

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8602100126 DOC. DATE: 86/01/31 NOTARIZED: NO DOCKET #
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
 AUTH. NAME AUTHOR AFFILIATION
 SORENSEN, G. C. Washington Public Power Supply System
 RECIP. NAME RECIPIENT AFFILIATION
 ADENSAM, E. G. BWR Project Directorate 3

SUBJECT: Confirms 860123 telcon re use of "Spray-on" coatings to meet requirements of Reg Guide 1.75. Coating found superior to metal tray covers based on 15 minute fire rating & easy identification of fire location.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: DR Submittal: General Distribution

NOTES: 05000397
 OL: 12/20/83

RECIPIENT		COPIES		RECIPIENT		COPIES	
ID	CODE/NAME	LTTR	ENCL	ID	CODE/NAME	LTTR	ENCL
BWR	ADTS	1	0	BWR	PD3 PD 01	5	5
BWR	EB	1	1	BWR	EICSB	1	1
BWR	FOB	1	1	BRADFUTE, J		1	1
BWR	PSB	1	1	BWR	RSB	1	1
INTERNAL:	ACRS 09	6	6	ADM/LFMB		1	0
	ELD/HDS2	1	0	NRR/DHFT/TSCB		1	1
	NRR/DSRO/RRAB	1	1	NRR/ORAS		1	0
	<u>REG FILE</u> 04	1	1	RGN5		1	1
EXTERNAL:	24X	1	1	EG&G BRUSKE, S		1	1
	LPDR 03	1	1	NRC PDR 02		1	1
	NSIC 05	1	1				

Washington Public Power Supply System

3000 George Washington Way P.O. Box 968 Richland, Washington 99352-0968 (509)372-5000

8602100126 860131
PDR ADOCK 05000397
F PDR

January 31, 1986
G02-86-121

Docket No. 50-397

Director of Nuclear Reactor Regulation
Attention: Ms. E. G. Adensam, Project Director
BWR Project Directorate No. 3
Division of BWR Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

Subject: NUCLEAR PLANT NO. 2
OPERATING LICENSE NPF-21, USE OF "SPRAY-ON"
COATINGS TO MEET REQUIREMENTS OF REGULATORY
GUIDE 1.75

The purpose of this letter is to confirm the January 23, 1986, telephone conversation between Messers. G. W. Brastad and A. K. Jones of the Supply System and Mr. J. Kudrick of the NRC with respect to the use of "spray-on" coatings to meet the requirements of Reg. Guide (RG) 1.75.

Very shortly the Supply System plans to begin replacing metal cable tray covers that are used to meet the physical separation requirements of RG 1.75 with a state-of-the-art "spray-on" non-flammable coating. We wish to emphasize that it is not our intent to rely on this coating to comply with Appendix R exposure fire requirements, but rather to prevent the spread of (i.e., contain) internally generated electrical fires, as required by RG 1.75.

We have evaluated this type of coating and found it to meet the requirements of RG 1.75 and to be superior to metal tray covers for the following reasons:

- 1) It has a 15 minute fire rating.
- 2) Allows easy identification of fire location (metal covers make this difficult at best).
- 3) Allows relatively easy fire suppression compared to metal covers.
- 4) No cable derating is necessary.

A001
1/1

E. G. Adensam

Page Two

January 31, 1986

USE OF "SPRAY-ON" COATINGS TO MEET REQUIREMENTS OF RG 1.75

We have attached some literature from the Factory Mutual System. Of the coatings listed, the Supply System intends to use the TSI Thermo-lag 270; however, any of the others would also be acceptable.

Although no prior approval is necessary for the Supply System to utilize this product, we wish to bring it to your attention as metal cable tray covers, although not required, have traditionally been used to comply with the separation requirements of RG 1.75. Should you have any questions, please contact Mr. P. L. Powell, Manager, WNP-2 Licensing.

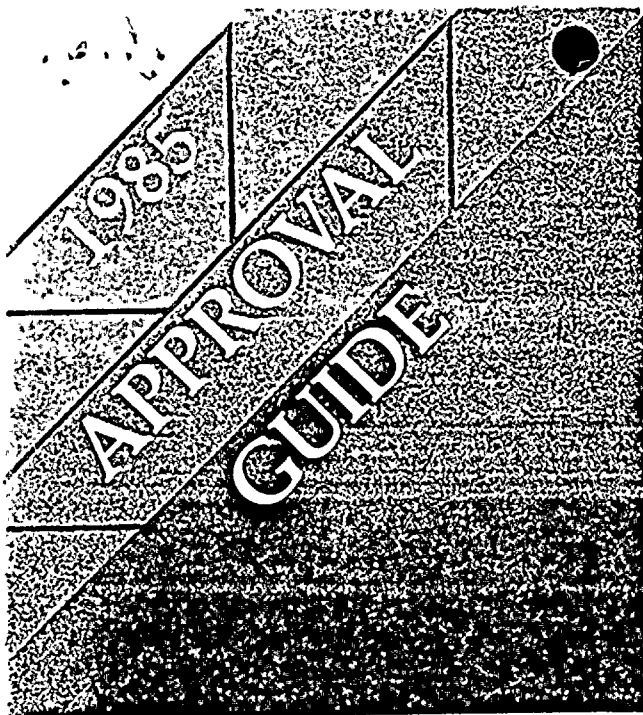
Very truly yours,



G. C. Sorensen, Manager
Regulatory Programs

HLA/tmh
Attachments

cc: RC Barr - BPA
JO Bradfute - NRC
J Kudrick - NRC
JB Martin - NRC RV
E Revell - BPA
NS Reynolds - BLCP&R
NRC Site - 901A



Factory Mutual System

**A Guide to Equipment,
Materials & Services
Approved by
Factory Mutual Research
for Property Conservation**

CAFCO DECK-SHIELD. Mineral fiber-based coating. CAFCO BONDSEAL adhesive required as prime coat. For polyurethane surface, sprayapply coating min 1 in. (25.4 mm) thick.

CAFCO C, CB and Ceramospray IV Spray-On Insulation. Mineral wool fiber. Type L-30 tie coat required. For polyurethane and polystyrene apply coating 1 in. (25.4 mm) thick.

The Upjohn Co CPR Div 555 Alaska Av Torrance CA 90503

FoamKot (ID-384-15). Proprietary gypsum-based thermal barrier coating over isocyanate-based rigid spray-on foam insulation (FM Corner Test). Apply min 3/8 in. (9.5 mm) thick. The coating must be applied according to the specific instructions supplied by the Upjohn Co.

Zonolite Construction Products Div W R Grace & Co 62 Whittemore Av Cambridge MA 02140

Zonolite 3300. Cementitious spray-on coating. For polyurethane- (FM Corner Test) foamed plastics. Apply coating 1/2 in. (12.7 mm) thick min.

For Grouped Electrical Conductors

These coatings are nonflammable, inert compounds usually applied by spray, brush or trowel. These coatings prevent flame spread in conductors when exposed to a moderate fire source that might occur from arcs or sparks falling or occurring in the cable tray, or from fire exposure of combustible trash or foreign material around the cable(s) in grouped or trayed conditions. These coatings were not tested to maintain cable protection under severe and extended fire exposure conditions.

When applied according to the manufacturer's instructions, the protective coating does not of itself require electrical de-rating.

Observe any special instructions listed with the product.

Albi Mfg Div StanChem 401 Berlin St East Berlin CT 06023

Albi-Clad 890. Recommended dry coating thickness is 1/8 in. (1.6 mm). This material contains aromatic solvent mixtures; therefore, the vapors given off during application may require special precautions. Follow the manufacturer's instructions regarding requirements for ventilation and provisions for fire protection during material application.

Brandschutz Und Service Vertriebsgesellschaft MBH International Postfach 3150 2105 Seevetal 3 West Germany

Pyro-Safe Cable Protection KS 30. Recommended dry coating thickness is 1/8 in. (1.6 mm). Approved for indoor use only.

Carboline Co 350 Hanley Industrial Ct Saint Louis MO 63144

Intumastic 285. Recommended dry coating thickness is 1/8 in. (1.6 mm).

Fire-Stop Systems 3727 El James Dr Spring TX 77373

Thermalastic 83. Recommended dry coating thickness is 1/8 in. (1.6 mm).

The Flamemaster Corp 11120 Sherman Way Sun Valley CA 91352

Flamemastic 74-A. Recommended dry coating thickness is 1/8 in. (1.6 mm).

Flamemastic 77. Sprayable. Recommended dry coating thickness is 1/8 in. (1.6 mm).

Gildden Co 351 Wallace Av Toronto Ontario M6P 3N9

Glid-Guard. Product No. 13062. Recommended dry coating thickness is 1/8 in. (1.6 mm).

International Paints (Canada) Ltd 6700 Park Av Montreal Quebec H2V 4P6

Intumescent Latex Fire Retardant Mastic Off-White C677. Recommended dry coating thickness is 1/8 in. (1.6 mm).

Latex Fire Retardant Mastic Off-White C688. Recommended dry coating thickness is 1/8 in. (1.6 mm).

Quelcor Inc Box 33 Media PA 19063

Quelpyre Mastic 703B. Recommended dry coating thickness is 1/8 in. (3.2 mm).

Quelpyre 703C. Recommended dry coating thickness is 1/8 in. (1.6 mm).

T&B / Thomas & Betts Corp 920 Rte 202 Raritan NJ 08869

Flame-Safe. Recommended dry coating thickness is 1/8 in. (3.2 mm).

Flame-Safe C. Recommended dry coating thickness is 1/8 in. (1.6 mm).

TSI Inc 3260 Brannon Av Saint Louis MO 63139

Thermo-Lag 270. Recommended dry coating thickness is 1/8 in. (1.6 mm).

Vimasco Corp Box 516 Nitro WV 25143

Vimasco Cable Coating Nos. 1, 1-A, 2-B, 3I. Recommended dry coating thickness for coating No. 1 is 1/8 in. (3.2 mm); for coatings 1-A, 2-B, 3I, 1/8 in. (1.6 mm).

Wrap for Grouped Electrical Conductors

These wraps are nonflammable insulating blankets which are wrapped around grouped electrical conductors. The purpose of the wrap is to protect the conductor for an extended fire exposure period to maintain control of equipment operated by the conductors. The fire exposure period is rated in proportion to the wrap thickness.

Babcock & Wilcox Insulating Products Div Box 923 Augusta GA 30903

Kaowool Blanket Wrap Fire Protection System for Cable Trays.

Density, lb/ft ³ (kg/m ³)	Wrap thickness, in. (mm)	Fire Exposure Rating, minutes
8 (128)	3 (76.2)	60
8 (128)	2 (50.8)	30

For Structural Steel In Storage Areas

Large scale tests with high-piled roll paper storage, having a normally arranged sprinkler system, show brief periods when structural steel temperature will exceed the failure temperatures of steel. In such storage areas, additional sprinklers or fireproofing must be used. Fire retardant coatings suitable for this application are available for interior use only, unless otherwise noted in the listing.

To qualify for approval, a fire retardant coating, applied to structural steel members and subjected to the relatively high exposure temperatures actually observed in roll paper storage tests, must keep the steel temperature below 1000°F (538°C) for at least 15 minutes.

The 15 minute protection will allow the sprinkler system time to overcome the brief period of high temperatures resulting from such a fire.

Approved fire retardant coatings must be applied in accordance with the approved method and rate of application if they are to be effective.

The coatings are to be installed by the licensed applicators recommended by the manufacturer.

The spray-on fire retardant-treated cellulosic insulations are not recommended for exterior use, high humidity occupancies or for occupancies where combustible dusts and other organic residues such as oil solvents, etc., may accumulate on the surface.

Albi Mfg Div StanChem 401 Berlin St East Berlin CT 06023

Albi-Clad 101. Applied 20 ft²/gal (0.5 m²/dm²).

Albi-Clad 89S. For W8 by 31 (W8 in. by 31 lb/ft, W203.2 mm by 452.3 N/m) or larger steel beams only, apply min 1/8 in. (3.2 mm) thick.

10/10/54

10/10/54

10/10/54

10/10/54