

Summary of Modifications/Changes in this Update

This Summary of Changes is for information only.
It is not a part of the referenced document, and should not be used for project documentation.

U.S. Department of Veterans Affairs ♦ Office of Construction & Facilities Management

DATE OF THIS VERSION (new)

February 1, 2024

TITLE OF DOCUMENT (new title if applicable):

33 63 00 STEAM ENERGY DISTRIBUTION

DATE OF VERSION BEING SUPERSEDED (old):

September 1, 2017

DESCRIPTION OF DOCUMENT (previous title, number, other identifying data):

33 63 00 STEAM ENERGY DISTRIBUTION

SUMMARY OF CHANGES IN THIS VERSION:

1. Created 2.8 Expansion Joints from within 2.7 Expansion Loops & Bends and added Spec Writer's Note requiring HEFP Approvals for using expansions joints other than expansion loops.
2. Deleted 2.7 E. Slip Type Joint and 2.9 Ball Joint expansion joints from the specifications.

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DATE OF THIS VERSION (new)

September 1, 2017

TITLE OF DOCUMENT (new title if applicable):

33 63 00 STEAM ENERGY DISTRIBUTION

DATE OF VERSION BEING SUPERSEDED (old):

August 1, 2017

DESCRIPTION OF DOCUMENT (previous title, number, other identifying data):

33 63 00 STEAM ENERGY DISTRIBUTION

SUMMARY OF CHANGES IN THIS VERSION:

1. Corrected improper reference to bolts from B8 (high strength stainless steel) to B7 (high strength carbon steel). ASTM A193/A193M was not changed since it is the references for B7 – high strength carbon steel bolts.

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DATE OF THIS VERSION (new)

August 1, 2017

TITLE OF DOCUMENT (new title if applicable):

33 63 00 STEAM ENERGY DISTRIBUTION

DATE OF VERSION BEING SUPERSEDED (old):

June 1, 2013

DESCRIPTION OF DOCUMENT (previous title, number, other identifying data):

33 63 00 STEAM ENERGY DISTRIBUTION

SUMMARY OF CHANGES IN THIS VERSION:

1. Renumbered Par 1.1.B is now Definition.
2. Deleted "Encasement Pipe".
3. Replaced "drawing" with Contract Documents in Spec Writer Note.
4. Par 1.1.C Added HP and LP in Abbreviations.
5. Par 1.2. Added
 - Section 01 00 00, GENERAL REQUIREMENTS
 - Section 01 81 13, SUSTAINABLE CONSTRUCTION REQUIREMENTS
 - Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS
 - Section 09 91 00, PAINTING
 - Section 02 82 11, TRADITIONAL ASBESTOS ABATEMENT
 - Section 03 30 00, CAST-IN-PLACE CONCRETE
 - Section 05 50 00, METAL FABRICATIONS
 - Section 13 05 41 SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS
 - Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING

Section 22 08 00, COMMISSIONING OF PLUMBING SYSTEMS

6. Relocated Par 1.3 Applicable Publications.
7. Par 1.3 Revised Spec Writer note.
8. Par 1.3.B. Added Spec Writer Note regarding AASHTO.
9. Par 1.3 Updated publications, added some and deleted some.
10. Par 1.4 Submittals. Added verbiage on the number of copies, compliance, and manufacturer's literature, materials of construction, O&M manuals, Completed System Readiness checklist, training plans and instructor qualifications, Bio-Based Materials, etc.
11. Relocated Quality Assurance to Par 1.5, then revised.
12. Relocated DELIVERY, STORAGE AND HANDLING to Par 1.6, then revised.
13. Relocated Quality Assurance to Par 1.5, then revised.
14. Added Par 1.9 Utility Location Services.
15. Added Par 1.6 As-built Documentation.
16. General: Inserted metric versions of referenced standards.
17. General: Deleted "conduit". Also deleted Cast iron, and copper/bronze valve bodies and fittings from the document and replaced with steel or forged steel.
18. Deleted Paragraphs on FIBERGLASS PIPE AND FITTINGS, CONDUIT PIPING SYSTEM, LOOSE FILL INSULATION.
19. Par 2.2 added to spec writer notes about VA preference for tunnels instead of direct buried piping.
20. Par 2.2.A. Added "factory fabricated".
21. General: Put metric units ahead of English units.
22. Par 2.2.D.4. Table 1, deleted MPT-PC column as it is also mineral wool same as Delta. Also changed brand names into generic insulation types.
23. Added Par 2.2.U, V, W and X.
24. Par 2.2.CC.3. Deleted "Pumps and motors shall be capable of operating continuously without damage when not submerged".
25. Par 2.2.CC.6 Added "Mount non-submerged control components in a NEMA 4 enclosure on adjacent wall or dedicated galvanized steel support stand."
26. Par 2.3 Tunnels, Revised Spec writer note.
27. Par 2.5 STEAM CARRIER PIPING changed to STEAM PIPING.
28. Par 2.5.A. deleted "Standard weight permitted for pipe sizes 12 inches (300 mm) and above". Added Schedule 80 option.

29. Par 2.5.B.1. Revised.
30. Par 2.5.B.2. Added "Use Schedule 80 pipe and fittings for threaded joints".
31. Par 2.6. STEAM CONDENSATE CARRIER PIPING changed to STEAM CONDENSATE PIPING.
32. Par 2.6.B.1 and 2 Revised.
33. Par 2.7.A. Changed "Power Piping Code" to ASME B31.1. Added "Stress analysis shall cover all conditions under which the system can conceivably experience during its lifetime."
34. Par 2.8.C.4., D.4, E.5 added "flanged ends for 2" and larger pipes."
35. Par 2.8.F. Expansion Compensators.
36. Par 2.8.H Revised.
37. Added Par 2.10.A.1.d.
38. Par 2.10.A.3. Added "Applies to condensate valves with sizes 65 mm (2-1/2 inches) and above".
39. Par 2.10.A.4. Added "Applies to condensate valves with sizes 50 mm (2 inches) and under."
40. Par 2.10.A.6. Added "Applies to steam valves with sizes 50 mm (2 inches) and under."
41. Par 2.10.B.1 Added "Applies to steam valves with sizes 65 mm (2-1/2 inches) and above."
42. Par 2.10.B.3 Added "Applies to condensate valves with sizes 65 mm (2-1/2 inches) and above."
43. Par 2.10.B.4 Added "Applies to steam valves and condensate valves with sizes 50 mm (2 inches) and under".
44. Par 2.10.C.1 Added "Applies to steam valves with sizes 65 mm (2-1/2 inches) and above".
45. Par 2.10.C.3 Added "Applies to condensate valves with sizes 65 mm (2-1/2 inches) and above".
46. Par 2.10.C.4 Added "Applies to steam valves and condensate valves with sizes 50 mm (2 inches) and under".
47. Par 2.10.D.2 Added "Applies to steam valves and condensate valves with sizes 50 mm (2 inches) and under"
48. Par 2.10.D.4 Added "Applies to steam".
49. Deleted Par 2.10.E, F, G.
50. Par. 2.11.C. Added blank option for percent deviation and changed turndown ratio.
51. Par 2.11.C Revised to read "Downstream safety valve to be sized to equal or exceed the maximum total flow capacity of the pressure reducing station."
52. Par 2.11.D, Re-written.
53. Added Par 2.11.D.4 and Designer Note.

54. Added Par 2.11.E.
55. Rewrote 2.12.B and C.
56. Rewrote 2.12.E. Spec Writer note.
57. Par 2.14.A. Revised ASME reference to BPVC Section VIII.
58. Deleted Par 2.14.C.
59. Added Par 2.15.B.8.
60. Par 2.15.E. changed drawings to Contract Documents and replaced pressure range table with new verbiage.
61. Par 2.16.B.1 deleted union connected.
62. Par 2.16.B.3 Added "stainless steel" and "safety".
63. Par 2.16. B.4.Replaced "Straight or back form except those located more than 7 feet (2100 mm) above floor shall be adjustable angle" with "Adjustable angle for ease of viewing".
64. Par 2.16.B.5 Added "Well should be 316 stainless steel".
65. Par 2.17.A Added "//Refer to Section 13 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS.//".
66. Par 2.17.B. Added Spec Writer Note.
67. Par 2.17.D. Expanded Spec Writer note by transferring some of the text from par D to the Spec Writer note.
68. Par 2.17.P Added "Refer to Section 13 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS".
69. Par 2.17 Deleted Calcium Silicate insulation, Fiberglass Insulation, Rigid Closed cell, Cellular glass, Insulating and finishing cements, insulation bands and Service Jackets.
70. Par 3.1.A Replaced "If the carrier pipe insulation has failed (disintegrated) in an existing buried piping system, but the system is otherwise sound, there is an alternative to total replacement of injecting foam insulation into the existing system from above grade" with "If an installation is unsatisfactory to the COR, the Contractor shall correct the installation at no additional cost or time to the Government".
71. Par 3.1.D changed drawings to Contract Documents.
72. Par 3.2.A Added "Phasing shown on drawings is an outline from which the contractor will use to provide more details in executing the work in each phase".
73. Par 3.2.BA. Added "If asbestos containing materials are suspected to be present in the demolished items not identified in the drawings to be part of the asbestos abatement, the contractor shall secure the area, remove their personnel and refer the matter to COR

immediately for resolution. Refer to Section 02 82 11, TRADITIONAL ASBESTOS ABATEMENT”.

74. Par 3.2.E. Added “unless designated as being turned over to the owner”.
75. Par 3.2.F. Added “facility burn permit in place and”.
76. Deleted Par 3.3. PIPING APPLICATION.
77. Par 3.3.A. Rewrote to read: “For field installed insulation, install piping insulation as specified herein and/or as recommended by the manufacturer”.
78. Par 3.3.C. Added “Provide compaction and leveling of virgin soil prior to installing bedding”.
79. Par 3.3.D. Added Spec Writer Note.
80. Par 3.3.D. Rewrote paragraph.
81. Par 3.3.E. Added “cleaning, followed by” and “by COR”.
82. Par 3.3.H changed “operating” to “design”.
83. Par 3.3.K added “On direct buried pipes, secure”.
84. Deleted Par 3.3.L and M.
85. Par 3.4.A Added “manual” and 3.4.B.
86. Par 3.5.B.2 added “methods/detail” and “loaded”.
87. Par 3.5.D.2 rewrote to read “Where hangers cannot be adequately secured as specified, make special provisions for hanging and supporting pipe to be submitted to COR for AE review.”
88. General: Changed Contracting Officer’s Representative to COR.
89. Par 3.5.F. rewrote Spec Writer Note.
90. Par 3.5.F. added “Refer to Section 13 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS”.
91. Par 3.5.G.1, 3, and 4: Increased dimensions to 6”.
92. Added Par 3.5.G.5.
93. Par 3.6.A and B. Added “per SSPC SP-2 Standard”.
94. Par 3.7.A deleted “oversee the”.
95. Par 3.7.B replaced “Place system on a 6 inch (150 mm) thick sand bed and backfill on all sides with 6 inch (150 mm) thick sand as measured from outside the carrier pipe/insulation.” with “Install per manufacturers recommendations //and as shown on contract drawings// based on soil conditions” Also added “and cleaned”.

96. Par 3.7.C. Added "accompanied with photo documentation of each piping with the elevation instrument reading visible".
97. Par 3.7.E. Added "completely remove", "oil, coatings," "brush, scrapers or chemical cleaning".
- Par 3.7.H.1 Added "Format shall be in digital PDF files and hardcopy printout. Digital files can be submitted thru email, FTP, USB stick or CD-ROM."
98. Deleted Par 3.4.J.
99. Par 3.8.H deleted "and finished with pourable or split insulation, exterior jacket sleeve, and apply shrink-wrap seals".
100. Par 3.10.B replaced "special flexible connector on each safety valve that is designed to avoid blow-back of steam into the tunnel or manhole. Slip joint to be arranged to prevent vent line from imposing any strain on safety valve and to prevent moisture accumulation in safety valve" with "drip pan elbow as necessary" and "flexible connector" with "drip pan elbow".
101. Par 3.10.A added "and suction" in two places. And deleted "operating point".
102. Par 3.13.A.1. deleted fiberglass and glass cloth.
103. Par 3.13.A.2. rewrote to read "Exposed piping in walk through tunnels: Insulated with mineral wool, calcium silicate, fiberglass, or cellular glass pipe insulation, //cavass// //aluminum// jacket. Condensate return piping may be insulated with mineral wool, calcium silicate, fiberglass, or cellular glass pipe insulation".
104. Par 3.13.A.3 deleted glass cloth.
105. Par 3.13.A.4. Changed Table numbers and deleted tables from here.
106. Par 3.13.A.5.a added "and cleaning".
107. Par 3.13.A.5.k and l: rewrote.
108. Par 3.14.D. deleted split welding rings.
109. Par 3.14.H replaced "carrier" with "steam and condensate".
110. Par 3.15.A. added "", brush, scrapers and chemical cleaners" and "For carbon steel piping, use detergent to remove any oil and caustic solution to remove the mill scale".
111. Added Par 3.15.B.
112. Par 3.16. Added "FOR UTILITY LOCATING".
113. Par 3.17.A. deleted "plastic signs".
114. Par 3.17.B Added "every 25 feet and at every change in direction. Label shall include flow direction arrows".

115. Par 3.18.A. added "tests at 1.5 times the design pressure".
116. Par 3.18.D. deleted "high pressure".
117. Par 3.18.E. deleted "carrier" and replaced "distribution supply" with "design".
118. Par 3.18.E.2. added "and spring hangers".
119. Par 3.18.E.3. changed 6 to 8 hours.
120. Par 3.18.E.4. added "or time" and changed pressure.
121. Par 3.18.F.2. rewrote to read "Test shall be with compressed air at 103 kPa (15 psig) for 24 hours with pressure source disconnected and with decay in pressure not to exceed // 5% // // // . The first two hours shall not lose any pressure."
122. Par 3.18.F.3. changed pressure.
123. Par 3.18.L.1.c added "Install relief valve set at pressure no more than one-third higher than test pressure and replace safety valves of the appropriate pressure. Reset pressure setpoint of all relief valves to the appropriate pressures and replace safety valves after all tests have been completed. Contractor to provide written report of the reset with date and time stamp for each relief valve and replacement of the safety valves."
124. Field Quality Control Par L.1.c & d rewritten.
125. Added Par 3.18.N.
126. Added Par 3.21, 3.22, 3.23.