



1550 Crystal Drive
Suite 804
Arlington, VA 22202
T 202.244.4700
F 202.966.4824

Waste, C&D (Construction & Demolition), and Recycling Material Recovery Facility Temporary Worker Recommended Practices

Preamble: This is considered as a General Guidance Document. Due to the diversity of hazards and size among Members, each facility should properly address the hazards present.

Top Ten +1

- 1. Wear Appropriate Personal Protective Equipment (PPE)**
- 2. Follow Fire Prevention Rules**
- 3. Do Not Walk on Conveyors**
- 4. Wear Fall Protection when Required**
- 5. Always Wear Seat Belts and Keep Safe Distance from Moving Equipment**
- 6. Follow Lockout/Tagout/Try Procedures (Hazardous Energy Control)**
- 7. Follow Bloodborne Pathogen Rules**
- 8. Never Modify or Disable a Safety Device**
- 9. No Scavenging**
- 10. Stay out of the bale storage area unless authorized**
- 11. Follow and know your evacuation plan**

Worker Training

The foundation for a great safety culture is a stable workforce. Another key component is to develop individual career paths to maintain an engaged and motivated workforce.

- Temporary workers should only be utilized in low-risk positions
- Temporary workers may not engage in risk prone tasks or roles; however, they should be trained to be aware of risk prone equipment and areas within a Material Recovery Facility (MRF).
- Encourage use of same temporary workers week after week as they gain familiarity and comfort with work environment, helping to minimize risk of incidents
- Consider conversion to full time employees (when a permanent position is identified) who demonstrate interest and capability.

Personal Protective Equipment (PPE): Wear approved high-visibility clothing or safety vest, safety glasses, abrasion/puncture resistant gloves, and appropriate footwear (leather work boots). Minimize use of overly loose clothing and sleeves that could catch in equipment. A job safety assessment or hazard assessment should be performed for other required PPE, such as hearing protection or hard hat.

Follow Fire Prevention Rules – There are combustible materials in the MRF environment and a fire in a MRF moves very quickly. A fire puts your safety and that of ALL your coworkers at risk. We must do everything we can to prevent fires in the MRF. Smoking is prohibited, except in designated areas. Hot work permits must be obtained whenever heat, spark, or fire producing activities are being performed. Fire extinguishers should be placed at appropriate locations throughout the facility.

Scavenging: No scavenging or removing items from the waste stream for personal use.

Lifting: Proper lifting techniques should be used at all times. Get help if needed >50lbs.

Heat Stress Prevention

In warm and hot weather:

- Situations and jobs that may represent increased risks of heat-related injury or illness are:
 - Non-acclimatized personnel (e.g., new employees).
 - Manual residential collection (e.g., helpers) and drivers operating vehicle without working AC unit.
 - Manual laborers working outside (paper pickers, spotters/traffic control, etc).
 - Personnel working in impermeable PPE (asbestos workers, spill response or permit-required confined space entry personnel).
- Provide workers with water, rest and shade.
 - A rough estimate of the quantity of water required is one quart per hour, per employee, for the entire shift. Acceptable beverages include water or sport drinks for electrolyte replacement. Unacceptable drinks include alcohol, coffee, tea, cola, and other caffeinated drinks.
 - Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade at a time when they feel the need to do so to protect themselves from overheating.
 - The shade structures must be erected as close as practical to the employees so that they have ready access to the shade structures. The amount of shade present shall be at least enough to accommodate the number of employees on the recovery or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other.
- Allow new or returning workers to gradually increase workloads and take more frequent breaks as they acclimatize or build a tolerance for working in the heat.

- Plan for emergencies and train workers on prevention.
- Monitor workers for signs of illness.
 - If a worker exhibits signs or reports symptoms of heat illness while working or during a preventative cool-down rest period, the employer shall provide appropriate first aid or emergency response.

For more information: [OSHA Water Rest Shade](#)

Moving about the facility: Designated travel pattern should be followed by those on foot in accordance with the traffic control plans for the facility.

- General Practice
 - Add Guardrails/Floor Markings in hazardous areas.
 - Ensure adequate guarding for rotating/moving parts (e.g., removal of belly pans and tail pulley guards).
 - Utilize Special Work Areas and perimeter guarding where the use of traditional guarding is not practical.
 - Provide adequate lighting.
 - Never walk in the direct path of output from an auto-ejecting baler.
 - Keep Safe Distance from Moving Equipment;
 - If you are struck by a forklift, loader, truck or other moving equipment, the risk of serious injury or even death is very real. You must ALWAYS be aware of mobile equipment in the facility and always obey all rules regarding tipping floors and loading docks. Never assume that they can see you. Operators may have a limited field of vision because of the design of the equipment or the load they are carrying. You must **ATTEMPT TO MAINTAIN AT LEAST 15 FEET (5 METERS) SEPARATION BETWEEN YOU AND MOBILE EQUIPMENT.**
- Understructure / Processing Floor Safety
 - The goal is to limit pedestrian traffic in these areas and to develop designated paths to separate workers from mobile equipment and processing equipment.
- Tipping Floor
 - Only trained and authorized employees on the tipping floor.
- Pits
 - Pits can be confined spaces and employees working around pits should be trained on confined space procedures.
 - Identify pit cleaners and ensure they have lockout/tagout (LOTO) and confined space training
 - Inspect/maintain skirting to prevent excess debris build up in pits
 - Set pit cleaning schedule per site to prevent build up in pits
- Bale Storage areas and Bale Stacking
 - Bale stacking locations and procedures should be strictly followed – starting with bale integrity (can it be stacked) and does the storage area have walls to prevent bales from falling.

- Designated bale storage areas must be suitable to store materials and have a firm level floor.
- Pedestrian traffic must be restricted in bale storage areas and no one should walk between stacks of bales and should stand at a distance that is at least as tall as the bale stack.
- Pedestrian walkways (including exits) must be protected by a substantial physical barrier or bales must be tiered down to two high if no physical barrier exists.
- Aside from industry-established bale stacking guidelines, certain commodities must have a minimum number of straps intact before bales can be stacked. (e.g. OCC must have a minimum number of four wires if produced by an open-ended baler with a maximum number of six wires).
- At a minimum, bale stacks should be formally inspected daily. Any bale that is determined to have lost integrity should be removed immediately and re-baled.
- **Conveyors**
 - **Do Not Walk on Conveyors** - Walking, standing, or jumping/crossing over, or otherwise being on a conveyor at any time is strictly prohibited unless YOU personally have locked/tagged out the conveyor. NEVER sort material while standing on a moving conveyor belt, including sub floor conveyor belts.

Sorting Operations: Workers should stand with two feet planted on the ground in the proper sorting position at all times and follow proper sorting technique while sorting; keep hands free of all pinch points or moving parts.

Lockout/Tagout/Tryout (Hazardous Energy Control):

- Only workers who have been trained on the location specific Hazardous Energy Control (Lockout/Tagout/Tryout) Program and identified as an authorized user may perform any cleaning activity that requires a worker to physically access equipment or a processing component. The Hazardous Energy Control Program procedures including equipment specific Lockout/Tagout (LOTO) procedures must be followed prior to physically accessing equipment or components for cleaning. Examples of physical access are as follows but not limited to:
 - Entry into or on top of a processing screen
 - Entry into a screen such as a debris, paper, OCC screen
 - Access to or on a conveyor
 - Entry into the baler chamber
- The training will include proper procedures and a lock, tag or series of locks and tags will be assigned to that worker.
- The worker's name must be visible on their lock(s) and/or tags.
- Any machine being serviced or maintained must be locked out/tagged out. Follow each machine's equipment specific lockout/tagout procedure.
 - using only approved locking devices,
 - applying tag or other identification with your lock,

- keeping your key in your control at all times,
- controlling ALL energy sources, performing verification step,
- perform LOTO only on equipment for which you have been trained and authorized,
- never place another worker in danger by asking them to perform LOTO that they are not trained and authorized to complete, any other site specific/equipment specific requirements.
- no “Late Comers” to a group LOTO scenario without clearing equipment for LOTO verification process
- Two Person LOTO – Balers require minimum of two (2) people to perform LOTO
- Never cut a lock or tamper with LOTO systems which maintain the lock integrity
- If you have not been trained and authorized to perform LOTO then you must not participate in the LOTO of any equipment.
- Never access a conveyor, screen, baler, conveyor pit, compactor, metering drum, etc. unless you have been trained to do LOTO and have performed the LOTO in accordance with the equipment specific procedure. **ALWAYS VERIFY that the energy has been controlled!!**

Never Modify or Disable a Safety Device – Safety devices such as interlocks, alarms, etc. are designed for your safety. Never modify, bypass, or disable safety devices, including emergency stops, machine guards, interlocks, etc. This puts you and others at greater risk.

Machine Guarding:

Interlock/E-stop Procedures: Interlocks and E-Stops must be functional and in working condition.

- Each site must develop a site/equipment specific procedure for testing interlocks and E-stops. This is typically a two-person task to verify e-stops are activated (equipment must be energized but typically not in operation)
- No extra castle/trap keys allowed on premise

Follow Bloodborne Pathogen Rules - Immediately stop the belt when medical waste or sharps (needles, etc.) are found. Notify site management, and other workers in the area, that medical waste has been observed. Only designated personnel, who have been specially trained in bloodborne pathogens spill response and clean up procedures, may remove the needles or clean up the medical waste. Use mechanical devices such as tongs to remove needles or other potentially infectious material (OPIM) and wear appropriate PPE for the task. **NEVER HANDLE NEEDLES UNLESS YOU ARE TRAINED AND AUTHORIZED TO DO SO.** Responders must always use appropriate tools, ensure that the response zone is clear of personnel and wear required PPE.

Wear Fall Protection where Required - If fall protection is required (***exposure to a fall of greater than 4 feet***) you must be trained and authorized to wear the fall protection

equipment. Once you are trained and authorized, you must wear your fall protection equipment appropriately and tie off to the pre-determined securement point

Emergency Response

Workers should only pull the emergency shut off cord as directed by training (sharps/medical waste/explosives/weapon/hazardous materials on the conveyor) or in an emergency.

Emergency Evacuation: All employees should know where their muster point is and multiple ways to reach the muster point in an orderly fashion. Should be included in site specific orientation with ongoing drills to both the primary and secondary muster points.

Specific Operations Training – As Applicable

Mobile Equipment: At no time should a worker be operating a forklift or other piece of mobile equipment, unless they have been properly trained and authorized.

Always Wear Seat Belts - Heavy equipment and fork lift operators must wear a seat belt at all times when the equipment is running, is in motion or when the bucket, forks, arms, or other devices are raised. When on company business, drivers and all passengers in vehicles must wear a seat belt at all times when the vehicle is in motion. It is encouraged that you wear your seat belt at all times in your personal vehicle.

Forklift/Mobile Equipment Safety: Forklift/Mobile equipment operators play a critical role in the plant safety - often moving in tight spaces with heavy material nearby workers. Operators should always be properly trained to identify hazards/pedestrian traffic and have performance evaluated on a periodic basis.

- Install seat belt interlock devices to ensure seat belts are used for equipment to operate.
- Forklifts should maintain safe space separation from pedestrians, 15ft(5m) when possible.
- Adjust forklift speed regulator to 5 MPH.
- Mandatory Blue Lights (back up lighting package) for mobile equipment.

Designated Bale Dressing Area: Bale Dressing process is a high-risk area and employees performing this task have a high risk due to the size and weight of bales and the forklift traffic. Bales should only be dressed in designated areas with a physical barrier which protect employees from mobile equipment.

- Trained personnel only in the bale dressing area
- Physical Barrier required between bale dresser and forklift/HE pathway
- Bale dressing only permitted in designated bale dressing areas

- Each site must have a site-specific bale dressing area that identifies the designated area where bale dressing can occur, the types of physical barriers in place and the communication methods to allow for placement and removal of bales to be dressed.
- Limit to two bales high in the dressing area

Baler Safety: Operating and maintaining a baler are duties that should be performed only by trained employees.

- All plant workers should understand the risks with cleaning/working near balers
- Training for operators must be documented
- Only trained workers/maintenance technicians can enter baler chambers
- No extra castle/trap keys allowed on premise
- Procedures while baling metal:
 - Bale metal on “Automatic” with personnel clear of area ejection zone and no one on the operator’s platform
 - Non-automatic balers may be retrofitted or an increase in blast protection from the operator must be added.

Bale Breaking: On occasion MRFs accept baled material as an inbound product. The task of breaking bales should be completed by trained employees in designated area - this is a high-risk procedure.

- Task to be completed during non-receiving hours or in a dedicated area with physical barriers
- Bales should be broken by the use of a loader bucket if possible.
- If bale breaking must occur manually:
 - PPE should include the standard MRF PPE with the addition of a face shield.
 - A long-handled bolt cutters should be used and the bales should be placed against another bale or object to prevent wire recoil. Cut the furthest wire from the end of the bale where you are standing and rotate your position to the opposite end of the bale once you have cut approximately half of the wires in order to continue to cut toward the wire furthest from you.

Wire Tier Safety: Wire Tier devices historically have been a cause of injuries. Trained operators and maintenance teams should ensure these Tiers are maintained and proper safety protection used while working on/near Wire Tier units.

- Side/wing guards are required on 2 ram units
- Scheduled replacement of key wear parts (predictive maintenance and inventory of spare parts)
- Face shield required (two ram balers)