



CARRIER PIPES:

THE FOLLOWING REQUIREMENTS ARE IN ACCORDANCE WITH AREMA, PART 1:

PIPELINES CARRYING OIL, LIQUEFIED PETROLEUM GAS, NATURAL OR MANUFACTURED GAS AND OTHER FLAMMABLE PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ANSI B-31.8 AND ANSI B-31.4 AND OTHER APPLICABLE CODES, EXCEPT THAT THE MAXIMUM ALLOWABLE STRESSES FOR DESIGN OF STEEL PIPE SHALL NOT EXCEED THE SPECIFIED MINIMUM YIELD STRENGTH, WHICH IS DETERMINED BY A PERCENTAGE OF THE HOOP STRESS DUE TO INTERNAL PRESSURE AS LISTED BELOW:

1. STEEL WELDED PIPE UNDER TRACKS THAT IS PROTECTED WITH A STEEL CASING. THE FOLLOWING PERCENTAGES APPLY TO HOOP STRESS:
 - A. 72% FOR INSTALLATION ON OIL PIPELINES
 - B. 50% FOR PIPELINES CARRYING LIQUEFIED PETROLEUM, GAS AND OTHER FLAMMABLE LIQUIDS WITH LOW FLASH POINT
 - C. 60% FOR INSTALLATIONS ON GAS PIPELINES
2. STEEL PIPE WITHOUT A CASING UNDER SECONDARY OR INDUSTRY TRACKS. THE FOLLOWING PERCENTAGES APPLY TO THE SUM OF THE HOOP STRESS DUE TO THE MAXIMUM ANTICIPATED INTERNAL PRESSURE AND THE FLEXURAL RING STRESS DUE TO EXTERNAL LOADS:
 - A. 60% FOR INSTALLATION ON OIL PIPELINES
 - B. 40% FOR PIPELINES CARRYING LIQUEFIED PETROLEUM, GAS AND OTHER FLAMMABLE LIQUIDS WITH LOW FLASH POINT
 - C. 50% FOR INSTALLATIONS ON GAS PIPELINES
3. STEEL PIPE LAID LONGITUDINALLY ON CALTRAIN ROW WITHOUT THE PROTECTION OF A CASING. THE FOLLOWING PERCENTAGES APPLY TO HOOP STRESS:
 - A. 60% FOR INSTALLATION ON OIL PIPELINES
 - B. 40% FOR PIPELINES CARRYING LIQUEFIED PETROLEUM, GAS AND OTHER FLAMMABLE LIQUIDS WITH LOW FLASH POINT
 - C. 40% FOR INSTALLATIONS ON GAS PIPELINES
4. ALL JOINTS OR COUPLINGS SHALL BE WELDED
5. GAS LINE SHALL BE ALLOYED CARBON STEEL WITH A FACTORY-APPLIED CORROSION PROTECTION COATING

CASING PIPES:

1. CASING PIPE AND JOINTS SHALL BE WELDED, CAPABLE OF WITHSTANDING RAILROAD LOADING (COOPER E-80)
2. CASING PIPE MAY BE OMITTED FOR GAS PIPELINES

NOTES:

1. SHUTOFF VALVES MAY BE REQUIRED BY THE FEDERAL, STATE, OR LOCAL AUTHORITIES. IF INSTALLED, THE VALVES SHALL BE LOCATED OUTSIDE OF CALTRAIN RIGHT-OF-WAY.
2. SEE SD-8000 FOR GENERAL REQUIREMENTS

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bernard Anagnostis *Steph Chen*
 ENGINEERING MANAGER DEPUTY DIRECTOR OF ENGINEERING



STANDARD DRAWINGS

CIVIL ENGINEERING
 CROSSING UTILITIES
 PIPELINES FOR FLAMMABLE
 AND HAZARDOUS SUBSTANCES

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REV	DATE	BY	CHK	APP	DESCRIPTION