

# Conveyor Standard Operating Procedures

As with any mechanical and electrical devices, the use of conveyors can present safety concerns and requires planning. Since they have many moving parts, all personnel who work on, near, or around them should be well versed in conveyor safety. It is necessary to properly train all personnel who may work on or around this equipment and to ensure understanding of why each rule is required. It is the responsibility of all site personnel to maintain a safe distance from conveyor operations. Only Authorized Personnel may work on or near the equipment.

## Inspections

1. It is the responsibility of designated, qualified personnel, to perform and document a daily inspection of the conveyor system and all associated equipment prior to each initial shift start up.
2. Completed daily conveyor inspection forms must be kept in the control station.  
*(Please see specified inspection criteria and daily form below)*
3. If the qualified person detects damage to the equipment at any time, the system must be properly shut down by means of LOTO, appropriate personnel shall be notified, and the system must be repaired, prior to the commencement of any work activities involving the conveyor system.
4. The back door of control stations shall be locked at all times. Only authorized personnel shall be allowed in this area. Flip/lever style locks shall be engaged on back doors of both control stations to prevent access to unauthorized personnel.

## Power Disconnect

1. Prior to the commencement of conveyor operation, the project Superintendent shall review the site logistics and must confirm the power disconnect location for each project. The Superintendent must be provided a designated power source disconnect that can be lock & tagged out.
2. The location must be accessible to authorized personnel in the event the conveyor system must be de-energized prior to any work on a panel.
3. Access to the panel while live is only allowed by a licensed electrician knowledgeable about the hazards and controls necessary for doing this work safely.
4. The location and method of de-energizing shall be provided to all authorized personnel.

## Startup

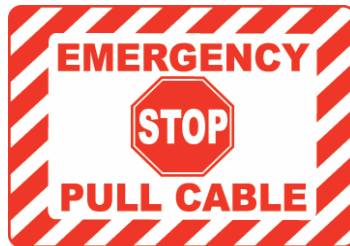
1. Prior to the commencement of any work activities, a meeting shall be held to discuss site specific procedures with all personnel involved.
2. Prior to conveyor start up, Lockout/Tagout mechanisms and/or mechanical brake bar shall be removed when utilized.
3. Qualified personnel shall make a visual inspection of the entire system and surrounding area, to ensure the conveyor is ready for safe operation.
4. Qualified personnel shall confirm all persons are clear of the conveyor prior to start up.
5. An air horn or equivalent must be sounded two (2) times prior to startup of system.

## Maintenance Activities

1. Prior to the commencement of any feed hopper or load out hopper maintenance activities, an evaluation of the current hopper condition shall be made to determine whether the environment meets the definition of a Confined Space / Permit Required Confined Space or other. Once the determination has been made by a competent person, maintenance shall be performed according to regulatory requirements for the space.
2. LOTO shall be performed by a Competent Person following the Conveyor LOTO Procedure prior to any maintenance activity which would pose a hazard to an employee engaged in the work should the conveyor be energized.
3. Lock out / Tagout: Mechanical brake bar shall be installed prior to ANY drive train maintenance work that occurs on ANY conveyor by qualified personnel, when a belt is loaded with material, and/or authorized personnel must access the belt as required by the written LOTO procedure for this equipment.
4. Prior to conveyor start up, Lockout/Tagout mechanisms and/or mechanical brake bar shall be removed when utilized.

## Emergency Stop System

1. Emergency stop systems on all conveyor systems shall be reviewed with all site personnel prior to commencement of any work and shall be tested daily to ensure proper function of that system.
2. Emergency stop systems may vary. All affected and authorized personnel shall be instructed on emergency stop procedures prior to the commencement of any work activities.
3. Appropriate signage shall be clearly posted.



## Safety Decals/Placards

Safety decals and placards shall be installed in all applicable locations. Due to the nature of these systems and project logistics, additional signage may be necessary. Qualified personnel shall ensure that proper signage is posted. Below is a list of required signage:

1. Feed hopper - "Authorized Personnel Only" (located on all four corners, "Falling Debris")
2. Connected to piles - "Overhead and/or Falling Debris"
3. Catwalk - Chained or gated entry to each catwalk with placard - "Authorized Personnel Only"
4. Conspicuously located around the conveyor system - "Danger: Moving parts & Equipment"
5. Control panel - "Confirm Mechanical Brake Bar Has Been Removed Prior To Startup"
6. Control panel - "Lockout / Tagout Required"
7. Control panel - "Authorized Personnel Only - High Voltage": Posted on partition door to back room where control panel is located. Also erected on back door of control station.
8. Control panel - "Keep Door Closed": Posted on partition door to back room where control panel is located. Also erected on back door of control station.

## **Fire Extinguishers**

1. Fire extinguisher shall be mounted in an upright position on each belt and inside control station.
2. Fire extinguishers at each belt location and should be mounted close to the motor.
3. Extinguishers shall be adequate in size. (Recommended minimum 5lb ABC size)
4. Extinguisher inspections shall be documented daily on the conveyor inspection form and on the fire extinguishers tag by qualified inspector on a monthly basis.

## **Key Inspection Points**

Daily inspection of the conveyor systems by qualified personnel is required. Below are key inspections points. These points shall be inspected and documented daily with the associated form. The inspection log book shall be kept in the control station for that designated conveyor.

Inspection points include the following but are not limited to:

1. Check and confirm emergency stops are functioning properly.
2. Inspect condition of all belts and skirting to confirm it is free of all obstructions. (*foreign objects and/or debris*)
3. Visually inspect all tail pulleys. (*Do not make any adjustments unless system is locked and tagged out.*)
4. Visually inspect all head pulleys. (*Do not make any adjustments unless system is locked and tagged out.*)
5. Visually inspect all rollers. (*Do not make any adjustments unless system is locked and tagged out.*)
6. Inspect all electrical cords and connections. (*Look for damaged cords and damaged connection plugs, etc.*)
7. Inspect catwalk and other protective systems.
8. Inspect drive system on each belt. (*Including motor, transmission, coupler/clutch, wiper, shaft, etc.*)
9. Inspect condition of all fire extinguishers (*5lb ABC minimum fire extinguishers installed on all belts, including the control station.*)
10. Inspect control station. (*Including but not limited to controls, air horn or equivalent, CB, air compressor, and electrical components.*)
11. Inspect guards to confirm they are in place and secure.

## **Backstop Inspection**

1. Prior to use of belt system on new job, confirm all backstops have been replaced. Do NOT use system until ALL backstops have been replaced.
2. Inspect all backstops every 6 months by designated competent person.
3. If any belt rolls backward, the backstop must be replaced prior to resuming use of belt.

## **Pick Points & Planning**

1. The conveyor and all components shall have appropriate engineered capacities for all designated pick points.
2. A pre lift meeting shall be held to determine site logistics and picking procedures.
3. A pick plan shall be completed and reviewed by all personnel prior to installing or removing a conveyor system or components.





Do Not Climb, Sit, Stand, Walk, Ride, or Touch the Conveyor at Any Time



Do Not Perform Maintenance on Conveyor Until Electrical, Air, Hydraulic and Gravity Energy Sources Have Been Locked Out and Blocked



Operate Equipment Only With All Approved Covers and Guards in Place



Ensure That All Personnel Are Clear of Equipment Before Starting



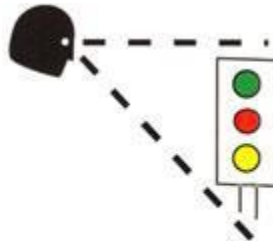
Allow Only Authorized Personnel To Operate or Maintain Material Handling Equipment



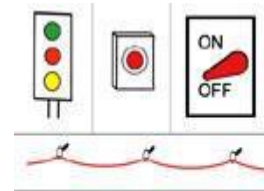
Do Not Modify or Misuse Conveyor Controls



Keep Clothing, Body Parts and Hair Away from Conveyors



Ensure That ALL Controls and Pull Cords are Visible and Accessible



Know the Location and Function of All Stop and Start Controls



Stay clear of moving conveyors



# DAILY CONVEYOR INSPECTION REPORT

*The qualified equipment operator must perform a daily inspection*

<b>Equipment Inspected:</b> (Check one)    Conveyor: <input type="checkbox"/> Other: <input type="checkbox"/>	<b>Model and number:</b>	<b>Week of:</b> / / - / /
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M	T	W	T	F	S	S	Visually inspect the following points that are applicable to your equipment prior to operating	Repairs Needed / Date Completed
							All emergency stops are functioning properly	/
							Belts and skirting is free of all obstructions	/
							Tail pulleys are functioning properly	/
							Head pulleys are functioning properly	/
							Rollers are functioning properly	/
							Catwalk is free of obstructions, debris and damage	/
							Guards are in place	/
							Drive system on each belt and all components function properly	/
							Warning decals and operating decals are in place and readable	/
							All components are free of visual damage	/
							System is in good condition and is secured against displacement	/
							No unapproved modifications are on the equipment	/
							Horn and other audible warning devices are operational	/
							No damage, worn or cracked structural parts	/
							Electrical parts and wires are protected and free of damage	/
							Control station is clean and properly secured	/
							Gauges and instruments are operating properly	/
							All load ratings and pick points are present and readable	/
							Lockout / Tagout devices are available and adequate	/
							Safety chain and/or gate are functional	/
							Backstop has been replaced at start of job and is free of damage	/
							Fire extinguishers located at control stations and on all belts	/
							Conveyor system is properly protected from other trades	/
							All personnel have been properly trained on system	/
							The Standard Operating Procedures are present and readable	/

My signature below acknowledges that I have completed the required daily inspection and any deficiencies have been reported.  
 My signature also acknowledges that I am trained, qualified and authorized to operate this equipment.

	Print Name	Signature	Green Tag	Red Tag	Reason*
Mon					
Tues					
Wed					
Thurs					
Fri					
Sat					
Sun					

\*Notes:

