
HEALTH AND SAFETY PROGRAM 312 – UTILITY IDENTIFICATION

1.0 PURPOSE

- 1.1 The purpose of this procedure is to provide guidelines for the identification of utility hoses and equipment to enhance worker health and safety and prevent cross-connection or improper usage of utilities.

2.0 SCOPE

- 2.1 This procedure applies to all Westlake employees and contract employees working at the Plaquemine facility.

3.0 DEFINITIONS

- 3.1 Backflow Preventer – a device used to protect water supply from contamination due to backflow.
- 3.2 Utility Station – Provides point of service connections for steam, water, air, Nitrogen, and CA wash water.
- 3.3 Whip check – hose restraint slipped over the hose on each side of the fitting to prevent hose whip in the event of fitting separation or failure.

4.0 RESPONSIBILITIES

- 4.1 Department managers will ensure that this procedure is implemented and enforced within their area of responsibility.
- 4.2 Department Supervisors and Operations personnel shall ensure that this procedure is properly followed.
- 4.3 Maintenance personnel shall comply with the requirements of this procedure.
- 4.4 Contractors shall ensure all personnel are made aware and comply with the requirements listed within this procedure.

5.0 PROCEDURE

- 5.1 Hoses, hose couplings, and all other parts of utilities mentioned herein shall meet the following specifications:

HEALTH AND SAFETY PROGRAM 312 – UTILITY IDENTIFICATION

5.1.1 Steam Service

- 5.1.1.1 Hose color - red.
- 5.1.1.2 Utility station piping shall be painted red from the coupling to include approximately four feet of piping.
- 5.1.1.3 The hose must be made up to couplings to assure that the hose clamp is electrically connected to the steel braid in the hose. This will assure a conducting path or ground for static.
- 5.1.1.4 Hose must not be used on closed end service.

5.1.2 Water Service

- 5.1.2.1 Hose color - Blue.
- 5.1.2.2 Utility station piping shall be painted blue from the coupling to include approximately four feet of piping.
- 5.1.2.3 Chicago couplings are not to be used with utility service hose other than with water.
- 5.1.2.4 Hoses shall only be connected to potable water with an approved backflow preventer.

5.1.3 Air Service

- 5.1.3.1 Hose color - Green.
- 5.1.3.2 Utility station piping shall be painted green from the coupling to include approximately four feet of piping.
- 5.1.3.3 **Plant utility air systems are backed up by Nitrogen. Never use utility station air inside tanks or enclosed spaces or to drive ventilation equipment or pneumatic tools.**

HEALTH AND SAFETY PROGRAM 312 – UTILITY IDENTIFICATION

5.1.4 Nitrogen Service

- 5.1.4.1 Hose color - black.
- 5.1.4.2 Utility station piping shall be painted with orange and white stripes from the coupling to include approximately four feet of piping. The word "nitrogen" printed on a 4" x 6" backboard attached to the utility piping. Wrap around pipe markers can be used in lieu of backboards if desired, but operating unit must standardize on only one of the two identification methods for nitrogen service piping.

5.1.5 C/A Wash Water

- 5.1.5.1 Hose color – Yellow
- 5.1.5.2 Utility wash water stations in the Caustic unit shall be painted yellow.
- 5.1.5.3 CA Wash Water pressure averages between 65- 80 psi, and standard temperature is approximately 140°. Pressure should be relieved from hoses and time allowed for water to cool down before disconnecting.

5.1.6 Chemical Hose

- 5.1.6.1 Hose color – Green with Yellow stripes
- 5.1.6.2 Conduct visual inspection of hose prior to use
- 5.1.6.3 Ensure pressure rating is not exceeded.
- 5.1.6.4 Wear proper PPE relative to the PPE matrix

5.2 Although contractors may bring in and use hoses and fittings which are different than those specified in this procedure, only specified hoses and fittings can be connected to any Westlake utilities.

5.3 All hoses shall be kept clear of traffic routes. When this is not practical, a cage or guard shall be constructed over the hose to prevent rollover

HEALTH AND SAFETY PROGRAM 312 – UTILITY IDENTIFICATION

damage.

- 5.4 Idle hoses will be disconnected, rolled up, and stored on proper racks by the area operations technician.
- 5.5 All hose connections must be checked to ensure the connections and locking mechanisms are secure.
- 5.6 Ensure bleed connections are in place to release the pressure in hoses and tools before uncoupling.
- 5.7 Pneumatic power tools must be secured to the hose by some positive means to prevent the tool from becoming accidentally disconnected.
- 5.8 Material Numbers and Hose Description:

Service	Material Number	Description
Water Service	204085478	HOSE, 3/4"X 50', WATER SVC., THERMOID BLUE GS200# HOSE CPLG. AM6WF EACH END. WITH SAFETY CLIP AND LANYARD EACH END.
Nitrogen Service	204085441	HOSE, NITROGEN SERVICE, 3/4" X 50', BLACK WINGFOOT, W/PHLB-12 FITTINGS & BOSS CLAMPS E/E, HOSE RATED @ 300 PSI MAX.
Steam Service	204085465	HOSE, RED, STEAM SVC., 3/4"X 50', 250PSI, UNIROYAL P-809, WITH CAMPBELL 3/4"MALE IMS-3 ONE END X CAMPBELL 3/4" FEMALE ONE END, WITH CAMPBELL IC-3S CLAMPS EACH END. HOSE CLAMP ELECTRICALLY GROUNDED TO STEEL HOSE BRAID TO INSURE STATIC GROUND
Air Service	204085439	HOSE W/FITTINGS, 3/4"X 50', 300 PSI, GREEN GENERAL SVC., DIXON QB4WF FITTING ONE END, QB23WF ONE END.
CA Wash Water	50042201	HOSE 3/4" X 50' YELLOW 300 PSI, EPDM TUBE & COVER, POLYESTER REINFORCED RUBBER AIR AND WATER HOSE WITH 3/4" CHICAGO COUPLINGS EACH END. WITH SAFETY CLIP AND LANYARD EACH END.
Chemical Hose	205104926	HOSE, CHEMICAL & SOLVENT W/ UHMW TUBE, 1" X 25' LONG, COUPLED W/ 1" 316SS DIXON E-Z BOSS-LOCK SWAGED CONNECTORS, VITON GASKETS. HOSE COLOR: GREEN W/ YELLOW STRIPE. HOSE MFG.: NOVAFLEX 4700. HOSE RATING: FULL VACUUM TO 200 PSIG
Safety Clips for Chicago Couplings	504000108	Stocked in On-Site Safety Store. Enter a requisition in SAP using the material number listed. Safety Clips come in packs of 25. 1pack = 25 safety clips

HEALTH AND SAFETY PROGRAM 312 – UTILITY IDENTIFICATION

Revision History

Rev	Changes	Approved	Date
11	Added Chemical hose section 5.1.6 and hose description for chemical hoses in section 5.8	H. Garner	9/22/25
10	Added definitions and responsibilities sections, Updated material numbers and hose descriptions, added sections 5.3-5.8.	H. Garner	01/07/22
9	Changed Cleco coupling to Dixon coupling under Air Service.	H. Garner	2/1/2018
8	Rebranded. Fixed numbering. Took out Scimp numbers. Edited wording.	H. Garner	12/4/2017