



CRH Life Saving Rules



Risk Assessment



Equipment Safety



Isolation of Operating Machinery and Electrical Safety



Machinery Guarding



Confined Space Entry



Working at Heights



Lifting Operations



Underground and Overhead Utility Dangers



Use of Personal Protective Equipment (PPE)



Safety of Materials Under Pressure



Blasting Operations



Work Zone Safety



Employee Engagement



Contractor Safety Management



Risk Assessment

- Each company must have a policy in place and it must be communicated to all locations **D**
- Policies must specifically address non-routine tasks, work carried out by contractors and temporary employees, construction work and off-site delivery procedures **P**
- Each company must have a process in place to evaluate activities identified as having increased risk **D**



Equipment Safety

- Each location must have site transport rules in place, that at a minimum, address: **D**
 - Vehicle-pedestrian segregation
 - Edge protection for slope/benches
 - Driver training rules and assessment
 - Vehicle rules for speed limit and visual/audible warning systems
- All drivers must be trained and regularly assessed, this includes completing daily pre-trip inspections for company vehicles used on and off-site
- A mobile electronic device usage policy must be in place **P D**
- All loads must be secured and within weight limits
- Seat belts must be worn by all drivers on-site and off-site



Isolation of Operating Machinery and Electrical Safety

Lockout/Tagout/Verify

- Each location must implement and train employees based on a Lockout/Tagout/Verify policy **P D A**
- Each machine component must have machine-specific written procedures for the safe Lockout/Tagout/Verify isolation of energy sources and all authorized employees must be trained **D A**
- All authorized employees must be observed conducting a task involving Lockout/Tagout/Verify at least annually by an authorized and designated competent employee to ensure system isolation of energy sources as per policy **D**
- All machine-specific procedures must be inspected for correctness to ensure equipment additions and/or changes have been reviewed and implemented at least annually **D**
- Written procedures should be developed for Close Proximity Maintenance (CPM) tasks which include a Job Safety Analysis (JSA) outlining the planned CPM procedures
- Sufficient numbers of locks, tags, hasps, etc. must be maintained on-site to conduct all anticipated maintenance activities **A**
- Electrical and machine/equipment switches cannot be locked in an “ON” position

Electrical Safety - NFPA 70E

- Arc Flash surveys must be completed by a qualified person for each facility with the corresponding electrical labels installed
- Prior to starting work, all electrical contractors must provide a letter of certification confirming that the attending electrician(s) are properly National Fire Protection Association (NFPA 70E) trained to work around the respective voltage
- All employees who troubleshoot electrical systems, perform voltage testing, operate circuit breakers with covers off or are otherwise exposed to live or potentially live circuits have must be trained in NFPA 70E
- All qualified and/or affected employees must wear appropriate arc-rated Personal Protective Equipment (PPE) during electrical tasks
- All authorized employees and contractors who work on electrical equipment must perform Lockout/Tagout/Verify on the energy source and verify disconnection through use of a voltage tester



Machinery Guarding

- Each location must maintain a system for regular checking of machinery guarding
- No machinery can be operated without all tail pulleys, pinch points, exposed shafts and exposed moving parts properly guarded
- Pad-mounted electrical transformers, tanks, tank and containment valves, gas lines, gas containers/cylinders must be located away from travel ways and adequately protected by bollard, barrier or other measures so they cannot be struck by trucks and/or mobile equipment
- Conveyor return rollers within 7-feet of the ground (or an adjacent working surface) where workers may work or travel under the belt must be guarded
- Guards must be secured in a way that a tool is required to remove them



Confined Space Entry

- All locations must have a confined space entry policy and supporting rules and safe entry procedure for each confined space identified on-site **D**
- Employees must seek prior authorization to enter a confined space, and each location must have safe entry procedures for confined space entry **D**
- All affected employees at each company location must be trained in confined space entry rules
- All permit-required confined spaces must have signs posted at the entryway indicating “Permit- Required Confined Space – Do Not Enter”
- Permits must be used for safe entry into permit required confined spaces, including but not limited to, baghouses, cold feed bins, mixer drums, tanks, silos, etc.



Working at Heights

- Each location must have a Fall Protection policy in place and posted **P D A**
- All employees who may work at heights must be trained in the Fall Protection policy, as well as all applicable means and methods, for preventing falls at their location **D**
- A fall hazard risk assessment must be conducted whenever employees are exposed to non-routine fall hazards and require fall protection beyond what is outlined in the Fall Protection policy
- Employees should be aware of the various tools and devices that can be used to help them achieve 100% fall protection such as fall protection systems, retractable lanyards, beam straps, double lanyards, etc. and these devices must be available
- Fall harnesses/lanyards inspections must be conducted as per manufacturer specifications **D**
- A “ladders last” approach must be always applied
- All ladders must have a visible capacity rating, be in good condition and be used appropriately
- “Three Points of Contact” stickers or signage must be positioned at ladder ways or access points of all plants and mobile equipment



Lifting Operations

- Employees using lifting devices of any capacity (including excavators and loaders) must receive training from a designated competent person in the use of each specific device (including rigging and lifting)
- Specific areas must be designated as “out of bounds” to personnel when lifting operations take place
- All lifting equipment and implements (straps, cables and chains) must have their safe working load limit identified on the lifting device
- If chains are used for lifting, they must be visually inspected before each use and monthly thereafter with a documented inspection record which includes the date of the inspection, the signature of the person who performed the inspection and an identity of the chain that was inspected **D**
- Never use chains to tow vehicles or equipment (i.e. stuck in the mud) – use tow ropes, recovery straps or other devices of sufficient strength designed for this purpose



Underground and Overhead Utility Dangers

- Risk assessments for underground and overhead work must be in place **D**
- A site survey for utility lines and underground pipes must be conducted before work is carried out on a project **D**
- All employees and operators should stay a minimum of 10-feet away from power lines and spotters must be used in situations where power lines are nearby to observe and warn operators



Use of Personal Protective Equipment (PPE)

- A PPE policy must be in place for all areas of operations/tasks **P D**
- Daily visual inspections of PPE use must be carried out at each location
- No employee or contractor will be permitted to work without the required PPE



Safety of Materials Under Pressure

- Employees must be trained on all applicable safe operating procedures (i.e. loading/unloading)
- Regular checks of pressure relief systems on pressurized conveying systems must be conducted by a designated competent person **D**
- Compressed gas tanks must be separated and stored properly
- Compressed air must not be used for cleaning (personnel or clothing), compressed air used for cleaning other surfaces or objects must be regulated down to less than 30 PSI
- Pressurized systems must be fitted with proper relief systems including check valves, etc.



Blasting Operations

- A Blasting policy must be implemented **P**
- All employees on-site must have training on the site-specific blasting rules **D**
- All personnel carrying out blasting operations must have training **D**
- Blasting records must be maintained
- Pre-blast reviews must be conducted **D**



Work Zone Safety

- All work zone personnel must be properly trained for their specific roles and all work zone employees must receive work zone awareness training
- A copy of the most current Manual on Uniform Traffic Control Devices (MUTCD) state/local/project specific traffic control standards must be readily available for review on all projects **A**
- All reverse systems, echo location systems, back up alarms (including those of contractors) must be working properly
- An Internal Traffic Control Plan (ITCP) must be created and be in use to minimize backing and control internal movement of equipment, vehicles and personnel
- Employees must be aware of the 10-foot rule when working around/operating equipment
- All road crews must have knowledge of and understand the Backer Spotter policy **P**
- Maintenance of Traffic (MOT) personnel and flaggers must be trained according to their duties
- All equipment must be outfitted with sufficient retro-reflective tape that can be seen at night, the tape must be clean and in working order
- All equipment operating in a work zone must be equipped with flashing lights as required
- All work zone traffic control must be inspected and documented by a designated competent person
- Work zone employees must be familiar with the Best Practices for Mitigating the Effects of Work Zone Intrusions manual



Employee Engagement

- Employee groups must participate in problem solving and risk reduction tasks to foster employee engagement
- Engagement opportunities such as near-miss reporting, behavior observations and mentoring of others, etc. must be implemented



Contractor Safety Management

- Contractors must be evaluated using a contractor safety management guide/checklist
- Contractors must be included and participate in daily safety huddles (i.e. T5s) and risk assessments
- Contractors must receive a safety induction and have appropriate oversight when working at facilities or on jobsites
- Contractors must be informed of and follow all PPE requirements

Legend for Specific LSR Requirements

P Policy: A dedicated policy is required

D Documented: Requirement for policy, training, implementation, etc. to be documented

A Accessible: Requirement for policy to be accessible to employees (i.e. posted or displayed in some way)