

CONSTRUCTION GUIDELINE**26-KV PRIMARY WYE SPLICE - POLYETHYLENE INSULATION****MATERIAL LIST**

ITEM	QUANTITY	MATERIAL	STOCK NUMBER
1	3	Splice, Copper Compression, Wye	See attached table for stock number
2	As Required	Adapter, Copper, Reducing	See attached table for stock number
3	3 7	TAPE, Electrical, Semi-conducting 3/4" TAPE, Electrical, Semi-conducting 1"	736670 736671
4	3 24 As required 3 24 As required	TAPE, High Voltage Insulating, linerless 3/4" 1" 1-1/2" TAPE, High Voltage Insulating, with liner 3/4" 1" 1-1/2"	736503 736504 736505 736502 736500 736501
5	9 or 6	Tape, Tinned Copper Shielding 1 inch 2 inches	736244 736243
6	As Required	Braid, 5/8 inch x 3/64 inch Tinned Copper	618625
7	10	Tape, 3/4 inch Plastic Insulating	736655E
8	As Required	Cleaner, Electrical Insulation	726157E
10	9	Tubing, Heatshrink 3/0 and Smaller 350 kcmil and Larger	737455E 737456E
11	10	Friction Tape	736400E
13	1 QT	Varnish	725471
14	As Required	TAPE, Red Heat Shrink, 2"	686541

SPLICING NOTES:

1. Train cables to final position and cut ends so as to butt squarely together. Do not clog vault or manhole with cable by unnecessary wrapping of hole with cable.
2. Trifurcate each cable in accordance with Guideline NSP-110. (Sand cable jacket.)
3. Slide three-inch heat-shrink tubing (Stock No. 737456E) over each cable end for later use.
4. From the table, select the proper wye splice for use with the conductors being spliced. Use the appropriate reducing sleeve if the connector barrel diameter is larger than the cable. Do not use more than two reducing sleeves in any one splice barrel.
5. Remove metal shielding tape from each conductor for a length of 8-1/2" plus the depth of each connector barrel.
6. Remove insulation semiconducting shield from each conductor to within 1" of the metal shielding tape.
7. Remove insulation and conductor semiconducting shield from each conductor for a length of one-half inch plus the splice barrel depth. Pencil insulation for one-inch minimum, leaving one-sixteenth inch minimum of conductor semiconducting shield exposed.

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8. Attach wye splice to conductors with two crimps on each splice barrel (three crimps on 750 splice barrels), Remove any burrs or sharp points. Caution: Do not crimp splice barrel within one-half inch of the solid yoke. Measure the depth of the crimp barrel to make this mark.
9. Clean entire prepared splice area, using clean, lint-free cloths and suitable solvent. Use separate cloths for the insulation so as not to contaminate the insulation with conducting particles from the semiconducting shield. Wipe from center of insulation over insulation semicon and throw rag away. Wipe from center over penciling and throw rag away.
10. Fill crimp indents with either red sealant mastic (Stock No. 686541) or cut strips of semi-con tape (Stock No. 736670) to fill indents so that connector is rounded out.
11. Apply semiconducting tape (Stock No. 736670) to exposed conductor, connector, and overlapping cable conductor semicon. When applying, half-lap and stretch tape in accordance with manufacturer's instructions packed with each roll of tape. Caliper the semicon to measure for tape buildup over the crimp barrels. Build up semicon tape on conductor as shown on drawing. See Page 6.
12. Wrap high voltage, ozone-resistant tape (linerless or with liner), half-lapping and stretching per manufacturer's recommendations over the connector and over the insulation to within one-quarter inch of the insulation semiconducting shield. This tape should be applied to a thickness of 9/16 inch over splice, and tapered toward the end of the splice as shown. It is important that this tape is stretched per manufacturer's recommendations. Build up sides of yoke early so a "ball" forms for later taping, to keep pressure on sides. See Page 1.
13. Wrap one half-lapped layer of semiconducting tape (Stock No. 733671) over splicing tape, extending it over the insulation semiconducting shield.
14. Wrap one half-lapped layer of electrical metallic shielding tape (Stock No. 736244 or 736243) over semiconducting tape, overlapping the metal shielding tape of the cable at each end. Apply shielding tape in three pieces, wrapping from center toward each end. Overlap at the center and solder in place at the center and to the metal shielding tapes. Spot solder the turns together. Be sure of continuity across splice and pull shielding tape so it conforms to splice.
15. On station end of splice, solder ground strap (braid) (Stock No. 618625) to metal shielding tape of each phase, and extend out from joint as shown. Braid should be soldered solid where it exits the heat-shrinkable tube to prevent wicking. Connect ground braids together and connect to the ground bus. Wrap red mastic sealant around solder-blocked braid.
16. Apply one half-lapped layer of plastic insulation tape from jacket to jacket.
17. Slide three-inch heat-shrink tubing over each leg toward crotch area of splice and shrink into place. Do not apply heat onto crotch area. If need be, temporarily shield the exposed crotch area from direct flame.
18. Apply four one-half-lapped layers of highly stretched high-voltage tape (Stock Nos. 736500 or 736504) over shielding tape and onto the heat-shrink tubing for a length of one inch on each leg. Put aqua seal under tape over heat-shrink.
19. Wrap two half-lapped layers of plastic tape (Stock No. 736655E) over high voltage tape and (two inches) onto the heat-shrink tubing.
20. Apply one half-lapped layer of friction tape (Stock No. 736400E) over plastic tape to prevent raveling.
21. Paint all friction-taped areas with insulating varnish (Stock No. 725472).

CONSTRUCTION GUIDELINE**26-KV PRIMARY WYE SPLICE - POLYETHYLENE INSULATION****TABLE 1 - 750 & 500 kcmil
(Wye Splice)**

CABLE NO.	SIZE	Y CONNECTOR (per splice)	STOCK NO.	ADAPTER (per phase)	STOCK NO.
1	750			none	
2	750	750-750-350	663559	none	-
3	350			none	
1	750			none	
2	500	750-750-350	663559	750 - 500	679790
3	350			none	
1	750			none	
2	500	750-750-350	663559	750 - 500	679790
3	3/0			350 - 3/0	679780
1	750			none	
2	500	750-750-350	663559	750 - 500	679790
3	#1			350 - #1	679778
1	750			none	
2	350	750-750-350	663559	750 - 350	679789
3	350			none	
1	750			none	
2	350	750-750-350	663559	750 - 350	679789
3	3/0			350 - 3/0	679780
1	750			none	
2	350	750-750-350	663559	750 - 350	679789
3	#1			350 - #1	679778
1	500			none	
2	500	500-500-500	663544	none	-
3	500			none	
1	500			none	
2	500	500-500-500	663544	none	
3	350			500-350	679785
1	500			none	
2	500	500-500-3/0	663538	none	-
3	3/0			none	
1	500			none	
2	500	500-500-3/0	663538	none	
3	#1			3/0 - #1	679775
1	500			none	
2	350	500-500-3/0	663538	500 - 350	679785
3	3/0			none	
1	500			none	
2	350	500-500-3/0	663538	500 - 350	679785
3	#1			3/0 - #1	679775
1	500			none	
2	3/0	500-500-3/0	663538	500 - 3/0	679783
3	3/0			none	
1	500			none	
2	3/0	500-500-3/0	663538	500 - 3/0	679783
3	#1			3/0 - #1	679775

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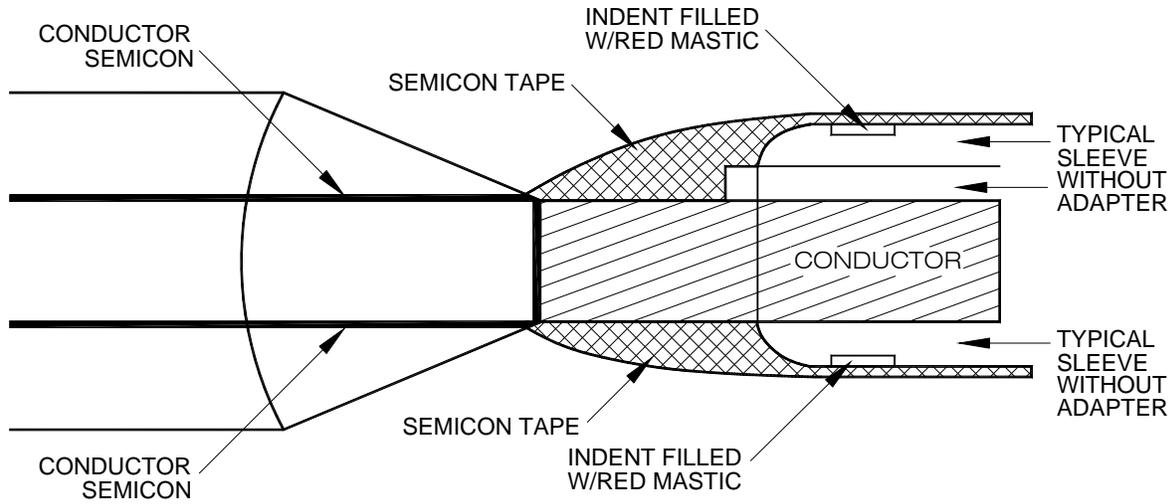
**TABLE 2 - 350 kcmil & Smaller
 (Wye Splice)**

CABLE NO.	SIZE	Y CONNECTOR (per splice)	STOCK NO.	ADAPTER (per phase)	STOCK NO.	
1	350	500-500-500	663544	500 - 350	679785	
2	350			500 - 350	679785	
3	350			500 - 350	679785	
1	350	350-350-3/0	663524	none	-	
2	350			none		
3	3/0			none		
1	350	350-350-3/0	663524	none	679775	
2	350			none		
3	#1			3/0 - #1		
1	350	350-350-3/0	663524	none none	-	
2	3/0			350-3/0 or 350-#1		679780 or 679778
3	#1			3/0 - #1 none		679775
1	350	350-350-3/0	663524	none	679778	
2	#1			350 - #1		
3	#1			3/0 - #1		679775
1	3/0	3/0 - 3/0 - 3/0	663506	none	-	
2	3/0			none		
3	3/0			none		
1	3/0	3/0 - 3/0 - 3/0	663506	none	679775	
2	3/0			none		
3	#1			3/0 - #1		
1	3/0	3/0 - 3/0 - 3/0	663506	none	679775	
2	#1			3/0 - #1		
3	#1			3/0 - #1		679775

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SEMICON TAPING AT CONDUCTOR SEMICON TO CONNECTOR SLEEVE



One or two half-lap layers of semicon tape over connector area.

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