Environmental Permitting

Version no	**1.1**
Date of last update/review	**February 2024**
Responsibility of	**Subject Lead for Environmental Permitting**

February 2024 – Update to include NRW's guidance documents (How to comply with your environmental permit and Guidance on the standard rules and risk assessments for standard waste permits) under paragraph 31. Update to the 'Application Process' section to include reference to HRA (para 37). Update by Tanya Leck (Planning Officer).

Version 1 written by Alwyn Nixon.

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Introduction

1. This guidance is concerned with Environmental Permitting (EP) casework only. Related environmental licensing specialist casework under environmental legislation is not covered here. Appeals under the planning Acts and national infrastructure applications are addressed in the Waste Planning and Water Related Casework guidance. In simple terms planning is concerned with the suitability of use of the land for a particular development proposal, whereas permitting/licensing is concerned with the operation of the facility and its potential effect on the environment and human health.

What is Environmental Permitting?

2. Certain types of facility have the potential to harm the environment or human health unless they are controlled. The Environmental Permitting Regime (EPR) requires operators of these facilities to obtain permits and to register others as exempt in order to provide for monitoring and supervision by the appropriate regulator. The aim of the EPR is to:

- Protect the environment in order to achieve statutory and Government policy targets to be met;
- Deliver permitting and compliance with permits and environmental targets effectively and efficiently to provide maximum clarity and minimise the administrative burden on both the operators and regulators;
- Encourage regulators to promote best practice in the operation of permitted facilities; and
- Continue to fully implement relevant European Legislation (Directives, Regulations)

Scope of the EPR

3. The EPR covers those facilities previously regulated under the Pollution Prevention and Control Regulations 2000[1]; the Waste Management Licensing and exemption schemes[2]; some parts of the Water Resources Act 1991[3]; the Radioactive Substances Act 1993; the Groundwater Regulations 2009[4]. The EP regime covers England and Wales. It also applies to the adjacent sea as far as the territorial boundary.

[1] SI 2000/1973

[2] Part 2 of the Environmental Protection Act 1990 and the Waste Management Licensing Regulations 1994, SI 1994/1056.

[3] In relation to discharge consenting and flood defence consents.

[4] SI 2009/2982.

Activities covered under the EPR

4. The EP regulations specify the facilities that require an environmental permit and those that are exempt. Those that require a permit are known as regulated facilities. There are ten classes of regulated facility:

   i. **an installation** – consists of any 'stationary technical unit' where activities listed in Schedule 1 to the Regulations, and any directly associated activities, are carried on;
   ii. **mobile plant**– plant designed to move or be moved and used to carry on either one of the Schedule 1 activities or a waste operation;
   iii. **a waste operation** – defined as a waste recovery or disposal operation;
   iv. **a mining waste operation** – the management of extractive waste, whether or not involving a mining waste facility[5];
   v. **a radioactive substances activity** – involving the keeping and use of radioactive material (including mobile radioactive apparatus) or the accumulation and disposal of radioactive waste;
   vi. **a water discharge activity** – includes the discharge of any poisonous, noxious or polluting substances, waste, trade effluent or sewage effluent to controlled waters; the discharge from land through a pipe into the sea of trade effluent or sewage effluent; the cutting or uprooting of large amounts of vegetation in inland freshwaters and failure to take reasonable steps to remove the vegetation from the waters; or the operation of a highway drain or discharge of trade or sewage effluent into lakes or ponds which are not inland freshwaters, where a notice has taken effect;
   vii. **a groundwater activity** – includes the discharge of a pollutant that will or may lead to a direct or indirect input to groundwater; any other discharge that may lead to direct or indirect input of a pollutant to groundwater; an activity subject to a notice under schedule 22 has taken effect; or an activity, as a part of the operation of a 'regulated facility' that may lead to any discharge mentioned above;
   viii. **a small waste incineration plant** – all waste incineration plants or co-incineration plants with a capacity less than thresholds listed in Chapter III of the Industrial Emissions Directive (IED) and subject to Schedule 13 of EPR2016;
   ix. **a solvent emission activity** – an activity listed in Annex VII of the IED[6] and subject to Schedule 8 of EPR 2016;
   x. **a flood risk activity** – an activity listed in Schedule 25 of EPR 2016[7].

[5] Does not include activities in Article 2(2)(c) of the Mining Waste Directive 2004/21/EC.
[6] Directive 2010/75/EU
[7] Previously regulated as Flood Defence Consents, existing consents automatically transferred to Environmental Permits on 6 April 2016. [9] Directive 96/61/EC

Policy, Legislation and Guidance

5. First introduced by the UK Environmental Protection Act 1990, the concept of Integrated Pollution Control (IPC) ensures that all emissions to media (i.e. water, air, land) are considered simultaneously and not in isolation as, for example, the reduction of pollution in one environmental medium can have an effect on another.

6. Under IPC, Best Available Techniques Not Entailing Excessive Cost (BATNEEC) is required to minimise pollution of the environment as a whole, using the most effective techniques for an operation at the appropriate scale and commercial availability, where the benefits gained by using the technique should bear a justifiable relationship to the cost (unless emissions are very toxic).

7. The IPC concept was enshrined in the Integrated Pollution Prevention and Control (IPPC) Directive[9] which came into force in 1996. Integrated permits are required for certain listed activities such as the energy and chemical industries, waste management, animal rendering, various food processes and intensive poultry and pig-rearing. This required that installations be regulated in an integrated way, controlling emissions to air and water and the management of waste. IPPC also requires that other environmental issues are taken into account, such as energy efficiency, consumption of raw materials, prevention of accidents and restoration of the site. This process encourages industry and regulators to consider the whole process and adopt 'cleaner technology' rather than just adding 'end-of-pipe' controls.

8. The IPPC Directive was transposed into UK Law mainly by the Pollution Prevention and Control Act 1999 and the Pollution Prevention and Control (England and Wales) Regulations 2000 (PPCR)[8]. The concept of Best Available Techniques (BAT) was applied to the operation of installations covered by IPPC, a similar requirement to BATNEEC.

9. In 2007 the PPCR was expanded and replaced by the Environmental Permitting (England and Wales) Regulations 2007 (EPR2007)[9]. The EPR2007 introduced a streamlined permitting and compliance regime covering waste management licensing (WML) and PPCR. Further expansions of the EPR regime followed and on 1 January 2017 a consolidated and updated version of the EPR came into force[10], which revoked (almost all of) the previous regulations and made some minor amendments. These are the current EP regulations (EPR2016).

10. Abstraction regime - Under the provisions of the Water Act 2014, there are plans to expand the EPR regime in the future by the inclusion of the water abstraction and impoundment regime, currently regulated under the Water Resources Act 1991.

[8] SI 2000/1973.
[9] SI 2007/3538.
[10] SI 2016/1174.

11. Circular Economy[11] - In December 2015 the European Commission (EC) adopted a Circular Economy package[12], emphasising the use of waste as a resource, which means a greatly increased attention to economic benefits of waste management, rather than relying solely on original principles of environmental protection and human health.

Schedule 1 Activities, Installations and Mobile Plant (Parts A & B)

12. The regulator for these classes of facility are defined in regulation 32 of EPR2016. For the industrial and waste management processes the activities are described in schedule 1, based on risk and are as follows:

    Part A(1) – high risk activities, regulated by Natural Resources Wales (NRW);
    Part A(2) (medium risk) and Part B (low risk) activities (concerned with air emissions only), regulated by the Local Authority.

13. NRW regulates:

    - Part A(1) installations.
    - waste mobile plant.
    - waste operations, including those carried on at a Part B installation or by Part B mobile plant (unless the waste operation is a Part B activity).
    - mining waste operations, including any carried on at a Part B installation.
    - radioactive substances activities.
    - water discharge activities, including those carried on at a Part B installation.
    - groundwater activities, including those carried on at a Part B installation.
    - flood risk activities described under schedule 25 of EPR2016.

14. The relevant Local Authority regulates:

    - Part A(2) installations including any waste operations, water discharge activities or groundwater activities carried on as part of the installation or mobile plant.
    - Part B installations and Part B mobile plant (except as set out above).
    - Small waste incineration plants.
    - Solvent emission activities.

Best Available Techniques (BAT), BAT reference and BAT Conclusion documents

15. An overarching principal in EPR is that all activities must use BAT principles to prevent or minimise emissions. BAT is defined in Article 3 of the IED and in basic terms is “use of the available techniques which are the best for preventing or minimising emissions and impacts on the environment”. ‘Techniques’ include both the technology used and the way an installation is designed, built, maintained, operated and decommissioned.

[11] Closing the loop – An EU action plan for the Circular Economy [EC, December 2015]

[12] Includes revised legislative proposals on waste detailed in the factsheet ‘Clear Targets and Tools for Better Waste Management’ [EC, December 2015]

The permit conditions will tell the operator what BAT they must use or they may set emission limit values (ELV) or other environmental outcomes, based on BAT. If the permit says the operator must follow BAT or 'appropriate measures' to achieve an outcome or ELV, they will need to check the BAT guidance for that activity. The operator may have to decide which BAT to use if the permit doesn't tell them. They may also need to take additional measures to meet the conditions in the permit.

16. The European Commission (EC) produces best available technique reference documents or BREF notes. They contain BAT for installations. For example, there is a BREF for intensive agriculture which contains BAT for housing for pig rearing units and a BREF for the textiles industry which contains BAT for selecting materials for textile manufacture.

17. The EC is updating BREF notes and the updated versions also include 'BAT conclusion documents'[13]. These contain emission limits associated with BAT (BAT AELs) which must be complied with unless the EA/NRW agrees certain criteria have been met. The guide for a particular activity will include a link to the BREF note or BAT conclusion document for each activity (if there is one available).

Permit Types – Standard/bespoke

18. Depending on the proposed activity, one of the following must be obtained:

- a regulatory position statement – would state that the EA/NRW does not currently require a permit for that activity (usually because it has been assessed as unlikely to cause environmental pollution or harm to human health).
- an **exemption** – a permit is not required for the activity, but the operator must still register with the EA/NRW. The exemption has specific limits and conditions but is a 'light touch' form of regulation as the activity is classed as low risk.
- an exclusion – applies to certain flood risk activities, where the flood defence consent has lapsed and there is no longer a need for consent and other listed activities. The activity will still need to be operated within the description and conditions of the exclusion.
- a standard rules permit – a set of fixed rules for common activities.
- a bespoke permit – tailored to the operator's business activities.

19. The two forms of environmental permit (standard/bespoke) are based on the risk to the environment and human health from the particular activity. A standard rules or bespoke permit will be required for all those activities listed in paragraph 13 above.

[13] Article 14(3) of IED – BAT conclusions shall be the reference for setting the permit conditions to installations covered by the Directive. [19] EA Standard rules permits

Standard Rules Permit

20. The Welsh Ministers and NRW can make standard rules for certain activities under regulation 26 of EPR2016. These rules consist of requirements common to the type of facilities subject to them and can be used instead of site-specific permit conditions. Standard rules are suitable for sectors where regulated facilities share similar characteristics in relation to environmental hazards.

21. The standard rules must achieve the same high level of environmental protection as site-specific conditions. There is no right of appeal under regulation 31(2)(b) or (c) against the imposition of standard rules as permit conditions (regulation 27(3)) since applying for a permit subject to the rules is voluntary and the conditions have been under consultation and agreed with the relevant industries. All other rights of appeal are unaffected.

22. It is the operator's decision as to whether they wish to operate under standard rules. The generic risk assessments for standard facilities should be made available to applicants to assist them in determining whether their activity is within the scope of the standard rules and, if they apply for a standard permit, in the adoption of suitable control measures to meet those rules. Regulated facilities that require a location specific assessment of impact and risk are not suitable for standard rules.

23. Standard rules can be revised and there is a duty imposed by the Regulations to keep the rules under review under regulation 26(3) of EPR2016. Standard rules can also be revoked under regulation 29. For cost reasons, standard permits tend to be more attractive to operators of smaller, non-specialist facilities such as waste transfer stations.

Bespoke Permit

24. A bespoke permit is required if the activity does not fit the conditions of a standard rules permit (i.e. unusually complex or novel, higher risk activities and multi-functional installations). The following must be completed by the applicant before an application is made:

    - check if a conservation risk assessment is needed (heritage and nature conservation screening).
    - check that the legal operator and competency requirements (including technical competency) are met.
    - develop a management system (a written set of procedures that identifies and minimises the risks of pollution).
    - complete a risk assessment .
    - design the facility to avoid and control emissions.
    - check the relevant technical guidance.

25. The conditions and requirements on the operator for a bespoke permit are tailored to suit that particular activity.

Permit Exemptions and Exceptions

26. Certain low risk activities can be classed as exempt from the need to hold a permit, but only where the relevant EU Directive allows this. A waste operation, water discharge, flood risk or groundwater activity must fulfil certain criteria to qualify as exempt, these activities are listed in Schedule 2 of EPR2016. The activity must be registered with NRW and are still subject to certain conditions, limits, other requirements and subject to periodic inspection and the same compliance principles as permitted activities.

27. Specific flood risk activities, e.g. emergency work, minor works or temporary works and where the flood defence consent has lapsed and there is longer a need for a consent are not required to have a permit and are excluded from the regulations, but must be operated within the description and conditions of the exclusion. These activities are listed under Part 2 of Schedule 25.

Environmental Permitting Legislation

28. **EU Directives:** https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=legissum:l14527

- **EU Industrial Emissions Directive 2010/75/EU (IED) (recast IPPC Directive);** Implemented through amendments to the Environmental Permitting Regulations 2010, incorporates the Waste Incineration/Large combustion Plant Directives & 5 other related Directives - requiring strict emission limits for e.g. Incinerators.
- **EU Directive 2008/98/EC on Waste (the Waste Framework Directive) (WFD);** Member states must ensure that waste is recovered or disposed of without endangering human health and by using processes/methods which do not harm the environment. Obligations are imposed on those dealing with waste, including holders, collectors and transporters of waste.
- **EU Directive 99/31/EC on Landfill of Waste (the Landfill Directive);** This Directive complements the WFD and seeks to prevent/reduce the harmful effects of the disposal of waste by landfilling. It sets uniform technical standards and requirements for landfill sites and requires the progressive diversion of biodegradable municipal waste from landfill.
- **EU Directive 2000/53/EC on End of Life Vehicles (the ELV Directive);** This also supplements the WFD. It prevents waste from vehicles through the re-use, recycling/recovery of end-of life vehicles and their components, at all stages of a vehicle's life.
- **EU Directive 2012/27/EU on Energy Efficiency;** This establishes binding measures to help the EU reach its 20% energy efficiency target by 2020 by requiring all EU countries to use energy more efficiently. On 30 November 2016 the Commission proposed an update including a new 30% energy efficiency target for 2030.

- **EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment (the WEEE Directive);** The WEEE Directive also supplements the WFD and makes provisions for the waste prevention, reuse, recycling/recovery of WEEE, reducing the disposal of this waste stream. It also specifies treatment requirements.
- **EU Directive 2006/66/EC on Batteries and Accumulators and Waste Batteries and Accumulators (the Batteries Directive);** The Batteries Directive seeks to minimise the negative impact of batteries and accumulators. It makes producers responsible for the waste management of batteries and accumulators that they place on the market.
- **EU Directive 2000/60/EC on Water (the Water Framework Directive;** Integrates requirements of a number of existing Directives and introduces new ecological objectives to prevent further deterioration of aquatic ecosystems; to protect and enhance their status; to promote sustainable water use and mitigate the effects of floods and droughts.
- **EU Directive 2006/118/EC on the protection of groundwater against pollution and deterioration (the Groundwater Daughter Directive);** Establishes a regime which sets out groundwater quality standards and introduces measures to prevent or limit pollution into groundwater. The directive sets out quality criteria taking account of local characteristics and allows for further improvements based on monitoring data and new scientific knowledge.
- **EU Directive 2006/21/EC on management of waste from the extractive industries (the Mining Waste Directive);** provides for measures to prevent or reduce any adverse effects from the management of waste from mining and other extractive industries.
- **EU Directive (EU)2015/2193 on limitation of certain air pollutants from medium combustion plants (the Medium Combustion Plant Directive);** This regulates emissions of SO_2, NO_X and dust from the combustion of fuels in plants with a rated thermal input greater than 1 MWth and less than 50MWth. All plant must be registered and permitted. The Directive must be transposed in UK law by 19 December 2017 and will apply to new plants from December 2018. The provisions are due to be implemented through the EP regime.

29. Principal **UK Legislation:**

- **Pollution Prevention and Control Act 1999[14];** This Act contains enabling provisions for making regulations to cover a wide range of waste management purposes. The Act transposed the Integrated Pollution Prevention and Control Directive 96/61EC, which required certain industrial processes to be licensed in an integrated manner, therefore controlling emissions to air, water and the management of waste to protect the environment as a whole.
- **Environmental Permitting (England and Wales) Regulations 2016[15];** Supersedes the provisions of the Environmental Protection Act 1990 and implements the permitting requirements under the Industrial Emissions Directive (and other relevant Directives) for certain categories of waste management sites and many other types of industrial installation with potentially harmful

[14] 1999 (c.24)

[15] SI 2016/1154

consequences for human health and/or the environment. A permit must be obtained from NRW for all such development as defined in the Regulations. There are powers of enforcement by NRW, and rights of appeal to the Welsh Ministers, against refusal or revocation of a permit or the grant of a permit subject to conditions. A permit cannot be granted unless the regulator is satisfied that the applicant is a fit and proper person to carry out the activity. An important concept is that Best Available Techniques (BAT), defined in the Industrial Emissions Directive (IED)[16] shall be used to prevent pollution. Schedules to the regulations identify precise requirements, article by article for each Directive, which must be delivered through the permitting regime. Each Directive has a specific schedule.

30. Other **relevant UK Legislation:**

- **Environmental Protection Act 1990[17];** Part I sets out provisions for the Air Pollution Control (APC) regime Part 2 sets out the provisions for waste management licensing (WML). This has been extensively amended and largely replaced by the Environmental Permitting Regulations 2016.
- **Environment Act 1995[18];** Part I established the EA as the responsible body for waste and water regulation in England and Wales, in particular with respect to pollution control (the EA's regulatory functions in Wales subsequently being taken over by NRW). Part IV, section 80 introduced the requirement for a national air quality strategy and Part V, Section 92 introduced the requirement for a national waste strategy.
- **Water Resources Act 1991[19];** Governs discharges to surface waters from non-prescribed processes under Integrated Pollution Control (IPC) in England and Wales.
- **Waste (England and Wales) Regulations 2011[20];** Transposes the WFD into UK law to apply the revised 'waste hierarchy' and to impose duties to improve the use of waste as a resource.
- **Scrap Metal Dealers Act 2013**[21]**;** Created a revised regulatory regime for the scrap metal recycling and vehicle dismantling industries. Gives regulators powers to refuse to grant a licence to unsuitable applicants and to revoke licences if the dealer becomes unsuitable.
- **End of Life Vehicles Regulations 2003[22];** All site licences (being a type of waste management licence) are issued and monitored under the EPR regime[23].
- **Hazardous Waste Regulations 2005[24];** These set out the regime for the control and tracking of the movement of hazardous waste. Part 4 bans the mixing of hazardous waste unless permitted as part of a disposal or recovery operation in accordance with the WFD. Parts 5 & 6 relate to the movement of hazardous waste.

[16] Article 1(10) of Directive 2010/75/EU
[17] 1990 (c.43)
[18] 1995 (c.25)
[19] 1991 (c.57)
[20] SI 2011/988
[21] 2013 (c.10)
[22] SI 2003/2635
[23] Schedule 11 of EPR2016.
[24] SI 2005/894

- **Wellbeing of Future Generations (Wales) Act 2015 (WBFG);** As with all decisions for or on behalf of public sector bodies in Wales, regard must be had to the provisions of the WBFG and its overarching aims as regards promoting economic, social, environmental and cultural sustainability, including the ways of working and the Welsh Ministers' wellbeing objectives (reviewed after each new Senedd).

Environmental Permitting Policy and Guidance

31. NRW maintains much of its own EP guidance: https://naturalresources.wales/permits-and-permissions/environmental-permits. In some areas NRW continues to rely on EA guidance; where so, it identifies this and provides a link to the EA guidance. NRW has produced various categories of guidance:
    - **Horizontal Guidance:** There are Horizontal Guidance Notes on Risk Assessment of Hazardous Pollutant Discharges to Water; Energy Efficiency (comprising relevant BAT guidance); Noise Assessment and Control; Odour Management; and Site Condition Reports.
    - **Regulatory Guidance Notes (RGNs):** These are guidance documents to help permit holders understand definitions and terms used in the EP regulations. The following RGNs can be found via the NRW website:
        - **RGN1**: Understanding the meaning of "operator".
        - **RGN2** (Published by the EA): Understanding the meaning of "regulated facility", plus Appendices 1 (Interpretation of Schedule 1), 2 (EPR – Defining the Scope of the Installation), 3 (Interpretation of Intensive Farming Installations) and 4 (The Scope of Mobile Plant).
        - **RGN3**: Deciding applications are duly made and requests for further information.
        - **RGN4**: Setting standards for environmental protection.
        - **RGN5**: Operator competence.
        - **RGN8**: Substantial changes in operation at installations, mining waste facilities and other facilities involving solvent and combustion.
        - **RGN9**: Surrender.
        - **RGN10**: Dealing with the death, financial difficulties or striking off of an operator.
        - **RGN11**: Enforcement powers.
        - **RGN12**: Statutory periodic permit reviews.

    - **Other Guidance Notes:**
        - Guidance: Waste recovery plans and permits (published by the EA).
        - Understanding the Landfill Directives: LFD 1.
        - Guidance: Guidance on the standard rules and risk assessments for standard waste permits.
        - Guidance: How to comply with your environmental permit (October 2014) https://naturalresources.wales/permits-and-permissions/environmental-permits/guidance-to-help-you-comply-with-your-environmental-permit/?lang=en

- **Environment Management System (EMS) Toolkits:** Toolkits for Small and Medium Enterprises have been developed through working with relevant trade associations to help operators put together their EMS.
- **Sector Guidance Notes (SGNs):** These aim to provide operators and regulators with advice on indicative standards of operation and environmental performance, relevant to the industrial sector concerned.
- **Technical Guidance Notes (TGNs):** In addition to the sector-specific SGNs, TGNs describe the standards and measures required to control and monitor the pollution risks most commonly arising.

Interaction of Planning and Pollution Control Regimes

32. The Core EP Guidance advises that if a regulated facility also needs planning permission, it is recommended that the operator should make both applications in parallel whenever possible. This will allow the environmental regulator to start its formal consideration early on, thus allowing it to have a more informed input to the planning process.

33. Advice on the role of NRW concerning the Nationally Significant Infrastructure Project (NSIP) regime, the requirement for an Environmental Permit for certain projects covered under the regime and interface with Development Consent Orders (DCO) and Environmental Permitting can be found in Annexes A & D to Advice Note 11[25].

Regulation of permitted activities

Application process

34. An operator needs to obtain a permit for each regulated facility that it operates. One of the classes of regulated facility under regulation 8 is an ‘installation’. An installation may include one or more regulated facilities, e.g. a waste operation and/or water discharge activity, but will only require one permit unless different parts of the installation are operated by different operators, in which case each part with a separate operator will require its own permit. There should be no ambiguity over which operator has responsibility for which part of the installation.

35. Pre-application discussions between operators and regulators are encouraged.

36. The requirements for applications are set out in Schedule 5 of EPR2016. Amongst other things, an application must:

    - include the information required by the application form (and any other requirements) to be ‘duly made’ and determined. The regulator can issue a notice requiring further information[26]

[25] Advice Note 11: Working with Public Bodies v3, Annex A – Natural Resources Wales [v3 May 2019]
[26] Schedule 5(4) EPR2016.

- regulators must carry out consultation as required under Schedule 5(6). The scope of the required consultation is determined by the type of application and activity applied for.

37. Permit applications are screened under the Conservation of Habitats and Species Regulations 2017 (as amended) ['the Habitats Regulations'] to determine if a Habitats Regulations Assessment (HRA) is required.

38. Determination periods for permit applications are set out in Schedule 5(15) and vary depending on the type of application and type of activity. The operator and regulator can agree extensions to the determination period. The operator may appeal against non-determination (deemed refusal) or deemed withdrawal under regulation 31 – see paragraph 79 below.

Types of application

39. The following types of application apply to all classes of activity (unless stated otherwise):

i) an application for a **grant of an environmental permit** under regulation 13(1) – authorising the operation of a regulated facility and the named operator as the person authorised to operate the facility.
ii) an application for **variation of an environmental permit** under regulation 20(1) – does not apply where the variation would reduce the extent of the site of a regulated facility unless it applies to a Part B installation (except waste operations) or a standalone water discharge or groundwater activity. It should be noted that the regulator can vary an environmental permit as it sees fit, regardless of any application for variation[27].
iii) an application for the **transfer (full or in part) of an environmental permit** under regulation 21(1) – except where the permit relates to a stand-alone water discharge, groundwater or flood risk activity. Where the facility is subject to any enforcement or suspension notice the duty to comply also transfers to the new operator.
iv) an application for the **full or partial surrender of an environmental permit** under regulation 25(2) – does not apply to Part B installations (except waste operations), mobile plant, solvent emission activity or stand-alone water discharge, groundwater or flood risk activity[28].

[27] Except where this relates to a stand-alone water discharge facility, without prior agreement with the operator if within 4 years of the grant of the permit (the so-called 4-year 'hands off' rule – see regulation 20(4) and exceptions at 20(5)). [48] Regulation 21(7).
[28] These activities must notify the regulator of their intention to surrender under regulation 24.

Commercial Confidentiality and the Public Register

40. The EA publishes a range of information under the duty to maintain a public register[29]. The applicant can ask the EA not to make public any information that is commercially sensitive.

41. There is a right of appeal if the request is denied – see paragraphs 97-98.

Decision-making process

42. The regulator must decide whether to grant or refuse the proposal in an application (or decide to make a regulator-initiated variation)[30] and, where applicable, what permit conditions to impose. For all applications made under the Regulations, the regulator must ensure that its decision delivers the necessary directive and other requirements and provides the required level of protection to the environment. This will include assessment of the following:

- **Environmental risk** - in particular the adequacy of the impact assessment including whether the control measures proposed by the operator are appropriate for mitigating the risks and their potential impact.
- **EU Directive requirements** - EU Directives set out most of the requirements to be met through environmental permitting. Schedules 7 to 24 set out those parts of the Directives that the regulator must take into account.
- **Operator competence** - whether the operator[31] cannot or is unlikely to operate the facility in accordance with the permit – see paragraph 47. The regulator might doubt whether the operator could or is likely to comply with the permit conditions, taking into account the following:
  - the adequacy of the operator's management system[32].
  - the adequacy of the operator's technical competence[33].
  - the operators record of compliance with previous regulatory requirements (including previous relevant convictions).
  - the operator's financial competence.

43. The regulator may take into account various factors when considering an application or revocation of a permit, particularly:

- the adequacy of the management system.
- the technical or financial competence of the operator.
- the record of compliance, including repeated failures of procedures or other management controls, permit breaches, failure to comply with advice, warning(s) and notice(s).

[29] Regulation 46 of EPR2016
[30] Schedule 5(17) of EPR2016
[31] Regulation 7 of EPR2016
[32] Prepared to recognised standards e.g. ISO 14001, EMAS – linked to OPRA scores.
[33] CoTC, WAMITAB, 'Qualified expert' provisions of Euratom Basic Safety Standards Directive.

- criminal convictions for relevant offences.
- whether the applicant or holder has been uncooperative or abusive/hostile.
- whether there is a repeat pattern of offending.
- impact on local amenities, local residents or legitimate businesses.
- likelihood of re-offending.
- the applicant will not operate the facility in accordance with the permit.

44. The regulator may refuse or revoke on the basis of a single offence, depending on severity.

Structure of a Permit and Decision document

45. A permit usually contains[34]:

- details of the regulated facility which has been authorised and the operator.
- description of the permit's main features and permitting history.
- Conditions (general requirements) dealing with:
    - management.
    - operations.
    - emissions and monitoring.
    - information.
- Schedules (site-specific descriptions, limits and requirements) of:
    - permitted activities (description and limits, improvement programme).
    - permitted waste types[35], raw materials and fuels.
    - emissions and monitoring (emission source(s), limits and monitoring requirements).
    - reporting requirements.
    - notification requirements.
    - interpretation (definitions).
    - site plan.

46. Accompanying the permit will usually be a decision document[36], which sets out in detail NRW's process for determining the application, how all the relevant factors were taken into account in reaching the decision and why specific conditions have been included in the permit.

Operator Competence

47. One of the main requirements of the EPR is to examine and maintain an operator's ability to operate a regulated facility to fulfil the permit requirements. The legal operator, i.e. having sufficient control over the facility is also considered to be the competent operator. Operator competence is frequently identified as a reason to

[34] Regulation 13 of EPR2016.

[35] Under List of Waste Regulations 2005, SI 2005/895, which implement the European Waste List (European Waste Codes) set out in Decision 2000/532/EC.

[36] Do not normally apply to local authority regulated activities or standard rules permits..

refuse or revoke a permit. When assessing this, the following considerations may be relevant:

- **Technical Competence** [37] – has the operator demonstrated the technical competence to carry out the permitted activity, e.g. in relation to the operation of equipment; fulfilling their statutory obligations; minimising the risk to human health and the environment; recognising any past failings in site management and how these will be addressed.
- **Environmental Record** – how responses to any accidents at sites in the past have been dealt with; are there any previous convictions for environmental offences; record of compliance with the permit or other permits (e.g. if the operator has received warnings or enforcement notices and how they have responded to them); whether the operator acknowledges any environmental harm which may have resulted from previous breaches (actual or risk of harm).
- **Financial Competence** – the operator should be able to demonstrate that there are adequate finances to carry out the operations and meet the permit conditions.
- **Financial Provision** – the operator will need to make a 'financial provision' (a guarantee) for certain activities, i.e. a landfill site and a Category A or hazardous waste mining facility. If the business ceases operating there needs to be enough money to carry out the actions needed before a permit can be surrendered or a closure notice issued.

Monitoring

48. The level of monitoring is usually based on an assessment of the level of risk (the Opra score) based on:

- an assessment - a desk-based check of compliance, e.g. checking that required information has been provided;
- an inspection[38] - where an officer visits a site – this is normally recorded on a Compliance Assessment Report (CAR) form;
- sampling of the permitted water discharge.

49. Waste operations, installations, complex flood risk activities and complex water discharges activities, e.g. large sewage treatment plants, will definitely be assessed or inspected. Other sites may be assessed or inspected if there is:

- a pollution incident at the site, or in the area;
- a flood incident at the site (for flood risk activities);
- a complaint about the activity.

50. If NRW carry out an assessment, inspection or attend an incident, they will complete a CAR form. The CAR will record activities on site, any breaches of the permit and

[37] Includes necessary qualifications, e.g. WAMITAB or EU Skills required for permitted waste activities.
[38] Regulation 34(2) EPR2016.

actions required. It will contain a score[39] for any permit conditions breached. This score feeds in to the overall compliance score (Opra)[40] which, in turn, influences the annual permit fee (subsistence fee).

51. Permits are reviewed to check that they reflect the latest regulations and environmental standards. Individual permits will also be reviewed if they are not being complied with. The operator may have to apply for a change to the permit, or new conditions may be applied by the regulator (a regulator-initiated variation). For standard rules permits, NRW can change the conditions of its rule set, following consultation.

Enforcement

52. The regulator may take action if it is suspected that the operator has committed an offence, or it is thought the operator is about to. This might include:

- giving advice
- changing the permit conditions
- serving an enforcement notice[41], and for flood risk activities a remediation notice[42], stating what actions are required and by when
- serving a suspension notice[43] if there's a risk that pollution might occur
- serving a revocation notice[44] revoking the permit, in whole or in part where appropriate. This should only occur if all other enforcement tools have failed
- Serving a prohibition notice[45] to stop offending from a specific groundwater activity
- Serving a notice requiring a permit[46] to either stop offending for a specific groundwater activity or to prevent discharge of trade or sewage effluent by requiring the person(s) to hold a permit.
- prosecuting the operator[47] if NRW think it is in the public interest.

Casework considerations

[39] Compliance Classification Scheme (CCS) – to record non-compliance with permit conditions, 1-4 points system, where 1 – non-compliance that could result in major pollution incident (category 1 incident under the Common Incident Classification Scheme [CICS]) to 4 – non-compliance that could not have any impact on the environment.

[40] Operational Risk Appraisal (Opra) score, which combines five 'attributes' i) Complexity – type of activities covered by the permit; ii) Emissions and inputs – the amounts allowed to be put into and released from an activity; iii) Location – the state of the environment around the permitted site; iv) Operator performance – the management systems and enforcement history; and v) Compliance rating – how well the conditions on the permit are complied with, using the CCS scores. The scores total over a year to provide an Opra Banding system – scores falling within Band A being fully compliant to Band F being extremely non-compliant.

[41] Regulation 36 EPR2016

[42] Schedule 25, Part 1(8) EPR2016

[43] Regulation 37(2) EPR2016

[44] Regulation 22 EPR2016

[45] Schedule 22(9) EPR2016

[46] Schedule 22(10) or Schedule 21(5) EPR2016

[47] Regulation 38 EPR2016, s33 EPA1990 or other offence.

53. **Operator Competence/Non-compliance history** – this often arises in waste EPR casework in relation to appeals against revocation or enforcement notices or decisions to refuse. The inspector will need to review CAR forms which record past non-compliance. There may also be a high Opra score. It may also be argued that the operator would be unlikely to operate the facility in accordance with the permit, based on e.g. lack of evidence of likely compliance in the permit application or past history at the application site or another related site. Decisions are issued for the reasons as outlined in paragraphs 42-43 & 47 above. The CAR form may identify problems with the condition of the building(s) or other aspects of site maintenance.

54. **Air emissions / odour / dust** - Considerations may include the proximity of sensitive receptors, including ecological as well as human receptors, (e.g. deposition of nitrogen on special protection areas [SPA] from ammonia emissions from intensive poultry facilities), and the extent to which adverse emissions can be controlled through the use of appropriate and well-maintained and managed equipment, which must conform to BAT requirements. This will be considered as part of the permit risk assessment process. EPR guidance is contained within the NRW Horizontal Guidance on Odour Management. Odour Management Plans may be necessary for some facilities handling waste likely to emit noxious odours, e.g. wastewater treatment or waste facilities handling biodegradable waste.

55. **Noise / vibration** - from tipping of waste, lorry movements and general industrial machinery noise from both inside and outside of buildings. Considerations will include the proximity of sensitive receptors. Intermittent and sustained operating noise may be a problem if not properly managed particularly if night-time working is involved; hours of operation can arise as an issue, with consideration of suitable conditions. Noise assessment usually carried out using the BS4142 methodology – see Noise ITM Chapter. EPR guidance is contained within the NRW Horizontal Guidance on Noise.

56. **Litter / vermin / birds** - Some waste management facilities, especially landfills which accept putrescible waste, can attract vermin and birds. The numbers, and movements of some species of birds, may be influenced by the distribution of landfill sites. Where birds congregate in large numbers, they may be a major nuisance to people living nearby. They can also provide a hazard to aircraft at locations close to aerodromes or low flying areas.

57. **Pollution of controlled waters** – most industrial facilities, waste facilities, water/wastewater treatment facilities and private 'package' treatment systems will need to discharge to 'controlled waters'[48] with the risk of pollution of freshwater and marine habitats (particularly bathing waters), SACs and SPAs. The operator needs to limit the potential for pollution in the receiving waters and ensure the waters achieve the objectives set by the legislation to ensure protection of the environment and

[48] Defined in s104 of the Water Resources Act 1991 as relevant territorial water and coastal waters within 3 miles from the baselines; inland freshwaters (includes lakes, ponds, reservoirs, rivers and other watercourses) and groundwaters.

human health EPR guidance can be found in the NRW Horizontal Guidance on Risk Assessment of Hazardous Pollutant Discharges to Water.

Water

58. **Water Framework Directive (WFD) issues**[49] – permitting requirements (including the Environmental Quality Standards [EQS]) are derived from the relevant Directives and implemented (in part) through permit conditions. The aims of the Directive are:

- prevent further deterioration of aquatic ecosystems;
- to protect and enhance their status;
- to promote sustainable water use;
- to provide further protection to the aquatic environment; and
- for groundwater, to ensure the progressive reduction of the present level of pollution and prevent its further pollution;
- to contribute to mitigating the effects of floods and droughts.

59. The WFD has further aims relating specifically to surface water. These include:

- implementing necessary measures to prevent deterioration of the status of all bodies of surface water;
- protecting, enhancing and restoring all surface water bodies (other than heavily modified or artificial) with the aim of achieving good status by 2015 at the latest;
- in relation to artificial or heavily modified water bodies, protecting and enhancing them with a view to achieving good ecological potential and good surface water chemical status by 2015 at the latest; and
- phasing out discharges of priority hazardous substances and progressively reducing the pollution from priority substances.

60. In order to achieve the first of these, the Directive establishes a demanding water classification system to identify pressures that may lead to a deterioration in ecological status of water bodies.

61. River Basin Management Plans (RBMPs) detail the measures that must be taken to improve or maintain the ecological status of water bodies. Some of these measures can be achieved by controlling environmental emissions. This is delivered through the EPR, by means of environmental permits for water discharge activities. RBMP were originally published in 2009 and have been reviewed in 2015. NRW manage RBDs in Wales; NRW and the EA jointly manage the Dee and Severn RBDs[50].

62. **Water Quality issues: dangerous substances** - the WFD aims to eliminate very toxic substances and to reduce pollution from other less severely toxic substances.

[49] Schedules 21-22 EPR2016

[50] River Basin Management Plans [Defra/EA, 2015]

For any discharges to inland, coastal and territorial surface waters, it is necessary to obtain prior authorisation if the discharge is likely to contain dangerous substances.

63. The WFD sets emission limit values and EQ objectives. It also establishes EQSs for a list of prioritised substances and includes the required standards for those substances.

64. **Urban Waste Water Treatment Directive**[51] – The UWWTD aims to protect the environment from the adverse effects of the discharge of waste water. The Directive includes requirements for the collection and treatment of urban waste water and so mainly affects the statutory water and sewerage companies, since they own and operate the public sewerage system and the urban waste water treatment works. Discharges from certain industrial sectors such as food and drink processing plants can have a similar polluting effect to untreated sewage, so some of these are also covered by the Directive.

65. The Directive broadly sets treatment levels for discharges on the basis of the size of the discharge and the sensitivity of the waters receiving the discharge. Most discharges will require secondary treatment, which is usually a biological process. Discharges into 'Sensitive Areas'[52] will require more stringent treatment than this ordinary secondary treatment. All sewerage systems that also collect rainwater (combined sewers) need overflow outlets (combined sewer overflows (CSO)[53]) to deal with the extra water collected during some rainstorms. Without these safety valves both domestic, other properties, and sewage treatment works would be at risk of flooding. The Directive recognises that although sewage in these overflow discharges is diluted with significant amounts of rainwater, it can affect the environment. The legislation therefore requires that pollution from these overflows is limited.

66. There are up to 30,000 CSOs in the UK and they are gradually being phased out or, where practical, alternative storage methods are being constructed to limit their spill frequency. Water company appeals may relate to permit revocations or variations relating to CSOs and technical, practical and economic arguments for and against their retention. In terms of environmental permits, water companies may cite their Asset Management Plans and price review in terms of the amount they can spend on infrastructure improvements that may be necessary following variations in permit conditions (e.g. to enable tighter water quality limits to be met).

[51] Directive 91/271/EEC

[52] waters that are eutrophic or may become eutrophic if protective action is not taken; waters that exceed or could exceed a specified concentration of nitrate; and waters receiving discharges that are subject to more than secondary treatment under the requirements of other EU Directives.

[53] Prevents overflows of the sewerage network in storm events by diverting excess rainwater mixed with untreated sewage into a separate pipe which runs off the main sewer and directly to a river or the sea.

Waste

67. **Waste Framework Directive requirements**[54] – The *Waste Hierarchy* (Article 4) – the hierarchy gives top priority to waste prevention, followed by preparing for re-use, then recycling, other types of recovery (incl. energy recovery), and the least desirable being disposal (e.g. via landfill). The 2011 Regulations[55] require those involved in waste management (and waste producers) to take all 'reasonable' measures to apply the hierarchy (except where justified). Regulators under the EP regime must ensure the hierarchy is applied when exercising their functions.

68. *Principles of Proximity and Self-sufficiency* (Article 16) – The proximity principle highlights a need to treat and/or dispose of wastes in reasonable proximity to their point of generation. The self-sufficiency principle works to establish an adequate 'local' network of waste facilities for recovery of mixed municipal waste collected from private households using the most appropriate methods and technologies, taking into account best available techniques (BAT).

69. **Landfill Directive requirements**[56] - under the Landfill Directive there are targets that member states should meet in order to reduce the amount of biodegradable municipal waste (BMW) sent to landfill – landfill diversion. These targets, together with the UK Landfill Tax and the now cancelled Landfill Allowance Trading Scheme (LATS), has (in part) led to a substantial growth in waste management technologies that can now process waste, rather than being sent to landfill (e.g. Anaerobic digestion, incineration, mechanical biological treatment (MBT) plants etc. Due to the fall in new landfill sites being applied for and landfill diversion targets being met there are likely to be very few cases where this issue arises; perhaps only extension of existing sites.

70. **Definition of terms** - issues have arisen in EP appeals relating to the legal interpretation of standard terms used in activities covered under EPR, e.g. 'waste'[57]; waste types, activities[58], recovery/disposal[59], which require careful scrutinising and legal advice as a decision may need to be recovered due to potential national impact on the industry concerned and European Directive legal implications.

71. **Measures to raise standards** - periodically, there will be pressure to address particular aspects of waste management activities. For example, in recent years there has been regulator action to improve the storage arrangements on sites in order to reduce the risk of fire. This has resulted in requirements for *Fire prevention plans (FPP)*[60], to ensure that operators have adequate measures in place to prevent fires

[54] Schedule 9 EPR2016
[55] SI 2011 No. 988
[56] Schedule 10 EPR2016
[57] Article 3(1) of Directive 2008/98/EC
[58] Under Schedule 1 EPR2016
[59] Article 3(15) & (19) of Directive 2008/98/EC.
[60] Required where storage of combustible materials occurs at permitted waste sites. There have been many high profile fires occurring at waste sites in the UK recently e.g. Averies recycling, Swindon, where 3,000

and to contain firewaters in the event of a fire occurring. This may give rise to an enforcement notice being issued to secure compliance. Measures specified are often quite specific such as specifying maximum stack sizes of waste; minimum separation distances; quarantine area; monitoring and suppression systems. They may also address the business model, by requiring the operator to demonstrate that the business is capable of maintaining a rapid throughput of wastes. At appeal potential issues may include: operator competence (technical or financial) and record of compliance; that the requirements are new or have changed recently; that fire prevention is not the regulator's role and that its staff are not qualified or competent in this regard; that there is no data to show potential impact; or that public bodies also have a duty to promote economic growth.

Case Law

R.(on the application of Tarmac Aggregates Ltd [formerly Lafarge Aggregates Ltd]) v SoS for EFRA and The Environment Agency

Date: 17 November 2015; Ref: [2015] EWCA Civ 1149

72. The Court of Appeal considered an appeal from a decision in the High court in which the Judge dismissed an application by the Appellant for judicial review of a decision dated 29 January 2015 by the Inspector, who dismissed an appeal[61] by Tarmac against a refusal by the EA to grant a standard rules environmental permit for 'recovery' of waste (in this case spoil from quarrying operations). Tarmac intended to use the waste to remodel the landscape at the quarry to comply with a condition imposed on a planning permission. Both the EA and the Inspector concluded that the proposed operations did not constitute 'recovery operations' under Directive 2008/98/EC. The central issue in this case was the interpretation of the terms 'recovery' (as opposed to disposal) and 'recovery operations' under Article 3(15) and Annex II of Directive 2008/98/EC. 'Recovery' means any operation the principle result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function. It was argued that the operations could fall to be defined either as a disposal or a recovery operation, as listed in Annexes I and II of the Directive

73. The Inspector concluded that the case turned on *'… whether the reinstatement of an excavated section of a footpath would be likely to occur if waste were not to be used…. …Both the scale of the landform, and the resulting cost of using non-waste materials, would make it likely that alternative approaches would be considered for the reinstatement of the footpath. These approaches would reasonably be expected to include the redesign of the proposed landform and its construction, which could*

tonnes of waste caught fire in July 2014 and was burning for 2 months. These fires can cause significant damage not just to the site, but environmental damage to the surrounding areas from e.g. firewater run-off.

[61] APP/EPR/13/118 – Appeal against refusal of a standard rules permit (SR2010 No8_100Kte) at Methley Quarry, Green lane, Methley, Leeds LS26 9AH.

include the use of a footbridge or permanent diversion of the footpath…' This would not be replacing other materials so would not be an act of recovery.

74. The Court of Appeal disagreed with Inspector's assessment on the facts of the case. The Council had confirmed it would still require the Appellant to complete the approved restoration scheme, which was covered by a Planning Obligation. As the scheme would proceed anyway, the waste would replace primary materials. Therefore it was a recovery rather than a disposal operation.

R.(on the application of Rockware Glass Ltd) v Chester City Council & Quinn Glass Ltd

Date: 15 June 2006; Ref: [2006] EWCA Civ 992

75. This case concerned the emission limits for NOx and the approach taken with regards to consideration of BAT for glass manufacture. Quinn Glass Limited built the largest glass container work factory in Europe. Chester City Council issued an IPPC permit[62] which imposed requirements in relation to the emissions from the plant of NOx. Rockware Ltd, a competitor challenged the legality of the permit in relation to air emissions and the permit was quashed in the High Court.

76. Quinn Glass appealed to the Court of Appeal, which upheld the Judge's reasoning. The Court of Appeal considered one of the issues raised by Quinn Glass fundamental to the case was the implications for decisions under the IPPC Directive of the requirements of Environmental Quality Standards (EQS) laid down under other parts of the EC law (in this case Directive 96/62/EC on ambient air quality. Quinn Glass argued that it was not the objective of the IPPC Directive to reduce emissions as far as possible, but to reduce emissions to a level where a high level of protection of the environment as a whole is reduced. One this point is reached there is no requirement to go further even if this was technically possible.

77. The Court of Appeal rejected this argument and took the view that those who introduced a potentially polluting situation had to be controlled and not escape control by stating that the EQS had been achieved. The legislation set up stringent limits on pollution on a plant-by-plant basis and Quinn had been wrong to contend that it should not be required to do anything if the limits from plants as a whole stayed below the EQS values.

[62] Appeals by Rockware Glass against Doncaster MBC issuing an Enforcement Notice (APP/PPCL/06/160) and their refusal of permit variation (APP/PPCL/07/192) under PPCR2000 were received after the Judgment and decided on 27 November 2007.

Environmental Permitting Appeals

78. The rights of appeal and appeal procedures to be followed are set out in EPR2016 at regulation 31 and Schedule 6. You should familiarise yourself with these regulations before dealing with an appeal.

Appeal Types

79. Regulation 31 gives the following persons the right of appeal against the decision made by the regulator:

a) a person whose application is refused;
b) a person who is aggrieved by a decision to impose an environmental permit condition following that person's application;
c) a person who is aggrieved by a decision to impose a condition on an environmental permit held by that person –
    i) as a result of a regulator-initiated variation; or
    ii) to take account of the partial transfer, partial revocation or partial surrender of that environmental permit;
d) a person who is aggrieved by the deemed withdrawal under paragraph 4(2) of Part 1 of Schedule 5 of that person's duly-made application;
e) a person who is aggrieved by a decision relating to an environmental permit held by that person not to authorise the closure procedure mentioned in –
    i) Article 13 of the Landfill Directive after a request referred to in Article 13(a)(ii) of that Directive; or
    ii) Article 12 of the Mining Waste Directive after a request referred to in Article 12(2)(b) of that Directive;
f) a person on whom an enforcement notice, a revocation notice, suspension notice, prohibition notice, landfill closure notice, mining waste facility closure notice, flood risk emergency works notice, flood risk activity notice of intent or flood risk activity remediation notice is served.

80. Appeals cannot be made under the following circumstances:

- where a decision or notice implements a direction of the Welsh Ministers given under EPR2016 r62(1), r63(1) or (6), or r31(6);
- where an application for the grant or variation of a permit for Category A mining waste facility that is an existing facility is refused under paragraph 14(2) of schedule 20;
- where a revocation or suspension notice is served in relation to non-payment of subsistence fees under r66(1);
- where it relates to conditions on a 'standard permit'[63].

[63] R27(3) of EPR2016

Appeal Process

81. Appeals are submitted on an appeal form (akin to the planning appeal form, adapted for EPR appeals), although this is not a legal requirement. For an appeal to be valid[64] the following should be provided by the appellant:

- written notice of appeal/appeal form;
- statement of the grounds of appeal;
- statement indicating whether you wish the appeal to be dealt with by the written representations procedure or otherwise to be heard by an Inspector at a hearing or inquiry;
- copy of the relevant application (if any);
- copy of the relevant environmental permit (if any);
- copy of any relevant correspondence, plans etc. that you exchanged with the regulator; and
- copy of the decision or notice which is the subject of the appeal.

82. The grounds of appeal should explain, in full, why the appellant is aggrieved by the regulator's decision. It should describe those aspects of the decision which the appellant would wish to change and how the change should be effected. It should also state whether any of the information enclosed with the appeal has been the subject of a successful application for commercial confidentiality[65], and provide relevant details. Unless such information is provided, all documents submitted will be in the public domain and open to inspection.

Appeal Time Limits

83. Notice of appeal must be given, i.e. received by both the Inspectorate and the regulator, within the following timescales[66]:

a) in relation to an appeal against a revocation notice, before the revocation notice takes effect;
b) in relation to the withdrawal of a duly-made application under paragraph 4(2) of Part 1 of Schedule 5, not later than 15 working days after the date of the further notice served by the authority stating that the application is deemed to be withdrawn;
c) in relation to an enforcement notice, a regulator-initiated variation, suspension notice, mining waste facility closure notice or landfill closure notice, not later than 2 months after the date of the variation or notice;
d) in relation to a prohibition notice, not later than 21 days after the date of the notice; or
e) in any other case, not later than 6 months after the date of the decision or deemed decision.

[64] Schedule 6(2) of EPR2016
[65] R48 of EPR2016
[66] Schedule 6(3) of EPR2016

84. Appeals made outside the time limits are only accepted in very exceptional circumstances, for appeals outlined in b) to e) above. Appeals in relation to revocation notices cannot be accepted if they are submitted outside the time limit.

The effect of making an appeal

85. The acceptance of a valid appeal has the following effects[67]:

- Where an appeal is lodged against a revocation notice, the revocation will not take effect until the decision is issued or the appeal is withdrawn (unless the regulator deems it necessary to prevent or minimise pollution).
- If an appeal is made in relation to refusal of a permit, transfer, surrender, variation or conditions, the lodging of an appeal will not suspend the decision or the operation of the conditions.
- Where an appeal has been made against a variation notice, enforcement notice, suspension notice or deemed withdrawal of an application, the appeal will not suspend the notice.
- Where an appeal is brought against a closure notice or to initiate a closure procedure, the appeal will not suspend the notice.
- Where an appeal is brought against a condition on a permit for a water discharge activity, the condition will not take effect until the determination or withdrawal of the appeal (unless the condition is deemed necessary by the regulator to prevent or minimise pollution).

Notification requirements[68]

86. Within 10 days of receipt of the notice of appeal the regulator must inform:

- any person who made representations to the regulator about the subject matter of the appeal; and
- any person who appears to the authority to have a particular interest in the appeal; and
- relevant national consultees (generally those consulted at the application stage).

87. The regulator must notify the above parties that an appeal has been made and by whom, describe the application or permit to which the appeal relates, and state that representations must be made in writing to PEDW within 15 working days of the date of the notification. The notification should also explain that any representations made to the Inspectorate will be copied to the appellant and the regulator and will be entered on the public register. The regulator will confirm to the Inspectorate that this has been done.

[67] R31(7)-(10) of EPR2016
[68] Schedule 6(4) of EPR2016

Appeal Procedures

88. The procedure timetable for appeals under r31 broadly follow 'in the spirit of' the 2000 Planning appeals regulations and rules. These are detailed in the Appeals Procedure Guide. Normally, a hearing is held in public. There is however provision for the Inspector to decide that the hearing, whole or in part, may be held in private. This applies in cases where commercial confidentiality is raised in appeals under r53.

Costs

89. The award of costs applies to hearings and inquiries in appeals under EPR, by virtue of Schedule 6(6), which applies s250(2)–(5) of the Local Government Act 1972. Schedule 20 of the Environment Act 1995, which has effect by virtue of S114(2)(viii) in relation to 'appointed persons' also applies costs provisions to hearings and inquiries. Following an application for costs the Inspector can act 'in the spirit of' and apply the general principles of Development Management Manual Section 12 Annex: *Awards of Costs*. An application for costs can only be considered where an 'event' (i.e. a hearing or inquiry) has been held.

Powers of Inspector

90. The Inspector is appointed on behalf of the Welsh Ministers and has in effect the same powers as the regulator had when making the decision. This means that the powers in Schedule 5 also can also be used by an Inspector in relation to an appeal. For example Schedule 5 Para 12(2) states that "the regulator may grant an application subject to such conditions as it sees fit" and Schedule 5 Para 12(3)(a) states that "variations of an environmental permit in relation to the grant of an application for variation… must be in consequence of the variation".

Appeals – Points to note

91. Waste management proposals and some proposals dealing with water quality on any significant scale are likely to go to inquiry because of the degree of public interest, and to be of a sufficient complexity and duration as to require a PIM. Guidance on the conduct of these is in the ITM Chapter on Inquiries. There may also be an accompanied planning application/appeal proceeding at the same time, possibly with an EIA, which in such cases is likely to be complex, so you should be familiar with the ITM Chapter on EIA. Also adding to the bulk of the file there may be lots of plans (especially in landfill cases, although these are now less common), and perhaps a copy of the planning application, draft working plan, previous Permit decision documents and for landfill cases a hydrogeological risk assessment.

92. As with all casework, the simplest cases tend to be dealt with by the written representations (WR) procedure. These used to be rare but are now increasing. For more complex cases, involving multiple issues, local/national interest and/or legal

issues a hearing or inquiry is the norm. The Welsh Ministers may 'recover' cases where there is a national or novel technical and/or legal issue(s) involved.

93. In the past it has sometimes been necessary to go back to the parties for more information on WR cases, because the parties have assumed that Inspectors have access to a wealth of relevant documentation. However, the parties are increasingly realising that they must provide PEDW with the relevant parts of any documents that they wish to rely on - Inspector's decisions will be based on what is before them.

94. For appeals involving water companies, negotiations between the appellant and NRW are often at a critical stage when a hearing or inquiry opens. There is a real risk that the proceedings will be adjourned for long periods to allow those negotiations to be completed.

95. For these reasons:

- **If there is a PIM,** it may be helpful to encourage the parties to consider whether a suitable compromise can be reached and to identify the areas of disagreement (as well as agreement) in the statement of common ground. Make it clear that you intend running the proceedings as efficiently as possible and that you expect any negotiations to be completed before the inquiry opens.
- **If there is no PIM,** but there is a request for an adjournment during the proceedings, point out that you do not intend adjourning more than once and that the parties should therefore use the break to complete all outstanding discussions.

96. A written representations case may require more site visit time than normal, especially in a landfill case. The site may cover a large area and you should ensure that there is no ambiguity about the meeting place, asking the office to liaise with the parties about this if necessary. Sometimes the parties will offer to convey you around the site by vehicle, it is for you to decide whether this is appropriate, balancing the savings in time against the better impression that might be gained on foot.

Commercial Confidentiality

97. If the regulator has decided that information should be placed on the Public Register, any objector who has a commercial interest that may be affected by the inclusion of certain information may appeal to the Ministers under regulation 53, on the grounds that it should be considered commercially confidential. Appeals should be submitted within 15 working days from the date the notice of determination was given. The regulator must not include the information that is the subject of the appeal on the public register until the appeal is decided.

98. The procedures for this type of appeal will follow the same procedure as appeals under r31, except that hearings will be conducted wholly or partly in private[69] The Inspector will determine whether:

a) the relevant information is to be classified as commercially confidential and therefore should not be published on the regulator's Public Register (status reviewed after 4 years in certain cases); or
b) the relevant information is not commercially confidential, in which case the regulator should place it on the Public Register.

Test Cases

99. Waste cases and those involving 'private' or commercial discharge consents generally involve a single site and relate to a single permit (but may involve both a permit application/variation and or revocation/enforcement notice). In contrast, discharge consents from water/sewerage undertakers may involve multiple sites (sometimes involving hundreds of sites spread over a wide area) and may involve multiple companies where the dispute relates to a nationally imposed condition. Such cases might be placed in abeyance whilst the parties come to an agreement with NRW/Welsh Government and withdraw the appeals. If there is no agreement it may be necessary to consider using 'test cases' to cover issues that occur at multiple similar sites or sites within the same catchment area at a single event, which can then be applied to other similar sites. This approach has been used successfully on occasion[70]. Some waste cases have had issues which also relate to national discussions on a particular permitting issue in the waste industry and have served as test cases on such matters.

Health and Safety

100. Site visits will normally be to waste facilities, water treatment works, riverbanks, discharge pipes etc., but occasionally Inspectors have to visit something that cannot be seen, such as a leaky pipe. You will usually need to use your hard hat, protective footwear and high visibility clothing. Before visiting, make sure you are fully aware of the protective clothing requirements – in some cases this may extend to face masks, safety boots etc. and where additional protection is required (e.g. eyewear) this should be provided by the site operator or the regulator. Be mindful that any open wounds/areas of broken skin should be covered when visiting a site where bio-aerosols are likely to be present.

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[69] Paragraph 4(3)(d) of Schedule 20 of the Environment Act 1995.

[70] **APP/WQ/10/2770-71 and 30 others** – r31(2)(b) appeals by Anglian Water, South West Water and Yorkshire Water against EA imposed conditions on permits for stand-alone discharges associated with water/wastewater treatment works and CSOs at sewage pumping stations to controlled waters; various conditions in dispute including those relating to general management, operating techniques and emissions. The 32 appeals raised matters of law, risk and environmental impact. Six 'test cases' were chosen which represented common issues, but all the sites also had site specific considerations. The EA were directed to vary conditions of each permit. The appellants applied for costs against the EA, which were allowed.

Decisions

101. The powers of the Inspector are wide-ranging, but should be used with care as any change to conditions needs to conform to the necessary Directive provisions and NRW guidance, in particular any BAT Reference/BAT conclusions documents enshrined within the relevant Sector Guidance. Principles of framing planning conditions, i.e. the 'Tests' set out in the Conditions PPG can also be applied where relevant. You are likely to be presented with a set of suggested conditions by the parties (normally the regulator) which will need to be scrutinised.

102. Particular care should be exercised when deciding on enforcement or revocation notices as these may be linked to pollution events and risk of pollution which should not be prolonged by 'generous' timescales for completion. The same applies to water company 'test cases' and occasionally waste industry cases as any decision may affect many hundreds of sites nationally.

103. Appeals may arise as a result of NRW targeting waste sites that are in continued non-compliance (Opra Bands E & F in particular) and decisions on appeals at these sites need to be consistent with this approach to enforcement. Inspectors decisions that are not consistent with this approach could be perceived as sending out the wrong message to the waste management industry and may result in challenges where it could be argued the decision may hinder NRW's approach to enforcement and prolong risk to the environment and human health. In these cases the progress towards compliance that the operator has made/appears to have made and the relative risk to the environment of continued non-compliance should be taken into account as part of the decision-making process.

104. In order to assist Inspectors in the decision-making process a 'checklist' which covers points that may need to be addressed in the decision:

- Does the decision adhere to the principles of the EP regime, particularly as regards giving primacy to the protection of the environment?
- Is the decision internally consistent as regards any finding of operator competency?
- Where a decision addresses a novel issue, or takes a novel approach, has specialist advice been sought?
- Does the decision header refer to the correct department, legislation and regulations?
- With enforcement and revocation notices, have the 'steps to be taken' been reviewed and updated?
- Has regard been had to the requirements of the WBFG, with reference as appropriate to the relevant WBFG objectives?

105. The level of training Inspectors receive is sufficient to equip them to review the merits of the regulator's actions but not to become directly involved in detailed matters of site management. As a result, the standard approach is to review whether the regulator's actions are reasonable and proportionate; it is rare to exercise the Inspector's powers

under Reg 31(5). If a situation arises where an Inspector is considering such action, this should be aired at the event. Also, the Inspector should be confident that s/he has sufficient information as to the detailed situation and should demonstrate that particular consideration has been given to the implications in respect of the principles of the EP regime – i.e. protection of the environment and prevention of harm to human health by use of use of BAT, where necessary, and in compliance with the relevant EU Directives.

Annex A: Example Environmental Permitting Decisions

Permit refusal: APP/EPR/12/81 – S31(2)(a) appeal

- **Details:** Mr N Stoker, Unit 1, Farrar Mills, Farrar Mills Lane, Siddal, Halifax HX3 0PY. Site Visit 20 June 2013, decision dated 2 August 2013. Refusal of 'Standard rules' [SR2008No3 75kte] permit application for the operation of installation for a household, commercial and industrial waste transfer station with treatment (<75,000tpa throughput).

- **Reasons for refusal**: EA concluded that the appellant would not be the operator; the appellant would not be able to comply with certain permit conditions as borne out by a long history of non-compliance.

- **Grounds of appeal**: appellant would be in control of operations on the site as he currently lives at the site; granting of an operators licence to the appellants at another site.

- **Inspector's decision**: not convinced that the appellant would be likely to have the authority to control the site activities or to make financial decisions and therefore could not be the operator; current state of site and history of non-compliance that would breach the permit upon issue and concluded that the appellant would not operate the facility in accordance with the permit. Appeal dismissed: permit application refused.

Conditions: APP/EPR/13/87 – S31(2)(c)(i) appeal

- **Details:** Omega Proteins Ltd, Wildriggs, Greystoke Road, Penrith, Cumbria, CA11 0BX. Hearing 15 October 2013, decision dated 5 December 2013. Regulator-initiated variation by Eden DC to impose conditions in relation to effluent discharge to a sewer (other conditions appealed were agreed and appeal withdrawn with regard to those aspects) to a permit for an A2 (s6.8, Schedule 1) animal by-product rendering process to turn category 3 material into meat and bone meal (MBM) and tallow.

- **Reasons for variation:** following review of the permit, conditions varied to incorporate all variation applications made, advances in BAT, reviewed sector guidance and general guidance.

- **Grounds of appeal:** Examples of dual regulation, which we do not believe are in alignment with the Government's stance and current policy on 'deregulation and better regulation' and also result in dual enforcement at an additional cost to Local Government. Additional controls being imposed over and above what is required in current guidance (specifically Sector Guidance Note IPPCSG8 Integrated Pollution Prevention and Control (IPPC) - Secretary of State's Guidance for the A2 Rendering Sector). The cost/benefit of imposing the additional controls. Insufficient scientific explanation of the reasons for the additional controls on the odour abatement equipment.

- **Inspector's decision:** concluded that many of the monitoring requirements in the disputed conditions are already included in other EP **conditions**. Other conditions appealed changed and agreed between the parties. Inspector allowed the appeal (as reduced in scope) and modified the consolidated permit by deleting 3 conditions and modifying the thermal oxidiser monitoring condition.

Permit transfer, surrender: APP/EPR/12/42 – S31(2)(a) appeal

- **Details:** Clive Hurt (Plant Hire) Ltd, Great Knowley and Gorse Hall Landfill Site, Blackburn Road, Chorley, Lancashire PR6 8TH Site Visit 24 July 2012, decision 17 August 2012. Application for surrender of a permit for a non-hazardous landfill site.

- **Reasons for refusal:** following review of the permit, conditions varied to incorporate all variation applications made, advances in BAT, reviewed sector guidance and general guidance. The EA considered that the appellant had failed to adequately demonstrate that the deposits of waste within the site are no longer resulting in generation of excess landfill gas and not giving rise to groundwater pollution.

- **Grounds of appeal:** the appellant maintained that the landfill gas monitoring results show that there is no gas flow at the site boundary and no gas migration off-site; the results of groundwater monitoring meet the completion criteria in the EA Guidance; and there is sufficient landfill monitoring infrastructure to enable closure of the site.

- **Inspector's decision:** concluded that although the information submitted as part of the application with regard to monitoring has been taken from several points around the site (predominantly the Southern part), given the time period of operation and the waste characteristics, the information is insufficient to show that the waste mass is sufficiently stable and does not present an undue risk to the surrounding area. The appeal was therefore dismissed.

Revocation of permit 1: APP/EPR/15/401 – S31(2)(f) appeal

- **Details:** Metropolitan Waste Management Ltd, 185 Manor Road, Erith, Kent DA8 2AD. Hearing held 23 September 2015, decision 19 November 2015. Permit revoked in its entirety and steps required for a waste transfer station and soil screening facility.

- **Reason for revocation:** EA considered the operator is not competent and will not operate the facility in accordance with the permit. In particular persistent failure to comply with the permit conditions; non-compliance with previous enforcement notice; inadequate technical competence; historical prosecution demonstrating non—competence. The Notice required various steps to be taken to bring the facility back into compliance including prevention of emissions & monitoring; removal of all waste from site and empty/clean all drainage systems.

- **Grounds of appeal:** revocation was unreasonable and disproportionate and the EA is wrong to consider the appellant is not a competent operator. The appellant has endeavoured to comply with all CAR's and enforcement notices (although not always within the timescales due to mitigating circumstances); the company does have a person who has a Certificate of Technical Competence (CoTC) who has increased his level of attendance and the current site manager is in the process if gaining CoTC. Historical prosecution does not have any bearing on the current situation.

- **Inspector's decision:** concluded that continued poor performance of the operator indicates that he is not competent and was not convinced that the appellant could comply in the future and the was satisfied that the revocation of the permit was proportionate in this case. The Notice was affirmed with modifications.

Revocation of permit 2: APP/EPR/15/443 – S31(2)(f) appeal

- **Details:** Wasteology Ltd, Greenham Quarry, Wellington, Somerset TA21 0JU. Hearing held 19 April 2016, decision 1 July 2016. Permit revoked in its entirety and steps required for a waste transfer station facility.

- **Reason for revocation:** EA considered the operator is not competent and will not operate the facility in accordance with the permit. In particular the company has a poor record of compliance; the banding for Opra compliance was the lowest rating (Band F) for 2011-2015; the company received advice and guidance on compliance as well as warning letters, 19 Enforcement Notices and 2 formal cautions which have failed to secure compliance; inadequate working plan; inadequate infrastructure and drainage at the site; site has impacted on the local amenity with regard to noise; occasions where the technically competent management cover has been inadequate. The Notice required various steps to be taken to bring the facility back into compliance including prevention of emissions & monitoring; removal of all waste from site and empty/clean all drainage systems.

- **Grounds of appeal:** the notice of revocation was unreasonable and disproportionate and the EA has not acted consistently or transparently and has failed to take all of the relevant considerations into account. On 27 November 2014 the EA advised the company that it had 18 months to achieve compliance or the permit would be revoked (until 27 May 2016); the company relied upon that assurance and invested significant money in the redevelopment of the site to ensure its future compliance within the timeframe; however, in serving the Notice on 20 August 2015, the EA has unfairly reneged upon its previous position to the serious detriment of the company.

- **Inspector's decision:** concluded that there does not remain a significant risk of pollution from the appeal site and the revocation is not justified in the interests of the protection of the environment; Inspector was not convinced that there was such a change in circumstances or any other trigger to issues a revocation Notice prior to the end of the 18 month period. Although there is continued poor performance there have been recent improvements which indicate that the operator is capable of

operating the site in compliance with the permit. The appeal was allowed and the Revocation Notice was quashed.

Enforcement Notice: APP/EPR/15/462 – S31(2)(f) appeal

- **Details:** T K Lynskey (Excavations) Ltd, Clifton Works, Neepsend Lane, Sheffield, South Yorkshire S3 8AW – Site visit 14 April 2016, decision 13 May 2016. Notice and steps required related to permit for waste transfer station for non-hazardous waste.

- **Reason for Enforcement Notice:** breach of permit conditions – activities not managed in accordance with the management system as there is no written management system which identifies and minimises the risks of pollution; waste is not being kept in a building/secure container and on impermeable surface with sealed drainage; acceptance of waste not authorised by the permit (waste from mechanical treatment of waste). The notice required submission of a written management system; movement of all waste to secure containment with suitable surface and drainage; removal of all nonauthorised waste from the site.

- **Grounds of appeal:** appellant disputes alleged breaches of permit; Notice not justified – based on flawed reasoning with no supporting evidence; EA acted unreasonably and prematurely in issuing the Notice; the conditions are unreasonable and unnecessary; timescale for compliance insufficient.

- **Inspector's decision:** concluded that absence of written management system breaches permit condition; evidence of contraventions of waste storage conditions; CARs and on-site evidence proves contravention of permit conditions on waste acceptance and unacceptable risk of pollution and nearby river; EA enforcement action was reasonable and justified; steps and timescale for compliance necessary and reasonable. Appeal was dismissed and Notice upheld.

Commercial Confidentiality: APP/EPR/12/52, S53(1) appeal

- **Details:** JBMI Group Ltd, Kingsilver Refinery, Hixon, Staffordshire ST18 0PY – site visit deemed not necessary, decision 12 March 2013. Rejection of request to grant commercial confidentiality for reporting of performance indicators relating to waste removed from site and Pollution Inventory return relating to off-site waste transfers in respect of varied permit for recovery of contaminated aluminium and production and processing of secondary aluminium.

- **Reasons for refusal:** request not granted as the information has appeared in the public domain in previous years without a confidentiality request.

- **Grounds of appeal:** the EA are required to exclude information that is commercial and industrial as it relates to commercial activities and processes of the company; the information is already subject of legal confidentiality in order to protect legitimate economic interests, via contractual confidentiality which applies non-disclosure

agreements to all aspects of the company's processes; there is no significant public interest in having this information disclosed, but there is public interest in maintaining commercial confidences.

- **Inspector's decision:** no evidence that the appellants marketplace is any more competitive than others or requires any greater level of sensitivity; the existence of the non-disclosure agreements are a matter between those parties involved and is not an overriding indication of necessity of commercial confidentiality. The appeal site lies close to housing and a school and the appeal information give an indication of the activity level of the site, which is in the public interest. The EPR carries a presumption in favour of disclosure and this together with the other points does not provide a convincing argument for excluding the information from the public register. The appeal was rejected.

Annex B: Glossary of Terms

Term / Abbreviation	Explanation
Activated Carbon (AC)	Very porous carbon, acts as adsorbent for aromatic organic pollutants – can adsorb large quantities of gases, extensively used for odour control.
Activated sludge	Sludge removed from the activated sludge sewage treatment process. Consists of bacteria and protozoa which can live on the sewage and requires continuous removal. Part of the still active sludge is returned to the raw sewage (hence 'activated sludge') and the majority (about 90%) is sent for disposal to land, sea or incineration.
Activity	In schedule 1 of EPR2016. Activity as listed in Part 2 of the Schedule. An activity is carried on at an installation or mobile plant. For an activity carried on at an 'installation', the place where the activity is carried on forms part of the installation.
Advanced Thermal Treatment (ATT)	A generic term to describe energy from waste technologies (primarily those that use Gasification or Pyrolysis) which are more efficient at recovering energy than conventional methods. See separate definitions of Gasification, Pyrolysis and Thermal Treatment for further details.
Anaerobic Digestion (AD)	Biological treatment for organic wastes such as food and green garden/ horticultural waste, where plant and animal materials (biomass) are broken down by microorganisms in the absence of oxygen, using an enclosed system, under controlled conditions. The main end products are "biogas" which can be used to generate heat or power, and "digestate" (a compost-like material that can be used as a fertiliser). As the process is enclosed in a building, AD does not require a large site, but must be an appropriate distance away from "sensitive receptors" such as housing and community facilities, because of potential health risks.
Asset Management Plan (AMP)	Tactical plan for managing the water industry infrastructure to a methodology that drives continuous improvement on a 5-year cycle (currently AMP6 covering 2015-2020, i.e. the 6th AMP period since privatisation in 1989). The expenditure is linked to the OFWat periodic price review (currently PR18)

Term / Abbreviation	Explanation
Best Available Techniques (BAT)	Means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole: (a) 'techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned; (b) 'available techniques' means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator; (c) 'best' means most effective in achieving a high general level of protection of the environment as a whole - from Article 3 of the Industrial Emissions Directive 2010/75/EU (formally the IPPC Directive), BAT reference documents for the basis for setting of permits/licence conditions under the Environmental Permitting Regime and EPR 2016.
Best Available Techniques Not Entailing Excessive Costs (BATNEEC)	The most effective techniques for an operation at the appropriate scale and commercial availability, where the benefits gained by using the technique should bear a justifiable relationship to the cost (unless emissions are very toxic) – an updated version of Best Practicable Means (BPM).
BAT Reference Notes (BREF Notes)	Documents published by the C, which follow from an exchange of information on BAT between the member states. These form the basis for the BAT Conclusion documents, which in turn feed into permit conditions.
Best Practicable Environmental Option (BPEO)	Establishes the option which provides the least damage to the environment as a whole at an acceptable cost. BPEO was included in Pt I of the Environmental Protection Act 1990 as basis for the IPC authorisation process.
Biodegradable Waste	Waste that is subject to being broken down by microbial action.
Biological Treatment	A method of treating waste that uses biological processes, involving microorganisms, to break down the waste. Examples of this form of treatment include Anaerobic Digestion and Composting. Treatment of waste water and sewage, and some

Term / Abbreviation	Explanation
	specialised methods of contaminated soil treatment, also involve biological treatments.
Biomass	Biological materials (i.e. derived from plants or animal sources) which are used as a source of fuel to generate energy. Biomass energy generating plants do not all use waste as feedstock: some generate energy from energy crops grown specifically for the purpose, whereas others may use a combination of biomass crops and pre-treated waste wood and/ or Refuse Derived Fuel (RDF). See separate definition of Refuse Derived Fuel.
By-Product	The term “by-product” is defined in Article 5 of the Waste Framework Directive (2008/98/EC) as a “substance or object, resulting from a production process, the primary aim of which is not the production of that item,” where the following conditions are met: (a) Further use of the substance or object is certain; (b) The substance or object can be used directly without any further processing other than normal industrial practice; (c) The substance or object is produced as an integral part of a production process; and (d) Further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts. Such a product is not regarded as “waste” if these conditions are met. It is implicit that if these conditions are not met, the product is likely to be a “waste.” Quality Protocols have been developed by the Environment Agency in association with the (d) Waste and Resources Action Programme (WRAP) for various products, to establish the conditions that must be met for them to qualify as a product rather than as a “waste”.
Ceramic filter	Method of ‘cleaning’ waste gases from treatment processes, where particles are collected on the surface of the element, as filtration continues the layer of particle deposits becomes thicker, forming a ‘cake’. The cake is removed for disposal.
Chemical Treatment	A method of treating waste that uses chemicals to treat waste to neutralise or reduce its harmfulness, prior to further treatment, recovery or disposal. These methods are often used to treat Hazardous Wastes (see separate definition) but chemical treatments are also applied in waste water treatment.

Term / Abbreviation	Explanation
Circular Economy	An alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.
Civic Amenity Site (CA)	See Household Waste Recycling Centre.
Clinical Waste	Waste generated by healthcare activities (hospitals, GPs surgeries, vets, laboratories, may range from plasters, used needles to drugs and body parts).
Coastal Waters	Waters within the area extending landward from those baselines as far as the high tide limit, or in the case of freshwater, the freshwater limit of the river or watercourse and any waters within an enclosed dock adjoining waters within that area.
Co-mingled Waste	Mixed Waste stream, where waste has not been segregated at source (kerbside collection). Is easier for households and has been shown to boost overall recycling rates but increases cost and increases contamination risk.
Commercial and Industrial Waste (C&I)	Waste generated by industry and by businesses. The fraction of C&IW that is similar in nature to household waste (for example, food, green waste, paper, card, cans, glass and plastics) is “municipal” waste according to the definition in Article 2 (b) of the Landfill Directive – see definition of Municipal Waste below for details.
Composting	A method of biological treatment that involves breaking down organic waste into a soil-like substance, using various micro-organisms in the presence of oxygen. Can be done in “open windrows” or “in-vessel” (see separate definitions). The end-product is compost which has various horticultural and agricultural uses. As there are potential risks to health from “bio-aerosols” and in some cases, animal by-products, composting is normally only allowed on sites that are an appropriate distance away from away from “sensitive receptors” such as housing and community facilities. The Environment Agency has issued guidance on developments that require both planning permission and environmental permits, which explains the risks.
Construction and Demolition Waste (C&D)	Waste generated by the construction and demolition process. This waste stream therefore includes various building materials, including concrete, bricks, gypsum, wood, glass, metals, plastic, solvents, asbestos and excavated soil, many of which can be recycled.
Controlled Waste	Waste from agricultural, mining and quarrying, sewage sludge and dredging spoils, accounting for 60% of the total are regarding

Term / Abbreviation	Explanation
	as having relatively low potential for causing harm to human health of the environment.
Controlled Waters	Relevant territorial waters, coastal waters, inland freshwaters, ponds, lakes and groundwaters as defined in s104 WRA 1991.
Combined Heat and Power (CHP)	A term used to describe the process of capturing and using heat that is a by-product of the electricity generation process (for example, heat generated by energy from waste facilities). It involves putting into place infrastructure (e.g. pipework) to supply the surplus heat to developments nearby (such as an industrial estate or housing estate), that have a demand for it, which otherwise have to be met by a conventional boiler or energy generating system.
Combined sewer overflow (CSO)	An overflow pipe, legally allowed to operate during storm events, directly connected to sewers and/or sewage pumping stations, they are designed to operate at times of heavy rainfall to release pressure in the network and reduce the risk of flooding. However as this is effectively untreated sewage mixed with storm waters there is a risk of pollution (with concerns particularly around bathing waters).
Directly associated activity	An activity that could have an effect on pollution that is carried on the same site as an installation and is technically connected with an activity carried on at the same installation.
Disposal	Defined in Article 3 (19) of the Waste Framework Directive (2008/98/EC) as "...any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy." A detailed (but non-exhaustive) list of the operations that fall under the definition of "recovery" is set out in Annex I of the Directive. In other words, it means any waste management operation whose main purpose is to get rid of the waste, even if some value is recovered in the process. Therefore, incineration may be disposal if the main purpose is not energy recovery. The deposit of excavation waste onto or into land (landfill or land-raising) is also usually regarded as waste disposal although there are "grey areas" where material is being used for land remediation or landscaping purposes.
Duty of Care	Applicable to those who import, produce, carry, keep, treat or dispose of controlled waste or as brokers have control of such waste must take all reasonable measures to achieve protection of the environment and prevention of harm to human health by measures outlined in s34 of the Environmental Protection Act 1990.

Term / Abbreviation	Explanation
Energy from Waste / Energy recovery (EfW)	Use of residual waste as a fuel to generate energy (see below for definition of Residual Waste). There are various types of facility for generating energy from waste or from “refuse derived fuel” (see below for definition). These include municipal energy from waste facilities for incineration of waste with energy recovery, and more advanced technologies which are more efficient at recovering energy, for example, by generating energy from gas produced by other waste treatment processes such as pyrolysis, gasification and anaerobic digestion (AD). Defra has produced guidance (2014) on the issues around energy from waste and the options available.
Emission Limit Value (ELV)	The mass concentration or level of an emission which may not be exceeded over a given period.
Environment Act 1995	Act which established the Environment Agency (EA) and SEPA and set out their functions, rights and liabilities and made provisions on contaminated land, control of pollution, conservation, fisheries and National Parks.
Environmental Permitting Regulations 2016 [SI2016/1744] (EPR2016)	Regulations made under powers in the Pollution Prevention and Control Act 1999, transpose various EU Directives – IPPC, Waste. Landfill, Incineration, End of Life Vehicles, Large Combustion Plants & others, which extended the EP regime under the previous 2007 regulations, which streamlined the Waste Management Licensing and Pollution Prevention and Control regimes into one permitting and compliance system. The 2010 regulations added water discharge consenting, groundwater authorisations, radioactive substances regulations to the regime and transposed the permitting parts of the Mining Waste and Batteries Directives. The 2016 regulations consolidated and updated the EPR2010, with amendments and came into effect from 1 Jan 2017.
Environmental Protection Act 1990	Act which made provision for improved pollution control, re-enacted provisions of the Control of Pollution Act 1974 with respect to waste, modifications to functions of the regulatory bodies. Introduced Integrated Pollution Control regime – all major emissions are considered simultaneously and not in isolation – see IPPC.
Environmental Quality Standards (EQS)	Values, defined by regulation that specifies the maximum permissible concentration of a potentially hazardous chemical, generally in air or water. For water these are defined in the Water Framework Directive (2000/60/EC) and for Air in the Ambient Air Quality Directive (2008/50/EC).

Term / Abbreviation	Explanation
European Waste Catalogue (EWC)	Established by Commission Decision 2000/532/EC a harmonized, non-exhaustive list of waste types. Each waste type is given a six-digit code, made up of two-digit sub-codes. The catalogue generally describes the type of process and the industry/sector from which the waste type arises. Hazardous wastes are assigned an asterisk '*' after the code. These codes are used in permits to set out the permitted waste types for relevant waste installations. The list was transposed under the List of Waste Regulations 2005.
Gasification	A type of Advanced Thermal Treatment/ Energy Recovery technology, which under strictly controlled temperature conditions, converts biomass and/ or pre-treated wastes into gas (syngas), which can then be either used as a source of energy or converted into electricity. The other main product is a solid ash residue. This method of treatment is only suitable for pre-treated wastes, such as Refuse Derived Fuel (RDF), which may be generated on-site from residual waste, or be imported from another facility which processes residual waste into RDF. See also separate definitions of Advanced Thermal Treatment, Biomass, Energy Recovery, Refuse Derived Fuel, Residual Waste and Thermal Treatment.
Groundwater	All water below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.
Hazardous Waste	Defined in Article 2 (2) of the Waste Framework Directive (2008/98/EC) as "...waste which displays one or more of the hazardous properties listed in Annex III." In other words, waste whose properties are likely to cause risks to health, the environment or water quality. Annex III of the Directive provides a (non-definitive) list of properties that render waste "hazardous," and the Environment Agency has produced guidance on the types of waste that are likely to be hazardous.
Household Waste	There is no standard definition of household waste but in general it means waste generated by households. Most of this waste is collected from local councils from households through kerbside collections or household waste recycling centres (HWRCs), although some household waste is also dealt with by the commercial waste sector (e.g. skip hire).
Household Waste Recycling Centre (HWRC)	Facility operated by or on behalf of a local council, where local residents can bring waste (also referred to as a Civic Amenity Site or a "tip").

Term / Abbreviation	Explanation
Incineration	The combustion of waste, either with or without energy recovery. Municipal energy from waste plants tend to be referred to as “incinerators” although they normally recover some energy, and the most recently developed plants are efficient enough to qualify as a waste “recovery” operation (see separate definition of Recovery).
Industrial Emissions Directive (IED)	EU Directive which recasts the IPPC and 6 other existing directives, following extensive review of the existing policy. Aims to achieve high level of protection of the environment and human health taken as a whole by reducing emissions across the EU, in particular better application of BAT. Environmental permits should set conditions in accordance with the principles and provisions of the IED. Transposed through amendments to the EPR2010.
Inert Waste	Waste that does not undergo any significant physical, biological or chemical changes likely to cause risks to health or to the environment or to affect water quality – the legal definition of “inert waste” can be found in Article 2 of the Landfill Directive (1991/31/EC). This type of waste can be disposed of at any permitted Landfill site. Certain types of inert waste such as clean waste soils may also be disposed of onto land for the legitimate purpose of restoration, land remediation or landscaping.
Inland freshwaters	Rivers, streams, watercourses and lakes or ponds that are above the freshwater limit, i.e. not tidal – see s104 WRA 1991.
Integrated Pollution Prevention and Control (IPPC)	The IPPC Directive 96/31/EC sets out an integrated environmental approach to the regulation of certain industrial activities. This means that emissions to air, water (including discharges to sewer) and land, plus a range of other environmental effects, must be considered together. It also means that regulators must set permit conditions so as to achieve a high level of protection for the environment as a whole. These conditions are based on the use of the Best Available Techniques (BAT), which balances the costs to the operator against the benefits to the environment. IPPC aims to prevent emissions and waste production and where that is not practicable, reduce them to acceptable levels. IPPC also takes the integrated approach beyond the initial task of permitting through to the restoration of sites when industrial activities cease. Covers Part A(1) – EA Regulated (IPPC) and Part A(2) – LA Regulated (LA-IPPC) installations, but not Part B – LA Regulated (LA-PPC) installations (which concerns lower risk installations that concern emissions to air only). Note that all regulated under the EPR2010.
Installation	A ‘stationary technical unit’ where one or more activities listed in Schedule 1, Part 2 of EPR2016 are carried on and any other

Term / Abbreviation	Explanation
	location on the same site where any directly associated activities are carried on.
In-Vessel Composting (IVC)	See separate definition of Composting. This method involves composting in an enclosed environment, allowing greater control over the process than “open windrow” composting. The waste is usually shredded before processing. There are various systems available using containers, silos, bays or tunnels, rotating drums, or an enclosed hall. The end-product is compost which has various horticultural and agricultural uses. This method can be used to compost food and green garden/ horticultural waste mixtures, because composting takes place in an enclosed environment, with accurate temperature control and monitoring. The end-product is compost which can be used by farmers and gardeners to improve soil. There are various systems depending on the type of container or building used. It does not require such a large site as Open Windrow Composting but must still be an appropriate distance away from “sensitive receptors” such as housing and community facilities, because of potential health risks from “bio-aerosols” and animal by-products.
Landfill	Defined in Article 2 (g) of the Landfill Directive (1991/31/EC) as: “A waste disposal site for the deposit of the waste onto or into land (i.e. underground), including: Internal waste disposal sites (i.e. landfill where a producer of waste is carrying out its own waste disposal at the place of production), and A permanent site (i.e. more than one year) which is used for temporary storage of waste but excluding: Facilities where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere; Storage of waste prior to recovery or treatment for a period less than three years as a general rule, or storage of waste prior to disposal for a period less than one year.
Landfill Diversion	Ways of recovering value from waste instead of disposing of it to landfill – see separate definition of Landfill.
Landfill Gas (LFG)	Generated in Landfill sites by anaerobic decomposition of municipal waste – consists of predominantly Methane (CH_4) and Carbon dioxide (CO_2). Directed through system of pipes to vents and maybe used as fuel for onsite boilers for site energy needs. Needs to be monitored for many years after site is closed and capped.

Term / Abbreviation	Explanation
Leachate	Seepage of liquid through a waste disposal site or spoil heap (mainly from municipal waste landfill sites). Leachate characterized by high Biological Oxygen demand (BOD), high ammonia, organic nitrogen, volatile fatty acids, has high pH – requires collection (from sumps) and treatment before being discharged to controlled waters. May need to be monitored for many years after landfill site is closed and capped. Should be prevented from entering controlled waters by use of low permeable barrier i.e. geological and synthetic liner.
Material Recycling Facility / Materials Recovery Facility.	Facility that uses mechanical techniques to sort, separate and recover raw materials from mixed household wastes, such as paper, card, cans, glass and plastics, which can then be re-used by industry, or recycled into new products. It therefore fits into either the “Preparing for Re-use” or “Recycling” steps of the “waste hierarchy.” Other more specialised materials recovery techniques can also be used to recover value from other types of waste generated by households and businesses, such as waste electrical and electronic equipment (WEEE).
Mechanical and Biological Treatment (MBT)	Use of a combination of techniques to extract as much value as possible from mixed wastes. This involves two or three stages of treatment on the same site. There is often an initial mechanical sorting and separation stage to recover materials suitable for recycling, followed by processing and/ or treatment of the residue, to prepare it for a final treatment stage, when any remaining residual waste is used to recover energy and/ or prepared for disposal. In this combination the final stage involves some form of biological treatment.
Mechanical Heat Treatment (MHT)	Use of a combination of techniques to extract as much value as possible from mixed wastes. This involves two or three stages of treatment on the same site. There is often an initial mechanical sorting and separation stage to recover materials suitable for recycling, followed by processing and/ or treatment of the residue, to prepare it for a final treatment stage, when any remaining residual waste is used to recover energy and/ or prepared for disposal. In this combination the final stage involves some form of thermal or heat treatment.
Mobile Plant	Plant which is designed to be moved and used to carry on an activity or waste operation.
Municipal Waste	Defined in Article 2 (b) of the Landfill Directive 1991/31/EC as “…waste from households, as well as other waste which, because of its nature or composition, is similar to waste from household.”

Term / Abbreviation	Explanation
Non-Hazardous Waste	Waste that is neither inert nor hazardous (see separate definitions), which can include pre-treated organic wastes and stabilised residues from waste treatment. This type of waste can only be disposed of at a permitted Non-Hazardous Landfill site or another facility permitted to accept it.
Non-Controlled Waste	Waste arising from municipal (waste from household and small businesses), commercial and industrial, construction and demolition activities. These wastes account for 40% of the total and contain environmentally damaging by-products when they degrade. Other substances may be toxic or hazardous to health in other ways.
Operator	The person who has control over the operation of the regulated facility.
Operational Risk Appraisal (Opra)	Methodology for formal risk assessment for processes subject to EPR2016. Environment Agency assess the risk to the environment of the running of the process and to target resources and charges as appropriate, dependent on the risk – consists of three 'Tiers' Tier 1 being the simplest processes with the lowest risk, Tier 3 being the most complex with high risk activities. A permit can cover more than one activity and in more than one tier.
Plume	Steam of gas issuing from a stack which retains its identity and is not completely dispersed in the surrounding air. Near the stack the plume is often visible due to water droplets, smoke or dust that it contains, but often persists downwind after it has become invisible to the naked eye (albeit in much lower concentrations).
Preparing for Re-Use	Defined in Article 3 (16) of the Waste Framework Directive (2008/98/EC) as "...checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing."
Proximity Principle	One of the principles to be applied to the disposal of residual waste and recovery of mixed municipal waste from households and other sources where collected as part of the same collection arrangements, under Article 16 of the Waste Framework Directive (2008/98/EC) – the other principle to be applied in parallel is "self-sufficiency" (see separate definition). The objective is to enable these wastes to be managed at "one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health" – in other words, that waste facilities should be appropriately located in relation to the sources

Term / Abbreviation	Explanation
	of waste, so that the impacts on the environment and health are minimised.
Pyrolysis	A type of Advanced Thermal Treatment/ Energy Recovery technology, which under strictly controlled temperature conditions, converts biomass and/ or pre-treated wastes into gas, which can then be either used as a source of energy or converted into electricity. Other by-products include liquid and solid residue ("char") which can be used as fertiliser. This method of treatment is only suitable for pre-treated wastes, such as Refuse Derived Fuel (RDF), which may be generated on-site from residual waste, or be imported from another facility which processes residual waste into RDF. See also separate definitions of Advanced Thermal Treatment, Biomass, Energy Recovery, Refuse Derived Fuel, Residual Waste and Thermal Treatment.
Radioactive Waste	Waste that undergoes radioactive decay (may be from laboratories, health facilities or the nuclear energy industry).
Recovery	Defined in Article 3 (15) of the Waste Framework Directive (2008/98/EC) as "...any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy." A detailed (but non-exhaustive) list of the operations that fall under the definition of "recovery" is set out in Annex II of the Directive. Essentially, "recovery" of waste is the same as "Landfill Diversion" (see separate definition). The generation of energy from waste may qualify as "recovery," but only where the technology achieves the levels of efficiency required by the Directive (see Annex II, R1).
Refuse Derived Fuel (RDF)	Residual waste which has been pre-treated (for example by being screened and shredded) to produce a fuel which can then be used to generate energy at a Biomass, Energy from Waste or Advanced Thermal Treatment facility. Refuse Derived Fuel is still technically a "waste" and not a product. Operations that involve the processing of residual waste into RDF may qualify as "recovery" but do not fall within the definition of "recycling" (as is sometimes claimed). See separate definitions of Advanced Thermal Treatment, Biomass, Energy from Waste, Recycling, Recovery and Residual Waste.
Residual Waste	Waste left over from treatment or recovery processes, once the re-useable and recyclable waste has been removed.
Recycling	Defined in Article 3 (17) of the Waste Framework Directive (2008/98/EC) as "...any recovery operation by which waste materials are reprocessed into products, materials

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	or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations."
Re-Use	Re-use is defined in Article 3 (13) of the Waste Framework Directive (2008/98/EC) as "...any operation by which products or components that are not waste are used again for the same purpose for which they were conceived."
Scrubber	Device for flue gas cleaning e.g. spray towers, packed scrubbers and jet scrubbers – removes particles down to 1 micrometre in diameter when used with water. Can also control gaseous pollutants (used with alkaline solution). Scrubbers produce sludge, that requires dewatering and disposal.
Self-Sufficiency Principle	One of the principles to be applied to the disposal of residual waste and recovery of mixed municipal waste from households and other sources where collected as part of the same collection arrangements, under Article 16 of the Waste Framework Directive (2008/98/EC) – the other principle to be applied in parallel is "proximity" (see separate definition). The objective is for Member States to "to establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste" taking into account "best available techniques" – in other words that within the UK an adequate network of facilities should be developed so that each area should have enough capacity to meet its requirements.
Stack gases	The gases discharged up a chimney stack for dispersion into the atmosphere. May also be termed 'Flue gases' or 'Exhaust gases'.
Tallow	Animal fat obtained from animal rendering processes, which can be used as fuel in boilers – will need to conform to Waste Incineration Directive emission limits, now applied through the Industrial Emissions Directive.
Thermal Treatment	A method of treating waste that involves heating it. Examples are Anaerobic Digestion, Energy Recovery and Incineration – see separate definitions of these technologies.
Treatment	Defined in Article 3 (14) of the Waste Framework Directive (2008/98/EC) as "...recovery or disposal operations, including preparation prior to recovery or disposal." See separate definitions for the meaning of "recovery" and "disposal."
Waste	Defined in Article 3 (1) of the Waste Framework Directive (2008/98/EC) as "any substance or object which the holder discards or intends or is required to discard." As it is not always easy to determine whether material is a "waste" or a "by-product," Defra has issued guidance (2012) on the legal definition of waste.

Term / Abbreviation	Explanation
Waste Hierarchy	The waste hierarchy is a system for ranking methods of managing waste by preference, according to how efficiently they make use of resources - see Figure 1 for details. The legal definition of the waste hierarchy can be found in Article 4 of the Waste Framework Directive (2008/98/EC), which states that it is to be applied as a priority order in waste prevention and management legislation and policy. Defra has issued guidance (2012) on applying the "waste hierarchy" when considering waste management options. There is separate guidance (2011) on applying the "waste hierarchy" when considering options for hazardous waste.
Waste Management Industry Training and Advisory Board (WAMITAB)	Awarding organisation that develops qualifications for those working in the 'Waste' industry for operatives through to management. Specific Waste Management qualifications under the WAMITAB (Certificate of Technical Competence - CoTC) are required in order to be classed as 'competent operator' for regulated facilities under the Environmental Permitting Regime and EPR2016.
Waste Operation	Any recovery or disposal of waste.
Waste Projections	Forecasts or predictions of the amounts of waste likely to arise over a given period. The estimates are usually calculated by "projecting" from estimated current arisings (the "baseline") and applying assumptions about how waste is likely to grow or fall over time, which may relate to the amount of new development expected to take place and other factors such as economic trends.
Windrow Composting	See separate definition of Composting. This method of composting is carried out in the open air or in a large covered area and is only suitable for green garden or horticultural waste, such as grass cuttings, tree and shrub pruning's and leaves. The waste is shredded and laid out in long piles called "windrows," which are mechanically turned from time to time to aid the process of breakdown of material. The end-product is compost, which has various horticultural and agricultural uses. This type of operation requires a large site that is an appropriate distance away from "sensitive receptors" such as housing and community facilities, because of potential health risks from "bio-aerosols."

Selected definitions adapted from *Dictionary of Environmental Science and Technology (Fourth Edition), Porteous, Andrew, Wiley 2008*