

335000 Fuel Distribution Utilities

Sections Included In This Standard:

- 1.1 Identification of Underground Utilities and Piping
- 1.2 Gas Distribution Systems
- 1.3 Oil Distribution Systems
- 1.4 Fuel System Component Protection

1.1 IDENTIFICATION OF UNDERGROUND UTILITIES AND PIPING

- A. **WARNING TAPE:** All underground piping and utilities shall have non-detectable warning tape that conforms to the following requirements to identify the specific system buried below. Warning tape shall meet OSHA regulation 1926-956 (C) (I). Tape shall be 6" wide with black lettering imprinted on a color coded background that conforms to APWA color code specifications. Tape shall be installed between 18" to 30" above the top of the pipe and a minimum of 6" below grade.
- B. **TRACER WIRE:** All non- metallic pipes installed underground (except pipe containing electric wires and traceable communication lines) and all piping installed 6 feet or more below grade shall have a tracer wire installed along the length of the pipe. The tracer wire shall be taped to the pipe and not allowed to "float freely" within the backfill. The tracer wire shall be continuous without splicing from access point to access point along the length of the pipe. The tracer wire shall be accessible at all structures (valve boxes, meter pits, manholes, pull boxes, lift stations) along the length of the pipe. The tracer wire shall have an access point at the beginning and ending points of the pipe run with no distance between access points to exceed 400 feet within the pipe run. The tracer wire shall have a color coded jacket as follows:

Gas/Oil – Yellow

Tracer wire for piping less than 12" diameter shall be a #12 AWG and for piping greater than 12" diameter or 6 feet or more below grade shall be a #10 AWG and HS-CCS high-strength copper clad steel conductor (HS-CCS), insulated with a 30 mil, high-density, high molecular weight polyethylene (HDPE) insulation, rated for direct burial use at 30 volts. HS-CCS conductor must be 21% conductivity for locating purposes, Break load 380# minimum. HDPE insulation shall be RoHS compliant and utilize virgin grade material. Insulation color shall meet the APWA color code standard for identification of buried utilities. Tracer wire shall be *Copperhead*[™] HS-CCS HDPE 30 mil insulation or *pre-approved* equal and made in the USA. Any disturbance of this tape requires replacement after work is completed.

1.2 GAS DISTRIBUTION SYSTEMS

- A. Campus natural gas piping is owned operated and maintained by Gainesville Regional Utilities (GRU). The UF Utilities Planner shall be contacted regarding any piping extension or modification to this system.
- B. A campus helium recovery piping system is located within some sections of the campus telecommunications conduit system. The PPD Utilities Planner shall be contacted regarding any piping extension or modification to this system.
- C. For construction project emergency situations, contact the appropriate UF Project Manager.

1.3 OIL DISTRIBUTION SYSTEMS

Diesel storage tanks and associated piping shall comply with EPA, Florida Department of Environmental Protection (FDEP), and any applicable local regulations. Currently all underground tanks greater than 110 gallons and aboveground tanks greater than 550 gallons are regulated by FDEP. Installation of new tank systems and modifications of existing tank systems shall be reviewed and approved by the UF Tanks Coordinator in the EH&S office.

1.4.1 FUEL SYSTEM PROTECTION

- A. All underground components of the fuel system shall be protected by a tree root barrier system. This includes, but is not limited to, piping, valves and tanks and applies to system owned by UF or others.
- B. This barrier system shall be installed on the sides of the trench made to install the component, not just wrapped around the component.
- C. The preferred tree root barrier system is listed in the University Landscape master plan. Any deviation from this system shall need to be approved by Facilities Services.

END OF SECTION