PROSUM10
Supervise mine plant installation and salvage

Overview

This standard is about a mine supervisor being able to co-ordinate all relevant activities involved in the preparation for installation and/or salvage of plant/equipment for the part of the mine for which the supervisor is responsible. This will include: preparations for installation and/or salvage and the operational cycle are carried out in accordance with statutory and company requirements, the monitoring of environmental conditions to ensure that gases, hazardous substances, dusts etc,.do not exceed statutory/company limits, ensuring that all associated equipment and plant is inspected/maintained in accordance with manufacturers'/company specifications, dealing with plant/equipment failure, and protecting staff working in plant installation/salvage areas.

This standard is a **five** element standard:

1. 1 Prepare for installation and/or salvage of plant and/or equipment
2. Inspect associated plant and equipment
3. Monitor environmental conditions during plant installation and salvage operations
4. Protect personnel involved in installation/salvage operations
5. 5 Supervise the operational cycle

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Performance criteria

Prepare for installation and/or salvage of plant and/or equipment

You must be able to:

P1 correctly identify the plant/equipment to be installed/salvaged and its location
P2 ensure that all ancillary equipment for moving, lifting or pulling salvage/installation plant are fit for purpose, suitably anchored and safe for use.
P3 ensure wherever possible the operation of installation/salvage ancillary equipment can be achieved from a safe remote position in line of sight
P4 monitor that preparation work is carried out according to regulatory requirements and operational procedures
P5 co-ordinate work operations to ensure that each on going activity does not affect the activities, health and safety of others within your sphere of responsibility.

Inspect associated plant and equipment

You must be able to:

P6 co-ordinate work operations to ensure that each on going activity does not affect the activities, health and safety of others within your sphere of responsibility.
P7 confirm that safety devices are in place and operational
P8 ensure cable handling/suspension systems are correctly positioned and installed
P9 confirm that all service pipes/cables/hoses are correctly identified/stored/fitted with appropriate safety devices
P10 check tools and equipment (e.gs. rock bolting and drilling equipment) are serviced/maintained according to manufacturers' instructions and organisational procedures
P11 ensure inspections are carried out to confirm correct installation/operation of plant/equipment (e.g. of rail systems for guided transport)
P12 implement plant/equipment isolation procedures
P13 ensure that lifting equipment is used/tested/inspected and installed according to organisational procedures and within design capabilities
P14 ensure plant/equipment is used within its design limitations
P15 take damaged/life expired plant/equipment out of service
P16 initiate maintenance/servicing of plant/equipment
P17 complete records/reports according to legislative requirements and organisational procedures

Monitor environmental conditions during plant installation and salvage operations

You must be able to:

P18 check ventilation system is operational within organisational limits

P19 ensure gas/smoke monitoring/detection equipment is correctly positioned and operational
P20 operate and interpret readings from gas detection equipment
P21 check geological conditions are within normal operational parameters
P22 ensure safety and environmental protection devices are correctly positioned and operating to regulatory/manufacturers' instructions and operational procedures (e.g. dust suppression, gas drainage, friction ignition prevention equipment)
P23 ensure personnel involved in salvage/installation operations maintain a clean and tidy workplace to organisational requirements
P24 communicate environmental problems outside your limits of responsibility to the relevant person/s according to organisational procedures
P25 complete records/reports according to legislative requirements and organisational procedures

Protect personnel involved in installation/salvage operations

You must be able to:

P26 monitor, record and control the number of persons in your area of responsibility
P27 ensure that staff working within your area of responsibility recognise when a hazardous situation has occurred and know appropriate action to take to inform others without prejudicing safety of self.
P28 carry out checks on competency of persons employed in installation/salvage operations
P29 direct staff to positions appropriate to prevent contact with moving plant/equipment/machine parts
P30 enforce the use of appropriate personal protective equipment
P31 ensure that manual handling tasks are minimised by the use of mechanical lifting devices.
P32 confirm checks on safety devices have been carried out
P33 identify problems (e.g. obstructions, geological movements, mechanical or service failure) and report to appropriate person/s for advice or repair/remedial action
P34 check and confirm repair/remedial action has been effective
P35 take appropriate action where problems/repairs cannot be rectified immediately
P36 communicate effectively with work colleagues, staff and line managers throughout operations

Supervise the operational cycle

You must be able to:

P37 ensure the implementation of the operational cycle corresponds to operational plan
P38 check that workers carry out their duties competently and to organisational procedures

P39 ensure dimensions of exposed roof are within predetermined safety limits
P40 oversee the immediate advance and setting of temporary/permanent supports according to regulatory and organisational requirements to combat poor roof conditions
P41 organise the on-time delivery/despatch of materials/equipment
P42 co-ordinate activities in adjacent/adjoining workplaces
P43 direct the safe dressing of ground
P44 oversee isolation of plant/equipment
P45 complete reports/records to regulatory/organisational requirements

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Knowledge and understanding

Installation and salvage of plant/equipment

You need to know and understand:

K1 statutory requirements and organisational procedures for the installation and/or salvage of plant and/or equipment
K2 statutory requirements and organisational procedures for the inspection and operation of installation and/or salvage equipment
K3 manufacturers' instructions and operational procedures for the use of plant and equipment in your area of responsibility
K4 an appreciation of the main principles of health and safety and environmental legislation and regulations relevant to mines
K5 physical indications of excessive loads on supports (e.g. when rock bolts are used, checks for tell-tale readings and action to take when trigger points have been reached
K6 the need for cyclic and repetitive operations
K7 the main functions within an operational cycle
K8 industrial standards relevant to area of responsibility
K9 organisational procedures to ensure ancillary equipment for moving, lifting or pulling salvage/installation plant are fit for purpose, suitably anchored and safe for use
K10 organisational procedures to ensure, as far as reasonably possible, that the operation of installation/salvage ancillary equipment can be achieved from a safe remote position in line of sight
K11 regulatory requirements and organisational policies and procedures for roof support (temporary/permanent)
K12 the maximum exposed roof dimensions to comply with support rules during the installation/salvage cycle
K13 the type, size and gauge of support systems used in area of responsibility
K14 procedures and methods for dressing ground
K15 the organisational procedures and capacities for logistical supply of materials/equipment to support installation/salvage
K16 regulatory requirements and/or organisational procedures for reporting/recording information
K17 the procedure to be followed to deal with a 'hold-fast' situation (e.g. with conveyor/cutting machine/powered roof support/transport system jammed) giving priority to the safe dissipation of stored energy
K18 organisational procedures in the event of problems/repairs occurring that are not immediately rectifiable

Mine environments

You need to know and understand:

K19 the main principles of health and safety and environmental legislation and regulations relevant to area of responsibility

K20 hazards associated with installation/salvage operations
K21 the geological conditions that would require investigation/rectification/additional support
K22 regulatory requirements, manufacturers' instructions and organisational procedures for the inspection, use and maintenance of environmental monitoring and control equipment in your area of responsibility
K23 environmental approved codes of practice and guidance for working safely during installation/salvage operations
K24 the effect that activities in one area can have on the health and safety of others
K25 how emergency situations can arise during in your area of responsibility
K26 responsibilities of self and others and procedures to follow in event of an emergency situation
K27 the principal regulatory requirements and organisational procedures for ventilation in your area of responsibility
K28 your duty with regard to ventilation system deterioration/failure and/or gas fast situations
K29 the locations within a specific district where gas accumulations may occur
K30 the indications of excessive wall movement
K31 safe operation of portable/fixed environmental monitoring equipment provided at area of responsibility
K32 the use of frictional ignition prevention and gas drainage devices
K33 the statutory duties should 1.25% or 2% general body readings of methane be detected within your area of responsibility (flame safety lamps only)
K34 operational policies and procedures for the maintenance of a safe mine environment e.g. dust suppression, degassing
K35 regulatory requirements and organisational procedures for the control of substances hazardous to health
K36 legislative requirements for coal/combustible dust/stone dust ratios (if applicable)
K37 the terms; quantity, flow, pressure, resistance, volume, and cross-sectional area of airways
K38 organisational standards and procedures to maintain an acceptably clean and tidy workplace
K39 regulatory requirements and organisational procedures for reporting and recording shortfalls in the quality of the mine environment

Equipment and tools

You need to know and understand:

K40 manufacturers' and organisational instructions relating to the use of equipment and tools provided for installation/salvage
K41 manufacturers' and organisational instructions relating to the storage, maintenance and servicing of equipment and tools provided for

installation/salvage

K42 manufacturers and organisational instructions relating to the use of personal protective equipment

K43 legislation and approved codes of practice and guidelines for safe use of gas/dust monitoring, fire detection and ventilation equipment

K44 the limitations/maximum capacities of equipment provided for use in installation/salvage operations

K45 organisational procedures for the inspection of plant/equipment/tools/support systems/transportation systems

K46 organisational procedures to ensure communication systems are inspected / maintained

K47 organisational procedures to ensure safety devices are inspected and maintained

K48 organisational procedures to ensure appropriate equipment (e.g. lifting equipment) is fit for purpose/in date

K49 organisational procedures in relation to equipment that is defective or requiring maintenance/servicing

K50 organisational requirements and procedures for use of personal protective equipment (in general and for specific operations

K51 the types, use and siting of fire fighting equipment

K52 plant/equipment isolation policies and procedures

K53 maintenance procedures for dust suppression systems

K54 methods and procedures to confirm that equipment to be used is fit for purpose and within test date

K55 standards for installation and operation of cable handling/suspension devices and lifting equipment

K56 lubricants and fuels used in your area of responsibility

Working with others

You need to know and understand:

K57 your own responsibilities and the limits of those responsibilities

K58 methods to confirm competence of personnel involved in installation/salvage operations

K59 the allocation of tasks and duties

K60 the benefits of team working and methods to achieve this

K61 statutory and organisational reporting and recording procedures in your area of responsibility

K62 the importance of effective communications

K63 communications systems/procedures in area of responsibility

K64 the personal responsibilities/duties of others in respect of installation/salvage of plant/equipment

K65 the dangers of working in isolation

K66 organisational requirements for recording/monitoring personnel in your area of responsibility

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