



NORTH CAROLINA DEPARTMENT OF LABOR

No. 33-3

OSH DIVISION

Date: 10/2009

OSHNC INDUSTRIAL DATA REPORT

Pages: 3

Industry: Primary Metal Industry

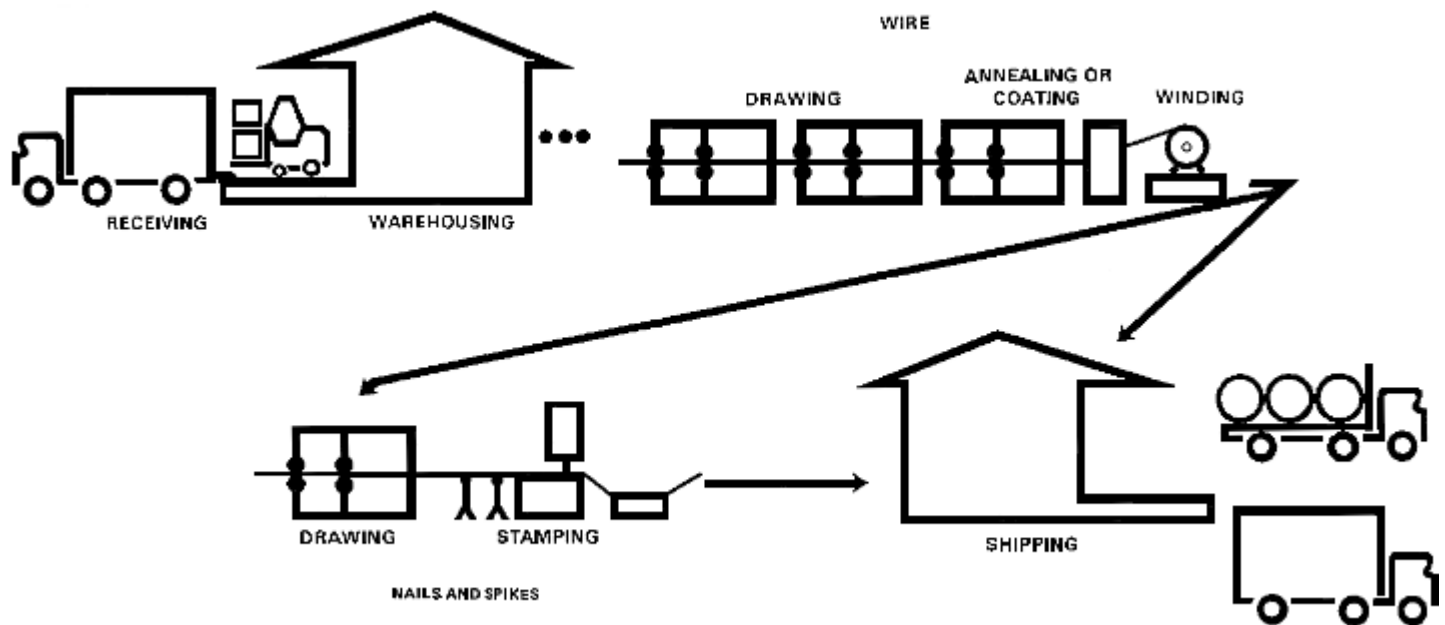
Sub-Group: Steel Wire Drawing and Steel Nails and Spike

SIC: 3315

NAICS: 331222 and 332618

PROCESS DESCRIPTION: Initially metal is preformed on a swage block which shapes material for the drawing operation. Wire is formed by a series of drawing machines which draw and size the swaged material through a series of dies. These dies decrease the wire diameter by elongation of the material until it is of desired size and finish. Final processes may include annealing, pickling in acid solutions and coating with plastic or insulation according to end use. Nails and spikes are a continuation of the above process. The material is then fed into an automatic stamping machine where the head is formed by an upsetting hammer and cut to desired length. The point is formed in the process.

PROCESS FLOW:




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Hazards Analysis

Major Hazards			Other Hazards		
Location	Item	Hazard	Location	Item	Hazard
Warehouse	Heavy containers	Sprains and hernias from manual lifting	Manufacturing	Combustible materials	Fire
	Powered Industrial Trucks	Carbon Monoxide, accidents		Machinery	Hearing loss
				Mechanical power transmission apparatus	Amputations and crushed limbs
				Gaseous chemical by-products	Explosion (by static electricity)
Manufacturing	Metal particles	Injuries to face, eyes	Throughout	Housekeeping	Slips, trips and falls
	Wires	Punctures and cuts			
	Hot metals	Burns			
	Acids and lubricants	Skin irritation and burns			
	Acids s	Respiratory problems from inhalation			

Key OSHNC Standards

Reference	29 CFR 1910 — General Industry Standards
ANSI B30.6	Overhead and underhung hoists
Subpart D	Walking and working surfaces
Subpart E	Means of egress
Subpart I	Personal protective equipment

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Subpart O	Machinery and machine guarding		
Subpart S	Electrical		
1910.94	Ventilation		
1910.95	Occupational noise exposure		
1910.122-.126	Dipping and coating operations		
1910.151	Eyewash and emergency showers		
1910.176	Material handling		
1910.178	Powered industrial trucks		
1910.1000	Air contaminants		
1910.1200	Hazard Communication		
Inspection Analysis			
<p>Material is received from steel mills in hot rolled form (bar stock). Inspection must cover receiving docks and material handling apparatus. The storage areas must be inspected to ascertain if proper stacking, height limitations and etc. are met. Manufacturing areas must be checked for machinery layout, machine guarding of nip points, transmission apparatus and backlash guarding. Personal protective equipment must be suitable for environment. Materials handling equipment throughout plant, shipping and storage areas must be adequate and in good order.</p>			
Other Pertinent Comments:			