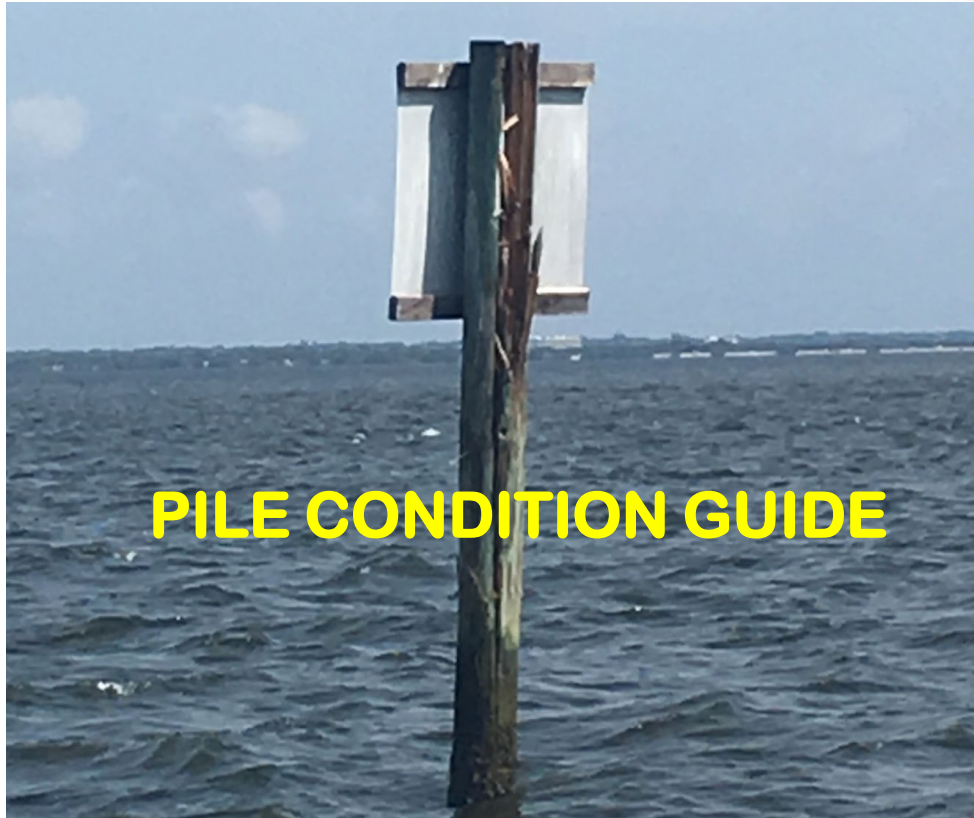





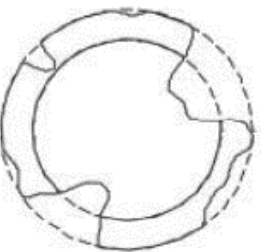
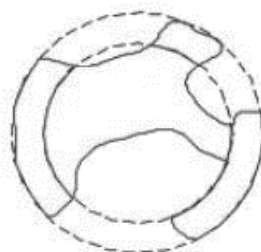
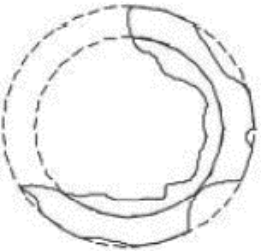
U. S. COAST GUARD AUXILIARY SEVENTH DISTRICT





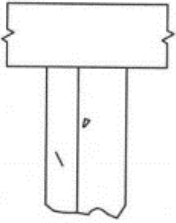
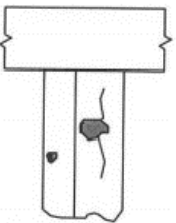
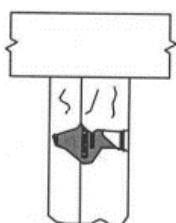
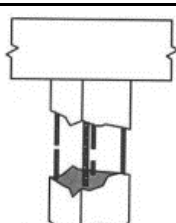
PILE CONDITION GUIDE

From COMDINST 16500.25A AIDS TO NAVIGATION MANUAL - STRUCTURES NOV 2005

U.S.C.G AUXILIARY SEVENTH DISTRICT NAVIGATION SYSTEMS
D7NS 1200 SEPTEMBER 12, 2022

TIMBER PILE CONDITION RATING	CONDITION RATING	DEFECTS	LOST MATERIAL	SURFACE & INTERIOR	BORER DAMAGE	ABRAISON DAMAGE
	1	NO DEFECTS	< 5%	Sound surface material	No evidence	
	2	MINOR DEFECTS	5 - 15%	Sound surface material	No evidence	Minor
	3	MODERATE DEFECTS	15 - 45%	Significant loss of outer shell	Some evidence	Significant
	4	MAJOR DEFECTS	45 - 75%	Significant loss of outer shell & interior damage	Severe	Severe
	5	SEVERE DEFECTS	> 75%		Severe	

	CONDITION RATING	DEFECTS	SURFACE MATERIAL	CORROSION	LOSS OF SECTION
STEEL PILE CONDITION RATING	1	NO DEFECTS	SOUND < 10% COATING DETERIORATION	NO SURFACE RUST OR PITTING	
	2	MINOR DEFECTS	10 - 20% COATING DETERIORATION	LIGHT SURFACE RUST LIGHT PITTING	
	3	MODERATE DEFECTS	WIDESPREAD COATING DETERIORATION	RUST THAT IS LOOSE & FLAKING WITH SOME PITTING - CAN BE REMOVED WITH SOME EFFORT USING SCRAPER OR CHIPPING HAMMER	MEASUREABLE BUT NOT SIGNIFICANT
	4	MAJOR DEFECTS		REMOVAL OF SCALE REQUIRES INCREASED EFFORT USING SCRAPER OR CHIPPER HAMMER	INCREASED LOSS
	5	SEVERE DEFECTS		HEAVY, STRATIFIED RUST OR SCALES, EXTENSIVE PITTING REMOVAL MAY REQUIRE MECHANICAL MEANS	SIGNIFICANT LOSS

CONCRETE PILE CONDITION RATING	CONDITION RATING	DEFECTS	SURFACE		CRACKS	CHIPPING & SPALLING	CORROSION	
	1	NO DEFECTS	Good original surface	Hard material	Hairline cracks			
	2	MINOR DEFECTS	Good original surface	Hard material	Minor cracks or pits	Small chips or popouts	Slight rust stains	Corrosion of the wires
	3	MODERATE DEFECTS	Limited spalling of concrete	Softening of concrete	Reinforcing steel ties exposed	Popouts or impact damage	Rust stains along rebar	Minor corrosion of exposed rebar
	4	MAJOR DEFECTS	Spalling of concrete results in 10-15% loss	Widespread surface disintegration	Deep wide cracks along rebar	Large spalls 6 inches or more wide	Major rust stains along rebar	
	5	SEVERE DEFECTS	More than 15% loss of concrete					Exposed rebar with 50% loss of steel section