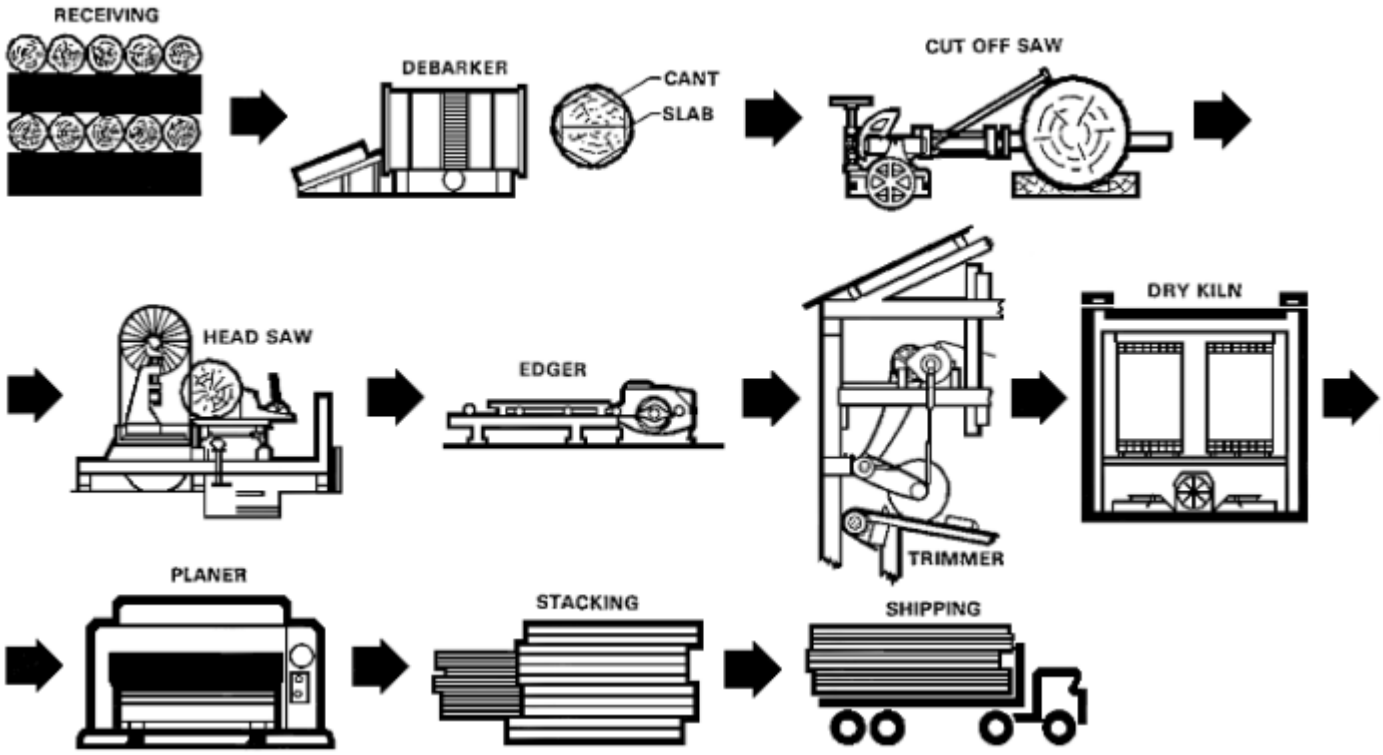
NCDOL N.C. Department of Labor	**NORTH CAROLINA DEPARTMENT OF LABOR**	**No. 24-1**
	OSH DIVISION	**Date: 10/2009**
	OSHNC INDUSTRIAL DATA REPORT	**Pages: 4**

Industry: **Lumber and Wood Products**	Sub-Group: **Saw Mills and Planing Mills**
SIC: **2421**	NAICS: **321113, 321912, 321918, 321920 and 321999**

PROCESS DESCRIPTION: After the logs have been received on the storage yard they are transported to the mill and debarked. Following the removal of slabs, the head saw cuts the remainder into cants. The cants may then go to a resaw for further cutting or go directly to the edger. The purpose of the edger is to rough cut to the desired size (later the lumber may be dressed). After being edged the lumber continues via chain or belt conveyor to the trimmer where it is cut to the most usable lengths (usually 6′, 8′, 10′, 12′, 16′ and 18′). From the trimmer or trim saw the lumber may be dipped into a chemical solution to prevent it from turning blue (keeping logs wet by water spray in log storage yard also accomplishes this purpose). The lumber is graded before being dipped and then sorted into piles by length and grade. If lumber is to be kiln dried, it is stacked and placed in a kiln. If air dried, it is stacked and placed on the yard. The drying process may take from twelve to sixty hours, depending on the desired moisture content. The lumber is still rough at this point and, if it is to be dressed on one or both sides, it is sent to the planer. With this accomplished, the finished lumber is again graded, cut to desired length, stacked, packaged and shipped or stored.

PROCESS FLOW:



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Hazards Analysis

Major Hazards			Other Hazards		
Location	**Item**	**Hazard**	**Location**	**Item**	**Hazard**
Log storage	Logs in piles and stacks	Crushed limbs and/or body	Resaw	Resaw, infeed rolls and guides, roll cases, chain conveyor, cants and lumber	Amputations, lacerations, crushed and bruised limbs, eye injuries, slips and falls
Debarker	Log deck chain conveyors, log flipper, pike pole, peavey, barker, head, log hold down, bark, walkways and steps	Amputations, lacerations, crushed limbs, eye injuries, slips trips, falls, bruises, sprains and strains	Edger	Edger blades, infeed rolls, lumber, chains, sprockets, v-belt drives, roll cases and conveyors, live rolls	Crushed limbs, eye injuries
Head rig	Head saw log carriage track, log deck, cants and slabs, chair conveyors, roll cases, logs, open motors and power	Amputations, lacerations, crushed and bruised limbs, eye injuries, electric shock, slips trips and falls	Planer	Planer, conveyors, live rolls, pineapple and pressure rolls, planer knives, power transmission gear	Amputations, lacerations, slips and falls
Trim saw	Trim saw blades and chain conveyor	Amputations, bruises, lacerations, eye injuries, slips, trips, falls, sprains and strains	Kiln	Control room, steam lines, power transmission gear, floors, stair rails Entry doors	Burns, crushed limbs, slips and falls, bruises, sprains and strains Entrapment
Chipper	Chipper knives, conveyors, roll conveyors, slabs, cants, waste	Lacerations, punctures, bruises, slips, trips falls, eye injuries, strains and sprains	Shipping and receiving	Forklifts Hoists	Carbon monoxide and crushed and bruised limbs and body Bruises, lacerations and accidents

Planer infeed	Planer conveyors, unstacked infeed and pineapple roll, cutting knives and heads, and live rolls	Crushed, cut and bruised limbs, eye injuries, slips, trips and falls			
Throughout	Noise Wood dust	Hearing loss Respiratory problems			

Key OSHNC Standards

Reference	29 CFR 1910 — General Industry Standards
ANSI B30.6	Overhead underhung hoists
NCGS 95-129	General duty clause – ergonomics
Subpart D	Walking and working surfaces – where 1910.265 does not apply
Subpart E	Exit Routes, Emergency Action Plans, and Fire Prevention Plans – where .265 does not apply
Subpart I 13 NCAC 7F.0	Personal protective equipment
Subpart O	Machinery and machine guarding – where 1910.265 does not apply
Subpart S	Electrical – where 1910.265 does not apply
1910.95	Occupational Noise Exposure
1910.141	Sanitation
1910.146	Permit-required confined space entry
1910.147	Control of hazardous energy (lockout/tagout)
1910.176	Material handling – general requirements
1910.178	Powered industrial trucks
1910.265	Sawmills
1910.1000	Air contaminants
1910.1200	Hazard communication

Inspection Analysis

The inspection should begin with the log storage yard. Ensure that logs are properly stacked with no tilting of piles and that base logs are secure. Proceed to the log handling process and equipment. Inspect log handling equipment to ensure the use of positive devices to prevent uncontrolled lowering: limit switches to prevent lift arms from traveling too far, operator protection, audible signaling devices and lights. In the debarker area, observe the operator for protection from flying bark, chips, etc. and for unguarded foot treadles in cab. Look for unguarded power transmission equipment around the log deck, stair rails to cab and standard rails around log deck and platform, if required. Observe conveyors, chains, log deck and log haul. Ensure that the log haul has a

standard rail if it has a walkway and ensure that the chain drive mechanism is guarded. Observe the barker; check type and note whether hold down rolls and baffles are installed, if required.

In the saw mill, begin with the head-rig (sawyer). Check for log stops on deck to prevent logs from going into carriage or runway, and ensure carriage way is provided with bumpers. Check safety guides on circular saws and enclosures if band head saw is used. Chain conveyors, mechanical power transmission equipment, safe access to sawyer position, open motors, floor holes, uneven floors, walkways over conveyors, etc., must also be observed. Observe sawyer and slab puller operators for use of personal protective equipment.

From head rig, go to resaw position, then to the edger and trim saw area. In each section, observe the operator at each position. Note the equipment and how the operator gets to machine; i.e., over/under conveyors, roll cases, live rolls, bind corners, etc. Observe equipment guards and anti-kickback devices. In trim saw area, check for guards on end saws and across back of unit, and for baffle in front.

Determine the noise level at each operator position within the mill.

In the planer mill an enclosed planer will be less of a noise hazard. In general, observe employees for exposure to unguarded conveyors, chains and sprockets, live rolls, hold down rolls and pineapple. For the trim saw in the planer mill, the inspection is the same as the saw mill.

If the mill has a kiln, check for proper egress from the kiln, and, in the control room, inspect for live steam pipes. Check for proper guarding on exposed v-belt drives and fly wheels for compressors. As most control rooms are upstairs and at the rear of the kiln, note stair rails and condition of floor (usually wet and damp and sometimes rotten).

Other positions in the saw mill and planer mill that require checking include the kiln loader, mechanic, millwright, electrician, welder and shop.

In all machine centers throughout mill, check for lockout/tagout procedures.

Other Pertinent Comments: