

GENERAL PAINTING SPECIFICATION

Painting Work of Industrial Steel Structural Building, Conveyor, Silo, Duct, Bioler, Esp, JNT, Pipe line etc with Cleaning. Contract is for two years, 1st year start from 07.04.2024 to 15.03.2025 for 2.0CrS and 2nd year start from 07.04.2025 to 15.03.2026 for 2.0CrS.

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1 General

This specification the materials, tools, facilities and quality requirement for surface preparation and painting of steel structures, equipment, piping, ducts, etc. in a typical steel making process. The term “painting” or “coating” referred herein covers rust preventive protective coating along with surface protection of the following area but not limited to the areas indicated below-

- i) Structural steel works
- ii) Mechanical equipment
- iii) Electrical equipment
- iv) Pipe & Duct work

The complete paint system for any item includes the following basic activities: -

- i) Proper surface preparation
- ii) Application of the specified number of coats
- iii) Inspection and acceptance

All coating materials used shall be from reputed manufacturers and of approved make. It is recommended that the entire coating system, which may consist of multiple coats of primer, intermediate and finish, be from a single manufacturer. This will ensure that coating adhesion is optimal.

The coating system recommendations described in this document are designed to provide long lasting corrosion protection to structures and equipment. It is intended to minimize the “life-cycle cost” of the coating system keeping in mind factors such as material cost, labour cost, shutdown costs and cost of coating failure (including direct cost such as loss of production and indirect social costs such as health and safety hazards).

2.0 References

The latest editions or revisions of the following references are part of this specification:

2.1 Product Data Sheets

The latest editions or revisions of the manufacturer’s product datasheets shall form a part of this specification.

2.2 Steel Structures Painting Council (SSPC)

SP 1 -Solvent Cleaning

SP 2 -Hand Tool Cleaning

SP 3 -Power Tool Cleaning

SP 5 -White Metal Blast

SP 6 -Commercial Blast

SP10 -Near White Metal Blast

SSPC-PA 1 -Shop, Field and Maintenance Painting of Steel

SSPC-PA 2 -Measurement of Dry Film Thickness with Magnetic Gauges

SSPC-VIS1 -Visual Standards for Abrasive Blast Cleaned Surfaces

2.3 International Standards Organization (ISO)

ISO 8501 Preparation of Steel Substrates before application of paints and related products –

Visual assessment of surface cleanliness

ISO 8502 Preparation of steel substrates before application of paints and related products

Tests for the assessment of surface cleanliness

ISO 8503 Preparation of steel substrates before application of paints and related products

Surface roughness characteristics of blast-cleaned steel substrates

ISO 12944 Paints and varnishes – Corrosion protection of steel structures by protective paint systems

3. Surface Preparation

Surface preparation required for coating application, shall be such as to clean the surface thoroughly of any material which will impede the adhesion of the coating to the substrate. The surface preparation will also result in achieving a surface profile which will maximize the wetting of the coating on the substrate and hence achieve the best adhesion.

The acceptable surface preparation quality / grade are described under each paint system. The procedures include solvent cleaning, hand tool cleaning, power tool cleaning and abrasive blast cleaning. A brief description of the surface preparation methods specified in this document is given below.

(A) Water Jet Cleaning

Water jet cleaning is to be done before surface preparation to remove dust, loose rust scale at a 4000- 5000 Psi.

(B) Solvent Cleaning

Solvent cleaning will be done according to the SSPC SP 1 specification. The surface shall be cleaned by wiping, immersion, spraying or vapour contacting of a suitable solvent or washing with an emulsion or alkaline solution to remove oil, grease, dirt, old paint, etc. Solvent cleaning shall not remove rust, scales, mill scales or weld flux. Therefore, before application of paint, solvent cleaning shall be followed by other cleaning procedures as stated in subsequent clauses.

(C) Hand Tool Cleaning

The surface shall be cleaned manually by vigorous wire brushing as per grade SSPC SP 2. This method effectively removes loosely adherent materials, but would not affect residues of rust or mill scales that are intact and firmly adhere. Finally the surface is to be cleaned with a vacuum cleaner or with clean compressed air or with clean brush. After preparation the surface shall have a faint metallic shine.

(D) Power Tool Cleaning

The surface shall be cleaned by electric or pneumatic tools, such as brushes, sanding machines, disc abrasive grinder, rotary disc scalar etc. to the requirements of SSPC SP 3. The tools shall be used carefully to prevent excessive roughening of surface and formation of ridges and burrs.

This method will

remove loosely adherent materials but would not affect residues of rust or mill scales that are firmly adherent and intact.

(E) Abrasive Blast Cleaning

The surface shall be cleaned by impingement of abrasive materials, such as copper slag, steel shots or grit at high velocity created by clean and dry compressed air blast. This method will remove loosely adherent materials as well as adherent scales and mill scales. Prior to application of blast, heavy deposit of oil and grease are removed by solvent cleaning excessive surface scales are removed by hand tools or power tool cleaning. The extent of removal of adherent scales depends on the application and is defined by the surface quality grades Sa1, Sa2, Sa2.5 and Sa3 defined in the ISO 8503 specification. Abrasive used for blasting should be dry and free from dirt, oil, grease or contamination and have content of water soluble matter not exceeding 0.05%.

4. Paint Application

Paint shall be applied in accordance with paint manufacturer's recommendations. The work shall generally follow the SSPC-PA-1 standard or equivalent.

Whole quantities of all material in each coating system (including primer(s), intermediate(s) and finish paint(s)) shall be from a single manufacturer. Compatibility between the different coats shall be established by the manufacturer supplying the coatings. In the event of conflict between this general procedure on application and the manufacturer's specification, the same shall be immediately brought to the notice of the client. Generally, in cases of such conflicts, manufacturer's specifications/recommendations shall prevail.

If required, samples of paint shall be tested in laboratories to establish quality of paint with respect to:

- i) Viscosity
- ii) Adhesion/Bond of paint in steel surfaces
- iii) Adhesion/Simulated salt spray test.
- iv) Chemical analysis (percentage of solids by weight)
- v) Normal wear resistance as encountered during handling & erection.
- vi) Resistance against exposure to acid fumes, etc.

Other important conditions-

1. The painting material as delivered to the Contractor, must be in the manufacturer's original container bearing thereon manufacturer's name brand and description.
2. Paint/Painting material in containers without labels or with illegible labels shall be rejected, removed from the area and shall not be used.
3. Thinners wherever used shall be those recommended by the paint manufacturers and shall be obtained in containers with manufacturer's name and brand name of thinner legibly printed, failing which the thinner is liable to be rejected and shall not be used.
4. All paint containers shall be clearly labelled to show the paint identification, date of manufacture, batch number, special instruction, shelf life etc. The container shall be opened only at the time of use.
All paints shall be stored in accordance with the requirements of laid down procedure by the paint manufacturer.
5. The proposed make, quality and shade of the paint shall have the approval of the MPL.
6. The colour of the finish paint will be as specified by MPL. Primers and intermediates shall be of dissimilar colours from each other and from the finish paint to distinguish the same from the finishing coat.
7. For special category of painting work- Two component coatings products shall be mixed in the proportions as recommended in the product datasheets. The two parts shall be thoroughly mixed using a mechanical agitator before application. Material should be free from clumps and other imperfections and should be constantly mixed in the pot during the spray application. Once the coating has been mixed, it should be used in the working pot life as recommended in the product data sheet.
8. Each coat must be allowed to cure as recommended by the manufacturer before application of subsequent coats.
9. Application shall be carried out by airless spray, unless otherwise recommended by the manufacturer.

5. Precautions

Surfaces to be coated must have a temperature at least 3°C (5°F) above the dew point, immediately following blasting and priming, and during coating application, and must also remain in this condition during curing of the lining. To achieve this requirement heating/dehumidification may be necessary.

As a guide, relative humidity levels of 40-60% give optimum application conditions, although some lining applications may be carried out between 25% and 85% relative humidity. However, some coatings (such as zinc silicates) may have specific humidity requirements. In such cases, the manufacturer's recommendation shall take precedence. Application in direct sunlight shall be avoided when possible. The interval between blast cleaning and application of the primer shall be minimized and not exceeding 4 hours. Between applications of subsequent coats, a fresh water wash shall be carried out to remove dust and chlorides settled on the surface. The interval between application of one coat and the subsequent coat shall not exceed the maximum over coating interval as specified by the manufacturer.

6. Health and Safety

The aerosol droplets/particulates produced during airless spray of the coating material and the solvent released during application and curing may form an explosive mixture with air and additionally may contain materials which may necessitate personal protection against potential health hazards. A summary of the main precautions to be taken includes:

Attention to the dangers of explosion or fire.

Provision of adequate ventilation.

Ensure that tanks and surrounding areas are flame and spark free.

Provide painters or operatives with the correct respiratory protection.

Ensure correct protective clothing is worn to avoid skin contact.

The safety advice provided is applicable to the surface preparation, application of the coating and inspection. It is not intended to be comprehensive and is a guide based on accumulated knowledge of the hazards involved, the proposed use of safety equipment and evolved safety procedures.

- Full details of the Health & Safety requirements mentioned in the Material Safety Data Sheets of the manufacturer shall be consulted.

7. Inspection

The aim of inspection is to ensure that each coat of paint shall be continuous, free of pinholes and of even film thickness without thin spots.

7.1 Visual Inspection

After completion of the coating application the coated surfaces shall be visually inspected with special attention to the following areas:

- All carbon steel surfaces shall be entirely covered.

- The coating shall be examined for imperfections such as overspray, runs, sags, pinholes, fisheyes, orange peel, blisters, etc.

7.2 Thickness test

The coating shall be tested with a non-destructive magnetic gauge to determine the total dry film thickness (DFT).

7.3 Inspection by respective site-in-charge

The coated surfaces shall be accepted only after inspection by the MPL Engineer. Quality control inspectors appointed by the MPL have the right to inspect, accept or reject the coating and the applicators facilities.

7.4 Repairs; - if a surface defect in the coating is discovered, the defect shall be buffed out and the coating shall be repaired by spray or brush application. If a pinhole is discovered, it shall be repaired by brush application. The repaired areas shall then be cured and inspected as described above.

WORK DESCRIPTION FOR PAINTING JOB AT DIFFERENT STRUTURES

A. Each stage of the project, including preparation and clean-up.

Job Step

1. Project briefing & work scope discussion by Project Manager. All job to be executed as per BOQ.
2. Site Specific induction completed by all technicians involved in the planned scope of works. Confined area job to be informed and planned properly before execution.
3. Confirm scope of works with clients on site representative.
4. Visual inspection of work site in form of a „walk round by all team members. Locating of emergency exits and relevant emergency equipment.

5. Review of Work Method Statement and Job Safety Analysis (JSA) by all parties involved
6. Identify the work space. Erect barriers where required to indicate work and exclusion areas.
7. All MTC to be provided by the agency for Payment of RA Bills. Equipment storage area is established
8. **Any deviation from the quality of the said job will attract penalty of 20%.** Pre-project equipment inspection PPE assessment by Level 3
9. Arrangement for rescue related equipment identify the location for rigging
10. Check communication system
11. Agree upon and use standardized communication. Signals Review hand signals (as appropriate)
12. **All paint to be used for the job must be Burger, Asian Paint & Nerolac.** Also, the color should match will the existing structures. **Defect Liability (DL) period will be 18 months from the completion of Job. PBG will be cleared only after DL period is over.** MPL may engage the other contractor at the cost and risk of existing contractor, if the assigned work is not carried out quickly and effectively. Two times the cost of the work will be recovered from the contractor's RA bill. The contractor will be given 07(Seven) days' notice Period before engaging such agency
13. Weather conditions will be assessed by the Rope Access Supervisor. This will include rain, storm, and wind speeds. This will give the supervisor both a maximum reading and an average wind speed. This will be ongoing throughout the program of works.
14. Confirm appropriate access and egress arrangements are in place if not make arrangement for that. **Also, use of Double Safety Net to be done at place wherever it is possible.**
15. Technicians must access top side of the Structure while using a work restrain, fall arrest or installing a safe line system.
16. Identify the suitable anchor point for rigging ropes, Ensure that minimum breaking strength of 15kn as per the IRATA standards.

17. Using safe line or fall restrain system anchor the ropes for work access. Ensure that all anchor point is suitable for work positioning system & RESCUE (15kn MBS).

18. Installed a hauling & lowering system right above the work area with using of 3:1 or 6:1 system ensures that 15knMBS of every anchor point.

B. Rope Access Team for Painting Of High Rise Structures

1 Senior Technician (IRATA Level 3 Safety Supervisor)-

Team leader capable of site supervision for rope access work projects; conversant with relevant work techniques and legislation, able to demonstrate all the skills and knowledge required of same job, have a comprehensive knowledge of advanced rescue techniques, hold an appropriate current first aid certificate, to show that suitable emergency first aid training has been undertaken.

2 Assistant Technician (IRATA Level 1/2) painter -

Assistance to Site Supervisor Rope access technician capable of rigging working ropes, undertaking rescues and performing rope access tasks, carrying out

3 Equipment

All equipment, particularly the rope, should be selected to ensure that it is fit for the intended purpose and compatible with other key elements of the rope access system. All fall arrest, fall restraint and work positioning equipment used for safe worksite access.

4 Standards

All rope access equipment used shall meet the standards as detailed in the IRATA International ICOP, IRATA TACS or local and international safety standards and requirements, as a rule the Company follows the range of European Standards (EN), International Standards (ISO), and British Standards (BS). In some circumstances the American Standards (ANSI)

5 Equipments

1. Fall Arrest and Work Positioning Harness. EN 361, EN 358, EN 813, EN 12814 type B
2. Petzl Work at Height Helmet. EN12492,
3. Industrial Cows Tail Rope. EN892
4. Croll Ascender. EN12841 type B, EN 567,
5. Petzl Progress Lanyard EN 354
6. D Screw gate Crab EN 362
7. Descender. Petzl ID EN341 Class A, EN12841 type C
8. Descender. Petzl Rig EN12841 Type C EN314 Class A
9. Backup Device. Petzl ASAP EN 353-2, EN12841 Type A.
10. Shunt Backup Device EN 567 type A
11. Ropes. Low Stretch conforming to EN1891 type A
12. Sewn Sings Conform to EN 566, EN 795

13. Wire Anchor Strop EN 795.

C. Work at Height System

1. Fall Protection System

There are three categories of working at height equipment and its application:

- 2. Work Restraint.** Stops the person reaching to the fall zones where the risk of a fall exists.
- 3. Fall Arrest.** Full arrest equipment includes full body harness and shock absorbing lanyard that limit the fall on acceptable level.
- 4. Work Positioning.** Work in tension or suspension. Working line always in tension all fall kept as minimum there for risk of fall is almost removed.

D. Work Restraint

- a) Work restraint is the utilization of safety equipment that prevents movement toward an area where a risk of a fall exists.
- b) Is designed to allow access to work areas, without encountering risk of a fall
- c) Is designed to prevent personnel falling from a fall zone, and in many cases prevents a person from entering the fall zone
- d) Fall Restraint equipment includes a full body harness and a fixed length lanyard
- e) Only one point of attachment at any one time is required for this system. Note the safe lines (lanyards) in tension.
- f) If a fall from the fall zone is possible, then this becomes a Fall Arrest System, and an energy-absorbing system should be incorporated

E. Fall Arrest

- a) The fall arrest system is designed for access where the equipment utilized will not prevent a fall
- b) But will minimize the impact of a fall and minimize the risk of injury should a fall occur.
- c) In such cases it is necessary to select the appropriate fall arrest equipment.
- d) The choice of suitable harness and lanyard is critical and must limit the impact force to a maximum of 6kN.
- e) Typically this will include a full body harness that meets the requirements of EN 361 for fall arrest harnesses, an energy absorber conforming to EN 355.
- f) Double lanyard system to allow forward progression through structure, without disconnecting from the structure.
- g) When using dynamic rope lanyards, these lanyards should conform to EN 354.

F. Work Positioning

Following the installation of the rope system by the Level 3 Safety Supervisor each technician will position himself at the various work site locations using regular rope access techniques

i.e. ascending and/or descending the fixed rope. These techniques will be conducted as per Rope Access Procedure.

Each worker will operate on two independent rope systems, that is, one working rope and one back up or safety rope. These ropes will be anchored directly to the structure by means of rated slings and steel connecting devices passed through or around major structural components. The ropes will be positioned in such a manner that they are not running directly over the work location but set to one side to assist in access to the work location. Will comply with all International Guidelines as laid down by the Industrial Rope Access Trade Association (IRATA) that are attached overleaf.

G. Anchoring System

A rope access system consists of an access (sub) system and a back-up (sub) system, which are used together. The access system provides the primary support for access, egress and work positioning. It comprises a working line and descending and ascending devices, which are attached to the working line and which are always connected to the rope access technician's harness.

The back-up system provides security additional to that provided by the access system, e.g. should there be a failure of the access system. The back-up system comprises a safety line and a back-up device, which is attached to the safety line and which is always connected to the rope access technician's harness. This system of double protection, which was developed by IRATA International, is one of the key elements of a safe rope access system

1. Double Protection Principle

The principle of double protection also applies to the attachment of rope access technicians via their anchor line devices to the working line and safety line and to any anchors by their anchor lanyards. For example, descending devices and back-up devices should be fixed to the rope access technician's harness with separate connectors, in accordance with the information supplied by the manufacturer. (It is not necessary to wear two harnesses).

H. General Tool and Load Management

The following guidelines must be considered and implemented while working with tools and loads:

1. Ensure the use of tools and the management of the loads are Compatible with rope-access systems.
2. Consider the hazards introduced to workers, other personnel, the public, and surrounding structures. Use proper methods to mitigate these hazards.
3. Follow applicable standards for managing electrical tools and hazardous materials.
4. Small bolts, nuts, and other materials should be contained in a suitable bag With a secure zip or drawstring closure.
5. All other tools and materials must be tethered regardless of weight.
6. All items heavier than 8 kg must be supported by an additional work line.

I. Operation

Wherever possible, Team Leaders should attend a pre-job briefing at the office to discuss the work scope with the Project Manager prior mobilization to site.

On arrival at site, ensure your team completes all necessary registrations, site inductions etc. Report as soon as possible to the designated client representative to discuss the work scope. Keep him informed of work progress, delays etc and ensure he is happy with the work carried out.

Ensure a safe and effective interface is maintained between work activities and any other site operations. This should include organizing lines of communication between worksite and control room, arranging for the loan of radios when required.

Ensure that all equipment and materials required for the project are available prior to beginning the work

J. Work Permits

Work permits to be issued prior to commencing any operations, the Supervisor should ensure a permit is applied for in good time to avoid delay. It is important that work permit regulations are carefully followed, for operations that require Hot Work permits. These permits should include all plant, tools, safety equipment etc. to be used. Any equipment not included on the permit must not be used until the permit is changed to include it.

K. Team Briefs

A team brief must be held before commencing work. Points to be discussed should include as a minimum:

- ☑ Work scope
- ☑ Work Permits
- ☑ Hazard Assessments
- ☑ Safety & Standby Requirements
- ☑ Rescue Systems
- ☑ Task Designation

L. Safety

On arrival at site the Supervisor will carry out an assessment of the work requirement in relation to the job site, completing a Hazard Assessment Report. On demobilization from site, completed reports must be returned to the office.

Ensure all warning signs and barriers are in place and that the worksite remains safe ask for the control room to any announcements.

Following completion of the Hazard Analysis Report, the Supervisor will supervise the preparation of the work site and the layout of rope systems and anchor points, ensuring that personal access equipment is checked by the user and at least one other team member. Plan a recovery/rescue system to suit the job site and ensure all team members know how to use it. Check for any potential hazards in work, including the areas above and below the worksite.

Arrange a 'weather watch' when required (e.g. for splash zone work) to monitor the weather and its effect upon personnel, equipment and the worksite.

If potentially hazardous tools are to be used (e.g. grinders/burning torch) the Supervisor must ensure that all personnel know how each is safely operated and, where practicable, have been trained in their use.

If the Supervisor thinks any situation is unsafe, he has total authority to stop operations until he considers the situation to be safe.

M. Standby/ Rescue Requirements

General guidelines for Standby/Rescue cover allow one man (usually the Team Leader) who is trained and practiced in advanced rescue techniques to oversee two technicians engaged in rope access work at the same time, only where the following conditions can be met:

- ☑ All Technicians can work together.
- ☑ Both Technicians can be clearly seen from the Standby man's stance.
- ☑ Clear communication can be maintained between Standby man and Technician.
- ☑ The means of evacuating an injured technician or technicians is straightforward and can comfortably be achieved by the Standby man, unaided if necessary (i.e. a direct haul from above using a mechanically advantaged pulley system).

If the work location is such that each of these conditions cannot be met then an extra team member will be required, or one Technician may be engaged in rope access work at any given time and the functions of Standby/Rescue will be fulfilled by the Supervisor and the remaining technician.

The standby man is also required to post warning signs and barriers to prevent unauthorized entry to the worksite and interference to anchors, ropes and rigging equipment.

N. Rescue Principles

Prior to the commencement of any work, the requirement for rescuing any personnel that may become injured should be addressed by the Project Supervisor and a Job Safety Analysis carried out. It is the Project Supervisors duty to then to adopt the most suitable rescue procedure taking into account the following criteria.

- ☑ Notify the Client Health and Safety Department/Emergency Services, that an incident has occurred and a rescue is required
- ☑ All personnel involved are fully briefed and competent
- ☑ Personnel do not endanger themselves while carrying out the rescue
- ☑ The assembled rescue team is quickly briefed

- ☑ Casualty management is taken into account and there is no further injury to personnel
- ☑ The rescue is fast thus avoiding the problems of toxic shock and suspension trauma
- ☑ Evacuate the casualty to a safe location where suitably qualified persons can administer further first aid treatment

In certain situations, if access to personnel would take considerable time, then the rescue system may have to be pre-rigged and attached to the technician prior to the commencement of job. Prior to the commencement of any rescue the IRATA level III must assess the situation fully and attempt to communicate with the supposed casualty to determine their condition and whether or not any rescue is required. The main principle in rescue is not to worsen the situation by causing further injury to the casualty or endangering any of the personnel involved.

O. Snatch Rescue

1. Position yourself in descent mode above the casualty, using the casualty's safety rope as you're working line, and with your back-up device attached to the casualty's working rope.
2. If descending to the casualty, and if the safety rope is loaded, 'reverse prussik' down the rope.
3. Upon reaching the casualty, lock off your descender.
4. Attach an initial safety line (cow's tail) to a main rigging point on the casualty's harness.
5. Place the casualty in as near an upright position as possible without endangering the casualty further. This may be achieved by temporarily placing a loop of a tape sling or cow's tail, from the sternal rigging point, around the back and over the shoulder, attaching to the front of the chest harness or sternal point.
6. The rescuer should consider the ABC of first aid (Airway, Breathing, and Circulation), and deal with the casualty's condition in the strict order of: Breathing, Bleeding, and Bones. Typically, a descent rescue is very quick and the rescuer should determine if it's better to attend to initial first aid once the casualty has been lowered.

7. Make a short attachment from your descender device carabiner to sternal rigging point, to the top of the casualty's chest ascender or sternal attachment point. Use a short sling or chain of 2 or 3 carabineers. This short ling will eventually support the casualty weight in a near upright position.

8. Remove the casualty's back-up device from the rope.
9. Operate the casualty's descender to lower him/her onto the short sling or chain of carabineers before removing his/her descender device.
10. Add an additional friction carabiner to your side rigging point or use casualties sternal D-ring and place working line through that carabiner.
11. Unlock descender in a controlled manner avoid any jerky movements that could shock load the system for good casualty management.

12. Do not descend while holding the backup device. Descend a short distance and then lower the backup device separately.

13. All care should be taken with the casualty if suspension trauma is suspected.

These types of rescue systems would be for situations encountered when working on bridges or overboard work on FPSO vessels (Floating Production Storage and Offloading *vessels*), drilling platforms etc, where the casualty must be lifted, or lowered, to a safe position. The main advantage of these systems is that they are remotely operated, meaning that the rescuer does not have to directly access the casualty, thus lessening the chance of endangerment. All these systems require extra rescue equipment including ropes, descenders, ascenders, pulleys, carabineers, and anchor systems. In all these systems the initial part of the system must contain a self-locking system, whether that be an ascender/pulley arrangement or a descender, so should the rescuer let go of the system the casualty does not fall. Equipment Required 3:1,6:1OR 9:1 Pulley system

P. Individual Responsibilities

All personnel are legally responsible for their own safety. Technicians are to maintain an alert state, and safe work procedures must be always followed. Additionally, each technician should check the equipment of his colleague (buddy check) as an additional safety check. Each technician is to inspect his or her personal equipment daily. Particular attention should be paid to soft items in the individual's kit such as the harness, soft slings, and cows-tails. This inspection shall be carried out in accordance with the Rope Access Equipment Management Procedure. Personnel should be aware of potential hazards on the work site. Unguarded edges should not be approached without being attached to a rope or safety line. As a rule, the technician should not approach closer than 2.5m from such a hazard. The technicians should be aware of any other parties working either above or below them and the other parties alerted to the presence of operatives in the area. All safety connections should be double checked before commencement of work. Extra caution should be taken in offshore and marine environments where surfaces are more likely to be slippery due to oil or water.

Q. Communications

An efficient communications system should be established between all rope access technicians and, where necessary, third parties (e.g. sentries, facility management, control room, etc). This should be agreed and set up before work starts and should remain effective for the whole of the project.

R. Personal Protective Equipment

General Issue

- ☒ It is ensure all employees are adequately protected at their place of work.
- ☒ Items issued as standard may include hard hat, overalls, safety goggles, safety boots, ear defenders and gloves. All items of PPE meet the relevant British Standards, or equivalent.
- ☒ Personnel who must wear prescription spectacles at their place of work will be issued with prescription safety glasses.
- ☒ It is the responsibility of the individual to keep his PPE in good order and to use it correctly.













