

**Maine Department of Environmental Protection  
Policy on Underground Oil Storage Tank Regulations  
Copper Pipe as a Noncorrosive Material  
June 5, 1986**

REF: Department Regulations, Chapter 691 Section D.2

Department regulations state that piping for underground oil storage tanks used for the on-site consumption of oil shall be:

"...cathodically protected against corrosion, constructed of noncorrosive material, steel clad with non-corrosive material, or designed in such a manner to prevent the release or threatened release of any stored substance."

The use of copper piping is common for underground oil storage facilities used to store No. 1 and No. 2 fuel oil for the purpose of directly supplying an oil burner. It is also a use that is not restricted by the Maine Oil and Solid Fuel Board. This policy is written to clarify the Department's position regarding the acceptability of copper piping under the regulation stated above.

The Department finds that the use of copper piping for supply and return lines for fuel oil supply tanks is in compliance with Department regulations with limitations. The justification for this finding includes the following:


1. Copper is lower on the galvanic series than steel and thus is relatively noncorrosive; and
2. Based on Department oil spill reports, the use of copper pipe has not been a major factor in corrosion-induced underground oil storage tank leaks to date.

Limitations or restrictions placed on this policy include the following:

1. It is only applicable to copper piping used for supply and return lines for underground tanks storing No. 1 or No. 2 fuel oil and directly connected to an oil burner;
2. The number of joints installed in the copper piping shall

be kept to a minimum;

3. Acceptable copper piping shall conform to the requirements of National Fire Protection Association Code<sup>1</sup>;
4. All connections between a metallic tank and the copper piping shall incorporate dielectric fittings which electrically isolate the tanks from the piping; and
5. All piping shall be enclosed in Schedule 40 PVC (polyvinyl chloride) sleeves, ABS (rolled plastic), or the equivalent, at least twice the diameter of the copper pipe. Such sleeves will be designed to protect copper pipe from mechanical damage and will be uniformly sloped to prevent the accumulation of water. The PVC sleeve shall extend the entire length of the copper piping which is buried or otherwise hidden from view. For example, PVC sleeves shall extend through walls or foundations and wherever copper piping runs beneath a concrete floor.

  
Alan M. Pryzunka  
Director  
Bureau of Oil and Hazardous  
Materials Control

-----  
1. National Fire Protection Association. NFPA 31--Installation of Oil Burning Equipment. (Quincy, MA; 1983). Pp. 21-24.