

Raychem**PRODUCT CONTROL DOCUMENT**

NCBK-04-04

APCo Exhibit 118
USNHCUSAGE:

NUCLEAR CABLE BREAKOUT KIT

'92 JUN -2 P12:08

Cable Jacket O.D.: 0.78" - 1.2"
 Insulated Conductor O.D.: 0.19" - 0.34"

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCHCONTENTS:

| <u>Item</u> | <u>Qty.</u> | <u>U/M</u> | <u>Description</u> | <u>Key</u> |
|-------------|-------------|------------|--|------------|
| 1. | 1 | pc. | 502A823-52/144 Conductor Sealing Breakout | E |
| 2. | 1 | pc. | WCSF-650-6-U Outer Sleeve | V |
| 3. | 1 | ea. | Installation Instructions PII-57009 | - |
| 4. | 1 | ea. | Product Control Document PCD-57014 | - |

QUALIFICATION REPORTS:

EDR-2001: Heat Aging Study of WCSF Compound
 EDR-5009: Flammability Testing of Heat Shrinkable Field Splicing
 System for Class 1E Electric Cables Type WCSF-N
 WYLE 58442-2: Environmental Qualification Test Report of Raychem Nuclear
 Cable Breakout and End Sealing Kits

ENERGY DIVISION-AMPAC

DOCUMENT NO. PCD-57014

Revision: 0

Date: 10-8-81

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Raychem

NCBK

INSTALLATION INSTRUCTIONS FOR NUCLEAR CABLE BREAKOUT KITS

GENERAL:

1. Use a clean burning propane torch or an electric hot air heater for the installation of NCBK kits.

ORDER:

PROPANE TORCHES: Raychem Model FH-2609 Clean Burning Torch
Raychem Model FH-2616 Mini Torch

HOT AIR HEATERS: Raychem Model CV-5000 Thermogun Model 750 (115V)
Raychem Model CV-2116 Heavy Duty Leister (115V)
Raychem Model CV-2117 Heavy Duty Leister (230V)

2. Adjust torch flame to an approximate 8" length with a 3" - 5" yellow portion at a regulator pressure of 5 PSIG. Use the yellow portion of the flame with a paintbrush motion. KEEP THE FLAME MOVING.
3. SHRINK BREAKOUTS beginning at the junction of the legs and body. After the legs are recovered, shrink the body.
4. Begin shrinking tubing components at the center of the tube. Heat uniformly circumferentially. When recovered, move first towards one end, then to the other.
5. Parts are "fully recovered" when the outer surface is smooth and has a glossy appearance. Coated parts will have a visible flow of adhesive.

PREPARATION:

1. CONFIRM KIT SELECTION. Check dimensions of Cable and wire against kit label.
2. REMOVE ALL NON-QUALIFIED OR BRAIDED JACKETING MATERIAL from the Jacket Cutback. RAYCHEM products are designed to seal to smooth, non-woven surfaces. All non-qualified or braided jacketing material should be moved from the Jacket Cutback for a distance of one inch longer than the length of the Breakout body.
3. CLEAN AND DEGREASE cable jacket and wire insulation with a solvent (such as 1,1,1 trichloroethane) which is approved by the cable manufacturer. All surfaces must be free of grease, oils or other contaminants prior to being brought into contact with RAYCHEM products.

ORDER: Cable Preparation Kit, Raychem No. CPK-01-00 (contains 6 solvent wipes and 1 abrasive cloth).

INSTALLATION:

1. THREAD ONE INSULATED CONDUCTOR through each leg of the Cable Breakout, Part E. Ensure the large open end of the Breakout faces toward the Jacket Cutback. Slide the Breakout along the individual wires and over the cable as far as it will go. SHRINK IN PLACE.
2. POSITION THE OUTER SLEEVE, Part V, over the Cable Breakout such that there is approximately 1/2" extending past the legs of the Breakout. SHRINK IN PLACE.

DO NOT FLEX UNTIL COMFORTABLE TO TOUCH

