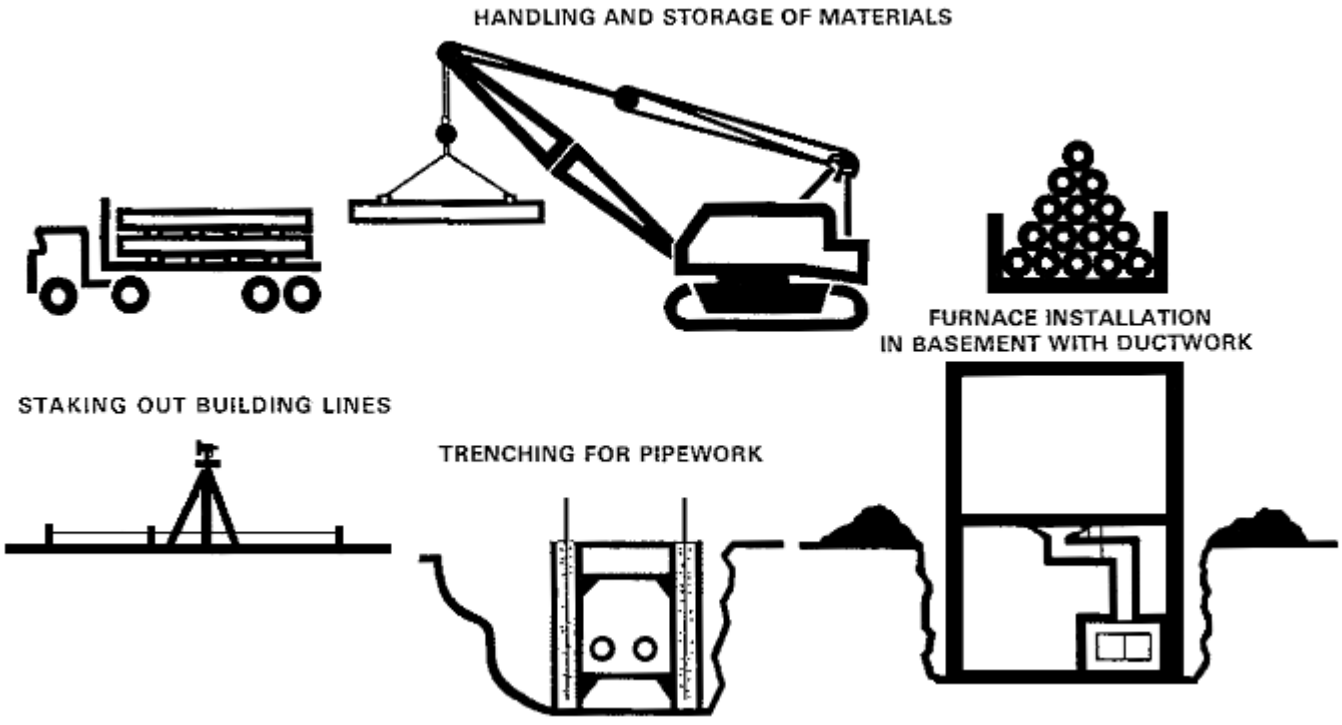
	NORTH CAROLINA DEPARTMENT OF LABOR	**No. 17-1**
	OSH DIVISION	**Date: 03/2011**
	OSHNC INDUSTRIAL DATA REPORT	**Pages: 3**

Industry: **Construction**	Sub-Group: **Plumbing, Heating, and Air Conditioning Contractors**
SIC: **1711**	NAICS: **238220**

PROCESS DESCRIPTION: Materials used consist of sanitary sewer pipe, water pipe, heating pipe or a combination sheet metal duct for air conditioning and heating, and finished fixtures with heating and cooling units. Many types of materials are used in the manufacture of pipe: steel, cast iron, copper, aluminum, glass and plastics. Pipe hanger inserts and supports for sheet metal ducts are installed. Pipes are installed in mechanical shafts, in underground installations, in back of masonry walls, above suspended ceilings and in both remote areas and in open spaces such as overhead mechanical installations not covered by ceilings.

PROCESS FLOW: Material required is usually obtained from a central purchasing department and shipped to the project site. Upon delivery, the most important task is the proper storing of pipe. Proper installation permits the removal of one section at a time so that other pipe does not roll down damaging the material and injuring the workman.

The work usually starts below ground level or below the basement floor slab at a time when the grading contractor has finished his work. The general contractor stakes out the building lines and elevations for finish floors. Underground plumbing (cast iron, pvc or terra cotta pipe) of the type specified is installed and in many instances in deep trenches. The remainder of the installation is included as the structure of the building progresses. As concrete or steel is placed in permanent position, pipe sleeves, hangers, inserts and supporting devices are included to permit installation of pipe or sheet metal ducts for permanent placement. In case of large pipe and ducts, openings are framed in the structure (walls and floors) to facilitate installation at a later date. In the final stages of construction, fixtures and equipment are installed to perform the designed function.



	NORTH CAROLINA DEPARTMENT OF LABOR	No. 17-1
	OSH DIVISION	Date: 03/2011
	OSHNC INDUSTRIAL DATA REPORT	Pages: 3

Hazards Analysis

Major Hazards			Other Hazards		
Location	**Item**	**Hazard**	**Location**	**Item**	**Hazard**
Job site	Material handling and storage	Material hoist falling and shifting materials	Job site	Improper use of tools	Lacerations and bruises
				Personal protective equipment	Head, limb and body injuries
	Trenches not shored or braced	Crushed body parts, suffocation or death from cave-ins		Lighting	Trips and falls
	Overhead work	Faulty temporary lighting, falling debris from other trades			
	Tools improperly grounded	Shock or electrocution			
	Openings, ladders, scaffolds, stairs and walkways	Slips, trips and falls			
	Housekeeping	Falls and trips			
	Ventilation	Heat stress and suffocation			
Welding areas	Toxic gases and fumes	Harmful effects on body organs and systems			

Key OSHNC Standards

Reference	29 CFR 1910 — General Industry Standards
1910.1000	Air contaminants

Reference	29 CFR 1926 — Construction Industry Standards
13 NCAC 7F.0207	Bloodborne Pathogens (state-specific requirements)
Subpart C and 13 NCAC 7F.0202	General Safety and Health Provisions - federal and state-specific requirements (for 1926.28)
Subpart D	Occupational Health and Environmental Controls
Subpart E and 13 NCAC 7F.0204	Personal Protective and Lifesaving Equipment - federal and state-specific requirements (for 1926.104)
Subpart F	Fire Protection and Prevention
Subpart H	Materials Handling, Storage, Use, and Disposal
Subpart K	Electrical
Subpart M	Fall Protection
Subpart N	Helicopters, Hoists, Elevators and Conveyors
Subpart X	Stairways and Ladders
Subpart CC	Cranes and Derricks
Subpart DD	Cranes and Derricks Used in Demolition and Underground Construction
1926.301	Hand Tools
1926.302	Power-operated Hand Tools
1926.556	Aerial Lifts
1926.1126	Hexavalent Chromium

Inspection Analysis

Make an observation of the work site to determine the employee locations and work practices. Then begin a detailed inspection of all equipment and facilities.

Other Pertinent Comments: