

Table 3. Summary of Bend and High-Potential-Withstand Tests

SPECIMEN NUMBER	VISUAL APPEARANCE BEFORE AND DURING BEND TEST ^a	MANDREL DIAMETER (in)/(mm)	MANDREL/CABLE DIAMETER RATIO	NUMBER OF CABLE TURNS	APPLIED ALTERNATING POTENTIAL ^b (V)	LEAKAGE/CHARGING CURRENT (mA)	REMARKS
1-1	Many rust-colored markings with white chemical deposit overall. No apparent cracks or tears.	4/102	40	8	1600	<10.0	Withstood potential. (Specimens connected together for test.)
1-2	Same as for specimen 1-1.	4/102	40	7			
1-3	Same as for specimen 1-1.	4/102	40	7			
1-4	Same as for specimen 1-1.	4/102	40	9	2400	<10.0	Withstood potential. (Specimens connected together for test.)
2-1	Same as for specimen 1-1.	6/152	40	6			
2-2	White chemical deposits overall. No apparent cracks or tears.	6/152	40	7			
2-3	Same as for specimen 1-1.	6/152	40	5	3600	<10.0	Withstood potential. (Specimens connected together for test.)
2-4	Same as for specimen 1-1.	6/152	40	8			
3-1	White chemical deposits overall. No apparent cracks or tears.	16/406	40	2			
3-2	Same as for specimen 3-1.	16/406	40	2	2400	<10.0	Withstood potential. (Specimens connected together for test.)
3-3	Same as for specimen 3-1.	16/406	40	2			
4-1	Rust-colored markings approximately 2 in (50 mm) in length. White chemical deposits overall. No apparent tears or cracks.	5/127	38.5	6			
4-2	White chemical deposits overall. No apparent cracks or tears.	5/127	38.5	7	1200	<10.0	Withstood potential. (Note c)
5-1	Outer jacket missing for approximately 14 in (0.35 m) of length at one end of cable. No apparent cracking of conductor insulation. White chemical deposits overall.	10/254	40	4			
5-2	Outer jacket missing from one-half of the specimen length. Other appearances the same as specimen 5-1.	10/254	40	4			
6-1	Longitudinal cracks in outer jacket along entire length. No apparent cracking of conductor insulation. White chemical deposits overall.	24/610	40	2	2400	<10.0	Withstood potential. (Note d)
6-2	Same as specimen 6-1 except for the addition of circumferential cracks in the outer jacket.	24/610	40	2	2400	<10.0	Withstood potential. (Note d)
7	Outer jacket missing from most specimens. Conductor insulation appears intact. The ends of the heat-shrinkable splice were cracked (on the surface) for a distance of 2 in (50 mm). (Note e)	24/610	36.4	2	2400	<10.0	Withstood potential. (Note d)

NOTES:

- Specimens were removed from the test vessel by cutting the specimens off just below (inside) the vessel penetrations. Visual inspection and high-potential withstand test results do not include portions of specimens contained within the penetrations.
- Potentials applied for 5 min after specimens had been immersed in room-temperature tap water for 1.0-h minimum. The ground terminal of the test instrument was connected to a bare copper conductor in the water.
- Potential applied to conductors 1 and 2 connected together with the drain wire and water at ground potential.
- Potential was applied for 5 min to alternate outer conductors (i.e., 3, 5, and 7 connected together) with other conductors (i.e., 1, 2, 4, and 6) at ground potential. Then the potential was applied to the remaining outer conductors (i.e., 2, 4, and 6 connected together) with all other conductors at ground potential. Conductor 1 was always at ground potential.
- Technician's inspection report indicated splice was "cracked." Later examination of photographs suggested cracks were limited to the surface of the splice and did not extend through the splice material. Specimen not available for reinspection.

INSTRUMENT NUMBER 18253
 INSTR AND MFR MULTIAMP INSTR. CORP. MILLIAMMETER
 TYPE/MODEL NUMBER 165
 SERIAL NUMBER 2104
 RANGE/FEATURES 0-10,000 MA
 ACCURACY 0.5 PERCENT OF F.S.
 DATE CALIBRATED 12-10-79
 CALIBRATION DUE 6-10-80

INSTRUMENT NUMBER 18281
 INSTR AND MFR AMETEK PRESSURE TRANSDUCER
 TYPE/MODEL NUMBER 50G0200BC2
 SERIAL NUMBER 41296-1
 RANGE/FEATURES 0-200 PSIG 0-1 VDC
 ACCURACY 0.25 PERCENT OF F.S.
 DATE CALIBRATED 12-18-79 WITH 18037
 CALIBRATION DUE 12-18-80

INSTRUMENT NUMBER 18290
 INSTR AND MFR TAKEDA RIKEN MULTIMETER
 TYPE/MODEL NUMBER TRI 6355 DIGITAL
 SERIAL NUMBER 54721122
 RANGE/FEATURES 0-1000 DCV ACV OHM DCI ACI
 ACCURACY 0.5 PERCENT OF F.S.
 DATE CALIBRATED 5-16-79
 CALIBRATION DUE 5-16-80

INSTRUMENT NUMBER 18192
 INSTR AND MFR DANIEL INDUSTRIES FLOW SECTION
 TYPE/MODEL NUMBER STAINLESS STEEL 3/4 IN
 SERIAL NUMBER NONE
 RANGE/FEATURES 1440 PSI 0.742 IN I.D.
 ACCURACY 0.75 PERCENT OF INDICATION
 DATE CALIBRATED 9-25-79 WITH 0.375 ORIFICE PLATE
 CALIBRATION DUE 9-25-80

INSTRUMENT NUMBER 4217507
 INSTR AND MFR BECKMAN INS. AND BREAKDOWN TEST SET
 TYPE/MODEL NUMBER 1600
 SERIAL NUMBER 77145
 RANGE/FEATURES 10 KV AC/DC 10 MA AC/DC
 ACCURACY 3.0 PERCENT OF F.S.
 DATE CALIBRATED 10-15-79
 CALIBRATION DUE 4-15-80

INSTRUMENT NUMBER 18299
 INSTR AND MFR HIPOTRONICS AC DIELECTRIC TEST SET
 TYPE/MODEL NUMBER 715-10
 SERIAL NUMBER 76-26386
 RANGE/FEATURES 0-15 KVAC 750 MA
 ACCURACY 2.0 PERCENT AT 2/3 OF SPAN
 DATE CALIBRATED 1-21-80
 CALIBRATION DUE 1-21-81