



NORTH CAROLINA DEPARTMENT OF LABOR

No: 21-1

OSH DIVISION

Date: 10/2009

OSHNC INDUSTRIAL DATA REPORT

Pages: 3

Industry: Tobacco

Sub-Group: Cigarette Manufacture, Tobacco Processing

SIC: 2111, 2131 and 2141

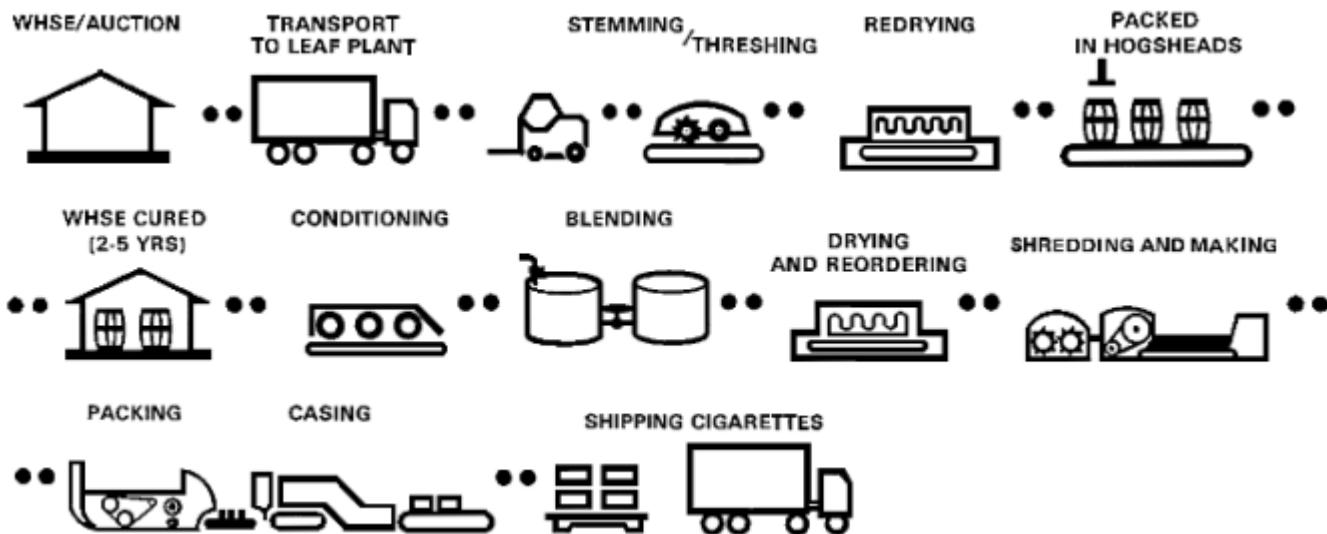
NAICS: 312210, 312221 and 312229

**PROCESS DESCRIPTION:** Tobacco, after reaching maturity on the stalk, is picked and air, fire or flue cured at the farm. The leaves are then bundled and transported to the warehouse where the tobacco is sold at auction to processors. The tobacco becomes the processors' property while still on the floor of the auction warehouse and is subsequently removed and transported to the processing plant.

The tobacco is redried to achieve the exact moisture content for aging and securely packed in hogsheads. Exported tobacco is shipped in this form. Packing factories stem the leaf (remove most of the stem by threshing or cutting) before redrying it. The tobacco is then cured in the hogshead for 2-5 years. When curing is complete, the tobacco is taken to the processing factory where moisture is again added (conditioning) and the central veins are removed. For cigarette manufacture, the leaves are now ready for blending. A variety of sweetening preparations and flavorings are added to a mixture of tobaccos to produce the desired qualities for a specific brand.

The tobacco is redried and reordered to achieve preferred moisture content before being shredded or cut and made into a cigarette. The cigarettes are packed, inserted into cartons, crated and readied for shipping to wholesale and retail distributions.

#### PROCESS FLOW:



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## Hazards Analysis

<b>Major Hazards</b>			<b>Other Hazards</b>		
<b>Location</b>	<b>Item</b>	<b>Hazard</b>	<b>Location</b>	<b>Item</b>	<b>Hazard</b>
Receiving, auction, shipping	Material handling equipment	Poor visibility around hogsheads, difficulty in handling hogsheads and sheets of tobacco, and congestion in auction house	Making	Cutter knives Noise	Lacerations Hearing loss
Leaf plant stem removal	Large presses, knives  Material handling  Dust	Crushed limbs, sharp edges and in-running nip points  Eccentrronics and connecting rods  Inhalation, fire and explosion	Packing	Noise Rotating mechanical parts	Hearing loss Amputations and hand and arm injuries
Throughout leaf plant	Floor holes	Falls	Warehousing	Hogsheads full, empty  Material handling equipment  Containers and material handling equipment	Insecure storage, nails and splinters causing hand and foot injuries  Poor visibility around hogsheads  Toe and foot injuries
Conditioning, drying, reordering, blending	Conveyors –nip points  Hot pipes  Bagged additives	Caught in, amputations, and hand and arm injuries  Burns  Strains and insecure storage	Maintenance	Repair moving equipment	Accidental start up

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## Key OSHNC Standards

<b>Reference</b>	<b>29 CFR 1910 - General Industry Standards</b>
NCGS 95-129	General duty clause - ergonomics
Subpart D	Walking and working surfaces
Subpart E	Exit Routes, Emergency Action Plans, and Fire Prevention Plans
Subpart I	Personal protective equipment
Subpart O	Machinery and machine guarding
Subpart S	Electrical
1910.95	Occupational noise exposure
1910.146	Permit-required confined space entry
1910.147	Control of hazardous energy (lockout/tagout)
1910.176	Handling materials - general
1910.178	Powered industrial trucks
1910.1000	Air contaminants
1910.1200	Hazard Communication

## Inspection Analysis

Carefully review inspection records and interview employees to determine problem areas and trends.

Follow the process flow where practical.

An inspection in the tobacco industry will not usually include all phases of tobacco processing but will rather be directed toward the leaf plant, processing plant, manufacturing or warehousing site.

## Other Pertinent Comments: