

B44 930927 006

QA RECORD

TENNESSEE VALLEY AUTHORITY

NUCLEAR POWER

ELECTRICAL ENGINEERING
GENERAL ENGINEERING SPECIFICATION

G-38

INSTALLATION, MODIFICATION, AND MAINTENANCE
OF INSULATED CABLES RATED UP TO 15,000 VOLTS

	REVISION RO*	R8*	R9*	R10*	R11*	R12
PREPARED	JL Springer	RMS	JD Collins	JD Collins	P Guha	<i>J. L. Kuey</i> 9/24/93
SUPERVISED	RM Hodges	DL Leckie	KW Brown	P Guha		
VERIFIED		TG Hughes	BE Reagan	BE Reagan	JA Krieg	<i>K. W. Brown</i> 9/24/93
APPROVED	MN Sprouse	E Chitwood	JD Hutson	JD Hutson	RC Williams	<i>RE Miller</i> 7/24/93
DATE	07/25/73	03/17/86	02/23/90	11/30/90	07/31/91	09/24/93

* For original/additional approvals, refer to original front sign-out sheets for each revision level.



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3.0 INSTALLATION (Continued)

- 3.4.1.9 Cable/wire bundles may be secured to panel and box internal surfaces using cable mounts in order to arrange cable/wire bundles in a neat, orderly fashion. Cable mounts should be of the mechanically fastened type.^{WBN 9} Mounts should be Burndy "Nylocclip" type HP-N or equal. They shall be mounted by flat-head, round-head, or machine screws through tapped holes or by flat-head, round-head or machine screws with nuts and washers, (NOTE: CARE SHALL BE EXERCISED IN DRILLING HOLES TO ENSURE THAT THE OPPOSITE SIDE OF THE SURFACE IS CLEAR OF OBJECTS).

As an alternate method, adhesive backed mounts or mounting bases similar to the following types may be used, provided they are mounted by flat-head, round-head or machine screws with nuts and washers: ^{WBN 9}

- a. Thomas and Betts, Type TC5345A
- b. Panduit Corporation, Type ABM2S-AT
- c. Thomas and Betts, Type TCZ347

- 3.4.1.10 Splices shall not be installed in conduits, except for terminations to pigtail leads and pigtail extensions which can be made in flex conduits which connect to the end device. [SRN 140]

QA RECORD

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December 16, 1993

Holders of G-38

TVA GENERAL ENGINEERING SPECIFICATION G-38 (R12) FOR "INSTALLATION, MODIFICATION AND MAINTENANCE OF INSULATED CABLES RATED UP TO 15,000 VOLTS" - SPECIFICATION REVISION NOTICE SRN-G-38-144

AFFECTS: All Plants; Sections 1.2.1, 3.4.1.4, 3.4.1.5, 3.4.1.6, and 3.5.6

INSTRUCTIONS: The attached pages constitute an advance revision to the subject specification. Insert these pages in that specification in accordance with the instructions on the reverse side of this memorandum and then file the memorandum in the front of each controlled copy of the specification.

SIGNATURES/APPROVAL

PREPARED: <i>TOM HUGHES by J.A. Krieg PER TELECON</i>	12/16/93
DATE	
VERIFIED: <i>J.A. Krieg</i>	12/16/93
DATE	
APPROVED: <i>R.E. Miller</i>	12/16/93
DATE	

The effective date of this SRN is 120 days from the issue date of this SRN or sooner upon incorporation into site procedures.

R. E. Miller
Chief Electrical Engineer
Corporate Engineering (LP 4H-C)

JAK

cc (Attachment):

R. L. Collins, DSG 1A-SQN APPROVED PER TELECON *J.A. Krieg* 12/15/93
J. L. Hargett, EDB F4-BFN APPROVED PER TELECON *J.A. Krieg* 12/15/93
P. K. Hollingsworth, ATH 3A-BFN
T. G. Hughes, IOB 1G-WBN
R. L. Konnik, CAB 1-BLN
J. A. Krieg, LP 4H-C
RIMS, CST 13B-C
DCRM, LP 4D-C

Attached is the SIGNED ORIGINAL;
please distribute copies of this
memorandum and its attachment(s)
to all holders of controlled
copies of this General Engineering
Specification and release the RIMS copy.

FILING INSTRUCTIONS

SRN-G-38-144

REMOVE & DESTROY	REPLACE WITH
General Engineering Specification G-38 INDEX dated December 09, 1993	General Engineering Specification G-38 INDEX dated December 16, 1993
Pages 2, 75, 76 and 92	Pages 2, 75, 75-1, 75-2, 75-3, 76, 76-1, 76-2, 92 and 92-1 from SRN-G-38-144

3.0 INSTALLATION

3.4.1.4 Terminal Lug Installation (Continued)

d. The connections may be made in a conduit body (such as a conduit) located between the rigid conduit and the flexible conduit connecting to the equipment. To exercise this option, a butt splice connector, or terminal lugs, with qualified splice materials shall be used to splice on conductors extending the pigtails to the conduit body. The extensions may be made using:

- (1) The same type and size cable as the equipment pigtail.
- (2) The same type cable as the incoming field cable except sized according to the equipment nameplate rating, neglecting other considerations such as voltage drop.
- (3) An entirely different type cable which is listed in site design criteria and ON-MARK and approved and sized by NE as defined on engineering project drawings.
- (4) It is acceptable for the pigtail extension splice to be located in flexible conduit.

Items (1), (2), or (3) require NE approval. [SRN144]