is only a listed activity under 4.4 A(1) (a) if it “produces” in such a manner the active ingredient (in either a crude or pure form) of a plant health product or biocide. Often in the chemical industry, preceding activities involve the production of intermediate products, rather than the active ingredients. In such cases the preceding activities are not producing a plant health product or biocide and should normally be classed as the production of organic or inorganic chemicals as appropriate (see Sections 4.1 and 4.2 above). However, where an activity uses such intermediates to produce an active ingredient in either a crude or pure form, this would constitute production of a plant health product or biocide.*

Formulating such products if this may result in the release into water of any substance listed in paragraph 0 of Part 1 in a quantity which, in any period of 12 months, is greater than the background quantity by more than the amount specified in that paragraph for that substance.

SECTION 4.4

Pharmaceutical Production

Part A(1)

- (e) Producing pharmaceutical products using a chemical or biological process.

Note 4.5.1: *“Pharmaceutical product” means a substance or article (not being an instrument, apparatus or appliance) which is manufactured, sold, supplied, imported or exported for use wholly or mainly in either or both of the following ways, by being:*

- (a) *administered to human beings or animals for a medicinal purpose;*
- (b) *used as an ingredient in the preparation of a substance or article which is to be administered to human beings or animals for a medicinal purpose.*

Note 4.5.2: *In accordance with Note 4.1, for an activity to be “producing” pharmaceutical products it must involve production in a chemical plant by chemical (including biochemical) processing. This means that an activity is only a listed activity under 4.5 A(1) (a) if it “produces” in such a manner an active ingredient (in either a crude or pure form) that meets the definition of “pharmaceutical product” given above. Often in the chemical industry, preceding activities involve the production of intermediate products, rather than the active ingredients. In such cases the preceding activities are not producing a “pharmaceutical product” and should normally be classed as the production of organic or inorganic chemicals as appropriate (see Sections 4.1 and 4.2 above). However, where an*

activity uses such intermediates to produce an active ingredient in either a crude or pure form, this would constitute pharmaceutical production.

Note 4.5.3: Where the production of pharmaceutical active ingredients is undertaken in the Regulations Schedule 1 installation (and, if also produced in the same installation, pharmaceutical intermediate products) and the solvent consumption threshold is exceeded then the activity would be subject to the requirements of the Solvent Emissions Directive/Solvent Emissions Regulations.

Formulating such products if this may result in the release into water of any substance listed in paragraph 0 of Part 1 in a quantity which, in any period of 12 months, is greater than the background quantity by more than the amount specified in that paragraph for that substance.

Note 4.5.4: The preparation of medicinal/medical products that contain pharmaceutical materials that have already been produced, e.g. a capsule, inhaler or other means of application, is formulation.

Note 4.5.5: Purifying a crude active pharmaceutical ingredient, though neither production nor formulation, may be an associated activity that is part of the same installation as either of these listed activities. See also IPPC Regulatory Guidance Note No. 5 on Interpretation of "Installation" in the Regulations.

SECTION 4.5

Explosives Production

Part A(1)

- (f) Producing explosives.

Note 4.6.1: "Explosives" means "gunpowder, nitro-glycerine, dynamite, gun-cotton, blasting powders, fulminate of mercury or of other metals, coloured fires, and every other substance, whether similar to those above mentioned or not, used or manufactured with a view to produce a practical effect by explosion or a pyrotechnic effect; and includes fog-signals, fireworks, fuses, rockets, percussion caps, detonators, cartridges, ammunition of all descriptions, and every adaptation or preparation of an explosive as above defined." (see the Explosives Act 1875, section 3). However, the listed activity is only the production by chemical means of the active explosive ingredient (see also Note 4.1).

SECTION 4.6

Manufacturing Activities Involving Carbon Disulphide or Ammonia

Part A(1)

- (g) Unless falling within Part A(2) of Section 6.7, any manufacturing activity which may result in the release of carbon disulphide into the air.

Any activity for the manufacture of a chemical which may result in the release of ammonia into the air other than an activity in which ammonia is only used as a refrigerant.

Note 4.7.1: See Note 4.1.1 for the meaning of a "chemical".

Note 4.7.2: Sub-section (b) is only for use where none of the IPPCD chemical sector descriptions (s4.1(a), s4.2(a), s4.3(a), s4.4(a), s4.5(a) and s4.6(a)) apply; i.e. only where the chemical is "manufactured" but not "produced". E.g. ammonium salt manufacture is a s4.2(a)(iv) activity.

SECTION 4.7

The Storage of Chemicals in Bulk

Part B

- (h) The storage in tanks, other than in tanks for the time being forming part of a powered vehicle, of any of the substances listed below except where the total storage capacity of the tanks installed at the location in question in which the relevant substance may be stored is less than the figure specified below in relation to that substance—
- one or more acrylates, 20 tonnes (in aggregate);
 - acrylonitrile, 20 tonnes;
 - anhydrous ammonia, 100 tonnes;
 - anhydrous hydrogen fluoride, 1 tonne;
 - toluene di-isocyanate, 20 tonnes;
 - vinyl chloride monomer, 20 tonnes;
 - ethylene, 8,000 tonnes.

Note 4.8.1: *This section is for standalone storage activities. Where chemical activities described in other Sections have product storages or raw material storages for the substances above, the storages should be considered as part of those production activities and not as separate activities.*

CHAPTER 5

Waste Management

SECTION 5.1

Incineration and Co-incineration of Waste

Interpretation of Section 5.1

19. In this Section—

“co-incineration” means the use of wastes as a regular or additional fuel in a co-incineration plant or the thermal treatment of waste for the purpose of disposal in a co-incineration plant;

“co-incineration plant” means any stationary or mobile plant whose main purpose is the generation of energy or production of material products, and—

which uses wastes as a regular or additional fuel; or

in which waste is thermally treated for the purpose of disposal.

If co-incineration takes place in such a way that the main purpose of the plant is not the generation of energy or production of material products but rather the thermal treatment of waste, the plant must be regarded as an incineration plant.

This definition covers the site and the entire plant including all co-incineration lines, waste reception, storage, on site pre-treatment facilities, waste-, fuel- and air-supply systems, boiler, facilities for the treatment of exhaust gases, on-site facilities for treatment or storage of residues and waste water, stack devices and systems for controlling incineration operations, recording and monitoring incineration conditions, but does not cover co-incineration in an excluded plant;

Note 5.1.1: *see also Defra EP guidance on Waste Incineration Directive*

“excluded plant” means—

- (a) a plant treating only the following wastes—

vegetable waste from agriculture and forestry,
vegetable waste from the food processing industry, if the heat generated is recovered,
fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and the heat generated is recovered,
wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood-preservatives or coating, and which includes in particular such wood waste originating from construction and demolition waste,
cork waste,
radioactive waste,
animal carcasses as regulated by Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption⁽⁷⁾, or
waste resulting from the exploration for, and the exploitation of, oil and gas resources from off-shore installations and incinerated on board the installation; and
an experimental plant used for research, development and testing in order to improve the incineration process and which treats less than 50 tonnes of waste per year;

Note 5.1.2: see also section 2.38 of the Defra guidance. “Excluded plant” for WID purposes falls out of WID but not necessarily out of regulation under Regulations. In the activity descriptions in this Section some “excluded plant” falls within the category of plant “which is not an incineration plant or a co-incineration plant” (i.e. a waste incineration installation subject to WID).

“hazardous waste” means any solid or liquid waste as defined in regulation 6 of (in relation to England) the Hazardous Waste (England and Wales) Regulations 2005⁽⁸⁾ or (in relation to Wales) the Hazardous Waste (Wales) Regulations 2005⁽⁹⁾ except for—

- (b) combustible liquid wastes including waste oils provided that they meet the following criteria—
- the mass content of polychlorinated aromatic hydrocarbons, for example polychlorinated biphenyls or pentachlorinated phenol, amounts to concentrations not higher than those set out in the relevant Community legislation,
 - these wastes are not rendered hazardous by virtue of containing other constituents listed in Schedule 2 to (in relation to England) the Hazardous Waste (England and Wales) Regulations 2005, or (in relation to Wales) the Hazardous Waste (Wales) Regulations 2005 in quantities or in concentrations which are inconsistent with the achievement of the objectives set out in Article 4 of the Waste Framework Directive, and
 - the net calorific value amounts to at least 30 MJ per kilogramme;
- any combustible liquid wastes which cannot cause, in the flue gas directly resulting from their combustion, emissions other than those from gasoil as defined in Article 1(1) of Council Directive 93/12/EEC relating to the sulphur content of certain liquid fuels⁽¹⁰⁾ or a higher concentration of emissions than those resulting from the combustion of gasoil as so defined;

⁽⁷⁾ OJ No. L27, 10.10.2002, p1.

⁽⁸⁾ S.I. 2005/894.

⁽⁹⁾ S.I. 2005/1806 (W. 138).

⁽¹⁰⁾ OJ No. L74, 23.3.1993, p81, as last amended by Directive 1999/32/EC (OJ No. L 121, 11.5.1999, p13).

Note 5.1.3: “Hazardous waste” is currently defined by reference to the Hazardous Waste Directive. Note first that, although the HWD (unlike the WID) does carry across the WFD exclusions, the Agency considers that, for Section 5.1, the better approach is to apply the WID interpretation of waste (and therefore only the WID exclusions), even where hazardous waste is concerned. [note a comment on domestic hazardous waste definition to be inserted]

“incineration plant” means any stationary or mobile technical unit and equipment dedicated to the thermal treatment of wastes with or without recovery of the combustion heat generated, including—

(c) the incineration by oxidation of waste; and

other thermal treatment processes such as pyrolysis, gasification or plasma processes in so far as the substances resulting from the treatment are subsequently incinerated.

This definition covers the site and the entire incineration plant including all incineration lines, waste reception, storage, on site pre-treatment facilities, waste-fuel and air-supply systems, boiler, facilities for the treatment of exhaust gases, on-site facilities for treatment or storage of residues and waste water, stack, devices and systems for controlling incineration operations recording and monitoring incineration conditions, but does not cover incineration in an excluded plant;

“non-hazardous waste” means waste which is not hazardous waste;

“waste” means any solid or liquid waste as defined in Article 1(a) of the Waste Framework Directive.

Note 5.1.4: The definition of “waste” is that in the WID, and although dependent upon the Article 1(a) Waste Framework Directive definition, is much broader in practice, in that it does not incorporate the Article 2 WFD exclusions. “Waste” is therefore “any substance or object in the categories set out in Annex 1 [to the WFD] which the holder discards or intends or is required to discard”. However, WID contains its own set of exclusions in the form of types of waste, by virtue of the burning of which installations become “excluded plant” (See also Defra EP guidance).

Part A(1)

Note 5.1.5: The emission limits for “incineration plant” and “co-incineration plant” are based on those in the WID, as discussed below. Regarding the key distinction between these types of plant, see General Note 4 on combustion activities and incineration.

Plant “which is not an incineration plant or a co-incineration plant”, which is not subject to WID, will have emission limits based on the employment of Best Available Techniques.

(d) The incineration of hazardous waste in an incineration plant.

Note 5.1.6: “Hazardous waste” and “incineration plant” are defined at “Interpretation of Section 5.1” above and in respect of “incineration plant” see also General Note 4 above.

Unless carried on as part of any other Part A(1) activity, the incineration of hazardous waste in a co-incineration plant.

Note 5.1.7: “ co-incineration plant” is defined at “Interpretation of Section 5.1” above and at General Note 4 above.

The incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne or more per hour.

Note 5.1.8: “Non-hazardous waste” is defined at “Interpretation of Section 5.1 above.

Note 5.1.9: “Capacity” is discussed in General Note 4 above.

Unless carried on as part of any other activity in this Part, the incineration of hazardous waste in a plant which is not an incineration plant or a co-incineration plant.

Note 5.1.10: “in this Part” means Part 2 of Schedule 1.

Note 5.1.11: “a plant which is not an incineration plant or a co-incineration plant” means principally WID “excluded plant” (defined at “Interpretation of Section 5.1” above and section 2 of the Defra guidance on The Directive on the Incineration of Waste. It also includes plant of a scale that is not covered by the Directive (see Defra guidance).

Unless carried on as part of any other activity in this Part, the incineration of non-hazardous waste in a plant which is not an incineration plant or a co-incineration plant but which has a capacity of 1 tonne or more per hour.

The incineration, other than incidentally in the course of burning landfill gas or solid or liquid waste, of any gaseous compound containing halogens in a plant which is not an incineration plant or a co-incineration plant.

Part A(2)

(e) The incineration of non-hazardous waste in an incineration plant with a capacity of less than 1 tonne per hour.

Unless carried on as part of any other Part A activity, the incineration of non-hazardous waste in a co-incineration plant.

Note 5.1.12: See General Note 4 for the application of the “most apt” rule where there is a potential overlap between the activity descriptions in Section 1.1 Part A(1)(b) and Section 5.1 Part A(2)(b).

The incineration of animal carcasses in a plant, which is not an incineration plant or a co-incineration plant, with a capacity of more than 10 tonnes per day but less than 1 tonne per hour.

Part B

(f) The incineration of non-hazardous waste in a plant which is—
not an incineration plant or a co-incineration plant, and
on premises where there is plant, other than incineration plant or co-incineration plant, which has an aggregate capacity of 50 kilogrammes or more per hour but less than 1 tonne per hour.

Note 5.1.13: Note that “excluded plant” and plant of a scale not covered by the WID (see section 2 of the Defra guidance) with a capacity below 50kg/hr falls out of Regulations Schedule 1 altogether and will be regulated as a Regulation Waste operation.

The cremation of human remains.

Application of Part B

20. When determining the extent of an installation carrying on an activity within Part B, any location of the following description must be ignored: any location where the associated storage or handling of Environment Agency Understanding the meaning of regulated facility

wastes and residues which are to be incinerated as part of that activity is carried on, other than a location where the associated storage or handling of animal remains intended for burning in an incinerator used wholly or mainly for the incineration of such remains or residues from the burning of such remains in such an incinerator is carried on.

SECTION 5.2

Disposal of Waste by Landfill

Note 5.2.1: *It may be helpful to remember that, under the predecessor PPC regime, all landfills subject to the Landfill Directive were included in Section 5.1. However, under Regulations, while all landfills are regulated facilities, require an EP permit and are subject to Landfill Directive requirements under Schedule 10, only IPPC Directive landfills are included in Section 5.2 and must therefore also meet any applicable requirements of that Directive. Also see Defra EP Guidance on Landfill Directive.*

Note 5.2.2: *In establishing the scope of Regulations Schedule 1 with respect to landfill operations, reference should be made to Landfill Directive Regulatory Guidance Note No.16 (LFD RGS No.16) "Establishing the area to be covered by a pollution prevention and control permit for a landfill"*

Note 5.2.3: *The implementation of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste has fundamental impact upon this Section.*

Part A(1)

- (a) The disposal of waste in a landfill—
receiving more than 10 tonnes of waste in any day, or
with a total capacity of more than 25,000 tonnes,
but excluding disposals in a landfill taking only inert waste.

Note 5.2.4: *The disposal of waste in a landfill is a "specified waste management activity" and additional requirements apply (see Schedule 9 Regulations).*

Note 5.2.5: *Disposal is not expressly defined in this section of Schedule 1 to the Regulations but should be taken in this context to mean the same as for Section 5.3, Part A(1)(a) (see below). For permit applications a landfill that has already closed in its entirety will not fall within this activity description – the landfill has to be actively receiving waste. A landfill may consist of areas that continue to be operated and areas that have ceased to accept waste for disposal. Where there is no significant physical separation between such areas i.e. they are interdependent and so managed as a single entity in order to protect the environment, then they will normally constitute a single listed activity.*

Note 5.2.6: *"Landfill" is not defined within the IPPC Directive however the Regulations define it in Regulation 2 as having the meaning in the Landfill Directive. However, n.b. that the IPPC Directive covers only larger landfills.*

Note 5.2.7: *"Inert" is not defined in the IPPC Directive nor in Schedule 1 to the Regulations. However, it should be taken to mean the same as in the article 2(e) of the Landfill Directive.*

Note 5.2.8: *"Capacity" is not defined in this Section. If the landfill has a total physical capacity of more than 25,000 tonnes, or the legal and physical capacity to receive more than 10 tonnes of waste per day, and it takes wastes other than inert waste (as to inert see Note 5.2.6, above), then it is an activity listed under 5.2. See also General Note 1 on capacity*

SECTION 5.3

Disposal of Waste Other Than by Incineration or Landfill

Note 5.3.1: *The disposal of waste falling within this Section is a “specified waste management activity” and therefore subject to the additional requirements of Schedule 9.*

5.3.2: *In the case of some waste management activities it may be difficult to establish whether the activity is for disposal (which may fall into Section 5.3), or recovery (which may fall into Section 5.4). It is not possible for one operation to fall into both – it must be classed as one or the other. Note also, however, that some waste management facilities may undertake several recovery or disposal operations, each of which may constitute a listed activity.*

5.3.3: *“Disposal” for the purposes of this section is defined in regulation 2, with the exception of 5.3 Part A(1)(b), which relates specifically to waste oils. Except for 5.3 Part A(1)(b), In order to be covered by this section an operation must constitute a Waste Framework Directive Annex IIA disposal operation. Our understanding of this issue is set out in ‘Guidance to determine whether a waste activity is a disposal or recovery operation’, see: http://www.environment-agency.gov.uk/commondata/acrobat/dr_guidance_v_1_1150011.pdf*

Note 5.3.4: *“Incineration” is not defined in this Section but it should be taken to mean the same as incineration or co-incineration for disposal for Section 5.1 above, whether in WID plant or other plant.*

Note 5.3.5: *“Landfill” is defined in Regulation 2. The wide definition of landfill means that certain activities fall under Section 5.2 rather than under Section 5.3. For example, the storage of waste prior to disposal, for a period of more than one year, constitutes a landfill.*

5.3.6: *“Capacity” is not specifically defined in this Section. If the disposal activity takes place in a facility with the legal and physical capacity to receive or store (note that disposal includes storage (D15) prior to disposal – see the Interpretation of Section 5.3, Part A(1), paragraph 1, below) more than the threshold level of such waste in any one day then this is a listed activity. See also General Note 1 on capacity.*

Part A(1)

- (b) The disposal of hazardous waste (other than by incineration or landfill) in a facility with a capacity of more than 10 tonnes per day.

Note 5.3.7: *“Hazardous waste” is defined in Regulation 2*

The disposal of waste oils (other than by incineration or landfill) in a facility with a capacity of more than 10 tonnes per day.

Note 5.3.8: *“Disposal” and “waste oils” (see Notes 5.3.15 and 5.3.16, below) in this paragraph are defined in paragraph 1 of the interpretation section below. Note that these definitions are derived from the Waste Oils Directive and not the Waste Framework Directive.*

Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by—
biological treatment, not being treatment specified in any paragraph other than paragraph D8 of Annex IIA to the Waste Framework Directive, which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12 in that Annex (D8), or

physico-chemical treatment, not being treatment specified in any paragraph other than paragraph D9 in Annex IIA to the Waste Framework Directive, which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12 in that Annex (for example, evaporation, drying, calcination, etc) (D9).

Note 5.3.9: "Non-hazardous waste" means any waste which is not hazardous waste (see note 5.3.7 above).

Note 5.3.10: "Biological treatment" (D8) includes for these purposes: anaerobic digestion or partial composting where the treated material is subjected to a further disposal operation such as incineration (D10) or landfill (D1) or (D5) or discharge to water bodies, seas or oceans (D6 or D7).

Note 5.3.11: "Physico-chemical treatment" means the physical and/or chemical treatment of waste i.e. non-biological treatment. Only treatment for the purposes of disposal, and not recovery, is relevant. This might include pulverisation of municipal waste (D9) where that is subjected to a further disposal operation such as landfill (D1). It is not necessary that there is both physical and chemical treatment for D9 to apply, although in some cases there will be both. The simple handling of waste in a way which does not change the composition of the waste, such as compaction or other re-packing of dry waste (such as cardboard) to reduce air content would not normally be considered to be physico-chemical treatment. However, where compaction does result in a change in the composition of the waste, the activity should be regarded as physico-chemical treatment.

Note 5.3.12 The Regulations may apply to a number of activities conducted at sewage treatment works. The Agency considers that whilst normally primary, secondary or tertiary sewage treatment would not be covered by this activity description (see Note 5.3.13 below in this respect) a number of ancillary sludge disposal activities could, subject to the capacity threshold, be covered by the IPPC Directive. Detailed guidance upon the interface between the Regulations, the Urban Waste Water Treatment Directive and waste management controls has been produced see: http://146.213.80.51/icontent/DocDir10/345_03.doc and in due course on the Agency's website <http://www.environment-agency.gov.uk>

Note 5.3.13 Certain sewage treatment works could be unlisted directly associated activities see Appendix 2 Part 2 on directly associated activities.

Note 5.3.14 A release to water includes a release to sewer, this does not lead to the conclusion that disposal operation D6 (release into a water body except seas/oceans) of the Waste Framework Directive should be interpreted as including releases of non hazardous waste to sewers where such releases are already covered by the Urban Waste Water Treatment Directive and therefore that a EP permit is required for that activity.

Interpretation and application of Part A(1)

21. In paragraph (b) "disposal" means the processing or destruction of waste oil as well as its storage and tipping above ground.

Note 5.3.15: "Disposal" for paragraph (b) is taken from the Waste Oils Directive (Article 1 of Directive 75/439/EEC), and has a different meaning from that in the Waste Framework Directive. In this context "processing" means "operations designed to permit the re-use of waste oils, that is to say regeneration and combustion". "Regeneration" means "any process whereby base oils can be produced by refining waste oils, in particular by removing the contaminants, oxidation products and additives contained in such oils".

Note 5.3.16: "Waste oils" for paragraph (b) means "any mineral-based lubrication or industrial oils which have become unfit for the use for which they were originally intended, and in particular used combustion engine oils and gearbox oils, and also mineral lubricating oils, oils for turbines and hydraulic oils" (Article 1 of Directive 75/439/EEC).

This Part does not apply to the treatment of—
waste soil; or

Note 5.3.17: This original description in (a) above has been updated by paragraph (b) below

contaminated material, substances or products, for the purpose of remedial action with respect to land or controlled waters, as defined in section 104 of the Water Resources Act 1991⁽¹¹⁾,

by means of mobile plant.

The reference to a D paragraph number in brackets at the end of paragraphs (c)(i) and (ii) is to the number of the corresponding paragraph in Annex IIA of the Waste Framework Directive (disposal operations).

Note 5.3.18: The disposal operations described in Annex IIA are as follows:

D 1 Deposit into or onto land (e.g. landfill, etc.)

D 2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)

D 3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

D 4 Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.)

D 5 Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)

D 6 Release into a water body except seas/oceans

D 7 Release into seas/oceans including sea-bed insertion

D 8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12

D 9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)

D 10 Incineration on land

D 11 Incineration at sea

D 12 Permanent storage (e.g. emplacement of containers in a mine, etc.)

D 13 Blending or mixing prior to submission to any of the operations numbered D 1 to D 12

D 14 Repackaging prior to submission to any of the operations numbered D 1 to D 13

D 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where it is produced).

⁽¹¹⁾ 1991, c.57.

The storage operation described as D 15 does not have to take place on the same site as operations D 1 to D 14.

Note 5.3.19: See Note 5.3.18 above, which sets out all D activities. For the purpose of Section 5.3 Part A(1)(c), only operations D1 to D12 are relevant. Note that operations D8 or D9 do not have to take place on the same site as operations D1 to D12.

SECTION 5.4

Recovery of Waste

Note 5.4.0: Although the Section groups these ex-IPC and Directive activities into a section entitled "Recovery of waste", the ex-IPC activities in sub-sections (a) and (b) do not necessarily have to involve materials that are defined as waste, nor does the use of "recovery" imply that the materials being recovered are "waste. They can be solvents, IX resins, activated carbon, etc, which are being purified or regenerated for return to the process without any intention to discard.

Note 5.4.1: The activities in paragraphs (a), (b) and (c)(iii) (iv) and (vi) below are not "specified waste management activities", but the others are and fall under Schedule 9.

Note 5.4.2: Note the limitations in paragraph 1 of the interpretation section below on the activity descriptions in Part A(1)(a) and (b).

Part A(1)

- (a) Recovering by distillation of any oil or organic solvent.

Note 5.4.3: "Organic Solvent" has the meaning given to it by Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOCs) due to the use of organic solvents in certain activities and installations. This defines an organic solvent as meaning "any VOC which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials, or is used as a cleaning agent to dissolve contaminants, or as a dissolver, or as a dispersion medium, or as a viscosity adjuster, or as a surface tension adjuster, or a plasticiser, or as a preservative." A VOC is defined to mean "any organic compound having at 293.15 K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use. For the purposes of this Directive [i.e. the Solvents Directive] the fraction of creosote which exceeds this value of vapour pressure at 293.15 K shall be considered as a VOC." Note that this definition of organic solvent centres around the fact that that a VOC must have been used for a specific purpose. Thus for example a refrigerant such as CFC-12 that has incidentally dissolved some oil would not be regarded as an organic solvent under this definition.

Note 5.4.4 : This Section should not be taken to affect Dry Cleaners etc, as the activity is exempted if it is associated with use (or production) of the solvent. See the Interpretation to Section 5.4 Part A(1) paragraph 1(b).

Note 5.4.5: "Distillation" means the separation of substances that have differing boiling points and involves both evaporation and condensation. Without condensation, the activity is not distillation. Thus, drying of oil by simple boiling and expulsion of steam would not be distillation but may be

covered by Section 5.4 (c)(vii), below - and there will be very few oils which are recovered by distillation as their b.pts. are likely to be too high.

Note 5.4.6: "Where there appears to be a solvent recovery process that is part of a wider waste treatment process, unless the purpose of the activity is very clearly the recovery of solvents by distillation, that activity is likely to be more aptly described as a (ex-IPPCD) s5.3 activity. For example, waste that contains solvent that is being pre-treated by heating and distilling-off the VOCs as a conditioning step prior to landfilling, is not to be considered as undergoing a s5.4(a) activity.

Cleaning or regenerating carbon, charcoal or ion exchange resins by removing matter which is, or includes, any substance listed in paragraphs 0 to 0 of Part 1.

Note 5.4.7: In order to be covered by 5.4A(1)(c) an operation must constitute a Waste Directive 'Annex IIB Recovery Operation in Directive 2006/12/EC. Our understanding of this issue is set out in 'Guidance to determine whether a waste activity is a disposal or recovery operation', see:

http://www.environment-agency.gov.uk/commondata/acrobat/dr_guidance_y_1_115011.pdf

Unless carried on as part of any other Part A activity, recovering hazardous waste in a plant with a capacity of more than 10 tonnes per day by means of the following operations—

the use principally as a fuel or other means to generate energy (R1),

Note 5.4.8: This does not normally cover co-incineration of waste, since this is usually "carried out as part of any other Part A activity", e.g. combustion for power generation (Section 1.1) or the manufacture of cement (Section 3.1). See also General Note 4 on assigning an activity to the "most apt" activity description.

solvent reclamation/regeneration (R2),

recycling/reclamation of inorganic materials other than metals and metal compounds (R5),

regeneration of acids or bases (R6),

recovering components used for pollution abatement (R7),

recovery of components from catalysts (R8),

oil re-refining or other reuses of oil (R9).

Note 5.4.9: For R1, R2, R5, R6, R7, R8, and R9 see Section 5.4 Interpretation of Part A(1), paragraph 3 below.

Note 5.4.10: "Oil" in section 5.4 differs from "oil" in section 5.3 in that it is not restricted to oils described in Article 1 of the Waste Oils Directive as it includes synthetic oils and waste derived from fuels.

Interpretation and application of Part A(1)

22. Paragraphs (a) and (b) of this Part do not apply to—

distilling oil for the production or cleaning of vacuum pump oil; or

an activity which is ancillary to and related to another activity, whether described in this Schedule or not, which involves the production or use of the substance which is recovered, cleaned or regenerated,

except where the activity involves distilling more than 100 tonnes per day.

This Part does not apply to the treatment of—

waste soil; or

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Note 5.4.11: *This original description has been updated by a wider description in paragraph (b) below.*

contaminated material, substances or products, for the purpose of remedial action with respect to land or controlled waters, as defined in section 104 of the Water Resources Act 1991,

by means of mobile plant.

The reference to an R paragraph number in brackets at the end of paragraphs (c)(i) to (vii) is to the number of the corresponding paragraph in Annex IIB of the Waste Framework Directive (recovery operations).

Note 5.4.12: *Section 5.4 refers to a limited number of recovery operations. Recovery operations that are not referred to remain regulated under the Waste Directive.. The full list of recovery operations from Annex IIB to the Waste Framework Directive is reproduced below for clarity:*

R 1 Use principally as a fuel or other means to generate energy

R 2 Solvent reclamation/regeneration

R 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)

R 4 Recycling/reclamation of metals and metal compounds

R 5 Recycling/reclamation of other inorganic materials

R 6 Regeneration of acids or bases

R 7 Recovery of components used for pollution abatement

R 8 Recovery of components from catalysts

R 9 Oil re-refining or other reuses of oil

R 10 Land treatment resulting in benefit to agriculture or ecological improvement

R 11 Use of wastes obtained from any of the operations numbered R 1 to R 10

R 12 Exchange of wastes for submission to any of the operations numbered R 1 to R 11

R 13 Storage of wastes pending any of the operations numbered R 1 to R 12 (excluding temporary storage, pending collection, on the site where it is produced).

SECTION 5.5

The Production of Fuel from Waste

Part A(1)

Making solid fuel (other than charcoal) from waste by any process involving the use of heat.

Note 5.5.1: *Section 5.5 is a former IPC description that applied to processes that produced pelletised fuel from municipal waste. This description applies only to processes whose purpose is to make waste-derived solid fuel and which use heat specifically in the fuel manufacturing step. This description does not cover activities such as autoclaves that use heat to sanitise and separate wastes, with some of the residual wastes then being used a fuel.*

CHAPTER 6

Other Activities

SECTION 6.1

Paper, Pulp and Board Manufacturing Activities

Part A(1)

- (a) Producing, in industrial plant, pulp from timber or other fibrous materials.

Note 6.1.1: Industrial Plant for these purposes should be taken to include plant where paper and pulp can be produced in commercial quantities. See also Note 4.4 in Chapter 4 on commercial purposes.

Producing, in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.

Note 6.1.2: "Board" in (b) above is taken to mean paperboard (i.e. heavy grammage paper, typically over 220 g/m²). Producing certain other types of boards will be a listed activity under Part A(2) (a) below.

Any activity associated with making paper pulp or paper, including activities connected with the recycling of paper such as de-inking, if the activity may result in the release into water of any substance in paragraph 0 of Part 1 in a quantity which, in any period of 12 months, is greater than the background quantity by more than the amount specified in that paragraph in relation to that substance.

Note 6.1.3: If a coating activity, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations

Interpretation of Part A(1)

23. In paragraph (c), "paper pulp" includes pulp made from wood, grass, straw and similar materials and references to the making of paper are to the making of any product using paper pulp.

Part A(2)

Manufacturing wood particleboard, oriented strand board, wood fibreboard, plywood, cement-bonded particleboard or any other composite wood-based board.

SECTION 6.2

Carbon Activities

Part A(1)

- (a) Producing carbon or hard-burnt coal or electro graphite by means of incineration or graphitisation.

SECTION 6.3

Tar and Bitumen Activities

Part A(1)

- (b) The following activities—
distilling tar or bitumen in connection with any process of manufacture, or

heating tar for the manufacture of electrodes or carbon-based refractory materials, where the activity is likely to involve the use in any period of 12 months of 5 or more tonnes of tar or of bitumen or both in aggregate.

Part B

- (c) Any activity not falling within Part A(1) of this Section or of Section 6.2 involving—
heating, but not distilling, tar or bitumen in connection with any manufacturing activity, or oxidising bitumen by blowing air through it, at plant where no other activities described in any Section in this Schedule are carried on,
where the carrying on of the activity is likely to involve the use in any period of 12 months of 5 or more tonnes of tar or bitumen or both in aggregate.

Interpretation of Part B

24. In this Part “tar” and “bitumen” include pitch.

SECTION 6.4

Coating Activities, Printing and Textile Treatments

Note 6.4: *If a coating activity, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations*

Part A(1)

Applying or removing a coating material containing any tributyltin compound or triphenyltin compound, if carried on at a shipyard or boatyard where vessels of a length of 25 metres or more can be built, maintained or repaired.

Pre-treating (by operations such as washing, bleaching or mercerization) or dyeing fibres or textiles in plant with a treatment capacity of more than 10 tonnes per day.

Note 6.4.1: *This should not be taken to include washing, laundering or dry-cleaning of garments or household linens that have been used and which it is intended will be used again on their own.*

Note 6.4.2: *Textile remains textile for this purpose even when made into garments.*

Treating textiles if the activity may result in the release into water of any substance in paragraph 0 of Part 1 in a quantity which, in any period of 12 months, is greater than the background quantity by more than the amount specified in that paragraph in relation to that substance.

Note 6.4.3: *This should be taken to include washing, laundering or dry-cleaning of garments or household linens that have been used and which it is intended will be used again on their own, subject to the releases exceeding the specified levels.*

Part A(2)

- (a) Unless falling within Part A(1) of this Section, surface treating substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, in plant with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year.

Part B

- (b) Unless falling within Part A(1) or Part A(2) of this Section or Part A(2)(c) of Section 2.1, any process (other than for the repainting or re-spraying of or of parts of aircraft or road or railway vehicles) for applying to a substrate, or drying or curing after such application, printing ink or paint or any other coating material as, or in the course of, a manufacturing activity, where the process may result in the release into the air of particulate matter or of any volatile organic compound and is likely to involve the use in any period of 12 months of—

20 or more tonnes of printing ink, paint or other coating material which is applied in solid form,

20 or more tonnes of any metal coating which is sprayed on in molten form,

25 or more tonnes of organic solvents in respect of any cold set web offset printing activity or any sheet fed offset litho printing activity, or

5 or more tonnes of organic solvents in respect of any activity not mentioned in subparagraph (iii).

Unless falling within Part A(2) of this Section, repainting or re-spraying road vehicles or parts of them if the activity may result in the release into the air of particulate matter or of any volatile organic compound and the carrying on of the activity is likely to involve the use of 1 or more tonne of organic solvents in any period of 12 months.

Repainting or re-spraying aircraft or railway vehicles or parts of them if the activity may result in the release into the air of particulate matter or of any volatile organic compound and the carrying on of the activity is likely to involve the use in any period of 12 months of—

20 or more tonnes of any paint or other coating material which is applied in solid form,

20 or more tonnes of any metal coatings which are sprayed on in molten form, or

5 or more tonnes of organic solvents.

Interpretation and application of Part B

25. In this Part—

“aircraft” includes gliders and missiles;

“coating material” means paint, printing ink, varnish, lacquer, dye, any metal oxide coating, any adhesive coating, any elastomer coating, any metal or plastic coating and any other coating material.

The amount of organic solvents used in an activity must be calculated as—

the total input of organic solvents into the process, including both solvents contained in coating materials and solvents used for cleaning or other purposes; less

any organic solvents that are removed from the process for re-use or for recovery for re-use.

When determining the extent of an installation carrying on an activity within Part B any location where the associated cleaning of used storage drums prior to painting or their incidental handling in connection with such cleaning is carried on must be ignored, unless that location forms part of an SED installation.

SECTION 6.5

The Manufacture of Dyestuffs, Printing Ink and Coating Materials

Note 6.5: *If the manufacture of inks or coating materials activity, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations*

Part B

- (a) Unless falling within Part A(1) or Part A(2) of any other Section—

manufacturing or formulating printing ink or any other coating material containing, or involving the use of, an organic solvent, where the carrying on of the activity is likely to involve the use of 100 or more tonnes of organic solvents in any period of 12 months, manufacturing any powder for use as a coating material where there is the capacity to produce 200 tonnes or more of such powder in any period of 12 months.

Interpretation of Part B

26. In this Part, “coating material” has the same meaning as in Section 6.4.

The amount of organic solvents used in an activity must be calculated as—
the total input of organic solvents into the process, including both solvents contained in coating materials and solvents for cleaning or other purposes; less
any organic solvents, not contained in coating materials, that are removed from the process for re-use or for recovery for re-use.

SECTION 6.6

Timber Activities

Note 6.6: *If the wood impregnation activity or wood lamination activity, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations*

Part A(1)

- (a) Curing, or chemically treating, as part of a manufacturing process, timber or products wholly or mainly made of wood if any substance in paragraph 0 of Part 1 is used.

Part B

- (b) Unless falling within Part A(2) of Section 6.1, manufacturing products wholly or mainly of wood at any works if the activity involves a relevant activity and the throughput of the works in any period of 12 months is likely to be more than—
 - 10,000 cubic metres in the case of works at which wood is only sawed, or wood is sawed and subjected to excluded activities, or
 - 1,000 cubic metres in any other case.

Interpretation of Part B

27. In this Part—

“excluded activity” means any relevant activity (other than sawing) which, ignoring any sawing carried on at the works, would be unlikely to result in the release into the air of any substance in paragraph 0 of Part 1 in a quantity capable of causing significant harm;

“relevant activity” means the sawing, drilling, sanding, shaping, turning, planing, curing or chemical treatment of wood;

“throughput” means the amount of wood which is subjected to a relevant activity, but where wood is subject to two or more relevant activities at the same works, the second and any subsequent activity must be ignored;

“wood” includes any product consisting wholly or mainly of wood; and

“works” includes a sawmill or any other premises where relevant activities are carried on.

SECTION 6.7

Activities Involving Rubber

Note 6.7: *If a rubber conversion activity, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations*

Part A(2)

- (a) Manufacturing new tyres (but not remoulds or retreads) if this involves the use in any period of 12 months of 50,000 or more tonnes of one or more of the following—
- natural rubber,
 - synthetic organic elastomers,
 - other substances mixed with them.

Part B

- (b) Unless falling within Part A(1) or Part A(2) of any Section, the mixing, milling or blending of—
- natural rubber, or
 - synthetic organic elastomers,
- if carbon black is used.

Any activity which converts the product of an activity falling within paragraph (a) into a finished product if related to an activity falling within that paragraph.

SECTION 6.8

The Treatment of Animal and Vegetable Matter and Food Industries

Interpretation of Section 6.8

28. In this Section—

“animal” includes a bird or a fish;

“excluded activity” means—

any activity carried on in a farm or agricultural holding other than the manufacture of goods for sale,

the manufacture or preparation of food or drink for human consumption but excluding—

- the extraction, distillation or purification of animal or vegetable oil or fat otherwise than as an activity incidental to the cooking of food for human consumption,

- any activity involving the use of green offal or the boiling of blood except the cooking of food (other than tripe) for human consumption,

- the cooking of tripe for human consumption elsewhere than on premises on which it is to be consumed,

the fleshing, cleaning and drying of pelts of fur-bearing mammals,

Note 6.8.1 *For the purposes of section 6.8 of Schedule 1 to the Regulations, 'Animal waste' is 'any waste consisting of animal matter that has not been processed into food for human consumption'.*

This does include, blood, feathers, uncooked butchers waste and any other animal waste that is not catering waste or former foodstuffs. This does not include faecal matter from animals (e.g. chicken litter or farmyard manure), catering waste or former foodstuffs

any activity carried on in connection with the operation of a knacker's yard,
any activity for the manufacture of soap not falling within Part A(1) of Section 4.1,
the storage of vegetable matter not falling within any other Section,
the cleaning of shellfish shells,
the manufacture of starch,

Note 6.8.2: *The phrase “exempt activity” refers only to activities listed under Part A (1) (f) (i) and Part B (a) (i) that are described as exempt activities.*

Manufacturing starch foodstuff by processing vegetable matter would be an activity under 6.8 A(1) (d) (ii).

the processing of animal or vegetable matter at premises for feeding a recognised pack of hounds which have been granted an authorisation under the Animal By-Products Regulations 2005⁽¹²⁾ or the Animal By-Products (Wales) Regulations 2006⁽¹³⁾,
the salting of hides or skins, unless related to any other activity listed in this Schedule,
any activity for composting animal or vegetable matter or a combination of both, except where that activity is carried on for the purposes of cultivating mushrooms,
any activity for cleaning, and any related activity for drying or dressing, seeds, bulbs, corms or tubers (and “related activity” means an activity being carried on by the same person at the same site),
the drying of grain or pulses,
any activity for the production of cotton yarn from raw cotton or for the conversion of cotton yarn into cloth;
“food” includes—
(a) drink,
articles and substances of no nutritional value which are used for human consumption, and
articles and substances used as ingredients in the preparation of food;
“green offal” means the stomach and intestines of any animal, other than poultry or fish, and their contents.

Note 6.8.3: *Within this Section there are both fixed capacity thresholds and floating output based thresholds which will be different and in the case of the output thresholds vary throughout the year. In practical terms the floating output based threshold will be less than the design capacity.*

Note 6.8.4: *Some activities will produce finished products from a combination of animal and vegetable raw materials. Listed activities will fall into the category of “vegetable” under Section 6.8 A(1) (d) (ii) where little or no animal-derived material enters the process, provided that the total amount added does not exceed 10% of the weight of the total raw materials, including water added as an ingredient.*

Any operator exceeding the threshold of 10% animal raw materials on any single day would be viewed as a processor of animal raw materials. For sites meeting the above criteria, and

⁽¹²⁾ S.I. 2005/2347.

⁽¹³⁾ S.I. 2006/1293 (W.127).

exceeding the output threshold of 75 tonnes per day, a EP permit would be required under Section 6.8 A(1) (d) (i).

Existing operators currently close to but outside of these activity descriptions may either:

- apply for a EP Permit, therefore enabling greater flexibility to meet customer demands, should recipes subsequently change, or*
- not apply for a EP permit, but should recipe demands change, such that either activity description is met, then a EP permit would have to be obtained before the operator could bring this change into effect.*

Note 6.8.5: Where a composite mixture is used as an ingredient (for example chocolate) the animal raw material proportion should be established. Only the animal raw material portion of the composite mixture will contribute towards the 10% test referred to in Note 6.8.2 above. (See also the distinction between “milk” and “milk products” discussed below in Note 6.8.25) However, the milk component in a composite ingredient will be viewed as milk and therefore count towards the milk threshold included under section 6.8 A (1)(e).

Note 6.8.6: “Raw Materials” are any materials whether processed or not that are used as ingredients in the activity. Raw materials can include waste material. Accordingly, a food product can be made from a waste.

Note 6.8.7: Packaging (primary and secondary) should not be included in the weight of the finished product.

Note 6.8.8: The definition of “finished products” is currently the subject of discussion. The Agency will issue guidance in due course but in the meantime please contact Paul Evans in PIR Policy.

Note 6.8.9: “Food products” includes food intended for animals. Feed milling and pet-food manufacture are therefore covered within Section 6.8 A(1) (d).

Note 6.8.10: Production (or purification) of any mineral not derived from animal, vegetable or milk (e.g. table salt (sodium chloride), baking soda (sodium bicarbonate)) is excluded from this Section of the regulations.

Note 6.8.11: For the purposes of this Section “treating and processing” does not include stand-alone washing activities.

Part A(1)

(b) Tanning hides and skins at a plant with a treatment capacity of more than 12 tonnes of finished products per day.

Slaughtering animals at a plant with a carcass production capacity of more than 50 tonnes per day.

Note 6.8.13: “Carcass” means the body of a dead animal. It should be noted that the definition given here is intended for application to Schedule 1 to the Regulations only.

Where head and offal are removed at point of slaughter (e.g. for mammals and birds), such material is generally excluded from the production capacity calculation. However, where removal is not standard industry practice, the head and offal would be included in the calculation, and it should similarly not be concluded that a dead animal only qualifies as a carcass after removal of head and offal. For example, a dead fish with head and offal intact would still constitute a carcass for the purposes of this section.

Disposing of or recycling animal carcasses or animal waste, other than by rendering or by incineration falling within Section 5.1, at a plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal waste or both in aggregate.

Treating and processing materials intended for the production of food products from—
animal raw materials (other than milk) at a plant with a finished product production capacity of more than 75 tonnes per day; or

Note 6.8.14: *Finished product production capacity for an installation treating and processing animal raw materials means design capability, or where not readily known, past or proposed future output based on operating 24 hours a day (subject to physical or legal constraints on capacity, for example planning constraints, down time for essential cleaning due to legal requirements (such as hygiene standards) and/or plant restrictions such as chilling capacity).*

Note 6.8.15: *“Animal raw materials” means anything from a living or dead animal and includes minerals derived from an animal source, such as bone.*

Note 6.8.16: *Honey is classed as an animal raw material.*

Note 6.8.17: *Fat melting and Fishmeal processing at plant with a finished production capacity of more than 75 tonnes per day are likely to be classified as activities under 6.8 A(1) (d) (i).*

Note 6.8.18: *If the vegetable oil, animal fat extraction or vegetable oil refining, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations*

vegetable raw materials at a plant with a finished product production capacity of more than 300 tonnes per day (average value on a quarterly basis).

Note 6.8.19: *Finished product production capacity for an installation treating and processing vegetable raw materials means actual output in any consecutive 90 day period averaged over the number of days in that 90 day period when production takes place, converted to a daily average.*

Note 6.8.20: *“Vegetable raw material” in this context should be taken to include fruits, grain and fungi.*

Note 6.8.21: *Drying of grain (e.g. at stand-alone barley drying facilities) does not constitute a listed Part A(1) activity under Section 6.8 because it does not involve treating and processing.*

Note 6.8.22: *In relation to “treating and processing” (taking drink as an example) the simple act of sterilisation of bottles and bottling beer using gas would not be covered, but where drink is subsequently pasteurised this would constitute “treating and processing” under this activity description.*

Note 6.8.23: *Many plant health products and pharmaceuticals are enzymes and these are covered by Section 4.4 and 4.5 respectively. Otherwise their production should not generally be included as a listed activity as they are not themselves food products.*

Treating and processing milk, the quantity of milk received being more than 200 tonnes per day (average value on an annual basis).

Note 6.8.24: The threshold for milk is based on actual daily input of milk to the plant, averaged over a year. Only days when milk is actually received should be considered.

Note 6.8.25: “Milk” should be taken to mean whole milk, dried milk, skimmed (or partially skimmed) milk, evaporated milk and un-sweetened condensed milk. It should not however, be taken to mean whey, butter, cream, buttermilk, sweetened condensed milk, flavoured milk or cheese. “Milk” to which something has been added constitutes a milk product.

Note 6.8.26: ‘Milk solids’ is a loose term that requires qualification and is therefore best avoided. It is preferable to speak in terms of whole (or total) milk solids, skim milk solids, (both of which constitute milk) or whey solids (which constitutes a milk product).

Note 6.8.27: Milk products as ingredients are classified as animal raw materials and therefore contribute to the 10% test applied to mixed products. Milk by contrast is viewed separately from other animal raw materials in Schedule 1 to the Regulations and does not therefore contribute to the 10% test applied to mixed products.

Note 6.8.28: Where dried milk is used the weight should be calculated back to raw “wet milk” equivalent. Where this equivalent figure exceeds 200 tonnes per day the activity is listed. Based on the relevant conversion factors, 200 tonnes of raw milk is equivalent to:

- 25 tonnes of full cream dried milk powder*
- 20 tonnes of semi skimmed dried milk powder*
- 18 tonnes of skimmed dried milk powder*

Conversion factors are not available for evaporated milk and unsweetened condensed milk as these will be dependent on how much water has been driven off by the process. The factor used is therefore dependent on the specification of the evaporated milk/unsweetened condensed milk received.

Note 6.8.29: Note that this activity description is based on the amount of milk received for treatment and processing, rather than the amount or type of product produced. Thus any activity treating and/or processing milk, that receives milk above the stated threshold, will be a listed activity under this description, whether or not the end product is also best described as milk. For example, manufacturing milk chocolate or chocolate crumb (an intermediate product in the production of chocolate) will fall under this description if it receives more than 200 tonnes of milk per day. The activity description would also cover non-food production activities if they treat and process milk, and receive milk above the threshold.

Processing, storing or drying by the application of heat the whole or part of any dead animal or any vegetable matter (other than the treatment of effluent so as to permit its discharge into controlled waters or into a sewer unless the treatment involves the drying of any material with a view to its use as animal feedstuff) if the processing, storing or drying—

does not fall within any other Section, or Part A(2) of this Section and is not an excluded activity; and

may result in the release into water of any substance in paragraph 0 of Part 1 in a quantity which, in any period of 12 months, is greater than the background quantity by more than the amount specified in relation to the substance in that paragraph.

Note: 6.8.30: If the vegetable oil, animal fat extraction or vegetable oil refining, as defined in Section 7 of Schedule 1 (as introduced by the Solvent Emissions Regulations), is part of the installation and the solvent consumption is exceeded it may be subject to the control requirements of the Solvent Emissions Directive/Solvent Emissions Regulations.

Part A(2)

- (c) Disposing of or recycling animal carcasses or animal waste by rendering at plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal waste or both in aggregate.

Note 6.8.31: There is no absolute definition of "rendering" but the rendering of animal remains is most commonly interpreted as involving the heating of the remains to melt-out the fat component. The process at "rendering plant" usually also evaporates-off the water content and leaves a solid fraction (greaves) consisting of denatured proteinaceous material and bone residue. Other heat treatment activities often carried out at rendering works, like "blood boiling" and hydrolysis of feathers with steam, are not considered to be rendering activities.

Part B

- (d) Processing, storing or drying by the application of heat the whole or part of any dead animal or any vegetable matter (other than the treatment of effluent so as to permit its discharge into controlled waters or into a sewer unless the treatment involves the drying of any material with a view to its use as animal feedstuff) if the processing, storing or drying—

does not fall within another Section, or Part A(1) or Part A(2) of this Section;

is not an excluded activity; and

may result in the release into the air of—

any substance in paragraph 0 of Part 1, or

any offensive smell noticeable outside the premises on which the activity is carried on.

Breeding maggots in any case where 5 or more kg of animal matter, vegetable matter or both in aggregate, are introduced into the process in any week.

SECTION 6.9

Intensive Farming

Part A(1)

- (e) Rearing poultry or pigs intensively in an installation with more than—
40,000 places for poultry;

Note 6.9.1: "Poultry" means chickens, turkeys, ducks, geese and guinea fowl whether raised for meat or for egg laying.

2,000 places for production pigs (over 30 kg); or

Note 6.9.2: "Production pigs" are pigs, male or female, grown from a weight of 30 kilogrammes to the point of sale for either breeding stock or slaughter.

750 places for sows.

Note 6.9.3: "Sows" includes "gilts" and "sows". "Gilts" are female pigs intended for use as breeding stock, after they have left the production herd but before their first litter. A "sow" is a female pig used for breeding, which has had at least one litter.

SECTION 7
SED Activities

Part B

Note 7.2 *All activities are listed as Part B activities, however where these are linked to Part A(1) installations they will be regulated by the Agency*

- (f) The activities listed in the table below if they are operated above the solvent consumption threshold for the activity.

<i>Activity</i>	<i>Solvent consumption threshold in tonnes/year</i>
Heatset web offset printing	15
Publication rotogravure	25
Other rotogravure, flexography, rotary screen printing, laminating or varnishing units	15
Rotary screen printing on textile/cardboard	30
Surface cleaning using substances or preparations which because of their content of volatile organic compounds classified as carcinogens, mutagens or toxic to reproduction under Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances ⁽¹⁴⁾ are assigned or need to carry one or more of the risk phrases R45, R46, R49, R60 or R61, or halogenated VOC's which are assigned or need to carry the risk phrase R40	1
Other surface cleaning	2
Vehicle coating and vehicle refinishing	0.5
Coil coating	25
Other coating activities, including metal, plastic, textile (except rotary screen printing on textile), fabric, film and paper coating	5
Winding wire coating	5
Coating activity applied to wooden surfaces	15
Dry cleaning	0
Wood impregnation	25
Coating activity applied to leather	10
Footwear manufacture	5
Wood and plastic lamination	5
Adhesive coating	5
Manufacture of coating preparations, varnishes, inks and adhesives	100
Rubber conversion	15
Vegetable oil and animal fat extraction and	10

⁽¹⁴⁾ OJ No. 196, 16.8.1967, p1 (OJ/SE Series I Chapter 1967 P, p19), as last amended by Directive 2006/121/EC (OJ No. L 396, 30.12.2006, p850).

Interpretation and application of Part B

29. For the purposes of this Part—

“adhesive” means any preparation, including all the organic solvents or preparations containing organic solvents necessary for its proper application, which is used to adhere separate parts of a product;

“adhesive coating” means any activity in which an adhesive is applied to a surface, excluding the application of adhesive and laminating associated with printing activities;

“coating” means any preparation, including all the organic solvents or preparations containing organic solvents necessary for its proper application, which is used to provide a decorative, protective or other functional effect on a surface;

“coating activity” means any activity in which a single or a multiple application of a continuous film of a coating is applied (including a step in which the same article is printed using any technique) but does not include the coating of substrate with metals by electrophoretic and chemical spraying techniques;

“coil coating” means any activity where coiled steel, stainless steel, coated steel copper alloys or aluminium strip is coated with either a film forming or laminate coating in a continuous process;

“consumption” means the total input of organic solvents into an installation per calendar year, or any other twelve month period, less any volatile organic compounds that are recovered for reuse;

“dry cleaning” means any industrial or commercial activity using volatile organic compounds to clean garments, furnishing and similar consumer goods excluding the manual removal of stains and spots in the textile and clothing industry;

“flexography” means a printing activity using an image carrier of rubber or elastic photopolymers on which the printing areas are above the non-printing areas, and liquid inks which dry through evaporation;

“footwear manufacture” means any activity of producing complete footwear or parts of footwear;

“heat web offset printing” means a web-fed printing activity using an image carrier in which the printing and non-printing area are in the same plane, where—

the non-printing area is treated to attract water and reject ink,

the printing area is treated to receive and transmit ink to the surface to be printed, and

evaporation takes place in the oven where hot air is used to heat the printed material;

“ink” means a preparation, including all the organic solvents or preparations containing organic solvents necessary for its proper application which is used in a printing activity to impress text or images on to a surface;

“laminating associated to a printing activity” means the adhering together of two or more flexible materials to produce laminates;

“manufacturing of coating preparations, varnishes, inks and adhesives” means the manufacture of coating preparations, varnishes, inks and adhesives as final products and where carried on at the same site, the manufacture of intermediates by the mixing of pigments, resins and adhesive materials with organic solvent or other carrier, including—

(a) dispersion and predispersion activities,

viscosity and tint adjustments, and

operations for filling the final product into its container;

“manufacturing of pharmaceutical products” means one or more of the following activities—

(b) chemical synthesis,

fermentation,

extraction, or

formulation and finishing,

of pharmaceutical products and, where carried on at the same site, the manufacture of intermediate products;

“the Motor Vehicle Directive” means Council Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers⁽¹⁵⁾;

“organic compound” means any compound containing at least the element carbon and one or more of hydrogen, halogens, oxygen, sulphur, phosphorus, silicon or nitrogen, with the exception of carbon oxides and inorganic carbonates and bicarbonates;

“organic solvents” means any volatile organic compound which is used alone or in combination with other agents, and without undergoing a chemical change to dissolve raw materials, products or waste materials, as a—

(c) cleaning agent to dissolve contaminants,

dissolver,

dispersion medium,

viscosity adjuster,

surface tension adjuster,

plasticiser, or

preservative;

“other coating activities” means a coating activity applied to—

(d) trailers, defined in categories O1, O2, O3, and O4 in the Motor Vehicle Directive,

metallic and plastic surfaces including surfaces of airplanes, ships, trains, or

textile, fabric, film and paper surfaces;

“printing activity” means any activity (not being a step in a coating activity) for reproducing text and/or images in which, with the use of an image carrier, ink is transferred onto any type of surface, including the use of associated varnishing, coating and laminating techniques;

“publication rotogravure” means a rotogravure printing activity used for printing paper for magazines, brochures, catalogues or similar products, using toluene-based inks;

“reuse” means the use of organic solvents recovered from an installation for any technical or commercial purpose and including use as a fuel but excluding the final disposal of such recovered organic solvent as waste;

“rotary screen printing” means a web-fed printing activity in which liquid ink which dries only through evaporation is passed onto the surface to be printed by forcing it through a porous image carrier, in which the printing area is open and the non-printing area is sealed off;

“rotogravure” means a printing activity, using a cylindrical image carrier in which the printing area is below the non-printing area and liquid inks which dry through evaporation, and in which the recesses are filled with ink and the surplus is cleaned off the non-printing area before the surface to be printed contacts the cylinder and lifts the ink from the recesses;

“rubber conversion” means—

(e) any activity of mixing, milling, blending, calendering, extrusion and vulcanisation of natural or synthetic rubber, and

any ancillary operations for converting natural or synthetic rubber into a finished product;

“surface cleaning” means any activity, except dry cleaning, using organic solvents to remove contamination from the surface of material including degreasing but excluding the cleaning of

(¹⁵) OJ No. L42, 23.2.1970, p1 (OJ/SE Series I Chapter 1970(I) P, p82, as last amended by Directive 2006/40/EC (OJ No. L 161, 14.6.2006, p12).

equipment; and a cleaning activity consisting of more than one step before or after any other activity must be considered as one surface cleaning activity;

“varnish” means a transparent coating;

“varnishing” means an activity by which varnish or an adhesive coating for the purpose of sealing the packaging material is applied to a flexible material;

“vegetable oil and animal fat extraction and vegetable oil refining activities” means any activity to extract vegetable oil from seeds and other vegetable matter, the processing of dry residues to produce animal feed, the purification of fats and vegetable oils derived from seeds, vegetable matter or animal matter;

“vehicle coating” means a coating activity applied to the following vehicles—

(f) new cars, defined as vehicles of category M1 in the Motor Vehicle Directive, and of category N1 in so far as they are coated at the same installation as M1 vehicles,

truck cabins, defined as the housing for the driver, and all integrated housing for the technical equipment, of vehicles of categories N2 and N3 in the Motor Vehicle Directive,

vans and trucks, defined as vehicles of categories N1, N2 and N3 in the Motor Vehicle Directive, but not including truck cabins, or

buses, defined as vehicles in categories M2 and M3 in the Motor Vehicle Directive;

“vehicle refinishing” means any industrial or commercial coating activity and associated degreasing activities performing—

(g) the original coating of road vehicles as defined in the Motor Vehicle Directive or part of them with refinishing-type materials, where this is carried on away from the original manufacturing line, or

the coating of trailers (including semi-trailers) (category O in the Motor Vehicle Directive);

“volatile organic compound” or “VOC” means—

any organic compound having a vapour pressure of 0.01 or more kPa at 293.15K or having a corresponding volatility under the particular conditions of use, or

the fraction of creosote which exceeds a vapour pressure of 0.01 kPa at 293.15K;

“web-fed” means that the material to be printed is fed to the machine from a reel as distinct from separate sheets;

“winding wire coating” means any coating activity of metallic conductors used for winding the coils in transformers and motors, etc;

“wood and plastic lamination” means any activity to adhere together wood or plastic to produce laminated products;

“wood impregnation” means any activity giving a loading of preservative in timber.

An activity must be deemed to be operated above the solvent consumption threshold specified for that activity under this Part if the activity is likely to be operated above that threshold in any period of 12 months.

An activity listed in this Part includes the cleaning of equipment but, except for a surface cleaning activity, not the cleaning of products.

Appendix 2 –the interpretation of installation

Part 1 - Stationary Technical Unit

Limb (i) of the definition of installation

A2.1. The Part A Guidance (in section 2) provides the following guidelines in relation to Limb(i) of the definition:

2.9. *Two criteria are proposed for the purpose of determining whether plant or machinery satisfy the first limb of this definition –*

*(1A) the plant or machinery must be a “technical unit” where one or more activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations (“listed activities”) are carried out; and
(1B) the technical unit must be stationary.*

A2.2. The term “technical unit” is not defined in the Regulations, but the Part A Guidance clarifies that it must be some type of plant or machinery. Machinery includes equipment for monitoring for releases, control rooms, and equipment needed to run the plant and move materials around the Installation. Plant may include static items such as tanks and lagoons.

- The essence of a “technical unit” is that it can carry out the Activity, or Activities, on its own. This means that the technical unit must include enough plant and machinery to allow the Activity to take place in a controlled manner for a sufficient period of time for the operation to reach its designed or intended output.
- ***Example 1: If a furnace at a power station were regulated as a combustion activity¹⁶ the technical unit would consist of the furnace and sufficient plant and machinery to allow fuel to be burnt with a thermal input of 50MW or more. The technical unit would include burners, fuel supply systems, immediate coal bunkers or feed tanks for fuel, and facilities to remove ash from the appliance. The technical unit would not include fuel stores intended for sustained operation lasting several days or weeks or the final ash disposal arrangements by landfill.***
- ***Example 2: For a regulated organic chemical production activity¹⁷, the technical unit would have to include the means to contain and control the reaction for a reasonable period of time, and this would normally be the few hours necessary to allow conditions within the Installation to stabilise. The technical unit would include the plant needed to add raw material and to extract product, but would not normally include plant and machinery needed for sustained operation.***

¹⁶ Section 1.1(a) of Part 2 of Schedule 1 to the Regulations

¹⁷ Section 4.1 of Part 2 of Schedule 1 to the Regulations

A2.3. The meaning of technical unit is also addressed in the Part A Guidance, which states:

2.10. *For the purpose of criterion (1A), “technical unit” can be taken to mean something which is functionally self contained in the sense that the unit – which may consist of one component or a number of components functioning together – can carry out the Schedule 1 activity or activities on its own.*

A2.4. The technical unit must be stationary, and is therefore referred to in this guidance as a stationary technical unit (STU). Vehicles or vessels in motion will generally not be regarded as STUs. However, units that are movable but remain stationary during production e.g. free-range poultry units, may be regarded as STUs.

A2.5. If there are two or more STUs on the same site they will be treated as a single STU if they are technically connected and one of the following criteria is met:

- (a) they carry out successive steps in an integrated industrial activity;
- (b) one of the listed activities is a DAA of the other; or
- (c) both units are served by the same DAA¹⁸.

A2.6. Any of these conditions may link Part A(1) and/or Part A(2) and/or Part B listed activities together as one STU.

A2.7. Dealing first with the meaning of “technically connected”¹⁹: there are three tests that would indicate the existence of a technical connection, namely:

- (a) Inevitability
- (b) Practicality
- (c) Technical Need

A2.8. The **Inevitability** test must be applied to the actual configuration of the existing or proposed Installation. Buffer tanks, or similar facilities, incorporated between stages of processing to absorb expected fluctuations during operation, should be ignored.

For example:

- (a) ***If a raw material is introduced into connected units and during normal operation it must emerge from those connected units, then they would be regarded as technically connected. Therefore, where coal is added to the hopper of a coal fire power station it will proceed to the combustion stage unless the operator undertakes activities well outside of the normal range of operations.***
- (b) ***If two activities cannot readily be separated then they will be regarded as technically connected. For example, where pyrolysis of coal takes place in coke ovens, resulting in the co-***

¹⁸ see also paragraph 2.11 of the EP Guidance

¹⁹ The technical connection requirement is also an essential part of the DAA test – see paragraph 3A2.22

production of gas, which is then burned in an appliance with a rated thermal input of >20 MW, these activities will be technically connected because once coal is introduced into a coke-oven it cannot readily be extracted and the gas must inevitably be burnt.

A2.9. The **Practicality** test considers whether there is an alternative, practical method for linking two activities which could replace the existing configuration. If there is no such alternative, then the existing link is likely to be regarded as a technical connection. The established practice of each industrial sector may assist in determining this issue. Where there is no common practice within a sector, each case will be considered on its own merits.

For example:

- (a) ***The deposit of ash from power stations is normally carried by hydraulic conveying systems at a rate of several hundred tonnes per hour to a local landfill. If the hydraulic system fails, the material has to be moved by vehicles either to the usual landfill or elsewhere. This method is costly and would not be practical for a sustained period. Therefore, the usual arrangements will be regarded as a technical connection.***
- (b) ***An activity is dependent on a nearby plant for one of its raw materials, and it always organises its plant overhauls to coincide with those of the supplying activity. This suggests that there is a technical connection between the two activities.***

A2.10. The “**technical need**” test considers whether there is a technical need for one activity to follow another in quick succession.

For example:

- (a) ***Material for electroplating is normally cleaned, pre-treated, introduced into the electroplating system, rinsed and dried, as quickly as possible, to ensure the quality of the product. Even though the items may be loaded onto suitable frames by hand and manually positioned in the treatment vessels, all the preparative, electroplating, and post-plating operations would normally be regarded as being technically connected.***
- (b) ***Where a particular disposal activity is needed to secure proper environmental protection, for example, a chromate works may use a landfill site to recover hexavalent chrome through leachate treatment, these activities would be regarded as technically connected.***
- (c) ***Process steam is produced at one activity and condensate is returned in large quantities by a user activity. Without this technical connection, the steam producer would have to demineralise equivalent amounts of raw water.***

Other issues relating to technical connections

A2.11. **Storage facilities** may be technically connected. For example, many activities have a store of materials that is designed to allow the operation of the

Installation to be uninterrupted despite short-term variations in supply. Stores at the same location are normally technically connected, and as their operation can give rise to pollution, either locally or at the Activity, they are likely to be DAAs. However, a technical connection should not normally extend beyond the activities carried out on the site to store the raw material because raw material can arrive at the site from many off-site sources. The technical connection may be broken if the storage facility within a multi-unit site is large enough to allow individual units on the site to operate for sustained periods independently of each other.

A2.12. Storage of product/raw material within a multi-unit site can also break the technical connection if it is large enough to allow individual units on the site to operate for sustained periods independently of each other. A break is normally demonstrated where an intermediate store allows for the export and import of significant proportions of the total mass flow. This will occur where the throughput of the units before and after the intermediate storage are markedly different. This consideration is mainly relevant to the question of whether a group of activities constitutes a single installation or two (or three) separate ones.

For example, an Operator with the facility to sell significant intermediate product from its complex as part of normal operation will normally be operating two installations (subject to both parts containing listed activities), with the intermediate storage being included within whichever installation seems most appropriate. (Where an intermediate storage is between two units, one of which is neither a listed activity nor meets the criteria for serving the listed activity, there is a break between the two main activities anyway, and EP regulation applies only to one side. The intermediate storage itself may or may not be part of the installation as a DAA, and its inclusion will depend on its meeting the other criteria for DAAs in Part 2 of this Appendix below.)

A2.13. **Transport** on national or multi-user systems (which include the public road system, the rail system, the National Grid, the public gas supply system, canals, public sewer or private sewer with multiple users which then discharge into the public sewer) would normally break the technical connection between units or activities. However, public roads, rail or canals may not break the connection where frequent movements are conducted by specialist vehicles (such as works vehicles or silage tankers used at farms) over a short distance between units or activities. Where the total amount of material transferred by the system is large compared to the total used or supplied to the unit in question the connection is more likely to be broken.

For example:

- (a) An operator using ethylene, which is supplied to many users through a gas pipe line, should normally be considered as operating a separate Installation which is not linked to the plant that produces the ethylene.***
- (b) Where an Activity discharges effluent to a pumping station that is either part of the public sewer (or private sewer with multiple***

users that discharges to the public sewer) and pumps a mix of the Activity effluent, other trade effluent and domestic sewage. The technical connection would be broken at the point of discharge to the sewer and the pumping station would not be included within the Installation.

- (c) *Where an Activity discharges to a dedicated pumping station then the technical connection would not be broken.*
- (d) *Where an Activity discharges to a sewage treatment works via a dedicated pipeline then the technical connection would not be broken and application of the “principal user” test [See paragraph A2.21] would then determine whether the sewage works is a DAA.*

A2.14. The connection to the **national electricity or domestic gas supply system** would always break the technical connection and would not be included within an Installation.

For example, where a power station is connected through the national gas supply grid to a producer of natural gas the technical connection is broken by the grid.

A2.15. Examples of “successive steps in an integrated industrial activity” are a linear chain from one raw material to a single product, or a closely related, but non-linear, series of Activities linking a number of raw materials to a series of products. A landfill activity would not normally be a successive step in an integrated industrial activity because it would not usually be included in the chain of activities between raw materials and products.

A2.16. Guidance on the general meaning of DAA is set out in Part 2 of this Appendix. It should be noted that the Principal User test²⁰ will not be applied under condition (c) in paragraph A2.5 except where the DAA serves²¹ two or more STUs and also serves non-listed facilities. In such a situation, the listed STUs should be considered collectively and compared to the non-listed activities considered collectively. The “principal user” test should then be applied to decide which collective group is the principal user. Unless one of the other criteria is met, the STUs will only be treated as one STU if they meet the principal user requirement.

Part 2 - Directly Associated Activities

Limb (ii) of the definition of installation

A2.17. The purpose of the limb(ii) test is to determine whether any other activities that are being carried out in conjunction with the Activity amount to DAAs. If they do, they will be included within the Installation. The Part A Guidance sets out the three criteria, (2A), (2B), and (2C), that must all be met before an activity will be regarded as a DAA of the STU:

²⁰ [See paragraph 3A2.21]

²¹ For guidance on the meaning of “serves” [see paragraph 3A2.20].

Limb (ii) of the definition

2.12. *An installation consists of the stationary technical unit identified under the first limb of the definition plus any location on the same site²² where activities that satisfy the second limb are carried out. Three criteria are proposed for the purpose of determining whether an activity satisfies the second limb-*

(2A) the activity must be directly associated with the stationary technical unit;

(2B) the activity must have a technical connection with the listed activities carried out in or by the stationary technical unit; and

(2C) the activity must be capable of having an effect on emissions.

A2.18. The Part A Guidance provides the following additional guidance about criterion (2A):

2.13. *Criterion (2A) requires that the activity serves the stationary technical unit (i.e. there is an asymmetrical relationship whereby the activity serves the stationary technical unit but not vice versa). If an activity, such as operating a landfill, serves a stationary technical unit carrying out a listed activity and some other industrial unit or units on a different site or carrying out non-listed activities, then the activity will only be directly associated with the stationary technical unit if that unit is the principal user of the activity.*

A2.19. In summary, criterion (2A) has two requirements:

- (i) the activity must serve the STU; and
- (ii) where the activity also serves another industrial unit or units, the STU must be the principal user of the activity.

A2.20. The term “**servicing**” indicates an asymmetrical relationship where the DAA serves the STU and the STU is the principal user of the DAA. Therefore, a DAA will normally be something that would not be in place if not for the primary activity, even if the DAA is also an Activity. The aim of the servicing requirement is to prevent activities that are not listed from being regulated unless there is a clear link with the STU.

For example:

(a) An effluent treatment plant used exclusively to treat the effluent from an Activity would serve the Activity if it were constructed, operated, and maintained in a manner that optimised the operation of the Activity.

(b) An incinerator used to burn used coffee residues from a small plant making instant coffee might be an Activity. However, the coffee-making activity would not be a DAA of the incinerator as it does not serve the incinerator in any way. The incinerator would not be there were it not for the presence of the coffee making plant.

²² The Part A Guidance states that further clarification of this point will be provided in a revised version in due course.

A2.21. The term “**principal user**” does not imply that the listed activity must use >50% of the activity in question. This is subject to 2 tests.

- (a) Is the activity in question providing different services to 2 or more separate main activities? If it is, (e.g. an intermediate storage acts as the store for the final product of one activity, but for another activity it serves as the raw material feed storage, providing a service with a completely different materials flow), the users cannot be compared, and both can be "principal" users, albeit for different services provided by the associated activity. In these cases, the activity in question will be a DAA of both main activities, whether or not both of the main activities are regulated under the same regime.
- (b) For each type of service provided, which is the "principal user? The "principal user" term does not imply that among the users of the service in question the listed activity must use >50% of the activity in question. The principal user would be either
 - (i) the most dependent user or, where this is not clear,
 - (ii) the largest single user in terms of taking output, providing input,

etc

Examples for (a) of activities providing a different service to two other activities (both intermediate storage examples) are:

Example 1: A Water Company STW stores the biogas produced by its anaerobic digesters in tanks from which it feeds >3MW gas-engines for electricity generation, the emergency flare-stack and a (non-consuming) digester recycle stream to aid agitation. The listed activity gas-engines are the principal user of the gas storage facility in its raw material/forward-feeding role, and the (non-listed activity) STW is the principal user in the product-storage role - so the gas storage (and the attached emergency flare facility) are DAAs of the listed combustion activity.

Example 2: A closed landfill is served by a leachate storage facility which contains excess leachate flow from the landfill and regulates the flow into the leachate treatment plant (listed activity). The landfill is the principal (indeed sole) user of the leachate storage from the "product" storage point of view but from a feed storage point of view, the leachate plant is the principal (again sole) user - so the installation must contain the leachate storage facility as a DAA.

An example for (b)(i) of an activity being the most dependent user is:

Example 3: An unlisted activity processes crude raw materials to produce a specialised raw material for a listed chemical activity on the same site. The output of the specialised raw material is only 20% of the total output but the chemical plant is entirely dependent upon this for sustained operation. The rest of the output goes to other recipients, some of which take more than 20% but with a lower degree

of dependency as they can, and do, take similar material from other sources. The listed chemical activity is the most dependent user and the unlisted activity is a DAA.

Examples for (b)(ii) where the biggest single user is the "principal" user are:

Example 4: A raw material supply activity where 40% is supplied to listed activity A, 35% to unlisted activity B and 25% to unlisted activity C, all of which are similarly dependent on the raw material supply activity. A is therefore the principal user as it is the biggest user.

Example 5: A Water Company Sewage Treatment Works (STW) receives effluent from a listed activity, via a dedicated pipeline, as well as urban waste water (sewage). Clearly the listed activity and the sewer users collectively are equally dependent so the largest single user test should be applied. This can be assessed according to the relative loads, by comparing the maximum permitted discharge loads from the listed activity compared to the sewage loads at the inlet to the STW. The load test should be applied for both BOD and COD and the test will be regarded as passed for the listed activity if it has the larger input load in either or both of these categories. Thus where a single listed activity makes up more than 50% of the BOD or COD load to the sewage treatment works then it can be regarded as the principal user. However, very careful consideration is required for those cases that are close to the 50% threshold.

A2.22. The Part A Guidance provides the following additional guidance about criterion (2B):

2.14. Criterion (2B) gives rise to four types of directly associated activities which may be said to have a technical connection with a stationary technical unit:

(a) input activities concerned with the storage and treatment of inputs into the stationary technical unit;

(b) intermediate activities concerned with the storage and treatment of intermediate products during the carrying on of the listed activities – this might apply particularly where the stationary technical unit consists of a number of sub-units with the product of one sub-unit being stored or treated prior to being passed on to the next subunit in the production chain;

(c) output activities concerned with the treatment of waste (or other emissions, like manure) from the stationary technical unit; or

(d) output activities concerned with the finishing, packaging and storage of the product from the stationary technical unit.

2.15. These activities have a technical connection in the sense that they are integral parts of the overall listed industrial activity. Often there will also be a physical connection, such as a conveyor belt or pipeline, but this does not

have to be the case. The need for input, intermediate and output activities to be an integral part of a listed activity before it is caught by limb

(ii) is presented as part of criterion (2B). Note, however, that the requirement for associated activities to be “directly” associated in criterion

(2A) also emphasises the need for associated activities to be an integral part of a listed activity before they are treated as part of an installation.

A2.23. The Part A Guidance stresses that other activities must be “an integral part” of the Activity in order to establish the necessary “technical connection” required before they can be regarded as a DAA. This suggests that the connection must be clear and significant. Further guidance on the meaning of “technical connection” is set out in paragraphs A2.7 to A2.14 above

A2.24. The Part A Guidance provides the following additional guidance about criterion (2C):

2.16. *Criterion (2C) covers both activities which have an effect on emissions and pollution from the listed activities with which they are associated and activities which have such an effect in their own right.*

A2.25. Criterion (2C) reflects the fact that the purpose of including DAAs within the Installation is to ensure that the environment as a whole is protected. It must be clear how a DAA might effect emissions. Where it is very unlikely that a technically connected activity could cause releases then it will not be a DAA.

For example:

- (a) *Where the incorrect storage of a product may cause releases either from the product store or from somewhere else in the Installation, then that storage would normally be a DAA.***
- (b) *The simple storage of broadly stable materials, for example pallets of tinned food, would not normally be a DAA.***

A2.26. In addition to meeting criteria (2A), (2B), and (2C), the activity must also take place on the same site as the STU. The term “same site” is not defined in the Directive or the Regulations, and determining whether this additional test is met will be a question of fact in each case. In order to reach a decision, all circumstances will be taken into account, including the degree of integration of operations and the proximity of the various units. When assessing the degree of integration the presence or absence of the following factors may be considered:

- permanent/historical boundaries
- biosecurity restrictions
- independent/integrated services
- independent/integrated management systems

Two parcels of land do not need to touch physically to form the same site, provided that the parcels are technically connected, so a site would not become

two sites merely because two parcels of land were separated by a barrier such as a stream or a road.

