

**WAC 296-79-300 Machine room equipment and procedures.** (1) Pulp and paper machines must be equipped with emergency stopping control(s) which can be actuated quickly from all normal operating stations. If useful for the safety of personnel, the stopping control(s) must be interlocked with adequate retarding or braking action to stop the machine as quickly as is practical. The devices must consist of push buttons for electric motive power (or electrically operated engine stops), pull cords connected directly to the prime mover, control clutches, or other devices.

(2) Steps and footwalks along the fourdrinier/forming and press section must have nonslip surfacing and be complete with standard handrails, when practical.

(3) If a machine must be lubricated while in operation an automatic lubricating device must be provided or oil cups and grease fittings must be provided which can be serviced safely without exposing the worker to any hazards.

(4) All levers carrying weights must be so constructed that weights will not slip or fall off.

(5) Guarding inrunning nip points. The drums on pulp and paper machine winders must be provided with suitable guards to prevent a person from being caught between the roll and the front drum on the winder when the pinch point is on the operator's side.

(a) Such guards must be interlocked with the drive mechanism to prevent the winder from running while the guard is not in place. Except that the winder may be wired to allow it to run at thread or jog speed only for adjustment and start up purposes while the guard is not in position.

(b) A zero speed switch or locking device must be installed to prevent the guard from being removed while the roll is turning above thread or jog speed.

(c) Rewinders.

When rewinding large rolls and the nip point is adjacent to the normal work area:

(i) The nip point must be protected by a barrier guard;

(ii) Such guard must be interlocked with the drive mechanism to prevent operating the machine above thread or jog speed without the guard in place; and

(iii) A zero speed switch must be installed to prevent the guard from being raised while the roll is turning.

(d) Inrunning nips where paper is not being fed into a calender must be guarded.

(6) An audible alarm must be sounded prior to starting up any section of a pulp or paper machine. Sufficient time must be allowed between activation of the alarm system and start up of the equipment to allow any persons to clear the hazardous area.

(7) When starting up a dryer section, steam to heat the drums must be introduced slowly and while the drums are revolving.

(8) A safe method must be used when starting paper into the nip of drum type reels or calender stacks. This may be accomplished by the use of feeder belts, carrier ropes, air carriage or other device or instrument.

(a) A rope carrying system should be used wherever possible at points of transfer; or

(b) Sheaves should be spaced so that they do not create a nip point with each other and the sheave and its support should be capable of withstanding the speed and breaking strength of the rope for which they are intended.

- (9) Employees must not feed a stack with any hand held device which is capable of going through the nip.
- (10) Employees must not attempt to remove a broken carrier rope from a dryer while the section is running at operating speed.
- (11) Employees must stop the dryer to remove a wrap except in cases where it can be safely removed by using air or other safe means.
- (12) To remove deposits from rolls, a specially designed scraper or tool must be used. Scraping of rolls must be performed on the outgoing nip side.
- (13) Doctor blades.
- (a) Cleaning. Employees must not place their hands between the sharp edge of an unloaded doctor blade and the roll while cleaning the doctor blade.
- (b) Doctor blades must have the sharp edges properly guarded during transportation and storage.
- (c) Special protective gloves must be provided and must be worn by employees when filing or handling sharp edged doctor blades.
- (14) Handling reels.
- (a) Reels must stop rotating before being lifted away from reel frame.
- (b) Crane hooks must not be used to stop a turning reel.
- (c) Exposed rotating reel shafts with square block ends must be guarded.
- (d) The crane operator must ascertain that reels are properly seated at winder stand or at reel arms before they disengage the hooks.
- (e) On stored reels, a clearance of at least 8 inches between the reels of paper must be maintained.
- (15) All winder shafts must be equipped with a winder collar guide. The winder must have a guide rail to align the shaft for easy entrance into the opened rewind shaft bearing housing. If winder shafts are too heavy for manual handling, mechanical equipment must be used.
- (16) Shaftless winders must be provided with a barrier guard of sufficient strength and size to confine the rolls in the event they become dislodged while running.
- (17) All calender stacks and spreader bars must be grounded according to chapter 296-24 WAC, Part L, and WAC 296-800-280 as protection against shock induced by static electricity.
- (18) Nonskid type surface required.
- (a) All exposed sole plates between dryers, calenders, reels, and rewinders must have a nonskid type surface.
- (b) A nonskid type surface must be provided in the work areas around the winders or rewinders.
- (19) If a powered roll ejector is used it should be interlocked to prevent accidental actuation until the receiving platform or roll lowering table is in position to receive the roll.
- (20) Employees must keep clear of hazardous areas around the lowerator, especially all lowerator openings in a floor and where roll is being discharged.
- (21) Provision must be made to hold the rider roll when in a raised position unless counterbalancing eliminates the hazard.
- (22) Drain openings in pits. Flush floor drain openings larger than 3 inches in diameter in the bottom of pits must be guarded to prevent workers from stepping through, while working in this area.

(23) Employees must not enter into or climb on any paper machine roll that is subject to free turning unless a positive locking device has been installed to prevent the roll from turning.

(24) You must ensure sufficient inspection and nondestructive examination of reel spool and calender roll journals. The type and frequency of testing must be adequate to detect indications of failure. Any reel spool or calender roll journal found to have an indication of failure must be removed from service. Nondestructive examination personnel must be qualified in accordance with SNT-TC 1A.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-79-300, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 01-11-038, § 296-79-300, filed 5/9/01, effective 9/1/01; WSR 99-16-083, § 296-79-300, filed 8/3/99, effective 11/3/99. Statutory Authority: Chapter 49.17 RCW. WSR 91-24-017 (Order 91-07), § 296-79-300, filed 11/22/91, effective 12/24/91. Statutory Authority: RCW 49.17.040, 49.17.240, and chapters 43.22 and 42.30 RCW. WSR 81-03-007 (Order 80-31), § 296-79-300, filed 1/8/81; Order 76-7, § 296-79-300, filed 3/1/76; Order 74-24, § 296-79-300, filed 5/6/74; Order 70-6, § 296-79-300, filed 7/10/70, effective 8/10/70.]