Environmental Policy Document

This Policy will be reviewed as necessary to ensure it complies with all relevant Regulations, Codes of Practice, etc.

Document Revision			
Revision	Change / Notes	Date	By Whom
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Environmental Policy Statement

It is in the interest of the company to have a planned approach towards prevention and reduction of waste and pollution, leading to a long-term reduction of costs, as prevention and reduction are more desirable and economical than damage repair after the event.

The company will control their activities to avoid causing unnecessary and unacceptable risks or adverse effects on the environment, in line with the requirements of the **Health and Safety at Work etc. Act 1974 (HASWA), the Control of Substances Hazardous to Health Regulations (COSHH) and the Environmental Protection Act (EPA90)** as far as is reasonably practicable.

Responsibility for the environment is ranked equally with that for the health and safety of employees, the general public and others. Environmental awareness and individual responsibility will be developed amongst employees at all levels with full and effective consultation being encouraged. The company will continue to develop and improve standards by making use of available technology and developments, together with a waste reduction, recovery and recycling approach. Plant, vehicles and equipment will be maintained and operated to provide the maximum environmental protection as far as practicable.

Local community interests will be taken into account and positive communication with the community entered into where appropriate. Clients, employees, the general public and all other persons who may be affected will be made aware of any the company activity which may affect the environment. Natural habitats and wildlife will be respected and where appropriate within the control of the company, maintenance, restoration or creation of habitats will be encouraged.

Environmental Action

Objectives outlined in the Environmental Policy will be monitored to ensure they are being met wherever reasonably practicable.

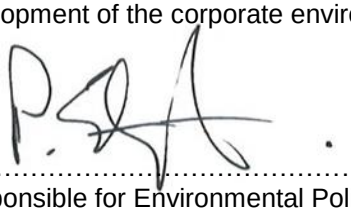
1. **Management** - at all levels will take individual responsibility to ensure that environmental issues are considered when making decisions or when planning or controlling work.

2. **Work Force** - all employees must understand their individual responsibilities for acting in accordance with the individual the company environmental policy and the safety policy.

3. **Waste Reduction** - all employees must give careful consideration to the elimination and reduction of waste at every stage of the construction operation. Where re-use or recycling of material is an economical advantage, this will be carried out.

4. **Complaints** - the companies will continue to develop a system for handling complaints from individuals and organisations etc. and make every effort to provide an efficient and friendly route for communication.

5. **Development** - individual within the company management will supervise the implementation and further development of the corporate environmental policy.



Signed:…….. Date:……10/04/2017…….
Director responsible for Environmental Policy

Policy Objectives

To achieve the policy objectives, environmental management methods of working will ensure:

- The selection of contractors that can demonstrate responsible and effective environmental standards.
- That environmental issues are anticipated and appropriate action taken
- The provision of safe systems of work to prevent accidental releases and spillages including discharges into air, watercourses or land, but that also address emergencies should the implementation of the systems of work fail to meet environmental objectives
- Those products are used in a manner that protects the environment.
- The conservation of resources by re-using or the use of re-cycled materials wherever economically possible.
- Monitoring compliance with all licence conditions.
- The appropriate checking and application of emergency procedures.
- The ongoing checking and monitoring with an aim to continuous improvement.
- All managers and supervisors are accountable for environmental performance on their sites.
- All employees have a responsibility to follow the environmental policy and report hazards to their immediate supervisor.

SECTION 2: POLICY OVERVIEW

The company accept that an effective environmental management on site requires a team effort. This includes input from the main contractor (principal contractor) and sub-contractors onsite, the contractors' organisation off site, designers, clients and suppliers. To manage this teamwork effectively the **site manager** should follow the steps outlined below. So, should the managers of any sub-contractor on site that has the potential to cause environmental effects through its activities - which applies to all trades and operations.

Step 1 – Identify the environment obligations of the project

- Identify legal obligation
- Identify environmental requirements contained in the project brief, specification or contract documents. This should include a review of any Environment Impact Assessment, Environmental Statement or other client/designer derived assessment.

Step 2 – Identify the environmental risks (including emergencies) particular to the site

- Review relevant documentation identified in Step 1
- Talk to environmental regulators about their concerns for the site at an early stage
- Liaise with clients and designers to establish how they can help identify and overcome potential environmental difficulties.
- Compile a risk register for the site
- During site induction alert all site personnel to the risks associated with the construction on site

Step 3 – Identify environmental responsibilities

- Define the environmental responsibilities of all personnel working on site, including those who are involved in implementing and monitoring initiatives
- Define lines of communication between site personnel, and those responsible for producing the site environmental plan (see below)

Step 4 – Establish an environmental management plan (EMP)

- Information gathered in Steps 1 to 3 can be used to form the basis of an Environmental Management System (EMS).
- The most important features of an EMP is that it is site specific, accessible regularly revised and in constant use
- The site EMP can be used to develop method statements for specific components of work
- Method statements are key documents on site as these will be referenced during the process and will incorporate not only environmental, but also all other requirements e.g. health and safety and buildability
- A site management plan (SWMP) may be developed as part of the site EMP

Step 5 – Monitoring and follow up

- A robust monitoring system should be implemented to ensure you are meeting the requirements of your EMP
- All monitoring data should be retained so there is an auditable trail
- Monitoring refers to a wide range of activities, including:
    - Audit reports
    - Maintaining and reviewing training records
    - Chemical analysis of discharges and nearby streams
    - Waste transfer notes
    - Records of dust generation
    - Noise monitoring records.

The management framework

Sub-contractor responsibilities and the supply chain

Sub-contractors and those further down the supply chain need to understand their environmental obligations and ensure they meet them. As with any controls, environmental responsibility can be implemented with incentives or penalties.

It is important for contractors and sub-contractors to work together to ensure successful delivery of projects (see checklist below for suggestions on selecting and managing sub-contractors).

Checklist – Selecting and managing sub-contractors

- Sub-contractors should present proof of their past environmental performance along with records of past and pending prosecutions
- Ensure that sub-contractors have a copy of the site EMP before commencing work
- Ensure sub-contractors attend environmental training sessions/inductions
- Ensure sub-contractors are aware of their environmental obligations on the project
- The contract should include requirements to follow good environmental practice
- Audit the performance of sub-contractors during the project.

SECTION 3: ENVIRONMENTAL LEGISLATION

Below is a list of environmental legislations that is pertinent to the company's activities. The company will update the list using the NetRegs web site. http://www.netregs.gov.uk

- **Environmental Protection Act 1990**

  EA Section 33 of the Act makes it an offence to treat, keep or dispose of controlled waste without a waste management licence, or "in a manner likely to cause pollution of the environment or harm to human health".

  Section 34 introduces a statutory Duty of Care for all those producing or dealing with waste. As a waste producer, the company has regard for this section of the EPA

- **Environmental Protection (Duty of Care) Regs. 1991**

  EA Require anyone who produces, receives, holds, carries, treats or disposes of controlled waste or who, as a broker, has control of such waste, to prepare and retain written descriptions of waste and transfer notes and to furnish copies on request. The transfer notes should contain a description of the waste and all parties in the transaction and be kept for a minimum of two years. Waste should only be transferred to an authorised person. Waste transfer notices are retained by the business and available for inspection at all times.

- **The Waste Management Licensing Regs. 1994** (as amended 2005)

  The Waste Management Licensing Regs. 1994 (as amended) underpin the whole of the waste management licensing system. Contain provisions relating to waste management licensing

- **Hazardous Waste Regulations 2005** (Replacing Special Waste Regs.)

  Producers of hazardous wastes are required register with the Environment Agency. (Includes fluorescent tubes, IT monitors, inks and toners.)

- **Landfill Tax Regs. 1996**

  Customs & Excise Tax of currently £24 per tonne on waste going to landfill. Landfill Directive Sets challenging targets for reductions of biodegradable municipal waste to landfill, introduces classification for landfill sites, specifies that only treated wastes will be accepted and bans the disposal of specified wastes. E.g. liquids, tyres.

- **Water Resources Act 1991**

  The Water Resources Act 1991 (WRA 1991) was amended by the Environment Act 1995, but remains the principal legislation regarding discharges to controlled waters.
  It is an offence to cause or knowingly permit any poisonous, noxious or polluting matter or any solid waste matter to enter controlled waters.

  EA It an offence to discharge effluent into controlled waters which will result in damage to fish, their food, spawn or spawning grounds.

- **Contaminated Land (Wales) Regs. 2001.**

  Provides statutory framework for contaminated land. LA are required to identify contaminated land within their areas, with “Special Sites” being regulated by the EA. Identified sites are to be cleaned to a “suitable for use “standard, with remediation
  Notices being served on the person who originally caused the contamination, advocating the “Polluter Pays Principle “. If this person cannot be found, then the owner/occupier will be held responsible. As a company, we are not aware of any contamination to the land.

- **Environmental Protection Act 1990, Part III, Noise and Statutory Nuisance Act 1993**

  Enables local authorities and private individuals to take action to secure abatement of nuisances such as noise, odours, dust etc. Concerned with street noise from sources such as vehicles, equipment, machinery and burglar alarms. Also, deals with the recovery of expenses incurred by the local authority in abating statutory nuisance.

- **Control of Asbestos Regs 2012**

  Survey to be carried out on premises to identify and manage any asbestos.

- **Control of Substances Hazardous to Health (COSHH) Regs. 2002**

  Assess health risks to people from exposure to possibly hazardous substances. Provide relevant PPE, training and any control measures required. Keep safety data sheets for all relevant products.

- **Control of Pollution (Oil Storage) Regs. 2001**

  Any outside, above-ground oil storage must be secure, strong, and not be liable to leak or spill. Must have secondary containment and be protected from damage or vandalism. Also, requirements for pipes, valves etc.

- **Health & Safety at Work Act 1974**

  Covers a range of issues affecting the health, safety and working environment of everyone working in or using the building.

- **Food Safety Act 1990**

  Any organisation involved in preparation, storage etc. of food must meet appropriate safety and hygiene requirements. Includes disposal of food and food waste products.

- **Town & Country Planning (Environmental Impact Assessment) (England & Wales) Regs. 1999**

  Must carry out an EIA when planning or carrying our developments in areas which may be environmentally sensitive, or where environmental considerations need to be taken into account.

- **Waste Electrical & Electronic Equipment (WEEE) Regs. 2006**

  Provides for take back of electrical or electronic equipment, for recycling, reuse or recovery

- **REACH Regulations**

  Registration, evaluation and authorisation of chemicals for any uses they may be put to. Must ensure that any chemicals or preparations containing chemicals are authorised for what we want to use them for.

- **Site Waste Management Plans**

  From December 2013, there is no legal requirement for Site Waste Management Plans on construction projects. Southbay will however continue to produce a SWMP as part of the EMP on sites where it will be beneficial for the following key reasons: -

  - To improve resource efficiency and reduce waste
  - To prevent fly tipping.

SECTION 4: INDIVIDUAL RESPONSIBILITIES

Managing Director

- Must be aware of the companies' legal responsibilities with regard to environmental control and management.
- Appoint a member of staff to have a specific duty to implement the policy and be responsible for environmental matters.
- Monitor the performance of the environmental appointed person to ensure resources are available and duties are carried out.
- Ensure adequate resources are available to meet the requirements of the Environmental management system.
- Establish an organisational system to ensure a hierarchy for environmental management is in place.
- Ensure the arrangements section of the policy is communicated to the entire workforce.
- Ensure that environmental legislation is closely monitored to maintain above legal compliance.
- Ensure individuals are competent and trained to undertake their role successfully.
- Maintain overall responsibility for the competency and suitability of the management team.
- Monitor the effectiveness of the policy and instigate amendments where appropriate.
- Ensure pre-start meetings include a discussion on environmental impact assessments.
- Include environmental compliance into the regular health and safety meetings.

Project Manager, Site Managers and Engineers

Managers shall be responsible for the overall implementation of the environmental policy on their projects and sites.

The Managers must:

- Make themselves fully aware of the policy and its content.
- Include any information from the policy into project plans, which will aid site managers in site specific environmental control.
- Co-ordinate environmental management into their projects and a team of responsible people.
- Assess the environment to provide practical solutions for reducing the risk of local pollution.
- Co-operate with all stakeholders with regards to improving the environment.
- Be aware of the companies' legal responsibilities with regard to environmental control and management.
- Assess the project to identify environmental aspects (cause) and impacts (affect) prior to start.
- Ensure pre-start meetings include a discussion on environmental impact assessments.
- Monitor the performance of the environmental assessment to ensure resources are available and duties are carried out.
- Include environmental compliance into the regular project health and safety meetings.
- Ensure all contractors are aware at tender stage of any issues which must be taken into account to protect the environment.

- Undertake a post project assessment to identify improvements which could have been made to that specific project and the policy overall.

Site Supervisors - Foreman

Site Managers shall be responsible for the overall implementation of the environmental policy and environmental impact assessment on their site.

The Site Managers must:

- Make themselves fully aware of the policy and any specific section which is relevant to them.
- Continually assess the environment throughout the project to reduce the risk of local pollution and note any significant changes.
- Co-operate with all stakeholders' i.e. local residence or local authority, with regards to improving the environment.
- Be aware of the companies' legal responsibilities with regard to environmental control and management.
- Assess and monitor the project and all site activities to identify environmental aspects (cause) and impacts (affect).
- Ensure meetings include a discussion on environmental issues and control.
- Monitor the performance of environmental control to ensure resources are available and duties are carried out.
- Include environmental compliance into the contractors' health and safety pre-start meetings.
- Ensure all contractors are aware of any issues which must be taken into account to protect the environment at induction.
- Manage waste on site using the environmental hierarchy of reduce, reuse, recycle and finally waste disposal.
- Check the credentials of the waste transfer company and make reasonable enquiries to ensure waste is transferred in compliance with their licence.
- Ensure a suitable number of skips are available for contract waste and monitor skips for mixing of active and inert waste.
- Ensure waste transfer or consignment notes are accurate.
- Undertake a post project assessment with the contracts manager to identify improvements which could have been made to that specific project and the policy overall.

Site Workers

- Make themselves fully aware of the policy and request to see any section which may be relevant to their work.
- Take note of any information which is being given to you via tool box talks or induction.
- Report to the manager any breaches of the site rules and any spills which may cause environmental management.
- Take action if a spill takes place which could pollute the waterways i.e. absorb oil spills or position an absorbent boom around surface water drains
- Report to the managers any significant changes to the environment or damaged equipment (leaking hoses etc.) to reduce the risk of pollution.

- Co-operate with all managers with regards to improving the environment and follow the system of work developed.
- Be aware of the companies' legal responsibilities with regard to environmental control.
- Follow the principles of good waste management on site using the environmental hierarchy of reduce, reuse, recycle and finally waste disposal.
- Ensure you do not contaminate the waste within skips by mixing the active and inert waste.
- Do not overfill skips, which causes litter and waste to spill onto the carriageway.
- Check waste transfer or consignment notes are accurate and report to the manager any discrepancies.
- Report to the managers any improvements which could have been made to that specific project.

SECTION 5: DEFINITIONS ENVIRONMENTAL POLLUTION

Pollution of the environment is taken to mean pollution of the air, water and land from any industrial and commercial activity capable of causing harm to man and other living organisms on the planet.

Environmental aspect – An element of the companies' activities that can interact with the environment. (Diesel bund, excavation, waste management, etc.)

Environmental impact – Any change to the environment from activities which the company have control. (Water pollution, air contamination, ground contamination etc.)

Waste – Includes any material which constitutes a scrap material, effluent or other unwanted surplus substance. Waste can then be sub divided into 4 types: -

Inactive waste – covers materials that do not undergo significant physical, chemical or biological reactions or cause environmental pollution when deposited at a landfill under normal conditions. These include uncontaminated soils and rocks, ceramics, concrete, masonry and brick rubble.

Putrescible waste – covers waste that will rot such as food and timber.

Active waste – are those that are not inactive wastes. They include acids, pesticides, wood preservative, oily sludge's, batteries, waste oils, asbestos, timber and plastics, bitumen etc. Some active wastes may also be special wastes. Active waste is subject to a higher rate of landfill tax than inactive waste.

Hazardous Waste – are that are deemed to be dangerous to life, they may be corrosive, reactive, explosive, oxidizing, carcinogenic or flammable. Some of the more common site special wastes include acids, alkaline solutions, oily sludge's, asbestos, waste oils and wood preservatives. The Hazardous Waste Regulations should be referred to for a comprehensive list.

Water Pollution – The Water Resources Act creates an offence for polluting controlled waters; these include watercourses, road drains, surface water gullies and water contained in underground strata.

Pollution means poisonous, noxious or polluting matter, solid matter or any trade sewage effluent. Examples are cement or concrete wash water which are highly alkaline, oil etc.

Air Pollution – Dust, emissions and odours are defined as a nuisance under the Environmental Protection Act. In addition, smoke, fumes and gases from any site or premise may also be a nuisance. The person responsible (principal contractor, contractor etc.) can be required by the local authority to put a stop to the nuisance through an abatement notice. An aggrieved individual may apply to the magistrates for an abatement order. Breach of the notice or order is a criminal offence.

Noise and vibration radiating from the site are also defined as a statutory nuisance and are also covered under the Control of Pollution Act.

Ground Contamination- Contaminated land can be defined as any land which is shown to contain sufficient qualities or concentrations of a substance such as to pose a direct or indirect hazard to man, the environment, or other targets.

Industrial contamination has often migrated beyond the deposition zone, via leachate. Some contaminates date back to the industrial revolution and is often the result of a succession of different industries using the same site; in particular, old buildings demolished containing asbestos.

Natural Contamination may be found where the industrial processes are so ancient that they are now considered natural (out washing of old Lead mines, heavy metals such as Cadmium, Mercury in soils)

SECTION 6: ESTABLISHING THE SITE

When setting up the site Contracts and Site Managers will plan the site layout and offices to minimise visual intrusion. In urban areas, the site will usually be screened by a suitable, well-constructed hoarding, which will be maintained by the management to reduce fly-posting and graffiti.

Working hours
Site working hours will be established at the beginning of the project to reduce annoyance to the neighbours. On some projects the working hours are defined through contractual agreements or through local authorities who issue Section 60or 61 notices under The Control of Pollution Act.

Lighting
Site lighting may be used as a deterrent to vandals and thieves. Lighting will be kept to a minimum brightness and located to reduce direct light into other properties. Infra-red lighting will be considered for security where necessary.

Security Measures

- The site boundary will be enclosed using high quality fencing, gates and locks. Where the site has regular public contact such as street and city works solid barriers (hoardings) will be used.
- Managers will avoid where possible the stacking of materials against the boundary fence, to reduce the risk of vandals and thieves access.
- The substances and materials which are potentially hazardous will be secured and fuel outlets will be locked.
- All plant will be secured, keys will be removed and plant will be immobilised when necessary.
- The site manager will consider the positioning of the site cabin to allow a good view of the site and will alert the local police if there are any signs of forced entry.

Managing Materials

The purchasing department and site management team will aim to minimise resource use and reduce the amount of waste sent for disposal by improving the management of materials and components at site level. Better control will also reduce the likelihood of spillage incidents, contaminated materials from incorrect storage, less damage to building materials due to better storage, all which means less waste of raw materials.

Ordering Checklist

- Order the correct quantity of materials at a time near to when they are needed, therefore reducing storage times. This is a must on sites with spatial limitations.
- Prior to order, check in what form the materials will be delivered so that the correct plant can be arranged.
- Make sure that the delivery is received by a representative of the company to supervise the delivery, carry out a quality inspection and to ensure the materials are delivered in the correct place.
- Store materials which are valuable in a secure lock up.
- Store materials away from vehicle movements where possible to reduce the risk of damage.
- Secure lightweight materials to protect them from wind damage.
- Ensure chemicals and hazardous substances are stored to comply with the manufacturer's instructions.

SECTION 7: VEHICLE ACCESS ROUTES

The company will plan site traffic routes to reduce problems with the local traffic and to ensure safety requirements are complied with in line with HSG 144 Management of vehicles and plant on construction sites.

Local residence will also be considered to reduce the problem of vehicle emissions, noise and the visual intrusion of queuing traffic.

Plans will be drawn up by the site management team to include, each access and egress route (preferably this will be arranged to allow the vehicles to enter and exit the site in a forward direction), the agreed lorry route by the nearest main road, clear unambiguous signage and established banksman for control of movements and unloading.

Checklist

- When ordering, materials ensure that the drivers are aware of any traffic restrictions.
- Arrange for deliveries to reduce local traffic congestion (e.g. when working near schools, deliver before 8a.m. or after 9:15a.m.)
- Instruct drivers to switch off engines when waiting to reduce CO^2 emissions.
- Where possible arrange for delivery vehicles to go straight into site without having to queue outside.
- Where possible load and unload vehicles off the highway.
- Plan parking for site personnel vehicles.
- Utilise road sweepers to maintain local roads and reduce contamination, particularly when removing spoil.
- Ensure existing footpaths are maintained in good condition.
- Make good any damage to pavements as soon as possible.

SECTION 8: GROUNDWORK'S (EARTHWORKS)

The company accepts a number of environmental issues may be realised during the early stages of a project from earthworks, which would include foundations, piling, reduce level digging, scraping of land to acquire correct levels and on occasion removing contaminated land (see specific section on Contaminated Land).

There are no specific requirements specific to earthworks. However, general environmental legislation will apply.

Points to consider prior to earthwork commencement: -

- The discovery of unforeseen contamination or voids. This may occur however good an investigation or treatment of contamination may have been.
- Temporary storage of spoil, disposal of excess spoil or importing of fill. Site managers should clarify what is waste material and what will be stored for reuse. All surplus material is defined as "controlled waste"
- Issues associated with groundwork's such as piling, noise or vibration, handling of chemicals such as bentonite (see tool box talk section) and disposal of silt water from excavations (see tool box talk section).
- Issues associated with wind-blown dust, traffic management and mud on the roads.
- Consider proximity of local watercourses, streams and rivers to control run off.
- Include any environmentally sensitive areas in the induction and display prominent signs where appropriate.

- Plan for plant refuelling, storage of fuels and control of spillage. (See storage and use of petrol, diesel and oils.)

SECTION 9: GROUND CONTAMINATION

Before a development begins all the land should be regarded as being potentially contaminated. The initial responsibility lies with the client, who should carry out a full site investigation, to include soil and water sample analysis and a geotechnical survey.

If contamination is located, then the contaminated area should have a clear boundary marked, usually fenced off to a height of 2 metres with adequate warning signs displayed.

Access to and from the site should be through a hygiene facility and by use of controlled washing systems for vehicles leaving the contaminated site.

Hygiene – must be situated at the most convenient access point to the contaminated area. Boot washes must be located immediately outside the hygiene unit.

The hygiene unit must be laid out to allow staged cleaning. Segregating storage of personal clothes, protective equipment, washing facilities and toilet facilities.

A trough sink must be available allowing cleansing of the forearm. Nailbrushes, soap and disposable towels to be provided. Hot and cold running water must be supplied. Toilets will be located next to the washing area so that the hands must be cleansed before using the facility.

Areas for eating and smoking should not be located in the contaminated area of the site. Such areas should, where possible, be accessible by going through the hygiene unit.

Cleaning of Cabs – The use of positive pressure cabs should be considered to prevent the entry of contaminants, otherwise the cabs on site should be vacuumed at the end of every shift to prevent the build-up of contaminants.

A high-pressure water jet, wash facility should be provided at the boundary of the contaminated site to wash the wheels, arches and underside of the vehicle when leaving the site. The disposal of such water should be discussed with the local water authority or recycled (recirculated) if possible.

Waste Removal
Sheets should be provided for skips or open top lorries when moving contaminated soils from the site. Sheeting should be carried out within the site. Where necessary a special designated gantry should be available to aid the fitting of sheets. Those involved with sheeting the lorry should avoid contact with the contamination.

Control of dusts – Where considerable quantities of dust will be produced water sprays should be used to dampen down the dust (tractor with water bowser or water jet which has manual control of the water pressure). This will be necessary to protect not only the workers but the general public. Wind speed limits should also be considered to suspend works if the wind exceeds a certain level (e.g. gusting to 25mph) a wind speed meter will be required to accurately assess.

Personal Protective Equipment –An assessment on the PPE needs must be undertaken to protect workers. The protection usually required would include respiratory, skin hand (gloves) and body (disposable coveralls), foot protection (Wellingtons or boots without laces) and eyes due to contaminated dusts. The normal PPE considerations also apply such as head protection and high visibility clothing.

Site Monitoring – Air monitoring of working positions (particularly in the cabs of excavators) within the hygiene unit and in clean parts of the site should be considered depending on the level of risk posed. This will usually be detailed in the pretender plan or ground survey report. Boundary samples should also be taken to reassure the public.

Any water courses which may be subject to contamination should also be monitored.

Specialists in atmospheric monitoring techniques should be contacted prior to project commencement to identify the type of sampling required.

Contingency Plans
Contingency plans should be drawn up to deal with any residual contamination found on site. The plan must set out actions what should be taken by site management should contamination be found during the construction phase. Such measures may include encapsulating the contamination with an overlay of soil until specialist removal can be instigated.

SECTION 10: WATER

The company accepts that water is a vital resource and aims to manage water properly on site. All site team management are made aware of the controls required to ensure that watercourses are not polluted during the project and that any pollutants getting into the surface water drain or groundwater will end up polluting local water systems.

The site management team will evaluate the potential water pollution risks

- Assess drainage drawings to establish surface water and sewage. And ensure they are in a suitable condition and connected to an outlet.
- Identify local watercourses which have the potential to be polluted.
- Working with groundwater and silty water from excavations.
- Works in contaminated ground and pumping water from excavations.
- Wash out from concreting operations.
- Spillage from chemicals and substances.

The site management team will then identify appropriate control methods (see next section on water – best practice) and pass on the information to relevant workers.

The site manager is then responsible for implementing and monitoring the control methods and initiating any pollution emergency response.

Water – Best Practice

Before starting the project carry out a survey to establish the location of the local streams and mark the position of the surface water drains and foul sewer. On sites with complex drainage it may be prudent to mark the surface water in blue and the foul sewer in red.

Ensure a survey has been undertaken on utility services, gas, water, electricity, telecommunications and drainage.

Ensure services are protected against damage in particular to the environment, heavy plant tracking over manhole covers, which may cause collapse resulting in sewer blockage.

Disposing of water from site
Construction site run off and all waste waters must be disposed of in accordance with the requirements of the regulatory authorities, for example

- Consent is required from the local sewerage undertaker (Northumbrian Water) to discharge effluent to the public sewer
- Consent is required from the Environment Agency to discharge to a watercourse.

In most cases consent, may take time. Therefore, management team must plan ahead to avoid costly delays at site.

Spillage
Immediately catching the spill is the best emergency response which includes use of bunds around oil storage tanks, use of drip trays on mobile plant. However, if a spillage occurs then spill kits, sand bags or even sand can be used as a barrier to block off drains or barrier sensitive areas.

Sand and soil which has become contaminated must be disposed of properly.

Vehicle Washing
Where possible vehicles should be washed in a bunded area or discharged to the foul sewer. On sites with a large muck shift a wheel wash system should be acquired which recirculates the water. The contaminated water should then be disposed of by a licensed disposal contractor.

Solid Wastes
Good controls on packaging and skips will reduce the risk of litter blowing into watercourses. Monitoring of local streams and rivers will help the manager quickly identify any problem areas.

Silty Water
A number of options are available as follows: -

- Pumping to grassland/fields – this procedure will require permission from the land owner and the Environment Agency
- Pumping into the foul sewer – this will require permission from the water companies (Northumbrian Water).
- Pump to a settlement tank – retaining water in an undisturbed state long enough for the suspended solids to settle out. The clean water is then either pumped out or flows out of a discharge point.
- Filtration System – passing silty water through a steel tank fitted with a suitable filter.
- Finally, and the most costly pump into a tanker and dispose of off-site.

Emergency Spill

Ensure that the site manager has details on the procedure to be followed in the event of an emergency. If the spill is significant it should be reported to the Environment Agency on their pollution line 0800 807060.

A typical emergency plan will include: -

1. Employees to immediately report the pollution problem and the pollution source.
2. Stopping the flow of the source and switch off sources of ignition.
3. Avoiding the spread - site drainage plan
   Stem the flow
   Dam the flow with spill kits or sand
   Divert from drainage and watercourses
4. Only use sand or absorbent pads to mop it up
5. Shovel contaminated sand into sacks or skips
6. Dispose of contamination appropriately.

SECTION 11: WASTE

The company aim to manage waste effectively on all its sites. The company focuses on the amount of materials that are wasted, the way in which wastes are handled and the best method of disposal.

All managers will aim to effectively manage the waste by initially allocating sufficient space to store the waste. The space allocated will be assessed by identifying what types of wastes are being generated on site. The site manager will monitor the waste by: -

- Assessing the quantities of raw material wastage
- Assessing the quantities of each type of waste
- The suitability of the waste storage areas
- The cost of disposal for different types of waste.

Also, see **managing materials** page 14.

The management will reduce waste initially by reducing the quantities ordered (avoid over ordering), ordering lengths of materials to size to reduce off cuts and arranging for delivery of materials at the correct time.

The next phase is to reduce the amount of waste going to landfill. The company will aim to minimise the disposal costs (landfill tax) by reusing and recycling wastes generated on site wherever possible.

If possible the waste should be separated and stockpiled. The manager must assess what wastes could be reused. Examples as follows: -

- Concrete – used as aggregate in new concrete
- Excavation spoil – used as fill or landscaping
- Timber – shuttering, hoardings etc.
- Topsoil – landscaping

SECTION 12: TRANSPORTING OF WASTE

The company accepts it responsibility to dispose of waste arising from the project at a licensed site in line with the Environmental Protection (Duty of Care) Regulations 1991.

The site managers will monitor the waste being removed from site using the following check list: -

- Check the copy of the waste carriers' registration document and that it is still valid.
- Check that the waste carrier is authorised to carry that type of waste (hazardous waste etc.)
- The transfers notes should be completed in full and contain an accurate description of the waste.
- Copies of the waste transfer note must be kept for 2 years (3 years if classified as hazardous)

To ensure the waste management company are complying with their duty of care, spot checks will be carried out by following the waste vehicle to the disposal site at least once in every project or once every 50 load if bulk waste removal is taking place, such as demolition.

SECTION 13: NOISE

Good relations with the people living and working in the vicinity of the company operations are of particular importance. The Control of Pollution Act 1974 (Section 60) and the Environmental Protection Act Part III contain specific requirements to control noise from construction sites.

Local authorities are able to serve an abatement notice on any persons who are creating or expected to create noise. As an alternative, an application may be made to the local authority for prior consent.

The Environmental Protection Act defines noise emanating from a site which is prejudicial to health as a statutory nuisance. There is no level set for statutory nuisance and the local authority has the power to serve a notice.

General Controls

The first action required is to identify any activity which may create noise, such as vehicles, machinery, construction activity and employees. The following control measures will be used where possible: -

Substitute

Specify noise reduced plant
Use bored instead of impact pile driving

Modify the Noise Route

If possible, modify the path between the noise generation and the receiver by consideration of:

- Enclosure of the workplace
- Using sound absorbing material (screens)
- Using mufflers and silencers to reduce noise transmitted along pipes and ducts.
- Provision of anti-vibration mountings under machines
- Enclosing the noisy machines or covers around noisy parts
- Using the quietest machinery available.

Distance

Increasing the distance between the noise source and the receiver can provide considerable improvement. In the open-air sound decreases by 6dB for every doubling of the distance away from the source.

- At 1 metre distance the noise level is 112 dB
- At 2 metre distance this would be 106dB
- At 4 metre distance this would be 100dB
- At 8 metre distance this would be 94dB.

Public Relations

Local residents near to the site should be contacted at an early stage of the construction phase to explain what is going to happen, why it is necessary and the duration.

Consideration should also be given to the timing of the noisy operations. Some activities such as piling, breaking out, demolition, earth moving, scabbling etc. cause the greatest problems.

If a complaint is brought to the notice of the site by a member of the public, every effort should be made to resolve the complaint before the enforcing authority is informed.

Any complaints received should be recorded and the contracts manager should be informed immediately.

Noise Checklist

- ✓ Is a noise survey required to ascertain ambient noise levels
- ✓ Has a section 61 notice been applied for if noisy work is expected
- ✓ Has contact been made with the local authority
- ✓ Are the restrictions imposed by EHO being adhered to?
- ✓ Has plant been serviced at regular intervals
- ✓ Have noise barriers been provided around noisy operations
- ✓ Is all plant equipped with noise damping?
- ✓ Is the quietest available plant being used?
- ✓ If appropriate is fabrication being carried out off site
- ✓ Have complaints been reported
- ✓ Have complaints been addressed to a satisfactory conclusion

SECTION 14: VIBRATION

Although high vibration levels are rare over sustained periods they can cause damage to buildings and sensitive equipment such as computers. Low levels can cause nuisance to residents. It is likely that local residents will complain about any perceived vibrations as soon as they become noticeable.

There are three primary aims of the company management are: -

- To avoid causing damage to nearby structures
- To avoid causing annoyance and concerns
- To avoid being falsely accused of causing damage.

Controls

- Evaluate the potential for vibration and thereby damage.
- Monitor conditions before works start. Such as existing cracks in buildings or damage such as broken tiles, loose pipes or cracked plaster
- Inform Neighbours. Informing neighbours of the potential for vibration allows the off-site staff to learn of any particularly sensitive issues that may be time dependent and that may be avoided by limiting hours of work.
- Minimise effects by isolating plant, position plant such as crushers away from sensitive areas. Ensure all plant is maintained.
- Monitor the conditions after the works are completed. (pre-condition survey)

SECTION 15: DUST

The company recognises that dust, emissions and odours arising from site will annoy neighbours and can even cause health risks at very high concentrations.
Dust for this policy is considered to be any airborne solid matter up to about 2mm in size. Some dust such as limestone is also chemically active.

The following points will be considered by the management team to avoid dust generation: -

Demolition

- Use of enclosed chutes for dropping materials down to ground level.
- Locate crushing plant away from sensitive areas
- Ensure a water bowser is available to suppress dust.

Plant

- Clean the wheels of vehicles leaving the site so that mud does not spread on the surrounding roads
- Ensure that exhausts do not discharge directly to the ground.
- Ensure vehicles carrying a dusty load are covered via a sheet
- ensure vehicles comply with MOT emissions standards

Materials

- locate stockpiles out of the wind if possible
- keep stockpiles to the minimum height
- ensure all dust generating materials transported around site are covered with a tarpaulin
- damp down
- avoid spillage and clean up as soon as possible

Haul Roads

- select suitable haul roads away from sensitive areas
- sweep haul roads regularly
- provide a length of paved road before the exit to the site.
- use a road sweeper on public roads
- limit the speed of vehicles
- damp down

Cutting/grinding

- minimise cutting and grinding on site
- use dust extraction and water suppression on cutting saws
- use water suppression on stihl saws

SECTION 16: ENERGY CONSUMPTION

Efficient energy use not only reduces operating costs, but also produces important environmental benefits. Most of the energy use is produced by burning fossil fuels, coal, oil and gas. Burning these fuels produces a variety of pollutants including sulphur dioxide, nitrogen oxide and carbon dioxide.

Using energy efficiently and thereby reducing pollution is recognised by the company the following measures will be implemented: -

Lighting

- lighting levels will be appropriate for each task
- all lamps will be switched off when rooms are not in use
- all lamps and fittings shall be in a clean condition
- Movement detectors will be considered for appropriate areas

Heating Systems

- All heating systems will be regularly maintained
- Heating pipes and tanks will be insulated
- Heating systems will be isolated when not required
- Unoccupied areas will not be heated unnecessarily

Air Conditioning

- Air conditioning will only be fitted when it is deemed necessary
- Areas must not be overcooled
- The unit will be adequately maintained and cleaned
- The heat exchanger surface should be free of dirt and the air flow unobstructed

General

- Turn off hot and cold water taps completely and report any leaks or drip as soon as possible
- Switch off any appliance which is not being used
- Don't make more photocopies than are actually needed
- Send an e-mail as opposed to paper documentation
- The company will display environmental advisory notices around the premises

SECTION 17: SITE WASTE MANAGEMENT PLANS

From December 2013, there is no legal requirement for Site Waste Management Plans on construction projects. Southbay will however continue to produce a SWMP as part of the EMP on sites where it will be beneficial for the following key reasons: -

- To improve resource efficiency and reduce waste
- To prevent fly tipping.

Preparing Site Waste Management Plans

Any client intending to carry out a construction project may require a Site Waste Management Plan to be prepared. It is likely, however; that the client may contractually delegate this responsibility to the Principle Contractor.

The Site Waste Management Plan should identify the following:

- The client
- The principle contractor, and
- The person who drafted it
- The nature of the construction work and location
- The estimated cost of the project
- The types and quantities of each waste expected to be produced during the project
- The waste management action proposed for each of these wastes i.e. reusing, recycling, recovery or disposal.

The plan must also include information on any decisions taken before the plan was prepared relating to: the nature of the project, its design, construction methods or materials employed to minimise the amount of waste. The Plan must include a declaration from the client and principle contractor that:

- All waste is dealt with in accordance with The Duty of Care Regulations.
- Materials will be handled efficiently and waste managed appropriately.

Updating Site Waste Management Plans

The Site Waste Management Plan will be kept up to date and certain records maintained.

- Identify the company or person removing the waste
- The waste carrier registration number of the carrier
- The description of the waste with a copy or reference to the Duty of Care waste transfer note
- The site that the waste is being taken to and whether the operator of the site holds a waste management permit under The Environmental permitting (England and Wales) Regulations 2007.

As often as appropriate but at least every six months, the principal contractor must ensure that the plan accurately reflects the progress of the project by:

- Reviewing the plan
- Recording the types and quantities of waste produced
- Recording the types and quantities of waste that have been reused, recycled, sent for another form of recovery, sent to landfill or disposed of in another manner.

Finalising Site Waste Management Plans at Project Completion

Within three months of the works being completed the principle contractor must add the following information to the plan:

- Confirmation that the plan has been monitored on a regular basis and the works are progressing in accordance with the plan
- A comparison of the estimated quantities of each waste against the actual quantities
- An explanation of any deviations from the plan
- An estimate of the cost savings that have been achieved by completing and implementing the plan.

A copy of The Site Waste Management Plan should be maintained at the site office or at a location which is accessible to any contractor who has involvement within it. Arrangements for the project site waste management plan should also be included within site inductions.