

TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

LO-11
386

No. F-20

DURABILITY OF UNTREATED PILING ABOVE LOW TIDE

In tidal waters, the portions of piles above mean low tide, although completely immersed only part of the time, may be practically saturated all the time. Wood constantly saturated with water is not subject to decay, and this fact makes the height to which saturation extends above low tide a question of considerable interest to the designing engineer.

The opinion of a number of engineers and construction companies, expressed in response to inquiries by the Forest Products Laboratory at Madison, Wis., is that untreated piling in water not infested with marine wood-borers will remain sound indefinitely if cut off at half tide. This height ranges in various ports from 2.3 to 4.5 feet above low water. At certain places on the Atlantic coast, piles cut off at the height of half tide are still sound after from 50 to 100 years of service.

Untreated piling is destroyed by marine borers more rapidly than by decay, and the information given would, of course, have no practical use where these organisms are active.