



GuernseyWater

A DIVISION OF THE PUBLIC SERVICES DEPARTMENT

SAFE WORKING PROCEDURES

Issue 2

2007

No:	
------------	--



Safe Working Procedures

Guernsey Water regards the safety of its employees, contractors and members of the general public to be of the utmost importance. All reasonable steps will be taken to ensure that a safe working environment is maintained at all times.

This document provides guidance as to how all Guernsey Water staff are expected to behave so as to ensure the safety of themselves and others.

Under Health and Safety legislation everyone has a duty to care for themselves, those with whom they work and with members of the public who are affected by their actions.

Take time to read this manual carefully and if there is anything about which you are unclear, or do not understand then please speak to your line manager in the first instance.

In this manual certain work activities are singled out for special attention, where a task is not described then the Job Safety Check List (GW/001) should be used to help identify hazards in the workplace. Use your common sense and work safely.

Guernsey Water prides itself on having a good safety record, thanks to the behaviour of all staff. Guernsey Water staff must continue to work safely and where individuals are found not to be working in an appropriate manner, or disregarding health and safety advice, including the correct use of personal protective equipment then Guernsey Water may take disciplinary action.

Let us all avoid this by not taking chances and instead work safely!

Andrew Redhead
Director of Water Services
August 2007

Contents

A	
Abrasive Wheels	6
Accidents and Dangerous Occurrences	7
Aircraft Accident	8
Alcohol and Drugs	10
Asbestos	11
Asbestos Cement Waste; Procedures for Cutting into; Reaming and Disposing of:	12
B	
Battery Charging	14
Boating – Use of Boats on Reservoirs and Quarries	15
Breathing Apparatus Cylinders	17
Buried Services	21
Burning of Rubbish	25
C	
Chemicals, Storage, Handling and Safe Use	27
Confined Spaces	31
Contractors' Duties and Responsibilities	34
Cranage Access into Quarry Reservoirs	35
Cranes and Lifting Apparatus	37
D	
Display Screen Equipment	39
F	
Fire Precautions	40
First Aid and Medicals	43
G	
Gas – Chlorine and Sulphur Dioxide	45
Gas Detectors (Portable)	48
Grass Cutting	49
H	
Hand Tools	50
Hazardous Substances	51
Herbicides and Pesticides	53
Hi-ab Cranes Lorry Loaders	54
Highly Flammable Liquids and Gases	56
Hire of Plant and Machinery	58
Hose Safety	59
Hot Works	60
I	
Inspection Procedures (Statutory)	62
L	
Ladders	66
Liquid Chemicals	68
Lone Working	69

M	
Machine Safety	70
Manual Handling	72
MARS Resuscitator	74
Mobile Scaffolds	75
N	
Noise	77
O	
Office Safety	78
Overhead Cables	80
P	
Personal Protective Equipment (PPE)	82
Petroleum and Two Stroke Mixtures	88
Pipe Cutting Equipment	89
Plant, Vehicles and Trailers	91
Portable Plant and Equipment	94
Pressure Vessels and Apparatus	97
Public – The Protection of	98
R	
Recording and Reporting Accidents	99
Risk Assessment	102
Rope Access Works	103
S	
Stacking of Materials	104
Storage and Disposal of Waste	105
Sun Protection	106
T	
Training	107
Transporting Dangerous Substances By Road	108
V	
Valve and Hydrant Operation	109
Vehicle Loads	110
Vibration	111
Violence at Work	113
W	
Water on Highways	114
Water Quality – Protecting Public Water Supply	115
Weil's Disease (Leptospirosis)	118
Welding and Cutting	119
Work Activities during Poor Visibility	121
Working at Height	122
Working on the Highway and on Private Roads (Excavations and Pipe Work)	123
Workshop Safety and Welfare	130
Y	
Young Persons	132

APPENDICES	
Crane Operations Hand Signals	133
General Permit to Work	134
Job Health and Safety Checklist (GW/001) - Front	135
Job Health and Safety Checklist (GW/001) - Reverse	136
Confined Space Checklist (GW/002) – Front	137
Confined Space Checklist (GW/002) – Reverse	138
Risk Assessment Form – Front	139
Risk Assessment Form – Reverse	140
Hot Work Permit	141

All of the following working procedures are for your guidance. Any doubts, queries or requests for further information should be directed immediately to your supervisor. **IF IN DOUBT ASK!**

Employees' Duties

Section 6 of the Health and Safety at Work (General) (Guernsey) Ordinance, 1987

To take reasonable care for themselves and others that may be affected by their acts / omissions e.g. wear eye protection, not obstruct a fire exit.

To co-operate with the employer or other to enable them to carry out their duty and/or statutory requirements e.g. report hazards or defects in control, attend training, provide medical samples.

No person shall intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety and welfare.

Guernsey Water also expects;

Employees to follow health and safety instructions by using machinery, substances, transport, etc in accordance with the instructions and training that they have received.

Employees should inform GW (and other employers) of any dangers or shortcomings in the health and safety arrangements, even if there is no risk of imminent danger.

ABRASIVE WHEELS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation and Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Disposable Particulate Respirator (FF P3 Type) Eye Protection – Anti-mist and Impact Resistant Hearing Protection Safety Boots Safety Gloves

1. Abrasive wheels, disc cutters and similar high speed portable plant present a serious hazard to those operating these machines. It is Guernsey Water's policy that only those who are trained and competent in their operation may use these machines and change the wheels/discs.
2. Each machine, whether fixed or portable, must have the maximum speed of its spindle marked on the machine - Do not use it if this is not so.
3. Every wheel or disc must have its maximum speed marked on it. Do not use it if this is not so.
4. Every machine must have an effective on/off switch conveniently positioned for use by the operator.
5. The floor surrounding the work piece must be clear of obstructions.
6. No machine shall be operated without its guard in place.
7. Personal protective equipment must be worn. This work will always require eye protection to be worn, ear protection if action noise levels are exceeded and gloves if sharp metal is a by-product of the cutting. Safety boots must be worn, especially when using portable machines. There may be circumstances where persons working in the close vicinity who may be affected by flying particles must also use eye protection.
8. Noise can be a hazard, wear ear defenders, especially if using a wheel for long periods.
9. When using disc cutters where sparks are likely to fall on lower leg, trousers or overalls must be worn.
10. It is Guernsey Water's policy that only portable tools powered by 110 volts or less should be used. If 240 volt supplies are used, the tools must be double insulated and a RCD fitted at source.

ACCIDENTS AND DANGEROUS OCCURRENCES

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 General Register for Places of Employment (HSE Document)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. It is Guernsey Water's policy that you must report immediately any accident which causes injury or damage or any dangerous occurrence which you believe has the potential for doing so to your supervisor. This should ensure your own protection, that the circumstances are investigated to try and prevent a recurrence and that a record is kept and the relevant authorities are informed.

2. You must immediately contact your supervisor if you have any doubts into whether an accident or dangerous occurrence should be reported.

3. Remember a **near miss** should be seen as a learning opportunity. By reporting a near miss you could help prevent a colleague or member of the public being injured in the future.

Please refer to the Recording and Reporting Accidents section.

AIRCRAFT ACCIDENTS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Microgard 4000 Coverall Full Face PP3 Respirator Fitted with ABEK2P3 Filters Bolle Goggles (Impact and Anti-mist) FFP3 Orinasal Respirator Under Gloves Rubber Gauntlet Gloves Worn Under The Sleeves Rubber Boots Worn Under The Coverall Legs Fitted With Steel Toe Caps and Mid Soles

1. Guernsey Water staff are contacted by the emergency services to attend aircraft accidents in order to supervise and effect protective measures to safeguard the catchment area from pollution.
2. There are a number of hazards associated with crashed aircraft which the staff should be aware of when carrying out their work: -
 - The carbon composite fibre released when materials are involved in air crashes.
 - Hazardous substances carried within the aircraft or as cargo.
 - Hazards associated with fuel spillage.
 - Jagged and sharp edges.
 - Fire fighting foam.
3. Guernsey Water staff must never approach the scene of a crashed aircraft until the emergency services indicate that it is safe to do so. It is normal practice to set up an emergency centre that is a safe distance from the scene and therefore it is not usually necessary to wear any protective clothing at the point.
4. All staff must wear the personal protective equipment provided when approaching an aircraft to assess the pollution risk. These are: -
 - Microgard 4000 coverall (or similar).
 - Full face PP3 respirator fitted with ABEK2P3 filters.
 - Under gloves.
 - Rubber gauntlet gloves worn under the sleeves.
 - Rubber boots fitted with steel toe caps and mid soles to be worn under the coverall legs.
5. If it is decided that Guernsey Water staff have to carry out work in the immediate vicinity of the crash and there is perceived to be minimal risk of carbon fibre dust FFP3 orinasal respirator and Bolle goggles can be used.
6. It is important to ensure that all equipment carried onto or near the crash site for whatever purpose is intrinsically safe.

AIRCRAFT ACCIDENTS (continued)

7. Because of the possibility of the carbon fibre dust being blown in the wind, staff should not don protective clothing down wind of the immediate crash site but should approach from distance and change into and out of protective equipment away from the down wind direction.
8. If the damage to composite materials is assessed as severe and the contamination of the surrounding area is high, measures should be taken to suppress the dust around the crash site or clear away the contamination.
9. Once used in a crash situation, all disposable overalls should be disposed of and all other protective clothing thoroughly cleaned down.
10. Respiratory filters should be changed at regular intervals or when exposure has been high.
11. Any damage to protective clothing should be reported and new equipment will be provided.
12. Any skin abnormalities, respiratory problems or other illness suffered by staff after attendance at aircraft crashes must be reported to management and medical attention sought.

ALCOHOL AND DRUGS

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	
N/A	

1. It is a legal requirement that you take all reasonable care for your own health and safety, those alongside you and to members of the public.

2. If you are undergoing a course of medical treatment which includes prescribed drugs, the doctor will determine whether or not you are fit to return to work and undertake your normal duties. You are expected to comply with this medical advice.

3. However, it is Guernsey Water's policy that no employee shall be permitted to compromise their own safety or that of a colleague if they are under any influence of alcohol or drugs. To this extent, you must not work whilst under the influence of alcohol and / or drugs. If anyone suspects that the work of an employee under their control is affected by taking such substances, he will take suitable action, and report the matter to their supervisor. Guernsey Water may instigate disciplinary proceedings depending upon the severity of the breach of this policy.

ASBESTOS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation and Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED (to be worn by authorised and asbestos trained employees only)	Disposable Particulate Respirator (FF P3 Type) Disposable overalls fitted with a hood (Waterproof overalls may be required outside) Safety Boots without laces/Wellington Boots

Only trained and authorised staff are permitted to handle asbestos.

1. Asbestos refers to a group of inorganic silicates which occur naturally and have a distinct fibrous crystalline structure and this is largely responsible for its unique properties i.e. tensile strength, stiffness, heat resistance, and so on.
2. Asbestos containing materials (ACM's) have been widely used throughout the world for a wide variety of applications particularly in building and fireproofing products.
 - There are a number of very harmful (and fatal) asbestos related diseases associated with breathing in airborne asbestos fibres of microscopic size. These fibres become dispersed in the air as a result of any work, unintentional disturbance or fire involving ACM's.
 - To combat these risks legislation has been introduced which sets out strict controls for the management of asbestos in buildings and also on work on asbestos products.
3. It is Guernsey Water's policy to locate ACM's within the workplace and to manage the risk they present. It is also policy to bring to the attention of all contractors and sub-contractors the location of any ACM's within the building. Contractors are expected to meet all Health and Safety requirements should they work with any ACM's on the premises.
4. Only employees who have received an appropriate level of training are allowed to manage ACM's on the premises.
5. Even if ACM's have not been identified by a Type 2 Survey it is Guernsey Water's policy to make sure an appropriate assessment of the asbestos risk is made whenever disturbing the fabric of the premises.
6. On discovering a potential ACM, employees must: -
 - stop work at once and exit the area
 - report the finding to their supervisor and await further instructions

ASBESTOS CEMENT WASTE; PROCEDURES FOR CUTTING INTO, REAMING AND DISPOSING OF:

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation and Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED (to be worn by authorised and asbestos trained employees only)	Disposable Particulate Respirator (FF P3 Type) Disposable overalls fitted with a hood (Waterproof overalls may be required outside) Safety Boots without laces/Wellington Boots

Only trained and authorised staff are permitted to handle asbestos.

- From time to time it is necessary for an employee of Guernsey Water to work on or with asbestos cement pipes.

Procedures for cutting into and reaming of asbestos cement water mains

- Calliper, main in line with the expected cuts to determine the exact O.D. of the pipeline prior to cutting.
- Select the appropriate V.J. coupling to fit the section of pipeline which is to be removed.

Please Note! When the O.D. of the pipeline being removed is non-standard, reaming may be required, See Procedures in Reaming of asbestos cement pipelines.

- Cutting of asbestos cement pipelines

Before cutting into the pipeline ensure the following procedures must be complied with: -

- Wear disposable overalls supplied.
- Wear type P3 respirators supplied to each fitting vehicle.
- Make sure water supply is available to dampen down any dust.
- Only use coarse saw when cutting asbestos cement pipelines; at no time must disc cutters or grinders be used to cut or ream asbestos cement pipelines.
- After you have complied with procedures 1, 2, 3 & 4 you may proceed with the cutting of the pipeline. **Keep the work damp at all times.**

Reaming of asbestos cement pipelines

- Wear disposable overalls supplied.
- Wear the appropriate respirator supplied to each fitting vehicle.

ASBESTOS CEMENT WASTE; PROCEDURES FOR CUTTING INTO, REAMING AND DISPOSING OF: (continued)

7. Make sure water supply is available to dampen down any dust.
8. Only use coarse hand rasp or special reaming tools to ream asbestos cement pipelines. At no time must disc cutters or grinders be used to cut or ream asbestos pipelines.
9. After you have complied with procedures 1 to 8 you may proceed with the reaming of the pipeline. **Keep the work damp at all times.**

Removal of asbestos cement pipelines and surplus waste from site

10. All asbestos cement waste including pipe off cuts, used overalls, etc, must be placed in plastic bags provided and sealed with tape. These bags of waste must be kept sealed and taken to Guernsey Water depot at St Andrews Reservoir and placed in the special covered skip bin provided.

Disposal of asbestos cement materials

11. When the waste skip is full Guernsey Water will contact the management of the appropriate States tip to arrange for its burial.

Please note! If you have any doubts contact your line manager.

BATTERY CHARGING	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Boots Full Face Visor Safety Gloves Acid Resistant Apron

1. Batteries during and after charging give off hydrogen, an easily ignited and explosive gas. Employees must not smoke or carry out activities which could cause sparks. The work area must be well ventilated through either forced or passive ventilation.
2. Always switch the charger off before removing clips from the terminals.
3. Rings, metal watch straps and jewellery can cause short circuits resulting in nasty burns. Remove such items before working on batteries.
4. Batteries are best charged out of the vehicle or plant and when removing them from equipment, always disconnect the Earth Terminal first, to reduce the danger of short circuits.
5. Do not charge batteries at rates in excess of manufacturers recommendations.
6. Do not leave metal objects where they could bridge terminals on unprotected batteries.
7. Use proper lifting techniques when moving heavy batteries - get help - use trucks or other mechanical aids.
8. Battery acid is highly corrosive and can cause severe burns especially to the eyes. Wear appropriate protective equipment and have clean water or eye-wash facilities available to remove contamination.
9. Report any faults to equipment to your supervisor.

BOATING – USE OF BOATS ON RESERVOIRS AND QUARRIES

REFERENCE	<p style="text-align: center;">The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation and Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 General Register for Places of Employment (HSE Document)</p>
ESSENTIAL SAFETY EQUIPMENT REQUIRED	<p style="text-align: center;">Suitable Safety Gloves Wellington Boots or Waders Life Jacket High Visibility Water Proof Clothing Hard Hat</p>

Guernsey Water owns two boats a rigid dory and an inflatable dingy. These two boats are used to sample and inspect Guernsey Water’s reservoirs and storage quarries.

1. Select the most appropriate boat for the task in hand. The dory has been fitted with lifting eyes so it can be lowered into quarries by a crane. Any employee who slings and banks the Dory via a crane should be trained as a slinger / banksmen. The dory also has a submersible trailer so the boat can be driven into water for ease of launching and recovering. The inflatable dingy is fairly light weight (minimum 2 man job) and has removable wheels to aid launching and recovering.

2. The boats may only be operated by designated, experienced staff.

3. The type of lifejacket to be worn is dependent on footwear. For Wellington boots either 150 Newton or 275 Newton lifejackets can be worn. For waders only the 275 Newton lifejackets can be worn. The 275 Newton lifejackets are easily identified from the 150 Newton lifejackets by the presence of leg straps. Prior to use the lifejacket should be inspected and the following items checked: -
 - Any signs of damage to the lifejacket cover, belt or buckle.
 - The manual operating cord is present.
 - The CO2 cylinder is fitted and firmly tightened.
 - The expiry date on the inflation device.
 - The green dot is visible on the inflation device (only present on lifejackets fitted with a hammer automatic inflation device).

BOATING – USE OF BOATS ON RESERVOIRS AND QUARRIES: (continued)

Lif jackets must be externally serviced every year.

4. If the intended work to be carried out has the potential for other persons to be working overhead, working under moveable or low objects or near a rock face hard hats **must** be worn.
5. Before launching the boat a check must be carried out to ensure there is enough fuel for the activity, the boat is fully inflated (dingy) and a dry powder fire extinguisher and first aid kit are on board. You must have a means of communication (radio or mobile phone). A pair of suitable oars must be onboard.
6. Any apparatus carried onboard must be secure and not compromise the boats buoyancy.
7. Any damage to the boat or trailer must be immediately notified to your supervisor or manager.

BREATHING APPARATUS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Safety of Employees (Miscellaneous Provisions) Ordinance 1952
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Breathing Apparatus Sets Safety Gloves Safety Boots Overalls

Only authorised, trained and certified personnel may use B.A. equipment.

APPARATUS CHECK – to be carried out before use and monthly. DO NOT use the set if any faults are identified or any part of the equipment’s test / service date has expired. The set MUST be removed from service and an appropriate member of staff informed.

1. The B.A. set should be checked to ensure that the date of the equipment’s next examination is not overdue.
2. Check set is clean and in good condition.
3. Fully slacken waist belt, shoulder straps and head harness.
4. Check hoses and couplings are free of damage (do not use if braiding is visible).
5. Check visor for blemishes / cracks.
6. Check hand tight connections.
7. Fit cylinder if not already fitted.
8. Reset demand valve.
9. Reset bypass knob.
10. Slowly open cylinder valve fully.
11. Check pressure gauge (minimum before use 80% full = 160 bar).
12. Close cylinder valve and check pressure gauge for one minute (10 bar drop).
13. Open bypass knob.
14. Observe gauge (whistle at 55 bar +/- 5 bar).

BREATHING APPARATUS (continued)

15. Close bypass knob.
16. Check demand valve by pulling back locking catch and ensure it springs back.
17. Rotate bypass knob and check it springs into on and off positions.
18. Check O-ring and fit demand valve.
19. Press reset button and check bypass is off and re-stow set.
20. Details of such checks should be recorded and kept for future inspection.
21. Refer to the instruction manual or Guernsey Water's Health and Safety Officer should you have any concerns or queries.

DONNING PROCEDURE

1. With harness straps fully slackened don set and adjust straps for comfort.
2. Fasten waist belt and adjust for comfort.
3. Check red bypass is off and depress black reset button.
4. Open cylinder valve fully.
5. Check pressure gauge (minimum before use 80% full = 160 bar).
6. Don facemask.
7. Place chin in chin cup.
8. Pull straps over head.
9. Remove hair from under seal.
10. Tighten harness in sequence: BOTTOM, MIDDLE, and TOP. Do not over-tighten.
11. Inhale sharply to activate demand valve.
12. Breathe normally.
13. Check positive pressure by placing finger under face seal. Check for steady flow.
14. Remove finger and allow mask to re-seal.

BREATHING APPARATUS (continued)

15. Close cylinder valve (keep hand on Valve).
16. Hold breath and check for leaks (pressure gauge movement will indicate).
17. If test fails open valve, adjust mask and repeat test.
18. Check gauge and breathe down air
19. Check whistle sounds at 55bar +/-5 bar.
20. Open cylinder valve fully.
21. Open bypass knob and check for steady flow then close bypass.
22. Recheck pressure gauge is at least 160 bar 80% full.
23. Once satisfied with set proceed with task.

REMOVING APPARATUS PROCEDURE

1. Hold breath and reset demand valve by pressing rubber reset button.
2. Remove facemask by pulling metal buckles forwards let it hang on strap.
3. Close cylinder valve.
4. Remove apparatus by removing waist belt and slackening shoulder straps.
5. Bleed air by opening bypass, clean and re-stow set.

CLEANING AND TESTING

1. Remove cylinder.
2. Remove and clean facemask according to manufacturer's recommendations.
3. Clean and examine apparatus (DO NOT immerse demand valve or whistle).
4. Check apparatus (Check demand valve locking by depressing a number of times).
5. Carry out function test and complete records.
6. The apparatus must be examined and tested at least once a month by a competent person in accordance with the manufacturer's instructions and APPARATUS CHECK instructions.

BREATHING APPARATUS (continued)

7. Details of such checks should be recorded and kept for future inspection.
8. The apparatus must be tested and components replaced annually.

BURIED SERVICES	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation and Management of Health and Safety in Construction) The Public Highways Ordinance 1967
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Cable Locator Safety Helmet High Visibility Vest Safety Boots

Note: This procedure should be read in conjunction with “working on the highway and on private roads”.

1. As part of every working day certain employees of Guernsey Water may have to carry out excavation work which can expose them to the dangers posed by underground services unless the necessary precautions are taken.
2. The procedures laid out below are designed to ensure, so far as is reasonably practicable, that all underground services are located, marked and safely exposed, so as to ensure the health and safety of those carrying out the excavation work.
3. It is the policy of Guernsey Water to provide the staff carrying out this work with the necessary equipment and training in order to ensure that buried services are located before and during excavation.
4. Underground services are commonly described as electricity, gas, water, sewerage and telecoms. The greatest hazards to persons undertaking excavation work originate from electricity cables and gas mains, although high pressure water mains have been known to cause injuries.
5. Injuries resulting from damage to live electricity cables are usually caused by the explosive effects of arcing currents, and by any associated fire and flames which may follow when the sheath of a cable and the conductor insulation are penetrated by a sharp object such as a kango tool point. The burns, commonly to hands, face and front part of the torso are commonly fatal. Direct electric shock is rare but possible.
6. Damage to gas pipes may cause leaks which can ignite when the pipe is damaged or soon after putting those carrying out the excavation and those in the near vicinity of the work at risk. Other leaks may form some time after the damage has occurred. This type of leak can cause considerable damage to nearby properties as gas can be allowed to escape for some distance before igniting.
7. Water pipes and sewers can be hazardous as some water is carried at high pressure which can penetrate skin if directed as a jet and sewers can be a source of infection if damaged.

BURIED SERVICES (continued)

IDENTIFYING BURIED SERVICES

Buried services are widespread and it must be assumed that they are present until it is proved otherwise. There are three basic principles of a safe system of work for avoiding the dangers; these are: -

- Plans
- Cables and pipe locating devices
- Safe digging practices

Note: The following procedure is identical if either mechanical or manual excavation is being carried out

Before Starting the Job

1. Whenever possible, plans or other suitable information about all buried services in the area must be obtained before excavation work starts and the utilities should do everything reasonably practicable to ensure that such information is made available to enquirers.
2. Where this is not possible, as in cases of emergency, then excavations must be undertaken as though there are underground services in the area. Account should be taken of any indications that services may be in the area such as the presence of lamp posts, illuminated traffic signs, pit covers and the proximity of housing.
3. Cable and pipe locating devices come in a number of forms. These are hum detectors, radio frequency detectors, transmitter receiver instruments and metal detectors. Their modes of operation are different and training in their use is necessary. Some plastic services will however, not be traceable by the cable location devices. Remember to check the cable locator is within service date.
4. Look for physical signs i.e. line of trenches, surface boxes, gas service pipes entering walls, to give some indication where other utilities apparatus may be encountered in your excavation.
5. Once located, the positions should be carefully marked. It may be necessary to dig trial holes to check positions of various services.

During Excavation

1. Constantly refer to drawings and use your cable locator at regular intervals during the course of excavation.

BURIED SERVICES (continued)

2. All other utilities apparatus should be located using hand tools only, as a rule this should be within 0.5 metres of a suspected service. The most appropriate tools for safe hand digging are spades and shovels rather than spiked implements but careful use of these tools are preferable to hand held power tools and mechanical excavator.
3. Marker tape/tiles are often placed above underground cables. However, extreme caution should be exercised when tape etc., is discovered as it may not have been placed accurately along the line of the cable.
4. Even when cables shown on any plan have been located great care must still be taken for there could be other cable or apparatus present not shown on the plan.
5. Metal probing bars of any kind must not be used to locate underground services.
6. Any uncovered cable, ducting etc. must not be allowed to sag and should be supported to prevent this. Services shall not be used to provide hand and foot holds.
7. Where it is not possible to work safely in accordance with the above due to the positions of buried services, then the nature of the planned work must be reconsidered; for instance, the route of the new service or structure being laid. It may be necessary to discuss any such re-routing with the client.
8. If no such re-planning is possible then utility companies may be asked to consider disconnecting, de-energising or diverting pipes or cables which are causing a hazard.
9. If Guernsey Water management consider that the only option to providing a safe place of work is for a pipe or cable to be disconnected or de-energised then this should be acted upon prior to works commencing.
10. The distribution section of the supply company must be contacted at the earliest opportunity and the problem explained.
 - The problem should be discussed with the client.
 - If the supply company agree to the de-energising or disconnection of the service or to the temporary jointing of a cable or pipe it should be noted:
 - That there will undoubtedly be a charge for undertaking this work.
 - There will be a time delay.
 - Many businesses and households may be affected.
 - Weekend work may be a consideration.

BURIED SERVICES (continued)

Damage to other Utilities Apparatus

1. If an electrical cable is damaged or that suspected damage may have occurred, fence off the excavation; keep every one clear until the Electricity Company have declared the area safe. The damage should be reported to your supervisor immediately.
2. If a gas pipe is damaged or that suspected damage may have occurred, smoking, naked lights or other ignition sources should not be allowed in the area. The excavation should be fenced off and everyone kept clear until the Gas Company have declared the area safe. The damage should be reported to your supervisor immediately.
3. Any underground service that inadvertently gets damaged, however slight, must be reported to your supervisor immediately.

Backfilling

1. Ensure that any repairs to other utilities apparatus have been carried out before commencing backfilling.
2. Ensure that backfill material is consolidated under and around all other utilities apparatus to prevent damage due to settlement.
3. Cable marker tape/tiles shall always be replaced in their correct position above the cable or pipe.

BURNING OF RUBBISH	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Suitable and Sufficient Fire Fighting Media Means of Communication (Radio / Mobile Telephone)

Wherever possible waste or used products and containers will be reused or recycled. It is sometimes necessary to dispose of waste materials by burning and it is essential that precautions are taken to prevent danger and inconvenience being caused to humans, livestock and wildlife.

Anyone who lights a bonfire and let's smoke drift across a road to the danger or inconvenience of road users may be prosecuted.

The following rules must be observed:

Never Burn Waste Materials:

1. In very dry weather or during a drought unless the work has been specifically authorised by a Senior Manager, who has considered the situation carefully and issued a specific safe system of work to minimise the risk.
2. In strong winds.
3. Close to or upwind of buildings, stored or growing crops, agricultural equipment, forestry etc. Remember sparks can travel considerable distances.
4. Upwind of roads, people or livestock where the smoke could cause danger, nuisance, or distress.
5. On combustible materials, peaty soils, coal deposits, oil soaked ground, or rubbish tips which may catch fire and are very difficult to extinguish.
6. Close to public utility apparatus or near to hedgerows or wildlife habitat.
7. Between sunset and sunrise. Fires at night are dangerous and may cause public alarm. (Fires must be extinguished before employees leave the site. If this is not possible for any reason, supervisory staff must be informed to arrange appropriate action.)

Never use Petrol, Paraffin, Diesel or Solvents to start or 'liven up' a fire.

Do not burn grass or weeds that have been killed by herbicides, the smoke may be toxic.

Never put aerosols or closed containers on a bonfire, they can explode with great violence.

BURNING OF RUBBISH (continued)

Bonfires must never be left completely unattended and children must be kept away.

Where it is proposed to burn a large quantity of materials or where items such as plastic, old tyres, herbicide or other chemical containers, unknown materials or old furnishings are to be disposed of by burning, the advice of Guernsey Water's Health and Safety Officer should be sought.

If it is necessary to have a large highly visible or very smokey fire, consideration should be given to informing the Fire & Rescue Service Control and neighbours to reduce the danger of false alarms being given by concerned members of the public.

Fire control equipment must be kept available during controlled burning, this may include shovels, beaters and buckets of sand.

The persons carrying out the burning must know how to use the available extinguishing equipment and how to summon extra assistance if necessary.

Uncontrolled fires in grass or woodland often spread at great speed and change direction without warning so:

- a) make sure you have a way of escape at all times
- b) do not attempt to fight a spreading fire without assistance (unless the fire is small).

If a fire seems to be getting out of control and shows signs of spreading, call the Fire & Rescue Service immediately. (Dial 999 or 112 from a telephone).

An accurate location must be given and, if possible, the Fire & Rescue Service should be met at the roadside and shown the best way to the fire.

CHEMICALS, STORAGE, HANDLING AND SAFE USE	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Breathing Apparatus Sets Safety Gloves Safety Boots Overalls / Chemical Protection Suit Face Shield / Goggles

General considerations and storage

1. An inventory of all hazardous substances should be maintained at each location where the substances are used or stored. It should be upgraded as and when necessary to keep the record up to date.
2. Copies of relevant material safety data sheets (MSDS) and COSHH assessments will be filed at each location and updated as and when necessary.
3. The storage of chemicals should be to the standards advised by the manufacturers and described on the MSDS. All chemicals being stored in clearly marked and labelled containers.
4. Before any 'new' chemical is distributed and used, a competent Guernsey Water employee should conduct a risk assessment and take appropriate action to ensure the safety of employees or any other person or the environment, who may be affected by the toxic nature of the substance. Where a substance is regularly used, periodic risk assessment reviews will suffice.
5. Appropriate personal protective equipment will be issued and worn on each occasion that a hazardous substance is used.
6. All employees required to handle or work with hazardous substances will receive appropriate training and be provided with relevant health and safety information.
7. In the event of an accident, a dangerous occurrence or a significant spillage, Guernsey Water will instigate a full investigation into the causes and what action is necessary to prevent a recurrence; to this end, Guernsey Water's safety consultants may be asked to attend.

Pesticides

8. Staff involved in pollution control may from time to time be called to incidents such as a packing shed fire or pesticide leakage which could, without proper precaution lead to danger. Pesticides and other hazardous chemicals that are found in uncontrolled situations, such as a fire, can pose many different hazards.

CHEMICALS, STORAGE, HANDLING AND SAFE USE (continued)

9. If called to an incident by the emergency services' staff should always receive clearance from them before approaching the problem.
10. Staff should always ensure that they are wearing the appropriate protective clothing to match the situation. Respiratory protection is vital for emergency use and should be of a full face type fitted with a canister conforming to EN141.

REMEMBER, this type of full face mask and canister will not protect staff from atmospheres deficient in oxygen and they should not enter areas (confined spaces) where this may be likely. Furthermore, it is important to remember that these canisters have a limited life and should be regularly replaced. Refer to the manufacturer for this advice.
11. The Fire & Rescue Service have been fully trained and have the equipment to deal with hazardous situations. Should Guernsey Water staff be called to deal with a situation that in fact should be dealt with by the Fire & Rescue Service then the service should be called immediately and Guernsey Water staff should retire a safe distance from the situation and await instruction that the situation is safe. Guernsey Water staff must not compromise their own safety by taking hasty or unplanned action.
12. Following each incident the staff involved should make out and file a report on the incident and the action taken.

Inspection of vinery sites

There are a number of disused vinery sites on the island and in many of these chemicals, including heating oil, have been haphazardly stored. The containers may be in poor condition.

13. If there is any risk that harmful fumes may be in the boiler house or shed atmosphere, Guernsey Water employees will only consider entry using the procedures set down in "Confined Spaces" found elsewhere in this manual.
14. In addition, the Fire & Rescue Service may be called to deal with large scale problems.
15. The Health and Safety Executive should be consulted regarding the safe disposal of the substance and its container.

There is also a risk of exposure to asbestos fibre. Many old growing properties still have buildings and equipment containing harmful levels of asbestos fibre. If on inspection you suspect that asbestos products are present in the boiler house or shed, take the following actions: -

- Contact Health and Safety Executive and seek their assistance in identifying the suspect material.

CHEMICALS, STORAGE, HANDLING AND SAFE USE (continued)

- If it is necessary to enter the premises before this assessment can be made, Guernsey Water employee must wear disposable overalls, bacteriological type gloves and an orinasal respirator to PP3 (Wilson) standard.
- The mask, overalls and gloves should be bagged / sealed and disposed of as asbestos waste after completion of the work.

Sodium Hypochlorite

16. This product is corrosive to eyes, skin and respiratory tract. Inhalation of the vapour/fumes can cause severe breathing difficulties. Spillage may affect aquatic life and damage vegetation.
17. The substance should be stored in a cool, dry and well ventilated area, away from incompatible chemicals. It is non flammable in its pure state.
18. In the event of skin or eye contact, irrigate and wash the affected area immediately. Following this first aid action, the patient should be seen by a doctor.
19. In the event of spillage, follow these procedures: -
 - Small spillages; dilute with large quantities of water into drainage system. Neutralise with suitable reagent.
 - Large spillages (greater than 25 litres); contain with chemical adsorbent materials and contact the Fire & Rescue Service immediately. Contaminated materials must be stored in an appropriate container until advice has been sought from the Waste Regulation Officer regarding proper disposal; contact the Health & Safety Executive.
 - Maintain high levels of ventilation and avoid contact with the skin by using appropriate personal protective equipment.

Pollution Incidents

22. Guernsey Water staff regularly attend pollution incidents ranging from oil spills to sewage leaks. Each incident may expose the staff to a range of hazards that may be properly controlled so as to reduce the danger for these staff.
23. Staff who suffer an illness shortly following attendance at a sewage pollution incident must bring this to the attention of a medical practitioner and must be reported to Guernsey Water management if diagnosed as a condition resultant from exposure to sewage and recorded on an accident report form.

CHEMICALS, STORAGE, HANDLING AND SAFE USE (continued)

24. Oil contamination of the skin can lead to dermatitis and it is therefore necessary to avoid skin contact by ensuring that operatives wear suitable impervious gloves and boots. Impervious clothing and eye protection may be necessary in some instances.
25. Should clothing and the skin become contaminated with oil then the clothing should be removed and the skin washed thoroughly with (warm) soapy water.
26. Confined spaces contaminated with oil should not be entered unless all of the necessary precautions are taken as detailed in the procedures relating to the confined spaces found elsewhere.
27. All staff should also be aware of flammable gases that may be present when investigating reports of an oil spill. The substance may in fact be petrol or other such flammable substances.
28. Contamination by sewage can cause a number of problems from skin disease to infection by numerous pathogens found in sewage. Staff who may be required to work with contaminated objects, substances or surfaces will have been inoculated against possible infection.
29. Personnel must avoid skin contact and ingestion and must therefore wear impervious gloves, boots, coveralls and a face shield. Waders may also be needed where staff have to wade in contaminated water.
30. All cuts and abrasions must be covered with waterproof plasters to reduce the chance of infection.
31. Any contaminated clothing should be removed and the skin washed and disinfected.
32. Confined spaces contaminated with sewage may contain flammable or oxygen deficient atmospheres and so entry should only be by confined space procedures found elsewhere.
33. Any Guernsey Water employee who may come into contact with contaminated soil, water or tools will be provided with appropriate personal protective equipment and will have been inoculated against diphtheria, typhoid, tetanus, polio and hepatitis A & B, with booster doses as they become necessary. All the necessary PPE should be carried in the vehicle used to attend the pollution incident.

Please refer to Guernsey Water's Chemical Safety Manual For Further Comprehensive Guidance On The Management of Specific Substances.

CONFINED SPACES	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Safety Harness Waterproof Gloves Protective Overalls Knee or thigh boots Escape Breathing Apparatus Full Breathing Apparatus (Category A spaces) Suitable winch up device Gas Detectors Forced Ventilation (where necessary)




A confined space can be any space of an enclosed nature where there is a risk of death or serious injury from hazardous substances or dangerous conditions (e.g. lack of oxygen). Some confined spaces are fairly easy to identify such as storage tanks, silos, reaction vessels, enclosed drains, sewers. However, others may be less obvious such as open topped chambers, vats, combustion chambers in furnaces, ductwork and unventilated or poorly ventilation rooms.

The rules below are for **general** guidance. They must not be looked upon as being a replacement for specific procedures which are detailed separately, also see “Procedures for Working in Confined Spaces”.

1. Only authorised, trained personnel may enter or attend workers in confined spaces.
2. Areas which may be deemed a confined space, but not identified, must have a risk assessment undertaken by a competent person.
3. Work in confined spaces must only be carried out with the full knowledge of the appropriate supervisor or manager. This will require a Permit to Work.

CONFINED SPACES (continued)

4. Guernsey Water has classified all known confined spaces into three categories. These are: -

Classification A			
 <p>CONFINED SPACE</p> <table border="1"> <tr> <td>CLASSIFICATION</td> <td>A</td> </tr> </table>	CLASSIFICATION	A	<p>Areas where the access/egress may not be adequate or is difficult to negotiate. The possibility may arise that the condition of the atmosphere could change after initial venting and testing. Traversing away from the point of entry may be required.</p>
CLASSIFICATION	A		
Classification B			
 <p>CONFINED SPACE</p> <table border="1"> <tr> <td>CLASSIFICATION</td> <td>B</td> </tr> </table>	CLASSIFICATION	B	<p>Areas where access/egress is not adequate or is difficult to negotiate. The atmosphere is unlikely to change after initial venting and testing.</p>
CLASSIFICATION	B		
Classification C			
 <p>CONFINED SPACE</p> <table border="1"> <tr> <td>CLASSIFICATION</td> <td>C</td> </tr> </table>	CLASSIFICATION	C	<p>Areas where the access/egress is adequate. The atmosphere is unlikely to change after initial ventilation and testing.</p>
CLASSIFICATION	C		

5. Ensure that the likelihood of persons falling into the space is significantly reduced by barriers.
6. No one must enter a confined space until the space has been allowed to ventilate for a minimum of 15 minutes and a top man is present.
7. The top man must remain in visual and voice communication with the bottom man.
8. The top man must never enter the space to assist the bottom man with his work.
9. A gas detector must be lowered into the space for a minimum of 5 minutes and allowed to acclimatise to working conditions before any person accesses the confined space. If the monitor alarms ventilate further. Should the monitor continue to alarm do not enter, secure the area and inform your supervisor.
10. Gas detector should be within calibration date and subject to a six monthly inspection.

CONFINED SPACES (continued)

11. All persons when entering a confined space which involves descending to a lower level must be attached to a suitable device for the top man to haul him to safety in case of emergency.
12. Suitable communications must be agreed before entry into the space.
13. Adequate lighting must be available at all times.
14. No smoking is to take place within the immediate vicinity of the confined space.
15. Vehicles and items of plant must not be positioned in the close vicinity of the confined space in order to reduce the risk of exhaust gases entering.
16. Any plant, equipment or work which could introduce a hazard into a confined space will require a risk assessment to be carried out and the necessary actions to be taken to ensure a safe working environment.
17.
 - (a) If you have any doubt about entering a confined space due to unusual smells, insecure ladders, unusual or abnormal readings from the gas detector do not enter and contact your supervisor.
 - (b) If the alarm is heard from the gas detector, vacate the space immediately and report to your supervisor.
 - (c) If you feel unwell or unsteady or light headed vacate the space immediately.
 - (d) If a single entrant suffers an injury then raise the alarm and if possible allow the top man or entry supervisor to winch the casualty to the surface. If there is an unconscious casualty the top man or entry supervisor should winch the casualty to the surface, try to gain a response and summon help as soon as possible. **DO NOT ATTEMPT A RESCUE unless trained and authorised.**

Guernsey Water has further detailed procedures on confined space work. This includes Confined Spaces Safety Check List GW/002. Please contact your supervisor or Guernsey Water's Health and Safety Officer for further information.

CONTRACTORS' DUTIES AND RESPONSIBILITIES

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

All contractors working in or on a Guernsey Water site or premises shall be responsible for themselves, their employees, any member of the public who may come into contact with the works, and any sub-contractor employed by them for: -

- complying with all statute and Common Law requirements.
- complying with Guernsey Water Safety Policy, or health and safety requirements specific to a particular site or contract.
- if requested to do so, provide Guernsey Water with a copy of their company Safety Policy (if employing five or more persons) and setting up suitable site inspection arrangements for their activities.
- complying with requirements as set out in Guernsey Water's safety consultant's reports and inspections.
- ensuring that all equipment is safe and used only in accordance with legal requirements.
- indemnifying Guernsey Water against any loss, damage or claim which may arise directly or indirectly as a result of any or omission on the part of the contractor, his employees or sub-contractors. The contractor will provide adequate insurance covering this liability.
- Reporting to the Supervisor/Foreman any unsafe act or unsafe condition which may affect the liability to meet the contract.
- Complying with any Method Statement drawn up to reduce the risk associated with a hazard.
- Reporting all accidents and dangerous occurrences required by statute to the Supervisor/Foreman of the site in the first instance; the contractor is responsible for completing his legal requirements in relation to informing the Health and Safety Executive about serious accidents and dangerous occurrences.
- Failure to comply with any of the Clauses above, or, carrying out any major unsafe act, will be regarded as a breach of contract and may result in the contract being terminated.

CRANAGE ACCESS INTO QUARRY RESERVOIRS

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 General Register for Places of Employment (HSE document)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Safety Harness and Suitable Climbing Equipment Protective Overalls

Lowered to water level in one or other States owned quarries to carry out emergency or planned maintenance on pumps and other equipment. To provide a safe system of lowering and work, a designed man cage is used in conjunction with a glass fibre dory. The man-cage and dory are owned and maintained by the Guernsey Water.

To lower the man-cage and dory to the water level, a crane and its operator is hired for each and every lift.

These procedures have been devised and written to provide a safe place and system of work in accordance with the Guernsey Water safety policy and relevant health and safety legislation. The procedures will be reviewed from time to time and alterations made as appropriate.

1. Guernsey Water hires a crane and its operator for the lowering and lifting operations. Guernsey Water will take all reasonable precautions to establish that the crane and its lifting tackle and equipment has been inspected within the legal time scales. It is reasonable to expect copies of the certification relating to those inspections to be carried in the cab of the crane.
2. Although in a small island, crane operators become familiar figures and their level of competency is assumed, contracted crane operatives (or their employer) must be able to prove their competence to Guernsey Water upon request.
3. The responsibility for the condition of the crane and its equipment from the hook upward, and the competence of its operator, rests with the owner or his agent.
4. Guernsey Water own the glass fibre dory, its equipment and its lifting tackle. Guernsey Water will ensure that all ropes and tackle are inspected and tested to the necessary legal requirements, and records filed.

CRANAGE ACCESS INTO QUARRY RESERVOIR (continued)

5. The man-cage and dory arrive at the location by lorry and trailer. The man-cage is off loaded by the crane with a Guernsey Water employee responsible for making the connections. Only trained slinger / banksmen are authorised to make these connections.
6. Those who are to be lowered into the quarry then enter the man-cage and the door is bolted.
7. The man-cage is then manoeuvred to a position over the dory and the four wire ropes and hooks are positioned into the four eyes set in the dory gunwales.
8. The crane operator lifts its double cargo and the descent to the water commences.
9. The lowering is terminated when the dory is afloat. One of the Guernsey Water operatives then opens the cage door, steps into the dory and takes the four hooks out of the eyes. The hooks and wire rope are placed inside the edge of the cage and the remainder of the gang leave the cage and enter the dory; the cage door is closed and the ascent of the cage commences. The reverse of this process is followed before the cage and dory are raised from the water at the end of the job.
10. Where there is direct line of sight between the crane operator and the Guernsey Water employee, recognised lifting signals will be used, and employees trained in their use. Appendix 1. When the crane operator loses sight of the man-cage and dory, a banksman will position himself so that communication between the crane operator and those in the man-cage and/or dory can be maintained.
11. Two way radios may be used but they have limited range from deep quarries and therefore banksman and line of sight methods will be used.
12. There are three or four personnel in each gang undergoing the operations outlined in this procedure. Each Guernsey Water employee will wear a personal life saving appliance which automatically inflates and a hard hat throughout the setting up, lowering and raising operations.
13. Other items of personal protective equipment will be worn as necessary e.g. eye and hearing protection if there is a risk of damage to eyes or ears to one or more operative.

CRANES AND LIFTING APPARATUS

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 General Register for Places of Employment (HSE document)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots

Guernsey Water owns lorry mounted Hi-ab cranes, fork lift truck and various chain and web slings, blocks and lever lifts. There are also overhead travelling cranes, at various locations.

1. Lifting operations must be planned by an authorised, trained employee taking into account all relevant factors including:
 - (a) The siting of lifting appliance
 - (b) Provision of suitable lifting gear
 - (c) The weight and positions of the load to be handled

2. Any height, weight, overhead service or other restrictions on or adjacent to the area of operation must be considered before work starts, especially in connection with safety of the public.

3. Where adverse weather conditions could affect the safety of lifting operations such operations should stop.

4. Ensure there is a clear tidy area to off load into.

5. Do not shorten slings.

6. Do not shorten chains other than by chain clutches.

7. Use timber packing on sharp corners when using wire ropes.

8. Lift items slightly off ground and check for balance, if unstable, lower and adjust.

9. Never use lifting equipment for towing vehicles.

10. Return equipment to stores when not in daily use.

CRANES AND LIFTING APPARATUS (continued)

11. On taking ownership of a crane, Guernsey Water management will ensure that a certificate of test is obtained and is filed.
12. Subsequently, every crane should be tested and inspected by a competent person at least once every fourteen months and reports on these inspections filed.
13. All lifting apparatus should be marked with its Safe Working Load (SWL).
14. A visual inspection of the lift apparatus will be made before use and any damaged lifting apparatus must be immediately taken out of use and repaired or destroyed. Where there may be a delay, such items must be clearly marked as unusable and stored in a secure area inaccessible to other employees or contractors.
15. To ensure efficient monitoring of inspections, it is recommended that all items of lifting apparatus have identity marks.
16. Those employees working at the hook end of a lifting operation should be trained in the duties of banksman/slinger and wear correct PPE i.e. head, foot and hand protection.
17. When operating the crane in a public place, the operator will ensure that the jib of the crane or other moving parts operates in free space so that no contact is made with property or persons.
18. All employees working with a crane or lifting apparatus will make frequent visual inspections and report any damage or malfunction to management.

DISPLAY SCREEN EQUIPMENT	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. Guernsey Water recognises that two particular areas should be addressed when looking at display screen equipment and the health and safety of habitual users. These are firstly, eye and eyesight problems and secondly, ergonomics, posture and the prevention of musculoskeletal problems.
2. Eye and eyesight problems are commonly caused by employees using a screen which is too close to them. The screen should be placed at an arms length from the employee's eyes and at a 15° down angle. The screen should be directly in front of the employee and it should not reflect any natural or artificial light.
3. Musculoskeletal problems, especially to the back and neck can be directly attributed to poor posture at a workstation. Further strain can be attributed to a poorly designed workstation.
4. An assessment should be made by a trained assessor of each workstation, the person working at that station, and recommendations that arise from the assessment should be acted upon.
5. Display screen equipment users should be suitably trained in the safe use and set up of workstations and to recognise and make good workstation hazards.
6. If you have any queries about your workstation or are suffering from eyesight or musculoskeletal problems as a result of using your work station please contact your supervisor or Guernsey Water's Health and Safety Officer.

FIRE PRECAUTIONS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 The Fire Services (Guernsey) Law 1989
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Suitable and Sufficient Fire Fighting Media

Whilst Guernsey Water accepts its responsibility to ensure that the necessary checks, precautions and evacuation procedures are put into place, all employees are responsible for ensuring that their actions do not increase the risk of a fire occurring. All staff must ensure that they are familiar with recognised fire evacuation routes, fire alarm points, fire extinguisher locations and assembly points in their place(s) of work. They also have a duty to ensure that in the event of a fire on Guernsey Water's premises all action is taken in accordance with the following procedures.

Where necessary, Guernsey Water will provide training in fire awareness, its cause, prevention and fire fighting methods.

If a small fire is discovered and if trained in fire fighting, action using a suitable extinguishing method may be taken to extinguish it only after the alarm has been sounded. No member of staff should put their own health and safety at risk. Each member of staff should familiarise themselves with the position of the Fire Extinguishers.

Should a small fire be successfully tackled, and if for any reason the Fire & Rescue Service have not been summoned, the Fire & Rescue Service will be contacted to attend, to discuss procedures and ascertain the causes to help prevent a recurrence.

On discovering a fire, raise the alarm by:

- activating the alarm system if one is fitted
- or shout "Fire" repeatedly throughout the building.
- dial 112 or 999 giving the emergency services details of the location of the fire.
- leave the premises by the nearest exit, closing any fire doors and gather at the arranged assembly point.

It is the responsibility of the fire marshal at that time in the building to establish that those who were in the building have safely evacuated.

Fire extinguishers are provided to tackle a range of different fires. Appropriate labels are displayed alongside each extinguisher and staff should be aware of the differences. The cylinders differ as follows: -

FIRE PRECAUTIONS (continued)

- **Water:** Used to tackle Class A fires e.g. paper and wood fires. They should never be used to tackle electrical fires.
- **CO₂:** Used mainly to tackle electrical fires (unclassified).
- **Dry powder:** Dry Powder fire extinguishers are suitable for the majority of fires Classes A, B and C. They are especially suited for flammable liquids and fires involving flammable gases. The extinguisher is effective for putting out flames but may not prevent a relight from smouldering material.
- **Foam:** Foam fire extinguishers are ideal where both Classes A & B class fire risks exist, in particular Class B fires caused by the combustion of materials that liquefy such as petrol, oils, fats, paints, tar etc.
- **Class A fires** - are fires involving organic solids like paper, wood, etc.
- **Class B fires** - are fires involving flammable Liquids.
- **Class C fires** - are fires involving flammable Gases.
- **Class D fires** - are fires involving Metals.

Type	Old Code	BS EN 3 Colour Code	Fire Class
Water	Signal Red	Signal Red	A
Foam	Cream	Signal Red with a cream panel above the operating Instructions	A, B
Dry Powder	French Blue	Red with a Blue panel above the operating instructions	A, B, C
Carbon Dioxide	Black	Red with a Black panel above the operating instructions	A(Limited),B

FIRE PRECAUTIONS (continued)

Employees should avoid overloading electrical sockets and should ensure that combustible materials are not allowed to build up in an uncontrolled way. Any flammable substances must be stored in a correct manner and all stairs, corridors and fire escapes shall be kept clear for emergency evacuation purposes.

Never put yourself or anybody else at risk on discovering a fire. Only tackle a fire if you have been trained and when you are not likely to be in danger.

An assessment into the causes of any fire will be conducted by Management to ensure that all necessary action to prevent a recurrence is taken.

FIRST AID AND MEDICALS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 The Safety of Employees (First Aid & Welfare) Ordinance 1967
ESSENTIAL SAFETY EQUIPMENT REQUIRED	First Aid Kit

See also Recording and Reporting Accidents.

First Aid

1. Guernsey Water makes every effort to comply with the terms of the Safety of Employees (First Aid & Welfare) Ordinance 1967 in relation to the provision of first aid boxes and to follow the standards set down in the United Kingdom's Approved Code of Practice for First Aid at Work which looks for companies to achieve a ratio of one trained First Aider to every fifty members of staff although this may be unnecessary in very low risk situations.
2. Guernsey Water will appoint certain employees as "Nominated First Aiders". The names of these persons will be prominently displayed in the relevant workplaces, and the lists will be updated as and when necessary.
3. Staff who undertake first aid training do so voluntarily and at no cost to the employee.
4. Guernsey Water will provide suitable and sufficiently stocked first aid boxes in all of its fixed installations as well as many of its vehicles.
5. It is the duty of the nominated first-aider to ensure that the first aid boxes are kept clean and stocked with the necessary items and that the register of items used is kept up to date. Employees should report to the nominated first-aider all first aid stocks used.
6. All accidents, whether to employees or members of the public or visitors, should be treated along similar lines:
 - (a) The straightforward, elementary, injury should be treated on location or on site.
 - (b) The Ambulance & Rescue Service should be called to deal with more serious injuries.
 - (c) Details of all incidents should be recorded and reported to your supervisor as soon as possible. See Accidents & Dangerous Occurrences.

FIRST AID AND MEDICALS (continued)

Medicals

7. There is no specific law in Guernsey requiring the employer to provide his employees with medical surveillance. However, some of Guernsey Water's employees may be placed at particular risk as a result of their employment, and, where necessary, these employees will be provided with medical services intended to prevent risk to the health of these workers.
8. Those of the Guernsey Water employees more likely to be exposed to health risks as a result of their employment involve them in working at or near sewage treatment works and outlets, or those repairing or maintaining these services, those employed in some types of confined space work and those dealing with toxic spills. If any employee may be exposed to a health risk which can be prevented (or the risk significantly reduced) by immunisation, it is the Guernsey Water policy that they will receive this protection at no cost to the employee.
9. The health authorities recommend that anyone who may come into contact with drainage or foul water should receive injections against Diphtheria, Tetanus, Polio and Typhoid, Hepatitis A & B, and it is the policy of Guernsey Water to provide this service to anyone who may come into contact with contaminated water.

Guernsey Water will keep a record of all employees likely to be involved in the type of work requiring immunisation, and update the list as and when necessary. As the immunisation process advances, the records of those who have been immunised shall be updated.

GAS – CHLORINE AND SULPHUR DIOXIDE	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Breathing Apparatus Sets Safety Gloves Chemical Face Shield Overalls

The rules below are for **general** guidance. They must not be looked upon as being a replacement for specific procedures which are detailed separately.

1. All gas cylinders while in store or in transit must be stored upright and secured.
2. Gloves and Breathing Apparatus sets must be worn when handling chlorine and sulphur dioxide cylinders.
3. All cylinders must be isolated before use.
4. Do not drop, roll or drag cylinders.
5. Suitable protective valve caps and covers should be fitted to cylinders before transporting in order to prevent moisture and dirt from gathering in the valve of the cylinder.
6. The transport of gas cylinders is subject to carriage requirements. For example, that:
 - The vehicle is suitable for purpose.
 - The vehicle is suitably marked to show that it is carrying dangerous goods.
 - The driver is suitably trained.
 - The driver carries the appropriate documentation about the nature of the gases being carried.
7. Disconnect and connect each cylinder with care. Particular care needs to be taken to prevent flexible pipes from being damaged.
8. After connecting check for leaks.
9. Use mechanical means where ever possible to assist in the transportation and moving of cylinders.
10. Ensure gas cylinders are clearly marked to show their contents (including their UN Number) and the danger signs associated with their contents.

Chlorine & Sulphur Dioxide gas

11. The gas is stored at each water treatment plant.

GAS – CHLORINE AND SULPHUR DIOXIDE (continued)

12. The gas is heavier than air and is very soluble in water.
13. The vapour and gas is corrosive to the skin and eyes, and may cause cold burns. It has a strong, irritant odour. Low concentrations cause coughing and breathing difficulty, high concentrations can have fatal consequences.

Storage

14. The cylinders must be protected from sources of heat and should be stored in separate compounds which are ventilated at low level.
15. When handling the cylinders a chemical face shield and rubber gloves should be worn with overalls.

Leak detection

14. If a leak is suspected, the appropriately trained and competent employee will put on positive pressure breathing apparatus.
15. Leak detection solution (Ammonia blow bottle) should be applied to suspect sites; bubbling shows leaks. Ammonia fumes will produce dense white clouds at the leak site.
16. After repairing the leak, the site should be re-tested and if the leak has been repaired successfully the leak site should be washed to remove any acid which has formed. Gloves must be worn.
17. When charging the ammonia blow bottle suitable eye protection and gloves must be worn. Place a small amount of cotton wool into a plastic blow bottle; pour a 50% aqueous solution of ammonia onto the cotton wool, allow it to soak and then pour off the surplus liquid back into the ammonia supply container and replace cap.
18. When the blow bottle is depressed a jet of ammonia vapour will discharge from the spout. The blow bottle should be suitably labelled i.e. 50% ammonia solution.
19. WEAR EYE PROTECTION. Contamination of eyes and skin must be treated by thorough irrigation with copious amounts of water and seek medical advice immediately.

Leaking cylinder in an enclosed area

20. Cylinders should only be used in a well ventilated room.
21. In the event of a leak in an enclosed area, persons in the immediate vicinity should be evacuated to a safe distance upwind.

GAS – CHLORINE AND SULPHUR DIOXIDE (continued)

22. A competent employee should put on positive pressure breathing apparatus and protective clothing. A second competent person will similarly kit himself up to act in the event of an emergency involving their colleague.
23. One employee then enters the contaminated zone and checks that the container valve is closed.
24. The container should be moved to a fume room or open space down wind and away from persons.
25. Warning signs should be posted.

Action in the event of Fire

26. In general vacate the area. Only attempt to enter the area suitably protected as explained above, and switch off the valve if there is no risk of personal injury.
27. Call the Fire & Rescue Service.
28. Spray cold water on surrounding containers if this does not put personnel at risk of injury.

Other safety considerations

29. It is important to use the correct pressure/flow control equipment as supplied by the manufacturers.
30. The valve dome cover or guard must always be in place when the container is repositioned or moved so that the valve is protected.

Please refer to Guernsey Water's Chemical Safety Manual For Further Comprehensive Guidance On The Management of Chlorine and Sulphur Dioxide.

GAS DETECTORS (Portable)	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Fully Charged and Calibrated Gas Detectors

1. Portable gas detectors should only be used by authorised employees who have been trained in the technique and in the interpretation of results.
2. Portable gas detectors should only be used after a risk assessment has been carried out to determine whether gas monitoring is appropriate and whether any additional safety precautions should be taken.
3. The user must ensure that the gas detector is in calibration date and fully charged prior to use in accordance with the manufacturer's instructions and note the readings of the detector in a gas-free area, before entering a hazardous area.
4. When using the gas detector make sure you avoid trips and falls, for example stand still while checking the instrument reading. This will also give a more accurate reading for that location as it will take into account the finite response time of the equipment.
5. For testing the atmosphere of confined spaces the gas detector must be lowered into the space for a minimum of 5 minutes and allowed to acclimatise to working conditions before any person accesses the confined space. If the monitor alarms, ventilate further. Should the monitor continue to alarm do not enter, secure the area and inform your supervisor.
6. If the alarm is heard from the gas detector, vacate the space or area immediately and report to your supervisor.
7. Records of use must be recorded in the supplied record book.
8. Gas detectors must be returned after use and booked back in. Please ensure that the gas detector has been turned off.
9. If the gas detector is faulty or is behaving unusually do not use or depend upon it and report the fault to your supervisor or Guernsey Water's Health and Safety Officer.

GRASS CUTTING	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Eye Protection Hearing Protection Safety Boots Gloves

1. An assessment of the location (including the weather conditions) must be undertaken before any grass cutting activities are undertaken. This will include inspecting the location for any hazards such as loose materials, debris or cables. If there is any doubt that it is unsafe for grass cutting activities to commence work should not proceed.
2. Only trained and authorised employees are permitted to operate grass cutting machines.
3. Grass cutting machines should only be used for the purpose for which they are designed and manufactured.
4. If an employee is required to work with a machine which they consider to be faulty, they should express their concerns to his supervisor who will arrange for the machine to be checked and, if necessary, repaired or discarded.
5. Hair, clothing or limbs can become entangled in rotating parts, shearing can occur, as can entanglement. All moving and rotating parts are hazards.
6. Personal protective equipment must be worn. Grass cutting activities will always require eye protection, ear protection, safety boots, high visibility vests and gloves to be worn. After taking these precautions the supervisor may judge it necessary to issue additional personal protective equipment, and require it to be worn.
7. All guarding provided and installed on grass cutting machinery shall be used at all times. Any damaged, faulty or missing guarding should be reported immediately to the supervisor and the equipment withdrawn from use.

HAND TOOLS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Eye Protection Gloves

1. All hand tools must be kept clean, dry and tidy and in a good state of repair.
2. Always use the correct tool for the job in hand.
3. Ensure that tools with detachable handles have the correct handle fitted at all times.
4. Always check that hammer and pick heads are secure on the shaft.
5. The condition of shafts on hammers picks and shovels should be checked before use. Ensure that no splinters or projections are present and that the shaft is in a sound condition.
6. Remove burred ends from cold chisels at regular intervals.
7. All cutting edges should be kept sharp and covered when not in use.
8. Damaged or badly worn tools must not be used and should be replaced at the earliest opportunity.
9. Where practicable, industrial scissors should be used instead of knives for cutting banding straps and packaging etc.
10. The use of an employee's personal tools at work is prohibited, unless the tools have been inspected by a competent person, in good condition, free from defects, fit for purpose and authorisation is given by the department manager.

HAZARDOUS SUBSTANCES	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	As specified in the Material Safety Data Sheet or in a Specific Safe Working Procedure as listed in the Chemical Safety Manual

1. By law, manufacturers have to put a symbol on the packaging of all harmful substances, and some basic information. They have also to make available, on request, a material safety data sheet giving a full range of information.

2. Guernsey Water recognises that they have to eliminate or reduce the possible effects of these substances on their employees. To achieve this control, a proper assessment is essential and it may involve any or all of these considerations:
 - Eliminate the substance or process
 - Substitute by using a safer substance or process
 - Isolate dangerous process from operators
 - Enclose the process to prevent or reduce exposure
 - Use local exhaust ventilation
 - Provide general ventilation
 - Maintain good housekeeping to avoid accidental contact
 - Minimise time of exposure, or number of employees
 - Provide instruction and training
 - Provide personal protective equipment

3. A proper assessment will also include such considerations as fire risk, effect on those not employed by Guernsey Water, sealing and storage at the end of the working day and the correct disposal of cartons or containers.

HAZARDOUS SUBSTANCES (continued)

4. Each employee who works with hazardous substances has a responsibility to find out the potential harmful effects and take appropriate action to ensure that the risks to his health are as low as possible. The human body can suffer if these substances are swallowed, inhaled, taken in through the skin or through skin contact.
5. Sub-contractors may come to Guernsey Water's premises to undertake specialist work. Employees are required to comply with all signs and barriers restricting movement into contaminated areas.
6. When required to wear personal protective equipment to eliminate or restrict the effects of harmful substances, each employee must comply with that instruction and ensure that due care is taken of such items of equipment.
7. Any employee required to work with a hazardous substance, should assess the product and its potential harmful side effects, and take appropriate action. He should ensure that appropriate personal protective equipment is available, and should use it at all times.
8. The potential harmful effect of substances is exaggerated when working indoors or in restricted areas. Local and general ventilation will reduce the harmful effects.
9. The list of substances that can lead to dermatitis, irritation, vomiting, dizziness, asphyxia, long term illness, loss of quality of life or even premature death is considerable. Some of the more common products that can affect a human in these ways includes: chlorine, ammonia, cement (especially when wet), paint, thinners, fuel oil, asbestos, paraffin, glues and solvents, fibre glass and resins, masonry cleaner, stone dust.
10. Employees should also consider sealing and storing the hazardous substances at the end of the working day, and the safe method for disposing of the empty container.
11. If during or after handling chemicals, symptoms of illness occur, obtain medical attention and report the matter to the supervisor immediately.

Please refer to Guernsey Water's Chemical Safety Manual For Further Comprehensive Guidance On The Management of Specific Hazardous Substances.

HERBICIDES AND PESTICIDES	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 The Control of Poisonous Substances Regulations 1995
ESSENTIAL SAFETY EQUIPMENT REQUIRED	As specified in the Material Safety Data Sheet or in a specific Safe Working Procedure

Guernsey Water’s general policy is not to use herbicides and pesticides. Employees are only allowed to use pesticides and herbicides following prior permission from Guernsey Water’s Director of Water Services. Please note that professional pesticides can only be purchased by certificated persons and certain controlled substances require a license.

1. All containers used for storing chemicals must be properly marked.
2. Commercial products should be retained where possible in the manufacturer’s containers. Where small containers are essential these should be of approved design and adequately labelled to identify contents and safety recommendations. **Never** use unmarked or unstoppered containers.
3. Read, understand and conform to the manufacturer’s instructions and precautions or follow any specific safe working procedure.
4. Do not eat, drink or smoke whilst handling or applying chemicals.
5. Appropriate protective clothing must be worn when handling and applying chemicals.
6. Before eating, drinking or smoking after applying chemicals remove protective clothing and thoroughly wash the hands and face.
7. Protective clothing and equipment should be thoroughly washed after use and stored in the designated area (if appropriate).
8. If during or after handling or applying chemicals, symptoms of illness occur, obtain medical attention and report the matter to the supervisor immediately.

HI-AB CRANES - LORRY LOADERS

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 General Register for Places of Employment (HSE document)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots

1. Only authorised, trained personnel may operate a hi-ab type crane.
2. The operator is responsible for ensuring the crane is in good working order before being used and the appropriate documentation is completed each week.
3. Before using the crane, ensure that the stabilising pads are fully extended and rest on suitable solid ground. Cranes must not be used adjacent to excavations or trenches where there is a risk of collapse.
4. Check that there are no overhead electricity cables or other obstructions and that the general public are not going to be affected by your operation. If overhead power lines are present, do not operate the crane until you have contacted your supervisor.
5. Care shall be taken not to work in the exhaust fumes of the vehicle.
6. Use only the correct tested chains or slings and conduct a visual inspection of this gear before use.
7. Never exceed the maximum lifting capacity shown on the loading capacity plate.
8. Only the crane operator should be allowed inside the slewing circle and safety helmets, high visibility vests and safety footwear are to be worn by all personnel who are working in the vicinity of the crane.
9. Try the load by lifting slightly to ensure that it rides properly and the vehicle is stable.
10. Never slew until the load has been fully taken on by the crane.
11. Never work or stand below a suspended load.
12. Never leave a load suspended for any length of time.
13. Lower the load gently.

HI-AB CRANES - LORRY LOADERS (continued)

14. After use always park the boom system in the proper support or lock it mechanically.
15. All vehicle loads shall be properly secured by sheet, net or rope before driving away.

HIGHLY FLAMMABLE LIQUIDS AND GASES	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 The Fire Services (Guernsey) Law 1989)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	As specified in the Material Safety Data Sheet or in a specific Safe Working Procedure

1. There are a number of flammable substances, which are used, or found on Guernsey Water’s premises, which could, if not properly controlled, cause accidents and injury to employees, contractors and members of the public.
2. It is Guernsey Water’s policy to ensure that flammable substances are properly controlled, used, stored and disposed of so as to ensure the health and safety of its employees and others that may be affected by our operations.

3. **Working with Highly Flammables**

Flammable substances include petroleum products and hydrocarbons. They are easily recognisable as (by UK law) appropriate signs are displayed on the outer packaging.

Flammable substances give off vapours that are heavier than air and which are flammable and toxic. These procedures thus recognise the risk of accidental ignition or explosion, or the accidental inhalation of toxic vapours, and list the minimum action that is required to reduce the risk of any of these occurrences.

Flameproof (intrinsically safe) electrical appliances should be used when working with flammable substances.

Employees will keep suitable fire extinguishers near any work activity where hot work is used and be aware of the location of fire fighting media within Guernsey Water’s premises.

Waste contaminated with flammable substance poses a high fire and health risk. Employees will consider the safe disposal of such contaminated waste, and maintain high housekeeping standards.

Mobile phones are prohibited in the immediate area where flammable substances are being used.

HIGHLY FLAMMABLE LIQUIDS AND GASES (continued)

4. **Storage**

Large quantities should be contained in an open-air compound, shielded from the direct rays of the sun and surrounded by a bund that will contain the maximum contents of the largest drum stored, plus 10%. The bund must be kept clear of rain water and waste material. Products which could add to the intensity of the fire e.g. oxygen or its toxicity e.g. chlorine must not be stored in the compound or immediate vicinity.

The floor of the compound should be paved or compacted, and no smoking / no naked light signs affixed to the outside.

These larger storage areas should be located at least 10 metres from any building.

Containers are to be stored upright.

When smaller quantities of flammable substances are stored in premises these should be kept to a minimum and stored in a cupboard or bin made of fire resistant material.

Signs stating 'Highly Flammable Liquids', 'No Smoking', 'No Naked Lights' will be displayed on the door or lid.

Suitable type and size of fire extinguishers will be located near to or at the entrance to any storage of flammable substances.

Flammable liquids must be stored in a proper flammable store or cupboard.

5. **Flammable Gases**

Acetylene cylinders must at all times be secured and stood upright.

Propane/Butane (LPG) are petroleum gases which are considerably heavier than air and will flow readily into pits. Propane and Butane must not, under any circumstances be allowed to drain freely from tanks and pipes.

LPG must not be stored inside workshops. All LPG cylinders empty or full must be placed in an external lockable cage.

HIRE OF PLANT AND MACHINERY

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	As specified by the manufacturer or supplier or in a specific Safe Working Procedure

1. The hire of any plant or machinery and in some circumstances its operator places a responsibility on Guernsey Water to take all reasonable precautions to ensure that the plant or machinery is within its statutory period for testing and conforms to the requirements of all Guernsey health and safety legislation and best practice. It is Guernsey Water's policy that the current test certificate should be obtained prior to the plant or machinery being put into use.

2. Guernsey Water will take all reasonable steps to ensure that all operators are authorised, trained and competent to operate plant or machinery and that the hire company holds the necessary insurances.

3. Guernsey Water will ensure that all personal protective equipment recommended by the manufacturer and/or supplier will be worn at all times.

4. Any employee found using plant or machinery which they have not been authorised or trained to use may result in disciplinary action being taken by Guernsey Water.

5. Guernsey Water does not lend or hire any plant or equipment to contractors and 3rd parties.

HOSE SAFETY	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots

Hoses used to convey liquid or gas under pressure have the capability of causing injury when not used or secured properly.

Liquid hoses

1. Hoses used to convey water under pressure from a hydrant or cap end pose a risk if not secured properly. Ensure a suitable hose is used and all connections are in good working order.
2. Head protection must be worn by all staff in the vicinity of a hose being used. This applies to Guernsey Water sites, distribution works and incident attended where the Fire & Rescue Service or Airport Fire Service have hoses deployed.
3. The supply to a hose should be turned on slowly.
4. Personnel should try to avoid standing / walking in front of operational hydrants or cap ends.

Air hoses

5. Ensure a suitable hose is used that is correctly rated for the intended operation and all connections are in good working order.

HOT WORKS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 The Fire Services (Guernsey) Law 1989
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Suitable and Sufficient Fire Fighting Media

It is Guernsey Water’s policy that the general precautions below are complied with on each occasion an electric oxy-acetylene or similar welding or cutting equipment, blow lamp or blow torch is used.

1. Before starting work.

Guernsey Water will be responsible for fire safety and for seeing that precautions are taken. Guernsey Water will also ensure that any sub-contractor obtains a hot works permit prior to starting hot work.

All employees shall make themselves aware of the location of any sites break glass points and location of fire fighting equipment.

The area in which work is to be carried out be adequately cleared and combustible materials removed to a distance of not less than 15 metres from the work. Where it is not practicable to remove items to a distance of 15 metres, these shall be covered and protected by overlapping sheets or screens of non-combustible materials.

If work is to be carried out overhead the area beneath be similarly cleared and combustible materials removed.

2. During work.

Whilst undertaking work using blow lamps, blow torches or hot paint strippers, Guernsey Water will arrange for a person to work with the operative operating the equipment to see that there is no outbreak of fire.

A suitable, substantial fire extinguisher should be kept available for immediate use.

All equipment will be used in accordance with the manufacturer’s instructions.

Flashback arrestors should be fitted to all regulators whether the cylinders are on the shop floor or used on temporary sites.

HOT WORKS (continued)

Blow lamps and blow torches be lit as short a time as possible before use and extinguished immediately after use.

Neither lighted blow lamps nor blow torches be left unattended.

Before 'burning off' metal work built into or projecting through walls or partitions, an examination should be made to confirm that the other end of the metal is not in a hazardous proximity to combustible material which may be ignited by the conduction of heat.

Gas cylinders not required for immediate use shall be kept outside the building in which the work is taking place and in any event 15 metres from the point of application of heat.

3. After ceasing work.

A thorough examination be made in the area in which work has been undertaken (at least 15 metre radius) an hour after the termination of each period of hot work. Where practicable this examination will include areas the other side of any wall or partition.

Each employee is required to take the necessary steps to prevent the three components needed to produce fire (Heat, Combustible material and Air) from coming together.

Good housekeeping is essential. Waste material must not be allowed to accumulate, particularly in areas where smoking is permitted or hot work is undertaken.

Many fires start where electrical equipment is overloaded or becomes worn. If employees identify such faults they should report the matter to their site supervisor without delay.

INSPECTION PROCEDURES (STATUTORY)

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 General Register for Places of Employment (HSE document) The Safety of Employees (Electricity) Ordinance 1956
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots

It is the policy of Guernsey Water to comply with all legal requirements with regard to the timing of the inspection of plant and machinery owned by Guernsey Water. For the sake of convenience and ease of reference, these items are categorised and listed below. Regulations relating to cranes and lifting appliances are contained in the Safety of Employees (Miscellaneous Provisions) Ordinance 1952.

An inventory of all equipment which requires testing and inspection will be maintained and upgraded as necessary.

Cranes

1. The 1952 Ordinance defines a “Crane” as an appliance incorporating a structural member above ground level, or having a jib, and by means of which a load may be raised, lowered or suspended.
2. Cranes must be tested and thoroughly examined by a competent person.
 - Before they are taken into use for the first time and proof load tested.
 - After they have been altered or repaired in such a manner that the strength or stability of the crane may have been changed.
3. The purpose of testing is to demonstrate that the crane conforms to its specification and can be safely operated at its rated capacity.
4. After the test, the crane must be thoroughly examined by the competent person and a certificate of test and thorough examination issued by the competent person.

INSPECTION PROCEDURES (continued)

5. Cranes must be thoroughly examined at least once in every period of fourteen months (annually for convenience) by a competent person.
6. Once in every four years or at every fourth thorough examination, the competent person must express his opinion as to whether he considers the crane should be re-tested.
7. Following the receipt of the report on the test and thorough examination, the Manager will ensure that he complies with any recommended action contained in that report, and the maintenance of all records.
8. All cranes must be marked with their SWL and where the SWL varies according to an alteration of the jib radius or the inclination of the jib, an indicator must be fitted.
9. Notwithstanding the need for tests and thorough examinations at legal intervals, the crane operator will make regular (perhaps weekly) inspections of his plant, gear and its functions, and report to his manager any faults, who will arrange to take the appropriate action. To assist these checks, each crane is provided with a check list. Faults must be immediately reported to the Manager for action.
10. Every crane of a prescribed type or class shall, within the prescribed period, be fitted with an automatic safe load indicator (ASLI) of an approved type.
11. Every ASLI shall be tested and thoroughly examined by a competent person every six months and shall be tested by a competent person before the crane to which it is fitted is next taken into use after:
 - The crane has been wholly or partially dismantled.
 - And after any re-assembly, alteration, or removal of the crane likely to have affected the proper operation of the indicator.
 - As with any test or thorough examination, a report should be sent to the manager and will be filed.
 - To assist in the proper examination of all cranes, an inventory of cranes must be created and updated as necessary.

Lifting Machines

12. In this category are items such as winch, pulley block, gin wheel, transporter or runway. The requirements are set down in the Safety of Employees (Miscellaneous Provisions) Ordinance 1952.
13. They shall be of good construction, sound material, adequate strength, free from patent defect and properly maintained.

INSPECTION PROCEDURES (continued)

14. All such machines shall be thoroughly examined by a competent person at least once in every period of fourteen months, and the results maintained in a register.

Chains, ropes & lifting gear

15. Slings of any description, ring, link, hook, triangular lifting eye, shackle, swivel, eye bolt, plate clamp, lifting beam and lifting frame. Broadly speaking, any item of equipment including the hook secured to a crane or lifting appliance used for the purpose of raising, lowering or suspending a load. Regulations relating to chains, ropes and lifting gear are contained in the Safety of Employees (Miscellaneous Provisions) Ordinance 1952.
16. Any lifting gear purchased for the first time must be issued with a certificate containing the SWL for its intended use, and suitably tagged.
17. Every chain, wire rope or item of lifting gear must be thoroughly examined by a competent person at least once every six months.
18. Rope slings or strops of all descriptions must be examined by a competent person at least once every three months and inspection details recorded.
19. Notwithstanding the need for thorough examinations at legal intervals, the user of chains, ropes and lifting gear will make regular inspections of these items, more especially at the start of each work period, and report to the Manager faults, who will arrange to take the appropriate action.

Chain Saws

20. It is Guernsey Water policy that chain saws are thoroughly examined prior to use.
21. Each chain saw shall be marked with an identification mark and included on the inspection schedule.

Electricity

22. The frequency of periodic inspections and testing, though not specified in Guernsey law, will be determined by the type of installation, its frequency of use and operation, the regularity of maintenance and external factors which may have affected the installation or the item of plant since its previous test.
23. It is the policy of Guernsey Water to have each installation and item of electrical plant inspected as per the advice of a competent person. A register will be maintained and procedures to ensure that appropriate repairs are made resulting from the inspections.

INSPECTION PROCEDURES (continued)

24. Notwithstanding the commitment to have planned annual inspections, it is the responsibility of all employees:
- To regularly check electrical items and their leads.
 - Not to use any item that is faulty.
 - To report faulty equipment to the Manager who will take appropriate action.

LADDERS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots

1. Ladders should only be used at a workplace in exceptional circumstances following a risk assessment and for light work of short duration only.
2. Where ladders are to be used as a workplace, make sure that:
 - the work can be reached without stretching;
 - the ladder can be fixed to prevent slipping;
 - a good hand hold is available on the ladder.
3. Many accidents result from using a ladder where a tower scaffold or mobile access platform would have been safer and more efficient.
4. Only carry light weight materials or tools (in a tool bag) up a ladder ensuring that you have both hands free for climbing. Use a gin wheel to get heavier items up on to the working platform.
5. All ladders must be a commercial standard and in good condition. Check that the stiles are not damaged, buckled or warped, no rungs are cracked or missing and safety feet, if fitted, are both there.
6. Do not use makeshift wooden or home made ladders (e.g. class 3 domestic) or carry out make shift repairs to damaged ladders. Do not use painted ladders as the paint may hide faults. DIY ladders are not strong enough to stand the rigours of a site and should not be used.
7. Ensure that the ladder is secure before climbing. The feet should rest on a firm and level surface and the ladder should be tied.
8. The ladder should be angled to minimise slippage. Ideally the angle should be 1 measure out for four measures up.

LADDERS (continued)

9. The top of the ladder should rest against a solid surface; ladders should not rest against fragile materials.
10. Ladders should be tied at the top and where this is not possible should be footed at the base when it is being used.
11. The ladder should extend at least 1.07 metres (3 ft 6 ins) above the place where people will get on, unless there is another adequate hand hold.
12. Step ladders provide a free standing means of access but they require careful use. They are not designed to take any degree of side loading and can easily overturn. Only carry out light work from a step ladder and then only on a firm and level surface and then only where it is safe to do so.
13. Do not work more than two thirds up a stepladder unless there is a properly designed hand rail that allows you to do so.
14. Managers should carry out periodic tool box talks about the safe use of ladders.

LIQUID CHEMICALS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Full Face Visor Level 3 Splash Suit/PVC Apron Protective Gloves Wellington Boots

The rules below are for **general** guidance. They must not be looked upon as being a replacement for specific procedures which are detailed separately.

1. Chemicals must be stored only in properly marked containers.
2. A product hazard warning and safety recommendation should be displayed on each container.
3. Care must be taken during storage to avoid accidental mixing of products.
4. When chemical product is being handled, the appropriate safety equipment and clothing as specified in the safety recommendations must be used.
5. Spillages must be dealt with in accordance with the appropriate product instructions.
6. Do not eat, drink or smoke in areas where a chemical is used or stored.
7. Before eating, drinking or smoking after using a chemical, thoroughly wash the hands.
8. Protective clothing or equipment should be thoroughly washed after use, and stored in the area so designated.
9. Care must be taken to keep the storage areas dry and defects in apparatus or the building fabric must be reported.
10. If during or after handling chemicals, symptoms of illness occur obtain medical attention and report the matter to the supervisor immediately.

Please refer to Guernsey Water’s Chemical Safety Manual For Further Comprehensive Guidance On The Management of Specific Chemicals

LONE WORKING	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Suitable and effective means of communication Safety equipment suitable for work being undertaken

1. A small proportion of Guernsey Water employees either normally work alone or may be asked to work alone, depending on the duties to be undertaken.
2. Guernsey Water has a procedure to ensure, as far as is reasonably practicable, that by working alone its employees safety is not compromised.
3. Employees who normally work alone undertaking routine and inspection work and who do not work in any potentially hazardous areas, are required to attend or contact their supervisor at the start of the day, at mid-day and at the end of the working day. When the work to be done comprises routine visits to Guernsey Water sites, the supervisor will have a daily programme with approximate timings and routes taken.
4. Employees who work alone and have to access customer premises and sites etc should initially complete a Job Health and Safety Check List (GW/001) taking into account the duties to be performed. If the employee is in any doubt on safety grounds or the access into the premises appears potentially unsafe, he should not enter and contact his supervisor for advice.
5. Employees who work alone outside normal working hours need to contact Emergency Control and advise them of their proposed destination and the approximate time they will be on site. This information will be logged by the Control Room and if the employee has not contacted Control within 1 hour of logging on, the Controller will try to make contact to ascertain his whereabouts and safety. Lone workers working outside normal hours (majority of the time which will be the hours of darkness) for longer durations than 1 hour need to renew their contact with Control every 60 minutes.
6. Office base staff who attend Guernsey Water and other sites which are unmanned and do not expect to meet anyone else on the site, must advise their supervisor of their proposed destination and expected time of return. The supervisor must keep a log of this information and take appropriate action to try and contact the employee should they fail to return to base by the expected time.
7. Should any employee fail to return to their base or to make contact by the expected time, Control Room staff or the supervisor should then try to make contact by the most appropriate means (radio telephone, mobile telephone or landline telephone). If contact cannot be made within 10 minutes, arrangements must be made to send someone to the site.

MACHINE SAFETY	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Safety of Employees (Miscellaneous Provisions) Ordinance 1952
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Eye Protection Hearing Protection Gloves

1. It is the policy of Guernsey Water that all those who use machinery are suitably trained and authorised in its safe use.
2. Hair, clothing or limbs can become entangled in rotating parts, shearing can occur, as can crushing. All moving and rotating parts, all wheels, belts, rollers and pulley drives are hazards.
3. Employees should be trained in the use of machines and processes which present such hazards as outlined in this Policy.
4. Guernsey law requires that all machinery moving parts must be adequately guarded. These should be screwed or bolted in position, and be kept in working order and maintained.

Guarding by design

Machinery should, where possible, be designed so that dangerous parts cannot be reached during normal operation of the machinery.

Fixed Guarding

Fixed guards should be designed to prevent contact with dangerous parts of machinery. An example of fixed guarding would be the caging around a flywheel and belt drive. The caging should be sufficient distance from the flywheel and pulley or of small enough mesh size to prevent fingers from becoming trapped in the running nip point. Fixed guards should be difficult to remove and strong enough to resist damage.

MACHINE SAFETY (continued)

Interlocked Guards

An interlocked guard is generally fitted to areas where regular access is needed to the dangerous part of equipment. The basic principle of an interlocked guard is to prevent contact with dangerous parts of machinery whilst the machine is in operation but to allow access to these dangerous parts by ensuring that the machinery is not functioning when the guard is opened. This can be achieved by electrical isolation of the machine when the guard is open or by mechanical means such as an effective scotching mechanism. Interlock guards should be sufficiently robust and their design should be such to make defeating the interlocking arrangement difficult. Guernsey Water staff must not attempt to defeat interlocking guards but should report any difficulty in operation of the machinery to management.

5. It is occasionally necessary to introduce trip systems such as photo electric safety systems or pressure sensitive mats which trigger a tripping mechanism when persons come too close to the hazardous area.
6. Inertia in some machinery can produce a dangerous overrun even after power is disconnected. Mechanical restraints and timing devices may be necessary. An example would be the locking mechanism on a spindle moulder which does not release the hood guard until the spindle stops rotating.
7. All maintenance, setting up and repair should be undertaken with the machine locked out at the isolation switch and tagged.
8. Machines should only be used for the purpose for which they were designed and manufactured.
9. If an employee is required to work with a machine which he considers to be faulty, he should express his concerns to his supervisor who will arrange for the machine to be checked and, if necessary, repaired or destroyed.
10. Even after taking the precautions outlined above, the supervisor may judge it necessary to issue personal protective equipment, and require it to be worn.
11. The area around any machine should be clean, tidy and free from obstruction.
12. Employees must comply with any health and safety signage fixed to any machine.

MANUAL HANDLING	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Boots Safety Gloves

1. Under the Health and Safety at Work (General) (Guernsey) Ordinance 1987, every employer has a duty to provide a safe place of work, a safe environment and safe systems of work, so far as is reasonably practicable. This duty includes the need to minimise risk arising from manual handling tasks.
2. Guernsey Water will assess manual handling activities where there is a foreseeable risk of injury or harm that could occur.
3. An assessment should take into consideration the task, the load, the individual, the environment and any other factors which may affect safe lifting and carrying (for example the use of personal protective equipment). Assessments should be reviewed when there is a significant change in:
 - the activity or process
 - the working environment
 - the numbers or abilities of personnel
 - the nature of the load(s) to be handled.
4. Reassessment may also be required where accident/absence statistics show that the original control measures were not sufficiently effective.
5. It is Guernsey Water's policy that employees should use mechanical aids where ever practicable.
6. Manual handling training will be identified in the risk assessment and implemented.
7. An assessment of manual handling activities will be carried out by competent persons. Risks which are identified will be reduced to the lowest level reasonably practicable. The following factors will be considered during the assessment.

(a) The Task

Bending and stooping to lift a load significantly increases the risk of back injury. Items should ideally be lifted from no lower than knee height to no higher than shoulder height. Outside this range, lifting capacity is reduced and the risk of injury is increased. Where items are required to be lifted from above shoulder height, a stand or suitable means of access should be used. Items which are pushed or pulled should be as near to waist level as possible. Pushing is preferable particularly where the back can rest against a fixed object to give leverage.

MANUAL AND MECHANICAL HANDLING (continued)

Carrying distances should be minimised, especially if the task is regularly repeated. Repetitive tasks should be avoided wherever possible. Tasks which involve lifting and carrying should be designed in such a way as to allow for sufficient rest breaks to avoid fatigue. Avoid tasks which require twisting the body wherever possible.

(b) The Load

The load should be kept as near as possible to the body trunk to reduce strain and should not be of such size as to obscure vision. An indication of the weight of the load and the centre of gravity should be provided where appropriate.

Unstable loads should be handled with particular caution. The change in centre of gravity is likely to result in overbalancing. Ensure that there is a secure handhold, using gloves where necessary to protect against sharp edges or splinters.

(c) The Individual

Consideration must be given to age, body weight and physical fitness. Regard must be given to personal limitation; employees must not attempt to handle loads which are beyond their individual capability. Assistance must be sought where this is necessary.

Persons with genuine physical or clinical reasons for avoiding lifting should be made allowance for, as should pregnant women, who should not be required to undertake hazardous lifting or carrying tasks.

Sufficient knowledge and understanding of the work is an important factor in reducing the risk of injury. Individuals undertaking lifting or carrying will be given suitable instruction, training and information to undertake the task with minimum risk.

(d) The Working Environment

There must be adequate space to enable the activity to be conducted in safety and the transportation route must be free from obstruction. Lighting, heating and weather conditions must be taken into account. Floors and other working surfaces must be in a safe condition, and adequate ventilation is required, particularly where there is no natural ventilation.

(e) Other Factors

Use of personal protective equipment may be necessary whilst carrying out manual handling activities. If the use of PPE restricts safe and easy movement, this should be reported. Constant interruptions from other workers must be avoided, as this can reduce the concentration of an individual.

MARS RESUSCITATOR	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	MARS Resuscitator Unit

Refer to the information in “MARS Resuscitator – User Instruction Manual” for guidance on the use of MARS.

Only trained and authorised employees are to use MARS.

Any damage noticed must be reported to your supervisor or manager.

MARS sets are to be inspected monthly and a log kept.

If any part of the MARS is out of test date do not use.

WARNING: Highly flammable material, smoking, naked flames or other sources of ignition must not be permitted near the equipment whether in use or in storage.

MOBILE SCAFFOLDS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 General Register for Places of Employment (HSE document)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Gloves

The following rules have been adopted by Guernsey Water in regards to the erection and dismantling of free-standing mobile scaffolds:

1. Mobile scaffolds must only be erected by competent persons who follow the manufacturer's instructions and selected with the load restrictions in mind.
2. Mobile scaffolds must only be erected on firm level ground and the manufacturers instructions should be followed for the height to base ratio (no more than three times the minimum base dimension).
3. Where there is the risk of persons falling from height then suitable edge protection must be provided at least 950mm high and toe boards at least 150mm high. Intermediate rails should also be used so there is no unprotected gap of 470mm.
4. Where members of the public are present, the mobile scaffold should have barriers at ground level to prevent people walking into area.
5. Outriggers must be extended where necessary i.e. to increase affected base size and the tower should be tied into the building where required.
6. Persons must not be allowed to remain on tower when being moved and the use of hop ups/ladders from scaffold must be prohibited.
7. Mobile scaffolds should be inspected by a competent person before first use, after substantial alteration and every seven days. These inspections should be recorded in the general register.
8. The tower scaffold must not be used as an attachment for safety harnesses, this is because they are not a suitable anchor point.

MOBILE SCAFFOLDS (continued)

9. Tower scaffolds should not be overloaded beyond the capacity recommended by the manufacturer.
10. Where a tower is left incomplete a warning notice 'Tower Incomplete Do Not Use' should be fixed to it.

NOISE	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Gloves Hearing Protection

1. Guernsey Water has adopted the UK Control of Noise at Work Regulations 2005 as best practice in order to ensure that any employee subjected to potentially damaging levels of noise will be made aware of this hazard, and of the steps taken to seriously reduce the risk. It is Guernsey Water's policy to take all necessary action to reduce the potential harmful effects of noise.
2. As with all hazards in the workplace, the risk should be assessed. There are well known and documented levels of noise, (e.g. traffic noise), and a noise dose meter can be used to record instantaneous and average noise levels.
3. Initial risk assessments have already been undertaken which indicate designated areas where hearing protection is required and these are clearly marked within Guernsey Water's premises. Employees must always wear ear defenders in these designated areas or when working with or near loud continuous noisy plant or equipment (e.g. excavators, compressors, pumps and pumping stations, workshops.)
4. Employees must remember when wearing hearing protection that they must visually check for hazards (e.g. traffic) when working in or near roads or on building sites.
5. Noisy fixed installations (e.g. engine rooms) are signed to wear hearing protection.
6. Remember wearing hearing protection will help save your hearing from damage caused by loud noises at work. You should follow the manufacturer's instructions that are supplied with your hearing protection.
7. Any problems with your hearing protection i.e. damage should be reported to your line manager.
8. Store your hearing protection in a clean, dry place and do not tamper or modify your hearing protection.

OFFICE SAFETY	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. Guernsey Water recognises that even in a low risk office environment accidents can and do happen. Employees are therefore expected to follow these sensible rules when working in an office:
 - Furniture and equipment must be arranged so as to avoid injury from sharp corners
 - Upper drawers of a filing cabinet must not be overloaded, causing them to become top heavy
 - Only one drawer of a filing cabinet must be open at a time, so as to avoid a tipping hazard
 - Wall storage racks must be securely anchored to prevent their movement or tipping and must not be overloaded
 - Access to high upper storage shelves must only be gained by using the steps or safe access provided
 - Cables from fans, etc., telephones and leads to office electrical equipment are not to be laid across the floors so as to cause a tripping hazard
 - Floor coverings must be held down securely and kept flat and free from wear in places where a person could trip
 - At the end of each working day or shift, non-essential electrical appliances are to be switched off and their wall socket plugs removed
 - Any electrical faults must be reported to your line manager for action
 - Paper guillotines are not to be operated with the guards removed
 - Any simple adjustments to electrical equipment must be made with the power switched off
 - Electrical repairs or maintenance are to be carried out only by a competent electrician
 - Electrical heaters or fires may only be used if properly guarded in accordance with British Standards.
 - Only properly trained and authorised personnel are permitted to operate specialised machinery and equipment.

2. Good housekeeping must be maintained by keeping floors and working area tidy, ensuring that fire exits and passageways are not blocked, and taking care when using extension cables so that they do not cause an obstruction.

3. Fire doors must be kept closed at all times and must not be jammed or wedged open.

4. Fire exits must be kept clear at all times.

5. Fire extinguishers are to be kept readily accessible and where possible are to be positioned on wall brackets. All employees must be aware of these locations, of the methods of operation of fire extinguishers, and of the fire drill procedure for evacuation.

OFFICE SAFETY (continued)

6. Persons handling substances must be made aware of the hazards associated with the handling, storage and use of such substances, together with the precautions to be observed and the first-aid measures to be adopted.

OVERHEAD CABLES	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Plans and advice from the owner of the cables

Employees must treat all overhead lines and other electrical apparatus as live. If in doubt get advice from your supervisor.

Special precautions are required if work is to take place within 15m of overhead lines on steel towers or 9m of overhead lines on wood, concrete or steel poles. (All distances should be measured at ground level from a position estimated by eye to be vertically under the outmost conductor at a tower or pole position).

Any person involved in work in the vicinity of overhead lines should:

1. Understand and follow the instructions given on safe working areas and methods of work. If in doubt consult your supervisor.
2. Take note of warning notices that are displayed in the cabs of machines working in the vicinity of overhead lines, and ensure that these notices are replaced if they become defaced or illegible.
3. Make sure that adequate barriers and warning notices are erected. These are for your safety and the safety of others.
4. Not tip soil, waste materials, or create storage areas underneath overhead lines as this will reduce clearance and may result in danger to yourself and others.
5. Make sure that when handling or using platforms, scaffold poles, piping, ladders, hand tools etc., they are kept at a safe distance from overhead lines.
6. Not steady a suspended load, skip, hoist, wire, sling etc., unless the suspended load etc. is outside or under the protective barriers.
7. Remember that, when mobile plant such as a crane or excavator is operating near overhead lines the raising or slewing of the jib may introduce danger.
8. Always keep overhead lines in view when manoeuvring mobile plant or cranes.
9. Never operate a machine without the assistance of an experienced banksman.

OVERHEAD CABLES (continued)

10. Not approach or make contact with any broken or fallen conductors, or with any plant that is in contact with overhead lines. Warn others to keep well clear. Under no circumstance is work to continue in the vicinity of broken or fallen conductors until the Electricity Company has declared the area safe.

Machine Operators should note that:

1. If a machine in contact with an overhead line cannot be backed clear, or if the machine is entangled, remain seated in the cab so long as there is no other danger e.g. fire. Warn others to keep clear and tell them to call the Electricity Company immediately. Do not leave the cab until the Electricity Company has declared it safe to do so.
2. If it is essential to leave the machine while it is in contact with the overhead line, for example if it catches fire, jump well clear - and do not attempt to climb down in the normal way or touch any part of the machine when on the ground.

PERSONAL PROTECTIVE EQUIPMENT (PPE)	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. Employees must use PPE in accordance with the training and instruction given by Guernsey Water and specific safe working procedures. All employees shall report any loss of PPE or obvious defect to their supervisor or manager.
2. Any employee observed not to be wearing the correct PPE may face disciplinary action by Guernsey Water.
3. If you have any queries or require a specific type of PPE contact your supervisor or Guernsey Water’s Health and Safety Officer.
4. Specific training in PPE will be given as identified in the risk assessment. All PPE must be used and replaced in line with the manufacturers recommendations. All PPE must be stored clean and dry.
5. This procedure is broken down into sections each describing a single item of protection, they are: -
 - Head protection
 - Eye protection
 - Respiratory protection
 - Hearing protection
 - Protective clothing including high visibility clothing
 - Hand protection
 - Skin protection
 - Foot protection

Head Protection

6. The head protection worn should comply with BS EN 397.
7. Head protection will normally be worn during Rope Access work, lowering into quarry reservoirs, confined space activities, in conjunction with lifting plant, and any work activity where there is a risk of head injury.
8. When selecting the suitable head protection, management should consider designs that include the ability to fit chin straps, ear defenders, face shields and lamp braces where the work may require these additional features and be compatible with any other PPE to be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE) (continued)

9. Hard hats shall be looked after. They must not be thrown around and must be stored correctly and out of direct sunlight. The sweat band should be regularly cleaned or replaced.
10. Hard hats can become damaged if struck by hard or sharp objects, they are struck against another object or if exposed to another agent such as an incompatible chemical. Hard hats should therefore be inspected regularly and replaced where necessary.
11. Hard hats shall also be replaced at regular time scales which will be indicated by the manufacturer.

Eye Protection

12. Eye protection serves to guard against the hazard of impact, splashes from chemicals or molten metal, liquid droplets (chemical mists and sprays), dust, gases, welding arcs, non-ionising radiation and the light from lasers. Eye protectors include safety spectacles, eye shields, goggles, welding filters, face-shields and hoods. Safety spectacles can be fitted with prescription lenses if required. Some types of eye protection can be worn over ordinary spectacles if necessary.
13. Eye protection will need to be worn in a number of situations. These may be marked by statutory signs in fixed installations such as the workshop. Examples would include handling hazardous materials such as acids, welding, portable power tool use or high pressure equipment.
14. Eye protectors must be provided both for persons directly involved in the work and also for others not directly involved or employed but who may come into contact with the process and be at risk from the hazards.
15. The selection of suitable eye protection should be made after careful assessment of the hazard and the work process involved.
16. All eye protection must be suitably maintained to ensure its effectiveness. They must be kept clean and should be cleaned in accordance with the manufacturer's instructions.
17. Scratched, pitted or damaged eye protection must be replaced.

Respiratory Protection

Note: Cross reference should also be made to the following procedures in this Handbook: Breathing apparatus, Confined spaces, Chemicals, storage, handling and safe use and Aircraft accident

18. Guernsey Water will make every effort to prevent employee exposure to harmful substances such as dust, fumes, vapours, gases and micro-organisms. In some cases however it will be necessary to control the exposure by the use of respiratory protective equipment.

PERSONAL PROTECTIVE EQUIPMENT (PPE) (continued)

19. Care will be taken to correctly assess the type of respiratory protection required in the different situations where it has to be worn. This may vary from simple dust masks to self contained breathing apparatus.
20. Respiratory protective equipment can be divided into two basic forms. These are firstly respirators which filter contaminated air before it is inhaled by the user and secondly equipment which provides uncontaminated air for breathing from an independent source.
 - respirators take the form of simple passive filtering types such as a dust mask or half or full face filter respirator to powered respirators which force air through the filter to supply the user.
 - the independent air source type includes self contained breathing apparatus and fresh air hose equipment.
21. Respirators are used to provide protection against a great variety of substances. Each respirator may only be capable of providing protection against one hazard although some are capable of providing protection against a range of hazards. It is therefore imperative that a careful assessment be made of the hazard to match it to the correct protection.
22. For any respirator to be effective it must be in good condition, the filters must be capable of filtering and the user must use it properly. Facial hair and spectacles will for example reduce the effectiveness of the respirator seal.
23. Consideration should also be given to the demands of the work especially of the physical effort required, the amount of time it has to be worn and requirements for visibility and communication.
24. The medical fitness of the individual concerned must also be taken into account as some personnel may suffer respiratory disorders which may cause distress when wearing the equipment.
25. Training will need to be given in the use of respiratory protective equipment; this is particularly the case if self contained breathing apparatus is used. Training will need to address the hazards faced, the method of use, and how to look after equipment.

Hearing Protection

26. Hearing protection must be worn where there is a noise of such intensity that it is likely to damage the hearing of those exposed.
27. Guernsey Water will make assessments of the working environments where the noise level is such that measures may have to be taken.

PERSONAL PROTECTIVE EQUIPMENT (PPE) (continued)

28. Guernsey Water will make every effort to reduce the noise level at source so as to make the wearing of hearing protection unnecessary. This can be achieved in a number of ways using well documented noise reduction techniques.
29. Where it is not possible or reasonably practicable to reduce noise levels below the levels capable of damaging hearing then it will be necessary for those exposed to wear suitable hearing protection.
30. Hearing protection may have to be worn in fixed installations or in part of those installations. These areas will be designated as hearing protection zones and will be appropriately signed.
31. There will also be temporary sites such as road works and temporary work such as the use of an angle grinder where hearing protection should be worn. These areas will also have to be identified through noise assessment.
32. Hearing protection comes in two forms. Firstly the ear plug and secondly the hearing defender. Ear plugs are commonly used in the marginal situations where the work is of a short duration. Examples would include the occasional use of a road breaker. Ear plugs do not in general give the same attenuation as ear defenders. Ear defenders are more suited to the noise environment however, there are a wide range of defenders on the market. Many hearing defenders are designed to protect against different noises giving different attenuation at varying frequencies. Where the noise level is of such an intensity or pitch, it will be necessary to match the hearing defender to the protection required.
33. Hearing defenders will only be effective in providing the protection required if they are worn correctly and are maintained in good working order. Glasses may for example reduce the protection provided as would damaged seals.

Protective Clothing including high visibility clothing

34. It is the policy of Guernsey Water to provide staff with the clothing necessary to protect them against a known hazard. The range of clothing that this could include is listed below.
35. Coveralls and aprons to protect against chemicals and other hazardous substances.
36. Outfits to protect against cold, heat or bad weather.
 - Clothing to protect against machinery such as chain saws.
 - High visibility clothing.
 - Life jackets and buoyancy aids for work.
37. It will be necessary to select the clothing most suitable to the protection required. An assessment may be necessary to ensure that staff are wearing the correct clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE) (continued)

38. Protective clothing must be properly maintained to remain effective and should be replaced when necessary.

Hand Protection

39. Guernsey Water will provide employees with hand and arm protection as is necessary. Gloves of various designs provide protection against a range of industrial hazards including:
- Cuts, abrasions and other penetrating wounds.
 - Extremes of temperature.
 - Skin irritation and dermatitis.
 - Contact with toxic or corrosive substances.
 - Vibration white finger.
 - Infection from micro-organisms.
40. It may be necessary to assess the protection most suitable to the risk so as to ensure that adequate protection is provided.
41. Gloves should be comfortable to wear and enable the user to carry out the task effectively.
42. Gloves should always be maintained to ensure continued protection and disposed of when damaged or in a condition that no longer offers the necessary protection.
43. It is Guernsey Waters policy to try and minimise the situations where the wearing of glove protection is necessary.

Skin Protection

44. In some instances it may be necessary to protect exposed skin from danger through the use of barrier creams or other skin creams or preparations. Where this is necessary then Guernsey Water will make provisions.
45. Exposure of skin to the harmful effects of the sun should be controlled where possible through the use of clothing.

Foot Protection

46. It is Guernsey Waters policy to provide employees with safety footwear where there is a significant risk of foot injury to its employees undertaking their normal duties at work.
47. There are a number of different types of footwear designed to give different protection.
48. Safety footwear can be designed to prevent crush injuries to the toes and foot, penetration injuries, heat injuries, problems associated with exposure to moisture and to chemicals and against the build up of static.

PERSONAL PROTECTIVE EQUIPMENT (PPE) (continued)

49. It may be necessary to conduct an assessment of the footwear required by an employee; however the great majority will require steel toe caps, slip resistant tread and penetration resistance in the mid-sole.
50. The footwear should be comfortable to wear, flexible, water resistant and absorb perspiration. Uncomfortable shoes tend not to be worn.
51. For general duties only laced safety boots should be provided as safety shoes do not give ankle protection. Rigger boots are not permitted as they do not give adequate ankle support.
52. Some specialist duties require specific foot wear i.e. Wellington boots, ensure the boot is suitable for the task and is compatible with other PPE i.e. wearing waders and the correct lifejacket taking into account the reduced buoyancy due to water filled waders.

PETROLEUM AND TWO STROKE MIXTURES

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. All petrol and two stroke mixture used, stored and carried by Guernsey Water's employees must be in suitable approved containers (Type I cans with automatic venting pressure relief mechanism and internal flame arrestor).
2. The containers must be permanently marked as to their contents and be coloured red.
3. Private containers or containers which have held other products, e.g. oil cans, cooking oil etc., are never to be used for holding petrol.
4. Petrol when held in vehicles should be stored in a separate ventilated compartment within the vehicle.
5. No more than 19 litres is to be carried in Guernsey Water's vehicles at any one time .
6. No smoking is to take place in the compartment in which the petrol is kept.
7. The fuelling of tools and plant is to be done with care and the following adhered to: -
 - (i) The machine engine must be stopped and allowed to cool.
 - (ii) A funnel must be used.
 - (iii) Any small spillage must be contained and absorbed.
 - (iv) Fuelling must take place well away from any source of ignition.
 - (v) A dry powder extinguisher must be available at all times that petrol is carried, stored or used on site.
8. The use of mobile phones whilst refuelling equipment is prohibited.

PIPE CUTTING EQUIPMENT	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Safety of Employees (Miscellaneous Provisions) Ordinance 1952
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Full Face Visor High Visibility Vest Safety Shoes

Hydraulic Pipe Cutters

1. Only trained operatives thoroughly familiar with the use of the equipment are allowed to operate this equipment.
2. The pipe cutters will be inspected before use. Care should be taken to ensure that the chain is inspected for damaged wheels, links or pins. Do not use the tool if the chains or any other part of the tool is broken or damaged.
2. The high pressure exerted by the cutter may cause the cut section of the pipe to fly with considerable force. As a result employees must avoid standing too close to either end of the pipe and ensure that no other personnel are in the immediate area before applying cutting pressure.
3. The manufacturer's operating instructions will be followed at all times in particular ensuring that the cutting capacities for sizes and types of pipe are not exceeded.
4. Personal protective equipment (full face visor, high visibility vest and safety shoes) must be worn. After taking these precautions the supervisor may judge it necessary to issue additional personal protective equipment, and require it to be worn.

Pipe Milling Machine

5. Only trained operatives thoroughly familiar with the use of the equipment are allowed to operate the drilling machines.
6. The pipe milling machine will be inspected before use. Care should be taken to ensure that the tool slides are not worn, any bolts or nuts are not loose and lubricant is not leaking.
7. Ensure that all loose clothing (including rings, gloves and watches) are removed or kept clear of the rotating parts of the machine at all times.
8. Personal protective equipment (full face visor, high visibility vest, hearing protection and safety shoes) must be worn. After taking these precautions the supervisor may judge it necessary to issue additional personal protective equipment, and require it to be worn.

PIPE CUTTING EQUIPMENT (continued)

Pressurised Main Drilling Machines

9. Only trained operatives thoroughly familiar with the use of the equipment are allowed to operate the drilling machines.
10. Check all equipment for damage before leaving depot. Exchange if necessary.
11. Always follow the manufacturer's instructions.
12. On an under pressure branch, test the collar after fixing and before drilling commences.
13. Ensure the bottom of the trench is reasonably level and dry.
14. When drilling a large diameter main have someone stationed outside the trench.

PLANT, VEHICLES AND TRAILERS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Safety Boots Safety signs and barriers Ropes or chains of adequate strength Properly equipped vehicle and trailer

Plant and Vehicles

1. Only trained and authorised employees are to operate plant and vehicles. Daily checks must be conducted by the operator to ensure road worthiness and that any safety systems such as dead man devices are operational.
2. The driver before using any machine or vehicle must ensure that it is in good order and functioning correctly. Particular attention should be given to the general security of the vehicle's wheel nuts (where applicable).
3. The driver of any machine must check with his supervisor before working near overhead cables.
4. On site the driver of any machine or vehicle must make a sound assessment of the ground over which he is to operate to avoid the machine over turning owing to slope, unevenness or subsidence, particular attention must be given to slope if slewing is to take place.
5. The driver of any machine must position his machine so that he can see the load he is to lift or the ground he is to excavate, if this is not possible he must not work without the aid of a banksman.
6. Avoid parking on slopes. If this is unavoidable, then position the machine at right angles to the slope, chock the wheels and apply the handbrake.
7. Attention must be given to proximity of excavations when positioning plant to avoid trench collapse.
8. Always try to park in a non operating area or designated parking place and make sure the ground is firm.
9. If the machine breaks down it should always be marked clearly with warning cones and lamps.
10. On the highway, position the machine in such a way as not to cause obstruction to other traffic. When this is unavoidable, the machine must be treated as roadworks with signs and barriers to warn other road users.
11. Water bowsers must always be signed and lamped (as roadworks) when parked on a highway during the hours of darkness or in adverse weather conditions.

PLANT, VEHICLES AND TRAILERS (continued)

12. Vehicles or plant may park on yellow lines or opposite continuous white lines at any time when work has to be carried out. In case of doubt, the police authority must be consulted.

Trailers

13. Check that the combined weight of your vehicle and the weight of your trailer does not exceed the Gross Train Weight (GTW) of your vehicle.
14. Make sure that the trailer is secured to the vehicle using the correct pin or ball and that the locking pin and ball catch is fully home. Connect brake air lines and check operation of brakes (Air brakes only).
15. Check that the trailer is not overloaded and that the load is properly positioned (most trailers should be slightly nose heavy) check that the load is secure.
16. See that the jockey wheel and jacks are raised clear and secured before driving off.
17. Check that tyres are in good condition and properly inflated.
18. Disengage the reversing lock on the overrun brakes.
19. Check that your mirrors give an adequate view to the rear.
20. Check that the lighting plug and cable are properly connected to the socket on the vehicle and that all lights and indicators are working.
21. Make sure that safety chains or cables (where fitted) are connected.
22. Observe the speed limits for towing.
23. When towing a trailer maintain a safe distance from the vehicle in front because normal braking distances may be increased.
24. Drivers must familiarise themselves with the handling and manoeuvring characteristics of the unit before driving in traffic.

Emergency Towing of Other Vehicles on Roads

25. Lifting tackle (chains, slings etc.) must never be used for towing or removing ditched or bogged down vehicles. Where a rigid drawbar is not available a properly secured rope of adequate strength may be used. The tow rope must not permit the two vehicles to be more than 4.5 metres apart and a marker must be attached to the centre of the rope (a piece of rag is acceptable).

PLANT, VEHICLES AND TRAILERS (continued)

26. The vehicle being towed must display an "on tow" notice bearing the registration number of the towing vehicle and its driver must give all hand or light signals.
27. Under no circumstances must a speed of 25 mph be exceeded. The drivers of the two vehicles must agree a code of signals to cover operational requirements. Only experienced drivers should undertake such operations.

Unditching Operations using Chains

28. Properly constructed chains in sound condition and of adequate strength should only be used for the purpose of unditching or removing bogged down vehicles under the control of competent persons. Lifting tackle must never be used for such purposes.
29. The use of chains for on-the-road towing can be dangerous and is forbidden.

PORTABLE PLANT AND EQUIPMENT

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) The Safety of Employees (Electricity) Ordinance 1956
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

NB. Guidance on Air Compressors will be found under the heading ‘Pressure Vessels’ elsewhere in this document.

Portable electrical equipment

The guidance under this heading refers to electrically powered disc cutting and grinding machines, and electrically powered drilling and taping machines.

1. Portable electrical equipment is widely used throughout Guernsey Water and it is easy to become complacent about its use forgetting the dangers associated with electricity and potentially fatal consequences associated with damaged equipment, misuse or poor maintenance.
2. Guernsey Water have a duty to comply with the Safety of Employees (Electricity) Ordinance 1956, the current edition of the Institution of Electrical Engineers, and will also comply with the principles as set out in the UK Electricity at Work Regulations 1989.
3. The overriding principle behind safe portable electrical equipment is ensuring that it is adequately inspected, tested and maintained.
4. Users are responsible for visually checking equipment for wear and tear. All damage is to be reported to your supervisor or manager. Damaged equipment is to be labelled and kept secure.

Electrical supply

5. Reducing transformers supplying 110 volt tools to BS4363 with their centre tapped earth connected to the main transformer frame, as required by BS, must be sited as close as possible to the point of supply, thus keeping 240 volt cable lengths to a minimum. The 110 volt extension cable and transformer must be fitted with plug and socket connectors manufactured to BS4343 of the voltage discriminating type, e.g. yellow for 110 volt and preferably with yellow cable sheath.

PORTABLE PLANT AND EQUIPMENT (continued)

6. Temporary floodlights, e.g. festoons, etc, are to be low voltage, i.e. the supply voltage between conductors is not to exceed 110 volts or 55 volts between conductors and earth or 240 volts with an RCD fitted. They should be of the moulded on type, not the pin piercing type, since dampness can enter via the pin holes. ES type fitting should only be used with moulded on lamp fittings, where the correct polarity can be guaranteed.
7. Portable generators for 110 volt site supplies are to be centre-tapped to earth, with the tapping connected to the machine frame. This must be specified when the machines are purchased as some manufacturers do supply generators without centre-tapping, or the frame connection.
8. Any temporary 240 volt cabling which runs through a road works type environment, and could possibly be subjected to damage, is to be steel wire armoured.

Inspection and testing of appliances

9. Portable electrical appliances are to be inspected and tested at intervals deemed appropriate by a competent person.
10. Inspection and testing may be carried out by qualified Guernsey Water staff or outside contractors.

Log Book of Appliances

11. All plug in electrical appliances are to be listed in a log book (register) which identifies the serial number of the appliance, its normal location and risk category. Details of inspections and tests are to be recorded for each appliance.
12. Any minor repairs are to be carried out as necessary at the time of inspection.
13. After inspection and testing, the appliance should be checked to ensure that it functions correctly.

Pneumatic, hydraulic and petrol driven equipment

14. These equipment items can be hazardous if they are not properly used, inspected or maintained, high pressure hoses can rupture and pressure vessels can fail. Previous incidents of this nature have proved fatal through both explosion and injection of air or fluid.
15. If an employee suspects a failure in any portable plant high pressure (pneumatic or hydraulic) system it should be immediately decommissioned and repaired or replaced before it is taken back into service.

PORTABLE PLANT AND EQUIPMENT (continued)

16. A basic examination of all items of plant and equipment on a regular basis is recommended to ensure that all connections are sound and the plant hoses and tools function in the normal way.

Defects

17. Any person discovering a defective appliance is to withdraw it from service, attach a label to it stating the nature of the defect and that it is NOT TO BE USED. The supervisor should then be requested to arrange for its repair.
18. UNAUTHORISED REPAIRS ARE NOT TO BE MADE BY SITE STAFF UNLESS THEY ARE COMPETENT TO DO SO.

PRESSURE VESSELS AND APPARATUS

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Safety of Employees (Miscellaneous Provisions) Ordinance 1952
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. The systems coming under this heading include those containing steam, pressurised hot water, compressed air, inert gas and fluorocarbon refrigerants.

2. The Safety of Employees (Miscellaneous Provisions) Ordinance 1952, requires Guernsey Water to ensure that every air receiver: -
 - Has the safe working pressure (SWP) clearly marked on the outer casing of the vessel.
 - Be fitted with a suitable safety valve to ensure that air can escape if the pressure exceeds the SWP.
 - Be fitted with a correct pressure gauge indicating the pressure in the air receiver. The SWP should be clearly marked by a coloured line on the gauge.
 - Be provided with a suitable manhole or similar device which can be removed so that the interior can be thoroughly cleaned and inspected.

3. Guernsey Water will ensure that every air receiver and its fitting is
 - of sound construction and properly maintained, and
 - Is inspected and cleaned at least once every twenty six months, unless the competent person undertaking the inspection extends this period, in writing, up to four years.

Note: all components of the pressure system must be inspected.

4. On receiving the inspection report, Guernsey Water will make a positive response to any recommendations.

5. Whilst the period between inspections is a statutory twenty six months (or up to four years), management will ensure that regular visual inspections are made by those who use the plant.

PUBLIC – THE PROTECTION OF	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 The Public Highways Ordinance 1967
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

Definition: a member of the public is any person who voluntarily comes onto premises owned or administered by Guernsey Water, or who uses the States highway on foot or in a vehicle.

1. Guernsey Water, and its sub-contractors, will conduct all road work activities in accordance with the Traffic Committee's guidance contained in the publication "Safer Road Works." Inspections will regularly be conducted to ensure compliance.
2. Guernsey Water will ensure that the perimeter protection of its reservoir quarries is inspected annually, and any reported damage is repaired promptly.
3. Visits to Guernsey Water premises may be arranged providing there is sufficient adult supervision. The adult/pupil ratio will depend on age but will not normally be less than two per party and one adult to ten pupils.
4. If any member of the public suffers a near miss or accident/injury resulting from Guernsey Water activities, the procedures set down in "the recording and reporting of accidents" will be applied.
5. Any person(s) authorised to use Guernsey Water sites for any event or activity other than walking on designated public access pathways, must provide a suitable and sufficient risk assessment.

RECORDING AND REPORTING ACCIDENTS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 General Register for Places of Employment (HSE Document)
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

Accidents/Injuries

1. Those accidents at work which require immediate telephoned notification to the Health and Safety Executive, and then a written report, fall into the following categories: -
 - Death.
 - Fractures of any kind, except to hand or foot.
 - Amputation.
 - Serious injury to an eye.
 - Injury resulting from electric shock.
 - Loss of consciousness.
 - Decompression sickness.
 - Acute illness due to absorption of a substance.
 - Acute illness due to exposure to a pathogen.
 - Any other injury leading to the casualty being admitted immediately into hospital for more than 24 hours.
 - The death of an employee if this occurs some time after the accident.
 - An employee affected by a number of specific diseases, e.g. poisonings, skin or lung diseases.

Action to be taken in the event of a specified major accident/injury

2. Details of the accident should immediately be reported to Guernsey Water's Safety Officer, deputy or another senior member of management.
3. The Safety Officer or deputy should immediately notify the Health & Safety Executive on Tel. 234567 / 235741.

RECORDING AND REPORTING ACCIDENTS (continued)

4. Details of the accident must be recorded and passed to the Safety Officer.
5. Within seven days the necessary form should be completed and posted to the Health & Safety Executive. Guernsey Water's Health and Safety consultant should be informed.
6. In addition, when any serious accident occurs on site, management should take the following action: -
 - Take appropriate, dated photographs.
 - It may be necessary to make the site safe to ensure that there is no recurrence of the accident, but if the Police and/or Health & Safety Executive are due on site, all evidence should be left untouched. The area in question should be fenced off until the authorities have concluded their investigation.
 - Take written, signed, statements from witnesses.
 - The site supervisor should write an account of the events. File all evidence.
 - Guernsey Water's Insurance Company should be informed without delay.
 - The Safety Officer, will take responsibility for ensuring that the next of kin are advised.

Action to be taken in the event of a dangerous occurrence

7. Accidents involving a wide range of plant or equipment have to be reported by telephone to the Health & Safety Executive (234567 / 235741), and then a report form completed within seven days. The list below summarises some of the more important occurrences: -
 - Lifting machinery, overturning or collapse of any excavator or pile driving frame.
 - Pressure vessels: explosion, collapse or bursting of any of the plants.
 - Electrical short circuits leading to fire or explosion which results in the stoppage of the plant.
 - Escape of flammable substances.
 - Collapse of scaffolding.
 - Collapse or partial collapse of a building or structure.

RECORDING AND REPORTING ACCIDENTS (continued)

- Uncontrolled escape of a harmful substance or pathogen from any apparatus or plant.
8. In the event of a Dangerous Occurrence, the same sequence of actions outlined in the previous section should be followed.

Please refer to Guernsey Water's Incident Reporting Guidelines

RISK ASSESSMENT	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

This manual identifies those work activities which present risks to those employed by Guernsey Water and other workers and the public who may be affected by our work activities. The standards and procedures set out in this manual are designed to reduce or eliminate the risks.

1. It is essential that all employees, whether managers, supervisors or operatives, consider the risks before the job starts... this means conducting a risk assessment. This process may not be complex and will be based on the standards in the Safety Policy and this manual, your experience and any training you have undertaken.

2. A risk assessment will be more important and detailed for those activities which have a greater risk... such activities as work confined spaces, lowering into quarry reservoirs, deep trench excavation and so on. In some instances a competent person may be required to create a method statement. Road work activities use planning and regular monitoring.

3. Making risk assessments is a constant process requiring regular consideration. Never become complacent. Keep asking questions: "What happens if?" and take the action necessary to prevent the accident and injury to your work colleague or any other person affected by your work activity.

Here are five essential steps in making and implementing a risk assessment.

- Identify the hazards
- Decide who might be harmed and how
- Evaluate the risks and decide on precautions
- Record your findings and implement them
- Review your assessment and update if necessary

ROPE ACCESS WORKS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet Safety Boots Safety Harness and Suitable Climbing Equipment Protective Overalls

Only trained and authorised employees are to undertake rope access works.

The rope access equipment should be inspected prior to use and replaced inline with the manufacturer's recommendations.

All defective equipment is to be taken out of service, labelled and sent for repair if possible or destroyed immediately.

STACKING OF MATERIALS

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Gloves Safety Boots

1. Remember when articles, materials or pipes are stacked, someone, at a later date, will have to remove them.
2. Keep all entrances and exists clear.
3. Always store heavy articles at ground level.
4. Do not stack materials to a dangerous height and always follow any manufacturer's guidance.
5. Choose a stable and level area for stacking water pipes (ductile or cast iron).
6. Use timbers if necessary to obtain a level area.
7. Always place the bottom layer of pipe on timber battens and nail wooden wedges into place to prevent the pipes rolling.
8. It is recommended that each pipe is alternated (spigots, sockets). The sockets of each added layer should protrude slightly beyond the spigot of the pipes below.
9. Your supervisor should determine when it is necessary to place timbers and wedges between each layer of the stacked pipes.
10. Supervisors must ensure that pipes are not stacked too high to be deemed unsafe.
11. All pipes must be stored and transported with end caps to stop any debris entering the pipe.
12. Pipes stacked on site ready for immediate use must be secured so that children who may wander onto the site are in no danger. Pipes stacked in such site conditions should never be more than three pipes deep, and if the diameter is greater than 8" (200 millimetres) stored to a single layer.
13. Fire doors, extinguishers and passage ways must always be kept free of stacked materials.
14. When racking is used, as in depot stores, it should be stable and cross laced to prevent collapse and, when practicable, it should be secured to the building (heavy items of equipment should not be placed on racking or shelving).
15. Never stack items on shelving or racking in such a way that there is any danger of items falling onto persons.

STORAGE AND DISPOSAL OF WASTE

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

In an organisation as large and varied as Guernsey Water, a good deal of waste is created. The general policy of Guernsey Water is to comply with its legal responsibilities towards the disposal of waste and to take care of the Island environment.

1. Waste product will include paper, asbestos cement pipe, engine oil, tyres, batteries, paint products, spoil from road work activities, packaging of wood and paper type, WTW sludge and many others.
2. Waste material should be stored in such a way that it is not a trip or fall hazard, does not present or add to a fire risk and for as short a time as economically possible. Waste should be stored so that it is unlikely to be spilled, blown away or misused by vandals, thieves or children.
3. New equipment has been installed at St Saviour's to deal with chemical waste from water treatment.
4. Wherever possible waste or used products and containers will be reused or recycled. Gas cylinders will be returned to the suppliers, paper waste will go to the recycling plant, waste oil products and batteries will be appropriately stored in bunded areas prior to collection and reuse.
5. Guernsey Water will comply with current States requirements regarding the disposal of stone and concrete debris, mixed skip loads and asbestos waste. The Public Services Department will provide up-to-date information.
6. Waste must not be temporarily stored in unmarked containers.
7. Flammable and explosive substances must not be poured into the main drain system nor flushed into cess pits.

Please also refer to the section Burning of Rubbish

SUN PROTECTION	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Safety Boots

Guernsey Water recognises that employees, from time to time, will be working outside for most of the day. Exposure to ultraviolet light can cause skin damage including sun burn, blistering, skin ageing and in the long term can lead to skin cancer.

Guernsey Water recommends that the following guidelines are followed:

1. Employees should ideally cover up during the summer months particularly around lunch time when the sun is at its hottest (e.g. the use of a long sleeved shirt and a hat with a brim or flap that protects the ears and neck).
2. Breaks should be taken in the shade, if possible, rather than staying out in the sun.
3. Employees should drink plenty of water during the day in order to prevent dehydration.
4. If you have any queries or concerns contact your supervisor or Guernsey Water's Health and Safety Officer.
5. It is recommended that sun screen of a suitable type and strength is worn to protect from ultraviolet light. The manufactures recommendations should be followed for reapplication rates depending on skin types.

TRAINING	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. It is the policy of Guernsey Water to comply with the legal requirements under the 1987 Ordinance to provide such information, instruction, training and supervision to ensure, as far as is reasonably practicable, the health and safety at work of its employees.
2. Health and safety training will be provided for all levels of employee and all skill types to a planned and structured programme. Training needs will be identified by head of departments by conducting a training needs analysis in liaison with the Health and Safety Officer.
3. The training will, whenever possible, be provided during normal working hours.
4. The trainee will not be charged for attendance at courses, and will be reimbursed for all reasonable costs incurred.
5. Those younger or less experienced employees under training or instruction will receive guidance and supervision from 'father figures' who have the necessary skills and capability to communicate and listen.
6. A record of all training and instruction should be maintained and filed.

TRANSPORTING DANGEROUS SUBSTANCES BY ROAD	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Transport Emergency Cards and Holder High Visibility Vest Safety Boots Fire Extinguisher Safety Helmet

Only authorised and trained employees are to transport dangerous substances in a suitable vehicle for the task.

Before loading your vehicle you must:

1. Make sure that you know what chemicals or substances you are to transport, the dangers associated with them, and any special precautions that you must take.

Your supervisor will provide you with this information.

2. Ensure that you have read **and understood** the Transport Emergency Cards dealing with those substances, placed on display in the transparent holder provided in the cab, and that any Tremcards (or other information) dealing with previous loads or substances not being carried are placed in the 'not in use' pouch attached to the Tremcard holder or removed from the vehicle.
3. Make sure that the containers of the substance are clearly labelled before loading them and ensure that the containers are properly secured before moving off.
4. If carrying more than 500 kg of dangerous substances the vehicle must display orange plates at the front and back. These plates must be covered up or removed when the vehicle ceases to carry dangerous cargo in such quantities.

In the event of leakage, spillage or accident, follow the emergency procedure set out on the Tremcard.

The Dangerous Substances most likely to be transported in Guernsey Water vehicles are: -

- Chlorine gas cylinders
- Sulphur dioxide gas cylinders
- Propane and butane liquefied petroleum gas cylinders
- Acetylene gas cylinders
- Sodium hypochlorite

VALVE AND HYDRANT OPERATION

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Eye Protection Road Signs and Cones High Visibility Vest Safety Boots

1. Eye protection must be worn when using a copper headed hammer to loosen lids.
2. Do not use a naked flame to loosen frozen lids.
3. Wear reflective clothing when operating valves and hydrants in highways.
4. Use traffic signs, road cones and lamps when working in the highway. When possible a van with hazard warning lights and a flashing roof light should be used as additional protection.
5. When operating hydrants, care should be taken to avoid dangers from trapped air in the main. Keep clear of the hydrant outlet.
6. In freezing weather, unless suitable precautions have been taken, do not operate hydrants which would cause ice to be formed on roads or footpaths.

Please also refer to the section Hose Safety

VEHICLE LOADS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Safety Boots Gloves Ropes, Chains, Sheets, Nets etc Timber Suitable Anchorage Points Extended Loads Warning Signs

1. Make sure that your vehicle's load space and carrying capacity is adequate for the load.
2. The load must be secured to proper anchorage points by means of ropes, chains, straps or similar lashings to ensure that no movement is possible under normal road conditions.
3. During long journeys ensure that security is maintained by periodically checking the load and securing.
4. If possible the front of the load should be up against the headboard or other strong fixed part of the deck and wedges or blocks should be used to prevent movement; it is not only sideways movement which presents a hazard, loads shorter than the deck could, even if placed against the headboard, move back when the vehicle is accelerating.
5. Loose items and bulk loads must be netted or sheeted to prevent them falling or being blown off the vehicle.
6. Tarpaulin rope hooks must not be used to secure heavy loads. Chains must not be attached to rope hooks and should only be used to secure heavy loads in conjunction with a tensioning device, and connected to secure anchor points.
7. Remember that the size and position of the load may adversely affect the vehicle's handling.
8. Do not overload your vehicle or load it too high.
9. Wide, high and overhanging loads may require special precautions to be taken - seek guidance if you have any doubts.
10. Some loads such as steel sections and bars can be difficult to secure against slipping forward and may endanger the vehicle crew by penetrating the cab under heavy braking. Special precautions must be taken to prevent this.

VIBRATION	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Safety Boots Anti-vibration Gloves

1. Exposure to excessive levels of vibration can cause a range of injuries collectively known as Hand Arm Vibration Syndrome (HAVS) which presents the following symptoms; pins and needles, pain and numbness in fingertips, reduced sensitivity or touch, painful wrists, damage to muscles, bones and joints. In extreme cases damage can lead to permanent injury.

2. There are several stages in the development of the condition. These are: -
 - Slight tingling or numbness in one or more fingers.
 - The tips of one or more finger may become white. Shortly after stopping work with an item of plant the tingling will disappear and the whiteness in the tip of the finger will become flesh coloured again. As the blood returns to the fingertip considerable pain may be experienced for a short time.
 - In very serious cases of HAVS, the fingers may take on a permanent blue-black appearance and in more severe cases, gangrene may develop.

3. The people most at risk from hand arm vibrations are those who regularly operate high vibration tools such as drills, breakers and grinders etc. For some persons it may only take a matter of minutes / moments of exposure for symptoms to appear, for others it may take years.

4. Guernsey Water has adopted the following policy toward HAVS: -
 - To assess the risks to the health of employees and plan for suitable and sufficient controls.
 - Maintaining its plant and, whenever possible, will replace plant with anti-vibration equipment or items that are designed to reduce the level of vibration.
 - Specific trigger time information will be given to all equipment users based on a traffic light system. Supervisors and managers must ensure these trigger times are followed by all employees.
 - Guernsey Water will also issue gloves with an anti-vibration design. Employees working with equipment creating strong levels of vibration will be required to wear these gloves.
 - Give employees information and training on HAVS.

VIBRATION

- Provide health surveillance when risk assessment deems necessary.
5. Tingling and discoloration of the fingers is more likely to develop in cold weather or the early morning. Thus the wearing of properly designed gloves can also prevent HAVS by keeping your hands warmer.

VIOLENCE AT WORK	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

- 1 The Health and Safety Executive defines work-related violence as “any incident in which a person is abused, threatened or assaulted in circumstances relating to their work.”
- 2 Guernsey Water has a vested interest and a legal duty to combat any violence at work because it can lead to poor morale, higher absenteeism and compensation payouts. Physical attacks, although extremely rare, are obviously dangerous, however, the threat of serious and persistent verbal abuse is more likely to occur and this can also damage an employee’s health through anxiety and stress.
- 3 Guernsey Water will manage violence at work by taking reasonable steps to find out if it has a problem, deciding on what action to take if there is a problem, taking action and then checking what it has done has been effective.
4. Guernsey Water regards any abusive behaviour or the threat of violence towards its employees by members of the public extremely seriously and reserves the right to take legal action against those who threaten or abuse Guernsey Water employees.
5. If an employee has been subjected to work related violence either from a colleague or a member of the public they must immediately report the incident to their supervisor or in their absence Guernsey Water’s Health and Safety Officer.

WATER ON HIGHWAYS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Safety Boots Road Signs, Cones and Barriers

1. When appropriate use road warning signs.
2. If work is carried out in frosty weather, call States Works to apply sand to affected area.
3. If water has escaped through a burst which may cause a hazard to traffic, ask your supervisor to inform the Police and the Highway Authority.
4. When using a hydrant, a standpipe and hose should be used to direct the flow of water to the nearest gully.
5. If carrying out a flow test, sand bags should be used to direct the flow of water.
6. During winter time when sub zero temperatures are possible water should not be allowed to run on road and pavement surfaces. Extra long sample lines are to be used to drain water directly into the surface water drain.

WATER QUALITY – PROTECTING PUBLIC WATER SUPPLY

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
------------------	--

ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A
--	------------

This guidance is more fully described in “Operational guidelines for the protection of drinking water supplies” (published by WSA & WCA). This section describes the steps that should be taken to protect the public water supply from contamination and associated waterborne diseases.

Restricted Operations are defined as: “Work which involves direct contact with partially or fully treated water within water treatment works or with treated water, or any surface of an operational asset (including those temporarily out of use) which will itself be in contact with potable water at any stage in its distribution to the point where it is made available to consumers”.

Hygiene

1. People (including contractors) working on ‘restricted operations’ will be screened, trained and certificated. They must follow this guidance at all times.
2. In addition they must complete a medical assessment questionnaire and notify their line manager if they are unwell or have come in contact with those carrying a waterborne disease.
3. Good personal hygiene must be maintained at all times. Toilet and washing facilities are provided and these must be used.
4. Clothing – must be kept clean and free from contamination.
5. Vehicles – must be kept clean and free from contamination. Particular care must be taken with water bowsers or tankers and these must be disinfected and flushed before use.
6. Plant, tools and equipment – must be clean and free from contamination.
7. Stores – materials and other equipment used on restricted operations must be stored in such a place where direct contamination from dirt or sewage cannot take place. Materials and equipment returned to the store must be clean before it can be accepted back.
8. Workshops – must be kept clean so as to avoid contamination.

Training will be given to all people involved in restricted operations so that they understand the significance of their task.

Catchment Protection

9. No water source can be regarded as free from risk of pollution therefore the maintenance of catchment protection procedures is paramount.

WATER QUALITY – PROTECTING PUBLIC WATER SUPPLY (continued)

Water Monitoring and Treatment

10. Bacteriological examination of drinking water supplies will be made from all treatment works.
11. The Water Supply (Water Quality) Regulations specify the standards for drinking water quality and the Health Authority will be advised where there is any problem in maintaining satisfactory standards.
12. Only trained operators run the water treatment works.
13. Water treatment processes will be matched to the raw water characteristics and the final water quality standards to be achieved.
14. All potable water will be disinfected with chlorine before leaving the treatment works.
15. Treatment chemicals – only those chemicals that have been approved by the Drinking Water Inspectorate will be used.
16. Security – Reasonable steps will be taken to ensure that the works remain safe from vandalism or other unwanted intrusions.

Treated Water Reservoirs

17. Reservoirs will be designed and maintained so as to preserve water quality.
18. Regular inspection and cleaning will be undertaken.
19. Monthly security inspections will be made on all treated water storage sites.

Distribution System

20. The distribution system should be designed and maintained in such a way as to maintain water quality.
21. All new, renovated or repaired mains must be cleaned, disinfected and flushed before being put into service.
22. Where a water main is suspected to have been contaminated in any way then the duty water quality officer must be contacted for advice.
23. Bacteriological samples will be taken to confirm water quality whenever appropriate.

WATER QUALITY – PROTECTING PUBLIC WATER SUPPLY (continued)

Backsiphonage

24. Prevention of backsiphonage is one of the main purposes of the Water Byelaws. The Plumbing Inspectors will assess risks and inspect properties where appropriate.

Materials in contact with water

25. Only approved fittings and materials will be allowed to be used for the purpose of conveying potable water.

Communications & liaison

26. The Compliance Manager will establish and maintain communication procedures for both day to day and emergency situations.

WEIL'S DISEASE (LEPTOSPIROSIS)	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Wellington Boots Waterproof Protective Gloves Eye Protection Respiratory Protection (where identified as a result of a risk assessment)

1. Guernsey Water recognises that there are a number of zoonotic diseases which employees could be at risk of contracting during their day to day activities. Weil's disease is the most common disease taking into account the activities employees are carrying out in the work place.
2. Weil's disease is a bacterium that can enter the body through cuts, scratches, the mouth, throat or eyes after contact with a potentially contaminated area. The symptoms are similar to flu.
3. Employees are expected to wear PPE provided by Guernsey Water. Furthermore employees must ensure that any cuts and grazes are covered with a waterproof dressing and that hands are thoroughly washed before eating, drinking or smoking.
4. Any illness of this nature should be reported to your supervisor immediately and you should visit your doctor and advise the doctor of your occupation.
5. All employees that are at risk of contracting Weil's disease have been issued with cards detailing the disease, symptoms and instructions for doctors. Three cards are issued to staff. One card is to be handed to your doctor and to be kept on your file, the second is to be kept by the employee so it can be handed to Accident and Emergency staff and the third to be kept by the employer.

WELDING AND CUTTING	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Welding Apron Welding Goggles/Shield Welding Gauntlets Welding Screens Fire Extinguisher

Only trained and authorised employees are allowed to conduct welding and cutting activities. A hot works permit is required prior to any welding or cutting activities taking place.

Gas Welding and Cutting

1. Wear protective clothing – goggles, apron, and gauntlets.
2. Make sure surrounding area is free of combustible materials and that cylinders are clear of falling sparks.
3. Use a fire blanket to cover any combustible materials which cannot be moved.
4. Keep hoses clear of walkways.
5. Purge hoses before using equipment, the explosion of mixed gases in hoses causes the majority of welding accidents.
6. Check all equipment before use, especially hose and regulators for leaks.
7. Use soapy water not a naked flame to check for leaks.
8. Check nozzle of blow pipe is free from obstruction.
9. Mark all completed work “Hot”.
10. Always ensure when gas welding or cutting, gas cylinders are in a secure and upright position.
11. Oil and Grease must not be allowed to come into contact with the equipment.

WELDING AND CUTTING (continued)

Electric Arc Welding

1. Face shields for protection against arc-eye (flash burn) must be worn by operators and by anyone assisting or working in close proximity.
2. To protect passers-by erect screens around work area and display warning notices.
3. Check plugs and leads regularly.
4. All equipment must be properly insulated and earthed.
5. Remove all combustible materials from surrounding area.
6. All combustible materials which cannot be removed should be covered by a fire blanket.

WORK ACTIVITIES DURING POOR VISIBILITY	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	High Visibility Vest Safety Boots Road Signs, Cones and Barriers

Examples of poor visibility conditions would be heavy, persistent rain, fog and snow.

1. All personnel will wear high visibility clothing when working on or adjacent to the highway.
2. If working in the road or footpath, erect the appropriate road signs, cones, barriers or warning lamps in accordance with the Safer Road Works guidance notes.
3. No person working alone is to work on the highway unless:
 - a) He is protected from other road users by screening with a van or lorry which has a hazard light flashing and a 24" (600 millimetres) road sign in front of and behind the vehicle.
 - b) If the above is impracticable, the person shall be accompanied by another person to act as guard.
4. Care must be taken to ensure any lights are not misleading to road users, boats or aircraft. In case of doubt the Police, Harbour, or Airport Authority must be consulted.
5. Whenever possible, vehicles and plant should be parked inside the barriers guarding the work and when practicable between the works and approaching traffic.
6. Vehicles or plant parked on the highway should be parked in the direction of traffic flow with vehicle lights left on to act as a barrier to oncoming traffic.
7. Regular checks should be made to ensure signs and warning lights remain in position and in good working order.
8. All personnel working at night must have the use of a mobile telephone and maintain contact with the Control Room.
9. Any person working alone at night must report to control that he has commenced work, giving an indication of the length of time he expects to work. On finishing he must sign off with control. See separate lone worker procedure.
10. Vehicle rotating beacons shall be used whenever possible.

WORKING AT HEIGHT	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Safety of Employees (Miscellaneous Provisions) Ordinance 1952
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Safety Harnesses Inertia Reels Warning Signage and Barriers

1. Guernsey Water has adopted the UK's Work at Height Regulations 2005 as best practice and company policy. The Regulations place explicit requirements on employers whose employees work at height. The Regulations require employers to ensure:
 - All work at height is properly planned and organised.
 - Those involved in work at height are competent.
 - The risks from work at height are assessed and appropriate work equipment is selected and used.
 - The risks from fragile surfaces are properly controlled.
 - Equipment for work at height is properly inspected and maintained.

2. Before working at height it is a requirement that an authorised, trained and competent supervisor carries out a risk assessment in order to ensure that all of the hazards have been identified, the risks assessed and suitable and sufficient control measures are in place. The risk assessment will be able to identify the necessary preventive and protective measures to prevent falls of persons or materials from the workplace. This may include the use of safety harnesses or other specialist equipment and the use of barriers and signage if there is the potential for other persons being affected by the work activity (e.g. contractors, members of the public).

3. Only trained, authorised employees are permitted to work at height. If there are any doubts or queries do not start work and consult your supervisor or Guernsey Water's Health and Safety Officer.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK)

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Helmet High Visibility Vest Safety Boots Road Signs and Barriers Cable Locators

In 2001, the States Traffic Committee (STC) published “Safer Road Works”, a guide to safety standards on Guernsey’s roads. This publication considers all aspects of safety outside the barriers and cones which demarcate road work activity from the use of highways by the public. Refer also to Asbestos cement work earlier in this manual.

1. Guernsey Water managers, supervisors and employees are required to be familiar with this procedure and work to the standards in this publication.
2. The procedures in this manual consider all aspects of health and safety within the working safety zone. More detailed guidance will be found under other headings in this manual; e.g. personal protective equipment, machine guarding, reporting accidents, protection of the public and so on.

WHAT IS THE SAFETY ZONE? It is the area created to protect the worker from the traffic, and the traffic and pedestrians from the worker. All materials and equipment should be positioned within the zone. The safety zone is made up of: -

- The lead in and exit tapers, and associated signs.
- Cones, or single bar barriers or wire mesh barriers... particularly on the road side of the road works.
- Double bar barriers or wire mesh barriers between the work activity and the footpath, or other pedestrian access.

A more detailed description and diagrams are to be found in the STC’s guidance booklet “Safer Road Works.”

3. Road works can be a hazardous operation both to Guernsey Water employees, other contractors and users of the public highway. It is therefore essential to assess the various risks prior to the start of the work and throughout the period of the works.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK) (continued)

4. Planned road works require the agreement of the Parish Constables (only if a road closure is needed) and the States Traffic Committee who will co-ordinate. When emergency road works are necessary, the co-operation of the Police may also be necessary and contact with STC & PTC will be made as soon as practicable. The sequence and timing of planned works is detailed in "Safer Road Works." Emergency procedures are also found in this publication.
5. Management will take all reasonable precautions to ensure that a safe system of work is provided from the start of the works.
6. The risks associated with road works may affect the workers and members of the public who use the highway or are gaining access to their place of work or their home. Refer to "Safer Road Works" for guidance in reducing these risks.
7. Hazards to which the workforce may be exposed include: -
 - Burns, fire and explosion.
 - Contact with pitch, tar and mineral oils.
 - Vehicle and plant accidents.
 - Eye injuries.
 - Falls.
 - Hearing damage.
 - Excavations.
 - Buried services.
 - Abrasive wheel cutting and grinding.
 - Manual handling and mechanical handling.
 - Dust, fumes and smoke.
 - Asbestos; cutting and reaming pipes.
 - Vibration: see personal protective equipment.
8. As part of the planning for each road works, the manager and/or supervisor should identify the hazards, assess the risks and take the appropriate action to reduce or eliminate the risk.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK) (continued)

9. Under law, Guernsey Water has, as far as reasonably practicable, to ensure the health and safety of non-employees and members of the public on all work related activities. Detailed procedures are found elsewhere in this handbook.
10. Guernsey Water recognises that its managers and supervisors will take all reasonable precautions to ensure that barriers, signs and lights remain in position throughout the night period. To this end, planned inspections will be made when work on site has closed at the end of the day. The frequency of these inspections will depend on the nature of the site and its location near to housing and other economic activity.

Further guidance will be found in the STC's "Safer Road Works."

Cross reference with procedures outlined in "Asbestos cement pipes".

EXCAVATIONS AND PIPE WORK

General Safety

1. Excavations must be inspected by the supervisor or fitter at the start of every shift before work commences, and at regular intervals during progression of the work.
2. Safe access into and egress from excavations must be provided at all times. Ladders must extend by at least 1.070 metres (3 ft 6 ins) above the stepping off point and be secured to prevent slipping or undue movement.
3. When lowering equipment or materials into excavations audible verbal warning must be given to and acknowledged by those working below.
4. Personnel must not work in excavations near or under excavating equipment whilst it is in operation, or, remain on a vehicle being mechanically loaded with loose materials if by so doing they are placed in a position of danger.
5. It is prohibited to ride in an insecure position on a vehicle; personnel may only ride in the place provided for this purpose.
6. Personal protective equipment will be worn on all appropriate sites and occasions.
7. Faulty or damaged working or safety equipment must not be used but must be withdrawn and reported to the supervisor.
8. Internal combustion engines must not be used in a confined space without adequate ventilation.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK) (continued)

Excavations and Trenches

9. It is the policy of the Guernsey Water to comply with the procedures set out under this heading.
- General Safety
 - Road works
 - Shoring
 - Safeguarding edges
 - Machinery used in excavations
10. Generally a supervisor is delegated duties for the day to day management of on site excavation activities, and he has considerable responsibilities to ensure that safe systems of work are in hand before the work commences and that they are maintained throughout the work.
11. Fluorescent/reflective clothing must be worn by all Guernsey Water and contractor personnel on excavation sites on the public highway.
12. The supervisor will inspect major road works at night and at weekends to ensure, so far as is reasonably practicable, that the safety barriers, lights and access routes are intact.

Refer to the States Traffic Committee's "Safer Road Works."

Shoring

13. No-one must be required to work in an excavation which exceeds a depth of 1.21 metres (4 ft) unless the sides are adequately supported against collapse or the sides are battered sufficiently.
14. All materials used for shoring must be: -
- Inspected before use.
 - In good condition, free of all defects.
 - Of sufficient strength to prevent collapse.
15. Shoring must only be erected, altered or removed by persons competent to undertake this work.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK) (continued)

16. Vehicles and plant must be positioned so as to prevent exhaust fumes from entering an excavation.
17. If there is any risk of toxic, asphyxiating, flammable or explosive gases being present or entering an excavation, evacuation, ventilation and monitoring must be carried out.
18. All cables, plugs and sockets must be in good condition and care taken to prevent them being damaged. Only equipment of a heavy duty and waterproof standard will be used.
19. Where required, illumination of the site must be provided, sufficient for the work to be carried out safely.

Safeguarding Edges

20. Site work must be planned to prevent the collapse of the sides of excavation or the danger of material falling on men working in the excavation. Supervisors will ensure that the following precautions are taken in relation to work by Guernsey Water employees and subcontractors: -
 - Spoil, materials, heavy plant or machinery must not be placed near the edge of any excavation.
 - Adequate measures must be taken to prevent vehicles over running the edges of the excavation when loading or unloading materials. A physical stop placed back from the edge and secured for the vehicle wheels to stop against, may be used.
 - All edges of excavations must be provided with suitable barriers, fences, guard rails or securely covered to prevent employees or members of the public falling in.
 - Protective barriers, fences, guard-rails or covers may only be removed to allow the access of men and materials, and must be replaced as soon as possible.
 - When an excavation is left unattended, warning signs, barriers, fences, covers, lamps, etc, must be provided sufficient to ensure the safety of members of the public.
 - Where excavation work is close to buildings, adequate steps must be taken to protect employees from the danger of possible collapse of the structure.
21. The supervisor is responsible for ensuring that the edge protection and guarding are adequately secured before leaving the site.

Machinery used in Excavations

22. Any person working near a mechanical arm, bucket or breaker must wear head protection and high viability clothing.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK) (continued)

23. If a banksman is used he will be competent to act in this role.

Please note! If you have any doubts contact your line manager.

Burns, Fire and Explosion

24. These can cause serious injury, death or permanent disfigurement. They can be caused by contact with hot bituminous materials, or tools used to lay the bitumen, or by using faulty electrical or petrol driven machines. LPG can cause cold burns and cement, when wet, can cause serious skin burns.
25. Methane and other gases may accumulate in trenches and present a hazard.

Contact with Pitch, Tar and Mineral Oils

26. Operatives who use these substances over a long period of time can develop a skin cancer or dermatitis. The hands, face, neck and scrotum are most likely to be affected. Skin protection can take many forms, and personal hygiene is essential. Wherever possible, Guernsey Water will ensure hand washing facilities are available. Barrier creams may also be useful protection.

Eye Injuries

27. These can result from work with hard objects such as stone, concrete blocks or asphalt whether being broken by hand or machine. Eye protection must always be worn by those operating mechanical cutting or abrasive wheels. Splashes from bitumen, oil, cement or epoxy resins may also cause permanent injury to an eye. Glasses, goggles or face masks worn for protection must comply with relevant British Standards. Further information will be found in the section on Personal Protective Equipment.

Falls

28. The public will be protected from excavations by double barred barriers but supervisors should consider the need to protect workers from falls into excavations. There are many forms of protection that will prevent serious falls.

Vehicle and Plant Accidents

29. Only employees trained in vehicle and plant operation may use these vehicles, unless they are under training and supervision.
30. Some operations may require the use of a banksman or stop boards to prevent personal injury or collapse into a trench.

WORKING ON THE HIGHWAY AND ON PRIVATE ROADS (EXCAVATIONS AND PIPE WORK) (continued)

31. Vehicles and plant may be positioned to act as a buffer to prevent personal injury to road gangs but no vehicle or item of plant shall be parked on a pavement or blind corner unless pedestrian or traffic management systems are in place. STC's "Safer Road Works" has further guidance.
32. Vehicles and plant must not be operated too close to trenches or excavations.
33. Operatives working near lifting equipment or earth moving plant should wear head protection.
34. Operatives must not accept lifts on items of plant which are not designed to carry passengers.

Welfare and Personal Hygiene

35. Many road works activities are of short duration, and involve gangs of two or three for a day or so. The gang arrives by Guernsey Water van and therefore is mobile and has a temporary roof in wet conditions. Toilets and washing facilities are not provided for these gangs operations.
36. Where a job has greater permanency or the risk to workers is greater (for instance work in contaminated trenches), portable washing and toilet facilities may be provided, and cover for rest and meal periods.
37. Operatives should make every effort to hand wash before eating or drinking.

WORKSHOP SAFETY AND WELFARE

REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987 Construction – Approved Code of Practice (The Organisation & Management of Health and Safety in Construction) Safety of Employees (Miscellaneous Provisions) Ordinance 1952 The Safety of Employees (First Aid & Welfare) Ordinance 1954 The Safety of Employees (Woodworking Machinery) Ordinance 1959
ESSENTIAL SAFETY EQUIPMENT REQUIRED	Safety Gloves Safety Boots Overalls Ear Defenders Eye Protection

1. The principal hazards associated with workshops are injuries caused by unguarded moving parts, eye and ear injuries, skin disorders, slips, trips and falls. Look also at headings “Inspection procedures”, “Personal protective equipment”, “Hazardous substances”, “Electricity”, “Manual handling”, elsewhere in this manual.
2. Guernsey Water accepts its absolute responsibility to provide adequate guarding of all moving parts irrespective of financial considerations or the age of the machine.
3. Before any guard is removed for repair or maintenance, the power source must be isolated and the machine locked out.
4. Only those trained (or under training) and experienced in the use of a machine may operate it.
5. The work area and bench will be adequately lit by natural or artificial light.
6. Slips, trips and horizontal falls are more common when equipment is left to obstruct passage ways, therefore good house keeping is essential.
7. Guernsey Water employees operating machines should wear suitable close fitting clothing, and no rings or loose fitting jewellery such as neck chains.
8. Machine operations may produce hazardous levels of noise; hearing protection must be worn where noise zones are designated and suitable signs are displayed.
9. Electrical installations, cable and equipment will be inspected and tested by a competent electrician on a planned basis, and any necessary repairs made. Portable plant will either be powered by 110 volts (or less) or fitted with an RCD at the wall socket.

WORKSHOP SAFETY AND WELFARE

10. It is Guernsey Water policy for their workshops to have emergency cut-off switches so that if an employee is threatened whilst working at a machine, a colleague can activate the emergency button to switch off that and all other machines.
11. To reduce the risk of fire, Guernsey Water will encourage the following procedures in the workshops: -
 - Smoking is now prohibited in the workplace.
 - The storage of flammables and toxic substances in a fire resistant box with a lid.
 - The best housekeeping standards.
 - Visual checks at the end of each working day.
 - Gas cylinders should be stored vertically and tied in position, or supported in a suitable trolley.
12. Adequate first aid supplies will be held in each workshop. These will include eye wash facilities.
13. Toilets, hot and cold running water, and soap will be provided in each workshop.

YOUNG PERSONS	
REFERENCE	The Health and Safety at Work (General) (Guernsey) Ordinance 1987
ESSENTIAL SAFETY EQUIPMENT REQUIRED	N/A

1. Guernsey Water will ensure that young persons employed are protected from any risks to their health and safety which are a consequence of their lack of experience.
2. This will specifically include the preparation of risk assessments for issue to the young person or child's parent/guardian.
3. The Director of Water Services and Health and Safety Officer must be made aware of the intention to employ a young person under the age of eighteen in good time in order to enable a risk assessment to be made before the employment commences. The assessment must consider a young person's increased risk of injury arising from, for example, immaturity and lack of understanding about work hazards. Where the young person is aged below 16 (a child in the eyes of the law), the prospective employer should disclose the findings of the risk assessment to the parent (or legal guardian) before the employment commences.
4. There is nothing to prevent 'work experience' or other vocational training, provided that all appropriate precautions have been taken, and the young person is adequately supervised.
5. No Guernsey Water employee, or agent acting upon behalf of GW, shall enter any building (including a house) where there is only a minor (someone under the age of 16) present.

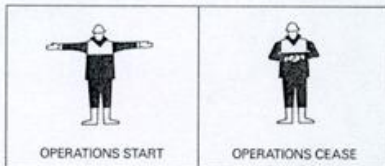
APPENDICES

Appendix 1 Crane Operations Hand Signals

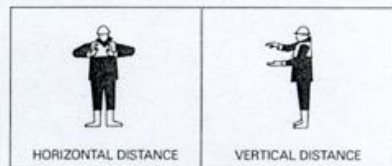


The series of crane signals recommended by BS 7121. The signaller should stand in a secure position where he can see the load and can be clearly seen by the crane driver. If at all possible he should face the driver. Each signal should be precise.

Note The signals specified in the *Health and Safety (Safety Signs and Signals) Regulations 1996* (see Section 1), differ from the above in the following respects:



Signals which differ



New signals

Under the Safety Signs and Signals Regulations, there are no signals for slewing, derricking or telescoping the jib, or for "inching" the load when hoisting or lowering. The speed of any operation is governed by making signal movements faster or slower.

		<u>GENERAL PERMIT TO WORK</u>	
Site		Permit Serial Number	
Name of company undertaking the work			
PART 1 AUTHORITY TO WORK - To be completed by the Authorised Person			
Permit to Work issued to control (✓ as appropriate)			
Confined Spaces	<input type="checkbox"/>	Pressure systems	<input type="checkbox"/>
Fire protection systems	<input type="checkbox"/>	Hazardous Substances	<input type="checkbox"/>
Exact location of work:			
Period of work	From	To	Permit valid (time and date)
Details of work to be carried out			
Details of equipment			
Details of systems to be isolated. (Include Safety Programme Reference)			
Specific Instructions to be applied to the Work activities			
Site emergency contact details			
I hereby declare the above safety instructions and safety measures have been made known to the Person in Charge of the work, I have inspected the work area and I authorise the work to commence.			
Name (print and sign)			
Time and date			
PART 2 RECEIPT - To be completed by the prospective Person in Charge			
I acknowledge receipt of this permit and understand the safety instructions described in PART 1. I will work to the requirements of this Permit, current legislation (including all relevant Acts, Regulations and Statutes), the safe systems of work as detailed within the associated risk assessment (and where applicable the specific method statement), I confirm the persons undertaking the work are competent to do so and will be adequately supervised by myself to ensure that the safe systems of work are followed. The personnel under my control nor I will work on any other activity or within any other location other than those specified in PART 1.			
Name (print and sign)			
Time and date			
PART 3 CLEARANCE - To be completed by the Person in Charge			
I declare that the work described in PART 1 is *COMPLETE / *INCOMPLETE it is *SAFE / *NOT SAFE to re-instate the isolated systems described in PART 1. Any incomplete work will not be restarted until a new permit has been issued. I confirm that the area has been inspected, is safe, clear of debris and all personnel and equipment under my control have been withdrawn. * Delete as appropriate			
Name (print and sign)			
Time and date			
PART 4 CANCELLATION - To be completed by the Authorised Person			
I hereby declare that Part 3 above is *COMPLETE / *INCOMPLETE and the isolated systems described in PART 1 *HAVE/ *HAVE NOT been re-instated. I have received all existing copies of this permit, which have been destroyed. Any uncompleted work will not start until a new permit is issued. This permit is now cancelled.			
* Delete as appropriate			
Name (print and sign)			

Time and date	
---------------	--

GW/001 Front

JOB HEALTH AND SAFETY CHECK	<div style="text-align: right; margin-bottom: 5px;">GW/001</div>  GuernseyWater <small>A DIVISION OF THE PUBLIC SERVICES DEPARTMENT</small>
------------------------------------	--

CAUTION

This safety check list has been written to complement Guernsey Water's Safe Working Procedures Manual. This check list should be used to assist you in identifying the hazards where a specific working procedure is not defined within your procedure manual. Please be aware that there may be other hazards which are not specifically detailed in this check list. If you have any doubts or queries DO NOT start work or STOP work immediately if work has commenced and refer your queries to your supervisor or manager.

STEP ONE - THE PLACE		✓	STEP TWO - THE JOB		✓
<i>Housekeeping</i>	Is the area untidy or hazardous (e.g. slippery)?		<i>Asbestos</i>	Has the asbestos register and management plan been consulted prior to any work being carried out within the building (e.g. drilling and cutting activities).	
<i>Weather Conditions</i>	Does the ground and/or weather conditions present a hazard?		<i>PPE</i>	Are the PPE requirements for the job complied with (e.g. if fixed edge protection is not installed are safety harnesses going to be used)?	
<i>Access/Egress</i>	Is the access/egress for persons, vehicles, tools and materials safe?		<i>Equipment</i>	Have you got the right tools and sufficient equipment for the job?	
<i>Services</i>	Are there any overhead cables, pipe work etc or others working above or below which could cause risk?		<i>Others</i>	Will other people (e.g. members of the public) be safe while the job is in progress?	
<i>Fragile Materials</i>	Is the work on or near any fragile materials e.g. asbestos roof sheets, sky lights?				

STEP THREE - Commence work ONLY once the appropriate action has been taken to minimise the risk.


If you have any doubts or queries DO NOT start work or STOP work immediately if work has commenced and refer your doubts and/or queries to your supervisor or manager.

GW/001 Reverse




Hazards - Initial possibilities for Hazards
Access/Egress
Alcohol/Drugs
Asphyxiation in confined spaces
Atmosphere, Dangerous
Burns and Scalds
Clothing (Loose, jewellery etc.)
Collision
Crushing
Display Screen Equipment (inc RSI and Upper Limb Disorder)
Dusts
Electrocution
Explosion
Eye Injury
Fall from Height
Falling Objects
Fire
Flooding
Fumes
Grinding Wheel etc (acc particles)
Hot Work
Housekeeping, (is the area untidy or hazardous e.g. slippery etc)
Hygiene
Impact Injuries
Lighting, injuries due to level
Machinery, moving parts
Manual handling Injuries
Moving Vehicles
Noise
Obstruction (Access and Egress)
Overhead Dangers
Pressure, High (Compressed air etc)
Pressure, work above or below
Security
Slip/Trip/fall, same level
Smoking, Passive
Spillage (Fuel, Oil, Hazardous etc)
Substances, hazardous
Technical Fault/Failure of equipment

Temperature (Hot/Cold etc.)
Weather conditions
Work Stations

GW/002 Front

CONFINED SPACE PRE-ENTRY CHECK	<p>GW/002</p>  GuernseyWater <small>A DIVISION OF THE PUBLIC SERVICES DEPARTMENT</small>
<p>CAUTION</p> <p>This safety check list has been written to complement Guernsey Water's Safe Working Procedures Manual and further detailed procedures on confined space work (principally the Endeavour 12 procedures). Please be aware that there may be other hazards which are not specifically detailed in this check list. If you have any doubts or queries DO NOT start work or STOP work immediately if work has commenced and refer your queries to your supervisor or manager.</p>	

Guernsey Water classifies all known confined spaces into three categories. All confined spaces are clearly identified near the point of entry. The three categories are:

Classification A			
 CONFINED SPACE <hr/> <table border="1"> <tr> <td>CLASSIFICATION</td> <td style="font-size: 2em; color: red; text-align: center;">A</td> </tr> </table>	CLASSIFICATION	A	<p>Areas where the access/egress is not adequate or is difficult to negotiate. The possibility may arise that the condition of the atmosphere could change after initial venting and testing. Traversing away from the point of entry may be required.</p>
CLASSIFICATION	A		
Classification B			
 CONFINED SPACE <hr/> <table border="1"> <tr> <td>CLASSIFICATION</td> <td style="font-size: 2em; color: yellow; text-align: center;">B</td> </tr> </table>	CLASSIFICATION	B	<p>Areas where access/egress is not adequate or is difficult to negotiate. The atmosphere is unlikely to change after initial venting and testing.</p>
CLASSIFICATION	B		
Classification C			
 CONFINED SPACE <hr/> <table border="1"> <tr> <td>CLASSIFICATION</td> <td style="font-size: 2em; color: blue; text-align: center;">C</td> </tr> </table>	CLASSIFICATION	C	<p>Areas where the access/egress is adequate. The atmosphere is unlikely to change after initial ventilation and testing.</p>
CLASSIFICATION	C		

GW/002 Reverse

The check list below is for **general** guidance and is an "aide memoire" for authorised persons prior to entering a confined space. This check list must **not** be looked upon as being a replacement for specific procedures which are detailed separately.


Pre-entry Checks			
Requirement	YES	NO	N/A

DATE:

	LOCATION:
	PERSONNEL INVOLVED:

Controlled Threshold	Controlled Severity	Controlled Rating

Date: / /

 GuernseyWater <small>A DIVISION OF THE PUBLIC SERVICES DEPARTMENT</small>		HOT WORK PERMIT							
Site					Permit Serial Number				
Name of company undertaking the work									
PART 1 AUTHORITY TO WORK - To be completed by the Authorised Person									
Permit to Work issued to control (?) as appropriate)									
Gas welding / cutting		Electric arc welding		Disc cutting					
Brazing		Hot air welding		Soldering (Requiring the isolation of fire systems)					
Bitumen boilers		Naked flames		Other					
Exact location of work:									
Period of work		From	To	Permit valid (time and date)		From	To		
Details of work to be carried out									
Details of equipment									
Safety Precautions Checklist				Yes / No	N/A	Safety Precautions Checklist (continued)		Yes / No	N/A
Has the Department in which the work is to be carried out been informed?						Has the fire extinguishing system(s) been isolated?			
Is all the hot work equipment in good safe working order?						Has the Fire alarm system(s) been isolated?			

Gu
Sal
Iss

