Woodland Pulp LLC
Baileyville, Maine

Line & Equipment Opening Procedure

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PURPOSE

This procedure is intended to eliminate or reduce the chance of injury or contact with process fluids when breaking into a process line, pump, tank, or vessel.

APPLICABILITY

This procedure applies to all Mill employees, on-site contractors and service suppliers.

SCOPE

Operations Supervision will initiate this procedure after the Lockout has been completed and when the Line & Equipment Opening Criteria questions fail to be answered affirmatively. ***See Mobile Equipment Safety Procedure for maintenance of mobile equipment.*** Following is the list of Line & Equipment Opening Criteria questions. This information will be added at the end of every Lockout list:

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1. Verified that the line contained no hazardous substance? Yes___ No__
2. Has the vessel, pump, line, drained completely? Yes___ No__
3. Are the drains unplugged? Yes___ No__
4. Can the position of each valve involved with this lockout be verified? Yes___ No__
5. Is each valve in the proper position? Yes ___ No__
6. After lockout, has the system cooled to reflect that it is isolated? Yes ___ No__
7. Is the temperature of the process below 120 degrees? Yes___ No__
8. Is everything concerning this lockout normal? Yes ___ No__
9. Has the supervisor or issuer provided the correct isolation procedure for the equipment involved? Yes ___ No__

If the answer to any of the above questions is No, the job must be stopped and an area supervisor will then either correct the situation, determine that further action is needed, or determine that the equipment is safe to work on using the Line & Equipment Opening Procedure.

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REFERENCES

Document	Responsible Position	Location	Retention Time
1910.261 (g)(21) OSHA	Safety Manager	OSHA Website	Until Replaced

RESPONSIBILITIES

The safety manager is responsible for:

- Communications, Awareness & Training
- Ensuring the OSHA standards are followed
- Updating the line & equipment opening procedure when necessary

The area managers and supervisors are responsible for:

- Communicating changes in safety procedures
- Scheduling employees to attend training
- Ensuring that proper line & equipment opening permits are kept for all parts of the process opened.
- Ensuring line &equipment opening permits are used where required
- Verifying that line & equipment opening permits are completed properly
- Insuring that process-opening issues brought to their attention are immediately addressed.
- Ensuring proper PPE is worn for all line and equipment opening

The safety coordinator is responsible for:

- Maintaining the master list of all safety procedures
- Maintaining the completed line & equipment opening permits for a period of one year

The mill employees, contractors, and service suppliers are responsible for:

- Understanding and following the Mill's lockout procedure
- Using and completing the line & equipment opening permits.
- Removing the line & equipment opening permits when the job has been completed and sending the permits to the safety coordinator for filing.
- Reporting to the area supervisors or manager any noted issues or concerns while opening the process.
- Wear proper PPE for line and equipment opening

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PROCEDURE

1. Operations Supervisor will contact the Maintenance Supervisor to discuss what the job is, specifically determining what material was in the line, pump, tank or vessel to be opened and the respective hazards present.

2. Supervisors will determine additional PPE requirements from discussion with their employees as well as JSA's, SOP's, and Personal Protection Equipment Procedure Table 2 for Line & Equipment Opening Procedure PPE requirements, (see attached).

3. Follow mill lockout procedure. Be sure to review the lockout sheets particularly the Line & Equipment Opening criteria questions before starting any job.

Due to the long run of pipes there may be low spots that don't drain effectively or completely. Be aware of material on the sides of tanks or otherwise contained / trapped in tanks or vessels.

4. During initial equipment opening or line breaking to keep other employees out of the line of fire, yellow barricade tape may be required around the equipment to be worked on. When evaluating area within the line of fire for the job, be sure to consider, areas beside, below, and above the work area. Also, a completed Line & Equipment Opening Permit, which can also serve, as the barricade tag, will be placed on the taped off area before the work begins.

5. Put on all required PPE as identified in Section 2.0 above.

When breaking the flange bolts, break the ones on the side away from

Line & Equipment Opening Permits

Every process identified through the procedure above will be documented by completion of the permit.

1. The permit shall be signed by a representative for operations and maintenance personnel (or designee) prior to work beginning. During the off hours, shift supervisor will be the designee for the maintenance supervisor.
2. The back of the permit may be utilized as a barricade tag for the job. If not used write “NA” on the back so it is clear that it wasn’t used and not just forgotten.
3. Completed permits shall be removed as soon as the job has been completed. The completed permit will be sent to the safety coordinator for filing.
4. The completed permits will be maintained by the safety coordinator for a period of one year.

DOCUMENTATION

Documentation	Responsible Position	Location	Retention Time
Training Records	Safety Coordinator	Safety Department	5 years

DISTRIBUTION

On the Woodland Website.

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Table 2
Line & Equipment Opening Minimum Personal Protection Equipment Required

Chemical / Systems		PPE Required
Acids		Hard Hat, Hearing Protection (as required), Goggles, Faceshield, Rubber Steel Toed Boots, Chemical Protective Clothing*, Respirator (as required), Chemical Resistant Gloves
Caustics such as : White Liquor, Black Liquor, Green Liquor, Weak Wash		Hard Hat, Hearing Protection (as required), Goggles, Faceshield, Rubber Steel Toed Boots, Chemical Protective Clothing* , Respirator (as required), Chemical Resistant Gloves
Steam / Condensate		Hard Hat, Hearing Protection(as required), Safety Glasses, Face Shield, Leather Steel Toed Boots, Respirator (as required), Welding Gloves, Long Sleeved Shirt or Arm Guards, Rain Clothing
Stock		Hard Hat, Hearing Protection(as required), Safety Glasses, Face Shield, Rubber Steel Toed Boots, Respirator (as required), Rubber Gloves, Long Sleeved Shirt or Arm Guards, Rain Clothing
White Water		Hard Hat, Hearing Protection(as required), Safety Glasses, Leather Steel Toed Boots, Respirator (as required), Leather Gloves, Long Sleeved Shirt or Arm Guards
NCG System		Hard Hat, Hearing Protection(as required), Goggles, Face Shield, Rubber Steel Toed Boots, Respirator, Chemical Resistant Gloves, Chemical Suit or Rain Clothing, **Full face respirator**
CLO2 Process Lines		Hard Hat, Hearing Protection (as required), Safety Glasses, Goggles , Face Shield , Rubber Steel Toed Boots, Chemical Protective Clothing, Respirator, Chemical Resistant Gloves, **Full Face Respirator**.
CLO2 Solution Lines		**Hard Hat, Hearing Protection (as required), Safety Glasses, Goggles , Face Shield , Rubber Steel Toed Boots, Chemical Protective Clothing, Respirator, Chemical Resistant Gloves, Full Faced Respirator.**
Methanol		Hard Hat, Hearing Protection (as required) , Safety Glasses, Face Shield , Rubber Steel Toed Boots, Respirator (as required), Chemical Resistant Gloves,
Petroleum Products Such as: Bunker C Oil, Propane		Hard Hat, Hearing Protection (as required), Goggles, Face Shield , Leather Steel Toed Boots, Respirator (as required), Leather Gloves, Welding Jacket or Rain Jacket
Sanitary Systems		Hard Hat, Hearing Protection, Safety Glasses, Face Shield , Tyvek Suit, Rubber Steel Toed Boots, Respirator (as required), Rubber Gloves
Peroxide		Hard Hat, Hearing Protection (as required), Goggles, Faceshield, Rubber Steel Toed Boots, Chemical Protective Clothing* , Respirator (as required), Chemical Resistant Gloves
Sodium Chlorate		Hard Hat, Hearing Protection (as required) , Safety Glasses, Face Shield , Rubber Steel Toed Boots, Respirator (as required), Chemical Resistant Gloves, **Chemical Resistant Clothing**

* Chemical Protective Clothing - Chemical Resistant Suit, Chemical Resistant Jacket and Pants, Chemical Resistant Jacket or Chemical Resistant Apron.

Other Chemicals

For Example: Additives,defoamers, slimicides, biocides, polymers, drainage aids

See Department Superintendent for further guidance

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