ENVIRONMENTAL MANAGEMENT SYSTEM
EPR/EP3794FY

Gardden Industrial Estate, Ruabon, Wrexham, Clwyd LL14 6RG

I Hayward Ltd

Version:	1.0	**Date:**	15 December 2017		
Doc. Ref:	GIE-412-A	**Author(s):**	CP	**Checked:**	IHL
Client No:	412	**Job No:**	3695		

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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	15/12/2017	CP	IHL	

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Site Information & Key Contacts List

Site Address:	**Gardden Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6RG**		
Site Operator:	**I Hayward Limited**	**National Grid Ref:**	**SJ 30037 45043**

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Cari Hayward	Director & TCM	01978 823 940	07868 686858
Wrexham Maelor Hospital Croesnewydd Rd, Wrexham LL13 7TD	Local NHS Hospital (Main)	01978 291100	999
	Accident & Emergency (A&E)	999, 112 or 111	999
Beech Avenue Medical Practice, The Health Centre, Rhosllanerchrugog LL14 1AA	Local Doctor Surgery (GP)	01978 845955	999 or 112
Cheshire Police, Dragon Hall, Whitchurch Rd, Chowley, Chester CH3 9DU	Local Police Non-Emergency	101	999 or 112
	Police Emergency	999 or 112	999 or 112
Shropshire Fire & Rescue Service Mount Rd, Oswestry SY11 1BB	Fire and Rescue Service (in Emergency Dial 999)	01743 260200	999 or 112
Natural Resources Wales Chester Rd, Buckley CH7 3AG	Environmental Regulator	0300 065 3000	01874 665 212 999 or 112
Wrexham Council, The Guildhall, Wrexham LL11 1AY	Planning Environmental Health	01978 292000 01978 298989	01978 292000
Dee valley Water plc Packsaddle/Wrexham Rd, Rhostyllen, Wrexham LL14 4EH	Mains water and sewerage supplier	01978 846946	01978 846 946
Oaktree Environmental Ltd Lime House, 2 Road Two, Winsford, Cheshire CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	999 or 112 or 0800 80 70 60

1 General Considerations

1.1 Site operator/permit holder

1.1.1 I Hayward Ltd will operate Environmental Permit (EP). The primary operations which will take place at the site include:

i) The importation, storage and processing of ferrous and non-ferrous scrap metal;
ii) The importation of end-of-life vehicles (ELVs) to depollute, dismantle and remove all potentially hazardous components;
iii) The importation, segregation and storage of waste electrical and electronic equipment (WEEE) for recovery to a suitably permitted site;
iv) The importation, storage and treatment of wood for recovery to a suitably permitted site; and,
Baling ELVs and scrap metal for recovery to a suitably permitted site.

1.1.2 ELVs, WEEE and Scrap Metal will be accepted from members of the public and from the commercial, industrial and agricultural sectors.

1.2 Relevant contacts

1.2.1 The contact details for the operator are as follows:

I Hayward Ltd
Gardden Industrial Estate,
Ruabon,
Wrexham,
Clwyd,
LL14 6RG

Contact: Cari Hayward
Position: Director
Tel: 01978 823 940

1.2.2 Oaktree Environmental Ltd have been engaged to act as consultants for I Hayward Ltd to assist in the preparation of this Environmental Management System (EMS). This EMS has been prepared to meet the requirements of The Environmental Permitting (England and Wales) Regulations 2016 and Natural Resources Wales' (NRW) Guidance on producing Environmental Management Systems.

1.2.3 Contact details for Oaktree Environmental Ltd are as follows:

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire CW7 3QZ

Contact: Chris Parry
Position: Senior Consultant
Tel: 01606 558833
E-mail: chris@oaktree-environmental.co.uk

1.3 Site location

1.3.1 The site is located on Gardden Industrial Estate, Ruabon, Wrexham, Clwyd LL14 6RG as shown on Drawing Nos. GIE/412/01 & 02. The national grid reference for the site is SJ 30037 45043.

1.3.2 The area which is the subject of this EMS is outlined in green on Drawing No. GIE/412/02. All references to 'the site' in this EMS shall mean this area.

1.4 Permitted operations

1.4.1 Specified waste management operations include waste disposal and waste recovery operations listed Annex IIA and IIB of The Waste Framework Directive 2008/98/EC which are shown on Table S1.1 activities (page 9) of the operator's EP; also shown on the next page:

Table 2.1 Activities	
Description of activities for waste operations	**Limits of activity**
R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials R13: Storage of waste pending any of the operations numbered R1 to R12	All treatment shall take place on impermeable surface with sealed drainage Metal recycling: Treatment consisting only of sorting, separation, grading, shearing, baling, compacting, granulating of cables, and cutting using hand-held equipment only, of ferrous metals or alloys and non-ferrous metals into different components for recovery. Batteries There shall be no treatment of lead acid batteries, other than sorting and separating from other wastes. All batteries shall be stored in containers with an impermeable, acid resistant base and a cover. Waste liquids Waste containing liquids shall only be stored, drained or handled on an impermeable surface with sealed drainage. Vehicle dismantling: Treatment consisting only of depollution of waste motor vehicles and sorting, separation, baling, compacting, or cutting using hand-held equipment only, of waste into different components for recovery. Wood: Storage and treatment **for recovery** at a suitably permitted site. The maximum quantity of hazardous waste received and stored on site shall not exceed 10 tonnes per day. Depolluted vehicles and clean uncontaminated metal shall be stored on hardstanding or an impermeable surface with sealed drainage This does not include the manual depollution and dismantling of waste motor vehicles.

1.5 Hours of operation

1.5.1 The site will be open for the delivery and receipt of waste on site and for all waste handling/processing operations according to the hours specified below:

Monday to Friday	08:30 – 17.00
Saturday	08.30 – 12.00
Sundays, Bank/Public holidays	Closed

1.5.2 The only activities on site which will be permitted outside of these hours are onsite maintenance works and general office use.

1.5.3 During times where the site is closed or not in operation, the site will be locked and secured to prevent unauthorised vehicular and/or pedestrian access.

1.6 Lighting

1.6.1 During official lighting up times or during times of low light the site has sufficient lighting within the working areas to permit effective inspection of waste and ensure that safe working practices are maintained on site.

1.7 Waste types and quantities

1.7.1 The waste types to be accepted at the site are those as defined in the Controlled Waste (England & Wales) Regulations 2012 and Section 75 of the Environmental Protection Act 1990 consisting of Scrap Metal and End-of-Life motor vehicles [ELVs] (including hazardous wastes such as lead acid batteries and catalytic convertors which form part of, or are contained in, a waste motor vehicle and were necessary for the normal operation of the vehicle).

1.7.2 The site will also accept some components (including hazardous) removed from cars as they are occasionally found within vehicles and rejection of such components may lead to fly tipping. For example, if a customer has some oil filters to dispose of with their vehicle the filters will be accepted and deposited appropriately at the site.

1.7.3 A detailed breakdown of wastes from the European Waste Catalogue (EWC) - Commission Decision 2000/532 accepted at the site is shown in Schedule 2 of the operator's EP which is shown in Appendix III.

1.7.4 The total throughput of the site is limited to <25,000 tonnes per annum and reference should be made to Drawing No. GIE/412/03 which indicates storage volumes and maximum pile sizes in cubic metres and tonnes.

1.7.5 Strict requirements will apply to certain types of wastes*, i.e.

- Empty used containers which have contained chemicals or hazardous waste must be cleaned or certified as clean before they are accepted. Paint tins or other containers are accepted if they have residues in as long as those residues are solid and non-hazardous.
- Potentially dusty loads or loads containing powder have to be notified in advance to ensure that suitable plant and equipment is available to reduce dust emissions. Some powdered wastes are bagged prior to receipt to prevent a dust problem. No whole loads of powdered waste are accepted.
- Shot blasting residue are only be accepted from known sources or where the contents of the residue can easily be identified. Residues containing tributyl are not accepted.

1.8 Exempt activities

1.8.1 Activities which are outside the scope of the EP for the site (listed in Schedule 3 of The Environmental Permitting (England and Wales) Regulations 2010) may be carried out at the recycling centre and the relevant details would be registered with the Environment Agency (EA) prior to commencement. It is important to note that some of these activities may require appropriate planning permission for undertaking them.

1.8.2 Wastes brought onto site as part of an exempt waste activities and not part of the accepted waste types shown in Appendix III will be kept clearly segregated and identified from those wastes imported for the specified waste management operations.

1.8.3 Registration - once registered a copy of all exemption notifications and register entries will be held in the site office. Registered exemptions are valid for a period of 3 years. If the activity is to be carried on after 3 years, a renewal should be submitted to the EA.

1.9 Staffing and management

1.9.1 The site will open for the deposit of waste or for other essential operations during the hours listed in Section 1.5. The table below details the staff structure of the site when operating at full capacity. Positions in bold italic print below are the minimum staff requirements when the site is open for the reception of waste:

Position	Employees	Responsibilities
Site manager	1 ***(1)***	Ensuring that the site is being operated in accordance with the Environmental Permit and in-line with attendant regulations
Machine / Plant Operator s / Operatives	2(***1)***	Waste handling/processing, reception and plant operation

1.10 Health and safety

1.10.1 All operations on site will be carried out in accordance with the relevant requirements of the Health and Safety at Work Act 1974. Conditions of site use for employees, visitors and contractors are shown in Appendix IV. These conditions will be shown to all site users and must be signed prior to using the site. Anyone refusing to comply with the conditions of use will be asked to leave the site.

1.11 Fit and proper persons

1.11.1 Cari Hayward will be the assigned Technically Competent Manager (TCM) and will provide the required attendance time at the facility as required by guidance periodically issued by NRW. A copy of TCM's Certificate of Technical Competence (COTC) will always be made available in the site office. The relevant award is the WAMITAB Level 4 Medium Risk Operator Competence for Physical Treatment; otherwise known as MROC2.

1.11.2 The company, through the TCM, will ensure that a nominated deputy is sufficiently trained and familiar with the EP and this EMS document in addition to all relevant company procedures who, in the absence of the TCM, will act the competent person. If either the TCM or deputy is changed, the EA will be informed of the change and the relevant details of the replacement as soon as possible.

1.11.3 At the time of this EMS production, none of the relevant people associated with the operator had been convicted of a relevant offence.

2 Site Engineering and Infrastructure

2.1 Site infrastructure

2.1.1 The site's infrastructure is detailed on Drawing No. GIE/412/03.

2.2 Access and parking

2.2.1 The site is accessed from a service road on the industrial estate which leads off from Tatham Lane and car parking is available on site.

2.3 Site office

2.3.1 The site office is shown on Drawing No. GIE/412/03 and the list below details the relevant site documentation which will be kept in the site office.

Documents to be retained in site office
The Environmental Permit (original & any subsequent variations)
This Environmental Management System (EA agreed document)
Current site diary (to record all inspections/visitors to the site)
Environment Agency inspection (CAR) forms
In-house inspection sheets/recording forms
Duty of care transfer notes (for 2 years minimum)
Hazardous waste consignment notes (rejected waste, etc., kept for 3 years)
Waste delivery tickets
Accident book (& 1st aid kit)

2.4 Weighbridge

2.4.1 Please refer to section 3.3.

2.5 Notice board and signs

2.5.1 A notice board is erected at the site entrance displays the following information:

- The site name and address
- The name of the permit holder and operator
- The Environmental Permit number and accompanying statement stating that the site is permitted by Natural Resources Wales
- Natural Resources Wales Emergency No. 0800 80 70 60 and General Enquires No. 0300 065 3000
- Operator's "out of hours" emergency contact details (telephone number).
- Operating hours

2.5.2 Additional signs are displayed around the site for operational / health & safety purposes. All staff and visitors will be required to comply with the requirements of all signs whilst on site.

2.6 Site security

2.6.1 **Gates** - The main entrance gates are located as shown on Drawing No. GIE/412/03 and are of galvanised steel construction. The gates remain padlocked when the site is unmanned.

2.6.2 **Fencing** - The site is fully secure and reference should be made to Drawing No. GIE/412/03 for details of the fencing.

2.6.3 Further to the above infrastructure, the site also benefits from 24 hour remotely accessible CCTV fitted with full site coverage and off-site supervision. Any incidents will be reported to the site manager / TCM of the operator. There will also be security night lighting at the site.

2.7 Drainage

2.7.1 The entire site is surfaced with impermeably concrete measuring approximately 4,502m2 all surface water falls to into a series of surface water drains into the foul sewer via an oil interceptor.

2.7.2 The interceptor will be checked a minimum of once per month or where heavy rainfall has occurred. If the interceptor reaches capacity a suitably permitted oil recycler will collect the oil/sludge from the tank

2.7.3 In respect of the requirement in schedule 3 of the permit for emissions monitoring, parameters and emission points specified in schedule 4, table S4.1 a sample from the discharge point in schedule 7 will be taken annually, analysed and reported to NRW.

2.7.4 The offices/welfare inside the building also connects to the foul sewer system.

2.7.5 Details of the site drainage are shown on Drawing No. GIE/412/03.

2.8 Fuel storage

2.8.1 The tanks/containers used for the storage of fuel or hazardous fluids will be surrounded by a bund which is capable of containing a minimum of 110% of the volume of fuel stored in the tank. All pipework and associated infrastructure will be enclosed within the bund and a lock will be fitted to the tank valve to prevent unauthorised operation. Any storage of oil will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 SI No.2954 or any subsequent legislation. All valves and gauges on the tank will be constructed to prevent damage caused by frost. The tanks will be clearly marked showing their capacity and product within.

2.9 Vehicles, plant and equipment

2.9.1 Waste is handled using the plant listed below. Additional plant will be hired to cover any very busy periods. Only trained operators are permitted to drive/operate the plant listed below. Any changes to the list will be notified to the EA prior to implementation. The minimum requirements when the site is operational are shown in bold italic print.

Item	Number	Function
Scrap handler (wheeled)	1	Loading/unloading/movement/sorting
Forklift trucks	2	Loading/unloading/movement/sorting
Granulator	1	Granulating/processing of metals
Baler	1	Compaction/processing of metals
Depollution & dismantling rig	1	Depolluting / dismantling vehicles
Weighbridge	2	Accurately weighing of incoming/outgoing waste
Hand shears	1	Manual cutting if scrap metal

2.9.2 The plant / equipment on site may vary depending on the amount of waste to be processed / treated. The list is the maximum that will be on at site at any one time. When the site is closed there may be periods when no plant/equipment is kept on site.

3 SITE OPERATIONS

3.1 Preliminary procedures

3.1.1 Guidance will be given by the site management to all employees, sub-contractors, other waste carriers and customers regarding the waste types and operations which are acceptable at the site i.e. a copy of Appendix III of this EMS. The site will be used for waste from third-party users or the operator's own vehicles, whose details will be checked prior to delivery of waste to the site. The procedures below are followed prior to the receipt of waste on site.

3.2 Checking in & inspection of loads

3.2.1 All persons delivering waste to the site are required to report to the site office upon arrival (including employees of the operator).

3.2.2 Where a controlled waste transfer note accompanies a consignment of waste the note is checked to ensure that it accurately describes the type and quantity of waste. If the waste does not meet the description stated on the controlled waste transfer note the customer is advised to check the note and give a more detailed description of the waste. If the more detailed description of the waste reveals that the waste is not permitted at the site then the customer is advised to contact NRW to find an alternative site.

3.2.3 **ELVs** - Where registration documents are available these are used to confirm vehicle details. However, vehicles arriving via insurance companies are unlikely to possess such documents.

3.2.4 A visual inspection of the ELV will be carried out by a designated employee of the operator and the accompanying paperwork will be checked. If a leak is found, the leaking fluids will be drained immediately and stored in the appropriate manner and spillages dealt with in accordance with Section 5.3. If unauthorised waste is discovered inside a vehicle after receipt, two courses of action are available:

i) Return the vehicle to the producer and advise NRW of the deposit; or,

ii) Where the producer/owner of the vehicle has left the site and cannot be contacted or where the removal off-site of the waste may cause further problems then the waste will be deposited in the quarantine skip. NRW will then be contacted to agree a course of action if the waste is difficult to handle or hazardous.

3.2.5 Provided that the vehicle meets the acceptance criteria (as judged visually by a trained member of the operator) then the vehicle will be moved into the depollution building and onto the depollution rig to await depollution.

3.2.6 If the ELV requires assessment by an insurance company it will be marked as such and stored in a designated area and labelled for storage of 'insurance vehicles'. Upon completion of assessment the vehicle will be ready for processing or repair.

3.2.7 If the ELV is delivered by a private party or is not required for insurance assessment then it will be taken directly to the undepolluted vehicle storage area to await processing or taken directly into the depollution building for depollution.

3.3 Weighing and categorising loads

3.3.1 The incoming weights of scrap metal are determined by the site's weighbridge or by weighing scales.

3.3.2 ELVs will be estimated by class category or vehicle documentation. The weight of delivered vehicles may be recorded as the standard/plated net weight for that type of vehicle, if whole. These weights are required for each ELV or form of scrap metal delivered to the site to ensure that the site complies with recycling targets and throughput limits.

3.4 Waste handling - ELVs

3.4.1 Schedule 5 of the End-of-Life Vehicles Regulations 2003 sets out the minimum technical requirements for keeping and treating ELVs. The site will operate to the standards set out in these Regulations or any later standard.

3.4.2 Undepolluted ELVs and then transferred to the to the undepolluted ELV storage area shown on GIE/412/03 to await processing i.e. depollution. Any vehicles received which are already depolluted may be taken directly to the appropriate area as shown on Drawing No 412/GIE/03.

3.5 Waste handling - ferrous & non-ferrous scrap metal

3.5.1 Ferrous metals are bulked up and stored in the external yard and baled for size reduction enabling the easier removal to a suitably permitted or exempt facility for further recycling. Non-ferrous metals are stored internally due to high value of the metal.

3.5.2 The above areas are shown on Drawing No. GIE/412/03.

3.6 Waste handling WEEE

3.6.1 Batteries from depolluted ELVs will be stored in containers with an impermeable, acid resistant base inside the main building as shown on Drawing No. GIE/412/03. Separately accepted batteries other than lead acid will also be in line with the above and as shown on the same drawing.

3.7 Waste handling wood

3.7.1 Any wood accepted on site will be stored and treated in a delineated area at the site.

3.8 Waste handing - general

3.8.1 Any recovered materials from ELV processing i.e. engines, tyres will be stored in segregated containers to await removal from site to a suitably permitted or exempt facility for further recycling.

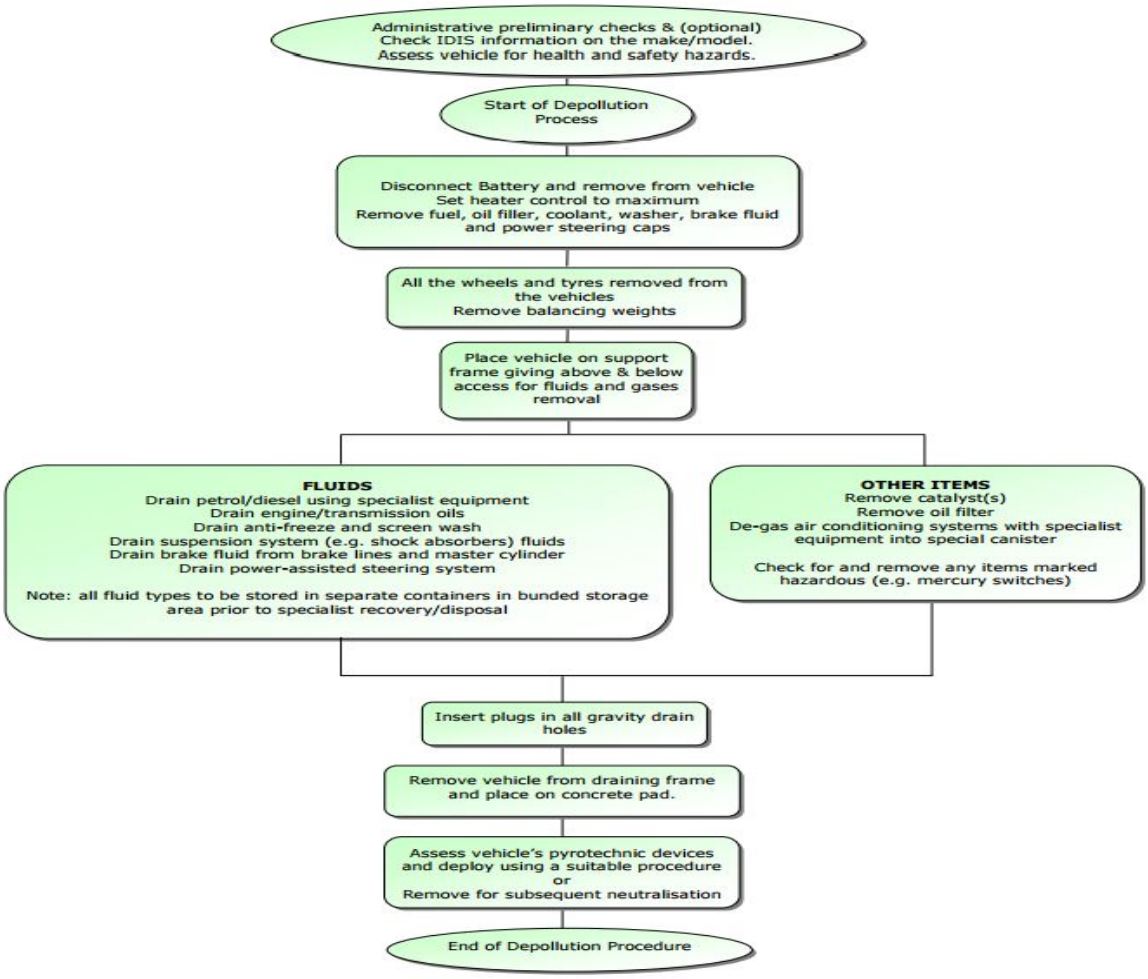
3.8.2 Any other wastes accepted will be stored as per section 3.7.1.

3.9 Rejected wastes

3.9.1 Rejected wastes will be deposited in the quarantine skip provided for non-conforming wastes. This will occur when non-conforming waste is discovered after the deposit of a load or where the removal off-site of the waste may cause further problems. NRW will then be contacted to agree a course of action where necessary. The contents of the skip will be recorded in the site diary.

3.10 ELV depollution procedure

3.10.1 Each ELV will be treated as set out in the DEFRA / DTI publication "Depolluting End-of-Life Vehicles: Guidance for Authorised Treatment Facilities" as summarised on the next page:



3.10.2 A suitable absorbent and full spill kit will be kept by the depollution rig in the event of any spillages of oil or fuel. Any contaminated absorbent will then be removed to an appropriately permitted disposal facility.

3.10.3 Once all viable parts have been removed and safely stored, the vehicle will be removed off site for further processing.

3.10.4 The depollution area will be a lift or elevated forks on which the vehicle will be placed to allow operatives to safely remove the hazardous components and fluids to render the car as non-hazardous waste. The surface of the depollution area will be a tray or containment area to ensure the containment of all liquids/fluids drained from the vehicle.

3.10.5 The depolluting equipment to be installed at the site will be similar to that manufactured by Autodrain. This equipment is designed specifically for the depollution of ELVs and includes tanks to 'suck out' the fluids (see below):

3.10.6 A trained member of staff is normally able to complete the depollution process in 15 - 20 minutes. Once vehicles have been depolluted they will be removed as soon as practically possible.

3.10.7 Once ELVs have been subjected to the depollution process, depolluted ELVs will be stored in the external yard to await baling as shown on Drawing No. GIE/412/03.

3.10.8 If the maximum storage capacity of ELVs at the site is reached then no further waste will be accepted until vehicles have been removed off site to a suitably permitted site. The operator will contact the EA or Oaktree Environmental Ltd to calculate the waste capacity of the site if deemed necessary.

3.11 Fuel and hazardous fuel storage

3.11.1 All hazardous liquids removed from the vehicles will be stored in the depollution building which has impermeable concrete surfacing and sealed drainage.

3.11.2 The tanks/containers to be used for the storage of fuel or hazardous fluids will be surrounded by a bund which is capable of containing a minimum of 110% of the volume of fuel stored in the tank. All pipework and associated infrastructure will be enclosed within the bund and a lock will be fitted to the tank valve to prevent unauthorised operation. Any storage of oil will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 SI No.2954 or any subsequent legislation. All valves and gauges on the tank will be constructed to prevent damage caused by frost. The tanks will be clearly marked showing their capacity and product within.

3.11.3 Quantities of fluids in the drums/tanks which are topped up during the depollution process will be monitored on a daily basis to ensure there is adequate capacity on site. Fluids will be collected on a contract basis by reputable contractor who is a registered carrier of hazardous waste.

3.11.4 Fuel and hazardous fuel storage containers are located as shown on Drawing No GIE/412/03.

3.12 Removal of batteries

3.12.1 **Batteries** - Batteries removed from vehicles will be handled as follows:

a) Once disconnected from the ELV, batteries will be stored in containers with an impermeable, acid resistant base and stored in the non-ferrous building to avoid ingress of water. Daily checks will be made on the containers.
b) A suitable absorbent agent will be kept available.
c) so that prompt action can be taken to absorb any spillages. Any contaminated adsorbent material will then be removed to an approved disposal facility.

d) Removal of batteries will be carried out in accordance with the Hazardous Waste (England & Wales) Regulations 2005 (HWR) (as amended) or any subsequent amending legislation.

3.13 Record keeping

3.13.1 The details below will be recorded by the operator and kept in paper and or electronic format the site diary. The following details where requested by the duty of care are recorded for every load deposited at the site:

- The date and time of delivery.
- The name and address of the waste producer.
- The detailed and accurate description of the waste including type, quantity (in tonnes or cubic metres) and EWC codes.
- How the waste is contained e.g. loose, container type.
- The carrier's name and address.
- Driver's name, signature and vehicle registration No.
- Signature or initials of persons producing/accepting/inspecting/carrying the waste.
- Additional handling details/notes made by the driver after inspection of the load (where applicable).
- SIC code of the premises which produced the waste.
- Waste hierarchy declaration.
- Information on previous treatment of the waste e.g. manual or mechanical.

3.13.2 The following details will be recorded for all deposits of non-conforming waste at the site and will be forwarded to Natural Resources Wales, where required:

- Date and time of deposit.
- A detailed and accurate description of the waste including type and EWC code.
- The quantity of waste (in tonnes or cubic metres).
- How the waste is contained e.g. loose, container type.
- Name, address and telephone No. of waste producer.

- The carrier's name, registration number and vehicle registration.
- Signature or initials of persons who produced, accepting/inspecting and carrying the waste.
- Reason for the rejection of waste and action taken.

3.13.3 The following details will be recorded for every load of waste leaving the site, where required by the duty of care:

- The date and time of removal.
- Detailed and accurate description of the waste including type, quantity of waste (in tonnes or cubic metres) and EWC codes.
- How the waste is contained e.g. loose, container type.
- The destination waste management site or exempt facility.
- The name and registration No. of the carrier or employee removing the waste (if applicable) and vehicle registration No.
- Signature or initials of persons i.e. transferor, transferee and carrier of the waste.
- SIC code of the premises transferring the waste.
- Waste hierarchy declaration.
- Type of treatment waste subjected to (if relevant) e.g. manual, mechanical.

3.13.4 A summary of waste types and quantities deposited at and removed from the site and origin and destination details will be forwarded to Natural Resources Wales using the standard waste return form by the 31st January each year as specified in the site's EP.

3.13.5 Outcomes of inspections of waste types, hardstanding areas, transfer/treatment areas, storage areas, drainage etc., are recorded and detailed comments entered into the operator's site diary (including action taken or proposed).

3.13.6 Visitors to the site will sign the visitor's book upon arrival and exit stating the purpose of their visit and whom they represent.

3.13.7 Complaints will be recorded using the operator's site diary or complaints record form shown in Appendix II.

4 ENVIRONMENTAL CONTROL, MONITORING AND REPORTING

4.1 Breakdowns and spillages

4.1.1 In the event of breakdown or malfunction to plant, equipment or infrastructure, alternatives will be brought on site until repaired. If alternatives cannot be sourced then waste and operations will be managed to ensure the item is repaired. The repair will be carried out at the most convenient location with absorbents used to clear oil or fuel spillages.

4.1.2 All site surfaces will be inspected daily when the site is in operation. Debris will be swept as required and placed in a skip for disposal to a suitably permitted site.

4.1.3 Any spillages of fuel/oil will be cleared immediately by depositing sand or absorbents on the affected area. The sand or absorbents will be placed in a skip to be taken to a suitably permitted site for disposal. All spillages of waste and windblown litter will be cleared by the end of the working day in which they occur. Spillage clearance procedures are detailed in Section 5.3. Sand and absorbents will be stored on site.

4.1.4 All wastes liable to give rise to contamination will be removed from the site if the site is not secure or if operations cease or are temporarily suspended.

4.2 Site inspections and maintenance

4.2.1 The inspection frequencies for maintenance/housekeeping are listed in Appendix II. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in the site diary. All repairs will be carried out within 5 working days unless agreed otherwise with Natural Resources Wales.

4.2.2 All repairs to site security including gates and fencing will be made within 5 working days of the discovery of the damage and the site will be made secure until the repair has been completed.

4.2.3 Any major defects found during the daily site inspection which are likely to lead to a breach of permit conditions will be repaired immediately in which they are found, where possible. If a repair is not possible Natural Resources Wales will be contacted to agree a suitable timescale for repair.

4.2.4 All defects and problems likely to give rise to pollution will be recorded in the daily checklist with repairs/solutions being carried out as soon as practically possible.

4.3 Site diary / inspection form

A site diary for the purpose of recording site activities will be maintained in addition to the daily checklist. The diary will also be used to record any other information relevant to the working of the site. The following information will be recorded in the diary/record forms required by the EP:

i) The identity of the signature of the inspection personnel;
ii) The date and time of the inspection (or event);
iii) The inspection details and any actions taken; and,
iv) The name of the nominated deputy in the absence of the site manager.

4.4 Control of mud and debris

4.4.1 Although unlikely to present a problem, due to the nature of the waste accepted at the site, visual inspections of the site will be carried out and recorded on the daily checklist. However, staff will report any problems with mud or debris at the site immediately to the site manager.

4.4.2 The deposit of material on the access road or public highway will be treated as an emergency and will be cleared immediately by the operator using either a brush and shovel or vacuum tanker/road sweeper if necessary.

4.5 Control and monitoring of dust

4.5.1 The containment of waste within the site and the nature of the wastes accepted at the site (ELVs) present a very low risk of dust. If dust were to become a problem at the site, a permanent water supply is available on site in all climatic conditions to ensure that the dust suppression can function effectively. Any external water pipes will be lagged to prevent frost damage during winter months.

4.6 Odour control

4.6.1 The containment of waste within the site and the nature of the wastes accepted at the site (ELVs) present a very low risk of odour nuisance. If malodorous waste is deposited on site it will be consigned to a skip for rejected waste or removed from the site immediately.

4.7 Litter control

4.7.1 Although unlikely to present a problem, due to the nature of the waste accepted at the site, daily inspections of the site boundary will be carried out for the presence of windblown litter and operatives will be instructed to collect the litter and place it in a skip for disposal/recovery before the end of the working day.

4.8 Control of pests, birds and other scavengers

4.8.1 It is unlikely that vermin will present a problem, due to the waste types handled at the site, but a recognised pest control contractor will be brought in within 48 hours if any problems are encountered. The site will be inspected daily for the presence of vermin and the results of the inspection noted in the site diary or site inspection form.

4.9 Control and monitoring of noise & vibration

4.9.1 The site is operated using the Best Practicable Means at all times.

4.9.2 The following table below sets out:

- The likely sources of noise arising from the development.
- The actions to be taken / procedures to be followed or planned in order to prevent or minimise levels.

Potential Noise Source	***Action to be taken to prevent or minimise noise***
HGVs travelling to and from the site for delivery/collection of wastes/products.	All vehicles are required to be driven onto and off site with due consideration for neighbouring premises. HGV movements will be spread out evenly throughout the day.
Loading/unloading of waste delivery vehicles	Vehicles must be well maintained and operated with silencers. Moving parts to be regularly lubricated. All vehicles must be driven slowly around the site (5mph site speed limit). Engines to be switched off when not in use. No shaking of vehicle bodies whilst raised.
Operation of loading plant (i.e. telehandler/360)	Drop heights to be kept to a minimum, particularly when loading empty tipper wagon/skip/container to minimise noise/vibration. Engines to be switched off when not in use. Plant to be well maintained. Moving parts to be regularly lubricated. All vehicles must be driven slowly around site. Loading plant/machinery will only be operated at ground level, i.e. never on stockpiles.
Small vehicles travelling to and from the site (e.g. staff and visitor's cars, courier van deliveries etc.)	All those working on and visiting the site to be made aware of need for considerate driving and keeping vehicles well maintained. Small vehicles will arrive marginally earlier than the main site operating hours.

4.10 Complaints procedure

4.10.1 All complaints will be recorded on IHL/RF/7 and will include a record of the complaint, particulars of the complainant and details of any action taken to alleviate the problem.

5 EMERGENCY PROCEDURES

5.1 General

5.1.1 In addition to obligations imposed by RIDDOR '13 (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) the permit holder will notify the EA of any serious injuries to employees of the operator, other site users or members of the public arising as a result of operations on site. Minor injuries such as cuts and grazes etc. will be recorded in the accident book on site. Separate procedures will be used for different types of emergency. An emergency at the site is defined by the site management as follows:

"Any incident which is likely to result in harm to human health or pollution of the environment or serious breach of permit conditions and serious detriment to the amenities of the locality."

5.1.2 For all emergency situations, the deposit of any further waste will be suspended where necessary to allow action to be taken safely. If necessary, staff and other users of the site will be evacuated to an area which is a safe distance away from the hazards. Staff handling the emergency will be provided with and trained to use the necessary PPE (personal protective equipment) unless the manager instructs them that the hazard is too severe and outside help is needed from the emergency services or specialist waste contractors. A visitor's book will be kept to check who is on site at all times.

5.2 Fire

5.2.1 The following actions will be taken when fire is detected or suspected (site operatives):

a) DON'T PANIC
b) RAISE THE ALARM (IF NOT DONE SO ALREADY)
c) NOTIFY THE SITE MANAGER (IF SAFE TO DO SO)
d) DO NOT TRY TO TACKLE THE FIRE YOURSELF UNLESS YOU ARE TRAINED IN DOING SO AND YOU ARE SURE OF THE NATURE OF THE FIRE
e) LEAVE THE BUILDING USING THE NEAREST EXIT (I.E. FIRE DOOR OR ROLLER SHUTTER DOOR) AS QUICKLY AND AS ORDERLY AS POSSIBLE
f) ASSEMBLE AT THE SPECIFIED FIRE ASSEMBLY POINT WHICH IS LOCATED BY THE SITE ACCESS GATES.
g) THE SITE MANAGER OR DELEGATED OPERATIVE WILL BE IN CHARGE OF CALLING THE EMERGENCY SERVICES ON "999" AND ENSURING THAT ALL PERSONS WHO WERE WORKING IN THE BUILDING ARE ASSEMBLED SAFELY
h) INFORM ALL NEIGHBOURING PREMISES WHO ARE LIKELY TO BE AFFECTED
i) INFORM NATURAL RESOURCES WALES
j) DO NOT RETURN TO THE SITE UNTIL YOU HAVE BEEN GIVEN THE 'ALL CLEAR' BY THE EMERGENCY SERVICES AND THE SITE MANAGER

5.3 Spillages

5.3.1 All fuel stored on site are bunded to contain any fuel leaks. Any oil and vehicle maintenance chemicals kept on site will be securely stored. If any spills occur, a spill containment kit (absorbent pads, booms or granules) will be used to prevent further spillage and the contaminated absorbents placed in a skip for disposal to a suitably permitted landfill. No chemical leaks are expected in the waste handling area but should they occur the procedures outlined in Section 5.4 will apply.

5.4 Drums

5.4.1 The deposit of drummed waste will not be allowed at the site. If a drum is concealed within a skip and is not observed until the skip is deposited in the waste transfer area then the following procedure will apply:

i) The staff member will visually check the condition of the drum from a safe distance, noting any labels referring to the possible contents or hazards.

ii) The site manager will be contacted to verify the observations and to decide on further action.

iii) The producer of the waste and the EA will be contacted for advice and further information if necessary and both will be informed that a breach of the Duty of Care and site permit conditions has occurred as the result of the unauthorised deposit.

iv) No further waste will be deposited until the emergency has been dealt with.

v) All spillages will be cleared using a spill containment kit and all contaminated absorbents placed in a skip for disposal to a suitably permitted waste management site.

vi) If the deposit results in serious reactions with other waste or harmful emissions or the drum contents cannot be identified, then the emergency services and/or specialist waste contractors will be brought in to assist. If necessary, staff will be evacuated from the site or to a safe area within the site.

5.5 Adverse reactions

5.5.1 No wastes are accepted which will react to present such a hazard. If unauthorised waste is found in a skip and does present such a hazard the same procedures as for the deposit of drums (above) shall apply.

5.6 High winds

5.6.1 There will be no sorting, processing or treatment of any wastes which are likely to be blown around during conditions of high winds. Vehicles leaving the site will be sheeted to comply with the requirements of the Duty of Care legislation.

5.7 Poor visibility

5.7.1 The site will not operate in conditions of poor visibility such as dense fog to reduce the risk of vehicle collision.

5.8 Operational failure

5.8.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, systems or equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary.

5.9 Bomb scare

5.9.1 In the unlikely event of a bomb scare, the site will be evacuated and the police contacted. The police will then assume control of the site until the threat has been verified or the device defused and removed. The EA will be kept informed of the events on site.

6 Training for Site Staff

6.1 Training needs assessment

6.1.1 All new and existing site staff are subject to a specific training regime based on their responsibilities at the site to ensure all operations are carried out without harm to the environment or amenity of the surrounding area. Training in all aspects of the site and waste operations at the site with regard to the individual responsibilities of the site staff will help to prevent incidents occurring which may have an adverse impact on the environment and/or the employees and their co-workers.

6.1.2 An employee training record (IHL/RF/6 in Appendix II) shall provide a comprehensive checklist for the training needs of all new site staff and also serves as a training review for existing site staff which will be carried out annually.

6.2 Site rules and infrastructure training

6.2.1 This information will be provided to all employees, visitors and contractors with a full understanding of the site's conditions of use, which will be communicated and documented at induction for all staff with specific induction for visitors and contractors.

6.2.2 Competency should be demonstrated within this field to ensure the employee is fully aware of the site's surroundings and operations to ensure their safety and compliance with specific operating conditions at the site.

6.3 Emergency procedures training

6.3.1 All employees will be required to be familiar with the Environmental Controls in Section 4.0 and the Emergency Procedures as detailed in the Section 5.0.

6.3.2 In addition to normal operating conditions as specified in the site rules, employees must also be trained in dealing with eventualities which may occur outside the scope of normal operating conditions, so they are aware of how to deal with these situations in advance of an occurrence.

6.4 Fire safety / firefighting training

6.4.1 Management must provide all employees with appropriate fire safety training with regard to their individual responsibilities.

6.4.2 Emergency procedures detailing what measures employees should adopt should a fire occur at the site are detailed in Section 5.2 and will be covered by the 'emergency procedures' training (see Section 6.3).

6.4.3 Regular fire drills will be undertaken by site management to ensure proper procedures are followed by employees in the unlikely event that a fire incident occurs**.** These will be unannounced drills and will not form part of the induction or review training as specified in Section 6.1.

6.5 Recognition of waste types training

6.5.1 All employees will be given induction training and subsequent regular training to identify those waste types which are permitted for acceptance at the site under the site's EP and those wastes which are not. This will include specific training to identify those common wastes which may be found following deposit and are not permitted at the site and will also include more obscure wastes and how to handle these wastes safely. All employees will be advised that they should refer any unrecognisable or unknown wastes to senior management, who should, in turn, follow procedures outlined in the EMS and/or contact Natural Resources Wales to agree a suitable method for removal.

6.5.2 This training will be provided to all site users who handle waste on site and those in charge of administration and reporting. In-depth training will also be provided to drivers responsible for collecting wastes from the site of production. They will be trained to identify any wastes not covered by the EP for the site and inform the producer that an alternative facility must be sought for any non-compliant wastes.

6.6 Storage areas / limits training

6.6.1 Those employees who carry out their responsibilities at the site and those in senior posts must be trained to identify appropriate waste storage areas to ensure that waste storage operations comply with the requirements of the EP for the site.

6.6.2 Employees in these roles must also be trained to recognise storage limits to ensure that they are in accordance with those specified as shown on Drawing No. GIE/412/03.

6.7 Vehicle / plant preventative maintenance training

6.7.1 This training is provided specifically for the vehicle and plant operators in order to ensure that all plant and machinery is checked regularly to prevent any occurrences which may lead to any adverse impacts on the environment or human

6.7.2 The same training will be provided to senior management enabling a dual-level maintenance programme.

6.8 Duty of care training

6.8.1 All employees dealing with consignments of waste will be trained in the completion of Duty of Care Waste Transfer Notes and the appropriate auditing of destination sites and/or contractors to ensure compliance.

6.9 Plant operation training

6.9.1 Any employees who are required to operate loading or treatment plant for the movement or processing of waste will be required to undertake the necessary qualifications for the operation of the specific item of plant in question. This will be required prior to operating the plant and will be obtained through necessary external certification programmes.

6.9.2 Regardless of general plant operation certification, all operatives will be fully inducted in the operation of the specific make and/or model of plant used on site.

6.10 Permit / EMS training

6.10.1 All employees will be inducted into the operating conditions as prescribed in the EP for the site. Whilst much of the above training will provide specific guidance on many aspects of these documents, all employees will be made aware of the location of the EP in the site office. All managerial positions will be made fully aware of the site's operating conditions.

6.11 Training for contractors

6.11.1 General site training will be provided to any contractors who are working on the site on a temporary basis as described in Sections 6.2, 6.3 and 6.4 above.

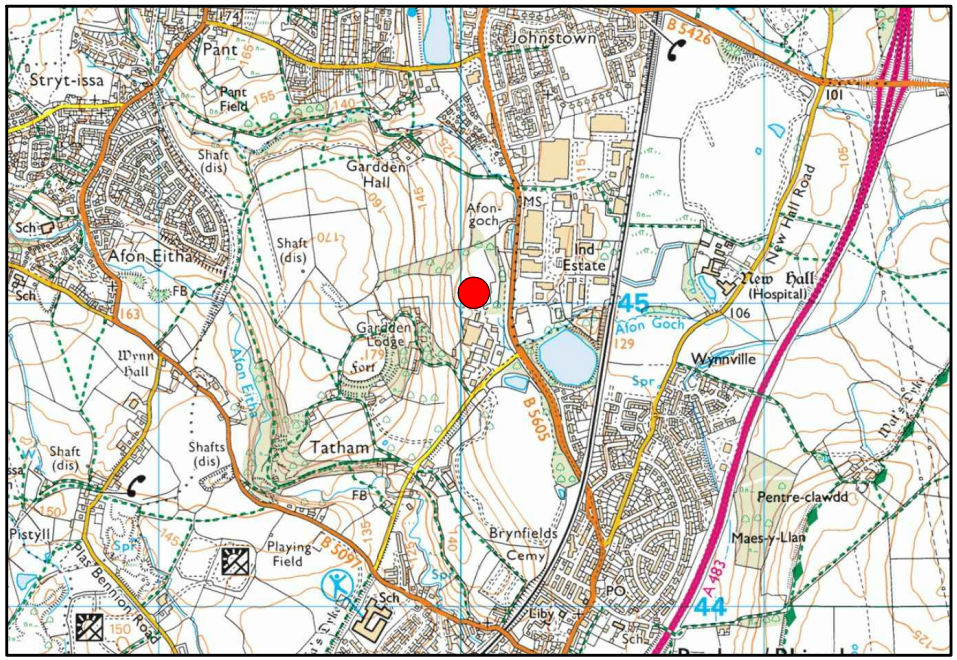
6.11.2 Additional training will be provided to contractors in their area of expertise. If they are dealing with specific items of plant/machinery, site operating conditions and a general understanding of the EP conditions will be provided to prevent any adverse impacts on the environment.

Appendix I

Drawings

Scale Bar (1:25,000)

0 km 1 km 2 km



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w: www.oaktree-environmental.co.uk
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Drawing No:	Rev:
GIE/412/01	-

Title: SITE LOCATION MAP

Site: Gardden Industrial Estate, Ruabon, Wrexham, Clwyd LL14 6RG

Client: I Hayward Ltd

Date:	Job:
15 December 2017	3695

Drawn:	Checked:	Client:
CP	IHL	412

Scale:	Printed @:
1:25,000	A4

KEY:

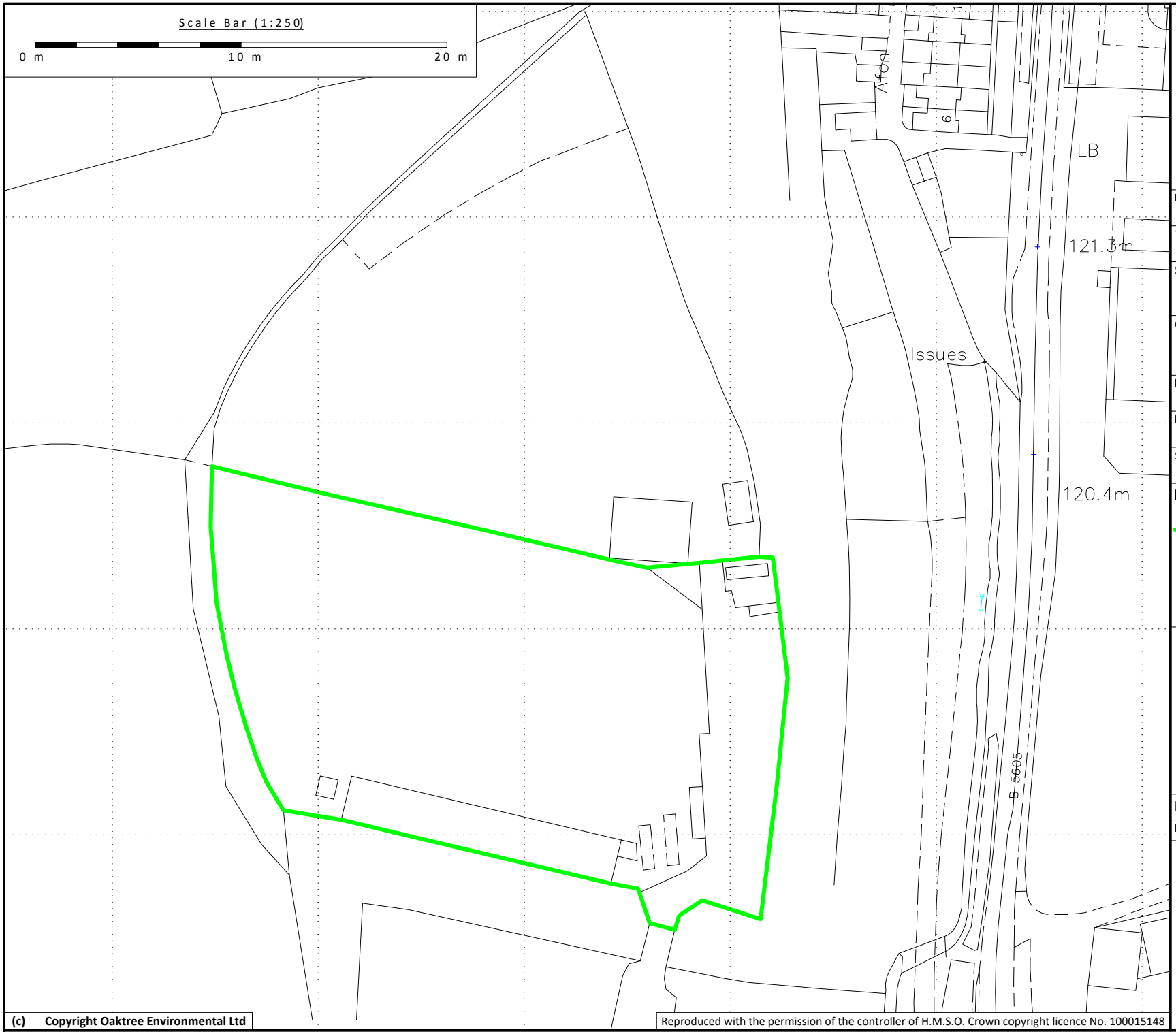
Site location

Notes:

(1) Drawing for indication only.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	15/12/17	CP	Initial drawing



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Drawing No:	Rev:
GIE/412/02	-

Title: PERMIT BOUNDARY PLAN

Site: Gardden Industrial Estate, Ruabon, Wrexham, Clwyd LL14 6RG

Client: I Hayward Ltd

Date:	Job:
15 December 2017	3695

Drawn:	Checked:	Client:
CP	IHL	412

Scale:	Printed @:
1:1,250	A4

KEY:

Permit boundary

Notes:

(1) Drawing for indication only.
(2) Do not scale from this drawing.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	15/12/17	CP	Initial drawing

Scale Bar (1:500)
0 m 25 m 50 m

Interceptor
MH
General storage
Discharge into stream
2A - Uncontaminated scrap metal storage
2B - Uncontaminated scrap metal storage
Empty skip / container storage and parking
Lefort baler
1A - Scrap metal, reception, sorting and treatment area
Red diesel tank (double bunded)
1B - Undepolluted ELV storage
2C - Uncontaminated scrap metal storage
Interceptor
GU
Access only used for articulated lorries
4A - Depollution rig
Plant/equipment storage buildings
3B
Weighing scales
Gas bottle storage
4B
4C
Welfare
Weighbridges
Workshop
3A - Non-ferrous metal storage
Non-ferrous cutting area
Granulator
Site / weighbridge office
Empty skip / container storage and parking
Site access / egress

Storage Area Details

Plan Ref	Description	Storage Form	Max Area (m²)	Max Volume (m³)	Max Tonnage (approx)	Duration of storage
1A	Reception, sorting and treatment area for scrap metal	Free stockpile	550	450	500	<3 months
1B	Undepolluuted ELV storage	On the ground in rows of two	<250	200	20 ELVs	<3 months
2A	Uncontaminated scrap metal storage	Free stockpile	850	1,700	<2,000	>6 months
2B	Uncontaminated scrap metal storage	Free stockpile	1,200	1,500	<1,800	>6 months
2C	Uncontaminated scrap metal storage	Free stockpile	250	350	<400	>6 months
3A	Non-ferrous metal storage	Pallet boxes stacked 2 x high	50	125	150	<3 months
3B	Battery storage	Acid resistant base containers stacked 2 x high	20	50	<50	<3 months
4A	Depollution rig / ELV for depollution	On rig	n/a	n/a	1 x ELV	<12 hours
4B	Oils/fluids storage	3 x IBC's	n/a	n/a	n/a	Removed from site when full
4C	Hazardous components from ELVs	Acid resistant base containers	<5	5 - 10	<5	< 3 months
5A	Non-ferrous metal storage	Pallet boxes stacked 2 x high	10-15	20-30	10-20	3 - 6 months

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Drawing No:	GIE/412/03
Revision:	-
Title:	SITE LAYOUT PLAN
Site:	Gardden Industrial Estate, Ruabon, Wrexham, Clwyd LL14 6RG
Client:	I Hayward Ltd
EAWML:	31762
Date:	15 December 2017
Job No:	3695
Drawn By:	CP
Checked:	--
Client No:	412
Scale:	1:500
Printed At:	A3

KEY:

- Permit boundary
- Permitted waste storage areas
- Concreted area
- Waste storage buildings
- Other buildings
- Hardstanding
- Unmade ground
- MH Manhole
- GU Gully
- Foul drainage
- Mains water (hose reels)
- Spill kits
- Fire fighting equipment (extinguishers, etc.)
- Fall direction arrows
- Smoking area
- Fire assembly point
- Plant shutoff
- Fire alarm

NOTES:

(1) Drawing is for indication only.
(2) All measurements must be verified on site.

Revision Details:

Rev:	Init:	Description:	Date:
-	CP	Initial drawing	15/12/17

Appendix II

Record Keeping Forms

I HAYWARD LTD
REJECTED WASTE - RECORD FORM IHL/RF/2

DATE	
TIME	
WASTE DESCRIPTION	
QUANTITY OF WASTE	
PRODUCER/HOLDER'S NAME, ADDRESS & TELEPHONE No.	
NAME OF CARRIER	
VEHICLE REGISTRATION	
CARRIER REG. No.	
REASON FOR REJECTION OF WASTE	
ACTION TAKEN	

I HAYWARD LTD

WASTE AND PRODUCT OUTPUT RECORD FORM - IHL/RF/3 **MONTH.....**

DATE	TIME	WASTE TYPE	QUANTITY (TONNES)	DESTINATION SITE	NAME OF CARRIER OR EMPLOYEE REMOVING WASTE	VEHICLE REG. NO.
TOTAL FOR THIS SHEET						
TOTAL FROM PREVIOUS SHEET				**SHEET No. OF . CHECKED.....**		
TOTAL WASTE EXPORTED						

I HAYWARD LTD
SITE INSPECTION FORM (DAILY INSPECTIONS) – IHL/RF/4

WEEK STARTING								
TYPE OF INSPECTION		**DAY**						
		M	**T**	**W**	**T**	**F**	**S**	**S**
SITE ENTRANCE/NOTICE BOARD								
SECURITY – GATES								
SECURITY – FENCING								
SITE ROADS (CLEAR FROM HAZARDS)								
IMPERMEABLE CONCRETE AREAS (INTEGRITY)								
DRAINAGE SYSTEM FOR CONCRETE PAD								
INTERCEPTOR/S (NOT CHECKED DAILY - DEPENDANT ON RAINFALL)								
WASTE CONTAINERS & BAY WALLS								
WASTE STORAGE LIMITS	WEEE							
WASTE STORAGE LIMITS	ELVs							
WASTE STORAGE LIMITS	METALS							
WASTE STORAGE LIMITS	HAZARDOUS							
CONTAINMENT OF REJECTED WASTE								
FIRES (ANY INCIDENTS REPORTED)								
NO SMOKING SIGNS IN PLACE								
FIRE FIGHTING EQUIPMENT								
GAS BOTTLE STORAGE								
HOT WORKS (CUTTING/WELDING)								
PLANT/EQUIPMENT MAINTENANCE CHECKS								
OFFICE/WELFARE FIRE RISKS CHECKED								
FUEL TANK/BUND								
LITTER (ON SITE AND OUTSIDE SITE BOUNDARY)								
DUST (VISUAL INSPECTIONS)								
ODOUR (OLFACTORY INDICATORS)								
VERMIN								
RECORDS								
COMPLAINTS RECEIVED								
OTHER (SEE NOTES BELOW)								
INSPECTION CARRIED OUT BY								

NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):

CHECKED BY		**SIGNATURE**	
POSITION		**DATE**	
Sheet		***of***	

I HAYWARD LTD

PREVENTATIVE MAINTENANCE CHECKLIST – IHL/RF/5

CHECKED BY	**POSITION**
DATE	**DATE OF LAST CHECKLIST**

	EQUIPMENT ITEM					
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

I HAYWARD LTD

EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW - IHL/RF/6

EMPLOYEE NAME					DATE					
POSITION					REVIEW DUE					
TRAINING CARRIED OUT BY										
POSITION										
TRAINING REQUIRED	GENERAL OPERATIVES		HGV DRIVER		PLANT OPERATOR		YARD MANAGER		TECHNICALLY COMPETENT MANAGER	
CARRIED OUT?	Y/N	SIGNED BY EMPLOYEE	Y/N	SIGNED BY EMPLOYEE	Y/N	SIGNED BY EMPLOYEE	Y/N	SIGNED BY EMPLOYEE	Y/N	SIGNED BY EMPLOYEE
SITE RULES AND INFRASTRUCTURE										
EMERGENCY PROCEDURES										
FIRE SAFETY/ FIRE FIGHTING										
RECOGNITION OF WASTE TYPES										
STORAGE AREAS/LIMITS										
RECORD KEEPING										
VEHICLE CHECKS (Preventative Maintenance)										
PLANT CHECKS (Preventative Maintenance)										
DUTY OF CARE WASTE TRANSFER NOTES										
PLANT OPERATION - LOADING PLANT										
PLANT OPERATION - TREATMENT PLANT										
MANAGEMENT SYSTEM & PERMIT										
OTHER 1 (PLEASE SPECIFY)										
OTHER 2 (PLEASE SPECIFY)										

I HAYWARD LTD
COMPLAINTS REPORT FORM (IHL/RF/7)

Date Recorded:	**Reference Number:**
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Environmental Management System (EMS)	
Date changes implemented	
Form completed by	
Signed	
Date completed	

COMPLAINT RECORDING PROCEDURE:

Any complaints received will be recorded on form IHL/RF/7. This form will normally be completed, signed and dated by the Site Manager; if they are not available the Office Manager will complete the form.

1) The name, address and telephone number of the caller will be requested.

2) Each complaint will be given a reference number.

3) The caller will be asked to give details of:

    a) the nature of the complaint;
    b) the time;
    c) how long it lasted;
    d) how often it occurs;
    e) Is this the first time the problem has been noticed; and
    f) what prompted them to complain.

4) The person completing the form will then, if possible, make a note of:

    a) the weather conditions at the time of the problem (rain, snow, fog etc.);
    b) strength and direction of the wind; and
    c) the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.

5) The reason for the complaint will be investigated and a note of the findings added to the report.

6) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

7) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact the Environment Agency and or the Local Authority.

Note: Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.

Appendix III

Copy of Environmental Permit

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

I. Hayward Limited

I Hayward Ltd
Gardden Industrial Estate
Ruabon
Wrexham
Clwyd
LL14 6RG

Permit number

EPR/EP3794FY

I Hayward Ltd
Permit number EPR/EP3794FY

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

This permit is for a metal recycling facility for the recovery of end of life vehicles, Waste Electrical and Electronic Equipment (WEEE) and wood.

There is one discharge point shown in the site plan in Schedule 7.

This permit will permit the sorting, separation, grading, shearing, shredding, baling, compacting, crushing, granulating and cutting of ferrous metals or alloys and non-ferrous metals for recovery. The total quantity of waste that can be accepted at a site under this permit must be less than 25,000 tonnes a year. The rules will not permit the burning of any wastes, either in the open, inside buildings or in any form of incinerator.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	**Date**	**Comments**
Waste Disposal Licence NOW-529-L issued	01/04/99	Permit for metal recycling facility issued to I. Hayward Limited.
EAWML 37162 (formerly NOW-529-L) modified	07/11/08	Variation to add WEEE conditions.
Application EPR/EP3794FY/V003 (variation and consolidation)	Duly made 30/08/12	Environment Agency Wales led variation to update the permit to modern conditions.
Variation determined EPR/EP3794FY	31/01/13	Varied and consolidated permit issued in modern condition format.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/EP3794FY

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

I. Hayward Limited ("the operator"),

whose registered office is

Gardden Industrial Estate
Ruabon
Wrexham
Clwyd
LL14 6RG

company registration number 0069258

to operate waste operations at

I Hayward Ltd
Gardden Industrial Estate
Ruabon
Wrexham
LL14 6RG

to the extent authorised by and subject to the conditions of this permit.

Name	Date
E Franks	31/01/13

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Avoidance, recovery and disposal of wastes produced by the activities

1.2.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

(b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.2 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table(s) S2.1 [, S2.2 etc]; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.4 Technical requirements

Vehicle depollution and dismantling

2.4.1 The storage (including temporary storage) and treatment of waste motor vehicles shall meet the requirements of article 6(1) of the End-of-Life Vehicles Directive.

WEEE treatment

2.4.1 The storage (including temporary storage) and treatment of WEEE shall be carried out in accordance with the technical requirements of Annex III of the WEEE Directive.

2.4.2 WEEE shall be treated using best available treatment, recovery and recycling techniques (BATRRT).

2.4.3 As a minimum, the substances, preparations and components specified in table 2.4 shall be removed from any separately collected WEEE.

Table 2.4 Substances, preparations and components to be removed from separately collected WEEE
• Capacitors containing Polychlorinated biphenyls (PCB) • Mercury-containing components, such as switches or backlighting lamps • Batteries • Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres • Toner cartridges, liquid and pasty, as well as colour toner • Plastic containing brominated flame retardants • Asbestos waste and components which contain asbestos • Cathode ray tubes • Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydro fluorocarbons (HFC), or hydrocarbons (HC) • Gas discharge lamps • Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps • External electric cables • Components containing refractory ceramic fibres • Components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and the Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation • Electrolytic capacitors containing “substances of concern” (height > 25mm, diameter > 25 mm or proportionately similar volume)

2.4.4 All fluids contained within any WEEE shall be removed prior to further treatment.

2.4.5 Separately collected components of WEEE specified in table 2.5 shall be treated in accordance with the methods specified in that table.

Table 2.5 Specified Treatment Methods for separately collected components of WEEE	
Component	**Specified Treatment**
Cathode ray tubes	The fluorescent coating shall be removed.
Gas discharge lamps	The mercury shall be removed.

2.4.6 Equipment shall be provided to record the weight of untreated WEEE accepted at, and components and materials leaving the site.

Waste battery and accumulator treatment

2.4.7 Treatment of waste batteries and accumulators must meet the minimum requirements set out in Annex III, Part A of Directive 2006/66/EC of the European Parliament and of the Council on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC.

Hazardous waste storage and treatment

2.4.8 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.5 Improvement programme

2.5.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.5.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Pests

3.5.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.5.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.6 Monitoring

3.6.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1

3.6.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.6.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.6.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Within one month of the end of each year, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous year.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2 ; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.3 Notifications

4.3.1 The Environment Agency shall be notified without delay following the detection of:

(a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;

(b) the breach of a limit specified in the permit; or

(c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities	
Description of activities for waste operations	**Limits of activities**
R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) **R4**: Recycling/reclamation of metals and metal compounds **R5**: Recycling/reclamation of other inorganic materials **R13**: Storage of waste pending any of the operations numbered R1 to R12	All treatment shall take place on impermeable surface with sealed drainage. Treatment operations shall be limited to: • sorting • separation • grading • shearing • shredding • baling • compacting • crushing • granulating • cutting into different components for recovery. Batteries shall be accepted on site for storage only. All batteries shall be stored in containers with an impermeable, acid resistant base and a cover. The maximum quantity of hazardous waste received and stored on site shall not exceed 10 tonnes per day. Waste liquids, Waste containing liquids shall only be stored, drained or handled on an impermeable surface with sealed drainage. Depolluted vehicles and clean uncontaminated metal shall be stored on hard standing or an impermeable surface with sealed drainage. Waste types as specified in Table 2.1

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
How to comply with your environmental permit	all	n/a

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IPC 1	The operator is required to provide an EMS in line with How to comply and H6 Environmental management systems guidance.	4 months from date of permit issue

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Permitted waste types and quantities for a metal recycling facility

Maximum quantity

The total quantity of waste accepted at the site shall be less than 25,000 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Odourous Wastes
- Biodegradable wastes
- Hazardous wastes other than those listed

Waste code	Description
02	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 10	waste metal
12	**WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS**
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 04	metallic packaging
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 01	**end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)**
16 01 04*	end-of-life vehicles
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 21*	hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 01 22	components not otherwise specified
16 02	**wastes from electrical and electronic equipment**
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 06	**batteries and accumulators**
16 06 01*	lead batteries
16 06 02*	Ni-Cd batteries
16 06 03*	mercury-containing batteries
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators

Table S2.1 Permitted waste types and quantities for a metal recycling facility

Maximum quantity

The total quantity of waste accepted at the site shall be less than 25,000 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Odourous Wastes
- Biodegradable wastes
- Hazardous wastes other than those listed

Waste code	Description
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 02	**wood, glass and plastic**
17 02 01	wood
17 02 04*	glass, plastic and wood containing or contaminated with dangerous substances
17 04	**metals (including their alloys)**
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
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**
19 01	**wastes from incineration or pyrolysis of waste**
19 01 02	ferrous materials removed from bottom ash
19 10	**wastes from shredding of metal-containing wastes**
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 02	ferrous metal
19 12 03	non-ferrous metal
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions (except 15 01)**
20 01 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 37*	wood containing dangerous substances
20 01 38	wood other than that mentioned in 20 01 37
20 01 40	metals

Schedule 3 – Emissions and monitoring

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Discharge point on site plan in schedule 7. (Interceptor discharge).	Suspended solids (mg/l) Metals (ug/l) Zinc (ug/l) Copper (ug/l) Lead (ug/l) pH Total Iron (mg/l) Petroleum Hydrocarbons	Site Interceptor	n/a	As agreed in writing with the Agency.	Annually. Additional samples may be requested (no more than 4 per year)	As agreed in writing with the Agency.
Upstream of Discharge point						
Downstream of Discharge point						

Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to water Parameters as required by condition 3.6.1	Discharge point (oil interceptor). Upstream of Discharge Point. Downstream of Discharge Point.	Every 12 months	1 January

Table S4.2 Reporting forms

Media/parameter	Reporting format	Date of form
Water and Land	Form water 1 or other form as agreed in writing by the Environment Agency	31/01/13

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

"Annex I" means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"Annex II" means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"best available treatment, recovery and recycling techniques" shall have the meaning given to it in the document published jointly by the Department for Environment, Food and Rural Affairs, the Welsh Assembly Government and the Scottish Executive on 27th November 2006, entitled "Guidance on Best Available Treatment, Recovery and Recycling Techniques (BATRRT) and Treatment of Waste Electrical and Electronic Equipment (WEEE);

"controlled substances" means chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1, 1, 1-trichloroethane, methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons listed in Annex I of Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer, including their isomers, whether alone or in a mixture, and whether they are virgin, recovered, recycled or reclaimed. This definition shall not cover any controlled substance which is in a manufactured product other than a container used for the transportation or storage of that substance, or insignificant quantities of any controlled substance, originating from inadvertent or coincidental production during a manufacturing process, from unreacted feedstock, or from use as a processing agent which is present in chemical substances as trace impurities, or that is emitted during product manufacture or handling.

"D" means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit..

"emissions to land" includes emissions to groundwater.

"*End-of-Life Vehicles Directive*" means Directive 2000/53/EC of the European Parliament and Council of 18 September 2000 on end-of-life vehicles.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"hazardous waste" has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No.894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No.895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"ozone-depleting substances" "ODS" means "controlled substances" contained in refrigeration, air-conditioning and heat pump equipment, equipment containing solvents, fire protection systems and fire extinguishers.

"R" means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

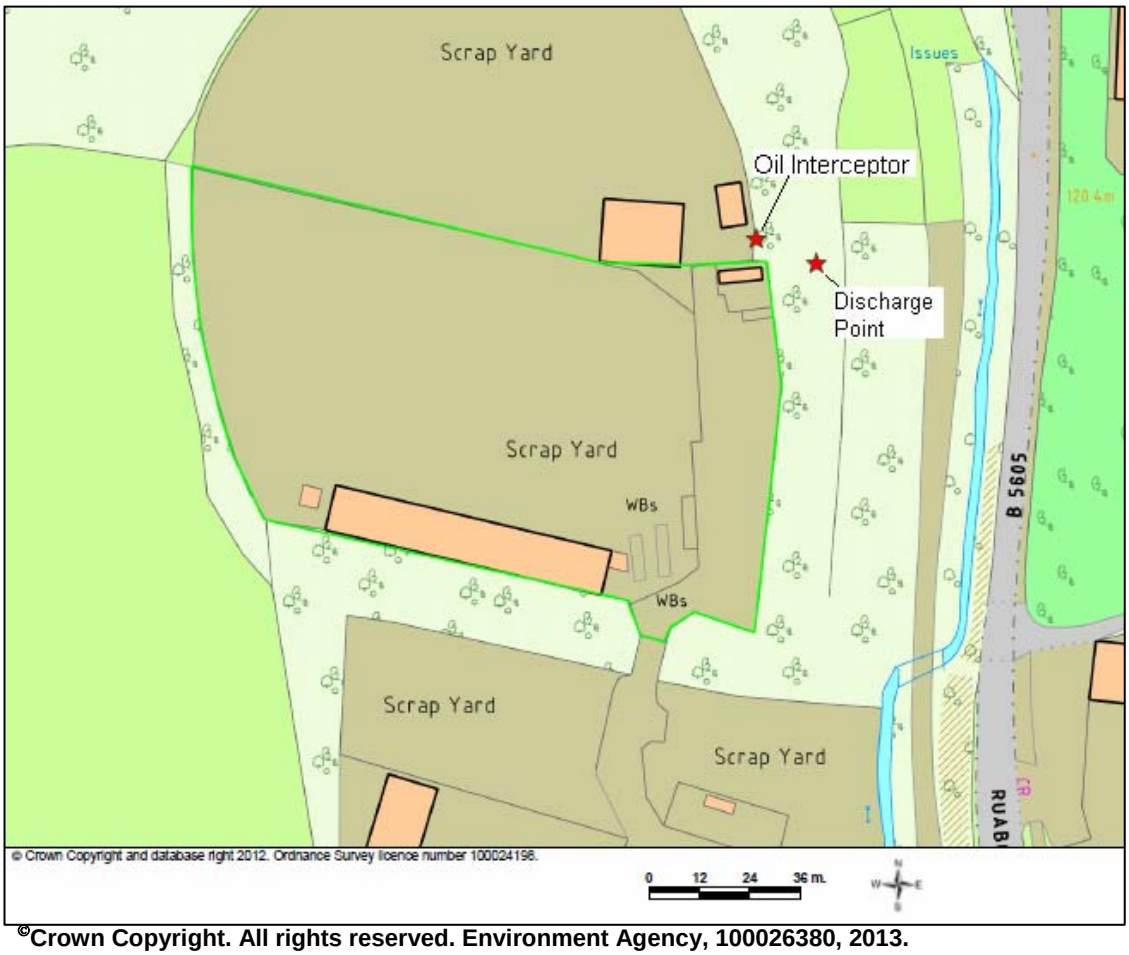
"Waste Framework Directive" or "WFD" means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

"WEEE Directive" means Directive 2002/96/EC of the European Parliament and of the Council of 27th January 2003 on waste electrical and electronic equipment (WEEE) as amended by Directive 2003/108/EC of the European Parliament and of the Council of 8th December 2003 on waste electrical and electronic equipment (WEEE).

"WEEE" means waste electrical and electronic equipment.

"year" means calendar year ending 31 December.

Schedule 7 - Site plan



END OF PERMIT

Permit Number: EP3794FY Operator: I. Hayward Limited
Facility: I Hayward Ltd Form Number: Water1 / 31/01/13

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY **to** DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
Discharge Point	Suspended solids (mg/l)	n/a	As agreed, in writing, with the Agency.		As agreed, in writing, with the Agency.		
	Metals (ug/l)	n/a					
	Zinc (ug/l)	n/a					
	Copper (ug/l)	n/a					
	Lead (ug/l)	n/a					
	pH	n/a					
	Total Iron (mg/l)	n/a					
	Perroleum Hydrocarbons	n/a					
Upstream and Downstream of Dischage Point	Suspended solids (mg/l)	n/a	As agreed, in writing, with the Agency.		As agreed, in writing, with the Agency.		
	Metals (ug/l)	n/a					
	Zinc (ug/l)	n/a					
	Copper (ug/l)	n/a					
	Lead (ug/l)	n/a					
	pH	n/a					
	Total Iron (mg/l)	n/a					
	Perroleum Hydrocarbons	n/a					

1. The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

2. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed …….. Date……..
(Authorised to sign as representative of Operator)

Appendix IV

Health & Safety – Conditions of Site Use

HEALTH AND SAFETY - CONDITIONS OF SITE USE

The following guidelines apply to all site personnel, contractors and visitors using the site (where applicable).

1) The site is covered by the Health and Safety at Work Act 1974 and its associated regulations and all users must abide by any relevant provisions. Any person found to be in contravention of the requirements of this Health and Safety Statement will be asked to leave the site.

2) All visitors and contractors must sign the visitor's book upon entry to and exit from the site. All vehicle drivers must report to the office and await instruction from the site manager/deputy before proceeding to deposit waste at the site.

3) All accidents, diseases, injuries or dangerous occurrences shall be reported to the site manager. All instructions issued by the site manager in respect of health and safety at the site must be followed by all site users.

4) A first aid box (including eye-wash bottles) is kept in the site office. If you are injured on site please alert a member of staff/trained first-aider for assistance.

5) All persons must wear the appropriate PPE on site including high visibility jackets and hard hat.

6) Safety boots must be worn by all persons in the waste sorting/storage areas.

7) Protective gloves must be worn for any operations which present a hazard of puncture to or laceration of the skin or for any manual handling work carried out on site.

8) Ear defenders, safety helmets (hard hats) and eye protection will be issued when deemed necessary and must be worn by all employees and contractors where required by the site manager or other site representatives.

9) Fire extinguishers are kept on site to deal with any fires - fires shall only be dealt with by employees of I Hayward Ltd unless alternative instructions are given by the site manager. Access to fire exits and firefighting equipment must be kept clear at all times. When the fire alarm sounds please follow instructions and leave the site in an orderly fashion.

10) Persons who are suspected to be under the influence of drugs or alcohol will be removed from the site.

11) Smoking is not permitted on the site.

12) Observe and follow all traffic directions and traffic/safety signs.

13) Drivers must comply with all safety instructions given by the site manager or appointed deputy.

14) All drivers are responsible for ensuring that their vehicle is safely loaded. Unsafe loads will not be accepted at the site and will not be allowed to leave the site until they have been made safe.

15) Drivers waiting to tip at the recycling centre shall follow the instructions of the operator and shall only tip in the designated area, unless advised otherwise. No tipping shall take place over sorted stockpiles.

16) Drivers must remain in the cab or stand well clear of the vehicle during loading or tipping. Once the vehicle has been loaded it must be securely sheeted (if necessary) before leaving the site. When sheeting and unsheeting the vehicle ensure that the engine is switched off, the ignition key removed and the parking brake is on. Do not gain access using the mudguards and wheels. Ensure that your ropes, hooks and sheets are in good condition.

17) Never travel with the vehicle body raised. Ensure you know the maximum height of the raised body of your vehicle.

Declaration: To be completed by site users

I have read and understand the conditions of use for this site and agree to comply with them at all times. I accept that neither I Hayward Ltd nor their employees shall be liable for any loss or injury arising from my non-compliance with the above conditions.

Signed..... Print name.....

Company/Organisation..... Date.....

Note: these conditions are included in the EMS for information only and may be revised regularly as part of the site health and safety policy.

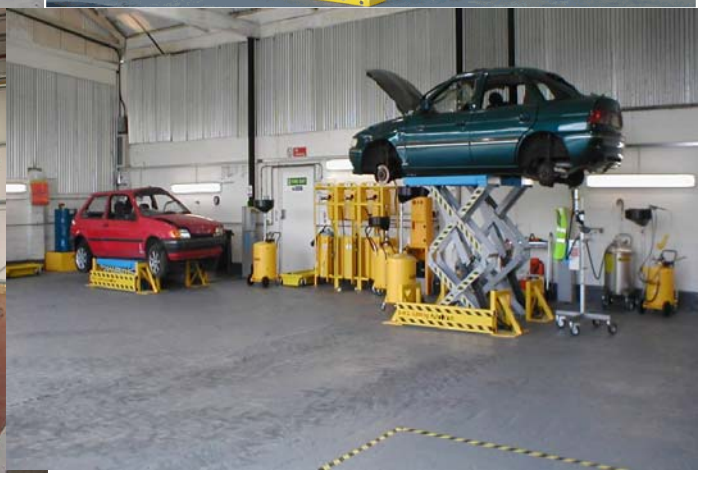
Appendix V

Depolluting End-of-Life Vehicles (cars and light goods vehicles) Guidance for Authorised Treatment Facilities March 2011

Depolluting End-of-Life Vehicles (cars and light goods vehicles) Guidance for Authorised Treatment Facilities

March 2011



defra
Department for Environment Food and Rural Affairs

BIS Department for Business Innovation & Skills

This guidance document provides advice to Authorised Treatment Facilities (ATFs) on how to depollute passenger cars and light goods vehicles in accordance with the requirements of the End-of-Life Vehicles Regulations (and parallel legislation in Scotland and Northern Ireland), which implement elements of the End-of-Life Vehicles Directive (2000/53/EC). The guide was originally commissioned by DEFRA and DTI (now BIS) from AEA Technology Environment and Universal Vehicle Services. Jema Associates Ltd and David Hulse Consultancy Ltd updated it in December 2005, to reflect latest best practice and to draw upon practical experience gained in the depollution phase of the DTI/CARE shredder trial carried out at GW & G Bridges in June 2005.

This second edition of the guidance incorporates further updates, reflecting the latest available information regarding treatment of airbags and LPG (Liquefied Petroleum Gas) cars. The section on LPG Tanks (4.10) has been expanded.

This guidance does not seek to prescribe how a particular depollution activity should be carried out. There will be safety issues surrounding the carrying out of any depollution activity (see in particular section 1.2 below). Neither Defra nor BIS will accept any liability for death, personal injury or any other damage howsoever arising as a result of undertaking any of the depollution activity covered by this guidance.

Contents

1 Introduction

Between 1.5 and 2 million end-of-life vehicles (ELVs) are generated each year in the UK. These ELVs are classified as hazardous waste, and must be depolluted to certain standards, as a consequence of European and UK legislation, prior to dismantling, crushing, or shredding. All facilities treating ELVs are covered by this legislation.

This brochure contains generic guidance on how to depollute waste passenger cars and light goods vehicles in accordance with the requirements of the End-of-Life Vehicles Regulations. If you carry out the procedures in this guidance, then you should have depolluted an ELV sufficiently for it to be considered to be non-hazardous waste. The same outcome can be achieved even if you do not use these particular guidance methods, provided you have ensured that you can demonstrate the same levels of depollution. Non-destructive methods of removing hazardous components may be carried out, provided that component integrity is not compromised. Additional, model-specific guidance can be found in IDIS, the International Dismantling Information System, published by the Vehicle Manufacturers. (See section 3.2.)

A system for recording the quantity of fluids and other items which have been removed must be in place. The information which is thereby recorded will enable regular reports to be provided to waste regulators and will be needed for the annual reports on ELV recovery and recycling target compliance, as required by the End-of-Life Vehicles (Producer Responsibility) Regulations 2005 and 2010.

This guidance initially briefly covers:

The relevant legislation on ELVs and hazardous waste;
Health and safety considerations;
Equipment and facilities.

The depollution operations which must be conducted to meet the requirements of the legislation are then described.

The depollution procedure is only one stage in the overall process required to treat an ELV. Other operations, such as associated administrative activities, and complying with all existing legislation relating to these activities, still need to be carried out, but are not discussed in this guidance document.

1.1 LEGISLATION

1. The EU End-of-Life Vehicles (ELV) Directive (2000/53/EC), the ELV Regulations 2003, 2005 and 2010 and parallel regulations in Scotland and Northern Ireland
2. The updated versions of both the European Waste Catalogue (EWC) and Hazardous Waste List (HWL) (Commission Decision 2000/532/EC) (the List of Wastes Decision) and its subsequent amendments.

1.2 END-OF-LIFE VEHICLES DIRECTIVE

The ELV Directive introduces measures to promote and increase recycling and to further protect the environment by requiring adequate depollution (e.g. draining of fluids such as engine oil) and sets minimum technical requirements for the treatment of ELVs. Following the introduction of the End-of-Life Vehicles Regulations 2003 (Statutory Instrument 2003, No.2635), ELV treatment facilities carrying out depollution need to be permitted as "authorised treatment facilities" (ATFs) by the Environment Agencies, by holding a permit under the Environmental Permitting (England and Wales) Regulations 2010 or a licence under parallel legislation in Scotland and Northern Ireland. In each case, these pieces of environmental legislation have a wider scope than the ELV Regulations, in that their scope is not restricted to facilities treating only cars and light goods vehicles.

The End-of-Life Vehicles (Producer Responsibility) Regulations 2005 (Statutory Instrument 2005, No.263) implement the producer responsibility, recovery, recycling and associated reporting aspects of the ELV Directive. The two sets of End-of-Life Vehicles Regulations 2010 (Statutory Instruments 2010 No.1094 and 1095) updated the 2003 and 2005 End-of-Life Vehicles Regulations in certain respects.

The depollution requirements of the ELV Directive are given below.

Extract from ANNEX I

Minimum technical requirements for treatment in accordance with Article 6(1) and (3)

3. Treatment operations for depollution of end-of-life vehicles:

- removal of batteries and liquefied gas tanks,
- removal or neutralisation of potential explosive components, (e.g. air bags),
- removal and separate collection and storage of fuel, motor oil, transmission oil, gearbox oil, hydraulic oil, cooling liquids, antifreeze, brake fluids, air-conditioning system fluids and any other fluid contained in the end-of-life vehicle, unless they are necessary for the re-use of the parts concerned,
- removal, as far as feasible, of all components identified as containing mercury.

The individual hazardous components and materials removed during depollution should be kept separate.

Clearly, ATFs need to remain vigilant for any other hazardous materials or items that might be encountered in the course of their operations.

1.3 LIST OF WASTES DECISION

The European Waste Catalogue (EWC) and Hazardous Waste List (HWL) were first published in 1994. These are used for the classification of all wastes and hazardous wastes, and are designed to form a consistent waste classification system across the EU. They form the basis for all national and international waste reporting obligations, such as those associated with waste licences and permits, and the transport of waste.

Updated versions of both the European Waste Catalogue and Hazardous Waste List were published as a homogenised list of hazardous and non-hazardous wastes in 2001, and came into force on 1 January 2002. The List of Wastes Decision includes ELVs (Category 16 01) and lists a number of hazardous wastes in this category. It has been implemented by the List of Wastes (England) Regulations 2005 (as amended), the List of Wastes (Wales) Regulations 2005, the List of Wastes Regulations (Northern Ireland) 2005 and, in Scotland, by the Special Waste Regulations 1996 (as amended). This list is more comprehensive than that in the ELV Directive, and also applies to all vehicles. The ELV Directive only applies to a specified range of vehicles, by reference to European Whole Vehicle Type Approval legislation. This means vehicles designated as M1 (passenger vehicles comprising no more than 8 seats, in addition to the drivers seat) and N1 (vehicles used for the carriage of goods, having a technically permissible maximum mass not exceeding 3.5 tonnes).

Although the List of Wastes Decision could be interpreted as implying that, for example, every drop of engine oil must be removed in order to classify an ELV as non-hazardous, the cost for achieving this would be high. More importantly, there is likely to be little additional environmental benefit in removing the very small quantity of oil which is likely to remain in practice. Consequently, this guidance document has been prepared based on practical trials that have been shown to achieve an acceptable level of decontamination, which would meet the requirements of both the ELV Directive and the List of Wastes Decision.

1.4 HEALTH & SAFETY CONSIDERATIONS

Vehicle depollution will involve removing fluids and components which may be either explosive or corrosive. The main legislation covering this area includes:

The Management of Health & Safety at Work Regulations 1999 – these impose a duty on employers (and the self-employed) to make a suitable and sufficient assessment of the risks faced by employees at work and by other persons arising out of the work carried out by the employer, to inform employees of the risks, and to prepare emergency procedures.

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) – these impose a duty on employers (and the self-employed) to prevent employees (or the self-employed) from being exposed to hazardous substances (or where that is not reasonably practicable, to adequately control such exposure) as well as other persons who may be affected by the work carried out by the employer.

The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) – these cover risks of fire and explosion from hazardous substances. They also cover storage.

The Manufacture and Storage of Explosives Regulations 2005 – these require the licensing of storage of certain explosives; appropriate measures to prevent fire or explosion; limiting the extent of any fire or explosion should one occur; and protecting persons in the event of a fire or explosion.

Operators removing or deploying Airbags and other pyrotechnic devices should be properly trained in order to reduce the risk of injury.

From July 4, 2010, operators undertaking the removal of Air Conditioning fluids/gases must be formally qualified under the “F Gas Regulation” (EC No. 307/2008), implemented through the Fluorinated Greenhouse Gases Regulations 2009, which has both safety and environmental implications.

Operators treating LPG powered vehicles should be suitably trained and refer to the guidance in this document.

Hybrid or Electric Vehicles contain a high voltage battery system, which requires special attention to avoid the risk of injury by electrocution. Operators treating these vehicles should be properly qualified and should refer, as a minimum, to the guidance on page 14 of this document, as well as the vehicle manufacturers’ guidance in IDIS.

Further guidance on health and safety considerations can be obtained in the Health & Safety Executive’s leaflets and guides http://www.hse.gov.uk/waste/dismantling.htm. Relevant guidance includes: Reducing Ill Health and Accidents in Motor Vehicle Repair (INDG356); Health and Safety in Motor Vehicle Repair and Associated Industries (HSG261); The Safe Recovery of Petrol from End of Life

Vehicles (WASTE10); Safe use of Petrol in Garages (INDG331); A Guide to the Handling and Storage of Airbags and Seat Belt Pre-Tensioners at Garages and Motor Vehicle Repair Workshops (INDG280); Safe Working with Vehicle Air-Conditioning Systems. The Dos and Don'ts (INDG349); Using Electric Storage Batteries Safely (INDG139); and LPG-Fuelled Motor Vehicles (INDG387).

1.5 EQUIPMENT

It is recommended that depollution activities are conducted using equipment which has been specifically designed for carrying out the required depollution operations. The use of such equipment ensures that a high level of depollution (removal, as far as reasonably practicable, of most fluids contained in the ELV) can be achieved in a relatively short time-frame (20-30 minutes per ELV).

ATFs may decide to use alternative methods to achieve the same levels of depollution, but health and safety requirements should never be compromised. An assessment of the risks involved in using alternative methods of depollution must be carried out and measures necessary to comply with relevant health and safety legislation put in place. In addition, if alternative methods are used, these will need to be able to demonstrate that at least the same level of depollution has been achieved.

The majority of commercially available equipment is usually operated pneumatically. Consequently, the compressor used to power this equipment must have sufficient capacity to ensure that the equipment can operate satisfactorily.

1.6 FACILITIES

Sites for ELV treatment and storage (including temporary storage) of end-of-life vehicles prior to their treatment must have:

Sites for Storage
impermeable surfaces for appropriate areas with appropriate spillage collection facilities, decanters and cleanser-degreasers.
equipment for the treatment of water, including rainwater.

Sites for Treatment
impermeable surfaces for appropriate areas with appropriate spillage collection facilities, decanters and cleanser-degreasers.
equipment for the treatment of water, including rainwater.
appropriate storage for dismantled spare parts, including impermeable storage for oil-contaminated spare parts.

appropriate containers for storage of batteries (with electrolyte neutralisation on site or elsewhere), oil filters unless crushed, PCB/PCT containing condensers and any hazardous components identified in IDIS.
appropriate storage tanks for the segregated storage of end-of-life vehicle fluids.
appropriate storage for used tyres, including the prevention of fire hazards and excessive stockpiling.

Storage operations are to be carried out avoiding damage to components containing fluids or to recoverable components and spare parts.

DEFRA guidance notes covering this part of the ELV regulations can be found at
http://www.defra.gov.uk/environment/waste/topics/pdf/elv-guidance.pdf

The health & safety implications of storing large quantities of hazardous and/or highly flammable materials need to be properly assessed in consultation with the Health & Safety Executive, and the Environment Agencies should be consulted on any environmental implications.

NOTE: If pyrotechnics, e.g. airbags, are removed and stored, an explosives licence and suitable storage facilities will be required. Refer to HSE booklet HSG184 for guidance.

Employers are encouraged to seek specific training, as necessary, for each depollution process and general health and safety. Site managers should also be aware of the requirement to put in place a suitable Health & Safety policy and carry out the risk assessments required.

2 Example of the depollution process

In order to depollute an ELV, a number of operations have to be conducted. An example sequence is shown in Table 1 and the Process Flow Diagram. This was developed from practical trials using one make of proprietary equipment. As a different sequence of operations may be more suitable for other types of equipment, treatment facilities can develop an alternative sequence. However, if a different sequence of operations is developed, this alternative sequence should recognise that it can typically take up to 20 minutes within the sequence for gravity draining of the engine oil.

Table 1 indicates whether an individual operation is best conducted from either above or below the ELV.

Table 1 - Possible depollution sequence

Above / Below (A/B) vehicle	**Operation**
A	Remove battery
A	Remove fuel filler cap and oil filler cap
A	Set heater to maximum
A	Remove wheels and tyres and separate balance weights
A	Remove any parts identified as containing mercury
Put vehicle onto depollution frame or lifting device	
B	Drain engine oil and remove oil filter for crushing or disposal
B	Drain transmission oil, including rear differential if applicable
A	De-gas air conditioning unit (if fitted)
B	Drain coolant
B	Drain brake fluid
B	Remove catalyst (if fitted)
A	Drain washer bottle
A	Drain brake/clutch reservoir(s)
A	Drain power steering reservoir (if fitted)
B	Drain fuel tank
B	Drain shock absorbers or remove suspension fluid
B	Replace drain plugs/fit plastic stoppers
Remove vehicle from depollution frame or lifting device	
A	Deploy airbags and other pyrotechnics in-situ (if fitted and able to conduct this operation)
A	Remove air bags and other pyrotechnics (if fitted, and can not be deployed in-situ)

Although a number of the below-vehicle operations can be conducted in parallel, the sequence of operations shown in Table 1 maximises the time for gravity draining of the engine oil.

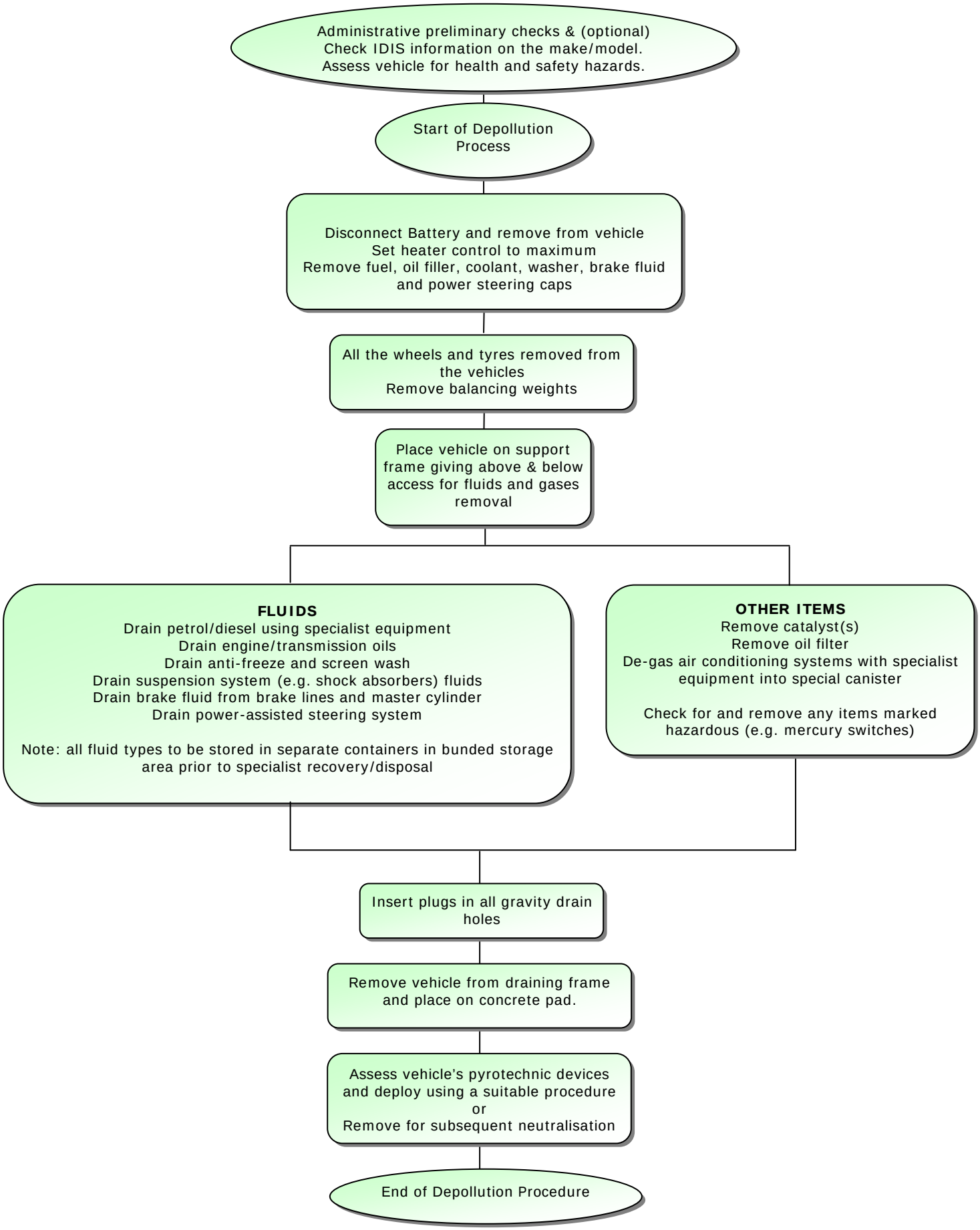
Removal of the wheels/tyres is not a depollution requirement (but removal of lead balancing weights is required). However, removal of the wheels will allow better access for draining of the shock absorbers; depending on the type of equipment being used, it may be easier to perform the above-vehicle depollution activities (such as removal of screen washer fluid) at ground level before the wheels are removed. Tyre removal depends on the individual shredder receiving the depolluted ELV hulks. Only if the shredder can guarantee the removal of tyre material by post shredder technology can tyres be left on the rims – since there has been a ban on the landfilling of shredded tyres since July 2006. Otherwise, tyres must be removed. Of course, tyres can provide a useful contribution of around 3% towards the 85% reuse, recycling and recovery target requirement, set down in the 2005 ELV Regulations.

The depollution sequence shown in Figure 1 and Table 1 can be represented as 3 stages:

- Preliminary activities
- Removal of fluids and other items
- Removal or deployment of air bags

The procedures required to complete each stage are described in the remaining sections of the manual.

After each depollution operation has been conducted, the fluid or item which is removed must be transferred to a suitable storage facility as soon as possible.


Administrative preliminary checks & (optional)
Check IDIS information on the make/model.
Assess vehicle for health and safety hazards.
Start of Depollution Process
Disconnect Battery and remove from vehicle
Set heater control to maximum
Remove fuel, oil filler, coolant, washer, brake fluid and power steering caps
All the wheels and tyres removed from the vehicles
Remove balancing weights
Place vehicle on support frame giving above & below access for fluids and gases removal
FLUIDS
Drain petrol/diesel using specialist equipment
Drain engine/transmission oils
Drain anti-freeze and screen wash
Drain suspension system (e.g. shock absorbers) fluids
Drain brake fluid from brake lines and master cylinder
Drain power-assisted steering system
Note: all fluid types to be stored in separate containers in bunded storage area prior to specialist recovery/disposal
OTHER ITEMS
Remove catalyst(s)
Remove oil filter
De-gas air conditioning systems with specialist equipment into special canister
Check for and remove any items marked hazardous (e.g. mercury switches)
Insert plugs in all gravity drain holes
Remove vehicle from draining frame and place on concrete pad.
Assess vehicle's pyrotechnic devices and deploy using a suitable procedure
or
Remove for subsequent neutralisation
End of Depollution Procedure

3 Preliminary activities

These activities prepare the ELV for the next stage of the process (removal of fluids and other items). The activities which need to be conducted are:

3.1 Assess vehicle for health and safety hazards
3.2 Use IDIS or other manufacturer guidance to obtain depollution information on the ELV, if required
3.3 Determine if ELV has airbags
3.4 Remove battery
3.5 Remove fuel, oil, and other filler caps
3.6 Set heater control to maximum
3.7 Remove wheels/tyres
3.8 Remove balance weights from wheels
3.9 Prepare Electric/Hybrid Vehicles for treatment

All of these activities need to be conducted before the ELV is placed on a support frame or lifting device to enable the below-vehicle activities to be conducted.

All required administrative procedures should be completed before any of the preliminary activities are conducted.

3.1 CHECK FOR HAZARDS

Inspect the vehicle for presence of hazardous items such as glass, hypodermic needles and other biological contamination or fire damage, which might affect the way in which its treatment should be handled. Check for and remove any foreign material such as gas cylinders.

3.2 USE OF IDIS

IDIS (the International Dismantling Information System) has been developed by vehicle manufacturers and provides information on both the depollution and dismantling of ELVs. IDIS should be consulted to obtain information on any specific depollution procedures which may be required, and to obtain information on procedures for removal or in situ deployment of air bags.

The information provided in IDIS is regularly updated. Treatment facilities must ensure that they are using the latest version. (Check IDIS web site: www.idis2.com)

Note: IDIS is one method of obtaining depollution information but is not the only method. Appropriate information should be sought from wherever suitable.

3.3 DETERMINE BY INSPECTION IF THE ELV CONTAINS AIRBAGS

The number of air bags in an ELV can range from 1 (in the steering wheel) to more than 10. Some of these may have already been deployed if the vehicle has been classified as an ELV as a result of damage sustained during an accident.

If a visual inspection identifies that the ELV does contain one or more airbags, and these have not been deployed, then these will have to be either removed for subsequent detonation/disposal or deployed in situ.

It is recommended that, where possible, air bags are deployed in situ using suitable equipment and that all persons deploying airbags attend a suitable training course.

The removal and deployment of airbags are described in Section 5 of this guidance document.

3.4 REMOVE BATTERY

The SLI (starting, lighting, ignition) battery must be removed, for health and safety reasons (prevention of possible electrical discharge igniting fuel), before the fuel tank is depolluted. The battery is easily removed with standard tools.

IMPORTANT NOTE: If the vehicle is Electric Powered or a Hybrid, please refer to the additional guidance on page 13 and the manufacturer's instructions where available.

3.5 REMOVE OR OPEN FILLER CAPS

The fuel, oil filler and other caps should be either removed or opened. This enables the fuel, oil and other fluids to be drained more easily.

3.6 HEATER CONTROLS

In order to ensure that coolant in the heater unit can be drained, the heater controls must be set at the position which would provide the maximum amount of heat.

As there may be health and safety concerns regarding sitting in the vehicle to conduct this operation, it should be done by reaching into the vehicle.

3.7 REMOVE WHEELS AND TYRES

Removing the wheels and tyres will improve access to brakes and shock absorbers for depollution. When removing tyres from rims, the operatives' exposure to dust may be reduced by deflating the tyre first, either by removing the valve, or by piercing the sidewall with a suitable tool if the tyre is not intended for reuse or retreading.

3.8 REMOVE WHEEL BALANCING WEIGHTS

For all wheels, including the spare wheel, any balancing weights must be removed from the wheels and placed in a suitable storage container for recycling. There is a prohibition on the new fitment of lead weights, but there will continue to be a mixture of lead and other materials on wheels for some time as this provision works through, and they will be more easily sorted once removed.

3.9 ELECTRIC/HYBRID VEHICLES

These vehicles contain a High Voltage Electrical System and have particular dismantling requirements for the treatment of the high voltage system before the vehicle can be treated as a regular ELV. It is important to recognize and understand the High Voltage Electrical System and its specifications for safe handling of the ELV.

HYBRID components that have not been dismantled may present a significant risk of injury to people due to their highly energetic properties and because of the potentially hazardous materials they contain. They may also constitute an environmental hazard if their contents are accidentally released. When dismantling any HYBRID components from the vehicle it is essential to use utmost care and to comply with the important safety warnings listed in this document and in IDIS.

Identifying a Hybrid Vehicle

Each manufacturer has their specific identification method for Hybrid Vehicles. Please refer to the manufacturer specific information for further information where available.
There are several common ways for manufacturers to indicate a Hybrid Vehicle model:

- Vehicle Identification Number (VIN). This number is given by the manufacturer and may indicate model specifications such as the use of a High Voltage Electrical System. You must refer to manufacturer specific information to locate and read the information contained in the VIN;
- Logos/ trademarks located on the exterior or engine compartment of the vehicle indicating use of Hybrid Technology. Specific to each manufacturer;
- Instrument cluster (power meter/battery surveillance device) located in the dash.

3.9.1 General Safety Instructions for Dismantling of HYBRID Components

HYBRID components should only be disassembled by suitably qualified personnel who must follow appropriate procedures defined by the manufacturer, which may be found in IDIS. Care must be taken to ensure that the HYBRID components identified by the vehicle manufacturer are dismantled and recovered.

Vehicle dismantlers must ensure that all employees handling HYBRID components familiarise themselves with this generic guidance and any additional information that may be provided in the manufacturer specific documents. All relevant health and safety regulations together with the vehicle manufacturers' instructions for the handling and safe treatment of the vehicle itself and the HYBRID components must be observed.

High voltage electricity is contained in a battery pack (commonly referred to as an HV battery pack) and generally powers an electric motor, generator, electric inverter compressor (for air conditioner) and inverter, in today's hybrid electric vehicles. The voltage of the battery pack will vary according to the manufacturer. Current models may have up to several hundred volts. There is also a normal 12 volt car battery, which is used to power other low voltage electrical devices such as the radio, horn, headlamps, and instrument cluster gauges.

3.9.2 Turn off the vehicle

Hybrid Vehicles must be turned off in three separate steps:

a) Turn off the engine.

b) Disconnect the cables from the conventional 12V car battery.

c) Isolate the High Voltage Electrical System by removing the service plug or turning off the isolation switch (manufacturer specific). If the service plug/switch is not accessible or visible, please see manufacturer specific information or IDIS.

By waiting for 10 minutes after removing the service plug or turning off the switch, the high voltage system is shut off or discharged so there is no high voltage outside the battery pack. However, the battery itself located inside the battery pack still keeps its voltage. After removing the HV battery, do not reinstall the service plug.

3.9.3 Disconnection and Removal of the High Voltage Battery Pack

Before disconnecting the high voltage cable terminals, make sure that the voltage between the terminals is at 0 Volts with a voltmeter.

a) Disconnect the HV battery connection cables from the HV battery.

b) Insulate the vehicle HV battery connection cables using electrical insulation tape (to prevent short circuiting).

c) Consult the manufacturer specific information in IDIS for removal of the battery pack.

Once the battery pack has been removed, the vehicle can be dismantled in the normal way.

3.9.4 High Voltage Battery Storage

a) Store the Battery Pack where the batteries are kept dry and are not exposed to high temperatures
b) Protect batteries from being damaged (punctured or crushed).
c) Batteries should be stored by battery type (e.g. NiMH), according to national legislation (not mixed with lead acid batteries).

3.9.5 Recycling of Batteries

Waste propulsion batteries in Hybrid Vehicles are classified as “industrial” under the Waste Batteries and Accumulators Regulations 2009, which prohibit their disposal by landfilling or incineration, and require their recycling via Approved Battery Treatment Operators or Approved Battery Exporters. Details of the UK “producer responsibility” regime for industrial, and other types of batteries can be found on the BIS website at www.bis.gov.uk.

4 Removal of fluids and other items

The activities which need to be conducted are:

Fluids	Other items
Drain engine oil and remove oil filter	Remove catalyst (if fitted)
Drain transmission oils	Drain air conditioning refrigerant (if fitted)
Drain coolant	Remove LPG tank (if fitted)
Drain hydraulic oils	Identify and remove items containing mercury
Drain screen-washing fluid	Identify and remove other hazardous items
Drain fuel tank	
Drain suspension system/shock absorbers	

All fluids of differing types (e.g oils, water-based etc.) which are removed will need to be stored in separate containers in a bunded storage area prior to specialist recovery or disposal. As a minimum, separate containers will be required for fuels (petrol and diesel separate); oils (lubricating, transmission, power steering and shock absorber oils together); brake fluid (separate); and water based (coolant and screenwash together). (The Waste Oils Directive seeks to promote the regeneration of oils, and any mixing of other fluids with oils may restrict this possibility.)

The ELV will need to be placed on a support frame or lifting device, to allow easy access below the vehicle, before a number of these operations can be conducted. It is preferable that the device should be adjustable to suit the height of the operator. Although access to the underneath of a vehicle could be provided by placing it above a pit, there are health and safety issues with this approach, particularly with regard to possible build-up of fuel vapour in the pit (and hence risk of explosion/fire) during the depollution procedure. Consequently, the vehicle must be placed on a support frame which enables easy access to the underside of the vehicle at ground level. Care should also be taken to avoid any vapour build up in floor mounted drip trays.

The first activity to be conducted is to start draining of the engine oil. Other activities can be conducted in parallel, but the engine oil can typically take 20 minutes to reach the point where no further draining is visible.

It is recommended that depollution activities are conducted using equipment which has been specifically designed for carrying out the required depollution operations. The use of such equipment, while not essential, ensures that a high level of depollution can be achieved in a relatively short time frame (20-30 minutes per ELV).

The guidance presented in this section of the document describes the procedures which need to be conducted in order to achieve the required level of depollution. The instructions provided with any commercial equipment being used must also be followed in order to ensure that this level of depollution is achieved.

After depollution, all gravity-drained holes must be plugged, either with their own drain plug or a suitable plastic bung, to prevent any residual leakage.

4.1 ENGINE OIL

This is gravity-drained by removing the drain plug at the bottom of the sump and collecting the oil. If commercially available equipment for collecting the oil is not used, the oil should be collected in a suitable container which has a minimum volume of 10 litres.

The oil must be allowed to drain for a minimum of 20 minutes from the engine, or until such time as no visible further draining of oil is occurring.

4.1.1 Oil filter

The oil filter must be removed. This should be done by using a suitable spanner/tool which does not puncture the oil filter during removal.

The oil filter must be treated to remove residual oil. This can be achieved by crushing the filter and recovering the oil. Commercial equipment which performs this function is available. Alternatively, the oil filters can be sent to a suitable treatment facility using leakproof transit packaging.

4.2 TRANSMISSION OILS

Transmission oil is contained in both manual and automatic gearboxes, and in the rear axle differential of rear wheel drive vehicles.

4.2.1 Manual gearbox

If the gearbox has a drain plug, it can be gravity-drained by removing the drain plug and collecting the oil in a suitable container which has a minimum volume of 5 litres.

The oil must be allowed to drain for a minimum of 10 minutes with no visible further draining occurring.

Gearboxes which do not have a drain plug must be drained by drilling or piercing a suitably sized hole in the bottom of the gearbox. Commercial equipment includes a suitable drill or punch, provides suction to assist in draining the gearbox, and collects the oil without the need for a container underneath the gearbox.

Such commercial equipment can also be used to drain gearboxes that do have a drain plug.

4.2.2 Automatic gearbox

Oil has to be drained from both the gearbox and the torque converter. These may be combined in a single unit, but the torque converter on some types of gearboxes is separate from the main gearbox unit.

The procedure for draining these is the same as for a manual gearbox.

4.2.3 Rear differential

Most modern cars are front wheel drive and so do not have a rear differential unit. However, many small commercial vans and some larger cars have rear wheel drive.

The procedure for draining these is the same as for a manual gearbox. Those that do not have a drain plug may be drilled or, alternatively, the differential flange may be loosened and prised open to allow the oil to drain.

4.2.4 Power steering oil

If the ELV has power steering, fluid has to be extracted from both the reservoir and the connecting hose. Equipment similar to that used to extract brake fluid from the brake reservoir (see below) can be used to extract fluid from the power steering oil reservoir. Fluid is then removed by piercing the hose and sucking out the fluid or cutting it at the lowest point and allowing the fluid to gravity drain.

4.3 HYDRAULIC OILS

All ELVs contain brake fluid. A small number of older vehicles may also have a hydraulic clutch.

4.3.1 Brake fluid

Commercial equipment uses pressure and suction on both the reservoir and the brake pipes and cylinders (fluid is sucked from the bleed nipples) to remove the fluid. Brake fluid could also be removed from an ELV by opening the brake bleed nipples and then pumping the brake pedal until

the reservoir is emptied (the fluid would be discharged through the open nipples). However, there are health and safety concerns relating to an operative sitting in an ELV, and this approach removes a lower percentage of brake fluid than commercially-available equipment. Consequently, in order to achieve the required percentage of removal, brake fluid should be removed using equipment which uses suction and/or pressure on both the reservoir and the brake pipes and cylinders.

Drainage time of 10 minutes, no visible fluid left in the reservoir and with no visible further drainage following removal of suction equipment.

4.3.2 Clutch fluid

Virtually all modern cars have cable clutches and so do not contain any hydraulic clutch fluid. Some older cars may have hydraulic clutches, and equipment similar to that used to extract brake fluid from the brake reservoir can be used to extract fluid from the clutch reservoir and slave cylinder.

4.4 COOLANT (ANTIFREEZE)

Coolant can be gravity drained by removing the bottom hose from the radiator and collecting the liquid in a suitable container with a minimum volume of 10 litres. Commercial equipment enables the operator to make a hole in the bottom hose and suck the coolant out through this hole into a container. Either method can be used, but will only be able to achieve a high level of removal if the heater valve is set to maximum as part of the preliminary activities and the filler cap is removed.

Drainage time of 10 minutes, with no visible further drainage occurring.

4.5 SCREEN WASHING FLUID

This is removed by sucking fluid from the reservoir. The pipe placed in the reservoir has to be long enough to reach the bottom of the reservoir. Some models have fluid reservoirs with bent filler pipes in which it may be difficult to place a suction pipe to the required depth. In these cases, it may be preferable to drain them from below by removing the pump or piercing the reservoir.

Either commercially-available equipment or a simple pump can be used. If a simple pump is used, the reservoir must be inspected to determine that it has been completely emptied.

Most cars have one reservoir container that supplies fluid to both the front and rear windows, but some cars may have a separate container (in the

boot) for the rear window. If a vehicle has more than one reservoir, then all reservoirs must be drained.

End point – no visible amounts of fluid in the reservoir/s.

4.6 FUEL TANK (NOT LPG – SEE SECTION 4.10)

Fuel can be removed by suction or siphoning it from the tank with a tube entering the tank through the fuel filling pipe, but this procedure is unlikely to achieve the required level of depollution.

In order to ensure that the required level of depollution is achieved, a hole should be pierced or drilled into the lowest point of the fuel tank and suction is used to remove fuel. This ensures that no vapour is released during extraction.

The health and safety issues associated with fuel extraction mean that the drill or piercing tool should be made of suitable non-sparking material and be pneumatically powered, and an earthing connection must be made between the vehicle and the extraction equipment. Commercially available equipment should meet both these requirements.

The design of the tank (for example a saddle shaped tank will have two low points), may require more than one hole to be drilled or pierced in order to extract all of the fuel.

End-point – no visible further removal of fluid observed in the (see-through) extraction tubing.

There is no requirement to remove any residual fuel from the injector/carburettor inlet pipe in the engine compartment.

4.7 SUSPENSION SYSTEM

The suspension system on most vehicles is provided by 4 independent shock absorbers (one for each wheel). However, alternative systems are used in some vehicles.

4.7.1 Shock absorbers

The recommended approach is to drain the fluid from the shock absorber without removing it from the ELV. Shock absorbers contain fluid, usually oil, in both an inner and an outer cylinder. Consequently, in order to achieve the required level of depollution, fluid/oil needs to be removed from both the inner and the outer cylinder.

Commercially-available equipment can achieve the required level of depollution, but the time required for this operation will depend on the design of the equipment. The instructions provided by the manufacturer must be followed.

Shock absorber fluid/oil could be removed from an ELV by removing the shock absorbers, but the time required to conduct this operation may be considerable, and the shock absorbers would be classified as hazardous waste after they were removed from the ELV.

4.7.2 Gas shock absorbers

The equipment designed for fluid/oil based shock absorbers may be suitable for safely removing the gas from gas suspension systems. This must be confirmed with the manufacturer of the equipment before it is used for this purpose, and any additional safety requirements or other instructions provided by the manufacturer must be followed.

4.7.3 Sealed suspension systems

Equipment is available for both removing and recharging these, and thus can be used to drain them. An alternative approach is to fit a tyre valve adaptor to the filling/draining valve; this then enables the liquid to be gravity-drained in about 20-25 minutes. Care should be taken when attaching the adaptor to prevent the pressurised fluid causing injury to the operator.

Note that the unique hydrolastic supension fluid used in MG Rover Metro/100 models is a water based fluid containing methanol, and should therefore be stored together with coolant and screenwash, rather than with the oils.

No visible further draining of fluids should occur after the above procedures.

4.8 CATALYST

Older ELVs may not possess a catalyst, but nearly all modern vehicles, particularly those registered since 1993, both petrol and diesel, will have a catalytic conversion unit in the exhaust system. The catalyst can be identified by visual inspection of the exhaust system.

Note: although not strictly a depollution activity, this is a preparation for recycling activity, the financial benefits of which can generally be exploited to offset the costs of depollution.

The catalyst unit can easily be removed by cutting through the exhaust pipe, both in front of, and behind, the catalyst unit. The use of the correct

cutting equipment reduces the time which is required for this operation. Some vehicles may have more than one catalyst unit.

4.9 AIR CONDITIONING REFRIGERANT

The two types of refrigerant that are used in vehicle air conditioning systems are R12 and R134a. The type of refrigerant is marked on the vehicle.

The refrigerant must be removed using specialist equipment, and two collection cylinders are required; one for R12 (a CFC) and one for R134a (an HFC). The equipment is attached to the air conditioning filler valve, and takes about 10-12 minutes (the time depends on the system and the ambient air temperature) to remove all the fluid and transfer it to the collection cylinder.

ATFs should note that new EU Regulations (EC 307/2008) concerning qualifications for persons dealing with "F Gases" such as vehicle air conditioning systems came into force in April 2008. These require relevant operatives to be formally trained and in possession of a duly accredited certificate of competence.

4.10 LPG TANK

Identifying an LPG Vehicle. An LPG vehicle may or may not have identification badges, but can often be recognised by the presence of an additional filler connection valve, adjacent to the normal petrol filler. The absence of a spare wheel, or anywhere to put one, is another clue. In the engine compartment, there will normally be additional pipework and wiring from the control modules that handle the switching between petrol and LPG. If feasible, it is best to run the engine to empty as much fuel as possible from the tank before commencing removal, as this will reduce the weight of the tank and the risk of vapour loss. NOTE: Even after running to empty, the tank will still contain some residual gas vapour, and the full removal procedure must still be followed.

IMPORTANT NOTE: LPG, which is mainly used in some cars and light goods vehicles, should not be confused with Compressed Natural Gas (CNG), which has been used as original equipment in some commercial vehicle and PSV applications. CNG is equally hazardous, but is stored at a much higher pressure. Only fully qualified technicians should deal with CNG vehicles in accordance with the vehicle manufacturer's instructions.

Currently, very few ELVs in the UK have LPG tanks, but the number is expected to increase in the future. The usual procedure for removing these is to:

1. **Turn off the isolating valve**
2. **Cut through or disconnect the connecting pipes**
3. **Cut through or remove the retaining clamps or straps**
4. **Remove the tank to safe storage**

Given that there are health & safety issues involved with removal, handling and storage of LPG tanks, ATFs are recommended to check with the Health & Safety Executive (HSE) on current guidance. Only suitably trained personnel should be allowed to work on LPG vehicles before the LPG tank is removed. Some further generic guidance is now included in IDIS.

LPG liquid is a gas under pressure, which expands rapidly as it emerges causing a severe temperature drop in the vicinity of its release. Anyone attempting to disconnect the tank connections should therefore be equipped with hand and eye protection to avoid freezing.

The gas itself is highly inflammable and heavier than air, so can build up to dangerous levels in low places such as pits or drains, hence the requirement to treat the vehicle in the open air, where the gas can dissipate safely.

The vehicle should be quarantined in an open area, so that the tank can be isolated and removed for emptying, purging and separate disposal by suitably qualified personnel. The vehicle should be checked for gas leaks using proprietary detection equipment, especially in the vicinity of the tank connections and in the spare wheel well. If the battery is situated close to the LPG tank, for example in the boot, it should not be disconnected until it is certain there are no gas leaks to eliminate the risk of an electrical spark igniting the gas.

If there is a gas leak, this must be dealt with as a priority. If there are no qualified personnel on site, the urgent assistance of a local LPG installation company should be sought.

Under no circumstances should an LPG equipped vehicle be baled and/or sent to the shredder with the LPG tank still installed or intact, even if thought to be empty, as any residual gas in it would still be explosive. Neither should the tank, which is pressurised, be drilled or pierced to remove the LPG.

After the tank has been removed, the remainder of the vehicle can be processed as a normal ELV. The LPG injection equipment in the engine compartment and the pipes leading to it do not have to be removed. The tanks themselves are heavy and should be handled using appropriate lifting tools or supporting frames to avoid injury to personnel.

Information on the treatment of removed LPG tanks should be sought from authoritative sources (e.g. the LPG tank supplier or conversion company, the LPG Association, CARE Group etc.). ATFs may decide that subsequent emptying, purging and destruction of LPG tanks should be carried out by specialist third party decommissioners. Removed tanks should be stored in the open air in appropriate racks/cages until they can be collected or treated by the qualified disposal agents.

4.11 SWITCHES CONTAINING MERCURY

Some switches, such as tilt-based switches, may contain mercury. The ELV Directive requires switches which contain mercury to be removed. It would be a long (and hence costly) process to remove all switches in case they contain mercury.

An acceptable level of depollution will be achieved if any switches which are clearly marked as containing mercury are removed. A visual inspection of areas which contain this type of switch must be made during the depollution procedure, but only switches which are clearly identified as containing mercury need to be removed.

4.12 OTHER HAZARDOUS ITEMS

Some older ELVs may contain asbestos (e.g. certain brake pad linings). Regulations require the location of any components that may contain asbestos to be identified on the vehicle. A visual inspection of the vehicle must be made during the depollution procedure to identify if the ELV contains any notices indicating parts that contain asbestos. If any asbestos containing components are identified during this procedure, they must be removed. The procedure used to remove the asbestos containing components must follow all health and safety guidelines relating to asbestos.

ELVs also contain other hazardous items, such as the liquid crystal displays (LCDs) used in instrument panels in newer vehicles. There is currently no requirement to remove any of these items, but further guidance may be provided in due course.

5 Removal or deployment of air bags

The ELV Directive requires all pyrotechnic devices, such as airbags or pyrotechnic seat belt pre-tensioners, to be either removed or deployed because they are classed as explosive components. Pyrotechnic devices are deployed either mechanically or electrically depending on vehicle type and year. It is therefore necessary to assess every vehicle for airbag type and quantity, and any other pyrotechnic devices that may be present in order to adopt a safe procedure. Manufacturers' advice should be sought if not provided in IDIS.

Anyone attempting deployment of pyrotechnics needs to be aware of:

The different types of airbags and pyrotechnic devices contained in a vehicle;
Method of deployment, mechanical or electrical;
Health and safety issues regarding deployment, removal and disposal.

Only appropriately trained personnel should carry out airbag deployment or removal. The CARE website lists a suitable airbag deployment training course, see www.caregroup.org.uk.

The majority of airbags are electrically deployed, either from a single direct connector or a Deployment Control Unit. Before any work is carried out on electrically deployed airbags they should be disabled by disconnecting the battery. Following battery disconnection, a minimum period of 30 minutes must be allowed before any work is carried out on airbags to allow any residual charge left in the system to dissipate. In some instances, a supplementary battery back-up system can be found, which will normally be indicated by a flashing LED on the steering wheel, which indicates the airbag circuit is still active. Check IDIS for details.

It is possible for undeployed air bags to be removed and stored. However, as they are classed as explosive devices, the storage facility would have to meet all relevant regulations and requirements for storage of explosive materials, including those relating to health and safety. Many modern cars contain at least two airbags, and some luxury cars may well have more than 10 air bags. Removal of all airbags would be a time consuming process. Consequently, the recommended procedure is to deploy the airbags within the vehicle where possible. If it is not possible to deploy the airbag within the vehicle, remove the airbag and deploy it immediately.

Commercial equipment for the deployment of all electrical pyrotechnics is available but, as different air bags use different connections, a number of adapters will be required. Manufacturers' advice should be sought, if not provided in IDIS.

Airbag deployment should be conducted outside in a secure non-hazardous area.

If air bags are deployed *in situ*, measures must be implemented to ensure that neither the operator of the equipment, nor any other person, is within 10 metres of the vehicle when the air bags are detonated.

The level of noise produced during the deployment of air bags must be assessed, and may need to be discussed with the local authority, particularly if the treatment facility is close to a residential area.

Gases and particulates are generated during deployment of pyrotechnic devices. Once all devices have been deployed, doors should be opened to thoroughly ventilate the vehicle before re-entering the vehicle for any removal operations. Once deployed, pyrotechnic devices are neutralised and can be left within the vehicle.

The explosives used within airbags (before deployment) are toxic and are hazardous to health. As they are sealed into the generator in manufacture, exposure to these chemicals during normal handling is highly unlikely; however if a generator is split open extreme care is needed; see Health and Safety guidelines, HSG184.

Although this guidance describes the general procedures, ATFs should ensure that risks have been assessed and any specific guidelines provided by vehicle manufacturers or tooling manufacturers are followed.

5.1 SEATBELT PRE-TENSIONERS

ELVs that contain air bags may also contain seatbelt pre-tensioners. These are designed to pull the seat belt tight at the same time as the airbags are deployed, to clamp the seat belt wearer to the seat preventing them from gaining too much acceleration or twisting before they hit the airbag. Pre-tensioners may contain explosive or have stored mechanical energy (large spring) that is deployed mechanically or electrically. If they contain explosive devices, they need to be deployed as part of the depollution procedure. Manufacturers' guidance on the identification, removal and deployment of seat belt pre-tensioners should be sought, if not in IDIS.

The use of a procedure that enables electrically deployed air bags to be detonated in-situ via the common connector will also detonate electrical seat belt pre-tensioners. Consequently, in-situ detonation at the same time as air bags is the recommended approach for these items, where possible.

6 End of depollution procedure

When all of the depollution activities described in this guidance document have been conducted, the ELV is classified as non-hazardous waste. The ELV can then be recycled.

All fluids and other items which have been removed (apart from any air bags which have been deployed) will still be classified as hazardous waste. These will need to be stored in suitable storage facilities, which meet all regulations, until they are either treated or sent for recycling or disposal through a suitably licensed waste management contractor.

A system for recording the quantity of fluids and other items which have been removed should be in place. The information which is recorded will enable regular reports to be provided to waste regulators, and inform annual ELV target performance returns. A proforma table can be found on the BIS website at:

http://www.bis.gov.uk/policies/business-sectors/environmental-and-technical-regulations/environmental-regulations/end-of-life-vehicles

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URN 11/528