

PLÉMONT BAY HOLIDAY VILLAGE

PLÉMONT 30 HOUSE DEVELOPMENT

DEMOLITION & CONSTRUCTION SITE WASTE MANAGEMENT PLAN (SWMP)

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Revision B



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INTRODUCTION

This Document has been prepared for the Project known as:

PLEMONT HOLIDAY VILLAGE REDEVELOPMENT

The Project consists of the demolition/deconstruction of eight two-storey accommodation blocks, a two-storey amenities block, two two-storey staff accommodation blocks, a staff bungalow, a managers bungalow, maintenance block, shop and launderette; and re-levelling of the site. The demolition works are to provide a site area for returning 2/3rds of the site to natural landscape and construction of 30 houses on remainder of site.

An Asbestos survey has been carried out by Normandie Analytical Services and a large amount has been found throughout the existing buildings to be demolished and will require specialist removal.

PURPOSE OF THE SITE WASTE MANAGEMENT PLAN

The Waste Management Plan is intended to identify the potential for the recovery of recycled construction materials. The correct handling, storage and disposal of waste materials are vital if environmental harm and public complaint is to be avoided. This scheme aims to minimise waste and increase recycling as it is not only beneficial to the environment but can also reduce costs. The Duty of Care obligation requires waste producers to ensure that waste does not escape from their control and is only passed to an authorised person accompanied by a full written description.

Waste disposal is increasingly costly. Waste minimisation involves reducing the volume of waste produced, reusing the material again (without reprocessing) or recycling (which involves an element of reprocessing). All of these can bring benefits to the environment and significant savings in terms of management time, wasted materials, transport and disposal charges and landfill tax.

Project Objectives:

- To take all reasonable steps to ensure that waste management controls are observed including Duty of Care and compliance with the Waste Management (Jersey) Law 2005. Movement of waste off-site must be undertaken on the basis that the waste is (i) being removed by a registered carrier, (ii) that the waste is being delivered to a manager licensed to accept the waste and that (iii) the waste contractor has the authority to remove the waste.
- To minimise the amount of waste generated and maximise the amount of waste reused and recycled.
- To reuse as much waste as possible on-site. Where reuse on-site is not possible to identify the most appropriate waste management option in accordance with the waste hierarchy.
- To manage waste as close as possible to the site location.
- To provide training to improve the awareness of waste management issues of all staff and sub-contractors and to ensure correct waste management practices are followed on-site.

Waste Management Objectives:

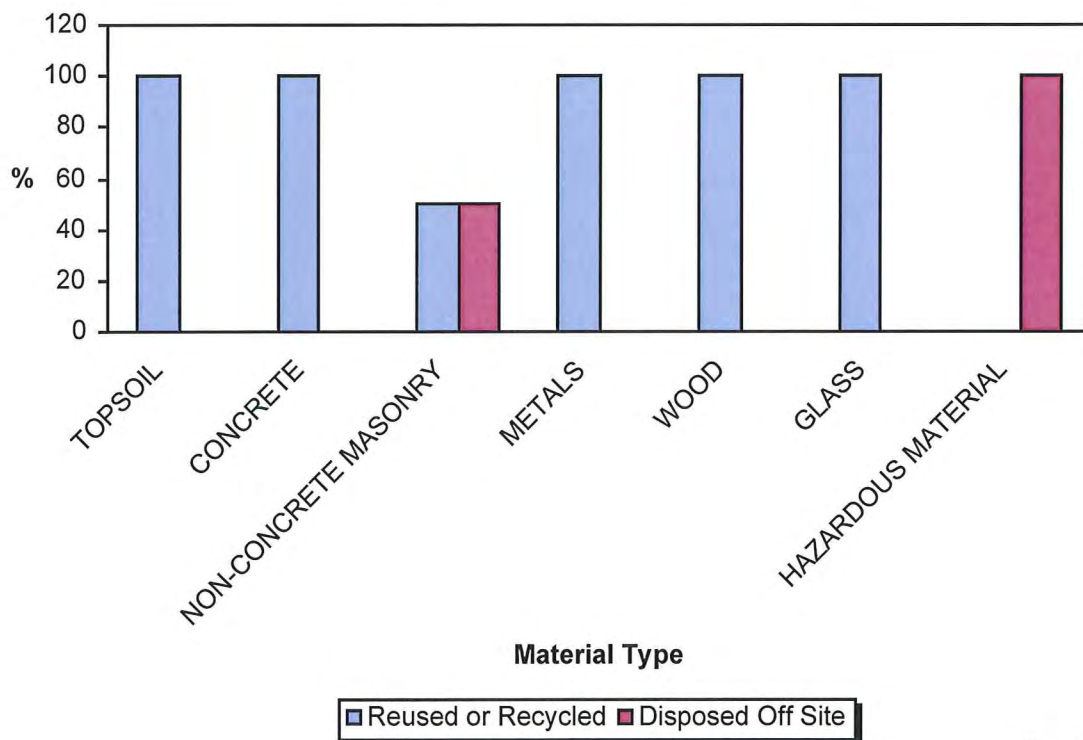
DEMOLITION

- 1) TOPSOIL: Retained 100% of topsoil on site and reused for recovering land returned to nature below areas of existing buildings & hardstandings.
- 2) CONCRETE MATERIAL: Remove 100% of material and deliver to La Collette Reclamation Site – Aggregates Recovery facility for crushing and recycling for secondary aggregate.
- 3) GRANITE: Remove 100% of granite and deliver to La Collette Reclamation Site – Aggregates Recovery facility for crushing and recycling for secondary aggregate.
- 4) NON-CONCRETE MASONRY: Remove off-site and recycle 50% of material.
- 5) METALS: Remove off site to Picot & Rouille Scrap Yard at Bellozane and recycle 100% of material.
- 6) WOOD: Recycle 100% at the La Collette Reclamation Site – Timber Recycling facility or recover energy at Bellozane.
- 7) GLASS: Remove off site and recycled 100% into fine aggregates at Bellozane.
- 8) BITUMINOUS MATERIAL: Remove off site and recycle for sub-bases.
- 9) ASBESTOS: Specialist removal to La Collette for sealed storage.

CONSTRUCTION

The construction phase of this project will recycle or salvage for reuse 75% by weight of the waste generated on-site, this can be determined by consulting Bellozane and La Collette's records of materials received.

Demolition Material Recovered



DEFINITIONS

1. **Construction, Demolition, and Land-clearing (CDL) Waste:** includes all non-hazardous solid wastes resulting from construction, demolition and land-clearing. Includes material that is recycled, reused, salvaged or disposed.
2. **Salvage:** Recovery of materials for on-site reuse, or offsite sale or donation to a third party.
3. **Reuse:** Making use of a material without altering its form. Materials can be reused on-site or reused on other projects off-site. Examples include, but are not limited to the following: grinding of concrete for use as a sub-base material. Chipping of land-clearing debris for use as mulch.
4. **Recycling:** The process of sorting, clearing, treating and reconstituting materials for the purpose of using the material in the manufacture of a new product.
5. **Source-Separated CDL Recycling:** The process of separating recyclable materials in separate containers as they are generated on the construction site. The separated materials are hauled directly to Bellozane for recycling or shipping to an off island recycling facility.
6. **Co-mingled CDL Recycling:** The process of collecting mixed recyclable materials in one container on-site. The container is taken to Bellozane's a material recovery facility where materials are separated for recycling.
7. **Approved Recycling Facility:** A facility that can legally accept CDL waste materials for the purpose of processing the materials into an altered form for the manufacture of a new product. Material Recovery Facility is a general term used to describe a waste-sorting facility. Mechanical, hand-separation, or a combination of both procedures, are used o recover recyclable materials. Co-mingled containers are to be taken to a material recovery facility with a least a 50% co-mingled recycling rate.
8. **Deconstruction:** Removal by disassembly of a building in the reverse order to which it was constructed.
9. **Waste:** is 'any substance or object, that is discarded; or any substance or object, in a persons possession or control, that he intends to discard; or any substance or object, in a persons possession or control, that he is required by a national law to discard.' Waste can be classified as three types:
 - **Inert waste:** chemically inert, non-combustible, non-biodegradable and non-polluting
 - **Non-hazardous:** by default is neither hazardous nor inert.
 - **Special/Hazardous waste:** contains dangerous substances that could make it harmful to human health and/or the environment.

SECTION ONE: PROJECT PARTICULARS

1.1 PROJECT TITLE:

Plemont Holiday Village – 30 House Development

1.2 CLIENT:

Northern Trust Group Ltd

1.3 DESCRIPTION OF WORKS:

The Project consists of the demolition/deconstruction of eight two-storey accommodation blocks, a two-storey amenities block, two two-storey staff accommodation blocks, a staff bungalow, a managers bungalow, maintenance block, shop and launderette; and re-leveling of the site. The demolition works are to provide a site area for returning 2/3rds of the site to natural landscape and construction of 30 houses on remainder of site.

CLIENTS REPRESENTATIVE:

Mike Riding

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Lynton House
Ackhurst Park
Foxhole Road
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1.4 ARCHITECTS:

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1.5 ASBESTOS SURVEYORS:

NAS Ltd
Normandie House
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Guernsey
GY2 4AE
Tel: 01481 253953

SECTION TWO: HISTORIC USE OF SITE

- 2.1 The Location of the site being on the Northern Coast may impact upon the presence of possible contaminants, such as excessive chloride.
- 2.2 The site has always been used as Tourist accommodation. Previously it was a Hotel before the site was redeveloped into a Holiday camp.
- 2.3 Asbestos has been identified and located throughout the site in a survey carried out by NAS Ltd.

SECTION THREE: PHYSICAL CHARACTERISTICS OF THE SITE

3.1 SITE BOUNDARIES

The site bounded on the South by Route de Plemont, and to the West by Route de Petit Plemont. On the Northern side of the site are steep cliffs and a Public Cliff Path has access over the site. Privately owned fields bound the Eastern side of the site.

3.2 STRUCTURES:

- 3.2.1 The site contains of eight two-storey accommodation blocks, a two-storey amenities block, two two-storey staff accommodation blocks, a staff bungalow, a managers bungalow, maintenance block, shop and launderette.
- 3.2.2 There are existing water tanks located on the West of the site adjacent to Route de Petit Plemont.
- 3.2.3 A PSD Pumping substation and tanks are located to the west of the site at the junction of the coastal path and Route de Petit Plemont.
- 3.2.4 There is a WW2 bunker located on the north east of the site which is to be protected during the works and will later be restored.
- 3.2.5 In ground services and pipes within the site are to be removed.

3.3 STRUCTURAL SURVEY

- 3.3.1 Prior to the demolition works commencing a detailed structural survey will be carried out of the existing buildings in order to identify the ways in which the loads are transmitted to the ground and the load paths. The general condition of the buildings and any Health and Safety hazards will be identified. The results of this survey will be included within this document.
- 3.3.2 During the above survey the Structural Engineer will be able to advise on an estimated amount of materials that will be reusable.

SECTION FOUR: OUTLETS FOR RECYCLED CONSTRUCTION MATERIALS

4.1 TYPES OF MATERIAL

The principle types of demolition recyclable materials are:

- Concrete
- Masonry
- Granite
- Reclaimed Steel
- Other metals
- Timber
- Glass

4.2 USES OF RECYCLATE

- 4.2.1 **Concrete** is reused as a recyclate to produce Recycled Concrete Aggregate (RCA). This can be used to replace secondary aggregates in new concrete applications, or as a sub-base material in structural applications. The scope for replacement of secondary aggregates varies in inverse proportion to the degree of physical and chemical contamination. The less contamination the greater the opportunities and the higher the value.
- 4.2.2 **Masonry** is reused as a recyclate to produce Recycled Aggregate (RA) used as a constituent in lower strength concrete applications, as a constituent in sub-base material in lower strength structural applications or as engineering fill beneath blinding concrete wall foundations and hard standings.
- 4.2.3 **Granite** is reused as a recyclate to produce Recycled Aggregate (RA), which can be used in aesthetical applications such as landscaping.
- 4.2.4 **Reclaimed Steel** beams in good condition have a high market value. Steel beams and columns in poor condition have a high scrap value along with steel reinforcing bars.
- 4.2.5 **Other metals:** the highest values per tonne are achieved from aluminium and copper. Cables are stripped, compressed and baled for shipment to the processor.
- 4.2.6 **Timber:** reclaimed timber can be inspected and reused, most likely in non-structural applications. It can also be chipped and reused in a variety of recycled applications. Alternatively energy can be recovered from the timber at Bellozane.
- 4.2.7 **Glass** is being increasingly procured for applications such as replacing fine aggregate (sand), as shot blasting abrasive, and as a filtration medium for water treatment. Currently the glass is crushed into aggregate and used for land reclamation in Jersey. (See States of Jersey Solid Waste Strategy)

4.3 TYPICAL COMPONENTS RECOVERED FOR RCA AND RA

4.3.1 For Recycled Concrete Aggregates (RCA) the typical concrete components recycled are Concrete Blocks, Concrete Ceiling Components, Floor Slabs, Foundations, Kerbs and Hauching, Paving Slabs, Stair Units, Lintels, Piles, Beams, Blinding, Terrazzo and Mass Concrete.

4.3.2 For Recycled Aggregates (RA) the typical components recycled are Clay Bricks, Roofing Tiles, Floor Tiles, Paving Stones and Stonework.

4.4 LOCAL OUTLETS FOR RECYCLED MATERIALS

Recycled Concrete Aggregates	A A Langlois
Recycled Aggregate	A A Langlois
Reuse/ Scrap:	
Metals	Picot & Rouille Scrap Yard at Bellozane
Timber	Acorn Industries
Concrete Products	A A Langlois
Energy Recovery	Bellozane Incinerator
Dump at La Collette	La Collette Landfill Site
Specialist Asbestos Treatment/ Removal	Licensed Asbestos Contractor & removal to La Collette Asbestos containment

SECTION FIVE: BUILDING DECONSTRUCTION

5.1 EXAMINATION

- a) Verify that utilities have been disconnected and capped.
- b) Structural Engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during deconstruction operations.
- c) Inventory and record the condition of items to be removed or salvaged.
- d) Locate hazardous materials for specialist removal; see Asbestos Survey Report No.04/B/2647 produced by Normandie Analytical Services dated 11th June 2004.
- e) Licensed Asbestos Inspector to undertake Type 3 survey to MDHS100 of areas previously surveyed to Type 2 standard by Normandie Analytical Services comprising i) Managers bungalow; ii) Main Building; and iii) Rozel Block rooms 7-12 and provide survey report.
- f) Perform surveys as the work progresses to detect hazards resulting from deconstruction activities.

5.2 PREPARATION

- a) Licensed Asbestos Inspector to undertake full visual re-inspection to identify, assess and record any damage to asbestos materials since date of Normandie Analytical Services report; undertake Type 4 clearance report and implement smoke test independently witnessed to required areas.
- b) Implement predatory mammal identification and control programme to include rat eradication across the whole site and trapping / removal of any feral / domestic cats or feral / domestic ferrets found within the site. Maintain rat eradication programme for duration of deconstruction period.
- c) Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to prevent unexpected or uncontrolled movement or collapse of construction being deconstructed.

5.3 ASBESTOS REMOVAL

Asbestos is to be removed prior to main building deconstruction work commencing on site by a licensed Asbestos Removal Contractor in accordance with Health and Safety at Work Asbestos-Licensing (Jersey) regulations 2008. Further information is contained in the Asbestos Survey Report No.04/B/2647 produced by Normandie Analytical Services and subsequent reports to be produced as specified in Items 1(e) and 2(c) herein.

5.4 DECONSTRUCTION

All deconstruction works to be undertaken between September to March outside of seabird / puffin breeding season of April to August.

Provide Site Access and Temporary Control facilities. Conduct deconstruction operations to ensure minimum interference with roads, paths, car parks and other adjacent occupied and used facilities. Provide temporary facilities including

barricades and other protection required to prevent injury to workers and damage to salvaged materials. Provide protection to ensure safe passage of workers around deconstruction area. Provide weather protection for all salvaged materials before, during and after deconstruction.

- a) Deconstruct and remove existing construction in accordance with the materials identified for removal in the Demolition Audit (Appendix A).
- b) Record cubic quantity and weights of all demolition materials and their destination on the Site Waste Management Plan Data Sheet (Appendix H).
- c) Do not use cutting touches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
- d) Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
- e) Remove structural framing members in such a way as to maintain their highest value.
- f) Locate deconstruction equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- g) Dispose or move to storage area demolished items and materials promptly as appropriate.
- h) Sort and organize salvaged materials as they are removed from the structure. Pack, crate or band materials to keep them contained and organized. Waste to be segregated by type into different skips labelled using the national colour coding system, which uses internationally recognised safety colours to separate the waste (See Appendix F).
- i) Store salvaged items in a secure and weather protected area until removed from the site or reused on site.

5.5 DISPOSAL OF DEMOLISHED MATERIALS

- a) Except for items or materials indicated in the Demolition Audit (Appendix A) to be recycled, reused, or salvaged, remove demolished materials from the project site and legally dispose of them as stated in the Demolition Audit. A written description of the waste must be provided for the contractor.
- b) Do not allow demolished materials to accumulate on-site.
- c) Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- d) Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to ground level in a controlled descent.
- e) Do not burn demolished materials.
- f) All recyclable concrete materials (blocks / reinforced concrete, etc.) to be salvaged kept in separate stockpiles and transported from site to La Collette for crushing and re-use as secondary aggregates.
- g) All contractors carrying site waste to have a valid waste carriers registration certificate.
- h) Waste Transfer Notes to be completed for all non-hazardous wastes before wastes leave the site.
- i) For hazardous or special waste, a consignment note is to be completed before any waste leaves the site. All parties must retain copies of the paperwork for at least 3 years.
- j) Transport and Technical Services Department, Waste Management section and the Waste Regulator under provisions of the Waste

Management (Jersey) Law 2005, are to be notified at least 3 days ahead of the movement of hazardous or special waste, in order to be prepared for it's sealed storage or to the UK for safe disposal.

5.6 STORAGE & RE-USE OF TOPSOIL

- a) Excavations to be limited to the area of the proposed construction, exposed ground to be kept to a minimum throughout the deconstruction and construction phases of the project. Limited topsoil is expected from within the main deconstruction area.
- b) Removed topsoil to be graded; stored and reused for recovering land returned to nature below areas of existing buildings & hardstandings.
- c) Cut-off ditches to be used to prevent entry of surface water in the excavations. A sump pump is to be used at corners of the excavations, avoid disturbance of water in the excavation.

SECTION SIX: CONSTRUCTION WASTE MANAGEMENT

1) WASTE MANAGEMENT GOALS

The construction phase of this project will recycle or salvage for reuse 75% by weight of the waste generated on-site. This can be determined by recording of waste removed from site and recording the amount, by weight, of materials processed and kept on site for reuse with a WMP data sheet (See Appendix H). These amounts can be checked by consulting with Bellozane and La Collette's records of materials received during the deconstruction works.

2) CONSTRUCTION WASTE

The Construction Phase Waste Schedule in Appendix G lists the disposal method and handling procedure for the main construction waste groups.

3) ORDERING AND STORAGE OF MATERIALS

- a. Materials where possible to have a recycled content.
- b. Procuring sustainable materials such as those recommended by the National Green Specification.
- c. Paints to have low odour and VOC emissions.
- d. Careful ordering of material quantities to avoid over ordering to reduce waste. Maintain up-to-date material ordering and delivery schedule to minimize the amount of time that materials are on-site to reduce the chance of damage.
- e. Contractor to ask suppliers to reduce packaging and to guarantee a take-back service, especially for pallets.
- f. Ordering in standard sizes- materials to be cut off-site where possible to reduce on site waste.
- g. Replace toxic materials with less toxic or non-toxic products to reduce hazardous packaging.
- h. Store manager to be appointed to manage stores and limit access to avoid waste.
- i. Storage areas to be provided on hard surfacing, which should be ready for deliveries, to be covered to protect materials from rain ingress.
- j. Harmful chemicals to be stored in secure bounded areas. Hazardous materials are to be stored and used according to Health and Safety at Work (Jersey) Law 1989.
- k. Liquids and sand to be stored away from drains and watercourses.
- l. Lightweight materials to be stored so that they are protected from the wind.

4) SITE PROCEDURES

- a) Record material delivered to site and used on site.

- b) All contractors carrying site waste to have a valid waste carriers registration certificate.
- c) Waste transfer notes to be completed for all non-hazardous wastes before wastes leave the site.
- d) For hazardous or special waste, a consignment note is to be completed before any waste leaves the site. All parties must retain copies of the paperwork for at least 3 years.
- e) Planning Services Department to be notified at least 3 days ahead of the movement of hazardous or special waste.
- f) If waste is being brought onto site from a company elsewhere, an appropriate waste management license must be obtained.

5) SUB-CONTRACTORS

- a) Each new sub-contractor to be presented with a copy of the Waste Management Plan and be provided with a tour of the recycling areas.
- b) The sub-contractor will be expected to make sure all their crews comply with the waste management plan.

SECTION SEVEN: GENERAL WASTE MANAGEMENT

The contractor is to appoint a designated co-ordinator responsible for implementing the Waste Management Plan, and monitoring, collecting, and promoting the results.

1) WASTE SEGREGATION

- a) Waste is to be segregated by type into different skips labelled using the national colour coding system, which uses internationally recognised safety colours (see Appendix F).
- b) Satellite mini-recycling points to be positioned around the site, close to the point of waste generation, consisting of wheelie bins or mini skips, labelled using the UK National Colour Coding System, Appendix F.

2) HAZARDOUS MATERIALS

Any waste that has hazardous properties, which may make it harmful to human health or the environment, is classified as hazardous in the European Waste Catalogue (EWC) (Appendix D). The EWC lists all wastes grouped according to generic industry or process. Each waste type is allocated a six-digit code. Wastes classed as hazardous are identified in the EWC with an asterisk (*). See Appendix B for the list of types of hazardous wastes identified by the Waste Management (Jersey) Law 2005.

- a) Hazardous waste not to be mixed with non-hazardous waste.
- b) A consignment note to be completed before any hazardous waste leaves the site; all parties must retain copies of the paperwork for at least three years.

3) MANAGING RESOURCES

- a) Contractor to ensure that taps and hoses do not leak and are not left running unnecessarily.
- b) Manual spray guns use by fitting trigger controls to hosepipes.
- c) No over-spraying of roads to control dust.
- d) Where possible backhauling to reduce haulage journeys, and contractor to ensure that vehicles (e.g. waste skips) are not sent out half empty.
- e) Vehicles and machinery engines to be turned off when not in use.
- f) Where possible electric-powered equipment to be used instead of compressed-air power tools.
- g) Set up central cutting areas for wood and other materials. Ensure that all reusable pieces are used before cutting new pieces.
- h) Use of wet trades to be kept to minimum to avoid the overuse of de-humidifiers.
- i) Metering and monitoring energy and fuel use so that any abnormally high measurements can be investigated.

4) PREVENTING POLLUTION

- a) The contractor is to be aware of the position of rivers and streams in the area, all surface water drains and foul water drains on and around the site.
- b) Absorbent material to deal with spillages to be kept on site.

- c) Concrete is highly alkaline and corrosive and can have a devastating impact on watercourses, it is essential to take particular care with all works involving concrete and cement especially near streams and surface water drains. Suitable provision should be made for the washing out of concrete mixing plants or ready-mix lorries, such washings must not be allowed to flow into any drain, watercourse or stream.
- d) Any underground services on the site to be identified and clearly marked before demolition or construction work begins and precautions taken to prevent damage to them. Manholes on site are to be colour coded, blue for surface water and red for foul. Old storage tanks should be checked and safely emptied before they are moved.
- e) The surface water drain is designed to carry uncontaminated rainwater directly to a local stream or soakaway, nothing that could cause pollution, including silty water, should enter the surface water drains.
- f) The foul water drain carries contaminated water to a sewage works for treatment before discharge; approval must be obtained from the Jersey Water before any dirty water is pumped into the foul drain.
- g) Site workers to be made aware of problems associated with washing paints, chemicals, mud, sand or other pollutants into drains.
- h) Site workers to be made aware of the problems associated with connecting foul water pipes with surface water drains.
- i) Special care to be taken during deliveries, especially when fuels and hazardous materials are being handled. All deliveries to be supervised by a responsible person, ensuring that storage tank levels are checked before delivery to prevent overfilling and that the product is delivered to the correct tank. A contingency plan is to be in place and suitable materials to deal with any incident on site.
- j) Spillages on site of hazardous materials to be prevented by storing materials according to manufacturers instructions, and to be kept away from drains and watercourses, in appropriately-bonded area with impervious base, away from extremes of temperature; and dispose of them properly at the end of their shelf-life.
- k) Contractor to prepare a pollution incident response procedure.
- l) Regular monitoring and maintenance of storage containers to be carried out.
- m) Before any tank is removed or perforated at the end of a contract or particularly during demolition works, all contents and residues must be emptied by a competent operator and safely disposed of. Pipes may contain significant quantities of oil or chemicals, and should be carefully drained and capped, or valves closed, to prevent spillage.

In the event of a spillage of a hazardous substance stop work immediately, contain the spillage if safe to do so, report it immediately and notify the fire brigade; determine why it occurred and alter site practices to prevent it happening again.

5) CONSIDERING NEIGHBOURS

The impact of noise and vibration is to be reduced by:

- a) Use mufflers on noisy equipment.
- b) Use of electric generators instead of petrol/diesel.
- c) Erecting solid screens close to the source of noise.
- d) Informing neighbours of time and duration of noisy activities and why they are being conducted.

Unnecessary emissions and odours to be prevented by:

- a) Keeping plant regularly serviced.
- b) Switching engines off when not in use.
- c) Storing fuels and chemicals appropriately.
- d) Keep refuelling areas away from the public.

Avoid dust being generated by:

- a) Keeping the site clean and tidy.
- b) Protecting sands and soils from the wind by covering with tarpaulin.

6) DOCUMENTATION

With each certificate for payment, the contractor shall attach a record of the amount of material disposed (in tons) and the amount of each material recycled by type (Appendix H). This shall be checked with the records of materials received at La Collette and Bellozane.

7) RISK OF ACCIDENTS

The risk of accidents is to be reduced by:

- a) Careful selection of construction materials to avoid risks/hazards.
- b) Construction products employed in development will be carried out in accordance with Construction (safety Provisions)(Jersey) Regulations 1970, and procedures will be enforced on site.
- c) Construction operations undertaken in accordance with Health & Safety at Work (Jersey) Law 1989 procedures.

REFERENCES

Guidance Notes on the new Waste Management Licensing System: Waste Management (Jersey) Law 2005.	States of Jersey – Planning and Environment Department.
Waste Management (Jersey) Law 2005.	States of Jersey.
Health and Safety in the Workplace A General Guide	States of Jersey
Health and Safety at Work Asbestos-Licensing (Jersey) Regulations 2008	States of Jersey
Jersey Island Plan 2002 Policy WM1 – Waste Minimisation and Recycling	States of Jersey – Planning and Environment Department.
Construction (Safety Provisions) (Jersey) Regulations 1970	States of Jersey
Guidance Notes on the new Waste Management Licensing System (JWL016)	States of Jersey – Planning and Environment Department.
Guidance Notes on the Movement of Hazardous Waste and Healthcare Waste in Jersey (JWL018)	States of Jersey – Planning and Environment Department.
Solid Waste Strategy May 2005: Changing the way we look at waste.	States of Jersey – Environment & Public Services Committee.
Site Waste Management Plans	DTI
Pollution Prevention Guidelines Working at Construction Sites	PPG6 Environment Agency
NETREGS	
Waste – Can you handle it	Environment Agency
Guidance for waste destined for Landfill	Environment Agency
Consolidated European Waste Catalogue	Environment Agency 2009
National Green Specification	

1856 Plemont - Demolition Audit: Bill of Quantities - Appendix A

Material	Recovery Potential	Units	Volume (m ³)	Total Tonnage	Recovery Index	Recovered Tonnage
Concrete Components						
Foundations	RCA/on-site Fill		270	648	100%	648
Floor Slabs	RCA/on-site Fill		2730	6552	100%	6552
Mass Concrete	RCA/on-site Fill		60	144	100%	144
Lintels	RCA/on-site Fill		12	28	100%	28
Beams	RCA/on-site Fill				100%	
Blocks	RCA/on-site Fill		1240	571	100%	571
Stair Units	RCA/on-site Fill		18		100%	
Render	RCA/on-site Fill		5	5	100%	5
Terrazzo	RCA/on-site Fill				100%	
Kerbing, Haunching	RCA/on-site Fill			37	100%	37
Paving Slabs	RCA/on-site Fill		98	150	100%	150
Blinding	RCA/on-site Fill		1400	1400	100%	1400
TOTAL			5833	9535		9535
Non-Concrete Masonry						
Clay Bricks	RA/Reclaim				100%	
Stonework	RA/Reclaim		190	532	100%	532
Roofing Tiles	RA/Reclaim		12	29	100%	29
Floor Tiles	RA/Reclaim		5	11	100%	11
Screed	Disposal		521	990	0%	0
Paving Stones	RA/Reclaim				100%	
TOTAL			728	1562		572
Metals						
Structural Steel	Reuse/smelting		77	32	100%	32
Reinforcement bars	Smelting				100%	
Lintels	Smelting				100%	
Window Frames	Smelting	66	1	0.9	100%	0.9
Stair Units	Smelting	40	16	13	100%	13
Pipework-supply, drainage etc	Smelting	2500m		13	100%	13
Radiators	Smelting	330		11	100%	11
Kitchen Units (stainless steel)	Reuse/smelting	50		1.2	100%	1.2
Wiring	Smelting	15000m		37	100%	37
TOTAL			131	371.1		108.1
Wood						
Joists	Recycle/recover energy at Bellozane		340	125	100%	125
Floorboards	Reuse/recover energy at Bellozane		65	24	100%	24
Stair Units	Reuse/recover energy at Bellozane	2		0.3	100%	0.3
Cladding	Recycle/recover energy at Bellozane				100%	
Studwork	Recover energy at Bellozane		44	16	100%	16
Doors	Reuse/recover energy at Bellozane	606	50	12	100%	12
Window/door frames	Reuse/recover energy at Bellozane		35	13	100%	13
General Joinery	Reuse/recover energy at Bellozane		12	5	100%	5
Furniture	Reuse/recover energy at Bellozane		12	5	100%	5
TOTAL			558	200.3		200.3
Glass						
Windows	Recycling/RA		9	22	100%	22
Doors	Recycling/RA		4	10	100%	10
Partitions	Recycling/RA				100%	
Furniture	Reuse/Recycling/RA				100%	
TOTAL			13	32		32
Composites						
MDF	Chipping		20	16	100%	16
Plywood	Chipping		70	49	100%	49
Plasterboard	Disposal		84	42	0%	
TOTAL			174	107		65
Plant						
Tanks	Smelting	1		0.5	100%	0.5
Pumps	Recondition/smelting	2		0.5	100%	0.5
Machinery	Recondition/smelting	8		5	100%	5
TOTAL			0	6		6
Architectural Features						
Fireplaces/mantle pieces	Reclaim				100%	
Archways	Reclaim				100%	
Columns	Reclaim				100%	
Decorative Masonry	Reclaim				100%	
TOTAL			0	0		0
Miscellaneous						
Bituminous Materials- Roads/paths	Recycling/sub-base		440	924	100%	924
Bituminous Materials-Roofing	Recycling		83	50	100%	50
Plastics	Recycling		75	90	100%	90
Excavations- soils, aggregate etc	Reuse soils on site		420	756	100%	756
TOTAL			1018	1820		1820
Hazardous Material/Potential Contamination						
Asbestos, fire resistant panelling, insulation	Specialist removal to La Collette		61	43	0%	0
External wood fittings-creosote, fencing, pentachlorophenol	Landfill		1	0.36	0%	
Wood- Lead, mercury based paint	Landfill		13	5	0%	0
Storage tanks- Fuel, oil, gasoline	Specialist recovery	1		0.5	98%	0.49
Fluorescent lighting- mercury	Specialist recovery	80		0.5	98%	0.49
Veneers, laminated wood	Landfill		1	1.8	0%	
TOTAL			76	51.1177433		0.98
TOTAL			8455	13633.4		12339.38

RCA - Recycled concrete aggregate
RA - Recycled Aggregate

APPENDIX B: HAZARDOUS WASTES

The following information was retrieved from the States of Jersey Planning and Environment Departments Waste Management (Jersey) Law 2005: Guidance Notes on the new Waste Management Licensing System, Appendix 2.

Hazardous waste specified in the Basel Convention.

1. CATAGORIES.

Waste Streams:

- Y1 Clinical wastes from medical care hospitals, medical centres and clinics.
- Y2 Waste from the production and preparation of pharmaceutical products.
- Y3 Waste pharmaceuticals, drugs and medicines.
- Y4 Waste from the production, formulation and use of biocides and phytopharmaceuticals.
- Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals.
- Y6 Waste from the production, formulation and use of organic chemicals.
- Y7 Waste from heat treatment and tempering operations containing cyanides.
- Y8 Waste mineral oils unfit for their originally intended use.
- Y9 Waste oils/water, hydrocarbons/ water mixtures, emulsions.
- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs).
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment.
- Y12 Waste from production, formulation and use of inks, dyes, pigments, paints, lacquers or varnish.
- Y13 Waste from the production, formulation and use of resins, latex, platicizers or glues/adhesives.
- Y14 Waste chemical substances arising from research and development or teaching activities that are not identified and/or are new and whose effects on man and /or the environment are not known.
- Y15 Waste of an explosive nature not subject to other legislation.

- Y16 Waste from production, formulation and use of photographic chemicals and processing materials.
- Y17 Waste resulting from surface treatment of metals and plastics.
- Y18 Residues arising from industrial waste disposal operations.

Wastes having as constituents:

- Y19 metal carbonyls;
- Y20 beryllium or beryllium compounds;
- Y21 hexavalent chromium compounds;
- Y22 copper compounds;
- Y23 zinc compounds;
- Y24 arsenic or arsenic compounds;
- Y25 selenium or selenium compounds;
- Y26 cadmium or cadmium compounds;
- Y27 antimony or antimony compounds;
- Y28 tellurium or tellurium compounds;
- Y29 mercury or mercury compounds;
- Y30 thallium or thallium compounds;
- Y31 lead or lead compounds;
- Y32 inorganic fluorine compounds (excluding calcium fluoride);
- Y33 inorganic cyanides;
- Y34 acidic solutions or acids in solid form;
- Y35 basic solutions or bases in solid form;
- Y36 asbestos (dust and fibres);
- Y37 organic phosphorous compounds;
- Y38 organic cyanides;
- Y39 phenols or phenol compounds (including chlorophenols);
- Y40 ethers;

- Y41 halogenated organic solvents;
- Y42 organic solvents excluding halogenated solvents;
- Y43 any congener of polychlorinated dibenzo-furan;
- Y44 any congener of polychlorinated dibenzo-p-dioxin; or
- Y45 organohalogen compounds other than substances referred to in this Part (for example Y39, Y41, Y42, Y43, Y44).

2. HAZARDOUS CHARACTERISTICS.

UN Code Characteristics
Class*

- | | | |
|-----|------|--|
| 1 | H1 | <p><u>Explosive substances or wastes</u>
An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) that is in itself capable of undergoing a chemical reaction or producing gas at such temperature and pressure and at such a speed as to cause damage to the surroundings.</p> |
| 3 | H3 | <p><u>Flammable liquids</u>
The word 'flammable' has the same meaning as 'inflammable'. Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints or varnishes, lacquers, but not including substances or wastes otherwise classified on account of their dangerous characteristics) that give off a flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.5°C, open-cup test. (Because the results of open-cup tests and of closed-cup tests are not strictly comparable and individual results even by the same test are often variable, results varying from the above figures to make allowance for such differences are within the scope of this definition.)</p> |
| 4.1 | H4.1 | <p><u>Flammable solids</u>
Solids, or waste solids, other than those classed as explosives, that under conditions encountered in transport are readily combustible, or may contribute to fire through friction.</p> |
| 4.2 | H4.2 | <p><u>Substance or wastes liable to spontaneous combustion</u>
Substances or wastes that are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and are then liable to catch fire.</p> |
| 4.3 | H4.3 | <p><u>Substances or wastes that, in contact with water, emit flammable gases</u>
Substances or wastes that, by interaction with water, are liable to become spontaneously flammable or give off flammable gases in dangerous quantities.</p> |

- 5.1 H5.1 Oxidizing substances or wastes
Substances or wastes that, while in themselves not necessarily combustible, may (usually by yielding oxygen) cause or contribute to the combustion of other materials.
- 5.2 H5.2 Organic peroxides or wastes
Organic substances or wastes that contain the bivalent-O-O- structure and are thermally unstable substances that may undergo exothermic self-accelerating decomposition.
- 6.1 H6.1 Poisonous substances or wastes
Substances or wastes that are liable either to cause death or serious injury or harm to human health if swallowed or inhaled or by skin contact.
- 6.2 H6.2 Infectious substances
Substances or wastes containing viable micro-organisms or their toxins that are known or suspected to cause disease in animals or humans.
- 9 H8 Corrosives
Substances or wastes that, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage or even destroy other goods or the means of transport (whether or not they may cause other hazards).
- 9 H10 Liberation of toxic gases in contact with air or water.
Substances or wastes that, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
- 9 H11 Toxic substances or wastes delayed or chronic
Substances or waste that, if released, present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
- 9 H13 Other substances or wastes
Substances or wastes, that, by any means, are capable after disposal of yielding another material (for example, leachate) that possesses any of the characteristics listed above.

* Corresponds to the hazards classification system included in the United Nations Recommendations on Transport of Dangerous Goods (ST/SG/AC.10/1/Rev.5, United Nations, New York, 1988).

Appendix C:

C7 Assessment of Hazard H7: Carcinogenic

C7.1 Definition

Annex III of the HWD defines H7 "Carcinogenic" as:

"substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence".

C7.2 Risk Phrases

For the purposes of classification and labelling, carcinogens are divided into three categories:

Category 1:

Substances known to be carcinogenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and the development of cancer.

Category 2:

Substances which should be regarded as if they are carcinogenic to man. There is sufficient evidence to provide a strong presumption that human exposure to a substance may result in the development of cancer, generally on the basis of:

- (a) appropriate long-term animal studies*
- (b) other relevant information.*

Category 3:

Substances which cause concern for man owing to possible carcinogenic effects but in respect of which the available information is not adequate for making a satisfactory assessment. There is some evidence from appropriate animal studies, but this is insufficient to place the substance in Category 2.

The following risk phrases apply:

Categories 1 and 2:

- R45 *May cause cancer*
- R49 *May cause cancer by inhalation*

Category 3:

- R40 *Limited evidence of a carcinogenic effect*

C7.3 Limiting Concentration

"Carcinogenic" has specified concentration limits set out in the HWR, above which a waste would be hazardous:

- one substance known to be carcinogenic of category 1 or 2 at a concentration $\geq 0.1\%$; and
- one substance known to be carcinogenic of category 3 at a concentration $\geq 1\%$.

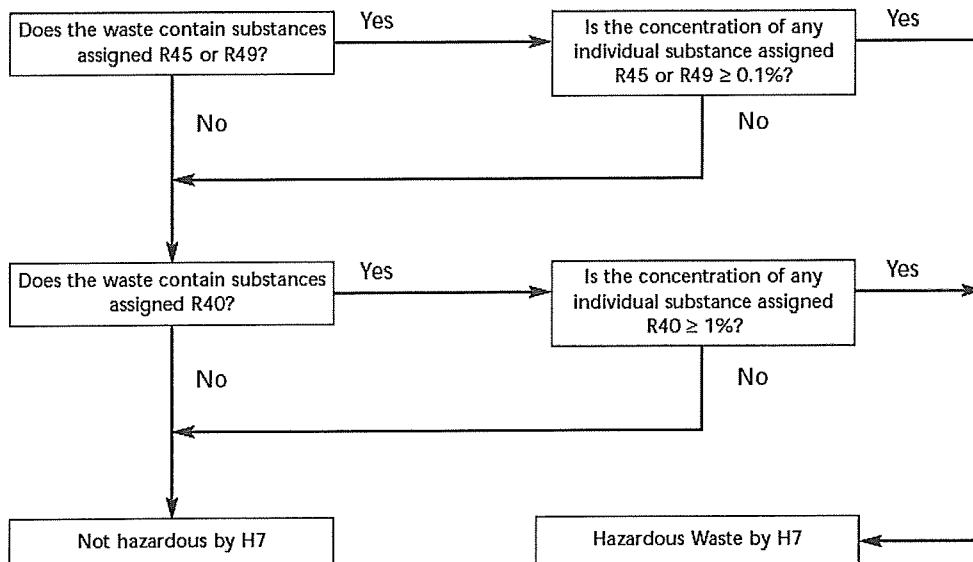
Wastes containing category 1 or 2 carcinogens (i.e. substances with risk phrases R45 or R49) will be hazardous if the concentration of any one of those substances is $\geq 0.1\%$ w/w in the waste. It should be noted that this is a change from the classification under the Special Waste Regulations 1996, under which the concentrations of category 1 and 2 carcinogens were additive. The new criterion means that an individual category 1 or 2 carcinogen must be present at a concentration $\geq 0.1\%$.

Wastes containing category 3 carcinogens (i.e. substances with risk phrases R40) will be hazardous if the concentration of any one of those carcinogens is $\geq 1\%$ w/w in the waste. This is a change from classification under the Special Waste Regulations 1996, as category 3 carcinogens were not included in the assessment criteria.

C7.4 Decision Tree

Figure C7.1 sets out the assessment process for the Hazard H7.

Figure C7.1: Decision Tree for the Assessment of Hazard H7



C7.5 Test Methods

None of the EC test methods published corresponds to the definition of the hazard carcinogenic.

Simple *in vitro* tests are unable to identify those compounds which are carcinogenic. Even utilising *in vivo* tests for carcinogenicity would be unsuitable for the classification of wastes as the testing requires several months to complete. The genotoxicity tests are the only *in vitro* techniques that are enshrined in regulatory toxicology. Detailed guidance is provided on test protocols and interpretation by the UK Environmental Mutagen Society (UKEMS).

Tests are available to give some indication of carcinogenic potential, by studying the mutagenic effects of compounds. However, these tests will not give a definitive result for hazard H7. The recommended non-mammalian tests for H11, mutagenicity, are found in Section C11, and some of these tests (e.g. Test Method B10) can be used to screen for possible mammalian carcinogens.

C7.6 Application of H7 to Waste Oils and Wastes Containing Oil

C7.6.1: Absolute Entries

Waste Oils are included in the EWC 2002 in Chapter 13 - Oil Wastes and Wastes of Liquid Fuels (except edible oils; and those in chapter 05, 12 and 19). They are all marked as hazardous without a general or specific reference to dangerous substances. There are further entries for waste oils in Chapters 05, 08, 12, 19 and 20.

All waste oils, with the exception of edible oil, are considered hazardous wastes regardless of their composition, biodegradability, synthetic nature, or otherwise.

There is no threshold to apply to these wastes.

The entries for edible oil are non-hazardous.

C7.6.2: Mirror Entries - Classification of wastes containing oil

Specific reference:

The EWC contains a number of references to wastes specifically containing oil; or where oil may be a contaminant, e.g.

**16 07 wastes from transport tank, storage tank and barrel cleaning
(except 05 and 13)**

16 07 08* wastes containing oil

16 07 99 wastes not otherwise specified

The determination of whether the waste is hazardous or not, and of the appropriate EWC code, is made on the basis of the oil contamination alone. If the oil is present below the threshold concentration, the waste is not hazardous.

General reference:

There are a number of references in the EWC 2002 to dangerous substances in general.

**17 05 soil (including excavated soil from contaminated sites), stones
and dredging spoil**

17 05 03* soil and stones containing dangerous substances

17 05 04 soil and stones other than those mentioned in 17 05 03

The determination of whether the waste is hazardous or not, and of the appropriate EWC code, is made on the basis of assessment of all dangerous substances present. If oil is present in the waste below the threshold concentration, the oil alone will not render the waste hazardous.

C7.6.3 Mirror Entries - Hazardous Properties of Oils and the application of a Generic Threshold.

Oils are made up of a complex mixture of substances but specific oil products are considered by the ASL as "substances". As such, they are given substance classification. Examples of such substances include products such as mineral oil, lubricating oil and petrol.

The majority of these substances are classified in the ASL as Category 2 Carcinogens. The hazardous waste threshold for category 2 carcinogenic substances is 0.1% (w/w) (1000 mg/kg).

Some, such as diesel fuel, are classified as category 3 carcinogens. The hazardous waste threshold for category 3 carcinogenic substances is 1% w/w (10000 mg/kg).

Petroleum Range Organic/Diesel Range Organic determination (PRO/DRO) - The term Petrol (gasoline) range organics (PRO) applies to C5 to C10 (hydrocarbons with 5 to 10 carbon atoms in the molecule). In the main, these are considered category 2 carcinogens. The diesel range organics (DRO) (C10 to C30 some include up to C36) can be assumed to be category 3 carcinogens on the basis of the ASL classification of diesel fuel.

However, this is very much a generalisation, and the ASL identifies a number of exceptions to this. So, the use of DRO & PRO is considered a rule of thumb only and an indicator that further analysis, such as analysis for chemical marker substances (as identified below) is required.

If a determination has to be made whether oil is present above the thresholds or not it is assumed that unless evidence to the contrary is presented, the generic threshold for oil is 0.1% w/w (1000 mg/kg) in the waste.

The generic threshold will also apply in circumstances where the total oil concentration is presented as total petroleum hydrocarbon (TPH) in the waste.

Note that where the level of oil in the waste is less than 1000 mg/kg, the waste will not be considered hazardous unless there are any other hazards arising from other known contaminants. Where the generic threshold for oil is not exceeded, further assessment of the oil, including use of chemical markers to determine whether the oil is carcinogenic or not as described below, is not necessary.

C7. 6.4: Mirror Entries - Circumstances where the generic threshold will not apply.

This applies only in the following circumstances:

The specific nature of the oil contaminating the waste is known

This can be determined where the exact circumstances of how the oil contaminated the waste is known; or through detailed site assessment or materials case history. In circumstances where the identity of the oil causing the contamination is known, the appropriate thresholds determined by the hazardous properties of the contaminating oil should always be used. Peer reviewed data for the contaminating oil will determine the specific hazardous properties it possesses, if any. WM2 provides advice on sources of peer reviewed data. Some oils will not be carcinogenic, but for a determination of whether a waste is hazardous or not, all hazardous properties must be considered. Note that safety data sheets (SDS) should only be used where the known contaminating oil has not been used, or if it has not undergone any chemical changes on use.

For example, if the contaminant is known to be diesel, the appropriate hazardous property should be considered. Diesel is classified by the ASL as a category 3 carcinogen so the threshold of 1% w/w (10000 mg/kg) is appropriate. Another example is Kerosene which is classified by the ASL as Xn R65 (Hazard H5 Harmful, threshold 25% w/w)

Further analysis of the oil - use of chemical markers to determine whether the oil is carcinogenic or not

Some oils are not carcinogenic. If the specific nature of the oil contaminating the waste is not known, then it is appropriate to use chemical markers to determine whether the oil is carcinogenic or not. Note that even if the oil is not carcinogenic, it may possess other hazardous properties and these must apply in the determination of whether the waste is hazardous or not.

The chemical markers which can be used are either: benzo-[a]-pyrene; or the 3% DMSO (dimethyl sulfoxide) extract as measured by IP346¹. **It is essential to note that the use of these markers applies to the contaminating oil and not the waste as a whole.** So, when using marker thresholds, a determination of the total concentration of oil in the waste must also be made to enable the comparison of marker substance in the oil. The total concentration of oil in the waste can be undertaken by determining TPH or using any other appropriate method.

It is important to note that normally analysis results are delivered on the basis of the quantity of the determinand in the waste as a whole. In such cases a multiplying factor needs to be applied to the marker concentration results to ensure it is representative of the oil in the waste. The factor is determined by the concentration of oil in the waste.

The appropriate thresholds in the oil for these markers are as follows:

Benzo-[a]-pyrene = 0.005% w/w (50 mg/kg) total oil content;

DMSO extract = 3% w/w (30000 mg/kg) total oil content.

¹ IP346 is a standardised method developed by the Institute of Petroleum and is globally accepted by legislators as a tool for classifying oils.

Either marker can be used. The oil will be considered carcinogenic if any one of these markers is present at or above the appropriate threshold, in which case, the generic threshold of 1000 mg/kg for the oil in the waste will apply. Where the level of oil is below this level it is not necessary to determine marker concentrations.

The following examples illustrate this:

Absolute Entry - Example 1:

Oily water from oil/water sludges is classified on the EWC2002 as
13 05 07* Oily water from oil/water sludges

Although laboratory analysis of benzo-[a]-pyrene and DMSO extract indicate that the concentration of these markers lie below the calculated threshold concentrations in the waste, the waste is classified under an absolute entry and remains hazardous waste.

Mirror Entry - Example 2 :

The waste is classified under a mirror entry in the EWC2002 that refers to dangerous substances, The specific nature of the oil contaminating the waste is known. The material is known to be diesel. Diesel fuel is classified as a category 3 carcinogen .

The hazardous waste threshold for category 3 carcinogenic substances is 1% w/w (10000 mg/kg). Note that this is the limiting threshold and below this concentration, the waste would not be hazardous by virtue of any carcinogenic property.

Analysis indicates that the total oil concentration in the waste is 7500 mg/kg. This is below the threshold concentration for Carcinogenic H7. The waste will not be hazardous if the oil possesses no other hazardous properties (for example flammability) and if no other dangerous substances are present.

Mirror Entry - Example 3 :

The waste is classified under a mirror entry in the EWC2002 that refers to dangerous substances,

Laboratory Analysis of the waste indicates that the total oil concentration in the waste is 2500 mg/kg (ppm) . To determine if the oil is carcinogenic further analysis is conducted to determine that:-

- The benzo-[a]-pyrene concentration in the waste is 0.103 mg/kg
- The DMSO extract concentration in the waste is <0.1 mg/kg

The total oil content in the waste is equivalent to 0.25% w/w. (this is used to calculate thresholds)

The oil would be considered carcinogenic where the markers are present in the waste at the following threshold concentrations: (these are adjusted for total oil content as indicated above)

The benzo-[a]-pyrene threshold concentration in the waste is :
$$\geq 50 \text{ mg/kg} \times \frac{0.25\%}{100} = 0.125 \text{ mg/kg} \text{ (0.0000125\% w/w)}$$

The DMSO extract threshold concentration in the waste is :
$$\geq 30000 \text{ mg/kg} \times \frac{0.25\%}{100} = 75 \text{ mg/kg} \text{ (0.0075\% w/w)}$$

As both markers are present at less than the threshold concentrations, the oil is not considered to be carcinogenic, so the generic thresholds for H7 do not apply

The waste will not be hazardous if the oil possesses no other hazardous properties (for example flammability) and if no other dangerous substances are present.

APPENDIX D: CONSTRUCTION AND DEMOLITION WASTE

Information sourced from the Consolidated European Waste Catalogue:
Section 17: Construction and Demolition Waste for the Environment Agency.

17 01	Concrete, bricks, tiles and ceramics	
17 01 01	Concrete	
17 01 02	Bricks	
17 01 03	Tiles & ceramics	
17 01 06*	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances	M
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	
17 02	Wood, Glass and Plastic	
17 02 01	Wood	
17 02 02	Glass	
17 02 03	Plastic	
17 02 04*	Glass, plastic and wood containing or contaminated with dangerous substances	M
17 03	Bituminous mixtures, coal tar and tarred products	
17 03 01*	Bituminous mixtures containing coal tar	M
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01	
17 03 03*	Coal tar and tarred products	A
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 & steel	
17 04 06	Tin	
17 04 07	Mixed metals	
17 04 09*	Metal Waste contaminated with dangerous substances	M
17 04 10*	Cables containing oil, coal tar and other dangerous substances	M
17 04 11	Cables other than those mentioned in 17 04 10	
17 05	Soil (including excavated soil from contaminated sites), stones & dredging spoil	
17 05 03*	Soil & stones containing dangerous substances	M
17 05 04	Soil & stones other than those mentioned in 17 05 03	
17 05 05*	Dredging spoil containing dangerous substances	M
17 05 06	Dredging spoil other than those mentioned in 17 05 05	
17 05 07*	Track ballast containing dangerous substances	M
17 05 08	Track ballast other than those mentioned in 17 05 07	
17 06	Insulation materials & asbestos-containing materials	
17 06 01*	Insulation materials containing asbestos	M
17 06 03*	Other insulation materials consisting of or containing dangerous substances	M

17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03	M
17 06 05*	Construction materials containing asbestos	
17 08	Gypsum-based construction material	M
17 08 01*	Gypsum-based construction material contaminated with dangerous substances	
17 08 02	Gypsum-based construction materials other than those mentioned in 17 08 01	
17 09	Other construction and demolition wastes	M
17 09 01*	Construction and demolition wastes containing mercury	
17 09 02*	Construction and demolition waste containing PCB (for example PCB-containing sealants, PCB-containing resin based floorings, PCB-containing sealed glazing units, PCB-containing capacitors)	M
17 09 03*	Other construction and demolition wastes (including mixed wastes) containing dangerous substances	M
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	

A = Absolute Entries - Hazardous waste regardless of any threshold concentrations.
M = Mirror Entries - Hazardous waste only if dangerous substances are present above threshold concentrations.

- For minor entries with a general reference to dangerous substances, the classification is determined by looking for the presence of any dangerous substance in the waste.
- For minor entries with specific references to dangerous substances, the classification is determined by looking for the presence of the specific substance that is identified in the waste description.

APPENDIX E: METHODS OF DISPOSAL AND RECOVERY

Disposal and Recovery operations according to the Waste Management (Jersey) Law 2005:



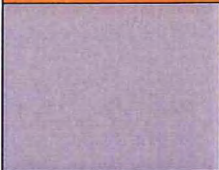


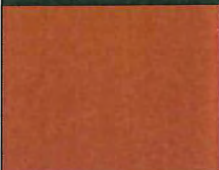

Disposal operations:

- D1: Deposit on land, (for example, landfill).
- D2: Land treatment, (for example, biodegradation of liquid or sludgy discards in soils).
- D3: Deep injection, (for example, injection of pumpable discards into wells, salt domes or naturally occurring repositories).
- D4: Surface impoundment, (for example, placement of liquid or sludge discards into pits, ponds or lagoons).
- D5: Specially engineered landfill (for example, placement into lined discrete cells that are capped and isolated from one another and the environment).
- D6: Release into a water body except a sea or ocean.
- D7: Release into a sea or ocean, including seabed insertion.
- D8: Biological treatment not specified elsewhere in this Schedule, which results in final compounds or mixtures that are discarded by means of any of the operations in this Schedule.
- D9: Physico-chemical treatment, not specified elsewhere in this Schedule, that results in final compounds or mixtures that are discarded by means of any of the operations in this Schedule (for example, evaporation, drying, calcination, neutralisation or precipitation).
- D10: Incineration on land.
- D11: Incineration at sea.
- D12: Permanent storage (for example, emplacement of containers in a mine).
- D13: Blending or mixing prior to submission to any of the operations in this Schedule.
- D14: Repacking prior to submission to any of the operations in this Part.
- D15: Storage pending any of the operations in this Part.

Recovery operations:

- R1: Use as a fuel (other than in direct incineration) or other means to generate energy.
- R2: Solvent reclamation or regeneration.
- R3: Recycling or reclamation of organic substances that are not used as solvents.
- R4: Recycling or reclamation of metals and metal compounds.
- R5: Recycling or reclamation of other inorganic materials.
- R6: Regeneration of acids or bases.
- R7: Recovery of components used for pollution abatement.
- R8: Recovery of components from catalysts.
- R9: Re-refining of used oil or other reuses of previously used oil.
- R10: Land treatment resulting in benefit to agriculture or ecological improvement.
- R11: Uses of residual materials obtained from any of the operations numbered R1 - R10.
- R12: Exchange of wastes for submission to any of the operations numbered R1 - R11.
- R13: Accumulation of material intended for any operation in this Part.

APPENDIX F: NATIONAL COLOUR CODING SYSTEM

	Biohazard
	Gypsum
	Hazardous
	Inert
	Metal
	Mixed
	Packaging
	Plate Glass
	Wood

APPENDIX G: CONSTRUCTION PHASE WASTE SCHEDULE

MATERIAL	DISPOSAL METHOD	HANDLING PROCEDURE
Concrete	Ground on-site, reused as fill	Break-up any waste or mistakes and put in concrete bin
Bricks/concrete tiles	Ground on-site, reused as fill	Put unusable cuts and waste in concrete bin
Clean wood scrap	Scraps reused for formwork, noggings etc. Remaining recycled	Stack reusable pieces next to saw for reuse. Places unusable clean wood in recycling bin.
Forming Boards	Reuse as many times as possible then recycle	Stack next to supply of new form boards for reuse. Recycle clean unusable forms in wood recycling bin
Scrap Metals	Recycle	Deposit all metals in metal bin
Plasterboard/ Gypsum	Recycle	Place in gypsum bin
Packaging	Recycle	Place in Packaging bin, return wooden pallets for reuse
Glass	Recycle	Place in glass bin
Solvents, paints, oils and other hazardous wastes	Safe disposal by specialist contractor.	Place in hazardous materials bin.

APPENDIX H: SITE WASTE MANAGEMENT PLAN DATA SHEET

This Data Sheet must be updated whenever Waste is Processed or Removed from Site.

Site Waste Management Plan - Data Sheet								
Project name:								
Date when this sheet was filled out:								
Stage of project (eg planning stage, during project delivery, end of project):								
Report number (projected waste arising should be report number one etc):								
Project address / location:								
Main contractor:								
Person responsible for waste management on site (name and job title):								
Person and company completing this form, if different:								
Types of waste arising (add more rows if needed):								
Material	Quantity (in m3)							
	Re-used onsite	Re-used offsite	Recycled for use on-site	Recycled for use off-site	Sent to recycling facility	Sent to WML exempt site	Disposal to land-fill	WTN † completed?
Inert								
Non-hazardous								
Hazardous								
Totals (in kg/T)								
Performance score as %*								
SWMP Target %*								

†Waste Transfer Note

*There is an option to use this form as a measurement tool to work out savings etc against each waste stream.

APPENDIX J: SWMP CHECKLIST

SWMP RESPONSIBILITY, PLANNING AND PREPARATION

- Have you, or has someone in authority, been assigned overall responsibility for the SWMP?
- Have you set aside time to plan and prepare your SWMP?
- Has every stage in the project been examined and the processes required for completion been considered?

IDENTIFY YOUR WASTE

- Have those sub-contractors producing significant waste streams been identified?
- Has a thorough assessment taken place to identify different types of waste that will be produced - how much, when and what types?
- Have you thought about ordering materials that have less or reusable/returnable packaging?

IDENTIFY YOUR WASTE MANAGEMENT OPTIONS

- Has an area of the site been set aside for storage of new materials and waste management, including separation of different types of waste?
- Have targets been set for the different types of waste likely to arise from the project?
- Have measures been put in place to deal with expected (and unexpected) hazardous waste?
- Has disposal of liquid wastes such as wash-down water and lubricants been considered?
- Have you got agreement from the sewerage company for trade effluent discharge?
- Have opportunities been considered for re-use of materials on-site and off site?
- Have opportunities been considered for on-site and off-site processing and re-use of materials?
- Have you considered where the most appropriate sites for disposal of residual waste from the project are located?
- Are there opportunities for reducing disposal costs from waste materials that may have a commercial value?

MATERIALS NEEDED AND WASTE HANDLING

- Has there been a careful evaluation of materials so that over-ordering and site wastage is cut down?
- Can unused materials be returned to the supplier or used on another job?
- Has using secondary and recycled materials been fully considered?

- Will unwanted packaging be returned to the supplier for recycling or re-use?
- Are selected waste materials segregated to allow you to get best value from good waste management practices?
- Are containers/skips clearly labeled to avoid confusion?
- Are you complying with Duty of Care procedures, including providing transfer notes and checking the authorisation of registered carriers, registered exempt sites and licensed waste management facilities?
- Has everyone who will be handling waste been told about the requirements of the SWMP?

COMMUNICATE THE SWMP

- Have toolbox talks been planned for all site personnel about waste management on-site?
- Are contractors and sub-contractors trained and aware of their responsibilities?
- Have these contractors and sub-contractors understood and agreed the Site Waste Management Plan?
- Are the SWMPs built into contracts as a requirement?

MEASURING AND MONITORING YOUR WASTE

- Are you making regular checks on the SWMP and making sure that targets are being reached?
- Are the agreed waste management procedures being checked and monitored on a regular basis?
- Are reports on waste quantities and treatment/ disposal routes and the costs incurred being regularly produced?
- When construction is underway, are you making note of any problems that come up and recording them for your next plan?

AFTER PROJECT COMPLETION, REVIEW AND FEEDBACK

- Have you completed a final report on the use of recycled and secondary materials, waste reduction, segregation, recovery and disposal, with costs and savings identified?
- Have important waste management issues been taken into account for action at future projects?
- Have you built the results into your business to help with competitive bidding that could help you win work next time?