



Greenpiling

PLANT MAINTENANCE PROCEDURES



Maintenance Procedures:

Introduction:

The provision of safe plant and work equipment and its maintenance in a safe condition is stated within the company health and safety policy and is regarded as essential to control risks from dangerous parts of machinery and plant notably (piling rigs). The aim of these procedures is to introduce and maintain formal systems for maintenance and servicing of piling rigs and associated ancillary equipment.

The quality of maintenance is a major contributory factor affecting safety and operational costs. It affects the operating life of plant and also the risk of accidents during or following maintenance. The possibility of a fatal accident is present in many maintenance activities and includes the company's maintenance work. Safety during maintenance is heavily reliant on human activity and accordingly management will take positive steps to ensure maintenance staff are sufficiently trained and competent to carry out their work safely. This manual contains the procedures and instructions for general machine safety and maintenance work.

Objectives:

The aim of these procedures is:

- 1.1 To meet statutory duties provide and maintain safe work equipment
- 1.2 To enable the company to demonstrate that a programme of routine maintenance of plant and machinery is in place and being followed
- 1.3 To clarify with personnel the formal arrangements for machine safety and their duties for compliance.

Scope

The machinery safety procedures apply to all types of work equipment and all areas where plant and work equipment is used.

Maintenance Procedures:

Contents and Related Documents

1. Machine safety policy recognising statutory requirements and allocation of responsibilities to implement the policy.
2. Maintenance Responsibilities
3. Rig operator daily inspection checklist SMP01
4. Rig operator weekly inspection checklist SMP02
5. Rig operator plant report sheet SMP03
6. Fitters service report sheet SMP04

WORK EQUIPMENT POLICY	HEALTH AND SAFETY MANAGEMENT SYSTEM
DATE: 03/11/2005	Procedure Ref: SMS

Objective

To provide a system that will ensure that the company does not put personnel at risk during operations involving the use of work equipment. To meet statutory duties and, or, industry standards to provide and maintain safe work equipment.

Responsibility

Responsibility for communication and compliance with this policy rests with the Directors of the company.

The Directors shall nominate a responsible person to manage implementation of this policy.

Preparation of the machine safety policy is the responsibility of the Safety Advisor.

Responsibility for ensuring the machine safety policy is administered on site rests with the Contracts Manager, Rig Foreman and the Maintenance Engineer.

Each responsible person nominated shall be given sufficient time, resource, training and information to carry out their responsibilities effectively.

The Provision and Use of Work Equipment Regulations 1998 (PUWER 98) make more explicit the general duties contained in the HSW Act. The Regulations apply to all work equipment, including second hand, hired or leased equipment. The provisions of the Supply of Machinery (Safety) Regulations 1992, as amended, apply to machinery manufactured on or after 1 January 1993. Note (PUWER) (LOLER) and industry standards are applicable to Piling Rigs.

Interpretation

The following definitions and terms are important in understanding the requirements laid down by (PUWER98) Regulations.

Inspection

This means a visual or more rigorous inspection, as required by regulation 6 carried out by a competent person, and may include appropriate testing.

Work equipment

This includes all plant, machinery, tools or installations for use at work — the definition will cover large machines such as piling rigs right through to complete entities such as ladders, hydraulic jacks, air tools, spanners etc.

Use

This includes any activity that may be associated with the work equipment, such as starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning. Unless otherwise stated the requirements of these Regulations are absolute, ie they must be achieved.

Application

The Regulations apply to:

- work equipment provided by employers for use by their employees at work
- work equipment provided by self-employed persons for their own use at work
- persons who have control of work equipment, or who use, supervise or manage it.

- the way work equipment is used.

The guidance points out that the duty on employers also extends to personal work equipment provided by the employees, where the employer agrees to this practice and that on multi-occupancy sites arrangements should be made for one employer to be responsible for compliance. The "co-operation and co-ordination" requirement under regulation 11 of the Management of Health and Safety at Work Regulations 1999 (MHSW) is relevant.

The Company shall ensure the following:

Suitability

Equipment provided for work is constructed or adapted so as to be suitable for its intended purpose. This includes taking account of reasonably foreseeable working conditions, inherent health and safety risks where the equipment is to be used and any risks associated with the equipment itself. Work equipment must only be used for tasks, and under the conditions, for which it is suitable. "Suitable" in this regulation means suitable with respect to the health and safety of any person. Regulation 3(1) of MHSW, ie risk assessment, is relevant.

Maintenance

Work equipment is maintained in an efficient state, in efficient working order, in good repair, and where a maintenance log is required, ie under other legislation (eg CHSWR96) or (LOLER) such logs must be kept up to date. However, the accompanying guidance does recommend that maintenance records are kept.

Inspection

Where the safety of work equipment depends on the installation conditions, the work equipment is inspected after installation and before it is used for the first time, or after it has been installed at a new location or premises. The inspections are to ensure that the work equipment has been installed correctly and is safe to use. In addition, work equipment which is exposed to conditions which may cause deterioration and consequent danger as a result of that deterioration must be inspected at suitable intervals, and whenever exceptional circumstances have occurred that may have had adverse effects on the safety of the work equipment. The inspections are to ensure that health and safety conditions are maintained, and that defects are identified and corrected quickly.

Records of all inspections must be made and kept until the next inspection has been completed and recorded. No work equipment may leave an employer's undertaking, or be used in the undertaking, if supplied by another person, unless there is accompanying physical evidence that the last inspection was carried out. Note; Construction (Health, Safety and Welfare) Regulations 1996 — have specific inspection requirements.

Specific Risks

Ensure that where the work equipment poses a specific risk to health and safety, the use and maintenance of such equipment will be restricted to designated persons who have received adequate training in the operations they have been designated to carry out.

Information and Instructions; Training

Make available to all persons using work equipment adequate health and safety information, and where appropriate written instructions on the use of such equipment. In addition shall also provide adequate health and safety training in the use of the work equipment, including any associated risks and necessary precautions with specific attention given to young or inexperienced persons.

Conformity with EC Requirements

Take reasonable action to ensure that work equipment provided for use after 31 December 1992 has been designed and constructed in compliance with any essential requirements that are contained in any relevant UK legislation which implements appropriate EC "product" Directives.

Dangerous Parts of Machinery

Take reasonable measures to prevent access to dangerous parts of machinery or stop the movement of any dangerous machinery before any part of a person enters a danger zone. A "danger zone" means any zone in or around machinery in which a person is exposed to a risk to their health and safety arising from contact with a dangerous part.

Protection Against Specified Hazards

Take reasonable measures to prevent, or if this is not reasonably practicable then to adequately control, exposure to any of the "specified hazards" arising from the use of work equipment. The "specified hazards" are: falling or ejected articles or substances; component rupture or disintegration, equipment overheating or catching fire and unintended or premature discharges or explosions.

High or Very Low Temperature

Ensure that work equipment, components or any articles or substances which are at high or very low temperatures are protected so as to prevent burn, scald or sear injuries through contact with the offending surface.

Controls and Control Systems

Ensure, where appropriate, that start and operating controls (ie controls that change speed, pressure, etc) are fitted to work equipment, and that where these controls are fitted, they can only be operated by a deliberate action. Provide work equipment with readily accessible stop controls, where appropriate, that will bring the equipment to a safe condition in a safe manner. Ensure, again where appropriate, that work equipment is provided with readily accessible emergency stop controls, unless these controls are unnecessary by the nature of the hazard and the time required to bring the equipment to a complete stop as a result of activating a normal stop control. ensure that safe systems of work are devised to prevent persons being in a danger zone created by the starting of a piece of work equipment, or where that is not reasonably practicable by ensuring an audible, visible or other suitable warning is given when work equipment is about to start.

Isolation from Sources of Energy

Employers must ensure that work equipment is provided with a clearly identifiable and readily accessible means of isolating it from its energy source, where appropriate. Reconnection of the equipment to the energy source must not expose persons using the equipment to any risks to their health and safety. Stability Employers must ensure all work equipment is stabilised where necessary to protect health and safety. The guidance expands on this duty by suggesting that equipment liable to fall over, collapse or overturn must be fixed to the ground, stabilised, tied, fastened or clamped as appropriate.

Maintenance Operations

Ensure, so far as is reasonably practicable, that work equipment is constructed or adapted to allow maintenance work that involves a risk to health and safety to be carried out while the equipment is shut down or inactive. Where this is not possible the maintenance operations will be carried out in such a way that the person doing the maintenance work is not exposed to health and safety risks and appropriate measures are taken for their protection. To Implement and maintain the written machine safety procedures and safe systems of work contained in the Work Equipment Maintenance Procedures File.

Employees Carried on Mobile Work Equipment

Mobile work equipment will not be used to carry employees unless it is suitable for that purpose and incorporates measures to reduce any risks to safety (including risks from wheels or tracks), as low as is reasonably practicable.

Rolling Over of Work Equipment

Risks to employees riding on mobile work equipment from its rolling over will be minimised by:

- (a) Assessing ground conditions prior to rig operation
- (b) incorporating structures that restrict work equipment from doing anything other than roll on its side, or that provide sufficient clearance to anyone being carried if it does roll over further
- (c) providing any device offering comparable protection.

In the case of fork lift trucks ensure suitable restraining systems are fitted and worn, to prevent anyone operating the truck being crushed in the event of the work equipment rolling over.

Keeping Information

Information recorded on external and internal examination/inspection reports will be kept available for inspection for two years after it is made.

Monitoring of Compliance

A senior Manager shall carry out a random sample to examine compliance with this policy.

Documentation

Maintenance procedures file

Rig – Daily inspection checklist

Rig – Weekly inspection Checklist

Plant Report Sheet

Service Report Sheet

Maintenance Procedures:

Detailed Responsibilities

Directors:

Establishing a system for the on-going maintenance of all plant, machinery and ancillary equipment.

Organising the external inspection of all plant and work equipment in accordance with statutory regulations and, or, industry standards.

Implementing a procedure for the periodical inspection and examination of plant and machinery in accordance with statutory regulations.

Implementing a procedure for the periodical inspection and examination of lifting items in accordance with the Lifting Operations and Lifting Equipment Regulations (LOLER).

Implementing a system of periodical monitoring of machine safety procedures.

Fitter:

Maintaining a formal system for the on-going maintenance of all plant, machinery and ancillary equipment.

Organising the external inspection of all lifting items in accordance with the Lifting Operations and Lifting Equipment Regulations (LOLER).

Carrying-out periodical machine maintenance in accordance with operating manual recommendations and company rules.

Maintaining an up to date record of maintenance schedules, inspection records, service reports and ensuring copies of inspection reports are retained by the piling rig operators as required.

Carrying out machine repairs sufficient to ensure the safety of work equipment. Retaining a record of the close out of reported repairs on the Service Report Sheet.

Bringing to the attention of the Directors significant defects or damage that could affect the safe operation of work equipment. Instructing machine (rig operators) to stop work if, of the opinion that the machine is unsafe to operate.

Complying with company rules and attending relevant training sessions as required to maintain an up to date knowledge of machine safety regulations i.e. (PUWER).

Assessing the suitability of new work equipment prior to commissioning and introduction in the work place.

Involvement in the risk assessment of plant, machinery and ancillary work equipment.

Maintenance Procedures:

Contracts Manager:

Monitoring of rig operators safety check documentation.

Reporting to the Directors and Fitter any significant defects or damage that could affect the safe operation of work equipment. Instructing machine (rig operators) to Stop work if, of the opinion that the machine is unsafe to operate.

Instructing new or temporary piling rig operators on the company rules regarding machine safety checks and maintenance procedures.

Rig operators

Complete daily/weekly rig inspection reports in accordance with company procedures. These checklists are intended for all rigs therefore some items may not be applicable and obviously need not be checked. The thoroughness of the inspections requires a degree of common sense. For example if the rig has not been used for several months by the operator a thorough daily inspection will take several hours, but conversely if the rig has been used by the same operator week in week out a cursory inspection will suffice.

Maintain accurate statutory and internal inspection records as applicable to the piling rig, lifting items and ancillary equipment. Record on the Plant Report Sheet the identification numbers of the lifting equipment with the rig.

Report to the Contracts Manager and Fitter any significant defects or damage that could affect the safe operation of work equipment. Stop work if of the opinion that the piling rig is unsafe to operate.