Lithium Battery Recycling Basic Pre-App Advice

1. Classification and coding

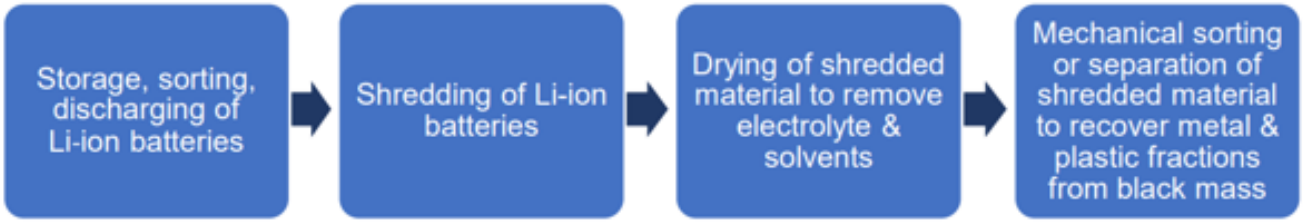
Currently, waste Li-ion batteries are classified and coded under the List of Wastes (LOW) codes 16 06 05 or 20 01 34 ('other batteries and accumulators'), which are absolute non-hazardous codes. This is due to the waste codes being developed before Li-ion batteries were used commercially.

However, despite their current classification, lithium-ion batteries pose a well-known and significant fire risk and are likely to contain hazardous materials, such as the electrolyte (for example, lithium hexafluorophosphate ($LiPF_6$)) and the active cathode material (for example, lithium nickel manganese cobalt oxide (NMC)).

This means that once the batteries have been subject to an initial waste treatment process (for example, shredding), the outputs generated (for example, mixed shredded materials and 'black mass[1]') are likely to be considered hazardous in accordance with our waste classification guidance.

2. Li-ion battery recycling processes

The recycling of Li-ion batteries typically involves the following steps:



Lithium batteries may undergo several shredding activities before a material suitable for the chemical recovery processes is produced (black mass). As soon as shredded material is produced, there will be electrolytes, and associated solvents present which will need immediate treatment ahead of any subsequent shredding and onward activities e.g. drying.

The black mass may be treated further, either on or offsite, to recover valuable metals (for example, cobalt, nickel, lithium, manganese). The metal recovery processes typically involve hydrometallurgy (for example, using chemical leaching and precipitation processes) or pyrometallurgy (for example, using high temperature smelting or refining processes) or a combination of both.

For a more detailed example process, refer to the last diagram in this document; to note this is an example only - site specifics may change the process.

3. Relevant Activities

Permits must include the relevant activities that apply to the waste treatment processes undertaken at a facility. For example, although Li-ion batteries are currently classified as non-hazardous waste, materials resulting from their initial treatment (for example, shredding) are likely to be hazardous. Therefore, processes treating these materials are likely to be hazardous waste treatment activities. These may need to be permitted as Section 5.3 A1(a) hazardous waste installation activities (listed under Schedule 1 of EPR) if their capacity exceeds 10tonnes per day (alone or in aggregation with other hazardous waste treatment activities). The shredding of batteries is likely to be a Section 5.4 A1(b) metal shredding installation activity if its capacity exceeds 75tonnes per day (alone or in aggregation with other activities listed under S5.4 A1(b) activities).

The treatment of black mass to recover metals (lithium, cobalt, nickel etc.) may involve complex hydrometallurgical or pyrometallurgical processes. Where materials are chemically recovered as salts, for example, through a hydrometallurgical process, Section 4.2 A(1)(iv) 'producing inorganic

[1] Black mass primarily consists of the carbon/graphite material and metal oxides from the battery electrodes. It will also contain electrolyte if it has not been treated to remove it.

chemicals such as salts' may also be relevant. The black mass treatment may also be considered a Section 2.2 non-ferrous activity as a result of producing non-ferrous metals.

4. Summary of Relevant Activities

Lithium Battery Recycling could fall under either a waste permit or an installation permit, depending on the treatment involved, the capacity of the site and whether there is any further processing of the shredded material after it reaches a stage known as "black mass".

Should the batteries be proposed to be shredded only, and the black mass sent off site for further processing, this could be considered to be a waste treatment activity that may fall under the waste operation permitting regime, or, if IED thresholds[2] are exceeded (facility has a storage capacity of hazardous waste exceeding 50 tonnes per day, either produced on site or brought onto site, and/or the facility has a hazardous waste treatment capacity either alone or in aggregation exceeding 10 tonnes per day), be permitted as a waste treatment installation activity under the installation regime.

Should the batteries be proposed to be shredded, and the black mass further refined or treated, this would likely be considered an installation permit activity. falling under one or both of the following activity descriptions:

- ***S2.2 – Non-Ferrous metals*** Part A(1)(a) Unless falling within Part A(2) of this Section, producing non-ferrous metals from ore, concentrates or secondary raw materials[1] by metallurgical, chemical or electrolytic activities
- ***S4.2 – Inorganic chemicals*** Part A(1)(a) Producing inorganic chemicals such as—
  (iv) salts (for example ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate)
  (v) non-metals, metal oxides, metal carbonyls or other inorganic compounds (for example calcium carbide, silicon, silicon carbide, titanium dioxide)

There is a possibility depending upon the type of inorganic compound produced and any gaseous emissions (e.g. nitrous oxides) that we would consider one or more S4.2 activities to be undertaken on the site.

Scenario 1 – waste treatment activities (waste operation or waste installation, depending on thresholds), leading to production of black mass to be further treated offsite, either waste (within IED thresholds) or installation application required (facility has a storage capacity of hazardous waste exceeding 50 tonnes per day, and/or the facility has a hazardous waste treatment capacity either alone or in aggregation exceeding 10 tonnes per day).

Scenario 2 – waste treatment activities leading to production of black mass which is then subsequently processed **on site** using hydrometallurgical/pyrometallurgical processes to further recover metals and metal compounds, installation application required.

Scenario 3 – no waste treatment activities occur on site, black mass is received for processing using hydrometallurgical/pyrometallurgical processes to further recover metals and metal compounds, installation application required.

To note, from a mobile plant point of view, we currently don't consider that the treatment of lithium batteries via mobile plant is appropriate.

5. Small-scale Research & Development / laboratory trials

If a proposal is for activities considered to be research and development on a small scale, you will still require permission from the Environment Agency to conduct these activities. The type of permission will depend on whether the location proposed for the activity is:

a) on a site already permitted as an Installation **OR**

b) has no permit associated with existing site operations

[2] The introduction of the Industrial Emissions Directive (IED) in 2013, relevant sections of the EPR 2016: Legislation.gov.uk

When the research and development exemption for installations applies

Waste operations and A1 installations: carrying out research or trials - GOV.UK

The Environmental Permitting Regulations contain an exemption for installations or plant "used solely for research, development or testing of new products or processes".

The Environment Agency considers that at existing installations, this will apply to stand-alone research and development activities.

This exemption for research or trial activity does not apply to:

- trials that are more closely associated or integrated with permitted activities,
- waste incineration plants or waste co-incineration plants,
- mobile plants carrying out Part B activities.

You must not begin your research or trial until the Environment Agency has approved the details and scope of your proposed research or trial.

R&D/trials at sites without an environmental permit

Carrying out research or trials with waste at sites without an environmental permit - GOV.UK

The Environment Agency will consider creating a local enforcement position (LEP), or in limited cases a regulatory position statement (RPS), for research or trials with waste that:

- involve the development of new ideas, techniques and processes to recover waste,
- are not repeating information and research available elsewhere, such as previous trials carried out in the UK or abroad,
- should not continue for more than 6 months,
- are not part of multiple or repeat trials,
- will not distort the market.

You must not begin your research or trial until the Environment Agency has approved the details and scope of your proposed research or trial and created a LEP or RPS.

6. Technical Competence

If your activities include waste management, you must meet legal operator and competence requirements. You will need to send in evidence of appropriate technical competence for the proposed activities (or in the case of variations, the proposed changes). You will need to include valid certificates or other acceptable evidence: the Scenarios 1, 2 and 3 above are considered hazardous waste treatment activities for technical competence and appropriate qualifications.

Please see the Questions below to help you decide which type of permit you will need to apply for and the information we will require from you as part of the application.

We may still need to ask you additional questions and require further information as part of any application you make.

7. Questions to determine correct activities for applicant to include in their application:

1. Does your site already have a waste operations or Installations environmental permit?
2. Are your proposals on a small scale and for research and development purposes?
3. What waste treatment activities are proposed for this site? Include process flow diagrams and ensure both hazardous and non-hazardous treatment activities are described.
4. Describe the waste types (incl EWC codes) and throughputs proposed for each type of waste treatment activity.
5. If you shred Li-ion batteries, is this a wet or dry process?
6. If wet, what is the source of water and how will it be stored on site? Are there any purification processes involved in the use of water for wet shredding?
7. Confirmation of any point source discharges from the wet shredding process.
8. Describe arrangements for drying wet-shredded batteries; what is the method of drying? If heat is raised via gas-fired boilers, please include the net thermal rating from the boilers.
9. If dry, describe how you manage an inert atmosphere.
10. Describe how you will remove electrolytes from the batteries and what you intend to do with the waste electrolyte. Also identify the tonnage of hazardous electrolyte produced from this process.
11. Describe the abatement plant associated with the shredding activities, including how you will capture and abate volatile organic compounds, metals and particulate matter.
12. Do the waste activities result in materials which are then sent offsite, either for immediate reuse or for further processing elsewhere? Include black mass where this is sent offsite for further recovery of metals and metal compounds.
13. Do the proposals include further processing of the black mass using hydrometallurgical or pyrometallurgical processes to produce metals or metal compounds on the site where black mass is produced?
14. Are the products of hydrometallurgical/pyrometallurgical processes sold for commercial gain?
15. Will the hydrometallurgical/pyrometallurgical processes produce NOx emissions at any point in the process?
16. How will the drying activity process be conducted if applicable?
17. If you use combustion plant as part of processing lithium-ion batteries, please provide the net rated thermal input of the combustion plant and the fuel type. It is possible that your combustion plant may need a Medium Combustion Plant (MCP) permit.

In the scenario where the batteries are proposed to **be shredded only, and the black mass sent off site for further processing, it is advised that the applicant considers carefully** the likelihood that the site would inevitably need to increase the hazardous waste capacity and/or further refine black mass in the future. If a waste permit was sought initially, this would then lead to the permit being required to be varied from a waste permit to an installation permit. This is not a simple transition between the two regimes; **it may be prudent for the operator to apply for an installation permit in the first instance** so that there would only be one permit application cost rather than ultimately paying for two permits for example.

There is also further consideration required when applying for a waste permit in the first instance because Lithium batteries are an absolute non-hazardous waste code; as soon as a battery is treated, the resultant waste produced is considered hazardous. Thus, all controls within the site need to be

suited to hazardous waste treatment.

There is currently no external guidance for this type of battery treatment for waste permitting at present. Appropriate measures for waste batteries is currently in draft, these draft principles are currently followed in determination of permits.

We would advise that you refer to the section below on where to find technical guidance (Appropriate Measures and BAT (Best Available Techniques)) for further support.

We advise that when applying for a permit for this type of treatment, information on best-suited principles are more easily found using the **BAT guidance**. Please note, Article 13 of the Waste Framework Directive, necessary measures need to be in place to ensure that appropriate waste management is carried out, in some cases these measures under the waste framework directive are the same as BAT measures under IED.

In summary, if there is a likelihood that your operation may ultimately suit an installation permit, it may be more appropriate to apply directly for an installations permit.

8. Technical Description, BAT assessment and Appropriate Measures

The applicant will need to provide a technical description of the techniques proposed, detailing any key plant, equipment, and infrastructure, including design capacities and proposed throughput. The applicant must demonstrate how any relevant Appropriate Measures and Best Available Techniques (BAT) will be met.

The applicant should consider any relevant Directives, such as Medium Combustion Plant Directive (MCPD), Energy Efficiency Directive and Waste Framework Directive (WFD). Particular attention will need to be given to the BAT conclusions document and appropriate measures (as listed further below).

Technical guidance for regulated industry sectors: environmental permitting - GOV.UK

The application should also include details of the operating techniques, and the infrastructure proposed to minimise the risk of pollution, including any details of secondary containment (e.g. bunds) used and how this meets any relevant standards. Further guidance on this can be found at Pollution prevention for businesses - GOV.UK.

The applicant should also tell us how they will monitor and control the emissions from the site and provide us with the standalone risk assessments/management plans requested below: Control and monitor emissions for your environmental permit - GOV.UK.

Where monitoring is a requirement for the emissions to air, the applicant must provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use our H1 guidance: Risk assessments for specific activities: environmental permits - GOV.UK. Further information can be found in Section 4 of the guidance notes for form Part B3/C3.

You may also need to refer to our guidance relating monitoring stack emissions: Monitoring stack emissions: guidance for selecting a monitoring approach - GOV.UK

As stated previously, currently there is no specific appropriate measures guidance published for the treatment or transfer of waste batteries. However, batteries are referred to in some of our existing appropriate measures guidance. For example, Section 4.4 of our appropriate measures guidance for: Treating metal waste in shredders: appropriate measures for permitted facilities - Guidance - GOV.UK, treating metal waste in shredders provides some appropriate measures for the storage of batteries.

In addition to existing measures that refer to batteries, we would expect waste battery recycling facilities to be permitted and operated in line with other relevant standards (including emission limits) set out in our appropriate measures' guidance, specifically:

Treating metal waste in shredders: appropriate measures for permitted facilities - Guidance - GOV.UK

Waste batteries contain metal and are usually treated for the primary purpose of recovering this metal. We would expect relevant standards set in this guidance to be met where batteries are stored or shredded.

Waste electrical and electronic equipment (WEEE): appropriate measures for permitted facilities - Guidance - GOV.UK Although waste batteries are not a type of WEEE, they are common electrical components of WEEE, and we would expect measures for their storage, treatment or transfer to be consistent with relevant standards set in this guidance.

Chemical waste: appropriate measures for permitted facilities - Guidance - GOV.UK Where the waste chemical components, materials or residues from waste batteries (for example, black mass, electrolyte) are stored or treated we would expect the relevant standards set in this guidance to be met.

Non-ferrous Metals Industries | EU-BRITE For many of the techniques, outputs and controls such as Associated Emission Limits (AELs), the BAT Reference Document for the Non-Ferrous Metals Industries (NFM BREF) should be followed in your permit application. In the absence of guidance specifically relating to recovery of metals and metal compounds from lithium-ion batteries, the most apt technical guidance is that relating to the recovery of precious metals where there is information on hydrometallurgical and pyrometallurgical processes (specifically within Chapter 7 Processes to Produce Precious Metals).

9. Permit Application

To apply for a new permit, you must complete the relevant application forms and provide the required supporting information. You should read the guidance notes that accompany each form. An application for a Lithium Battery Recycling activity will either be a bespoke permit or a variation if the site currently holds an EPR permit.

- To apply for a bespoke waste permit you must complete application forms A, B2, B4 and F1.
- To apply for a bespoke installation permit you must complete application forms A, B2, B3 and F1.
- To apply for a variation of a waste permit you must complete application forms A, C2, C4 and F1.
- To apply for a variation of a installation permit you must complete application forms A, C2, C3 and F1.
- You will also need to complete application form part B6 if your application includes a point source emission(s) to water, groundwater or sewer.

Baseline charge

You can find a full list of activity charges in table 1 in the tables of charges in the Environmental permitting charging scheme. The baseline charge for an application covers the work the Environment Agency carries out each time they determine a typical permit application.
There are fixed baseline charges for new applications, variations to permits, transfer applications and surrender applications.

Add-on charges

You may have to pay an add-on assessment charge for the assessment of plans, for example an odour management plan.
If we need to carry out additional assessments, for example a habitats assessment, we may charge extra for this work.
You must pay the add-on charge when applying for a new permit or if you need to submit a new plan when applying for a permit variation.
In some cases the costs of assessing these plans is included in the baseline application charge. The activity description in table 1 in the tables of charges will say if this is the case.
The plans and assessments are listed in table 1.19 in the tables of charges in the charging scheme.

Application activities
Waste permit, Scenario 1: charging scheme 1.16.16 Metal recycling site – mixed metals - 100% of the baseline charge, 1.16.14 Physical and chemical treatment of waste - 50% of the baseline charge.
Installation permit, Scenario 1, 2 and 3 – follow baseline charge and add-on charge, this can be confirmed in the pre-application service

Habitats assessment
For certain protected sites we need to carry out a habitats assessment. For these sites we charge a fixed amount of £779.
This is an assessment of the risks to one or more of these sites, a:

- European Site within the meaning of the Conservation of Habitats and Species Regulations 2017
- site referred to in the National Planning Policy Framework 2018 as requiring the same assessment as a European Site
- site of special scientific interest within the meaning of the Wildlife and Countryside Act 1981
- marine conservation zone within the meaning of the Marine and Coastal Access Act 2009

We have included further information on when this is required in the supporting documents section below.

Subsistence
If we grant a permit, you will need to pay an annual subsistence charge to cover the ongoing costs of regulating the permit. The subsistence charges are listed in the tables of charges in Part 3 of the charging scheme.

Sites of High Public Interest (SHPI)
If your site is designated as a SHPI a different charging processes is applied. Additional information on SHPI is included in section 2.5 of the Environmental Permitting Charges Guidance.

- An application for a SHPI is subject to a newspaper advertising charge of £500.
- The number of hours it takes to determine the application will be calculated at £100 per hour (commonly referred to as a 'time and materials' charge). If this is higher than the standard application charge listed in the Charging Scheme, the additional charge component will be applied – please see section 2.5 of the Environmental Permitting Charges Guidance.

Declaration
Please ensure the Declaration section is completed by each "relevant person".

- For an application from an individual, a relevant person is the person to be named on the permit.
- For an application from more than one individual, each person who is applying for their name to be on the permit must complete the declaration – you will have to complete a separate copy of the declaration page for each additional individual.
- In the case of a company a relevant person must be an active director/company secretary as listed on Companies House.
- For a limited liability partnership, the declaration must be completed by a partner.
- For a charity, a relevant person is a key post holder: chair, chief executive, director or trustee.

Further information on who should complete the declaration can be found in section 5 of the guidance notes for the F1 application form.

Supporting documents
You need to supply supporting documents with your application. The online guidance and application form guidance explain what documents you need to provide. Depending on the type of application,

you might not be required to provide all the documents listed below. If you do not provide the correct supporting information this may delay the processing of your application.

Waste codes
For new bespoke permits and variations which include a change to the types of waste accepted at your site, you need to provide a list of waste codes from the European Waste Catalogue. You should follow the waste classification technical guidance to decide what waste code your waste should be classified under.

Non-Technical Summary
For new bespoke permits and most variation applications you need to send us a simple explanation of your proposed activities (or in the case of a variation, what changes you propose to make). This should include a summary of your operations and a summary of the key technical standards and control measures arising from your risk assessment.
As a guide, this summary document should be no more than one to two pages in length.

Site plan
New applications require a site plan. It is also required for variations when you propose to increase or reduce your site boundary.
The plan must clearly show the full site boundary in a single unbroken line.
Your plan should clearly mark the site layout, infrastructure and drainage arrangements.

Environmental Management System
You must send a summary of your environmental management system (EMS). An update to your EMS summary may also be required for some variation applications. You should follow the guidance on developing a management system.

Habitats risk assessment
You should check if your site is located within the relevant screening distance of a designated site. If so, you need to assess the risk to the site(s) from your activity. You may need to pay an additional charge to cover the assessment of the risk. Further information is included in the 'How much will my permit cost' section above.

To help you identify relevant sites, you can ask us to complete a Nature and Heritage Conservation Screening assessment for you, using the online pre-application service. The screening assessment service is free of charge.

If you are applying for a variation and emissions or impacts are increasing as a result of that change then depending on the location of the facility you may need to assess how the increased impact will affect habitat sites.

If your proposed operation involves any nitrogen or phosphorus nutrient inputs to surface water (or groundwater in hydrological continuity with surface water) and it is within the relevant screening distance of one of the protected conservation sites listed in Annex C table 1 or 2 of the Natural England Water Quality and Nutrient Neutrality Advice (16 March 2022) - NE785 then you will need to consider how you will achieve nutrient neutrality for your operation. In line with the Habitats Regulations, any proposed net increase in nutrient load discharged into these catchments, which are currently failing to meet their water quality objectives for nutrients, will cause an adverse effect to the protected site and must therefore be considered for refusal. For more information on Nutrient neutrality see Natural England's guidance at the following link: Nutrient Neutrality and Mitigation: A summary guide and frequently asked questions - NE776.

Environmental Risk Assessment
You must consider the environmental risk posed by your proposals. This must take the form of an environmental risk assessment which should follow the methodology set out in risk assessments for your environmental permit.

You should read our guide to risk assessments for specific activities and consider using our assessment tool to evaluate your environmental risk. Our assessment tool will inform you when more detailed modelling is required.

You should check if your site is located in a flood risk zone. If the site is in a flood zone, you should assess the risk of pollution in the event of a flood. Depending on the outcome of your initial environmental assessment, you may be required to undertake detailed modelling of your environmental risk.

- If you need to assess the risk of emissions to air, use the air emissions risk assessment for your environmental permit guidance.

You must carry out detailed modelling assessment on any emissions that you didn't screen out through your air emissions risk assessment. Your modelling report needs to follow the air dispersion modelling reports guidance.

- If you need to assess the risk of hazardous pollutants to surface water, you need to follow the surface water pollution risk assessment guidance.
- If you need to assess the risk from sanitary determinands you should follow the assessment of sanitary and other pollutants in surface water discharges methodology.
- If you need to undertake detailed modelling of the risk to surface water you should follow the surface water pollution risk assessment methodology.
- If you need to undertake an assessment of the risk to groundwater you should follow the groundwater risk assessment guidance.

Amenity management plans
You must read our guidance on how to control and monitor emissions for your environmental permit. This includes guidance on controlling pollution from odour, dust, noise, pests and other 'fugitive emissions' (emissions without set emission limits).

You may be required to produce standalone management plans to demonstrate how you will control and monitor emissions. These will be assessed as part of your application. For odour and dust, we can supply a management plan template. The templates have been designed to cover the aspects of your operations that we will assess. You do not have to use the templates, but if you do and provide all the information requested, it makes it more likely your plans will be accepted. You should contact the following teams to request a copy of the templates:

- Odour: odourteam@environment-agency.gov.uk
- Dust: air.quality@environment-agency.gov.uk

You may need to pay an additional charge for the assessment of the plans. Further information on this is included in the 'How much will my permit cost' section above. This also applies to variations which may lead to an increase in emissions as a result of the changes being proposed.

Risks from Noise and Vibration, Industrial and Commercial Sound and Noise Management Plans
If your risk assessment shows your operation is likely to cause pollution from noise or vibration beyond your site boundary you must provide a noise impact assessment (NIA) based on BS4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'.
Where your assessment has used calculations or modelling to predict sound pressure levels at receptors, you must follow our guidance on the presentation of your acoustic data: Noise impact assessments involving calculations or modelling.
We can send some supplementary advice on producing a NIA and NMP. Your NIA must be

accompanied by a Noise Management Plan based on the results of your NIA.
EPR/XP3092NX/P001, we have concluded with the information you have provided that an NIA and NMP is not required with the proposed scope, during day-time activities, for Option A and B.

Fire Prevention Plan (FPP)
If you store combustible wastes at your site you need to provide an FPP. You must follow our guidance on Fire Prevention Plans. This tells you what to include in your FPP and the prevention measures you must put in place. We have also produced a template to help you prepare your plan. If you are varying your permit and this will lead to an increased fire risk, then a new or updated plan will be required.

Accident prevention and management plan
Your EMS should include a plan for dealing with any incidents or events that could result in pollution. This should follow our guidance on producing an accident prevention and management plan. If applying for a variation, you may need to update this plan to incorporate the proposed changes.

Site condition report (SCR)
For guidance on site condition reports and establishing baseline reference data see H5 Site Condition Report guidance. See sections below for further advice on SCR and stage 1 to 3 assessments for new bespoke and permit variation applications.

New bespoke permit - SCR
You must submit a SCR with sections 1 to 3 of the SCR template completed with your permit application. You should use the H5 Site Condition Report word template to prepare your SCR. You must complete a stage 1 to 3 assessment and include this in your SCR if you are proposing to use, produce or release hazardous substances.

Permit variations - SCR
You must update your existing site condition report if you are proposing to:

- extend your site boundary
- use, produce or release any new hazardous substances

You must submit your updated site condition report with your permit variation application. If you have not previously produced a site condition report you should use the H5 Site Condition Report word template to prepare your SCR.
If you have an existing Application site report (ASR) and Site Protection and Monitoring Programme (SPMP) you should either update or replace these with a site condition report.
If you are applying for a variation and you propose to use, produce or release new hazardous substances, you must:

- update your existing stage 1 to 3 assessment
- produce a new stage 1 to 3 assessment if you do not already have one
- update or collect new baseline reference data, if applicable

This also applies if you are proposing to relocate any hazardous substances you currently use, produce or release to a new area within your site boundary.
You must submit this to us as part of your updated site condition report.

Water Discharges
If your application includes point source discharges to water which form part of the same facility you must complete all the application forms referenced above and the water discharge application forms. If the discharge is standalone (not technically linked to the installation facility) on another separate permit you can access pre-application advice here or follow the guidance here.

Submitting an application
Please submit your application by email or, if applicable, by using the online form as detailed in the 'How do I apply for a new permit?' section above.

Send environmental permit application information in stages

You can ask the Environment Agency if you can submit application information in stages if your proposal is either or both:

- complex,
- A novel technology.

If you want to submit information in stages read the guidance and follow the instructions to request as part of enhanced pre-application advice.

After you apply

We will check your application to make sure it is complete. We refer to these checks as 'validation' and 'duly making'. This is to ensure we have enough information to start to determine your permit application. We will contact you if information is missing and can feasibly be provided within 10 working days. If we consider information cannot be provided within this time frame, we will return your application with a list of what is missing.

If we cannot progress your application past this stage for any reason, we will return it and refund the application charge minus 20% to cover our costs to that point.

We will not charge this if we return an application after having done very little work – for example, because it contained obvious errors or omissions.

The amount we will keep is capped at £1,500.

Once we have duly made an application we will start to determine it. This is when we do our technical checks. We may need to ask you for further information or additional documents at this stage.

Once an application has been validated or duly made, it is ready to be allocated for determination.

The time it takes us to allocate an application varies, depending on the complexity of the specific application and the availability of a member of our team with the right skills to assess it.

The amount of time taken to determine your application will vary. It will be impacted by factors such as:

- The quality of the application
- The complexity of the application
- Whether an application is of high public interest
- Whether the application includes novel technologies or techniques
- Whether the determination requires input from others, both internal and external to the Environment Agency
- Whether modelling and/or monitoring and assessment is required, for example Air Quality modelling and assessment

The Permitting Officer determining your application will be able to keep you updated with the progress of your application.

If you are varying your permit, you should detail any existing operating techniques (as listed in table S1.2 of your permit) that are subject to change by the application being made and demonstrate how they will meet any relevant technical standards.

Disclaimer

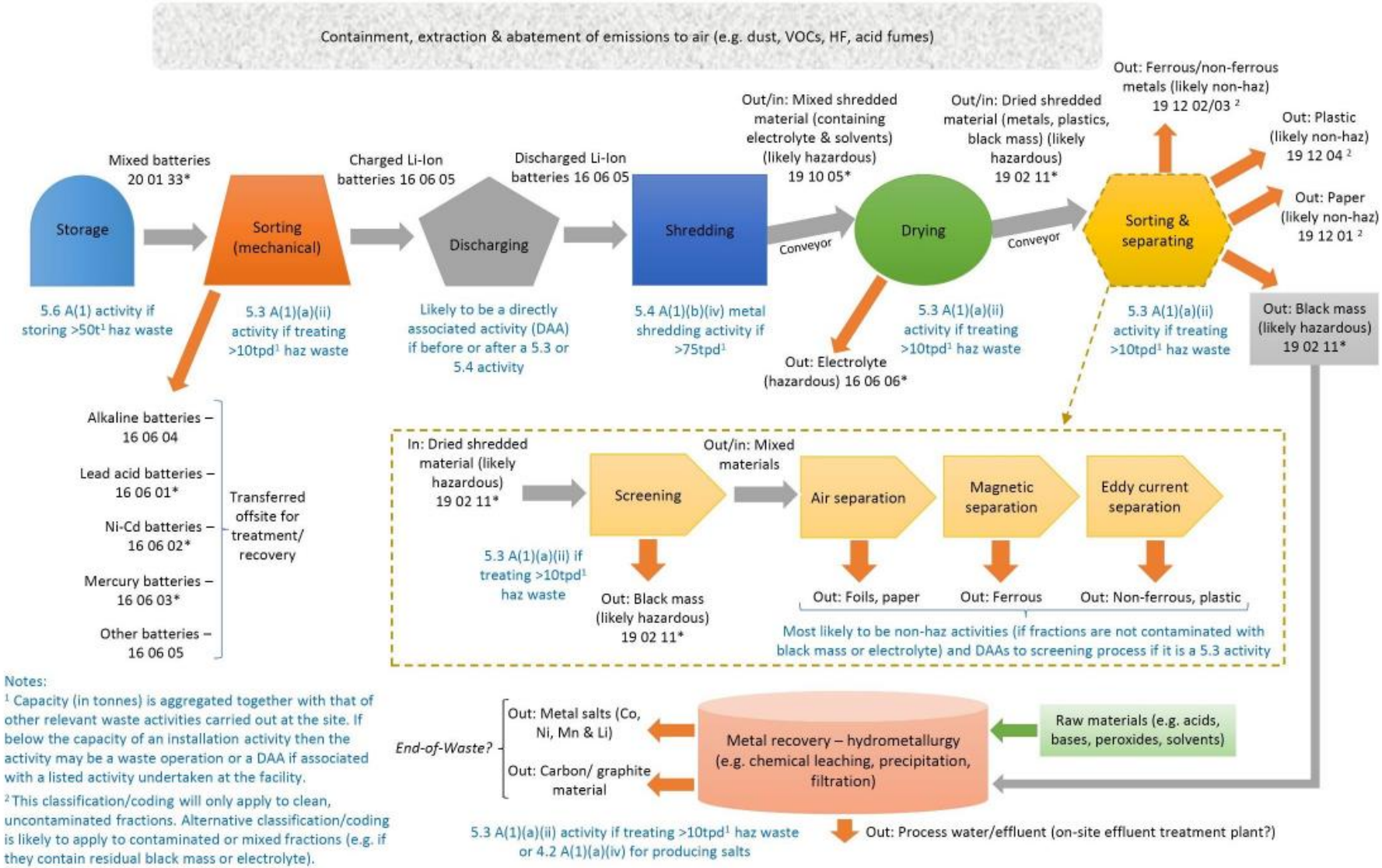
The advice given is based on the information you have provided and does not constitute a formal response or decision of the Environment Agency with regard to future permit applications. Any views or opinions expressed are without prejudice to the Environment Agency's formal consideration of any application. Please note that any application is subject to validation and then full technical checks during determination, and additional information may be required based on your detailed submission and site-specific requirements and the advice given is to address the specific pre-application request.

Other permissions from the Environment Agency and/or other bodies may be required for associated or other activities.

Environment Agency

Example of a theoretical lithium-ion (Li-ion) battery recycling process with hydrometallurgical metal recovery

Process steps may take place at one or more permitted facilities. Waste codes provided are examples and alternative codes my apply depending upon the specific wastes and processes involved



Notes:

[1] Capacity (in tonnes) is aggregated together with that of other relevant waste activities carried out at the site. If below the capacity of an installation activity then the activity may be a waste operation or a DAA if associated with a listed activity undertaken at the facility.

[2] This classification/coding will only apply to clean, uncontaminated fractions. Alternative classification/coding is likely to apply to contaminated or mixed fractions (e.g. if they contain residual black mass or electrolyte).