Opra for EPR version 3.91

Annex A – Opra Scheme for Installations

April 2017

We are the Environment Agency. We protect and improve the environment and make it a better place for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

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Contents

Introduction

This document has been written to allow you to work out your Operational Risk Appraisal (Opra) banded profile for permitted installations which have some activities that are the most complicated/highest risk (tier 3 activities). It will help you understand how your activities and how well you manage them, affect your charges.

This annex will help you work out your Opra banded profile for an installation.

You should read this document in conjunction with the Environmental Permitting Regulations Operational Risk Appraisal Scheme (Opra for EPR) version 3.91 to which this document is an annex. This document details what you should do if at any time you don't agree with your Opra score.

Related documents

Together the following documents all relate to our Opra scheme and the links to charges. The document you are currently reading is highlighted in **bold** below. There may be other documents in the list that help you find the type of permit you need and to work out your Opra banded profile and related charges.

- Environmental Permitting Regulations Operations Risk Appraisal Scheme (Opra for EPR) version 3.91
    - **Annex A Opra scheme for installations**
        - How to complete an Opra spreadsheet for installations
    - Annex B Opra scheme for waste facilities
        - How to complete an Opra spreadsheet for waste facilities
    - Annex C Opra scheme for mining waste operations
        - How to complete an Opra spreadsheet for mining waste operations
    - Annex D Opra for permits with fixed charges
- Environmental Permitting Charging Scheme and Guidance 2014

All these documents are available by calling our general enquiry line on 03708 506 506.

Return to Contents

1. Complexity Attribute

How to calculate your complexity attribute

You will find that your Opra band for the complexity attribute is based directly on a look-up table. There may be multiple complexities applicable to your site depending on the activities you carry out.

The complexity activities are all the activities included in your permit, whether or not you carry out that activity. If you no longer carry out a process that contributes one or more activities to the complexity attribute, you can only remove these elements from your profile by applying for and being granted a variation or a part surrender of your permit.

Step 1 – Select the activities you operate from Table 1A (complexities look-up table) pages 13 to 27.

The Table has six sections that refer to different types of activity you may carry out at your site:

- Energy industries, see page 13
- Production and processing of metals, see page 14
- Mineral industries, see page 15
- Chemical industry, see page 17
- Waste management, see page 21
- Other activities, see page 24

If you carry out one activity at your site, select the activity and banding from the most appropriate section of the table. If you aren't sure of the activities you carry out, contact your local site officer by calling 03708 506 506.

Step 2 – Enter all your activities onto the spreadsheet

Step 3 – Apply rules listed below the rules in the order they appear.

Please note:

- **Consolidation of permits;** Subject to legal requirements it's possible for an operator to seek to consolidate a number of permits where these permitted activities are operated by this one operator at the same location. If consolidation is possible then the number of complexities in the new consolidated permit will be the same as the original complexities in the original permits. For example: two separate permits each having 4 complexities, the new consolidated permit would have a total of 8 complexities, subject to application of the additional rules, which follow below.

- **EPR Part A2 and Part B Schedule 1 activities that form part of the permitted installation** do not attract an Opra complexity banding. However, you should record the information, which shows they are part of the permitted installation, on the Opra spreadsheet.

- **Standby plant;** Standby plant collects a complexity band(s) but does not score under the other attributes (e.g. emissions). Standby plant is where all the following apply:

- Plant that is only used where and when there is a breakdown
- No specific permit limits are included as there is no use of an alternate fuel source, e.g. a sulphur dioxide limit to cover the burning of heavy fuel oil
- There is no specific contract that requires the plant to be run. For example, where there's a contract with an energy supply company that states it will only supply power for 250 days, but the operator requires 300 days for normal operation, the on-site generators will need to run for 50 days each year to fill the shortfall.

Complexity rules

We have created a series of rules for installations to help apply Opra fairly and consistently between different types of activity. You must use these rules when you produce your complexity attribute. You must fully apply each rule in the order they are listed before applying the next rule:

Rule 1 – Process Definition

If an activity comes under two or more descriptions in Schedule 1 of the Environmental Permitting Regulations 2013 (EPR), choose the most appropriate description.

Rule 2 – Activity Definition

An activity is that which is specified in table 1 below which is derived from Schedule 1 of the EPR. We identify activities at the sub-paragraph level within each section, e.g. Section 4.2 A1 (a) (ii). On occasion, we have also added items where we've needed to subdivide them further to reflect the time and resources we put into regulating these facilities. These are either marked in bracketed capital letters in the third column, e.g. (A) or as subdivisions beyond those in EPR, e.g. Section 1.1 A (1) a) (i) and (ii).

Rule 3 – Operations in separate plants

At installations where scheduled activities are carried out in separate plants, a complexity score is required for each scheduled activity carried out in each plant. For plants with a small-scale production capacity or where the listed activities are intermediate stages in the overall production process, these can be aggregated into a single attribute. If it is a Chapter 4 activity Rule 4 may apply. We explain this below.

A plant is defined as equipment or a group of equipment which, when operated together, carries out the scheduled activity. However, for certain activities where there are threshold criteria within the Regulations, this threshold can be used to aggregate plant together as explained in the following example:

Consider section 6.4 Part A (1) b: Coating activities, where the plant is required to have a treatment capacity of 10 tonnes per day (tpd). Each plant with a capacity of >10 tpd in its own right attracts a separate complexity attribute score. Plants with a capacity of <10 tpd can be aggregated into units of >10 tpd, e.g. two 6 tpd plants would aggregate to one plant with a combined capacity of 12 tpd; four 6 tpd plants would aggregate to two plants with a combined capacity of 24 tpd, etc. This rule is based on the premise that, using the examples given, these plants on their own would not be subject to Environmental Permitting Regulations and it is only the aggregation of the plants which brings them into the scope of the legislation.

For help on determining the number of activities for plant in different please discuss with your local Environment Agency contact.

Installation applications and permits may cover more than one Schedule 1 activity. Large multi-activity installations are generally more complex and entail greater regulatory effort. However, a multi-activity permit can also entail less regulatory effort than when each activity is operated or permitted separately due to commonality of management systems and savings on administrative resources.

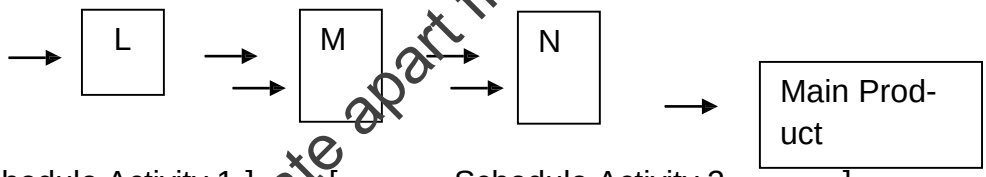
For multi-activity permits, each individual activity at the installation listed in Schedule 1 of the Regulations should be assigned a complexity band using the look-up table at the end of this annex and applying rules 1 to 3. This information will provide a complexity profile for the installation and can be summarised in tabular format as shown below. This profile should be adjusted using rules 4 to 9, as follows.

Where activities are different stages in a production process, these can be combined into a single attribute. This can be complicated where your installation has linked production units, for example speciality chemical manufacturing or large steel works. The SERIES and PARALLEL tests can help work out the number of plants to use in Opra.

The SERIES test

For use where several items of equipment carry out a single schedule 1 activity or several schedule 1 activities are carried out one after another to convert raw materials to a product.

Create a block diagram showing the individual activities with the complexity band for each activity,

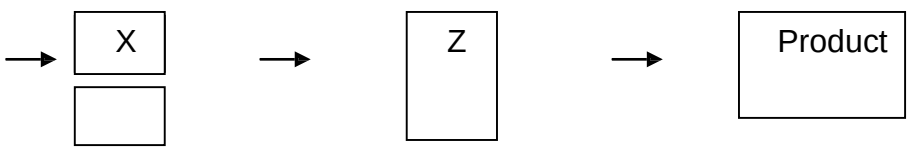


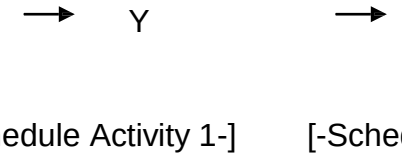
L, M and N are three vessels used to manufacture a chemical. Vessel L carries out the first schedule activity on its own. Vessels M and N are used jointly to carry out a second schedule activity. In this case, there are two schedule activities as shown in the diagram. The reactions in Vessels M and N need to be operated together and so are treated as the same plant. There are therefore two complexity bands, i.e. one for L and one for M/N.

The PARALLEL test

For where equipment used for the Schedule 1 activity is replicated so two or more production lines do the same activity. Each production line is a separate plant and has its own complexity band.

Create a block diagram showing the individual activities with the complexity band for each activity. E.g.





X and Y are similar vessels, both of which carry out schedule activity 1 and can be operated independently. Each is considered to be a separate plant and is assigned a complexity band. Product from X and/or Y is the feedstock for reactor Z, in which schedule activity 2 is carried out. This is assigned a further complexity band.

These tests can be applied to any Chapter in Schedule 1 of the Environmental Permitting Regulations (EPR).

Examples of how these tests apply are given in Appendix 1 – Application of the series and parallel tests.

If you need help applying these tests to your installation please ask your local Environment Agency contact.

In the chemical industry the position is complicated because there are many multi-stage, and hence multi-activity, installations. The activity definitions in the EPR don't include thresholds beneath which a permit isn't needed. At many chemical industry installations, the use of the series and parallel tests could result in a disproportionately high complexity score being assigned to relatively small-scale installations. Rule 4 of the complexity attribute relating to aggregation will reduce this impact; a complexity cap has been added to achieve further reductions.

This information will provide a complexity profile for the installation. You may then need to adjust your profile using rules 4 to 10 below.

Rule 4 – Aggregation (chemical industry only)

Only activities described in Chapter 4 of Schedule 1 of the EPR, which is for the chemical industry, may be aggregated provided the total production capacity of the aggregated activity is less than 250 tonnes per year (tpa). Where the individual activities within this aggregated activity have different attribute bands, use the highest band for the aggregated activity.

This rule may be applied as many times as is appropriate to the activities within Chapter 4. This rule is taken as the production capacity of final products, i.e. not including the production of intermediates. In general, considerations of capacity will relate to design capacity in accordance with guidance. In some cases, e.g. batch chemical manufacturing installations, this could result in a grossly unrealistic estimate of capacity. Professional judgement should be used in such instances and should take into account the manufacturing target that the operator has projected for that particular product. The concept is explained more fully in the guidance that follows.

Application of rule 4 to Chapter 4 'plants' will reduce the number of complexity attributes in this sector considerably. In some cases this will result in combining several intermediate stages with zero final product output that are in different activity reference categories. In such cases, the scheduled activity with the highest complexity attribute band should be allocated to the combined activities. It is assumed that this activity has zero output and so you should select the lower of the two bands allocated to the activity in the following complexity look-up table.

Definition of 'products'

All output from the activity including liquid or solid carriers but excluding any water in the product, material recycled within the activity, and all effluent and waste. For plating, coating and similar surface treatments, the weight of plating material refers to the weight of material added or removed but excluding any water in the product. This does not apply to Section 6.8 activities, e.g. in breweries where water is a major constituent of beer. There are other specific activities where water is integral to the product e.g. liquid fertilisers. Please discuss this with your local Environment Agency contact if you have any doubts.

Capping

This rule may be applied to any Schedule 1 activity.

Having applied Rules 3 and 4 as appropriate to the installation, order the activities or plants identified into common Schedule reference categories. These are as per the sector sub-paragraphs, indent level, e.g. Section 4.1 A (1) a (ii). Note that for Chapter 4 activities, the result of applying Rule 4 could be to produce an aggregated activity.

Within the activity reference, rank them by complexity band with the highest (E) first. Where there are more than three activities with an identical Activity Schedule Reference (ASR), you will only attract a complexity band for the first three activities.

Repeat for all activity references to obtain total for the installation.

If you are consolidating a permit with a number of installations, the number of complexities must reflect what is permitted by the consolidated permit. You would apply the same principle above for capping.

If the permit is a multi-operator installation, then this rule must be applied to each individual installation.

Rule 5 – Multi-product application or permit (MPP) (chemical industry only)

Multi-product applications or permits are where all three of the following apply:

- The operator has described the scheduled activities e.g. chlorination of organics type x, y, z, using chlorine, to produce products 1, 2, 3;
- The operator has supported the application with appropriate BAT justifications, etc;
- It's requested in the application and/or required in the permit that a specific protocol is complied with when changing the production runs of the specified products.

The complexity profile for the installation should be increased by one band. Where the permit covers a number of listed activities, the highest complexity band is increased. Where there is already an activity with band E complexity then the next highest complexity band is increased.
E.g. If the complexity profile table shows two activities in band E, three in band D and one in band B, the adjustment would increase the number in band E to three and reduce the number in band D to two. The number in band B would remain one.

When the protocol is applied after permit issue, the Opra banded profile does not need to be reassessed when the operator notifies us of the specified product run changes as detailed in the

protocol.

Rule 6 – Scale

This rule applies after all the preceding rules have been applied and the complexities have been ordered in the spreadsheet. In the complexity assessment, scale takes into account the fact that larger sites generally have higher levels of emissions even during normal operation and take more of our time to inspect. If the site is more than 50 hectares in area, then increase the look-up table band by one complexity band. Where a band increase is required, follow the same procedure as described in the examples in Rule 5.

Rule 7 – Multi-activity permits (seven or more activities)

This rule applies after all the preceding rules have been applied. The complexities are ordered in the spreadsheet. Band the first six activities as normal. List them in order, e.g. all band Es first, then band Ds, etc. Drop the band of the seventh and all subsequent activities each by one. For example, if the seventh activity is a band C, then it becomes a band B. However, where an activity is already a band A, it remains as A.

Rule 8 – Landfill only

Where an application is made to operate a non-hazardous waste landfill that incorporates a stable non-reactive hazardous waste cell or an asbestos only cell, add a complexity band for a hazardous waste landfill to the Opra spreadsheet as well as a complexity band for non-hazardous waste landfill.

Rule 9 – Effluent treatment plants

A complexity band is not needed for effluent treatment plants in sections 5.3 A (1) a) (i), (ii), 5.4 A (1) (a) (i), (ii) or Section 5.4 A (2) (b) (i) of Schedule 1 of the EPR (see Table 1A complexities look-up table) if all the following are met:

- The capacity of the plant is less than 300m^3 a day
- The operation of the plant is included in a permit covering one or more, other schedule 1 activities
- The other schedule 1 activity(ies) is NOT a specified waste management activity
- (SWMA).

Waste management activity rules

Take account of the following guidance to determine the number of different plants you have.

Landfill

For the purposes of rule 3, a landfill facility is one group of equipment and therefore one plant even if, as with most landfill facilities, a number of different cells are built into the landfill design.

Any other directly associated activities that are also listed activities generate their own complexity scores. An example of this would be leachate treatment plants.

Example

A landfill accepts non-hazardous waste in one area and stable non-reactive hazardous waste (SNRHW) in a separate cell. It has a leachate treatment plant that treats 100 m3 of leachate per day. This installation would attract three complexities:

- A complexity C for the biodegradable landfill area
- A complexity D for the SNRHW cell
- A complexity A for the leachate treatment plant.

Waste treatment and storage - general

There is separate Rule 3 guidance for this sector as some activities don't use equipment generally understood as being process plant. The capacity of the facility determines whether an activity listed in Sections 5.3, 5.4 or 5.6 is being undertaken. You can use the series and parallel tests to help determine numbers of process plant and associated Opra complexities.

A waste management facility may undertake a number of listed operations and unlisted directly associated activities. As such, an installation may consist of one or more disposal or recovery operations set out in the Waste Framework Directive e.g. D9, D13, D14 etc

Hazardous waste treatment operations (Section 5.3)

For each installation undertaking listed waste activities that involve hazardous waste, identify the number of different waste disposal and/or waste recovery operations that are undertaken at the facility to which the Regulations apply e.g. (i) biological treatment, physico-chemical treatment, blending or mixing etc.

Each separate hazardous waste disposal or recovery operation carried out using a group of equipment constitutes a plant for the purposes of Rule 3 regardless of capacity and each attracts one complexity. However, there should only be one complexity recorded for blending or mixing operations or repackaging operations undertaken at each installation, regardless of whether they are carried out in one or more plant. For example a site which undertakes two blending activities and three repackaging activities will only attract two complexities.

Similarly, where operations described within Section 5.3 A (1) (a) (ii) (C) are carried out at a facility, you only add one complexity band to cover this listed activity no matter how many separate operations there are at the installation.

Once you have identified the number of individual plant at the installation, enter these into the Opra spreadsheet. The Opra spreadsheet will automatically group the same ASR together. Where there are more than 3 of the same ASRs then these will be capped at a maximum of three.

For example an installation has four 5.3 A (1) a (ii) (A) activities and two 5.3 A (1) a (ii) (B) activities. Record all these activities in the Opra spreadsheet and these will be capped to three complexity band Cs and two complexity band Bs.

Note: The storage of hazardous waste for recovery and/or disposal is listed separately under Section 5.6.

Non-hazardous waste treatment operations (Section 5.4)

For each installation undertaking listed waste activities that involve non-hazardous waste, identify

the number of different waste disposal and waste recovery operations that are undertaken at the facility to which the regulations apply (e.g. biological treatment, physico- chemical treatment etc.

Each separate non-hazardous waste disposal or recovery operation carried out using a group of equipment constitutes a plant for the purposes of Rule 3 regardless of capacity and should each attract one complexity.

You do not need to record a complexity for blending or mixing operations or repackaging operations or storage of waste prior to treatment as this will be a Directly Associated Activity (DAA).

Hazardous waste storage operations (Section 5.6)

For each installation undertaking listed waste activities that involve hazardous waste, identify any hazardous waste storage operations that are undertaken at the facility to which the Regulations apply.

There should only be one complexity recorded at each installation for waste storage operations, regardless of whether they are carried out in one or more plant or area or undertaken for recovery or disposal.

For example, a site which undertakes multiple waste storage activities for recovery and disposal will only attract one complexity.

Return to Contents

Installations complexity look-up table

The complexity look up table shows the Schedule 1 activities with a complexity band in Opra. The activities are taken from Schedule 1 of the EPR, all references to activities or paragraphs are from this schedule. For each activity, we have assigned a complexity band using the criteria described above.

Table 1 - Definition of activities and Opra complexity band scores			**Band**
Chapter 1 – Energy Industry **Section 1.1 – Combustion**			
Part A (1)	a)	Burning any fuel in an appliance with a rated thermal input of: (i) 50 megawatts or more (ii) 300 megawatts or more	 C D
Section 1.2 – Gasification, liquefaction and refining			
Part A (1)	a)	Refining gas where this is likely to involve using 1,000 tonnes or more of gas in any 12 month period	D
	b)	Operating coke ovens where: (A) Annual production is more than 250 tonnes (B) Annual production is less than 250 tonnes	 E B
	c)	Gasification or liquefaction of (i) coal, or (ii) other fuels in installations with a total rated thermal input of 20 megawatts or more	E
	d)	Refining mineral oils	C
	e)	Loading, unloading or other handling of, the storage of, or physical, chemical or thermal treatment of: (i). Crude oil (ii). Stabilised crude petroleum (A) where the above activities are less than 500,000 tonnes per annum	 C C B

	f)	Activities involving the pyrolysis, carbonisation, distillation, 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	E
		(A) Manufacture of carbon black, charcoal cloth or coke briquettes	C
	g)	Activities involving the liquefaction or gasification of other carbonaceous material.	E
Chapter 2 – Production and processing of metals **Section 2.1 – Ferrous metals**			
Part A (1)	a)	Roasting or sintering metal ore, including sulphide ore, or any mixture of iron ore with or without other materials	C
	b)	Producing, melting or refining iron or steel or any ferrous alloy, including continuous casting, except where the only furnaces used are:	
		(i) Electric arc furnaces with a designed holding capacity of less than 7 tonnes	E
		(ii) Cupola, crucible, reverbatory, rotary, induction, vacuum or electro slag or resistance furnaces	E
		(A) Either of the above where the designed holding capacity of the electric arc furnaces is more than 7 tonnes and less than 70 tonnes	D
	c)	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	C
	d)	Loading, unloading or otherwise handling or storing more than 500,000 tonnes in total in any period of 12 months of iron ore, except during mining operations, or burnt pyrites	A

Section 2.2 – Non-ferrous metals			
Part A (1)	a)	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	C
	b)	Melting, including making alloys, of non-ferrous metals, including recovered products and the operation of non-ferrous metal foundries where: (i) 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 (ii) 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 tonnes or more	 B B
	c)	Producing, melting or recovering (whether by chemical means or by electrolysis or by use of heat) cadmium or mercury or any alloy containing more than 0.05 per cent by weight of either of those metals or, in aggregate, of both	A
Section 2.3 – Surface treating metals and plastic materials			
Part A (1)	a)	Unless falling within Part A2 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 $30m^3$	A
Chapter 3 – Mineral industries **Section 3.1 – Production of cement and lime**			
Part A (1)	a)	Producing cement clinker in rotary kilns with a production capacity exceeding 500 tonnes per day or in other kilns with a production capacity exceeding 50 tonnes per day	C
	b)	Producing lime or magnesium oxide in kilns with a production capacity of more than 50 tonnes per day	C

Section 3.2 – Activities involving asbestos			
Part A (1)	a)	Producing asbestos or manufacturing products based on or containing asbestos	A
	b)	Stripping asbestos from railway vehicles except: (i) In the course of the repair or maintenance of the vehicle (ii) In the course of recovery operations following an accident (iii) Where the asbestos is permanently bonded in cement or in any other material (including plastic, rubber or resin)	A
Section 3.3 – Manufacturing glass and glass fibre			
Part A (1)	a)	Manufacturing glass fibre in a plant with a melting capacity exceeding 20 tonnes per day	A
Section 3.4 – Production of other mineral fibres			
Part A (1)	a)	Melting mineral substances including the production of mineral fibres with a melting capacity exceeding 20 tonnes per day	A
Section 3.5 – Other mineral activities – no A1 activities			
Section 3.6 – Ceramic production			
Part A (1)	a)	Manufacturing ceramic products(including roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain) by firing in kilns where: (i) The kiln production capacity is more than 75 tonnes per day (ii) The kiln capacity is more than $4m^3$ and the setting density is more than 300 kg/m^3 and a reducing atmosphere is used other than for the purposes of colouration	AA

Chapter 4 – The chemical industry

Note 1 – only applicable for plants with production less than 100 tonnes per year and on the same installation as a larger plant.

Section 4.1 – Organic chemicals

Part A (1)	a)	Producing organic chemicals such as: (i) Hydrocarbons linear or cyclic, saturated or unsaturated, aliphatic or aromatic where: • Annual production is less than 2,000 tonnes • Annual production more than 2,000 tonnes (ii) Organic compounds containing oxygen such as alcohols, aldehydes, ketones, carboxylic acids, esters, ethers, peroxides, phenols, epoxy resins where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (iii) Organic compounds containing sulphur such as sulphides, mercaptans, sulphonic acids, sulphonates, sulphates and sulphones and sulphur heterocyclics where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (iv) 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 where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (v) Organic compounds containing phosphorus, such as substituted phosphines and phosphate esters where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (vi) Organic compounds containing halogens such as halocarbons, halogenated aromatic compounds and acid halides where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (vii) Organometallic compounds such as lead alkyls, Grignard reagents and lithium alkyls where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes	B C B C B C B C B C B C B C

		(viii) Plastic materials such as polymers, synthetic fibres and cellulose-based fibres where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes • (ix) Synthetic rubbers where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (x) Dyes and pigments where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes (xi) Surface-active agents where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes • Manufacture of soap via neutralisation of fatty acids (any quantity) (A) Any of the above activities but where annual production is less than 100 tonnes (Note 1) (B) 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 12 month period, the polymerisation or co- polymerisation of more than 50 tonnes but less than 1000 tonnes of any of those materials or a combination of those materials (C) Any activity involving the use in any period of 12 months of one tonne or more of toluene di-isocyanate or other di-isocyanate of comparable volatility or, where partly polymerised, using partly polymerised di-isocyanates or prepolymers containing one tonne or more of those monomers, if the activity may result in a release into the air which contains such a di-isocyanate monomer	B C B C B C B C B A A A
Section 4.2 – Inorganic chemicals			
Part A (1)	a)	Producing inorganic chemicals such as: (i) Gases such as ammonia, hydrogen chloride, hydrogen fluoride, hydrogen cyanide, hydrogen sulphide, oxides of carbon, sulphur compounds, oxides of nitrogen, hydrogen, oxides of sulphur and phosgene (ii) Acids such as chromic acid, hydrofluoric acid, hydrochloric acid, hydrobromic acid, hydroiodic acid, phosphoric acid, nitric acid, sulphuric acid, oleum and chlorosulphonic acid	 C C

		(iii) Bases such as ammonium hydroxide, potassium hydroxide, sodium hydroxide	C
		(iv) Salts such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate	C
		(v) Non-metals, metal oxides, metal carbonyls or other inorganic compounds such as calcium carbide, silicon, silicon carbide, titanium dioxide	C
		(vi) Halogens or interhalogen compound comprising two or more of halogens, or any compound comprising one or more of those halogens and oxygen	C
		(A) Any of the above activities but where annual production is less than 100 tonnes (Note 1)	A
		(B) Production of gypsum by means of flue gas de-sulphurisation at a coal fired power station	C
Part A (1)	b)	Unless falling within another section of this Schedule, any manufacturing activity which is likely to result in the release into the air or into water of any hydrogen halides (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to 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	A
	c)	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 antimony, arsenic, beryllium, gallium, indium, lead, palladium, platinum, selenium, tellurium and 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 7 of Part 1 of this schedule.	A
	d)	Recovering any compound of cadmium or mercury	A
	e)	Unless falling within another section of this table, any manufacturing activity involving using 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	A
	f)	Unless falling within another section of this Schedule, any activity, other than the combustion or incineration of carbonaceous	A

		material as defined in Part A(1) of Section 1.2 of this Schedule, which is likely to result in the release into the air of any acid-forming oxide of nitrogen	
Section 4.3 – Chemical fertiliser production			
Part A (1)	a)	Producing (including any blending which is related to their production) phosphorus, nitrogen or potassium based fertilisers (simple or compound fertilisers) (A) Any of the above activities but where annual production is less than 100 tonnes (Note 1) B) Any of the above activities but where blending of chemical fertilisers into granules is achieved by dry processes.	C A A
Section 4.4 – Plant health products and biocides			
Part A (1)	a)	Producing plant health products or biocides where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes	 C D
Section 4.5 - Pharmaceutical production			
Part A (1)	a)	Producing pharmaceutical products where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes	 C D
Section 4.6 – Explosives production			
Part A (1)	a)	Producing explosives where: • Annual production is less than 2,000 tonnes • Annual production is more than 2,000 tonnes	 C D
Section 4.7 – Manufacturing activities involving carbon disulphide or ammonia			
Part A (1)	a)	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	A

Chapter 5 – Waste management **Section 5.1 – Incineration and Co-Incineration of Waste**			
Part A (1)	a)	The incineration of hazardous waste in an incineration or co- incineration plant with a capacity exceeding 10 tonnes per day (A) An incineration activity which relates specifically to the main process of cleaning/refurbishing drums (B) A 5.1 (A) 1 a) activity which relates solely to the burning of waste oil (C) A 5.1 part A (1) (a) activity which relates to the burning of hazardous waste gas	E C C B
	b)	The incineration of non-hazardous waste in an incineration or co-incineration plant with a capacity exceeding 3 tonnes per hour unless it is: (A) An incineration activity which relates specifically to the main process of cleaning/refurbishing drums (B) A 5.1 (A) 1 b) activity which relates solely to the burning of waste oil (C) A 5.1 (A) 1 b) activity which relates solely to the burning of fuel manufactured from waste not subject to Schedule13A (Waste Incineration: Industrial Emissions Directive) of the EPR. (D) A 5.1 (A) 1 b) activity which relates to the burning of non-hazardous waste gas	E C C C B
	c)	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	C
Section 5.2 – Disposal of waste by landfill			
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, excluding disposals in landfills taking only inert waste. • Non hazardous waste • Hazardous waste	 C D

Section 5.3 – Disposal or Recovery of Hazardous Waste			
Part A (1)	a)	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities-	
		(i) Biological treatment	B
		(ii) Physico-chemical treatment (except waste oils and WEEE)	B
		(A) Physico-chemical treatment exceeding 20 tonnes per day(except waste oils, WEEE and other metals)	C
		(B) Physico-chemical treatment; distillation of waste oil or solvent	B
		(C) Physico-chemical treatment; waste oils (except distillation), WEEE and other metals	A
		(iii) Blending or mixing prior to submission to any of the other activities listed in this Section or in Section 5.1	B
		(A) Blending or mixing prior to submission to any recovery activity listed in this section or in Section 5.1	A
		(iv) Repackaging prior to submission to any of the other activities listed in this Section or in Section 5.1	B
		(A) Repackaging prior to submission to any recovery activity listed in this Section or in Section 5.1.	A
		(v) Solvent reclamation or regeneration	A
		(vi) Recycling or reclamation of inorganic materials other than metals or metal compounds	A
		(vii) Regeneration of acids or bases	A
		(viii) Recovery of components used for pollution abatement	A
		(ix) Recovery of components from catalysts	A
		(x) Oil re-refining or other reuses of oil	C
		(xi) Surface impoundment	

Section 5.4 – Disposal, Recovery or a mixture of disposal and recovery of non- hazardous waste.			
Part A (1)	a)	Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving one or more of the following activities, and excluding activities covered by Council Directive 91/271/EEC concerning urban waste-water treatment (1) by-	
		(i) Biological treatment	A
		(ii) Physico-chemical treatment	A
		(iii) Pre-treatment waste for incineration or co-incineration	A
		(iv) Treatment of slags and ashes	A
		(v) Treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components	A
	b)	Recovery or a mix of recovery and disposal or non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving one or more of the following activities and excluding activities covered by Council Directive 91/271/EEC, by-	
		(i) Biological treatment	A
		(ii) Pre-treatment of waste for incineration or co-incineration	A
		(iii) Treatment of slags and ashes	A
		(iv) Treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components	A

Section 5.5 –The production of fuel from waste			
Part A (1)	a)	Making solid fuel (other than charcoal) from waste by any process involving the use of heat	B
Section 5.6 -Temporary or underground storage of hazardous waste			
Part A (1)	a)	Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section, except— (i) temporary storage, pending collection, on the site where the waste is generated, or (ii) activities falling within Section 5.2.	B
	b)	Underground storage of hazardous waste with a total capacity exceeding 50 tonnes.	D
Section 5.7 - Treatment of waste water			
Part A (1)	a)	Independently operated treatment of waste water not covered by Directive 91/271/EEC and discharged by an installation carrying out any other Part A(1) or A(2) activity	A
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 where:	
		(A) Annual production capacity for individual plant is greater than 50,000 tonnes	B
		(B) Annual production capacity for individual plant is less than 50,000 tonnes	A

	b)	Producing in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day and where: (A) Annual production capacity for individual plant is greater than 50,000 tonnes (B) Annual production capacity for individual plant is less than 50,000 tonnes	 C A
Section 6.2 – Carbon activities			
Part A (1)	a)	Producing carbon or hard-burnt coal or electro graphite by incineration or graphitisation	A
Section 6.3 – Tar and bitumen activities			
Part A (1)	a)	The following activities: (i) Distilling tar in connection with any process of manufacture (ii) Heating tar or bitumen for the manufacture of electrodes or carbon-based refractory materials where carrying out of the activity is likely to involve using 5 tonnes or more of tar or bitumen or a combination of both in any 12 month period	 A A
Section 6.4 – Coating activities, printing and textile treatments.			
Part A (1)	a)	Pre-treating (mercerization) or dyeing fibres or textiles in plant with a treatment capacity of more than 10 tonnes per day	A
Section 6.5 – Manufacture of dyestuffs, printing ink and coating materials – no A1 activities			
Section 6.6 – Timber activities - no A1 activities			
Section 6.7 – Activities involving rubber - no A1 activities			

Section 6.8 –Treatment of animal and vegetable matter and food industries cont.			
Part A (1)	a)	Tanning hides and skins at plant with a treatment capacity of more than 12 tonnes of finished products per day	B
	b)	Slaughtering animals at plant with a carcass production capacity of more than 50 tonnes per day	B
	c)	Disposing of or recycling animal carcasses or animal waste, other than by rendering, or by incineration falling within Section 5.1 of this table at plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal waste or a combination of both (A) as above (Section 6.8 Part A (1) c)) but where the activity is an integral part of an abattoir/slaughter house installation	C A
	d)	Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed from: (i) Only animal raw materials (other than milk only) with a finished product production capacity greater than 75 tonnes per day (ii) Only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year (iii) Animal and vegetable raw materials (other than milk only), both in combined and separate products, with a finished product production capacity in tonnes per day greater than - (aa) 75 if A is equal to 10 or more (bb) [300-(22.5 x A)] in any other case Where 'A' is the portion of animal material in percent of weight of the finished product production capacity	 B B B
	e)	Treating and processing milk, the quantity of milk received being more than 200 tonnes per day (average value on an annual basis)	B

Section 6.9 – Intensive farming			
Part A (1)		Rearing poultry or pigs intensively in an installation not regulated by 'Environment Agency appropriate measures' with more than: (i) 40,000 places for poultry (ii) 2,000 places for production pigs (iii) 750 places for sows	 N/A N/A N/A
Section 6.10 - Carbon Capture and Storage			
Part A (1)	a)	Capture of carbon dioxide streams from an installation for the purposes of geological storage pursuant to Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide	E

Return to Contents

2. Emissions and inputs attribute

This section explains the different elements of this attribute and how you calculate your banding. Your Opra profile will reflect all the emission limits that you're permitted or applying for. The following sections provide more details on how this applies.

Emission threshold and index

This attribute is based on the quantities and type of materials that you have applied to or are allowed to process at or emit from your installation as stated in your permit.

The following elements may be relevant for your installation:

- Air emissions;
- Water emissions;
- Sewer emissions;
- Emissions to land;
- Waste inputs;
- Off-site disposal or recycling of waste.

We use and emission threshold differentiate between different types of substance and to allocate their relative importance. The emission threshold is used to calculate an 'emission index' for each substance. This is totalled to give a score that reflects both the quantities and types of substance you are permitted to manage.

Emissions to Air

An emission index (EI) is calculated for each relevant substance within these categories. The individual emission indices are then added together. If the maximum permitted release of a substance is below these thresholds, then you are not required to include it in the calculation of your emission index.

Emissions to water (other than sewer)

For emissions to water, substances are grouped to reflect their environmental impact (relative persistence, toxicity, etc.) according to Environmental Quality Standards (EQSs) and allocated an emission threshold.

Emissions to sewer

For emissions to sewer, the total emission index calculated is divided by three and automatically calculated by the spreadsheet. This is done to reflect our regulatory effort in such cases (ongoing environmental assessment of the sewage treatment system is not part of the permit).

Emissions to Land

For installations, such as landfills, which discharge wastes to land directly, emissions are characterised by the type and quantity of waste rather than evaluating each individual substance. The

types of waste taken account of in the Opra Scheme are: inert, non- hazardous (non-biodegradable), non-hazardous (biodegradable) and hazardous.

This approach eliminates the problem of trying to assign an emission threshold to each individual substance in such waste. It uses waste input for landfills as a surrogate to calculate emissions.

- Use the permitted type and quantity being received to calculate the Opra score for emissions to land;
- Enter separately any emissions from other activities that are also part of the landfill installation (e.g. emissions from leachate treatment etc);
- If your installation isn't a landfill but does release wastes onto land within the installation boundary (e.g. pulp from a paper mill spread onto fields for soil conditioning), enter it under emissions to land. Make your entry against the appropriate waste classification as if it were going to a landfill; the example given above is 'non- hazardous waste (biodegradable)'

Waste Input

Categorise and quantify waste inputs for Sections 5.3 and 5.4 activities of Schedule 1 of the Regulations.

As with disposals to land, the starting point is to determine whether the waste is inert, non- hazardous, etc. The emission thresholds are given.

If there are no quantity limits on the different waste types you can accept, the total quantity of waste should be assigned to the waste type with the lowest emissions threshold.

For example, if you're permitted to accept hazardous and non-hazardous but your permit doesn't quantify how much of each waste type, then the total amount permitted would be assigned to hazardous waste.

Wastes quantified under Waste input don't need to be recorded under waste transfer off- site following treatment/storage.

Waste input for effluent treatment plants.

If you're applying or are permitted to operate an effluent treatment plant that is in addition to another schedule 1 activity in a permit you do not need to capture waste inputs. If there is additional effluent imported into the facility, record this amount as a waste input.

If you are applying or are permitted to operate an effluent treatment plant which is the only schedule 1 listed activity in the permit you must record waste inputs for it.

For all landfill sites, use Emissions to Land

Waste transfers off–site

Waste being transferred off-site involves regulatory effort with regard to that installation's permit. A score is therefore required for this activity.

For solid and liquid wastes directed off-site for disposal, recycling, re-use, or recovery, the emissions score is based on the waste classification, i.e. whether inert, non-hazardous, biodegradable, etc and the total volumes of the waste.

If you increase the proportion of materials that go for re-use, recycling or recovery, as opposed to disposal, you will be able to reduce the amount of waste that you record in off- site waste transfers for disposal.

You need to decide whether the waste is inert, non-hazardous, etc. The emission thresholds are shown in the emissions to land tab of the spreadsheet.

Calculation of emission indices for waste transfers off-site, other than via sewer

Many operators transfer waste from their installation off-site either to their own or third party facilities.

If you use your own facilities, e.g. a landfill or land for land spreading, then treat these operations as direct releases to land and not as off-site transfers. Calculate emissions indices for these transfers in the same way as those for direct discharges to land.

If you pass waste to a contractor who operates a separately permitted or exempt facility such as a landfill or recycling plant, treat these operations as off-site transfers. The emission indices will qualify, as appropriate, for a reduction to either a third or a tenth.

Whether you use your own facility or employ a separate contractor, we need to assess whether the waste producer (permit applicant/holder) is applying Best Available Techniques (BAT). The third or tenth reductions for off-site transfers provided for those wastes passed onto a contractor recognise:

- Our reduced regulatory effort at your installation
- Our separate regulation of the permitted or exempt contractor's site.

Calculation of emission indices where waste is disposed of at the operator's own site

A small number of operators may have their own on-site landfills with a separate permit. In these cases, the emissions from the operator's installation are landfilled in this separately permitted on-site landfill, i.e. the emissions from the installation are the sole input into the landfill.

To avoid double counting, account for these emissions only in the emissions to land tab of the spreadsheet of the Opra profile for the landfill. You don't need to include the waste removed from the producing activity installation in the off-site disposal table.

Return to Contents

Emissions and inputs tables

There are a series of tables of emissions and inputs (to various environmental media (air, water, sewer, land and waste). Record the following values in the appropriate table to calculate your emissions and inputs attribute.

Step 1 – Work out your emissions and inputs

If you are applying for a new permit you must follow these steps:-

- **Step 1a –** For emissions to air, water and sewer you need to calculate the maximum quantity of the substance you are applying to emit (annual mass).
- You can use the expected permit limits or plant design emission rates (in mg/l, mg/m^3, kg/hr, tonnes/year etc). You may also need to know emission flow rates and the maximum operating hours for the facility.
- Where you have several ELVs for the same substance - eg instantaneous, ½ hr average; daily average - you should use the daily average ELV.
- You should use standard reference conditions as defined in the permit.
  (For further guidance see page 33).

Step 1b – For emissions to land you need to identify the types and quantities of waste involved i.e. hazardous, inert etc. This will be the amount you are applying to receive at your installation annually.

Step 1c – If you are applying for a Section 5.3 or a 5.4 activity you will need to record your waste inputs. You need to identify the types and quantities of waste involved i.e. hazardous, inert etc. This will be the amount you are applying to receive at your installation annually. You must specify the quantities of each waste type. If you don't then the total tonnage you apply for must be assigned to the waste type with the lowest emissions threshold.

Step 1d – For waste taken off site you need to identify the types and quantities of waste e.g. hazardous, inert etc for recovery/disposal which will leave your installation annually.

Where the figure is below the relevant emission threshold you don't enter it into the spreadsheet when calculating the emissions index.

When calculating your emissions and inputs, you should not include any fugitive emissions, unless there are specific limits for fugitives in your permit.

Step 2 – Calculate your emissions index

Enter your maximum quantity into the spreadsheet under maximum quantity. Your emissions index and band will be calculated automatically.

Please consult our local office if you consider that placing this information on a public register would prejudice your commercial interests.

When your permit is issued, this element of the Opra profile will be re-calculated by Environment

Agency permitting staff. The calculation for the Opra profile for all aspects of the emissions and inputs attribute will be based on the limits specified in the permit. Only emissions for which there is a limit included in the permit need to be included in the Opra profile.

Annual Review of Opra profiles

Each year we may review your Opra profile. During this review we may re-calculate your emissions to air, water and sewer using actual flow rates and emission limit values specified in your permit.

For waste which is taken off site for recovery/disposal off-site this will be based on the figures you have specified in your permit application. These figures may be reviewed on an annual basis to reflect the actual waste arising from your installation.

Emission notes and tables

Substances not included in the emissions tables

There may be some substances you are authorised to release, that aren't shown on our air, water and sewer attribute lists. You'll note sections in the attributes titled, "all consented substances not listed above" (water and sewer) or "other compounds" (air) and in the substance column "table A1" or "table A2" against which we show emission thresholds. If the substance you have isn't listed then you need to contact us to see if we have published any new emissions thresholds. You can do this by sending an email to enquiries@environment-agency.gov.uk.

Section 6.8 Activities

For section 6.8 activities, particulates means total particulates (covers both organic and inorganic particulates).

For particulates that are organic and readily bio-degradable in nature, the operator should divide the total permitted mass release of particulates by a factor of ten, (e.g. a release of 1500kg would be entered in the spreadsheet as 150kg).

Standby plant

You do not have to enter any emissions for standby plant providing it meets the rules specified on page 5.

Operating periods for plant

Operating period considerations may reflect:

- Where an installation's normal operating period is 52 weeks per year but only 5 days a week (either 'normal' days or double shifts);
- The normal time of operation being 'day' only;
- The need to stop for essential pre-planned periods of maintenance;
- Plant with variable emission profiles over an operating cycle, e.g. chemical reactions where several stages take place in the same reactor, but emissions only approach the permit limit during one of these stages. If you can demonstrate this situation, normally by producing a monitoring profile for the plant, then you may be able to adjust the mass emission to reflect this. This figure should still be the one applicable to the permitted production capacity of the plant rather than actual production.

In all cases, the operator must provide evidence to support the calculated reduction in operating period.

The Emission indices for the Opra bands are below. The Opra spreadsheet will calculate these automatically for you.

Emission index (EI)	Opra emission band
<1-9	A
10–99	B
100–999	C
1000–9999	D
≥10,000	E

Return to Contents

3. Location Attribute

How to calculate your location attribute

We have developed questions around seven topics. To calculate your location band, answer the questions in the location tab of the Opra spreadsheet.

Human occupation/presence

This takes account of the distance from the installation boundary to the nearest public or private occupied building (house, school, office, hospital, nursing home etc). This also includes open spaces where people are regularly present (playing fields, allotments, parks etc) and other private occupied premises that may form part of multi-operator installations.

You shouldn't include land that people rarely use, (farmland, and privately owned woodland) and buildings that only contain your employees as you have responsibilities towards them under health and safety legislation.

Statutory nature conservation areas

If your installation is within a certain distance of important nature conservation areas, such as sites designated under the Habitats Directive and/or the Countryside and Rights of Way Act 2000 (CRoW), then the impact of emissions on the conservation areas must be assessed during the determination of your permit.

Once we have determined your permit, if we find that your installations will have no adverse effect on the Habitat or CRoW site, we will adjust your Opra profile to reflect this.

The location of conservation sites designated under the Habitats Directive and CRoW can be found on the Natural England and Natural Resources Wales websites.

For nature conservation areas to be "relevant" they must meet certain proximity criteria in relation to the proposed installation. These criteria vary depending on the type of installation and are given below. If your installation requires assessment for both a Habitats site and a CRoW site, then select "Yes" for both Habitats and CRoW.

When submitting your first permit application, you must answer "Yes" to the questions in the Opra spreadsheet, if your installation meets the criteria outlined below.

Distances are measured from the installation boundary to the identified conservation site.

If your installation does not meet any of the criteria for either the Habitats Directive or CRoW, then leave the answers to these blank.

	Sites	Distance
CRoW	Sites of Special Scientific Interest (SSSI)	2km
Habitats Directive	Ramsar Sites	• Emission to air = 10km • Power station = 15km • No emission to air = 1km • Landfill that can attract gulls/crows = 5km • Other landfills = 2km
	Special Areas of Conservation (SAC)	
	Special Protection Areas(SPA)	
	Marine Protection Areas(MPA)	

There are a number of other nature conservation, heritage and landscape designations such as Scheduled Ancient Monuments, National Nature Reserves and Local Wildlife Sites. The proximity of these to your facility does not influence your Opra profile but we may consider them when permitting your facility.

Contact your local Agency officer if you require any information on the requirements of the Habitats Regulations or the CRoW Act.

If you vary your permit or the status of the designated site changes, this may impact on this element of your profile and we may adjust your Opra profile accordingly.

Groundwater/aquifers

You can find if your site is in Groundwater Protection Zone (GPZ) (also referred to as Groundwater Source Protection Zone) or on an aquifer from our website on "What's in your backyard?" You will need to enter a score if your site lies within any GPZ.

There are two types of aquifer designation; these are Superficial (drift) and Bedrock. You should look at both of these to determine if any part of your installations is on an aquifer. You don't need to enter a score if your installation is on "Unproductive Strata".

Sensitivity of receiving waters

You need to consider any waters where there is any **potential** pathway for pollution, such as a dry ditch or drainage system that could transmit any spill to groundwater and/or surface water and how the water could be affected.

The way we classify sensitivity of receiving waters has changed with the introduction of the Water Framework Directive (WFD).

However, we will continue to use the General Quality Assessment (GQA) approach that Opra has used in previous years, using the last available data – for 2009.

If the boundary of your installation is within 10 metres of any receiving water, even if your drainage is an entirely closed system, you need to make an entry for the sensitivity of receiving waters.

You do not receive a score if your site meets the following criteria:

- Is over 10m from any receiving waters; and
- Is an entirely enclosed system or; has all surface or foul water discharging to public sewer for sewage treatment

We classify the sensitivity of receiving waters for GQA in terms of both chemical and biological water quality. We rate the water quality from A to E, where A represents the highest quality, and E the lowest. When answering this question you should use the relevant water quality classification for your facility. If there is a score for both biological and chemical use the higher.

To convert the letter-based classification into numeric grades used within Opra, use:
Class A or estuarine/coastal waters = 1
Class B = 2
Class C = 3
Class D = 4
Class E or F = 5

The table below will help you to calculate the correct score.

Discharging to more than one water-course?	Choose closest score, or if they are the same distance, use the most sensitive
Discharging to an unclassified stretch that joins a classified stretch within 1km?	Use the sensitivity of classified stretch
Is the closest classified stretch over 1km away?	Enter a score of 2
Is there any evidence to show the water-course: • Supports salmonids, or has direct impact on waters covered by the Bathing Waters or Shellfish Directives? • Is a dry ditch?	• Enter a score of 3 • Enter a score of 1
Does the site discharge to a soakaway or land, rather than surface water?	Enter a score of 1

You can find information on the quality of surface waters from the following link What's in Your Back Yard or by contacting your local Environment Agency contact.

Direct run-off

If your site has any surface water run-off you need to indicate whether or not this is via an interceptor, lockable valve, or other type of mechanism that allows the operator to control the release of contaminated drainage. This includes any surface water that drains to groundwater, surface water or unmade ground.

Air quality management zones

Air Quality Management Zones (AQMA) (also referred to as Air Quality Management Areas) are areas your local council have identified as needing a plan to improve air quality. If your facility boundary lies in, or is within 2km of an AQMZ, you need to check whether or not your

operations emit a declared pollutant, i.e. one specified by the local authority for that AQMZ. If you emit a declared pollutant even though you have no emission limit value for the substance you must capture this in the spreadsheet.

Flood plain

You can find out if your facility is in a fluvial or coastal flood plain and at risk of flooding, by entering your facility's postcode in our flood-risk mapping tool. You can access this facility by clicking on the following link: Flood Plain.

Return to Contents

4. Operator performance attribute

How to calculate your operator performance attribute

This attribute takes into account the following factors, which each have a table and related questions in the operator performance tab on the Opra spreadsheet. We will audit your management systems once a permit has been issued.

Management systems:

- Operations and maintenance
- Competence and training
- Emergency planning
- Organisation
- Enforcement history

For each of these tables you should add the name of the position or group within your company that has responsibility for each aspect. Add your own references to relevant documents in the final column.

The responses you provide to the questions relates to your facility. If you have a corporate Environmental Management System (EMS) we need to ensure that the overarching EMS has been adopted into operating procedures at your installation.

If you are an Operator applying for a permit for the first time you may not have all the procedures in place that constitute an EMS.

We recognise that you may be in the process of producing your EMS at the application stage, with an expectation that the full procedures will be in place when the permit is determined. In these instances, you can answer 'yes' where appropriate to some of the questions in the Operator Performance attribute of the profile.

Once the permit is determined, where you have claimed that you have elements of an EMS then these will need to be in place as they are likely to be checked during the first site visit. If all claimed elements of the EMS are not in place then the Opra profile will be adjusted to reflect this and any breach of permit condition(s) recorded on the Compliance Classification Scheme.

If you have a permit for more than one facility and each is covered by an EMS the procedures that you have in place should relate to each individual facility.

If you have EMAS or ISO 14001, certified by an organisation accredited by the UK Accreditation Service (UKAS), then you need to supply details of:

- The certificate;
- The name of the certification body;
- The certification body's registration number with UKAS

"Environmental reports" refers to externally published reports for shareholders, etc, detailing progress against set environmental targets.

Enforcement history

A record of environmental enforcement action at your site would indicate that we need to regulate your site more closely. The Opra banded profile of Operators who perform poorly, will be altered. This may affect your charges.

The table illustrates how the penalty points system works.

Penalty points system for enforcement history

Type of action	Points after 1st event	Points after 2nd event if not spent	Points after 3rd event if not spent
E1 Enforcement/ improvement/ works notice/compliance and restoration notice(s) in the same year for different events	-5	-10	-40
E2 Formal caution/a fixed monetary penalty/enforcement undertaking(s) in a 3-year period for different events	-5	-10	
E3 Suspension/ prohibition/ revocation notice/stop notice(s) in a 3-year period for different events	-10	-40	
E4 Variable monetary penalty/conviction(s) in the last 5 years by the Environment Agency (under and legislation) or by HSE under COMAH or by local authority under part I or II of Environment Protection Act 1990	-15	-40	

Other possible combinations of enforcement actions/points scores resulting from different time periods before compliance action classed as "spent" (see Appendix 1)

Actions	Points
a) E1 plus E2	-10
b) two E1's plus E2	-15
c) E2 plus one E3	-15
d) E1 plus E2 plus E3	-40

e) two E1's plus E2 plus E3	-40
f) E1 plus E3	-40
g) two E1's plus E3	-40
h) two E3's	-40
i) two E2's plus E3	-40

The scoring systems under enforcement history reflect the timescales under the Rehabilitation of Offenders Act 1974 (see Appendix 2). For Opra, the time to become 'spent' for notices issued by the COMAH competent authority is the same as if they were notices we had issued, for example a COMAH improvement notice would become spent after one year.

For the Opra penalty points system:

- Enforcement, improvement works, compliance and restoration notices are considered "spent" after one year.
- Formal cautions, fixed monetary penalty and enforcement undertakings are considered "spent" after three years.
- Suspension, prohibition, revocation and stop notices are considered "spent" after three years.
- The period before convictions are considered "spent" is governed by the Rehabilitation of Offenders Act 1974 (see Appendix 2).
- Variable monetary penalties are considered "spent" after five years
- Multiple notices served at the same time, in relation to the same event, will count as one notice.
- Formal cautions which cover more than one offence committed at the same time, or in relation to the same event, will count as one formal caution.
- The date of issue of a notice or formal caution will be taken into account when determining the number of notices or formal cautions received within any period.

We may need to take more enforcement action for a specific non-compliant event, for example issuing a suspension notice after an enforcement notice. There are two scenarios in these cases.

Scenario A – Where this occurs in the same calendar year

If an enforcement notice is followed by a suspension notice for the same event, only the suspension notice will count (minus 10 points).

Scenario B – It doesn't happen in the same calendar year

In year one, the enforcement notice counts (minus 5 points) and, in year two, the suspension notice counts (minus 10 points).

Return to Contents

5. Compliance Rating Attribute

Determining your compliance rating band

Compliance rating identifies the risk arising from operating regulated facilities. It shows those operators and facilities who we would regard as higher risk and so need extra regulatory effort for compliance assessment

We calculate your compliance rating after your permit has been issued.

Compliance Classification Scheme

We've adopted a standard approach to classify permit breaches known as the Compliance Classification Scheme (CCS). Compliance rating is based on the CCS events over the course of a calendar year (January to December). Non-compliances identified and recorded in 2014 are used to work out the compliance rating for 2016 Opra banded profiles and charges. In the first year after your permit is issued the compliance rating will be based on any non-compliances from when your permit is issued until 31 December.

Management system assessment

Where we find a serious management system failure we will review the management system section of your Opra banded profile. This will happen if we find a failure that scores a CCS Category 1 or 2, or for repeated failures that score 3 or 4. We'll look at how effective your management system is as part of our compliance assessment.

Converting CCS points into an Opra band

We convert permit breaches into a points system, and add the points from each event to give an annual total non-compliance points. We allocate points based on the relative amount of additional work we usually have to do while dealing with different types of permit breach. For category 1 breaches some of our costs are recovered through subsequent legal action, for example costs allocated following prosecution. We have taken this into account when calculating the points score.

CCS category breach	CCS Points per breach
1	60
2	31
3	4
4	0.1

We total the points for each non-compliance over a calendar year and convert the annual total into an Opra band:

- Opra Band A: 0 CCS points
- Opra Band B: 0.1 - 10 CCS points

- Opra Band C: 10.1 - 30 CCS points
- Opra Band D: 30.1 - 60 CCS points
- Opra Band E: 60.1 - 149.9 CCS points
- Opra Band F: 150 + CCS points

How your compliance rating will affect your Opra band

Your base Opra score will be reduced if you achieve a band A for your compliance rating. This reflects the reduction in risk posed by well-managed installations.

If you have an occasional minor breach of a permit condition we will not change your overall Opra risk score.

If you have experienced greater non-compliance and have a band higher than B, your basic Opra risk score will increase due to the additional workload we generally associate with higher compliance banding.

Details of the charge adjustment for each Opra band are included in the Environmental Permitting Charging Scheme Guidance.

Telling you about your compliance rating band and permit breaches

We will:

- Tell you as soon as possible of any non-compliance and how we will classify this under the CCS. We will also tell you about any proposed enforcement action to deal with the breach;
- Give you the opportunity to clarify/discuss with an Environment Agency officer why we have awarded the event a specific CCS category;
- Tell you how to raise the matter with the Environment Agency officer's line manager if you aren't happy with the categorisation of a non-compliance. If you consider we haven't applied our published guidance on CCS, see who to contact on page 52;
- Tell you about all non-compliance events that we use to calculate your compliance rating attribute band.

If a permit is transferred between operators

If you have a permit that has been transferred from a previous operator, the compliance rating for the previous operator will continue to apply to you. This is because the previous compliance record at a site continues to be a good indicator of the amount of regulatory effort we need to carry out.

If the previous compliance rating was band C, D, E or F, but we have strong evidence that you are very different to the old operator and the previous non-compliance issues have been dealt with, or can be quickly sorted out, we will reset the compliance rating band to band B.

If you have a permit which has been partially transferred to you, we will make a decision on a case by case basis as to which operator will receive the compliance rating associated with the pre-transfer permit. This will be based on our knowledge of the site and the operators concerned.

Return to Contents

Abbreviations

AQMZ	Air Quality Management Zone
BAT	Best Available Techniques
BOD	Biochemical oxygen demand
CCS	Compliance Classification Scheme
COD	Chemical oxygen demand
CRoW	Countryside and Rights of Way Act 2000
EI	Emissions Index
EMAS	Eco-Management and Audit Scheme
EMS	Environmental management system
EP OPRA	Environmental Protection Operator and Pollution Risk Appraisal
EPR	Environmental Permitting Regulations 2013
EQS	Environmental Quality Standard
ET	Emissions Threshold
GPZ	Groundwater Protection Zone
HSE	Health and Safety Executive
IPC	Integrated Pollution Control
IPPC	Integrated Pollution Prevention and Control
OMA	Operator Monitoring Assessment
Opra	Operational Risk Appraisal
PPC	Pollution Prevention and Control
TSS	Total suspended solids
tpa	Tonnes per year
tpd	Tonnes per day
UKAS	UK Accreditation Service
WAMITAB	Waste Management Industry Training and Advisory Board
WML	Waste Management Licensing

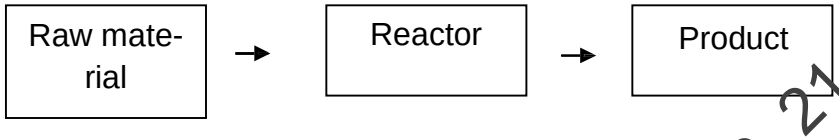
Return to Contents

Appendix 1 - Series and Parallel tests

The following are examples of how the series and parallel tests within Rules 3 and 4 of the Complexity attribute apply.

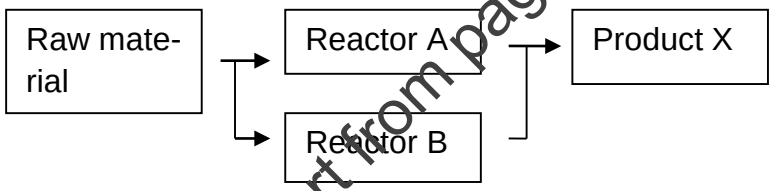
Example 1

An operator carries out a single activity, e.g. production of a carboxylic acid, in a single reactor to produce a product. In this example, there is a single activity carried on in a single plant i.e. one complexity band



Example 2

The same activity might be carried out in an installation with two independent reactors. In this case, there is a single activity carried out in two plants, i.e. two complexity bands. If the total production capacity of product X is <250 tpa, then these bands would be aggregated into a single complexity band.



Example 3

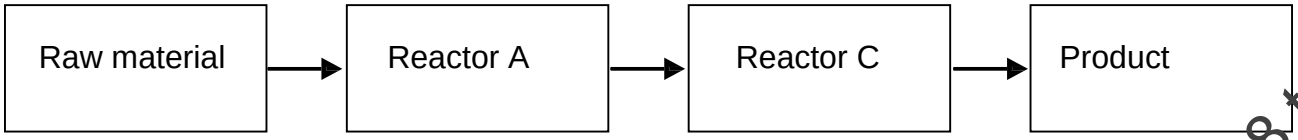
The same reactor might be used to produce a range of products; e.g. a multi-purpose reactor may be used to produce five different amines, three different nitrogen heterocyclics and two different phenols.

In this case, the five amines and the three nitrogen heterocyclics constitute one activity as they are all covered by Section 4.1 (a) (iv). The two phenols constitute a second activity as they are covered by Section 4.1 (a) (ii). As there is only a single reactor, this results in two complexity bands. If the total production capacity of all products is <250 tpa, they can be aggregated into a single complexity band.

If an operator uses 10 reactors that all operate independently of each other (i.e. there are 10 production lines) in the same way, then this results in 20 complexity bands. At this point, you should apply Rule 4. It is obviously not possible to operate every plant at full production for every activity. Therefore, the way in which the activities are distributed across the plants will require discussion. Once any reductions have been made by the application of Rule 4, the cap should be applied. In this example and assuming no aggregation, the application of the three complexity cap would reduce this to six bands – three for Section 4.1 (a) (iv) and three for Section 4.1 (a) (ii).

Example 4

An operator may produce a single product via a series of reactions involving two scheduled activities (e.g. production of aniline via intermediate production of nitrobenzene), with both stages taking place in separate single reactors.

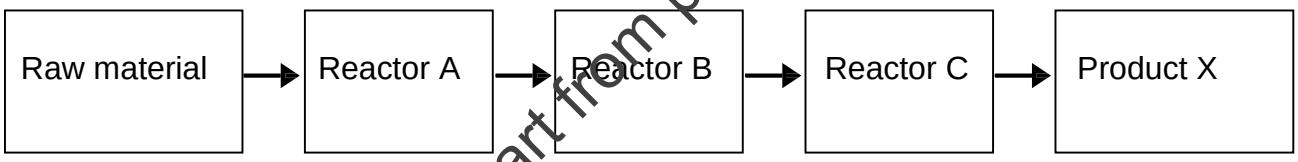


In this example, there is one activity carried on in a single plant (reactor A) and a second activity carried on in a single plant (reactor C), i.e. two complexity bands. This applies even if the two activities are in the same subsection of the EPR, e.g. if both are included in subsection 4.1 A (1) (a) (ii).

However, Rule 4 allows for aggregation on the basis of 'final product' production. In this example, reactor A produces zero final product (the purpose of the process is to produce aniline not nitrobenzene). If the quantity of aniline produced is <250 tpa, the two complexities can be aggregated into a single complexity band. However, if the production of aniline is >250 tpa, aggregation is not possible and there remain two complexity bands.

Example 5

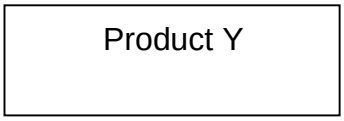
The production sequence in example 4 might have involved a series of intermediate stages.



In this example, there are three plants and a maximum of three complexity bands. The amount of final product produced by reactors A and B is zero. Thus, using Rule 4, if the amount of final product X is <250 tpa, all three activities can be aggregated into a single complexity band. If the amount of final product is >250 tpa, then the complexities relating to reactors A and B can be aggregated resulting in a total of two complexity bands.

Example 6

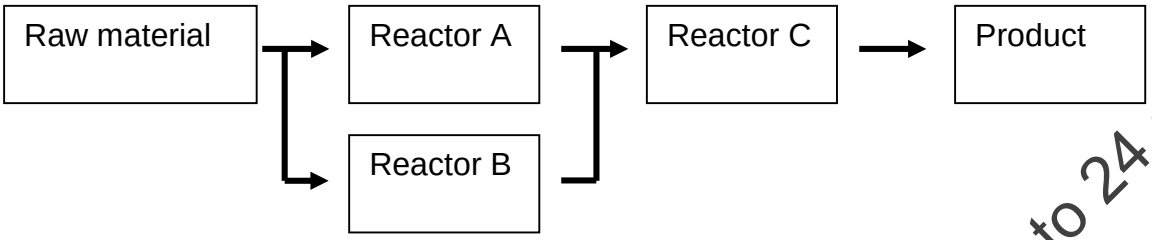
As part of the same reaction sequence, a proportion of the product from reactor B might be sold as final product.



In this case, reactor A carries out a single activity in a plant (one complexity), reactor B carries out a single activity in a plant (one complexity) and reactor C carries out a single activity in a plant (one complexity). The output of product from A is zero, the output from B is Y tpa and that from C is X tpa. The complexities resulting from reactors A, B and C can be aggregated in any combination provided the quantity of final product in each aggregation remains <250 tpa. Thus, there could be three complexities if the product from each of B and C is >250 tpa. However, the number will be reduced by aggregation if either of the quantities of products is <250 tpa.

Example 7

The same example might use two reactors for the production of nitrobenzene and a single reactor for conversion to aniline.

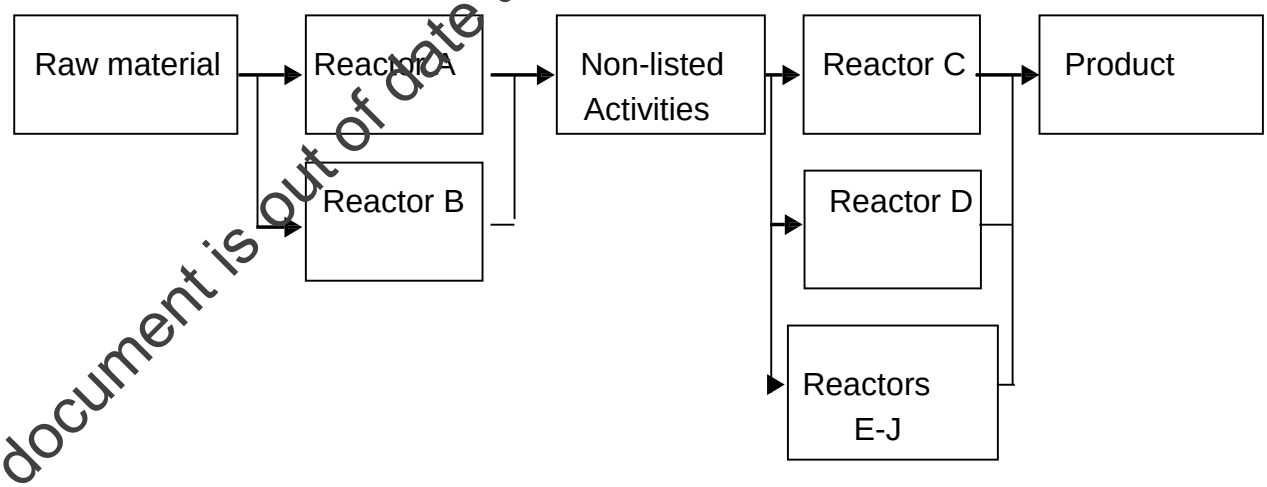


In this example, there is one activity carried on in a two plants, reactors A and B, giving two complexity bands, and a second activity carried on in a single plant, reactor C, giving a third complexity band.

As there is no final product from A or B, Rule 4 allows the activities in reactors A and B to be aggregated into a single complexity and, if the product from reactor C is <250 tpa, then all three can be aggregated into a single complexity.

Example 8

Similarly, a polymerisation process may involve conversion of raw material into monomer using two independently operated reactors operating in parallel, reactors A and B. Subsequent stages will include distillation, drying, storage, etc. of the monomer and the monomer may then be polymerised to a plastic in one of eight independently operated autoclaves.



In this example, there is one activity carried on in two plants, reactors A and B, giving two complexity bands, and a second activity carried on in eight plants, reactors C–J, giving eight complexity bands, i.e. there will be a total of 10 complexity bands. As there is zero production of final product from reactors A and B, Rule 4 allows aggregation of these activities into a single complexity band.

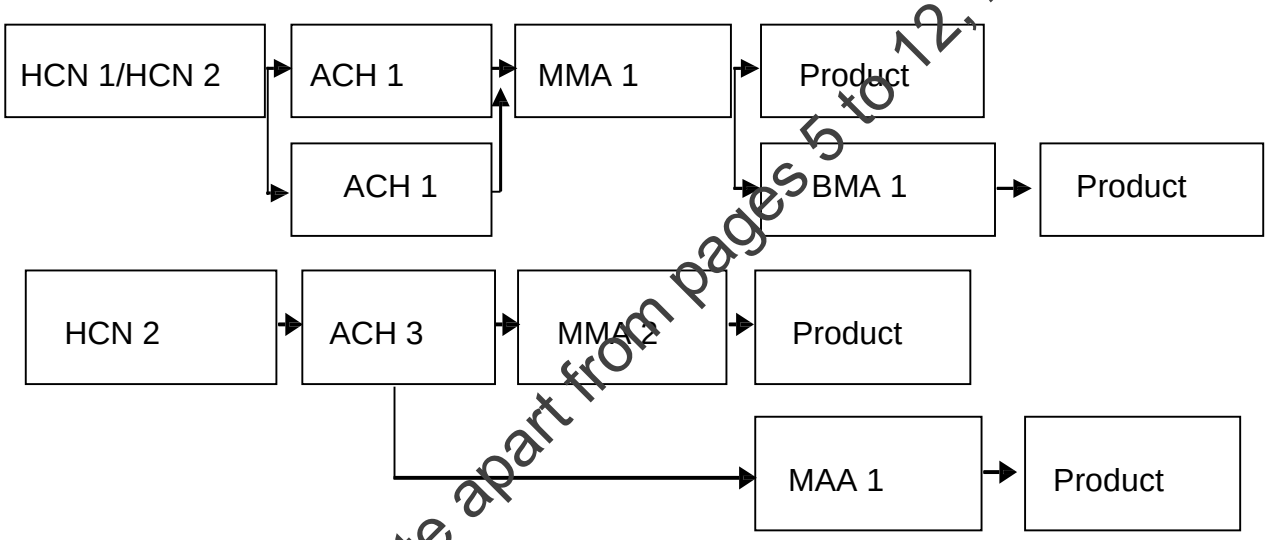
The application of the complexity cap reduces the complexities further. If the reactions in A and B have a different activity reference to those in C–J, then a total of five is obtained, two for A and B,

and three for C–J. However, if all 10 activities are within the same activity reference, then the complexities reduce further to three.

Example 9

An operator may produce a range of products in a range of vessels with a proportion of the products from some of the activities acting as feedstocks for other activities within the installation. For example:

- An operator has two reactors for producing hydrogen cyanide (HCN).
- This HCN is used to produce acetocyanohydrin (ACH) as an intermediate in three reactors.
- Of these three ACH reactors, two supply a single methylmethacrylate (MMA) reactor.
- The MMA from this reactor is sold as product or used in a further reactor to produce butylmethacrylic acid (BMA)
- The third ACH reactor supplies a second MMA reactor and all the product is sold.
- This third ACH reactor also supplies a single methacrylic acid (MAA) reactor to produce product for sale



In this example:

- The production of HCN is a listed activity carried on in two plants, giving two complexity bands
- The production of ACH is a listed activity carried on three plants, giving three complexity bands
- The production of MMA is a listed activity carried on in two plants, giving two complexity bands
- The production of BMA is a listed activity carried on in one plant, giving one complexity band
- The production of MAA is a listed activity carried on in one plant, giving one complexity band.

Thus, the total number of complexity bands is nine. However, as there is zero final production from the HCN and ACH reactors, Rule 4 allows aggregation of these activities into single complexity band. This would reduce the complexities to five. Using the schedule reference criteria, if all the activities have same reference, then the complexities would reduce to three. If they were in two activity references, the result would be four.

Return to Contents

Appendix 2 – Rehabilitation of Offenders Guidance

Relevant Offences for Operator Performance

Enactments for offences considered relevant for recording under the enforcement history element of the Operator Performance attribute are listed in the table below. The offences are specific to the permitted facility, i.e. only offences committed within the facility boundary are recorded. Relevant offences committed by any person operating within the facility boundary prior to permit issue will also be recorded. Operators with more than one permitted facility who are convicted of a relevant offence will only have this offence recorded against the Opra profile for the facility where the offence occurred.

- Control of Major Accident and Hazards Regulations 1999
- Environmental Permitting Regulations 2016
- Environmental Protection Act 1990, section 33, 57(5), 59(5), 69(9), 70(4), 71(3) or 80(4)
    - Integrated pollution control waste management statutory nuisance
- Landfill (England and Wales) Regulations 2002, regulation 17(1)
- Pollution Prevention and Control (England and Wales) Regulations 2000
    - Integrated pollution prevention and control
- Water Resources Act 1990
    - Pollution of surface and groundwater
- Control of Major Accident and Hazards Regulations 1999
- Control of Pollution (Amendment) Act 1989: Section 1, 5 or 7(3)
- Customs and Excise Management Act 1979: Section 170 (for environmental/metal theft related offences only)
- Environment Act 1995: Section 110(2)
- Environmental Permitting Regulations 2016: Regulation 38
- Environmental Protection Act 1990: Section 33 and 34
- Food and Environment Protection Act 1985: Section 9(1)
- Fraud Act 2006: Section 1 (for environmental/metal theft related offences only)
- Hazardous Waste (England and Wales) Regulations 2005
- Hazardous Waste (Wales) Regulations 2005
- Landfill (England and Wales) Regulations 2002: Regulation 17(1)
- Pollution Prevention and Control (England and Wales) Regulations 2000
- Proceeds of Crime Act 2002: Sections 329, 330, 331 & 332 (for environmental/metal theft related offences only)
- Producer Responsibility Obligations (Packaging Waste) Regulations 2007
- Scrap Metal Dealers Act 1964 (for environmental/metal theft related offences only)
- Theft Act 1968: Sections 1, 8, 9, 10, 11, 17, 18, 22 & 25 (for environmental/metal theft related offences only)
- Transfrontier Shipment of Waste Regulations 1994 & 2007
- Waste Electrical and Electronic Equipment Regulations 2006
- Waste (England and Wales) Regulations 2011: Regulation 42
- Water Resources Act 1991: Section 85, 202 or 206

The Rehabilitation of Offenders Act 1974 Guidance

1. The Rehabilitation of Offenders Act 1974 allows an individual who has been convicted of a criminal offence and has not been sentenced to more than two and a half years in prison to become a 'rehabilitated person' at the end of a "rehabilitation period'. This is provided they have not been convicted of an indictable offence during that period. At the end of this period, the conviction is treated as spent'.

2. For the purposes of all of the relevant convictions tests, a rehabilitated person should be treated as a person who has not committed, been charged with, prosecuted for, convicted of, or sentenced for the offence or offences which are spent. Thus, such offences do not have to be disclosed on any application form nor do we have to consider them in any application.

3. The Rehabilitation of Offenders Act 1974 does not apply to corporate bodies, which includes companies. In considering relevant convictions against a corporate body, Government Circulars 11/91 and 11/94 and Waste Management Paper 4 all note that convictions cannot become spent and must be disclosed in applications. However, the Government has advised us to consider whether the conviction would have been spent had it been committed by an individual.

The rehabilitation periods commonly applicable to relevant convictions are indicated in the table below. This is only a summary and it should be noted that different periods apply to juveniles.

For the purposes of Opra, the time 'spent' for notices issued by the COMAH competent authority will be the same as if these were notices issued by the Environment Agency, for example COMAH improvement notice would become spent after one year.

Commonly applicable rehabilitation periods	
Sentence	**Rehabilitation period (from date of conviction)**
A sentence of prison or youth custody of more than 6 months and not exceeding 2½ years	10 years
A sentence of prison or youth custody of 6 months or less	7 years
Fine	5 years
Community Punishment Order	5 years
Community Rehabilitation Order	5 years
Conditional discharge	1 year, or until the order expires (whichever is longer)

Bound over	1 year, or until the order expires (whichever is longer)
Absolute discharge	6 months

Return to Contents

Further information

All the Opra documents are available by calling our general enquiry line on 03708 506 506.

If you have any questions or comments on Opra, or suggestions as to how we could improve either the scheme or any of the supporting documents, please email us at enquiries@environment-agency.gov.uk.
, call 03708 506 506 or write to us at:

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