



Wood Protection Association



Timber Treatment Installations

Code of Practice for Safe Design and Operation
5th edition October 2009



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Timber Treatment Installations Code of Practice for Safe Design and Operation

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About the WPA

The Wood Protection Association (WPA) is a not for profit technical and advisory body interested in the development and promotion of timber protection technology in the UK. The Association acts as a technical adviser to British and European Standards setters and is actively involved in the preparation and revision of the Standards, Guidance Notes and Codes of Practice relating to the preservative pre-treatment, modification and flame retardant protection of wood.

On regulatory affairs the WPA enjoys lead body status with government agencies like the Health & Safety Executive, Environment Agency, Scottish Environmental Protection Agency Highways Agency and the Department for Environment, Food and Rural Affairs (Defra).

The operations of the Association are wholly funded by members subscriptions. Membership includes companies who manufacture and supply wood preservatives, fire retardants and wood modification technology and those who treat timber in industrial treatment plants, together with independent research, advisory and consultancy organisations with an interest in the contribution wood protection makes to enabling wood to be used in construction..

Products are manufactured by members under Quality Assurance procedures, typically BS EN ISO 9001:2008. Guidance is given on quality assurance, plant operator competence and health, safety and environmental protection.

The association publishes codes of practice, specifications for treatment and general information on timber treatment and use of treated timber.

About this Code of Practice

The purpose of the Code is to give practical guidance on environmental, safety and health issues relevant to all companies engaged in the activity of industrial wood preservation.

Although there is no statutory obligation to adopt this Code, in doing so participants confirm their commitment to ensure compliance with current legislation and to adopt progressive practices by continuous improvement. Compliance with the Code would be taken into consideration by the regulatory authorities in determining whether to take enforcement action and may be taken into account by the courts in the event of prosecution.

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1. Introduction

Industrial wood preservation is a long-established activity in the UK and has been a key factor in enabling the wider use of otherwise less durable timbers in construction and many other end uses.

Since 1986, the advertisement, sale, supply, storage and use of wood preservatives has been subject to approval under the provisions of the Control of Pesticides Regulations (COPR) 1986, as amended.

Product approvals given under the COPR will eventually be superseded by biocidal product authorisations given under the Biocidal Products Regulations regime, which is the way the UK has implemented the EU Biocidal Products Directive 98/8/EC.

Timber structures and wood-based materials perform well in fire, a performance further enhanced by the use of fire-retardant chemicals. There is a long history of International, European, National and industry standards in the practice of industrial wood preservation. A key consideration in the standards is a decision-making process that requires the prospective architect, specifier or user of timber for a particular end use to decide whether wood preservation is not necessary, optional, desirable or necessary. Design and timber-species availability, as well as the biological organisms that pose a threat to the wooden commodity, also influence the strategy to be adopted towards the use of industrial wood preservation technology.

Wood is one of the few renewable resources available and the energy efficiency and other environmental life cycle benefits of timber compared to many other construction materials are being increasingly recognised.

Timber sourcing and sustainability are issues that the timber industry has to take into account in its business activities. However, as with all activities, there are potential safety, health and environmental impacts.

With such safety, health and environmental issues of increasing importance in industry today, and with the on-going wood preservation industry commitment to manage these aspects better by utilising modern best-practice methods, it is appropriate to review and revise the 2003 version of the British Wood Preserving and Damp-proofing Association (BWPDA) Code of Practice on the Safe Design and Operation of Timber Treatment Plants.

This Code, first developed in 1989 and revised in 1991, 1998, 2003 and now in 2009 to keep up to date with changing legislation, has formed the basis for defining good practice in the UK wood-preservation industry. The application of the Code's recommendations will minimise environmental and safety risks, help improve efficiency and profit margins and, ultimately reduce the burden of regulation and enforcement by governmental bodies.



This Code is applicable to all UK companies with plants used for the impregnation and/or immersion of timber with water-borne preservatives, preservatives based on organic solvents, creosote and fire-retardant chemicals. It does not cover in-situ methods of timber treatment or the use of highly flammable liquids.

Regulatory authorities endorsing this Code

This Code has been developed in consultation with the Environment Agency (EA), Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency, the Health and Safety Executive (HSE) and the Chief Fire Officers' Association (CFOA).



There is no statutory obligation to adopt this Code, but in doing so participants confirm their commitment to ensure compliance with current legislation and to adopt progressive practices by continuous improvement. Compliance with the Code would be taken into consideration by the regulatory authorities in determining whether to take enforcement action and may be taken into account by the courts in the event of prosecution.

2. Choosing or changing a timber treatment operation

Consultation with the relevant regulatory authorities is essential at the earliest stages of site appraisal and selection, process design, process selection and development. The relevant regulatory authorities will advise on the requirement for an authorisation / permit in case of any uncertainty. Further details on the legislative requirements can be found in Section 9.

Operators of existing and proposed new timber treatment operations are required to consider which are the Best-Available Techniques for the application of wood preservatives to timber. Adoption of the principles and practices set out in this Code of Practice are considered indicative of Best Available Techniques (BAT) for the industrial wood-preservation sector. BAT is site specific.

Please see section 9.0 Legislation and Guidance.

Treatment Site Operators should consult with:

2.1 Health & Safety Executive (HSE) for new work premises

- Under Factories Act legislation – for new manufacturing or processing sites.
- Under Control of Major Accident Hazard Regulations (COMAH).

2.2 Fire and Rescue Service for new work or premises

2.3 The Environmental regulators for new activities or changes in operation

- Under the Environmental Permitting Regulations you need to consider whether or not you need to apply for an environmental permit.

2.4 Water companies, if discharging effluent to the sewer

2.5 Local Authority for planning (e.g. Building Regulations, COMAH legislation)

2.6 Preservative supplier

Operators should confirm that the wood preservative product they wish to use has a current authorisation to be placed on the market either under the Control of Pesticides Regulations or the Biocidal Products Regulations. An authorised product has an HSE Number on the label and the Product Safety Sheet.

3. Management systems

The implementation of a formal and documented Management System can greatly enhance the safe and efficient operation of a timber-treatment facility. It can also be used to save money through reducing waste and raw materials and as a tool to prevent pollution.

Companies that wish to make a commitment to environmental best practice can formalise their 'green credentials' by implementing a certified Environmental Management System (EMS). There are guides and standards available to help in setting up a documented management system. The principal health and safety documents are ISO 18000 and Successful Health and Safety Management by HSE (ref. HSG65), along with ISO 14001 and EMAS - the Eco-management and Audit Scheme for Environmental Guidance.

These systems can be combined with existing management systems, such as ISO 9001:2008 quality-management systems, to maximise benefits and minimise related implementation costs.

Guidance and technical documents on achieving certification are available from national accreditation bodies and sector associations.

3.1 Areas in which policy documents, work procedures and process records should be created include:

- Health and safety policy.
- Environmental policy.
- Risk assessment, including fire safety risk assessment
- Document control (treatment records and stock movements).
- Written scheme of examination (written system whereby safety control devices require examination by a competent person).
- Routine maintenance, periodic servicing and security.
- Emergency procedures.
- Safety and environmental auditing (a documented EMS).
- Training records for plant personnel.



4. Environmental protection

Effective environmental protection at timber treatment installations can be achieved by adopting the following practical actions.

4.1 Product and process

- Measures should be taken to eliminate, or where this is not possible, minimise and render harmless any releases to air, water (surface and groundwater) or land.
- The principle of total containment should be followed during site design and applied to processing plant, preservative storage area and the holding area for treated timber.
- Wood-preservative products should only enter the treatment site in sealed, properly labelled and approved containers, conveyed from suitable and designated vehicles to bunded storage tanks, and leave it in treated timber.
- Any waste produced or handled must be disposed of safely by following the relevant legal waste management requirements including the Duty of Care.
- Permanent tanks used for the storage of products on site should be properly labelled, secure and provided with adequate secondary containment, usually a bund.
- Clean uncontaminated rain or surface water should be diverted away from the plant area unless a purpose designed and built water harvesting system is operational.
- Wherever possible the use of processes and products that present lower risks to the environment and the workplace should be adopted.
- Periodically review the product you use in your timber-treatment plant.
- Periodically review the timber-treatment processes you currently use in your plant and ask your supplier and others whether there are less hazardous alternatives or ones that create less waste.



- It is recommended that the process operator draws up emergency plans as recommended in Pollution Prevention Guideline 21 (PPG 21) and that other PPG recommendations are incorporated where possible, regardless of whether a formal EMS is in place.
- Periodic independent internal and external environmental and safety audits will provide valuable management information and assist in achieving the above objectives

4.2 Bunding of the timber treatment plant and wood-preservative storage tanks

The plant and its associated loading and/or unloading area and preservative storage tanks should be located within secondary containment – generally provided by bunding. This bunding should be impervious to the preservative chemical being used and made of, or sealed with, a substance resistant to the chemicals being used. It must also be strong enough to withstand the hydrostatic pressure when the bund is full of liquid.

In most situations, a cast-concrete or steel construction is preferable to block or brick for a long service life.

The cast concrete foundation should be reinforced with fibres to reduce the need for joining.

Non-reinforced block or brick is not suitable. Some plant designs now contain an integral bund where the plant is enclosed within its own bund. Services must not pass through bund walls or bund floors.

Sumps should be included to facilitate the collection and removal of any fluids from the bund. Gravity drains or automatic pumps must not be incorporated in the sump design.

The bund should be in a covered and enclosed area to avoid the collection of rainwater and the possible contamination with wood-preservative treatment fluid. The disposal of contaminated rainwater can be very expensive and must be carried out by a registered waste management company. Provision should also be made for the secure and contained storage of packaging that contains wood preservatives such as 200 litre drums or intermediate bulk containers (IBCs).

Empty containers should be stored in a secure covered compound, sent back clean to the supplier (wood preservative or IBC supplier depending on the contractual arrangements) for re-use where possible or disposed of safely via a registered waste carrier to a licensed waste-management site. PPG 26, Storage and Handling of Drums and Intermediate Bulk Containers, provides further useful guidance.

Vehicle movements should be considered when siting storage areas and secondary containment so as to minimise the risk of damage by impact.

Bunds should be designed to withstand:

- Static and dynamic loads that would be exerted by the escape of liquid through a failure of primary containment.
- The weight of the primary containment when filled with liquid and any other forces that arise from activities carried out within the bunded area and act on the base of the bund, including timber loading on the bogies and rail track.
- Stresses induced by ground conditions, for example differential settlement and aggressive ground materials.
- Thermal and shrinkage stresses (for example, fire and climate weathering). Bunds may also be fabricated from metal, but these are not recommended where wood preservatives based on organic solvents are to be used. Proprietary prefabricated tanks may be used as bunds or they may be made on a one-off basis. A prefabricated bund must not rely on structural linkage with the storage tank for its stability and the storage tank must not be supported on the bund walls. It is recommended that new bunds be tested (by filling with water) before acceptance.

The bunding provision should have a large enough capacity to contain a spillage that would arise from the worst credible failure in the storage system, plus 10%. i.e. at least 110% of the total quantity of treatment solution in each bunded area. An allowance within the bund should also be made for firewater and foam and/or additional containment provided elsewhere on the site. Operators should discuss this requirement with their Fire and Rescue Services and Environmental Regulator. Planning Policy Guidance (PPG) 18, PPG 28 and CIRIA Report 164 provide further guidance.



Bunded areas should be maintained in a dry, clean condition to enable inspection.

The bund should be constructed so as to catch spillage from the vessel door in the event of a door-seal failure (door baffles may be required to achieve this).

Adequate space should be provided between the plant and the bund wall to enable a person to inspect the walls of the bund. It may be necessary to create a walkway to allow safe access. This should be taken into account when assessing bund capacity.

The bund should be examined regularly for cracks, faults or signs of decay. A record of routine inspections and remedial action should be kept on site. In addition, there should be a full annual inspection by a competent person:

A bund specification should be obtained from a competent person at an early stage in the development of the project proposal.

4.3 Post-treatment containment and conditioning areas

Post-treatment dripping may be minimised by sloping loads during treatment and/or by modifying the process. Where possible by good design, flat metal areas should be eliminated from the bogie construction.

Loads should be stacked with appropriate spacers to preclude capillary retention between surfaces, and shaped profiles should be positioned so as not to provide traps that collect free solution.

Where possible, it is recommended that the strapping around packs of smooth sawn timber be released after the dripping period, followed by an extended dripping period with the packs of timber chocked to help the treating solution to run out of any shaped profiles in the timber and be recovered.

It is a statutory condition for all industrial wood preservatives in the UK that treated wood must be held until the surfaces are dry. It must be held within a bunded area on a site that is maintained to prevent loss of treatment product to the environment.

A contained and impermeable dripping area for freshly treated timber should be provided and be situated adjacent to the plant and storage tank bund.

Timber should be transferred from the plant to the post-treatment dripping area within the total containment zone. Drips should be collected for reuse or safe disposal, as appropriate.

The dripping area must not discharge into surface water drains, the foul sewer, groundwater or watercourses, and provision should be made to divert away all uncontaminated water. Ideally the storage area should be covered to prevent rainwater ingress.

This area should be large enough to hold the amount of treated timber in accordance with the conditions of approval stated on the wood-preservative product label.

Minimum holding times and other requirements may be required to be met before the treated timber can be removed from the treatment area. (see the product label and/or safety data sheet).

Operational practices to eliminate the spread of contamination, via vehicle wheels or footwear are necessary to again ensure environmental containment.

4.4 Storage of conditioned timber

Once the treated timber surface has met the conditions of approval referred to above, it may be moved away to the post-treatment holding area.

It is recommended that bulk, dry treated timber be stored under cover on an impermeable surface to help prevent possible contamination of surface water and or groundwater. In addition, this ensures the timber stock is maintained in a dry condition prior to use.

After the treated timber has left the treatment site, it may be stocked at builders' merchants and retail outlets before being used. Suppliers of treated timber to these outlets need to consider whether they advise their customers as to any special precautions that need to be taken while the timber is being stocked prior to sale and use. The bulking up of treated timber stored outside at retail outlets should be minimised wherever possible.

4.5 Waste management

A statutory Duty of Care applies to anyone who produces or imports, keeps, carries, treats or disposes of controlled waste.

Wastes associated with wood-preservation processes may be classed as hazardous waste, and require to be disposed of accordingly.

Such wastes are likely to be:

- Redundant preservative solution.
- Sludge and debris from tanks.
- Sawdust or other materials used to soak up spills.
- Redundant containers that still contain residues of the product.
- Redundant plant and equipment (prior to decontamination).
- Contaminated rainwater (within bunds, etc.).
- Contaminated soil.

It is advisable to seek advice from the manufacturer of the wood preservative or a waste consultant.

Redundant treated wood, off cuts and sawdust produced while cutting treated materials should not be mixed with untreated wood waste. This will satisfy the need to pre-



sort waste before consignment. The untreated wood can be recycled and used for a variety of products. Wood waste both treated and untreated, is processed by wood recycling companies. Details on wood recycling companies can be obtained from the Wood Recyclers Association (www.woodrecyclers.org).

To determine if redundant treated timber is classified as hazardous waste requires separate consideration. Producers of such waste are recommended to contact the supplier of the wood preservative for help, or ask the Environmental Agencies.

All efforts should be made to introduce management procedures and waste-minimisation techniques and technologies that correspond with the guides and publications listed in the reference bibliography. The less waste produced, the smaller the handling and disposal costs.

4.6 Bulk deliveries of wood preservative product

The risk of chemical spillage is greatest at the delivery and handling stages. If tanker deliveries are necessary, they should be made according to a written supervision procedure that includes a checklist covering all the safety-critical steps in the delivery process:

- Provision should be made to contain any potential spillage from the tanker, delivery and/or handling vehicle, taking the discharge system into account.

For example, siting the tanker in a containment area during discharge or incorporating a suitable emergency sump with shut-off valves, which are closed during deliveries, prevents any liquids from leaving the site in the drains.

- Tankers that deliver chemicals in bulk should discharge to storage via a lockable fixed coupling within the containment area, and not at a point remote from the bund.
- Receiving points should be marked with the appropriate product identity.
- Tanker access to the plant should be unobstructed to minimise the length of discharge hose necessary.

- Bulk storage tanks should be fitted with a content indicator to warn of over fill. A high level alarm provides an additional safeguard. Such alarms should ideally be powered independently from the plant itself.
- A trained representative of the receiving company should authorise and attend the receipt of the product. The operation should not be left unattended by either the tanker driver or the company representative, and there should be a written contingency plan, tested periodically, for use in the event of an accident. Refillable bulk containers should be stored and emptied in a secure bunded area.
- The person in charge of the delivery should sign the checklist to ensure each step is correctly carried out.

The risk of spillage during the loading and handling of smaller containers or packages, such as IBCs or drums, is significant. Similar measures should be taken for these deliveries to those detailed above for tankers. PPG 26 Storage and Handling of Drums and Intermediate Bulk Containers provides further guidance.

4.7 Other releases to the environment

In certain situations, in addition to potential releases to controlled waters (including surface-water sewers or via foul-water sewers) or land, process emissions to air may need to be managed or controlled in accordance with authorisations issued under the Environmental Permitting Regulations. The discharge to ground of certain listed substances is subject to the Groundwater Regulations 1998 and the Water Environment (Controlled Activities) (Scotland) Regulations 2005. The discharge of most timber-treatment compounds to groundwater is not permitted under these regulations.

Further guidance and advice is available from regulatory authorities and product suppliers.

5. Plant and equipment safety: guide for health and safety issues

5.1 Principles

The process of timber impregnation requires consideration of the whole operation, including safe storage, handling, use, transport and disposal of all the materials used, as well as the end product.

Effective health and safety policies, arrangements and procedures must be drawn up and properly implemented with the necessary commitment by all concerned, whether employer, self-employed contractor or employee. This entails the provision, use and maintenance of safe plant equipment, systems of work and health, and welfare facilities.

Appropriate training instruction, information and supervision are required. Due regard should be given to the public and others who may be affected by the work activities.

Manufacturers and suppliers of plant and machinery have duties to provide safe equipment under the Supply of Machinery (Safety) Regulations (for new machinery), as well as under Section 6 of the Health and Safety at Work etc. Act (for new and second hand machinery and other equipment). Users also have a duty to check plant and machinery that is supplied to them and to take all reasonable steps to ensure safety in relation to work equipment.

Suppliers of hazardous materials (that is, substances and preparations dangerous for supply) must meet the requirements of the Chemical (Hazard Information and Packaging for Supply) Regulations and Section 6 of the Health and Safety at Work Act.

Wood preservatives are specifically controlled under the Control of Pesticides Regulations 1986, as amended, and in due course under the Biocidal Products Regulations 2001. In addition, there are regulations on the transport of dangerous goods by road that need to be considered.

The safe operation of timber-treatment plants depends upon sound design, regular maintenance and correct operation by trained competent operators. Failure to attend to any of these aspects can lead to accidents, environmental incidents, possible prosecution and loss of reputation.

Plants and installations must be designed and constructed so that they will be safe and without risk at all times during installation, use, cleaning and maintenance by persons at work. This requirement applies equally to new, second-hand and hired plant.

Adequate operating information must be provided by the supplier of the plant. The information should be sufficient to enable the plant to be used safely and should cover all the foreseeable risks, both to people and the environment.

5.2 Risk assessment – general principles

Health and safety legislation reinforces the need for employers to review and control standards at work, largely by assessing the risks that arise from their activities and then to either eliminate or reduce the risks to a reasonable level. Risk assessment is not a difficult process and does not necessarily require specialist expertise. It is common sense and observation applied in a practical way using the following five steps:

- a) Look for and identify the hazards.
- b) Decide who may be harmed and how.
- c) Weigh up the risks that arise from the hazards and whether existing precautions are adequate or more should be done.
- d) Record the significant findings, maintain such records and actions to show compliance.
- e) Review the assessment from time to time and revise it as necessary; that is to say if practice and / or materials change or if accidents, near misses and injuries occur.

The overriding purpose of the risk assessment is to help the employer and management decide what measures need to be taken to comply with the relevant regulations. It is a practical way to examine risk in the work environment so that management can identify and prioritise the action that needs to be taken.

Risk assessment techniques can also be applied to environmental issues to improve performance and minimise wastage, and thus protect the environment.

Effective management of health and safety and environmental aspects of a business is indistinguishable from sound management practices associated with quality, efficiency and business excellence. Good risk reduction and control measures are very cost effective and beneficial to business.

Costs are often hidden and include those that arise from employers' liability insurance, sick pay, product and property loss and damage, business interruption, hiring and training of staff, investigation of accidents and incidents, ill health, clean-up costs, fines and loss of reputation.

5.3 Workplace environment

The plant area should be maintained in a safe condition to minimise the risk of employees slipping or tripping. The following minimum standards should be achieved:

- Walkways and gangways kept clear.
- Steps, stairs and floor surfaces maintained in clean and even conditions.
- Slipping hazards, such as water or product on floor surfaces, minimised.
- Adequate lighting provided in work areas.

- Internal walls and ceilings kept clean and in good repair.
- All containers stored in designated areas.
- Adequate standards of lighting and temperature maintained at all times.

Consideration should be given to altering the workplace layout to ensure that safe conditions can be maintained.

A system of regular checks should be implemented to ensure that standards are being maintained. Sufficient time must be allowed for employees to carry out the necessary housekeeping work.



5.4 Treatment-plant door safety

If the timber-treatment vessel door is not closed and fully locked during the treatment process it may be dislodged and blown open, either by internal pressure or by the weight of the wood-preserved solution.

Techniques for ensuring this does not happen include:

- The process should not be able to start until the door is fully closed and locked.
- The plant should be equipped with a mechanism to give an indication of the internal pressure and presence of liquid in the vessel before the door is opened. For example, by means of an interlocked low-level test cock that has to be opened before the vessel door can be unlocked;
- A catch-lock mechanism should be present to permit the door to open by a small amount to release any residual low pressure while not allowing any remaining liquid in the vessel to force the door open violently. Examples include stepped castellations on the door locking ring and hinged restraining brackets.
- For bolted doors, all bolts must be tightened fully before commencement of the treatment process and must remain so until the completion of the process. A device should be fitted so as to break the liquid seal before all the bolts are removed. This should be attached to one or

more of the bolts, preferably opposite the door hinge, so that the door remains held until the liquid seal is broken, generally when the door is opened about 3 mm.

- Treatment vessel doors that do not meet these requirements should be retrofitted at the earliest opportunity, for example during a maintenance period.

The door should be kept closed when the treatment vessel is not in use, and on each occasion before the vessel door is closed the operator should ensure the liquid seal is in position and the seal face is wiped clean of any debris. Drip trays should be provided to collect preservative for possible reuse.

Provision, such as raised walkways, should be made to avoid the need for the operator to have to walk over potentially slippery damp or wet bund surfaces when operating the vessel door or other equipment on the plant. A further benefit is the reduction in the spread of wood preservative products by boots around the plant area.

5.5 Treatment vessel working pressure

All vessels should be fitted with a safety relief valve set to the design pressure of the vessel. The over pressure allowance (normally 10%) shall be consistent with the vessel's design code. The discharge contents should be directed to a tank at atmospheric pressure in a flow with negative static head on the discharge.

All vessels should be fitted with a second relief valve to control the working-process pressure of the plant and this should not be set above the maximum design pressure of the autoclave. Preferably, the working pressure should be set to a level 10% below the design pressure. The discharge from the relief valve should be directed to a tank at atmospheric pressure in a flow with a negative static head, to prevent back-pressure on the discharge.

In the case of a plant designed for a high pressure treatment process, in addition to the relief valves, pressure switches may be fitted to control the working-process pressure of the plant, which should not be set above the maximum design pressure



of the autoclave. Again, in addition to the mechanical relief-valve devices, an over-pressure switch may be fitted to stop the process if the safe working pressure of the autoclave has been exceeded.

All treatment vessels should be fitted with a pressure and/or vacuum gauge that give an accurate indication of the conditions inside the vessel. These gauges should preferably be visible from the operating position of the door(s) and be calibrated and tested at regular intervals.

5.6 Maintenance and examination

A planned written scheme of maintenance and examination should be prepared by a competent 3rd party inspector and followed. It is advisable that this should cover all protective devices, pressure valves and pipe work that could give rise to danger in the event of failure.

For new plant, this scheme is provided by the plant supplier. For older plant, it will be the process operator's responsibility to obtain information and provide such a schedule. Advice from a competent person should be sought in the preparation of the schedule. A thorough examination of the vessel and its fittings should be performed by a person competent to carry out the work - normally an engineering surveyor for an insurance company. Under Pressure Systems Regulations, the maximum inspection interval is twenty six months. The report of the examination should be available for inspection on site as required.

Note that while the Pressure Systems Safety Regulation 2000 does not normally apply to treatment plants, the HSC Code of Practice L122 'Safety of Pressure Systems' provides examples of good practice.

Records should be kept of all routine maintenance, periodic servicing, examinations and remedial work.

5.7 Treatment vessel marking

The following information should be marked clearly on the vessel, or on a plate attached to it, in a visible and legible form:

- The manufacturer's name.
- Serial number to identify the vessel.

- The date of manufacture of the vessel.
- The standard to which the vessel was built.
- The maximum design pressure and safe working pressure of the vessel.
- The minimum design pressure of the vessel, where it is other than atmospheric.
- The design temperature.
- Test date and test pressure.
- CE mark.

A warning notice should be positioned on the door face to remind the operator to check just before opening the door that all the wood-preservative solution is back in the storage tank.

5.8 Open tanks

Measures should be taken to prevent people from falling into open tanks or pump wells, such as the provision of tank covers or fencing of suitable height around the tank, in accordance with the Workplace (Health, Safety and Welfare) Regulations 1992.

Safe systems of working should be provided when access is needed to tanks, for example to retrieve items that have fallen in. Precautions are needed to allow such work to be carried out safely, as injuries have occurred when people have fallen into tanks.

5.9 Water supply

There should be a siphon break (excluding non-return valves, which are not permitted by water companies) in the water supply to mixing tanks to prevent wood-preservative solution from being sucked back into the water mains system as a result of a fall in supply pressure.

This recommendation should also apply to any other non-mains water supply.

There should be a minimum 150 mm clear gap between the top of the mixing tank and the outlet end of the water supply line, which should also incorporate an isolating valve.

A device or system should be fitted to prevent the overfilling of mixing tanks.



6. Occupational health and employee welfare

6.1 Control of substances hazardous to health

The Control of Substances Hazardous to Health Regulations (COSHH) requires employers to ensure that the exposure of employees to substances hazardous to health is either prevented or, where this is not reasonably practicable, adequately controlled.

A COSHH assessment should be carried out to identify the risks present and the appropriate control measures needed. Guidance on the preparation of a COSHH assessment can be found in Section 9, Legislation and Guidance.

Control measures identified as necessary by the assessment should be selected in accordance with the guidance referred to above.

Examples of engineering control measures might include the automation of mixing and the handling of the wood preservative, the venting of treatment vessels before opening the door and operational measures, such as the use of stickers and sloping of the packs of timber in the treatment vessel.

Accelerated drying and fixation techniques can also be considered.

Personal protective equipment (PPE) is the least preferred control measure in the hierarchy of such measures outlined in the COSHH Regulations (e.g. first consider engineering controls to control exposure). Employers should ensure that the protective clothing requirements set out on the label for the wood-preservative product are followed. Advice may be sought from the wood preservative supplier, or it can be sought from the supplier of the protective equipment. If the latter, a copy of the Safety Data Sheet for the preservative should be sent to them as this contains information on which the protective equipment suppliers will base their recommendation.

Protective clothing should be fit for use and kept clean and in good repair. It should be laundered regularly and separately from personal clothing, and it should not be taken home for laundering or any other purpose.

Employees should regularly inspect their PPE and report any defects in equipment or clothing provided for their safety to their employers without delay. The frequency at which PPE requires changing varies with the type of treatment product in use. Check the Product Safety Data Sheet and ask your PPE supplier for further guidance.

The treatment site should be a designated area into which no unauthorised person may be allowed to enter.

Warning notices to this effect should be displayed.

6.2 Manual handling and loading equipment

Manually moving items, for example by pushing or carrying, can potentially lead to injuries such as muscle strain and back pain. The best way to reduce manual handling injuries is to reorganise or mechanise handling operations as far as possible (e.g. use lifting equipment and handling aides). If this is not an option, the necessary manual handling tasks should be assessed to see if the risk of injury could be reduced. Risk is created when the load, the task and the working environment do not match the capabilities of the handler. Where manual handling has to be done, employees must be trained to carry out the tasks safely.

The timber must be securely strapped or hydraulically clamped to the bogie. If a forklift truck, or similar, is used to push loaded bogies into the treatment vessel the link between the two should be a rigid metal bar fixed at both ends. Timber beams may slip or break and should not be used. Rolling stock and towing-equipment should be maintained in good working order. Forklift-truck drivers must receive adequate instruction and training. The movements of lift trucks and other vehicles must be properly controlled (e.g. separation of lift-trucks from pedestrians).

Automated winch systems are recommended.

Further guidance can be found in the HSE Guidance on Manual Handling Operations.

6.3 Entry into treatment vessels

There are likely to be circumstances in which entry into vessels or tanks will be required. In such situations a dangerous atmosphere may be present and oxygen may be deficient. The requirements of the Confined Spaces Regulations 1997 must be followed if there is no clear, unimpeded, access to the vessel.

For short-duration entry, such as to remove fallen timber, a documented permit-to-work system should be operated and any person who enters the vessel may need to be equipped with suitable respiratory protective equipment. Advice should be sought from the wood-preserved product supplier and the suppliers of respiratory protective equipment or the local office of the HSE.

Entry into vessels for longer periods of time for maintenance or repair purposes should be carried out only by persons who have been trained in the procedures necessary to work in confined spaces, and the use of air-line or self-contained breathing apparatus is likely to be necessary.

6.4 Training and staff awareness

No person should use a biocide, including a wood preservative, in the workplace unless they have received adequate instruction, training and guidance in the safe and efficient use of biocides and is competent for the duties which they are called upon to perform, in accordance with the Control of Pesticides Regulations (COPR) 1986, as amended. Approvals for wood preservatives will progressively transfer



from the COPR to the Biocidal Products Regulations (as amended) 2001.

Employers should provide employees with information on the products to be used, plus written instruction and training on their handling and use.

This training should be carried out by a competent person. All operators should be fully trained and hold a certificate of training specific to the product being used. Such certification should include an assessment of practical competence. Refresher training and reassessment are important to ensure employees and management are kept up to date. Employers should keep adequate training records.

Particular attention should be given to ensure that relief operators are given periodic training or practical experience so that they remain competent to carry out these duties.

Training should be provided to ensure that employees are aware of the risks to health created by exposure to the wood preservative and are aware of the precautions that need to be observed to avoid such exposure.

Detailed guidance on the required standard of training for treatment plant operators is given in the HSC booklet entitled 'Recommendations for Training Users of Non-Agricultural Pesticides' and in the WPA Code of Practice 'Standards of Training for Operatives in Safe and Effective Wood Preservation and Damp-proofing'.

The WPA is one of the bodies involved with the delivery of a National Vocational Qualification (NVQ) for the operation of timber-treatment plants. This NVQ is a key element of quality schemes such as that the Sector Scheme for fencing operated by the Highways Agency. Further information about the NVQ and Highways Agency Sector Scheme 4 can be obtained from the WPA.



6.5 Health surveillance

The purpose of health surveillance is to detect as early as possible adverse health effects caused by exposure to hazardous substances. Health surveillance under COSHH is not a substitute for preventing or adequately controlling exposure, but it is a system to ensure that any adverse effect on the employee is detected at the earliest stage and is also a means of evaluating the effectiveness of any control measures in place as a result of the COSHH assessment.

For products that contain known carcinogens, health surveillance must include the keeping of health records (as detailed in the Appendix to the General COSHH Approved Code of Practice). Where health surveillance requires regular skin or other inspections these must be carried out by a person who has the necessary knowledge and experience. Where validated biological tests are available they should be used.

Further information on occupational health monitoring at industrial timber-treatment plants can be found in the HSE Woodworking Information Sheet No 29..

6.6 Welfare facilities

Employees should have ready access to suitable and sufficient washing and changing facilities. The design and layout of these facilities should be identified in the risk assessment and be related to the nature and degree of exposure to the substances in use. They should be located to prevent the spread of contamination from protective clothing to personal clothing, or from one process to another. Separate storage

accommodation should be provided for workers' own personal clothing (e.g. clothes worn to and from work) and work clothing (e.g. PPE and overalls).

If these facilities are not within the plant area itself, the minimum of sterile eyewash and 'dry' cleaning materials should be provided to remove the worst of any contamination prior to a thorough washing elsewhere. In situations where whole body contamination is possible, a deluge shower unit should be provided. Suitable and sufficient toilet facilities should be available on site.

Eating, drinking and smoking should be prohibited in the designated treatment area in order to minimise the risk of employees ingesting hazardous substances. Separate facilities must be provided where workers can rest, eat and drink away from the risk of contamination.

6.7 Working alone

Quite often the operators of timber treatment plants work alone or there are times when a contractor is on site working alone. Site operators have obligations to ensure the health and safety of such workers. The HSE publication Working alone in safety (INDG 73) provides general guidance on working alone. It offers advice on how to comply with duties towards lone workers under the Health and Safety at Work etc Act 1974 and the Management of Health and Safety at Work Regulations 1992.

7. Fire precautions

From the 1st October 2006 there was a change in the legislation in England, Scotland and Wales where new legislation replaced over 70 pieces of fire legislation. Please see the section 9.3 which sets out the requirements. The practical aspects of the legislation are described below. They include a requirement to:

- Carry out a fire-risk assessment of the workplace (consideration must be given to all persons who may be affected by a fire in the workplace, including adequate provision for any disabled people with special needs who use or may be present in the workplace).
- Identify the significant findings of the risk assessment and the details of anyone who might be especially at risk in case of fire (these must be recorded if five or more people are employed).
- Provide and maintain such fire precautions as are necessary to safeguard those who use your workplace.
- Provide information, instruction and training to your employees about the fire precautions in your workplace.

The risk assessment will help you decide the nature and extent of the general and process fire precautions that need to be provided.

Employees should receive regular fire training based on the particular features of the workplace and which:

- Explains the emergency procedures.
- Takes account of the work activity, the duties and responsibilities of employees.
- Takes account of the findings of the risk assessment.
- Is easily understood by you and your employees.

Ensure that all employees (and contractors) are told about the evacuation arrangements and are shown the means of escape as soon as possible after arriving at the work place.

A sufficient number of suitable types of fire extinguishers, as recommended by the Fire and Rescue Service, should be kept on site. An adequate number of staff should receive training in their use. Fire extinguishers should normally be located in conspicuous positions on escape routes, preferably near exit doors.

Extinguishers should be clearly visible or their locations clearly and conspicuously indicated so that they can be identified readily.

The treatment plant, chemical storage tanks and stores should be sited in safe and well-ventilated positions away from features that may create a fire or other hazard. Flammable materials should not be stored in close proximity to the plant (including timber waiting to be treated).

All timber treatment plant areas should be designated 'No Smoking' and 'No Naked Lights' zones.

Wood freshly treated with wood preservatives based on organic solvents should be kept in a well-ventilated position away from all sources of ignition.

When carrying out 'hot work' (e.g. cutting or welding) in the vicinity of treatment areas that contain flammable liquids or residues, special precautions have to be taken (e.g. a permit-to-work system). In particular, the requirements of the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) must be complied with.

Damage to watercourses and / or groundwater may arise from the direct spillage of the wood-preservative solution or from water / foam run-off during fire-fighting. Operating companies should consult with the Fire and Rescue Services and Environmental Agencies during the preparation of their, and the Fire and Rescue Services emergency procedures for the site to ensure that the run off generated in the event of a fire and / or major spillage is managed and contained on site. There are various options to do this, including:

- The installation of additional containment systems, and or,
- The use of pollution control equipment such as drain seals, land booms and portable tanks held on site and / or carried in Fire and Rescue Service Environment Protection Unit,
- Use of 'controlled burn' as a fire-fighting strategy to prevent water pollution,

The Fire and Rescue Service – Environmental Protection Manual and the Environmental Agency's PPG 18 Managing Fire Water and Major Spillages PPG 21 Pollution Incident Response Planning and PPG 28 Controlled Burn provide further guidance.

Timber-treatment plants used for the application of wood preservatives based on organic solvents should not incorporate or have introduced any source of ignition. Electrical equipment (e.g. pumps and switchgear) should either be located in a safe position or be intrinsically safe.

Timber treatment plants using preservatives based on organic solvents should not incorporate, or have introduced, any source of ignition. Electrical equipment such as pumps or switchgear should either be located in a safe position or be intrinsically safe.

Further guidance on fire precautions in the workplace can be found in the publication 'Fire Safety, An Employer's Guide' (ISBN 0 11 3 41229 0) or by logging onto www.safety.dtlr.gov.uk/fire/firesafety.htm

8. Emergency preparedness and response procedures

8.1 Treatment-plant site

The following signs and documentation should be clearly on display or easily available to relevant site personnel at all times:

- A notice at the site entrance showing the location of relevant emergency instructions.
- An on-site emergency plan (e.g. based on the pro-forma in PPG 21) that details the necessary action in the event of spillage or fire, supplemented by a summary wall chart. Some sites may need to co-operate with the local authorities in the production of an off-site emergency plan and periodic on site-emergency exercises are recommended. The operator should also consult with the Fire and Rescue Service on the production of the Fire and Rescue Service's own operational incident response plans (7(2)(d) for the site.
- First Aid procedures; the legal requirements for first aid are given in Health and Safety (First Aid) Regulations 1981.
- An up-to-date inventory of all wood-preservative chemicals and quantities stored on site should be readily available. This inventory is to include a Site Plan that shows the locations of such products as well as any associated drainage.
- Maps of surface-water drainage systems and soak-away should be colour-coded blue, while foul-water drainage should be colour coded red. Manhole covers on each system could be colour coded with spray paint for emergency identification.
- The drainage layout should highlight any incorporated shut-off valves or other containment system for immediate site attention in the event of an accident, the location of equipment needed to do this plus an appropriate downstream blockage point where relevant.

The following telephone numbers and information should be clearly displayed:

- Environment Agency, Scottish Environment Protection Agency Northern Ireland Environment Agency Hotline
- Local Health and Safety Executive Office
- Local Sewage Treatment Undertaker
- Wood Preservative Manufacturer / supplier (including 24 hour emergency service number)
- Local Fire and Rescue Services
- Local Doctor and Hospital
- The Police

- The process authorisation number under the Environmental Permitting Regulations (where relevant)
- Up-to-date copies of the relevant Product Safety Data Sheets.

8.2 Notification of incidents

8.2.1 Health and safety incidents

The Reporting of Injuries, Disease and Dangerous Occurrences Regulations 1999 (RIDDOR) require employers, self-employed persons or persons in control of premises to report certain accident, disease and dangerous occurrences. This legislation covers all works' personnel and not just those involved in the manufacturing process.

A death or major injury must be reported to the HSE by the quickest possible means. Other reportable incidents, such as an injury that lasts more than three days or a dangerous occurrence, or a work-related disease, have to be reported within 10 days.

There is also a requirement to keep a record of reported incidents for inspection by visiting officers from the enforcing authorities.

8.2.2 Environmental incidents

Companies should report all incidents that have the potential to damage the environment, including soakage into the ground, to the Environment Agency, Scottish Environment Protection Agency or Northern Ireland Environment Agency using the **Emergency Hotline (0800 80 70 60)**. Where a plant is subject to the COMAH Regulations, the HSE must also be informed.



9. Legislation and guidance

9.1 Environmental protection legislation and guidance

The following information has been taken from the NetRegs website operated by Defra (<http://www.netregs.gov.uk>) and is relevant to the wood preservation industry. The NetRegs website can also be accessed via the Environment Agencies websites.

Different parts of the UK have variations in their environmental laws and readers of this guidance should always check with their relevant regulator for any additional requirements not included in the following basic guidance to environmental legislation which is of relevance to the wood preservation industry.

9.1.1 Environmental permit

Your business may require an environmental permit (England and Wales) or a pollution prevention and control (PPC) permit (Northern Ireland and Scotland) from your environmental regulator or local council. You will need a permit if you have a production capacity above a certain level or if you use certain substances.

There are different categories of permit:

- England and Wales :Part A(1), Part A(2) or Part B environmental permit
- Northern Ireland: Part A, Part B or Part C PPC permit
- Scotland: Part A or Part B PPC permit

It is highly unlikely that any site involving wood treatment activities will require a Part A permit.

In the case of Part B processes the relevant clause states:

(a) Unless falling within Part A(2) of Section 6.1, manufacturing products wholly or mainly of wood at any works if the activity involves a relevant activity and the throughput of the works in any period of 12 months is likely to be more than—

- (i) 10,000 cubic metres in the case of works at which wood is only sawed, or wood is sawed and subjected to excluded activities, or
- (ii) 1,000 cubic metres in any other case.

Interpretation of Part B

1. In this Part—

“excluded activity” means any relevant activity (other than sawing) which, ignoring any sawing carried on at the works, would be unlikely to result in the release into the air of any substance in paragraph 6(3) of Part 1 in a quantity capable of causing significant harm;

“relevant activity” means the sawing, drilling, sanding, shaping, turning, planing, curing or chemical treatment of wood;



“throughput” means the amount of wood which is subjected to a relevant activity, but where wood is subject to two or more relevant activities at the same works, the second and any subsequent activity must be ignored;

“wood” includes any product consisting wholly or mainly of wood; and

“works” includes a sawmill or any other premises where relevant activities are carried on.

Your wood preservative product supplier or local authority will be able to give you further advice.

9.1.2 Oil storage

Oil Storage Regulations Control of Pollution (Oil Storage) (England) Regulations 2001 SI 2954 and in the case of Scotland the Water Environment (Oil Storage) (Scotland) Regulations 2006 S SI 2954.

Oil includes petrol, diesel, lubricating oil, central-heating oil, mineral oil, oils used as solvents such as paraffin and kerosene. You may be prosecuted and fined if oil from your site enters the ground or watercourses and you may have to pay substantial clean up costs.

In England the Oil Storage Regulations may apply if you store above ground outside in containers with a capacity of more than 200 litres. In Scotland the regulations apply if you store oil of any kind at your premises, regardless of the volume. They regulations do not apply in Northern Ireland and Wales however you should still consider meeting the requirements of the regulations, as they aim to prevent water pollution.

The regulations set out the requirements for containers (need to be stored within secondary containment), bunds (110% of the volume of a single container in the storage area or 110% of the largest containers storage capacity if more than one container), and drip trays (capable of containing 25% of the total storage capacity of the containers).

The are other requirements concerning the bund base and its impermeability to water and oil and the sealing of the junction of any inlet pipes with the bund walls or floors.

9.1.3 Water pollution

Almost any solid, liquid or gaseous substance entering surface waters or groundwater could be a pollutant. Included are chemicals, salt, wash waters, waste products, trade effluents and fuels. Rainwater that runs across your site can also be classed as a pollutant if it becomes contaminated by substances from your site.

If you intend to discharge anything other than clean uncontaminated surface water to surface waters or to groundwater you must get prior written authorisation from your environmental regulator. This could be in the form of:

- A discharge consent
- A groundwater authorisation
- An environmental permit (England and Wales)
- Pollution prevention and control (PPC) permit (Northern Ireland and Scotland)
- An authorisation under the Controlled Activity Regulations (CAR) in Scotland.

Ensuring the protection of surface and groundwater includes the following activities:

- The storage and handling of materials on your site, including waste.
- Managing your site's discharges and drainage systems.
- Accidental spills and site security.

Key water pollution legislation for constituent parts of the UK relevant to wood preservation activities includes:

England & Wales

Water Resources Act 1991

Groundwater Regulations 1998 SI 2746

Environmental Damage (Prevention and Remediation) Regulations 2009 SI No. 153

Northern Ireland

Control of Pollution (Application and Registers) Regulations (NI) 2001 SR 284

Groundwater Regulations (NI) 1998 SI 401

Scotland

Water Environment (Controlled Activities) (Scotland) Regulations 2005 S SI 348

Control of Pollution Act 1974

Control of Pollution Act 1974 (Part II) Primary: & Water Act 1989 – Scotland

Groundwater Regulations 1998 SI 2746

Environmental Liability (Prevention and Remediation) (Scotland) Regulations 2008 (Scotland) Regulations

9.1.4 Contaminated land

You could be responsible for the costs of cleaning up contaminated land if:

- You cause or allow the land to become contaminated
- You own land that is contaminated

You can avoid causing land contamination by:

- Regularly inspecting and maintaining all plant, pipe work and other infrastructure, checking for damage, leaks and overflows
- Keep materials that could contaminate land from other materials at all times
- Store such materials in clearly labelled containers
- Supervise all refuelling operations and only refuel in contained areas away from watercourses or surface water drains.
- Store all chemicals (oils, solvents, chemicals, biocides such as wood preservatives) in an area where spills can be contained.
- Supervise deliveries of all materials and fuels to your site.
- Have a pollution incident response procedure for dealing with spills and make sure that all your staff are familiar with the procedure; and how to implement it.
- Report all pollution incidents as soon as they happen to the incident hotline 0800 80 70 60

UK wide

Environment Act 1985

England

Contaminated Land (England) Regulations SI 1380

Northern Ireland

Waste and Contaminated Land (Northern Ireland) Order 1997 SI 2778

Scotland

Contaminated Land (Scotland) Regulations 2000 SI 1380

Contaminated Land (Scotland) Regulations 2005 S SI 658

Wales

Contaminated Land (Wales) Regulations 2001 SI 2197

9.1.5 Vehicle use and emissions

You must ensure that all your motor vehicles including forklift trucks comply with emission limits.

Dust, fumes or noise from your vehicles can cause a nuisance to your neighbours. If your local authority receives a complaint they may request you reduce or stop the nuisance, or ask you to carry out work to stop or reduce it.

You should encourage your staff to turn vehicle engines off when they are stationary for any length of time as this will not only help reduce fuel costs but will also reduce exhaust emissions and noise.

9.1.6 Air quality (solvents)

Council Directive 1999/13/EC on the limitation of volatile organic solvents in certain activities and installations includes wood impregnation in its scope and sets a threshold value for coming into scope of 25 tonnes / annum.

The wood preservation industry complies with the UK implementation of this directive through the Process Guidance Note PG 6/3. Please see section 9.4 on other industry-specific references.

9.1.7 Control of major accident hazards (COMAH)

If your business manufactures, stores or uses any dangerous substances in amounts that exceed defined threshold quantities then COMAH applies.

England, Scotland and Wales

Control of Major Accident Hazards (Amendment) Regulations 2005 – Schedule 1

Northern Ireland

Control of Major Accident Hazards (Amendment) Regulations (NI) 2005 – Schedule 1.

Dangerous substances also include those that fall into categories defined in the Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP Regulations).

Your wood preservative supplier will be able to advise you what obligations you may have on your site.

9.1.8 Hazardous / special waste

Timber treatment plant operations may produce waste which is potentially harmful to human health or the environment. This waste may be classified as **hazardous** in England, Wales and Northern Ireland or as **special** waste in Scotland.

Such wastes may have flammable, toxic, corrosive or ecotoxic properties.

The European Waste Catalogue (EWC) contains a list of all types of waste and each waste type is given a 6 digit code. The Wood Protection Association has produced a guidance document specifically written for the wood preservation industry and electronic copies of it can be obtained from the Wood Protection Association.

England and Wales

Environment Protection Act 1990

Hazardous Waste (England and Wales) Regulations 2005 SI 894

Hazardous Waste (Wales) Regulations 2005 SI 1806

List of Wastes (England) Regulations 2005 SR 301

List of Wastes (England) Amendment Regulations 2005 SI 1673

List of Wastes (Wales) Regulations 2005 SI 1820

Northern Ireland

Hazardous Waste (Northern Ireland) Regulations 2005 SR 300

Hazardous Waste (Amendment) (Northern Ireland) Regulations 2005 SR 461

List of Wastes (Northern Ireland) Regulations 2005 SR 301

List of Wastes (Amendment) Regulations (Northern Ireland) 2005 SR 462

Waste and Contaminated Land (Northern Ireland) Order 1997 SI 2778

Scotland

Environmental Protection Act 1990

Special Waste Regulations 1996 SI 972

Special Waste (Amendment) Regulations 1996 SI 2019

Special Waste (Amendment) Regulations 1997 SI 251

Special Waste (Scotland) Regulations 1997 SI 257

Special Waste (Scotland) Regulations 2004 S SI 112

Special Waste Amendment (Scotland) Amendment Regulations 2004 S SI 204

9.1.9 REACH regulation – manufacturing, using, selling and importing chemicals

If you manufacture, import, distribute, sell or use chemical substances, preparations or articles containing chemicals you must comply with the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulations.

REACH aims to protect human health and the environment through the control of chemical substances.

REACH also applies to chemicals contained in some finished products, known as articles if the substance is intended to be released under normal or reasonably foreseeable conditions of use. Your wood preservative product supplier will be able to help you with your obligations under REACH with respect to wood preservation.

Regulation (EC) No.907/2006 of the European Parliament and the Council.

9.1.10 Biocides (wood preservatives)

Wood preservatives are authorised to be placed on the market and used in accordance with the Control of Pesticides Regulations. Users of the products must comply with the conditions of approval and use stated on the product label and to any additional guidance provided by the product supplier. Wood preservatives will eventually be authorised under the Biocidal Products Regulations.

UK –wide

Food and Environmental Protection Act 1985

Pesticides Act 1998

England and Wales

Control of Pesticides Regulations 1986 SI 1510

Control of Pesticides (Amendment) Regulations 1997 SI 188

Biocidal Products Regulations 2001 SI 880

Biocidal Products (Amendment) Regulations 2003 SI 429

Biocidal Products (Amendment) Regulations 2005 SI 2451

Biocidal Products (Amendment) Regulations 2007 SI 293

Northern Ireland

Control of Pesticides Regulations (Northern Ireland) 1987 SR 414

Control of Pesticides (Amendment) Regulations (Northern Ireland) 1991 SR 203

Control of Pesticides (Amendments) Regulations (Northern Ireland) 1997 SR 469

Biocidal Products Regulations (Northern Ireland) 2001 SI 422

Biocidal Products (Amendment) Regulations (Northern Ireland) 2002 SR 302

Biocidal Products (Amendment) Regulations 2003 SI 429
Biocidal Products (Amendment) Regulations 2005 SI 2451
Biocidal Products (Amendment) Regulations (Northern Ireland) 2007 SR 190

Scotland

Control of Pesticides Regulations 1986 SI 1510
Control of Pesticides (Amendments) Regulations 1997 SI 188
Biocidal Products Regulations 2001 SI 880
Biocidal Products (Amendment) Regulations 2003 SI 429
Biocidal Products (Amendment) Regulations 2005 SI 2451
Biocidal Products (Amendment) Regulations 2007 SI 293

9.1.10 NetRegs website

NetRegs is a **partnership** between the UK environmental regulators – the **Environment Agency** in England and Wales, **SEPA** in Scotland and the **Northern Ireland Environment Agency (NIEA)** in Northern Ireland.

This website: <http://netregs.gov.uk> provides small businesses in the UK with clear guidelines on how to comply with environmental legislation. Generic management guidelines and sector-specific guidelines are provided. The resource is accessible through all of the Environment Agencies websites.

9.1.11 Pollution Prevention Guidance Notes

A series of pollution prevention guidelines (PPG) are published jointly by the EA, SEPA and the Northern Ireland Environment Agency. The following may be relevant and are available from the Environment Agencies website (see table of Key Contacts for information on where to obtain the guidance.

PPG 1 General Guide to the Prevention of Pollution (reviewed in 2008)

PPG 2 Above Ground Oil Storage Tanks (reviewed in 2008)

PPG 3 Use and Design of Oil Separators in Surface Water Drainage Systems

PPG 6 Working at Construction and Demolition Sites (reviewed in 2008)

PPG 8 Safe Storage and Disposal of Used Oils (reviewed in 2008)

PPG 18 Managing Fire Water and Major Spillages

PPG 21 Pollution Incident Response Planning (reviewed in 2008)

PPG 26 Storage and Handling of Drums and Intermediate Bulk Containers (reviewed in 2008)

PPG28 Controlled Burn

Masonry Bunds for Oil Storage Tanks

Concrete Bunds for Oil Storage Tanks

Is your site right? A 10 point checklist

9.1.12.1 Envirowise

Envirowise is a free service for UK businesses and can offer environmental advice and information to save you money while following good environmental practices.

Contacting the Advice Line, on 0800 585794, provides access to environmental advice and publications of direct relevance to your organisation. Envirowise website: www.envirowise.gov.uk

En 896 Reducing Mains Water Use through rainwater harvesting July 2008 Envirowise Guidance

9.2 Health and safety legislation and guidance

The following legislation and guidance is relevant to the industry.

An Introduction to Health and Safety, INDG 259 ISBN 0 7176 2685 7

Health and Safety at Work Act 1974

Management of Health and Safety at Work Regulations 1999, ACOP L21, ISBN 0 7176 2488 9

Health Risk Management: Practical Guide for Managers, HSG137, ISBN 0 7176 6179 2

Essentials of Health and Safety at Work (rev 2006), ISBN 0 7176 0716 X

Five Steps to Risk Assessment, INDG 163 (rev2) revised 06/06, ISBN 0 7176 6189 X

Working alone in Safety - controlling the risks of solitary work. INDG 73 (rev) ISBN 0 7176 1507 3

A Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1999, L73, ISBN 0 7176 2431 5

RIDDOR Explained, HSE 31, ISBN 0 7176 2441 2

Workplace (Health Safety and Welfare) Regulations 1994, ACOP and Guidance L24, ISBN 0 7176 0413 6

Manual Handling Operations 1994, Guidance L23, ISBN 0 7176 2415 3

Reducing Noise at Work, Guidance on Regulations 2005, L108, ISBN 0 7176 6164 4

The Dangerous Substances (Notification and Marking of Sites) Regulations 1990 SI no. 304 (referred to as the NAMOS Regulations), require the person in control of any site or premises where a total quantity of 25 tonnes or more of dangerous substances are used or stored, or are to become used or stored, to give written notification to both the Fire & Rescue Service and the Health and Safety Executive.

Memorandum of Guidance on the Electricity at Work Regulations 1989, HSR 25, ISBN 0 7176 1602 9

Health and Safety (Safety Signs and Signals) Regulations 1996, SI 341

Provision and Use of Work Equipment Regulations 1994, Open Learning Guidance, ISBN 0 7176 2459 5

Simple guide to Provision and use of work equipment 1998 INDG 291, ISBN 0 7176 2429 3

Health and Safety in Engineering Workshops, HSG 129, ISBN 0 7176 1717 3

Supply of Machinery (Safety) Regulations 1992 (as amended), S.I. 3073

Simple Pressure Vessels (Safety) Regulations 1991 (as amended), S.I. 2749

Safe Work in Confined Spaces. Confined Spaces Regulations 1997, Approved Code of Practice, Regulations and Guidance, L101, ISBN 0 7176 1405 0

Dangerous Substances and Explosive Atmospheres Regulations 2002 Approved Code of Practice and Guidance L138 ISBN 0 7176 2203 7

The Cleaning and Gas-freeing of Tanks containing Flammable Residues 1985, HSE Guidance Note HS (G) 51, ISBN 0 7176 1471 9

The Storage of Flammable Liquids in Tanks HSG 176 ISBN 0 7176 1470 0

Safety in Working with Lift Trucks, HSG 6, ISBN 0 7176 1782 5

Rider-operated Lift Trucks: Operator training, ACOP and Guidance L117, ISBN 0 7176 2455 2

Safety of Pressure Systems, ACOP on Regulations L1222, ISBN 0 7176 1767 X

Control of Substances Hazardous to Health Regulations 2002: General COSHH ACOP,

Carcinogens ACOP and Biological Agents, ACOP L5, ISBN 0 7176 1670 3

A Step by Step Guide to COSHH, HSG 97, ISBN 0 7176 1446 8

COSHH: A Brief Guide to the Regulations, INDG 136, ISBN 0 7176 2982 1

Medical Aspects of Occupational Skin Disease, MS 26, ISBN 0 7176 1545 6

First Aid at Work: The Health and Safety (First-Aid) Regulations 1981, ACOP and Guidance L74, ISBN 0 7176 1050 0

First Aid at Work: Your Questions Answered, INDG 214, ISBN 0 7176 1074 8

Personal Protection Equipment at Work Regulations 1992, Guidance L25, ISBN 0 7176 0415 2

Fire Safety, An Employer's Guide Home Office / Scottish Executive / Northern Ireland DoE / HSE can be found on the HSE website

9.3 Fire safety legislation

England and Wales

Regulatory Reform (Fire Safety Order) 2005 ISBN 0110729455

Under the Order, the responsible person must carry out a fire safety risk assessment and implement and maintain a fire management plan. The employer and anyone who has control of premises or anyone who has a degree of control over certain areas or systems may be a 'responsible person'.

The responsible person must:

- carry out a fire-risk assessment identifying any possible dangers and risks;
- consider who may be especially at risk;
- get rid of or reduce the risk from fire as far as is reasonably possible and provide general fire precautions to deal with any possible risk left;

- take other measures to make sure there is protection if flammable or explosive materials are used or stored;
- create a plan to deal with any emergency and, in most cases, keep a record of your findings; and
- review your findings when necessary.

If you employ more than 5 persons then the significant finding of the risk assessment should be recorded.

You can get further information by visiting - www.communities.gov.uk/firesafety

Scotland

Fire (Scotland) Act 2005

The Scottish legislation includes all that described for England and Wales but it also includes the promotion of community safety as well as responding to emergencies.

9.4 Other industry-specific references

Secretary of State's Guidance, 'Chemical treatment of timber and wood-based products', PG 6/3 (04) Issue 1.0, published March 2004

HSC Recommendations for Training Users of Non-Agricultural Pesticides, 1990, ISBN 011 8885548 4

Wood Protection Association - Code of Practice 'Standards of Training for Operatives in Safe & Effective Wood Preservation and Damp-proofing'

NVQ for the Operation of Timber Treatment Plants. For more information see <http://www.accreditedqualifications.org.uk/index.aspx> and insert the NVQ number 10051247 in the Search box (Search for Qualifications).

Further information on NVQ can be found at

<http://www.cskills.org/supportbusiness/publications> and the same instruction as before then works: Put the word: **treatment** in the search box labelled 'Enter keyword(s)', leave 'All Products' in the next box and hit 'Go'.

'HSE Wood Working Information Sheet 29, 'Occupational Hygiene and Health Surveillance at Industrial Timber Treatment Plants'

Wood Protection Association - Guide to the legislation and options for dealing with wood preservative related waste streams – 2009

9.5 Other non industry specific guidance

CIRIA 164 – Design of Containment System for the prevention of industrial incident

The Fire Service Manual –Environmental Protection <http://www.communities.gov.uk/publications/fire/environmentprotectvol2>

Buncefield Emergency Planning Guidance

<http://www.hse.gov.uk/comah/buncefield/response.htm>

10. Key contact points

AGENCY	ONLINE	TELEPHONE
Health and Safety Executive	http://www.hse.gov.uk	
HSE Infoline		0845 345 0055
Reporting an Incident	http://www.hse.gov.uk	0845 300 99 23
<hr/>		
Environment Agency (England & Wales)	http://www.environment-agency.co.uk	
General Enquiries		08708 506 506
Incident Hotline		0800 80 70 60
<hr/>		
SEPA (Scottish Environment Protection Agency)	http://www.sepa.org.uk	
Pollution Hotline		0800 80 70 60
<hr/>		
Northern Ireland Environment Agency	http://www.ni-environment.gov.uk	
Pollution Hotline		0800 80 70 60
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Wood Protection Association

www.thewpa.org.uk

Support the work of the WPA

This Code of Practice has been compiled for the benefit of the UK timber treating industry by the WPA. The WPA is a not for profit trade body actively involved in reviewing British and European Standards and Regulations that have the potential to impact the wood protection sector and any company involved with it. The Association also defends and promotes the generic benefits of wood protection technology in enabling timber to be utilised as the cost effective, sustainable and environmentally acceptable material.

The work of the WPA benefits every business with a commercial interest in wood. It is not a role that can be performed by an individual company or other non science-based trade associations. Funding is provided from membership subscriptions and the more we grow in numbers, the more effectively we can benefit the industry.



To find out more about the work of the WPA and how to become a member send an e-mail to:
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Wood Protection Association

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