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**Environmental Management Plan for the  
Asbestos Removal & Demolition Project**

**For**

**North Lincolnshire Council**

**At**

**Crosby Primary School**

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Prepared by M Hudson



Record of amendments and issue of controlled copies

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INTRODUCTION

1.1 Background

- 1.1.1 Both Demex Ltd and North Lincolnshire Council are committed to excellent environmental management and operate to the highest levels of operational responsibility.
- 1.1.2 The Plan is designed to ensure that Demex Ltd acts in accordance with its Environmental Policy Statement, relevant legislative duties and client imposed duties specific to this project.
- 1.1.3 This Plan outlines the environmental requirements for the Asbestos Removal & Demolition of Crosby Primary School
- 1.1.4 The Environmental Management Plan (EMP) sets out how Demex Ltd will comply with the environmental requirements set out within this document.

1.2 Project Description

Removal of asbestos containing materials under controlled conditions, disposing off all asbestos waste off site to licensed facility. Demolition of school buildings down to underside of ground slabs, including removal of foundations and hard standings. Disposal of all waste arisings off site.

1.2.1 Site Description

The site is a former school located within a busy mixed residential and retail district of Scunthorpe

- 1.2.2 A site layout plan is indicated in the H&S Plan and Method Statement
- 1.2.3 A traffic management plan also identifies other elements
- 1.2.4 There are to be known waste streams associated with the works consisting of clean inert materials and mixed hazardous and non hazardous wastes
- 1.2.5 Precise quantities of such materials, which will be generated as waste during the demolition, have been calculated and are to be verified with check weight tickets etc.
- 1.2.6 A R&D Asbestos Survey has been carried out and identified asbestos containing materials. These are to be removed under controlled conditions and are subject to relevant method statements and risk assessments

Surrounding Area

- 1.2.8 The site is located on a busy road (Frodingham Road) where there are retail establishments
- 1.2.9 The nearest residential properties are located on the surrounding side roads
- 1.2.10 To minimise disruption we are to establish 2 distinct access/egress positions. One will be from the existing gated position on Sheffield Road strictly for pedestrians. Vehicular movements will be directly from Frodingham Road via a newly formed opening

Site Contact

- 1.2.11 The site demolition manager is available during working hours on 07795 840615 in case of an environmental incident that might need to be contained. The Senior Project Manager (07500 977676) has the authority to secure access to the site during out of working hours.

2 MANDATORY ENVIRONMENTAL REQUIREMENTS

2.1 Environmental Management Plan

Objectives

2.1.2 Demex Ltd's EMP identifies the necessary measures to manage significant environmental aspects and impacts that arise as part of the works.

The EMP covers the following areas:

- Correct implementation of environmental safeguards;
- Management of site activities;
- Minimisation of adverse impacts on the environment;
- Compliance with relevant legislation; and
- Monitoring of environmental impacts.

Context

2.1.3 Demex Ltd identifies all significant environmental aspects and impacts associated with the works. The EMP identifies the mitigation measures to reduce significant impacts to an acceptable level.

2.1.4 Demex Ltd ensures that all the targets, actions, and monitoring results are appropriately documented.

2.1.5 A summary of Demex Ltd's EMP responsibilities is provided in section 2.3.

Contents

2.1.6 Demex Ltd will compile and submit to Trevor Steans the EMP; the EMP defines the approach to address the environmental issues. It shall be reviewed during monthly progress meetings, and updated as necessary during the execution of the works.

2.1.7 The EMP defines how:

- Demex Ltd complies with its own Environmental Policy;
- Demex Ltd complies with relevant legislation;
- Demex Ltd comply with specifics identified by the local planning authority and, in particular, the protection of residences and policy DS1 requirements;
- Significant environmental aspects and impacts are dealt with;

- Pollution is prevented and any environmental emergencies dealt with;
- The various roles and responsibilities needed to meet the environmental requirements are organised within Demex Ltd's management structure and how internal communication between them are managed; and
- Site personnel will be made aware of their environmental responsibilities.

Implementation Schedule

2.1.8 As part of the EMP Demex Ltd prepares, and maintains, an appropriately detailed implementation schedule for the EMP. Mark Hudson shall monitor and review the progress of the site operations against the schedule which shall include (but will not be limited to):

- Identification of the key stages of EMP implementation;
- Tasks to be completed by each stage;
- Responsibilities assigned to Demex Ltd's personnel (and any sub-contractors) for meeting the key stages of implementation;
- Monitoring, review and audit of all aspects of the works which may affect the environment;
- Where appropriate a schedule of the environmental elements of the consultation process;
- Where appropriate the identification of permissions and consents to be secured

2.2 Legal Requirements

2.2.1 Demex Ltd will carry out the works in compliance with UK environmental law, and pays particular regard to the Environmental Protection Act 1990, the Water Resources Act 1991, the Water Industry Act 1991, the Environment Act 1995, the Pollution Prevention and Control Act 1999 and any statutory instrument, order or any other regulation made under the act or other acts or regulations or associated by-laws which are applicable to the Employer's obligations to the environment or affected by the execution of the Works.

2.2.2 Demex Ltd will also comply with any other mandatory requirements, such as those specified by local highways and environmental health authorities, or the relevant statutory agency as applicable to the execution of the works

2.2.3 As Part of the EMP Demex Ltd will detail the legislative requirements relating to the work, including national legislation, local authority regulations, guidelines, best practices and codes of conduct.

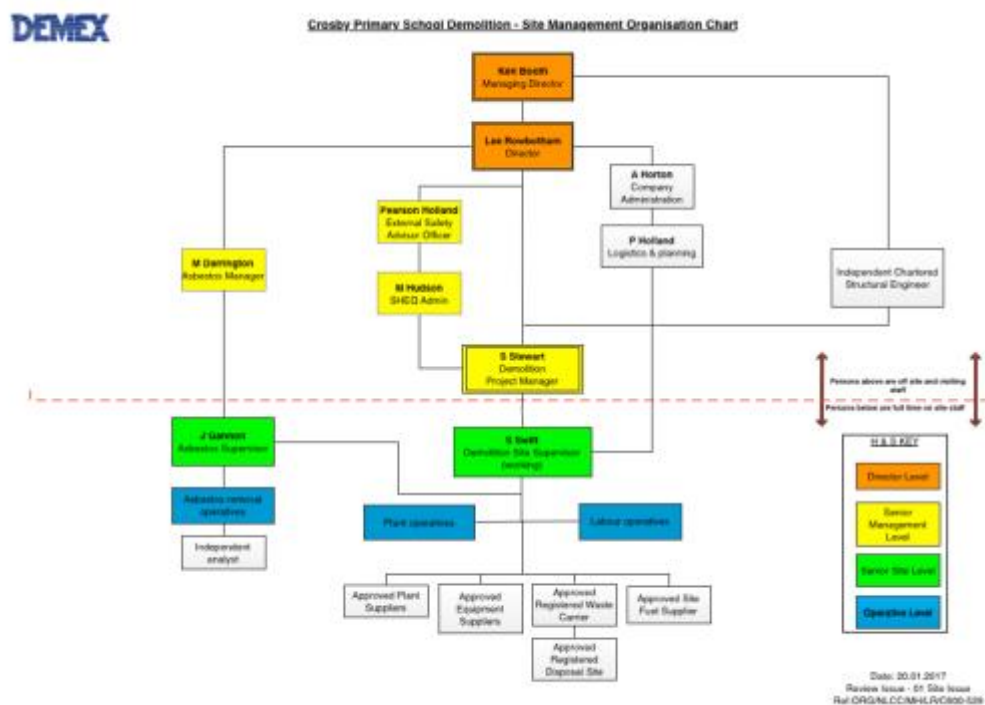
2.2.4 Client site specific considerations will also be addressed in accordance with the clients existing policies, practices and procedures.

2.3 Roles & Responsibilities

Site Team Responsibilities

2.3.1 Demex Ltd will establish a management structure responsible for implementing the EMP.

2.3.2 An organisation chart identifying the individuals' names and their position in Demex Ltd's management structure for the Contract and the lines of communication are shown below. Van Vliet will advise Trevor Steans of any subsequent changes in personnel before they occur.



Demex Ltd has nominated a suitably qualified and experienced manager to take overall responsibility for all issues relating to the environment. This includes environmental management and compliance with all relevant legislation and the development, implementation, monitoring and auditing and updating of the EMP.

2.3.3 Demex Ltd documents the environmental responsibilities of each project team member including subcontractors.

Company and Site Personnel Responsibilities and Contacts

Title	Name & contact	Responsibility
External Specialist	Pearson Holland	Provide assistance and advice on Environmental legislation as they affect business activities of Demex Ltd
SHEQ Admin	M Hudson	Delegated responsibility for implementation and upkeep of Environmental documentation. Certify work is being carried out according to EMP. Make sure all work crews are included in environmental and emergency arrangements. Direct site activities according to EMP. Make sure all work crews are aware of any changes to the EMP
Demolition Project Manager	S Stewart	Ensure Demex Ltd Environmental Policy and Procedure is implemented on site
Site operatives	Names, phone numbers TBC	Attend site induction and other training sessions Make sure arrangements are followed Advise Site Supervisor of any potential or actual breaches of plans or statement

Subcontractors' Responsibilities

2.3.4 Demex Ltd ensures that the terms and conditions of any sub-contract include the requirement for the sub-contractor to comply with this specification.

2.3.5 Demex Ltd describes the systems that will be implemented to ensure all subcontractors comply with environmental requirements. Subcontractors can adopt Demex Ltd's environmental controls or use their own arrangements when approved by Demex Ltd.

2.4 Training Awareness & Competence

2.4.1 It is the responsibility of Demex Ltd to bring all environmental requirements to the attention of all their personnel, as applicable to their work, and to ensure that they are complied with.

2.4.2 Demex Ltd is responsible for identifying the training needs of their personnel to ensure that all whose work may cause an impact on the environment receive appropriate environment training. The primary objective of this training is to ensure that environmental protection is delivered by off and on-site operatives.

2.4.3 Demex Ltd will set out the syllabus for environmental training that all the site personnel must attend, including site induction for subcontractors. Every employee and subcontractor must receive an environmental awareness briefing. Demex Ltd will be responsible for keeping records of attendees and training content. As a minimum all staff must be aware of the EMP and must understand their individual environmental responsibilities. The environmental training may include:

- A site induction;
- Emergency response training;
- Site environmental controls;
- Communication of unusual occurrences (including near misses); and
- Specific environmental training for relevant employees e.g.asbestos.

In addition to the above there may be client introduced systems and procedures which are also to be adhered to and integrated into the Demex Ltd systems

2.5 **Communications**

Approval Requirements and Communication with Regulators

2.5.1 Demex Ltd will keep records of any approvals and communication with regulators that are required and attach all the copies of documentation to the EMP.

Internal Communication

2.5.2 Copies of Demex Ltd's Environmental Policy Statement (copied in Appendix), relevant extracts of the EMP and any other relevant environmental information shall be made readily available to all personnel.

2.6 **Operational Control**

2.6.1 Demex Ltd shall ensure adequate control of aspects of operations highlighted in the Register of Significant Aspects and Impacts as outlined in Section 3.2.

2.6.2 Specific standards or key aspects are detailed in Section 3.3.

2.7 **Emergency Preparedness**

2.7.1 Demex Ltd will develop and implement an emergency preparedness system. The Pollution Incident Control Plan sets out the precautions to be taken to avoid the release of oils, fuels, coolants or other pollutants into the environment and the arrangements to be followed in the event of any spillages or uncontrolled release of pollutants into the environment. The system shall provide for a rapid response to any uncontrolled release or pollution incident arising from the Works including its removal and disposal, in accordance with relevant legislation.

2.7.2 Demex Ltd develops a system for reporting environmental incidents to Trevor Steans and the relevant Statutory Authorities. The system shall be submitted to Trevor Steans for acceptance as part of the EMP. In developing the system, Demex Ltd will adopt and incorporate the requirements of North Lincolnshire CC procedure for such instances which is extended to its sub-contractors

2.7.3 All environmental incidents are recorded by Demex Ltd and reported to Trevor Steans as soon as practicable, but in any case within 12 hours of the incident occurring. The environmental incident report format shall be accepted by Trevor Steans in the EMP prior to recommencement of the works.

2.7.4 Trevor Steans will supply a list of current emergency contacts required in the event of an environmental incident.

2.7.5 If an incident occurs, Trevor Steans may decide to initiate a formal investigation. Demex Ltd's Demolition Project Manager (S Stewart) and/or a designated assistant (from senior management) will carry out an investigation and cooperate with Trevor Steans with the investigation process.

2.8 Monitoring Activities

2.8.1 Demex Ltd Vliet sets out in the EMP and agrees with Trevor Steans, a monitoring, reporting and auditing regime for acceptance by Trevor Steans.

2.9 Non-Compliance, Corrective & Preventative Action

2.9.1 As part of the EMP, Demex Ltd will develop and implement a system for identifying and correcting non-compliances. This includes those identified through the internal monitoring, review and audit process.

3. PARTICULAR ENVIRONMENTAL REQUIREMENTS

3.1 Planning and Preparation Stage

3.1.1 A Hazardous Materials Survey and the Asbestos register have been implemented which identify and describe the products and quantities.

3.2 Environmental Aspects and Impacts

3.2.1 Demex Ltd is to appraise all potential environmental aspects and impacts that could result from the works following the headings in Section 3.3 below.

3.2.2 Demex Ltd is to specify the criteria used to identify the level of significance of identified aspects and Impacts. Key decision stages include legal requirements, level of risk to the environment, and level of risk to employees. This is to be in conjunction with existing site observations and records/findings etc.

3.2.3 Significant aspects and impacts are recorded on a Register of Significant Environmental Aspects & Impacts, together with associated mitigation operations. The register is reviewed regularly or in the event of or near miss of a pollution incident.

3.2.4 Demex Ltd will consider environmental aspects in association with health and safety risks and identify them in a single register.

3.2.5 The environmental impacts to be appraised include those that could arise, or are likely to arise during the demolition, unless otherwise agreed with Insert.

3.2.6 Where any residual risks are judged to be significant, Demex Ltd are to

ensure that suitable emergency preparedness measures define the action(s) to be taken and the person responsible for doing so. This is to be in accordance with existing NLCC site rules and practices

3.3 Operational Control

Waste Management

3.3.2 As part of the EMP, Demex Ltd will identify:

The generated wastes and their category, using the European Waste Catalogue

The proposed method for storage, handling and transportation of waste.

The correct means of disposal and the relevant consents and licensing requirements in compliance with statutory requirements.

3.3.3 Demex Ltd endeavours to implement a strategy such that surplus material is managed in order to maximise the environmental and development benefits and where it needs to be disposed of, to ensure it is handled in accordance with current legislation and industry recognised best practice so as to reduce any adverse environmental effects during disposal operations (including segregating/sorting/handling/loading etc).

3.3.4 Demex Ltd to note that NLCC has an agreed approach with the Environment Agency for the management and use of recycled demolition/construction materials on site as part of its obligations under Waste Management Licensing legislation. Once the waste management options have been identified they should be discussed with the Project Manager to ensure that the Environment Agency protocol is complied with.

3.3.5 Demex Ltd is to describe the proposed method of storage, handling, transportation and disposal of waste and demonstrates compliance with relevant legislation concerned with waste management licensing including storage, carriage and disposal of waste to meet duty of care requirements.

3.3.6 Where waste materials are to be disposed off site, Demex Ltd implements a tracking system to control waste disposal and also and that it is deposited at a site which is licensed or permitted to receive wastes of that particular category.

3.3.7 All vehicular movements from the demolition works, both for disposal or reuse, are to be removed in accordance with and accompanied by a duty of care waste transfer note.

3.3.8 With regards to the recording of waste quantities, the preference is for this information to be recorded as a weight as opposed to volume.

3.3.9 Demex Ltd will maintain and provide to the Project Manager prior to the

cessation of the Contract, data relating to waste arisings produced during the term of the contract. The data will be split by key waste type and measured by weight.

Traffic Management (separate document)

3.3.10 As part of the EMP, Demex Ltd will take into account of the advice of the local Police, Highway Authority and any associated Emergency Planning Section to fully determine and establish the following -

- Road closures and diversions;
- Routes to be used by traffic generated by the demolition activity, including suitability of routes for intended vehicle use, imposed time restrictions on use and any routes prohibited from use;
- Means of monitoring lorry use;
- Site specific controls including those specified by relevant qualifying authority.

3.3.11 Demex Ltd demolition project manager is responsible for identifying and securing any traffic management consents and for maintaining consultation with the relevant highway authority.

3.3.12 Wherever practicable, Demex Ltd, will aim to minimise the movement of materials or waste by road during peak hours

Noise Management

3.3.13 As part of the EMP, Demex Ltd identifies how they manage noise impacts including:

- Those activities likely to generate noise;
- The levels of noise likely to be generated;
- The mitigation measures to be adopted.

3.3.14 Demex Ltd are to limit noise levels, so far as reasonably practicable, so that residential properties and all other sensitive receptors are protected from excessive noise and vibration levels arising from the demolition activities.

3.3.15 Previous works of a similar nature (school demolition within a similar local environment) produced the following results (extracted)



Noise measurements taken, identified by bold Arrows & Numbered below.



1. Black bold line – Adjacent to the Houses.
2. Red Bold Line – Adjacent to Sports Barn Fitness Suite.
3. Light Blue Bold Line Adjacent to the Demolition Activities (Crushing Operations, Hydraulic Breakers)
4. Bold Blue line adjacent to the site Entrance. (Noise was picked up from passing Traffic whilst noise assessment was being carried out).

Noise measurement taken at 4.45pm adjacent to the site entrance, once Demolition works had ceased.

Statutory Nuisance Noise

Nuisance

Noise is subject to the provisions of the Environmental Protection Act 1990 Part III and the Control of Pollution Act 1974 Sections 60 and 61 and is defined as a statutory nuisance. A statutory nuisance is an unlawful interference with a person's use or enjoyment of or some right over, or in connection with it.

The survey undertaken considered the potential for noise disruption to the school and the residence likely to be affected by the demolition operations and concluded that, at the time of measurement, the levels expressed were not likely to extend interference to a level to cause disruption to school activities.

No residences were in proximity to be affected by the demolition operations on site and those adjacent to the car park would not be unduly disturbed from traffic entering and leaving the site as normal road use includes a considerable number of heavy vehicles.

HSE Calculator below

Taking each individual measurement point and inserting the maximum peak level over an 8 hour period, the revised calculated values are shown below,

Measurement Point 1 = 6 Points

Measurement Point 2 = 25 Points

Measurement Point 3 = 25 Points

Measurement Point 4 = 40 Points

Daily exposure in the worst case scenario identifies a Lep, d of 40 points at measurement point 4. This is above the exposure point's limit of 32 for the lower exposure limit and influences the requirement for hearing protection.

Noise measurements were taken at their highest peak readings, whilst all Demolition operations were taking place i.e. Hydraulic breaking, Loading the Crusher, Crusher operating, Clearing the Crusher Belts & and the passing traffic from adjacent roadways. Obviously Noise assessment readings will vary due to different operations taking place.

Environmental Nuisance noise was not considered to be at a level to cause disruption.

Recommendations

A further noise assessment is to be carried out, as the works progress.

People working on / around the Crusher are to wear hearing protection.

References

- Control of Noise at Work Regulations 2005
- Health & Safety at Work Act 1974
- Environmental Protection Act 1990 Part III
- Control of Pollution Act 1974 sections 60 and 61
- HSE HS (5) 138 Sound Solutions – Techniques to reduce noise at work 1995
- HSG L208 Noise
- Control of Pollution Act

Dust

3.3.16 Demex Ltd will take all practical measures to avoid nuisance arising from dust of fumes or any other airborne pollutants. Prior to commencement of the works, Demex Ltd provides specific measures to limit dust and fume emissions at source as part of the EMP.

3.3.17 The loading to and from stockpiles, including the movement of vehicles, and the construction and management of such stockpiles shall be carried out in such a manner as to minimise wind borne dust. Where practicable loading/unloading shall take place at sheltered points around the stockpile to prevent entrainment of dust in the wind.

3.3.18 As deemed necessary the provision of sprays/screens and other dust suppressive means will be implemented at source.

Air Pollution

- 3.3.19 Demex Ltd will take all practicable measures to prevent the occurrence of smoke emissions or fumes from their and their sub-contractors plant, construction traffic, stored fuel oils or other substances and prevents emissions of fumes drifting into nearby residential areas, workplaces or areas of public open space and community uses.

Interference with Drains, springs and Watercourses

- 3.3.20 Drains and watercourses shall be preserved and pipes and means provided so as not to stop or diminish their present flow. Measures shall be provided to convey the water to a suitable outlet and every precaution taken to protect the environment from harm as a consequence of the works. Demex Ltd obtains the appropriate permission to allow such discharge (if outside existing site consents).
- 3.3.21 Demex Ltd is not allowed, without prior approval of the PM, to make temporary or permanent connections to, drains, pipes, watercourses or other utility services.

Hydrology and Aquatic Resources

- 3.3.22 Demex Ltd is to avoid lowering the existing water quality of surface or groundwater and complies with any environment standards. Demex Ltd will not adversely affect groundwater.
- 3.3.23 It should be noted that there are no known groundwater boreholes/monitoring within 100 metres of the demolition works.
- 3.3.24 Effluent arising from the works that is, or has the potential to be contaminated is not under any circumstances allowed to enter into the site's surface water system. If consent is required to discharge into the site trade effluent system then an individual agreement may be reached with the sewerage undertaker, Demex Ltd makes provision for the environmentally sound control of hazardous substances, including tanks, drums, mobile dowers, and intermediate bulk containers (with action from Trevor Steans)
- 3.3.25 Storage of oil-related substances is managed in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001.
- 3.3.26 Demex Ltd will adopt similar requirements for other chemical substances. As a minimum, other chemicals are sited on an impervious base and provided with secondary containment (110% of the volume of the largest container which it contains or 25% of the aggregate amount stored, whichever is the greater).
- 3.3.27 The contents of all storage containers are to be clearly marked. The locations of spill kit materials are to be clearly signed.

- 3.3.28 Demex Ltd ensures that refuelling of mobile plant is carried out in a designated area, preferably on an impermeable surface and away from any drains. Demex Ltd will make spill kits available nearby and ensures that hoses and valves are regularly checked for signs of wear and that they are turned off and securely locked when not in use.
- 3.3.29 Diesel pumps and similar equipment are to be placed on drip trays to collect minor spillages. Demex Ltd checks these regularly and any accumulated oil is removed for disposal.
- 3.3.30 Demex Ltd prevents silt from entering surface water drains.
- 3.3.31 (If required) Demex Ltd will regularly brush and scrape site roads and keep them free from dust and mud deposits. In dry weather, effective dust suppression measures are employed.

Ecology

- 3.3.32 Demex Ltd will comply with the relevant statutory provisions in respect of the protection of protected species and controls or prevents any disturbance to such species.
- 3.3.33 Where species are protected by specific legislation, Demex Ltd follows approved guidance to comply with those requirements and allows sufficient time for any licences or consents to be obtained.
- 3.3.34 Site-specific measures in relation to nature conservation and ecology are to be included in the EMP on an ongoing basis.
- 3.3.35 Demex Ltd does not knowingly introduce or cause to grow in the wild, species specified in Schedule 9 of the Wildlife and Countryside Act 1981.

Landscape and Visual

- 3.3.36 Demex Ltd carries out the works so that, as far as reasonably practicable, disturbance to the landscape is contained within reasonable limits and any site restoration measures are implemented in a timely manner.
- 3.3.37 Demex Ltd shall afford appropriate protection to any trees within or in the vicinity which are to be retained within the final scheme.

Lighting (natural & artificial)

- 3.3.39 Works are to be carried out during natural daylight hours
- 3.3.40 Any local task work lighting will be implemented at source and such that it doesn't impede onto local residences by facing into the site and onto defined work areas

General to all aspects

Demex Ltd will notify local residences of the upcoming works and potential impact respective to the environmental aspects above

EUROPEAN WASTE CATALOGUE

Number	Waste Definition
CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	
1701	Concrete, Bricks, Tiles and Ceramics
170101	Concrete
170102	Bricks
170103	Tiles and Ceramics
170106*	Mixtures of, or separate fractions of, concrete, bricks, tiles and ceramics containing dangerous substances
170107	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
1702	Wood, Glass and Plastic
170201	Wood
170202	Glass
170203	Plastic
170204*	Glass, plastic and wood containing or contaminated with dangerous substances
1703	Bituminous Mixtures, Coal Tar and Tared Products
170301*	Bituminous mixtures containing coal tar
170302	Bituminous mixtures other than those mentioned in 17 03 01
17 03 03*	Coal tar and tarred products
1704	Metals (including their alloys)
170401	Copper, bronze, brass mentioned in 17 08 01

1709	Other construction and demolition wastes
170901*	Construction and demolition wastes containing mercury
170902*	Construction and demolition wastes containing PCB (for example PCB containing sealants, PCB-containing resin-based floorings, PCB-containing sealed glazing units, PCB-containing capacitors)
170903*	Other construction and demolition wastes (including mixed wastes) containing dangerous substances
170904	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

Any waste marked with an asterisk (*) is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article