HIE
Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

Scottish Energy Ports

Scottish Enterprise

Oil and Gas Decommissioning

Onshore Facilities Consents and Waste Disposal Licences Guide

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Plate 1 - Example of Decommissioning Activity at Greenhead Base, Lerwick

Executive Summary - Waste and Consenting Guide

This Guide has been produced to provide a reference document to port operators, waste management operators and the oil and gas industry. It focuses on the consents and licensing framework in Scotland that would apply to an inventory of materials which is transferred onshore as part of oil and gas decommissioning.

Information is provided on the following key areas:

- What are the typical waste inventory materials that will be brought ashore and handled?
- What do sites wishing to accept material from decommissioning and operators need to have in place to be compliant with relevant regulations / legislation?
- What are the associated onshore physical site requirements for different waste handling activities?
- What is the current capacity of waste handling sites in Scotland? Where can waste be handled, stored, recycled, treated or disposed of?

Oil and Gas Decommissioning is forecast to be a significant activity over the next decade and beyond and it is clear that there are extensive opportunities in Scotland to capture value from activities associated with decommissioning, well plugging & abandonment (P&A) and removal of installations in the North Sea.

Plate 2 - Scale of activity ranges from Piece Large (such as jackets / topside) to Piece Small (components)

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Acknowledgements

This Guide has been compiled with the help, input and advice of many people and organisations.

The authors would like to acknowledge the following specific contributors:

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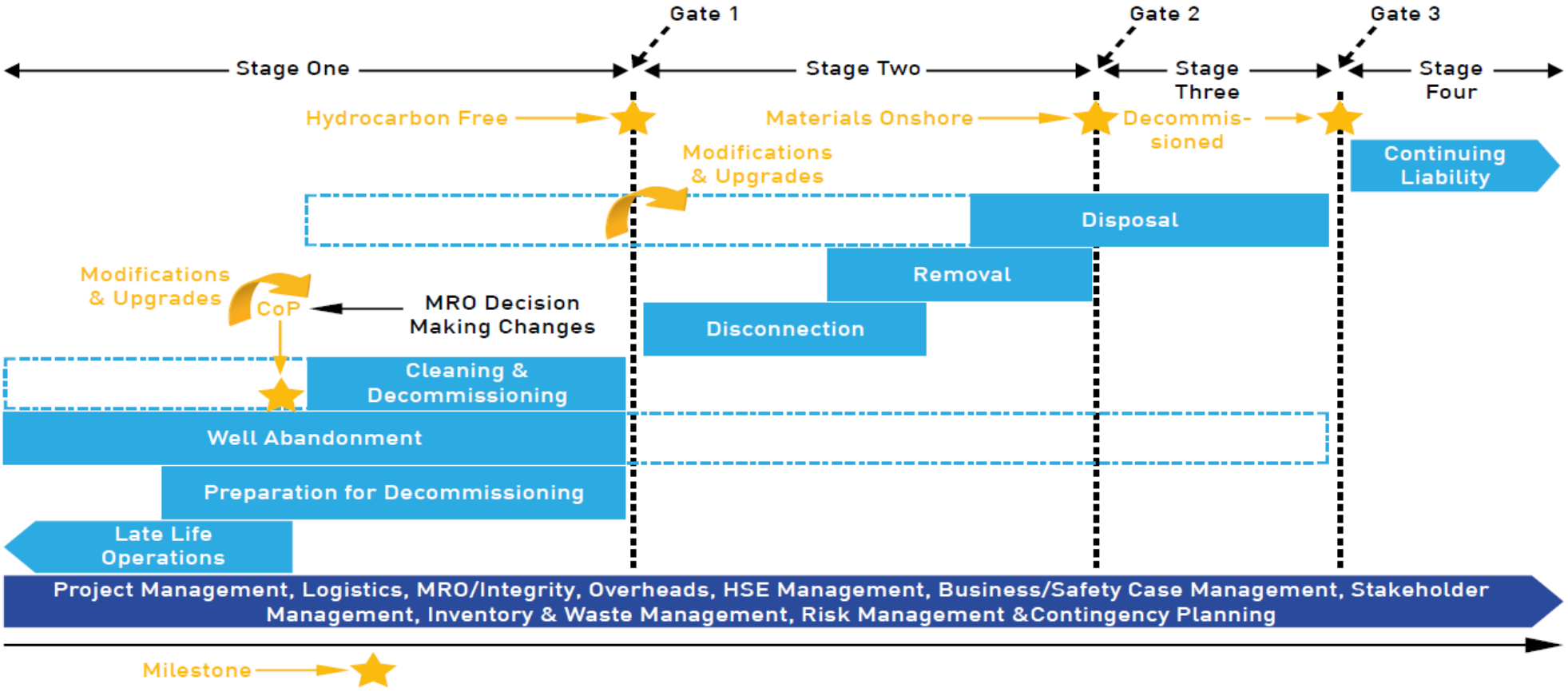
Figure 1 - Decommissioning Stages from 'Decommissioning in the UKCS, Scottish Enterprise, Decom North Sea and Accenture 2013' (www.scottish-enterprise.com/knowledge-hub/articles/publication/oil-and-gas-decommissioning) The transfer of decommissioned material onshore during stage 2 and 3 is an important stage in the process.



1.0 Introduction

Over the coming decade, the oil and gas industry is forecast to spend £17.6 billion on the decommissioning of offshore oil and gas installations, wells, pipelines and other subsea infrastructure on the UK Continental Shelf (UKCS).

Onshore Recycling & Disposal is estimated at just over 1% of spend[1] but represents an important element of the decommissioning lifecycle and a significant opportunity for Scottish ports and onshore yards.

The onshore decommissioning stage will involve the receipt of material onshore at a port and yard for dismantling, recycling, reuse or disposal.

This guide has been produced to assist port operators, waste management operators and those involved in decommissioning to understand waste regulations and the consenting requirements in Scotland associated with this process. There is a need to plan ahead to ensure delivery of appropriate licensed onshore facilities and handling locations to accommodate oil and gas decommissioning needs.

[1] Scottish Enterprise Decom Action Plan, December 2016 and Oil and Gas UK, 2016

Onshore waste management should be an important consideration from the earliest stage in the decommissioning programme.

Early dialogue with SEPA and local authorities will ensure the practicalities of waste management are not overlooked during decommissioning planning which will assist effective execution.

This Guide covers:

- A summary of the typical waste streams as a result of decommissioning activity;
- The consents / licences required for onshore decommissioning locations;
- The physical site requirements associated with these consents;
- A case study of Energy Park Fife detailing the consents and physical works required onshore to enable it to compliantly receive decommissioned oil and gas equipment; and
- A listing of the existing waste management sites that can accept wastes arising from offshore decommissioning.

Table 1 - Summary of waste terms, consents and physical considerations associated with decommissioning

Is it Waste? Waste Hierarchy?	Consents that could apply?	What about Hazardous Material?	Physical Site Requirements?
• *Waste: Any substance or object which the holder discards or intends or is required to discard.* ***Waste Hierarchy - Key Terms*** • *Reuse: Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.* • *Recycle: Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes.* • *Recovery: Any operation where waste serves a useful purpose in a process or in the wider economy.* • *Treatment: Recovery or disposal operations, including preparation prior to recovery or disposal* • *Disposal: Any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy* **Source: Waste Directive 2008**	• Planning consent under The Town and Country Planning Act (Scotland) 1997 as amended by The Planning etc. (Scotland) Act 2006 • Harbour Order under Harbours Act 1964 • Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) Regulations 2016. This requires shore side operators to provide suitable facilities for vessels to dispose waste and also produce a Port Waste Management Plan. • Waste Carrier or Broker Licence • Waste Management Licence (WML) • Pollution Prevention Control Licence (PPC) • Controlled Activities Regulations (CAR) Licence • Environmental Authorisations (Scotland) Regulations 2018 authorisation for receipt, handling and storage of Low-specific-activity scale (LSA)/ Naturally Occurring Radioactive Material (NORM) materials. • Landfill Permit • Marine Licence for licensable marine activity within Scottish waters	• Hazardous or special waste would include oil contaminated materials and chemicals, batteries, fluorescent tubes, Polychlorinated biphenyls (PCBs), asbestos, heavy metals, Waste Electrical and Electronic Equipment (WEEE), etc • Radioactive wastes (LSA/ NORM) including material associated with pipework and sand from vessels • Can include materials that would not normally be hazardous but have been cross-contaminated	• Quaysides in port for berthing and heavy lift • Laydown areas with load bearing capacity • Quayside waste management and recycling facilities (e.g. covered skips and bins for different waste streams) • Decommissioning pad – licensed and approved by SEPA • Quarantine areas / emergency response • Bunded areas (i.e. for storage of oil waste) • Proximity to landfill site, hazardous waste facility, metal recycling • Appropriate drainage systems / design • Extensive storage and warehousing facilities • Waste Testing Facilities. Access to Labs. • Control of odour, dust and noise. Proximity to sensitive receptors.

2.0 Key Questions

This Guide aims to provide information and answers to the key questions associated with onshore decommissioning.

Is it waste?

Understanding the full inventory of materials involved is important. This will help to avoid delays and additional costs once materials are brought ashore. Consideration of the waste hierarchy and options for re-use and recycling is important. Early dialogue with SEPA is therefore recommended.

What Consents do I need?

This is important in determining the consents and licences you will need for onshore operations.

- Are you planning to manage or process waste on site or only act as a receiving port for waste coming ashore?
- Will the waste be transferred on to a registered waste carrier and suitably authorised sites?
- If there is a proposal for onward transfer of waste which would leave the UK, the Transfrontier Shipment of Waste would need early engagement and approval with SEPA.

There is an important 'Duty of Care' which places legal requirements on all parties at all stages of the waste management journey. The Duty is not discharged on handing over the waste to the next holder.

Does the Waste include Hazardous Material?

Does the material to be brought onshore include hazardous or difficult to manage waste that would require specialist treatment? These have specific consent requirements and are likely to need specialist treatment and disposal:

- Are you planning to accept, manage or process hazardous waste?
- What containment/ facilities will be used to handle the material?
- Where are the nearest available specialist disposal sites?
- How would the waste be transferred on?
- Anticipated volumes?

What are the Physical Site Requirements?

The physical site requirements will depend on what waste receipt, handling and processing is to be done at the port and scale of operations. Physical considerations would include:

- Appropriate quayside and berthing
- Craneage
- Laydown areas
- Use of Self-Propelled Modular Transporters (SPMT)
- Waste Receiving Facilities
- Waste Management Facilities
- Processing Facilities
- Drainage and Containment

Table 2 - Typical materials associated with decommissioning

Part of Platform	Materials / Components	
Deck / Topside	• Steel, • Other metals • Paints • Compressors • Generators • Concrete	• Electrical wastes / Waste Electrical and Electronic Equipment (WEEE) (e.g. lighting, HVAC) • Asbestos • Adhesives • Radioactive materials (smoke alarms, emergency lighting, NORM etc.)
Jacket	• Steel • Paints / corrosion protection	• Marine growth
Cabling	• Copper • Insulation (e.g. PVC / nylon)	• Conductors
Electrics	• Transformers • Capacitors • Batteries • Wiring	• Plastic • Bulbs • Fluorescent tubes
Pipelines	• Steel / metal • Sludges and sediments • Crude oil • Marine growth	• Corrosion protection • Grout bags • Concrete or fibre glass wrapping / protection
Mattresses	• Concrete • Polypropylene ropes	• Marine growth
Accommodation Blocks	• General domestic waste • Food waste • Plastic • Metal	• Soft furnishings • Electricals / WEEE • Clinical waste • Asbestos
Moorings / Anchor Chains	• Steel • Synthetic fibre	• Marine growth

3.0 Waste Inventory

Decommissioning is centred around demolition/dismantling and recycling of materials:

- Large scale 'topside' removal
- Dismantling of components for re-use / recycling
- Cutting up steel sections / jackets / pipelines
- Crushing of concrete and other aggregate material
- Recycling of plastics
- Blasting /abrasive treatments for paint removal
- Removal of grout and grout bags, mattresses and other scour protection measures from the seabed
- Removal of chemicals
- Removal of Low-specific-activity scale (LSA)/ Naturally Occurring Radioactive Material (NORM) materials
- Removal of material such as asbestos
- Removal of sub-sea structures which include marine growth - naturally occurring marine organisms
- Cleaning and removal of sludges and sediments

During its lifetime, an offshore structure will also have collected solid and liquid materials that have accumulated or been deposited during operation. Decommissioning involves the management of these materials and some of this may need to be done onshore.

Piece Large, Piece Medium and Piece Small

The following terminology is used to describe the scale of decommissioning:

- Piece Small - offshore demolition and dismantling with small pieces brought ashore
- Piece Medium - medium scale elements brought ashore but typically not requiring special heavy lift
- Piece Large - large elements including full topsides or modules, require heavy lifting / specialist craneage

Table 3 - European Waste Codes - Chapters 16 and 17 will be of relevance to waste produced through decommissioning. See 4.0.

01 Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals	11 Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro- metallurgy
02 Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	12 Wastes from shaping and physical and mechanical surface treatment of metals and plastics
03 Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard	13 Oil wastes and wastes of liquid fuels (except edible oils, 05 and 12)
04 Wastes from the leather, fur and textile industries	14 Waste organic solvents, refrigerants and propellants (except 07 and 08)
05 Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal	15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
06 Wastes from inorganic chemical processes	16 Wastes not otherwise specified in the list
07 Wastes from organic chemical processes	17 Construction and demolition wastes (including excavated soil from contaminated sites)
08 Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks	18 Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
09 Wastes from the photographic industry	19 Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
10 Wastes from thermal processes	20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions

4.0 Waste Classification

It is a legal requirement of the Duty of Care for waste (Duty of Care Code of Practice, Scottish Government, October, 2012) that all waste streams must be further described using a full six digit European Waste Catalogue (EWC) code (European Council Decision 2000/532/EC, May 2000).
http://www.gov.scot/resource/0040/00404095.pdf

In order to do this a waste producer/ manager will need to know:

- What type of business produced the waste;
- Where the waste was generated, i.e. the process or activity that produced it;
- The description of the waste; and
- If it is hazardous (special) waste.

The EWC includes 20 chapters for various industries/ processes, however, it does not include a chapter specific to offshore oil and gas decommissioning.

SEPA has advised (16.11.2016) that they are unaware of any proposed changes to the EWC in respect of decommissioning and that the existing EWC should be used.

SEPA has produced the 'Guidance on Using the European Waste Catalogue (EWC) to Code Waste, SEPA, November 2015' and an alphabetical list of common waste descriptions in the SEPA Waste Thesaurus. SEPA can be contacted for advice.
www.sepa.org.uk/media/163421/ewc_guidance.pdf

Whether or not a waste is hazardous must be determined from the properties of waste which render it hazardous in accordance with Commission Regulation (EU) No 1357/2014 which replaces the 2008/98/EC Directive Annex III. SEPA has published 'Guidance on the Classification and Assessment of Waste Technical Guidance, WM3, May 2018' which details the requirements and procedures for how to classify and assess hazardous (special) waste.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719394/Waste-classification-technical-guidance-WM3.pdf

Recording of produced or managed non-hazardous waste can be carried out using the Electronic Duty of Care:
www.edoconline.co.uk/

The above waste assessment must not be confused with the landfill waste assessment carried out using Waste Acceptance Criteria (WAC) which determines the acceptability of different wastes for landfill (and which landfill cells are appropriate for different wastes).

Table 4 - Consents associated with typical decommissioning materials

Part of Offshore Installation	Materials / Components		Consents Required
Deck / Topside	• Steel, • Other metals • Paints • Compressors • Generators • Concrete	• Electrical wastes / WEEE (e.g. lighting, HVAC) • Asbestos • Adhesives • Radioactive materials (storage only >50 tonnes)	**Waste Management Licence (WML)** – metal recycling, concrete and WEEE **Pollution Prevention & Control (PPC)** – asbestos **Environmental Authorisations (Scotland) Regulations (EASR) permit** – radioactive materials
Jacket	• Steel • Paints / corrosion protection	• Marine growth	**WML** – metal recycling **PPC** – paints / corrosion protection/ marine growth
Cabling	• Copper • Insulation (e.g. PVC / nylon)	• Conductors	**WML** – metal recycling
Electrics	• Transformers / Capacitors • Batteries • Wiring	• Plastic • Bulbs • Fluorescent tubes	**PPC, WML** or **Registered Exemption** – all WEEE related wastes. Consents activity dependant
Pipelines	• Steel / metal • Sludges and sediments • Crude oil • Marine growth	• Corrosion protection • Grout bags • Concrete or fibre glass wrapping / protection	**WML** or **PPC** – metal, grout bags, concrete/ fibre glass **PPC** – marine growth, sludges and sediments, crude oil, corrosion protection **Environmental Authorisations (Scotland) Regulations (EASR) permit** – crude oil, sludges and sediments
Mattresses	• Concrete • Polypropylene ropes	• Marine growth	**WML** or **PPC** – concrete and ropes **PPC** – marine growth
Accommodation Blocks	• General domestic waste • Food waste • Plastic • Metal	• Soft furnishings • Electricals / WEEE • Clinical waste • Asbestos	**Port Waste Management Plan** – domestic / food waste **WML** or **PPC** – other wastes
Moorings / Anchor Chains	• Steel • Synthetic fibre	• Marine growth	**WML** or **PPC** – steel and synthetic fibre **PPC** – marine growth

5.0 Waste Consents & Licensing

Prior to any decisions regarding consents and licencing it is recommended that SEPA Guidance is reviewed: https://www.sepa.org.uk/media/369293/wst-g-059-offshore-og-guidance.pdf

Planning Consent

The Town and Country Planning Act (Scotland) 1997 Chapter 8 as amended by The Planning etc. (Scotland) Act 2006 regulates the Scottish planning sector. For the construction of all new onshore decommissioning / waste sites or ports, or for changes to existing sites, full planning consent is likely to be required from the relevant Local Authority.

The Merchant Shipping (Port Waste Reception Facilities) Regulations 2003 (As Amended)

The Merchant Shipping (Port Waste Reception Facilities) Regulations 2016 (as amended) requires ports, harbours and terminals to adequately manage port waste reception facilities for ship generated wastes. Ports must be able to receive the types and quantities of waste from ships normally using the harbour or terminal. The Regulations implement the EU Directive 2000/59/EC on port reception facilities for ship generated waste.

Waste Carrier or Broker Licence

Waste carriers are those who transfer commercial, industrial and household waste, known as controlled waste, as part of their business. Waste brokers arrange for other businesses' controlled waste to be handled, transported, disposed of or recovered.

All businesses must register for a carrier or broker licence if they are handling controlled waste . The requirement to register applies to sole traders as well as partnerships and companies. Applications for the licence can be made via an online application form on SEPA's website (http://online.sepa.org.uk) or via a paper form. All applications are subject to registration fees.

Once registered, a certificate of registration will be issued to you as proof of registration which is valid throughout the UK for a period of three years from the date of issue.

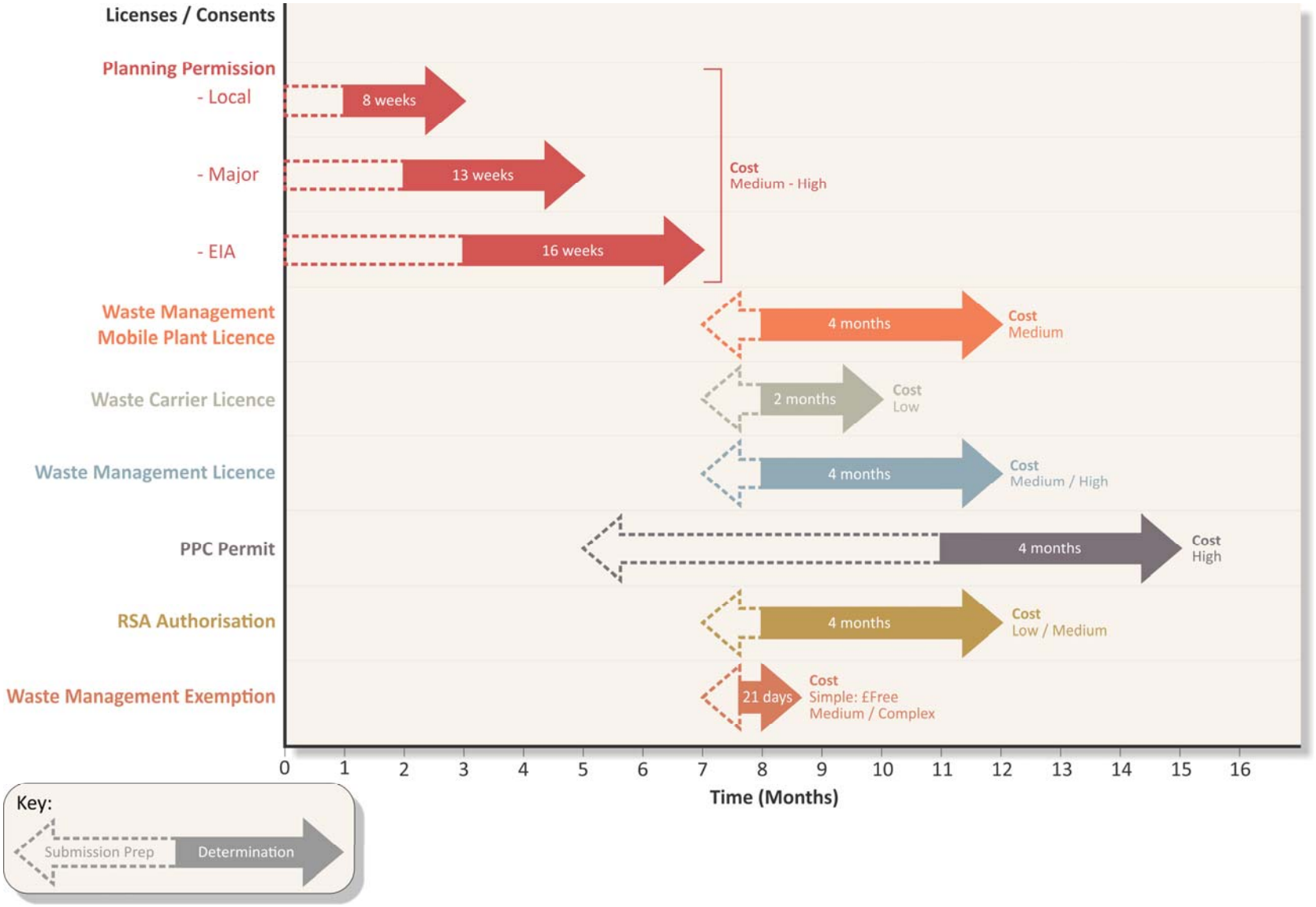
Waste Management Licence

Under the Waste (Scotland) Regulations 2011 which implemented the European Directive 2008/98/EC on waste, if you intend to treat, keep or dispose of waste in Scotland you will require a Waste Management Licence from SEPA.

Section 36(2) of the Environmental Protection Act 1990 (as amended) ("EPA90") requires that planning permission must be granted before a Waste Management Licence can be issued although both planning and WML applications can run concurrently.

The basic process of dismantling offshore equipment can be undertaken under a WML. A working plan is required for all waste management applications. It is submitted with an application for a Waste Management Licence and is the Licence Holder's document. It provides information to SEPA to enable Licence conditions to be set and helps the Licence Holder to specify how the facility will be managed.
The working plan is referred to in the Waste Management Licence conditions and the Licence Holder may vary it at any time, but some aspects that are

Figure 2 - Timescales and order of costs associated with consents and licenses



considered environmentally critical will require SEPA's prior consent before being put into place.

Further guidance on Working Plans can be found in SEPA's 'Guide to Waste Management Licensing':
http://www.sepa.org.uk/media/28977/guide-to-waste-management-licensing.pdf

Waste Management Licence Exemption

Some waste activities particularly relating to depolluted equipment are exempt for waste management licensing if they meet the requirements of Regulation 17 of the Waste Management Licensing (Scotland) Regulations 2011 and 2016 Amendment, which include registration of the activity and that the activity must not endanger human health or harm the environment. Exempt activities and controls, such as material types, quantities and time limits, are listed in Schedule 1 of the Regulations. Whether the registration is simple (with no registration fee) or complex (fee required) is dependent on the nature of the activity.

SEPA provides guidance and forms for registration at:

www.sepa.org.uk/regulations/waste/activities-exempt-from-waste-management-licensing/

Pollution Prevention and Control (PPC) Permit

The Pollution Prevention and Control (Scotland) Regulations 2012 ('the PPC Regulations') came into force on 7th January 2013 to implement the requirements of the European Union (EU) Directive 2010/75/EU on Industrial Emissions Directive (IED) as well as consolidating the Pollution Prevention and Control (Scotland) Regulations 2000. If an installation falls under the PPC regulations, the Operator must have a PPC Permit in order to operate. In Scotland, SEPA is the designated regulator responsible for enforcing the PPC Regulations.

The PPC Regulations apply an integrated environmental approach to the regulation of certain industrial activities, meaning that emissions to air, water (including discharges to sewer) and land, plus a range of other environmental effects, must be considered together. The main aim of the PPC Regulations is to achieve 'a high level of protection of the environment taken as a whole…' by measures designed to prevent or, where that is not practicable, reduce emissions to air, water and land.

Oil and gas decommissioning is accepted as high risk by SEPA but the risks for straightforward dismantling can be controlled through a WML. In the event that activities such as treatment of hazardous waste, removing hazardous coatings or storage of hazardous waster prior to landfill are undertaken during decommissioning, a PPC permit will be required. This permit will not be granted if the operator does not undertake at least one such activity listed in Schedule 1 of the Regulations. Part B activities relate to the control of emissions to air only.

The regulated unit in PPC is the 'installation' and the PPC Regulations define an 'installation' as:

- A stationary technical unit where one or more activities listed in Schedule 1 or 2 are carried out; and/or
- Any other location on the same site where any other 'directly associated activities' are carried out.

Plate 3 - Decommissioning activity will involve quayside space and laydown areas

This definition means that a number of activities may be covered under a single PPC permit e.g. treatment of waste, processing of scrap metal etc

https://www.sepa.org.uk/regulations/pollution-prevention-and-control/

Environmental Authorisations (Scotland) Regulations 2018—EASR Permit

The level at which a substance becomes 'radioactive' and the level at which a permit is required for the keeping, use or disposal of radioactive substances is set out in the Environmental Authorisations (Scotland) Regulations 2018.

It is under this legislation that SEPA regulate the keeping and use of radioactive materials and the accumulation and disposal of radioactive waste. To make sure that potential effects to human health and the environment are minimised, SEPA issue permits which contain specific limitations and conditions under which radioactive substances can be used, stored and disposed of.

https://www.sepa.org.uk/regulations/radioactive-substances/

Controlled Activities Regulation (CAR) Licence

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) or 'CAR Licence' CAR authorisation is intended to control impacts on the water environment, including mitigating the effects on other water users. The Regulations seek to control aspects such as abstractions, discharges and engineering works affecting the water environment. There are three types of CAR authorisation which correspond to the scale and nature of the activity and potential risk of environmental impacts:

- General Binding Rules (GBRs) - rules covering low risk activities where formal licensing is not required
- Registrations - registration with SEPA for registration of *small-scale activities that individually pose low environmental risk but, cumulatively, can result in greater environmental risk*
- Licences - covered by a formal application to SEPA these are for activities with higher environmental risk

http://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf

Landfill Permit

The Landfill (Scotland) Regulations 2013 (as amended) - implement the Landfill Directive and set standards for the design and operation of landfills. Landfill sites are classified as hazardous, non-hazardous, or inert depending on the type of waste they can accept. Landfill operators must hold a permit from SEPA.

https://www.sepa.org.uk/regulations/waste/landfill/

Harbour Empowerment Order / Harbour Order

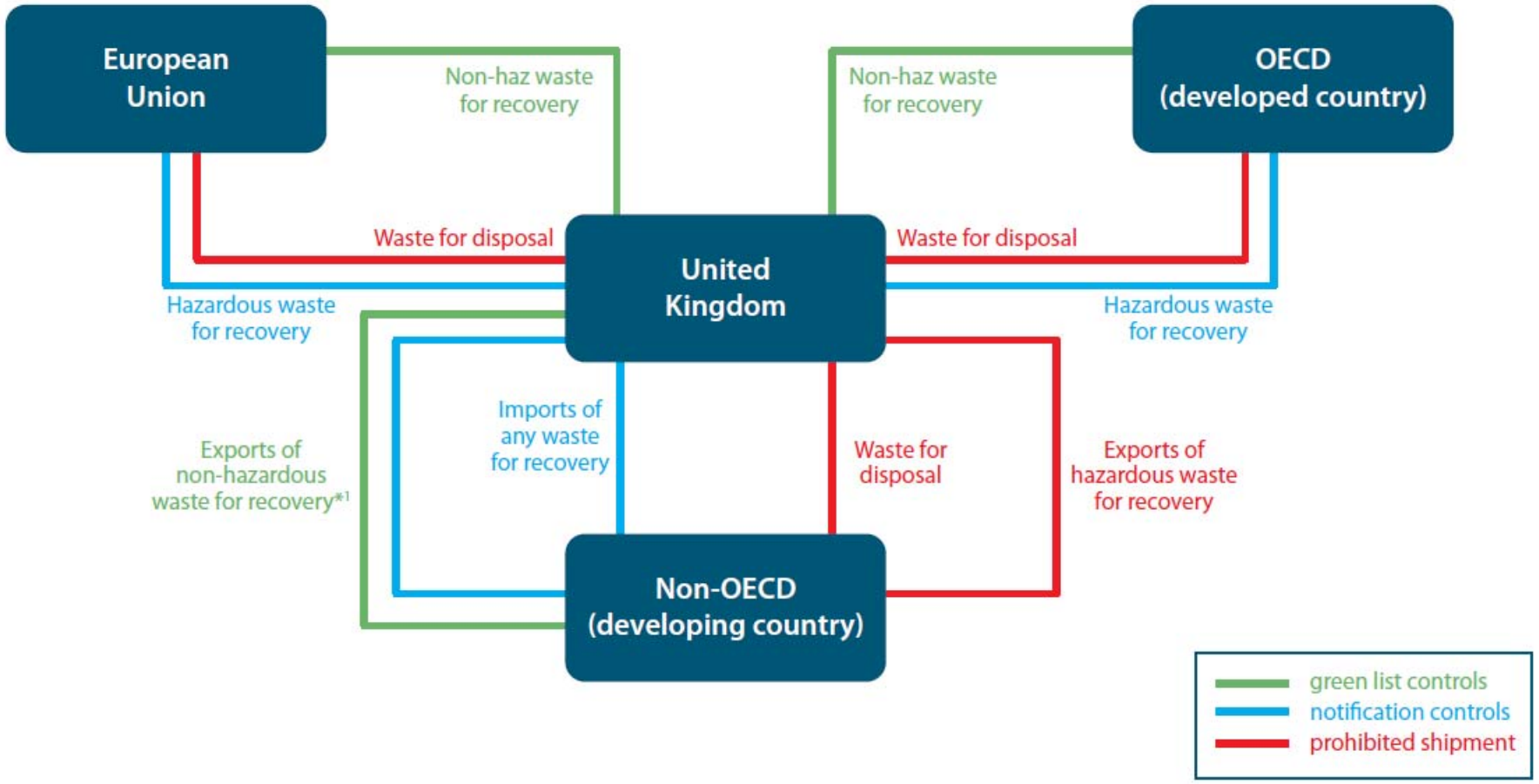
Orders under section 16 of the Harbours Act 1964 state that a Harbour Empowerment Order may be applied for by any person whose objectives are the improvement, maintenance or management of a harbour, or the construction of a new harbour for which they are seeking statutory powers where such powers do not already exist. Transport Scotland is the relevant authority in terms of a Harbour Empowerment Order. Requirements for a HEO can be aligned with application for Planning Permission and Marine Licence(s).
http://www.transport.gov.scot/water/harbour-orders

Marine Licences

The Marine (Scotland) Act 2010 ('the Act') along with the Marine and Coastal Access Act 2009 ('the UK Act') is the legislative and management framework for the marine environment. Section 21 of the Marine Scotland

Figure 3 - SEPA 'Rough Guide' to Import and Export Controls relating to Waste

https://www.sepa.org.uk/media/36647/rough-guide-to-import-and-export-controls.pdf



Act, 2010 and Section 66 of the Marine Coastal Access Act 2009 set out the activities and works that require a Marine Licence. Requirements for a Marine Licence can be aligned with Harbour Orders and Planning Permission where there are overlapping consents.
http://www.gov.scot/Topics/marine/Licensing/marine

Transfrontier Shipment of Waste

Operators seeking the export of waste from the UK need to be aware that shipments of waste are subject to a range of regulatory controls.

Legislation relating to control of waste movements between countries was established through the Basel Convention of 1989 which sets out notification procedures for transfer of hazardous waste.

http://www.basel.int/

European Legislation followed with the Regulation (EC) No 1013/2006 on the shipment of waste and is transposed into UK legislation through the Transfrontier Shipment of Waste Regulations 2007, which detail the UK procedures, offences, penalties and relevant enforcement authorities. The UK Plan on Shipments of Waste sets out Government policy in relation to imports and exports for disposal.

http://www.legislation.gov.uk/uksi/2007/1711/contents/made

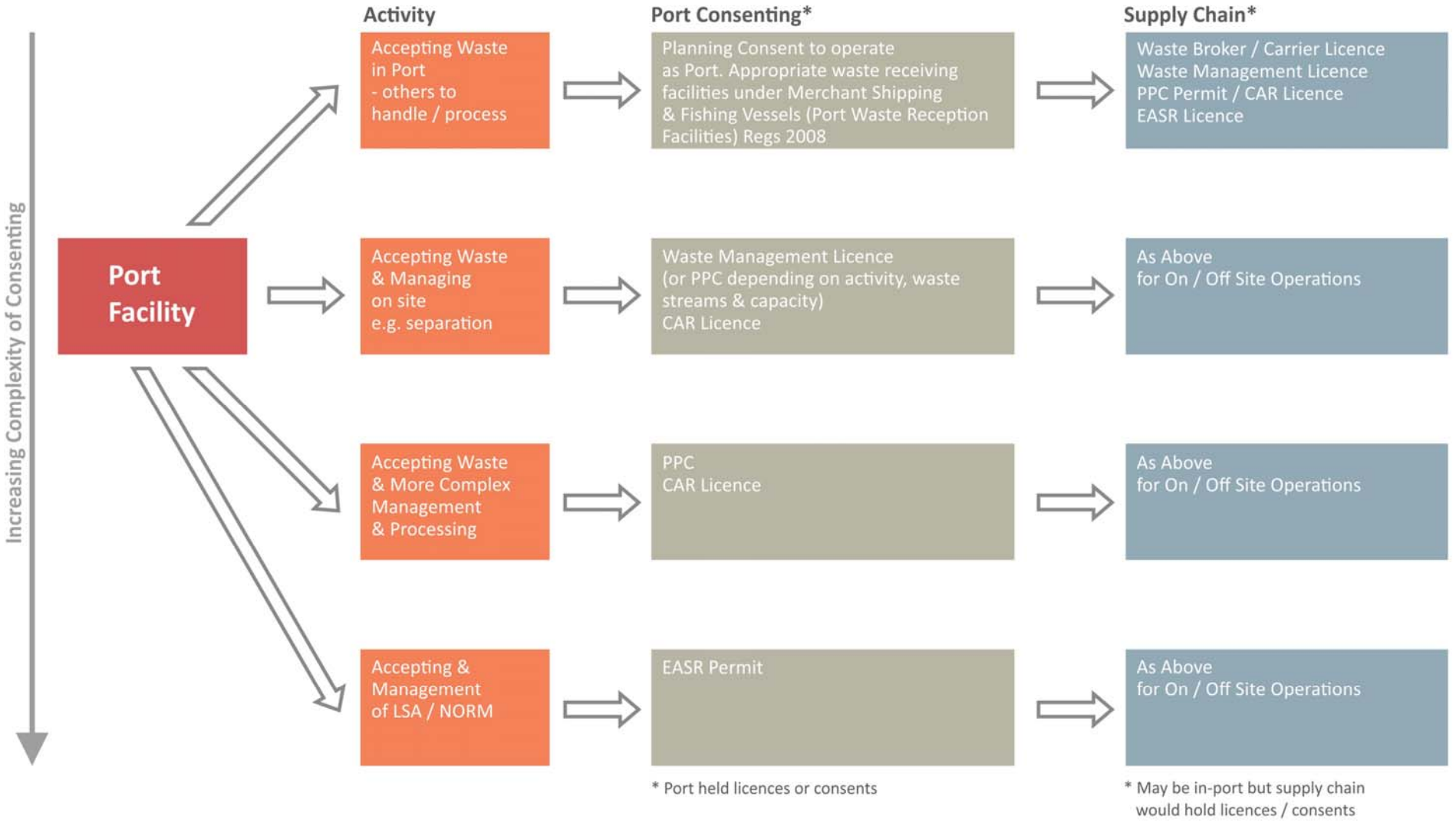
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69546/pb13770-waste-shipments.pdf

SEPA provide guidance on controls relating to different types of shipment - see Figure 3 for an extract from the 'Rough Guide'.

https://www.sepa.org.uk/media/36647/rough-guide-to-import-and-export-controls.pdf

SEPA should be contacted at the earliest opportunity to discuss and agree the controls that will apply in each specific case and the procedures involved.

Figure 4- Activity vs Consenting Requirements



6.0 What Consents are required

The Consenting and Licensing requirements will depend on what each individual port operator wants to be able to offer at a facility.

Port - Specialist Decommissioning Facility

Some facilities have already established themselves as a fully integrated decommissioning operator through partnerships with waste operators. These facilities typically offer a 'full package' decommissioning service.

- Site can handle 'piece large', 'piece medium' and 'piece small' decommissioning
- Established supply chain provides other services
- Neighbouring licensed landfill site
- Physical attributes include accessible quayside, craneage and SMPT

Sites typically have the following consents:

- Port has planning consent for a designated a large scale decommissioning facility with dedicated laydown area - 'decommissioning pad'
- Fully enclosed drainage system with CAR Authorisation
- Waste Management Facilities - wash bay, bunded storage, quarantine area and emergency stations
- Port or waste partner holds PPC Permit and ESAR Permit where applicable

Port - Core Decommissioning Facility

Decommissioning would be a core activity. The facility would have a planning consent to operate as a port and would also have appropriate waste receiving facilities under the Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) Regulations (2016). The supply chain and any waste management operators would hold the necessary Waste Management/PPC/CAR/ ESAR Licences, consents and permits for the waste to be handled or processed onsite. Waste would be transferred off-site for disposal to a Licenced Facility by a Licenced Waste Carrier.

Port - Secondary Decommissioning Facility

The facility would have a planning consent to operate as a port and would also have appropriate waste receiving facilities under the Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) Regulations (2016). Waste would be transferred off-site on arrival on-shore for management, treatment and disposal to a Licenced Facility by a Licenced Waste Carrier. Necessary Waste Management/PPC/CAR/ ESAR Licences, consents and permits would be off-site and held by a third party.

The timescales and costs associated with the various consents should be noted as some have a long preparation time / requirements for studies which may be time constrained/ early discussions with decommissioning operators, waste operators and planning/licensing bodies is recommended/ see Page 10 for a summary.

Plate 4 - Quayside at Energy Park Fife with current fabrication activity

7.0 Physical Site Considerations

Not all port facilities will be suited to offering full scale 'piece large' decommissioning. Elements such as depth of quay, scale of available laydown areas or infrastructure may constrain the nature of operations each port facility can deliver. A number of ports in Scotland already successfully operate in decommissioning and would fall under the following types:

Port - Specialist Decommissioning Facility

These will have the greatest physical set-up / bespoke elements to allow them to accept a range of decommissioning material types / size of material and are typically a partnership between a port and waste operator:

- Appropriate berthing, weather protection and craneage
- Dedicated laydown areas with load bearing capacity
- Quayside waste management and recycling facilities (e.g. covered skips and bins for different waste streams)
- Decommissioning pad – licensed and approved by SEPA
- Quarantine areas / emergency response
- Bunded areas (i.e. for storage of oil waste)
- Proximity to landfill site, hazardous waste facility, metal recycling etc
- Appropriate drainage systems / design and CAR Licence
- Extensive storage and warehousing facilities
- Waste Testing Facilities e.g. access to lab facilities and specialist services
- Offers 'Piece Large - Piece Small' services

Port - Core Decommissioning Facility

This facility would operate as a standard port in accordance with planning consent and Port Waste Management Plan - waste would be accepted at the quay and directed to a designated area **onsite** operated by a waste management operator - this facility would be covered by the operators Waste Management Licence / PPC and other necessary consents. The Licenced facility would include:

- Quayside berthing and craneage
- Laydown areas with load bearing capacity
- Waste Management and Recycling Facilities
- Waste Storage Facilities, Weighbridge etc
- Offers 'Piece Medium - Piece Small' services although some ports may be able to accommodate 'piece large'
- Proximity to landfill site, hazardous waste facility, metal recycling etc

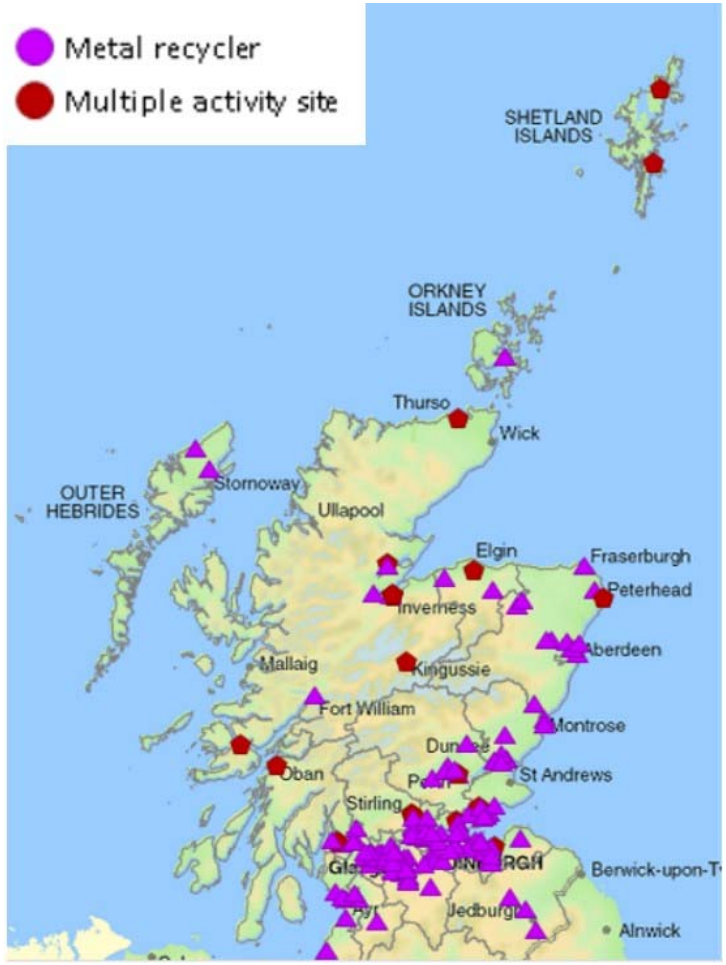
Port - Secondary Decommissioning Facility

This facility would operate as a standard port in accordance with planning consent and Port Waste Management Plan - waste would be accepted at the quay and directed to a designated area onsite for storage before collection by a licensed waste carrier to an offsite waste licensed management, treatment / disposal site. The port would require:

- Quayside berthing and craneage
- Laydown areas with load bearing capacity
- Weighbridge
- Waste Storage Facilities

Figure 4 - Location of Landfill and Recycling Facilities in Scotland - From SEPA Interactive Mapping Tool using 2014 data: www.sepa.org.uk/data-visualisation/waste-sites-and-capacity-tool

Operational Landfill Sites



Operational Metal Recycling Facilities

8.0 Existing Waste Facilities

For all facilities, it is the treatment site that has the permit. The waste holder and carrier must make sure that waste goes to an appropriately licenced facility.

The Location of Landfill and Recycling Facilities in Scotland are available from SEPA www.sepa.org.uk/data-visualisation/waste-sites-and-capacity-tool

Landfills

Landfills can accept a wide range of waste types depending on their classification, i.e. inert, non-hazardous or hazardous. Inert Landfills can only accept a defined list of non-hazardous waste types subject to an Inert Waste Acceptance Criteria (WAC) assessment where appropriate. Non-hazardous landfills can accept any non-hazardous waste provided it is not prohibited by the Landfill (Scotland) regulations 2003 (e.g. tyres, liquid waste etc.) and hazardous waste landfills can accept hazardous wastes provided it is within the limits of the Hazardous WAC assessment.

Information on landfill and waste sites and capacities is available from www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/.

Landfills are authorised by SEPA through a permit system.

Avondale, on the M9 outside Falkirk is the only hazardous waste landfill in Scotland, however, a number of other landfills have dedicated cells for 'stable non-reactive hazardous wastes' such as asbestos. These are still formally categorised as 'non-hazardous landfills'.

There is not a list of operational 'stable non-reactive hazardous waste' cells in Scotland nor a centrally held list of asbestos cells in Scottish landfills. Some of the sites permitted to have an asbestos cell do not in practice; some of those that were built were very transient in nature, operating for several months then closing for a year then reopening for a year based on market demand and cell geometry. Operators should ensure those accepting waste to landfill have the necessary permits. SEPA can provide advice.

Waste Electrical and Electronic Equipment (WEEE)

SEPA has produced a 2016 list of 31 approved authorised treatment of WEEE facilities, available on the Public Register. Those involved in decommissioning should ensure that waste operators are authorised to ensure legal compliance. https://www.sepa.org.uk/regulations/waste/waste-electrical-and-electronic-equipment-weee/

NORM

The level at which a substance becomes 'radioactive' and the level at which a permit is required for the keeping, use or disposal of radioactive substances is set out in the Environmental Authorisations (Scotland) Regulations 2018
https://www.sepa.org.uk/regulations/radioactive-substances/

Radioactive waste with a radioactive content not exceeding 4GBq/te of alpha or 12GBq/te of gamma activity is classed as Low Level Waste (LLW). Within LLW there is a sub-class of Very Low Level radioactive Waste (VVLW). The vast majority of the decommissioning radioactive waste falls within LLW.

Wastes arising from the removal and management of radioactive scales and precipitates from equipment associated with industrial activities is a part 2 listed Naturally Occurring Radioactive Materials (NORM) Industrial Activity which is regulated under the Radioactive Substances legislation. Where concentrations of certain radionuclides do not exceed specified values these substances are deemed 'out of scope' and the legislation does not apply.

Most solid NORM waste from the oil and gas industry is disposed of to landfill. Some of the NORM scale is hazardous due to hydrocarbon or heavy metal content. However, there are no Scottish sites and only one landfill site in the rest of the UK that can take hazardous NORM waste, i.e. the low level waste repository in Cumbria, making this disposal route fragile. Those involved in decommissioning may wish to investigate options for Scottish based facilities.

The Strategy for the management of Naturally Occurring Radioactive Material (NORM) waste in the UK (Scottish Government, 2014) notes that there are unconfirmed reports that a lack of permitted wastewater treatment facilities is presenting a problem for the onshore disposal of liquid NORM wastes from the oil and gas sector arising from produced water containing oil which prevent the usual disposal routes at sea. Issues should they arise can be discussed with SEPA.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335821/Final_strategy_NORM.pdf

Facilities which hold Environmental Authorisations (Scotland) Regulations 2018 permits in respect of the oil and gas industry are registered with SEPA and details are made available on the public registers:

https://www.sepa.org.uk/regulations/radioactive-substances/

https://www.sepa.org.uk/contact/registry/

9.0 Key Contacts

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BEIS Offshore Oil and Gas Environment and Decommissioning Unit and Environmental and Emissions Monitoring System Database
https://itportal.decc.gov.uk/eng/fox/live/PORTAL_LOGIN/login

SEPA Waste Guidance
http://www.sepa.org.uk/regulations/waste/

Useful Links

Scottish Development International - Energy Ports
https://www.sdi.co.uk/knowledge-hub/articles/insight/scottish-energy-ports

All SEPA application forms, relevant guidance and fee information: https://www.sepa.org.uk/regulations/authorisations-and-permits/application-forms/

SEPA (May 2009), A Guide to Waste Management Licencing: http://www.sepa.org.uk/media/28977/guide-to-waste-management-licensing.pdf

SEPA (2012), Pollution Prevention and Control (PPC) Technical Guidance: A Practical Guide for Part A Activities: https://www.sepa.org.uk/media/35880/ppc-technical-guidance-note-guidance-for-part-a-activities.pdf

SEPA guidance and information on PPC Part A Activities: https://www.sepa.org.uk/regulations/pollution-prevention-and-control/ppc-part-a-activities/

SEPA guidance and reports relating to radioactive substances: https://www.sepa.org.uk/regulations/radioactive-substances/guidance-and-reports/

SEPA guidance and advice relating to WEEE and authorised treatment facilities, including application form: https://www.sepa.org.uk/regulations/waste/waste-electrical-and-electronic-equipment-weee/

SEPA Guidance on the Transfrontier Shipment of Waste
https://www.sepa.org.uk/regulations/waste/transfrontier-shipment-of-waste/

10.0 Glossary

BEIS: Department of Business, Energy and Industrial Strategy
Decommissioning: The process of removing oil and gas infrastructure once offshore installations reach the end of production
Decommissioning Plan: Describes the plan for the decommissioning of an offshore oil and gas structure
EEMS: Environmental Emissions Monitoring System
EWC: European Waste Catalogue
LSA: Low Specific Activity
NORM: Naturally Occurring Radioactive Material
PPC: Pollution Prevention and Control
ESAR: Environmental Authorisations (Scotland) Regulations 2018
SEPA: Scottish Environment Protection Agency
UKCS: UK Continental Shelf
WAC: Waste Acceptance Criteria
Waste Hierarchy: Ranks waste management options according to what is best for the environment. Waste prevention, as the preferred option, is followed by reuse, recycling, recovery including energy recovery and as a last option, safe disposal.
WEEE: Waste electrical and electronic equipment