

Safety Guidelines for Repair & Maintenance Contractors for Railway Track Maintenance

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Objective

Objective of this document is to mandate the Safety guidelines and good practices to be followed during maintenance of Railway track Pipavav Port siding.

Scope

This Code of practice sets out the mandatory guidelines for contractor and contractual staffs engaged in Railway track maintenance under GPPL supervision and control. This document does not cover the activities carried out by Railway department and not under supervisory control of GPPL.

Disclaimer

This is not an absolute guideline and contractor/s using this guideline to ensure that they periodically upgrade the knowledge and skill of their staff and ensure that best practice shared by port and other best practices gathered by contractor from other industries/sources may be adopted to create a safe working environment at their work site.

Responsibilities

Engineering department and Contractor shall be jointly responsible for the safety and security of his employee, visitors, assets, environment etc at the Urea Shed.

Contractor: The person, entity or organisation who is executing the job for APM Terminals under a contractual agreement and will be responsible for the following:

- To follow all APM Terminal Safety Procedure, Rules and guidelines issued with the contract.
- Undertake job as per Standard Operating Procedure (SOP) and Risk Assessment (RA) agreed with APM Terminals.
- Raise any concerns with regard to their work and its safety with the APMT Manager.
- Report all injuries, near misses, unsafe acts/conditions, and occurrences to the APMT Manager immediately.
- Ensure that all sub-contractors follow the APMT Safety Procedure and agreed Site Safety Management Plan.
- To follow all statutory requirements as per the laws of the land.

Applicability of Licenses/Permit

Contractor should obtain all the applicable statutory licenses and permissions for the area and activity being undertaken by him.

Contractor should periodically check and verify the validity of the licenses and permission obtained from the statutory authorities.

Recommended Safety Standard/Procedures

Safety Training for employees of the Contractor

- Contractor should ensure that
 - All employees undergo Port Safety Training before entering port area.
 - All employees are carrying valid Port Safety Pass at all times.
- Before start of any job, Contractor should train all employees. The content of the training program may include the following:
 - Use of personnel protective equipment (PPE) in general and any special PPE specific for a particular job.
 - Emergency preparedness plans specific to job site.
 - procedures relating to Port Permit to work systems
 - Safety standards and procedures for carrying out the high-risk jobs.

- Special precaution specific for a particular site based on its hazard perception.
- Hands on training for use of PPE and fire extinguisher.
- First aid

Maintaining Records

- Contractor should maintain records of:
 - Railway safety schedule inspection by Railway authorities
 - Inspections by Port
 - Employee database
 - Employee working hours
 - Employee Training records
 - Incident and accident
 - Health Register
 - Leave and Leave with wages Register
 - Overtime Register etc.

Personal Protective Equipment

- All necessary personal protective equipment (PPE) as mandated in Port (Safety Helmet, High Visible Jacket, Safety Shoes) and specific to job requirement like – Respiratory protection equipment, welding visors, full body harness, safety Goggles & Gum Boot Etc. should be kept available for the use of the persons employed at the site and maintained in condition suitable for immediate use.
- PPE shall be conforming to BIS/DGMS/DIN specifications, in good condition and shall be comfortable to his employees, when used
- Employees should be trained on the selection and use of personal protective equipment.
- Contractor should provide boiler suits (Preferably Blue colour with reflective strips) of appropriate size and high visibility to all the workers
- Contactor should also provide adequate Seasonal wears (rain/winter) to their workers.



**HIGH VISIBILITY
JACKET**



**SAFETY
HELMET**



**SAFETY
SHOES**

Reporting of Incidents

- Contractor should report all cases of injury (including first aid) and near miss incident to the contract owner/in-charge and Port HSE officer immediately after the incident.
- Contractor should investigate all the incident occurred at site and may submit the investigation report to Port for information.
- All incidents of fire shall be immediately informed to Port Fire station.
- Emergency phone numbers of Port Fire station, Security and Contract owner/in-charge should be displayed at prominent place at work site.
- It is Contractors responsibility to report the Incident to appropriate authorities as per applicable laws and regulations.

Assessment of HSSE Performance

- Contractor shall be assessed for HSSE performance twice in a year by the Operations Department and HSSE Department.
- For the measurement of HSSE performance following key performance indicators should be considered
 - Proactive
 - Reporting of Unsafe acts/conditions.
 - Reporting of Near misses
 - Nos of Training
 - Reactive
 - Incident Statistics
 - Nos of Non-Compliance reports

Safety Committee Meetings

- The contractor should attend monthly Port Safety committee meetings and encourage his workers for participation.

Daily Tool Box Meetings

- A Toolbox meeting is an informal safety meeting that focuses on safety topics related to the specific job, such as workplace hazards and safe work practices.
- Toolbox meeting should be short and are generally conducted at the job site prior to the commencement of a work shift.
- A record should be maintained of what discussed and who attended the tool box meeting.

Selection of Workers

- Contract Workers should only be engaged following an appropriate selection process, in accordance with Local & national legislation.
- Any person should not have employed in port work under the age of 18 years.
- Preferable Age limit should be in between the age of 20 to 60 years and age relaxation may be allowed in case of highly experience and skilled person.
- The criteria for selection should include the following, which are essential for safe Railway-track maintenance activity:
 - a) A worker needs to be physically capable to perform the job assigned;
 - b) Good eyesight;
 - c) Good hearing;
 - d) Normal reflexes;
 - e) The ability to comprehend and communicate in the working language of the port;
 - f) The ability to follow safety instructions.

Whereas Point a, b and c are covered under Pre-employment health check-up, contractor needs to ensure that he is verifying the other capabilities by assessing the worker.

- Contractor Employee qualification, skill and Training
 - Staff deployed for all the job should be duly qualified and skilled for the responsibility.
 - The contractor should provide a program to train all staff on the safety procedures to be followed.
 - The contractor shall assure that no staff doing repair / maintenance work unless the staff has been trained and instructed in correct procedures work.

Health and Medical Check-up of Manpower

- Contractor should ensure that all contract employees undergo pre-employment fitness examination & produce Medical Fitness Certificate as per applicable laws and regulations.
- Contract employees completing Twelve months or earlier (if required) should undergo periodic medical examination.
- Solvents should not be used to wash hands and/or cloths by employees. Contractor should provide hand wash and cleaning facilities
- Contractor should maintain and promote good hygiene at the work area.

Transportation of manpower

- Contractor should arrange safe transportation facility for their staffs up to designated work area.
- Contractor should strictly follow Port Traffic rules during transportation of staffs.
- Contractual working staff may use Port shuttle bus services for internal movement. Pedestrian movement is allowed only as per the Port Traffic Zones.

Fire Safety

- Contractor shall engage only the trained and experienced person to handle Compressed Gas cylinders/inflammable liquid and substances.
- Contractor shall ensure that their manpower is trained on basic fire safety and operation of Fire extinguishers.
- The Contractor should provide appropriate type/size of Fire Extinguishers and Fire Buckets at work site as per the inventory of hazard and potential risk.
- Contractor should ensure fitness of all the emergency response equipment by regular inspection, maintenance and should keep a record of same.
- Contractor should not build any temporary combustible structures near or around the work site.

Safe Procedure for Railway track maintenance work

- Work shall be done by the Railway Certified contractor/subcontractor only.
- Contractor/subcontractor shall comply and follow **INDIAN RAILWAY PERMANENT WAY MANUAL** Second reprint 2004 and further amendments.
http://www.indianrailways.gov.in/railwayboard/uploads/codesmanual/IRPWM/PermanentWayManual_index.htm
- Contractor shall work in close coordination with Yard Master for the railway traffic management in the area of work.
- Contractor shall work in close coordination with Port stakeholders for the road traffic management in the area of work (if required).

Safe Use of Tools and Tackles

- Contractor should ensure that sufficient number of good quality tools required for the work are made available to workers.
- The tools and lifting tackles should be inspected periodically and records of inspection maintained by a responsible person.
- Ensure that hand tools are fit for purpose
- Defective tools or tools having mushroom heads or tools having cracked or broken handles or improper fittings etc. should never be used.
- Wrenches and Spanners should be kept in such a condition that they will not slip.
- Tools should not be used for purpose other than for which they are designed.

- Tools and materials should not be left in elevated positions if there is possibility of their falling or being knocked off.
- Tools or equipment should not be dropped or thrown from one level to another at any time.
- All portable power tools such as Drills, Grinders, Saws, hydraulic press, welding machines etc. which are operated electrically should be thoroughly inspected before making use of them.
- Power tools should be used with all the OEM provided guards and safety systems. No changes to be made into any of safety provisions of the equipment.
- The ground wire provided to the electric tools should be checked.
- Insulation of the cables and the chords must be intact. There should not be any joint and exposed live parts of the cables, chords or on the tools.
- Sharp tools like chisel, knives etc. should be provided with casing.

Hot Work

Any work that creates an ignition source. Hot work includes but not restricted to welding, gas cutting, burning, grinding and brazing.

- All welders shall be provided with fire resistant protective clothing and equipment, such as fire-resistant gauntlets (gloves) and aprons, helmets and goggles with suitable filter lenses and its usage shall be ensured;
- The welders shall not be allowed to wear clothing that is not free from grease, oil and other flammable material;
- Adequate precautions shall be taken to protect persons working or passing near welding operations from dangerous sparks and radiation;
- Remove all combustible materials from the location. Where it is not practical to remove, combustible materials should be suitably covered or wetted with water.
- The area in which hot work is to be carried out must be certified as being free of flammable mixture or vapours.
- Repair or Maintenance on equipment handling fertiliser should exclude, as far as possible, operations using heat, such as welding, cutting and grinding, unless under strict control
- These operations should only be carried out after proper cleaning and inspection of hoppers or equipment [in hollow sections] and a strict procedure must be in place to ensure proper cleaning.
- This storage and handling equipment may contain, or may be coated with, fertiliser residues which can be easily overlooked. On heating, the fertiliser residues produce gaseous products some of which are toxic
- Hot work should be avoided close to stacking / storage of empty plastic bags
- Reduce the travel of sparks and hot parts using physical barriers like fire resistant tarpaulin/fabric/ceramic clothing/GI sheets.
- Protect trenches and sewers, floor openings with a non-combustible material to arrest spatters.
- All electrical equipment like welding machine, grinding machine should be certified and connected through ELCB.
- Fire watch is must for the critical area (fuel storage, cargo storage, liquid cargo area etc). Fire watcher should monitor for at least 30 minutes after the hot work.
- Provide portable Fire Extinguishers at site.

Compressed Gas Cylinder Handling

- Gas cylinders shall be inspected, stored, handled and transported in conformity with the requirements of Gas Cylinders Rules, 1981
- Gas cylinder should be stored in cool place, vertically and secured;
- Filled and empty cylinders should be kept separately;
- Handling of Gas cylinder should be done on trolleys, secured with chain;

- Ensure valve protection cap is applied on cylinders;
- Use Flashback arrestors fitted with torch & cylinders.
- Hose connections should be made with proper clamps;
- Damage hose should be immediately removed;
- No oil or grease should come in contact with Gas Cylinders;
- No gas shall be taken from a cylinder unless a pressure reducing regulator has been attached to the valve;
- Only the right pressure reducing regulator shall be used for the gas in the cylinder;
- Check for the due for pressure testing date of LPG Cylinder.

Lifting & carrying of excessive weight

No worker lifts by hand or carries overhead or over his back or shoulders any materials, articles, tools or appliances exceeding in weight the maximum limits as set out in the Gujarat Factories Rules, unless aided by any other building worker or a mechanical device;

Working at Height

Describes any activity where there is a risk of injury from falling. This applies to situations, but is not restricted to, people performing work in an area with a potential fall distance of 6 feet or more.

- Elimination and fall prevention measures should be prioritized over fall protection/PPE
- Check all your equipment is OK and correctly fitted before you start working at height. If in doubt ask your Supervisor
- Contractor should assure that only medically fit person should perform work at height
- Personal protective equipment and required tools should be available to carry out work at height safely.
- Safety nets may be used as additional fall protection system, it should be installed as close as possible to working level.
- Contractor should assure that all the ladders and other working platform in the working area should meet the industry standards and non-standard or damaged ladders and working platform shall be disposed immediately.
- Bamboo ladders or scaffolds shall **NOT** be permitted for working at height.
- Ladder shall be used for work at height only if the use of more suitable access equipment is not justified because of the low risk, the short duration of use or existing features on site which cannot be altered.
- All precautions necessary for working with ladders (e.g. surface, ladder angle, prevention of slippage of ladder) shall be followed.

Housekeeping

- It will be contractor's responsibility to keep his working area clean.
- Contractor should assure that:
 - at all times keep his work spot, site office and surroundings clean and tidy from rubbish, scrap, surplus materials and unwanted tools and equipment.
 - No materials on any of the sites of work should be so stacked or placed as to cause danger or inconvenience to any person or the other people working in area.
 - Incompatible materials should be stored separately with sufficient safety distance/barrier.
 - Proper lighting in working area.
 - Floor to be dry and free from slip, trip and fall hazard.
 - Emergency exit marked and free from obstruction.
 - Firefighting arrangements in place.

- Working area should always be kept clean and free of any hazard which may result into an accident.
- Waste generated from the work place should be disposed as per port garbage management system



COLOR CODED GARBAGE BINS

Guidelines for Emergency

- Do not panic
- Switch off the equipment
- Raise the alarm by public address system (PA)
- Evacuate the area by following escape routes
- Assemble at the nearest assembly point (emergency assemble point is available both side of fertilizer shed)
- Contact port emergency no – 9924 333 333
- Stay calm at assembly point until all clear declared

