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ComEd

May 31, 1995

United States Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Document Control Desk

Subject: LaSalle County Station Units 1 and 2
Response to the NRC Request for Additional Information Regarding Use of Darmatt KM-1 in a Seismic Event
NRC Docket Numbers 50-373 and 50-374

Reference: 1) NRC Letter dated January 10, 1995, from W. D. Reckley to D. L. Farrar

Reference (1) provided the NRC Request For Additional Information regarding the expected behavior of the Darmatt KM-1 Fire Barrier System and related plant structures during seismic events. In response to the NRC's request, LaSalle Co. Station provides the following response:

Question No. 1 requested the following:

"Provide sketches for cable trays and conduits showing thickness, number of layers of barrier(s), and attachment hardware for all straight and curved configurations of the raceways."

Response:

The installation of the Darmatt KM-1 material has been completed, in both LaSalle Co. Units 1 & 2. The drawings used for installation of this material are listed and provided in Attachment A. The drawings apply to the installation of the Darmatt KM-1 on cable tray, conduit and supporting hangers. From these drawings, the thickness and number of layers of the fire barrier, and the attachment hardware for straight and curved configurations can be seen.

Please note that the information provided in Attachment A is considered proprietary by ComEd. Therefore, the NRC staff is requested to control this information as proprietary, accordingly.

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Questions No. 2 requested the following:

"Provide weight and mechanical properties (e.g., tensile strength, compressive strength, shear strength, flexural strength, modulus of elasticity) of the proposed barriers that are useful in determining the seismic resistance and mode of failure under postulated seismic events at the plant."

Response:

For the purposes of evaluating the performance of the Darmatt KM-1 material for its as-installed applications at LaSalle Co., no credit has been taken with respect to the capability of the material to remain intact during a postulated seismic event. Accordingly, the requested information that is relevant to this evaluation is the specified weight of the Darmatt KM-1 material for LaSalle Co. of 26 lb/ft, as installed on a 30 x 6 inch cable tray. This weight value is used in the Seismic Category II/I evaluation described in the response to Question No. 3, below.

The properties of tensile strength, compressive strength, shear strength, flexural strength and modulus of elasticity, can be determined for the Darmatt KM-1 material. However, these parameters have relevance only if the Darmatt would be providing any structural support function or if the material is required to maintain structural integrity. Since this is not the case at LaSalle Co., these parameters do not apply.

Question No. 3 requested the following:

"Provide information related to the seismic resistance of the proposed fire barrier panels established through analyses or testing, and demonstrate that under postulated seismic events, the failure of the proposed fire barrier will not jeopardize the functioning of the safety-related structures, systems, and components located in the vicinity of the raceways, and of the components to which the proposed fire barrier is to be installed."

Response:

For LaSalle Co. a Seismic Category II/I evaluation was performed to ensure that the potential failure of the Darmatt KM-1 material during a seismic event will not affect any safety related components. This evaluation conservatively assumes a failure of the installed Darmatt

KM-1 material during the postulated seismic event and concludes that such a failure will not affect any safety related components.

Based on a walkdown and drawing review for both Units 1 and 2, the maximum drop height of the Darmatt KM-1 material has been determined to be no more than 62 inches for the cable tray, 48 inches for the bus duct, 50 inches for the electrical conduit and 57 inches for the HVAC duct located below the Darmatt KM-1 installations. This maximum height was used to prepare impact calculations for each case. Utilizing the 26 lb./ft. value, the weight of a representative Darmatt KM-1 piece falling is 12 lbs. Calculating the ductility ratio for each case has determined a worse case ductility ratio value of 5.3 for the HVAC duct, which is significantly less than the value of 10 allowed in Appendix A of SRP Section 3.5.3, "Permissible Ductility Ratio For Overall Damage Protection". The results indicated that these components will be able to withstand the impact of dropped Darmatt KM-1 pieces during a seismic event.

Also, there are no impact sensitive components such as gages, dials and relays located beneath the Darmatt installations that could be significantly affected. Therefore, overall, the failure of the installed Darmatt KM-1 fire-barrier will not jeopardize any safety related structures, systems and components from performing their intended safety function.

Questions No. 4 requested the following:

"Considering the appropriate weights of the fire barriers and installed accessories (e.g., fasteners, bands, wire mesh), provide information related to the ability of the raceway supports and anchorages to withstand the postulated seismic events without exceeding the established acceptance criteria."

Response:

The raceway supports and anchorages were evaluated for the applicable design basis loads using the distributed weight of 26 lbs./ft. for the Darmatt KM-1 material and its required mounting components, plus a conservative 5% for any residual material from the removed fire proofing system (Kaowool and Thermo-Lag 330-1). The evaluation applied the weight of the One-hour Darmatt KM-1 fire barrier enveloping each power cable tray and each control cable tray for the following Unit 1 and Unit 2 cable tray routing points:

Unit	Cable Tray Type	Routing Points
1	Power	163A
		164A
		165A
	Control	163B
		164B
		165B
2	Power	153A
		154A
		155A
	Control	153B
		154B
		155B

The results of the evaluation have determined that the affected supports and anchorages are acceptable as-installed for the new, required design load changes.

To the best of my knowledge and belief, the statements contained in this document are true and correct. In some respects, these statements are not based on my personal knowledge, but on information furnished by other ComEd employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

If there are any questions or comments concerning this letter, please refer them to me at (815) 357-6761, extension 3600.

Respectfully,

R. E. Querio
Site Vice President
LaSalle Co. Station

Attachments: (A) DARMATT Installation Drawings, LaSalle County Station: These Drawings are considered PROPRIETARY

(B) Robert M. Goss, President Transco, Affidavit for Attachment (A)

cc: J. B. Martin, Regional Administrator, Region III
W. D. Reckley, Project Manager, NRR
P. G. Brochman, Senior Resident Inspector, LaSalle

ATTACHMENT B

Robert M. Goss, President Transco,
Affidavit for Attachment (A)

TRANSCO PRODUCTS INC.

AFFIDAVIT

I, Robert M. Goss, being duly sworn, depose and state as follows:

(1) I am President of Transco Products Inc. (Transco) and have reviewed the confidential commercial information described in Attachment A which is sought to be withheld, and am applying for its withholding.

(2) The information sought to be withheld was developed for ComEd, pertaining directly to the resolution of the Thermo-Lag issue at LaSalle Co. Station. Transco is the owner of the confidential commercial information. Specifically this information is the Darchem drawings listed and included in Attachment A.

(3) In making this application for withholding of such confidential commercial information, Transco relies upon the exemption from disclosure set forth in the Freedom of Information Act (FOIA), 5 USC § 552 (b) (4), and NRC Regulations 10 CFR §§ 9.17(a) (4), and 2.790 (a) (4) for "commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The confidential commercial information should be withheld from disclosure under 10 CFR § 2.790 (b) (4) for the following reasons:

(a) The information marked Proprietary or Confidential and is of a sort customarily held in confidence by Transco. Access to such documents within Transco is limited on a "Need to know" basis. Disclosures outside Transco are limited to regulatory bodies, Test Program Utility Participants (under restrictions that preclude further disclosure), their agents or licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements, as authorized under contract by ComEd;

(b) The information has, to be the best of my knowledge, consistently been held in confidence by Transco and ComEd, and has not been publicly disclosed. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or under restrictions as described above.

(c) The information sought to be withheld is being submitted to the NRC in confidence; and

(d) The information is not available in public sources.

State of Illinois)
) SS:
County of Cook)

Robert M. Goss, being duly sworn, deposes and says:

That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information and belief.

Executed at Chicago, Illinois, this 19th day of May, 1995.

Robert M. Goss
President

Subscribed and sworn before me this 25th day of May 1995.

Notary Public,
State of Illinois

"OFFICIAL SEAL"
PEGGY M. DAMM
Notary Public, State of Illinois
My Commission Expires 3-3-98