

MEMO ROUTE SLIP Form AEC-93 (Rev. May 14, 1947) AECM 0240		See me about this. Note and return.	For concu... For signature.	For action. For information.
TO (Name and unit) IE:Chief, FS&EB IE:HQ(4) Licensing(4) DR Central Files J. Rizzo, OMIPC		INITIALS	REMARKS Iowa Electric Light and Power Company Duane Arnold Center 50-331	
		DATE		
TO (Name and unit) A/D for Info. Processing Region I Region II PDR Local PDR		INITIALS	REMARKS	
		DATE		
TO (Name and unit) NSIC TIC OGC, Beth, P-506A		INITIALS	REMARKS	
		DATE		
FROM (Name and unit) G. Fiorelli IE:II		REMARKS Attached is a copy of licensee's reply dated May 12, 1975 to IE Bulletins 75-04 and 75-04A.		
PHONE NO.	DATE 05-20-75			

USE OTHER SIDE FOR ADDITIONAL REMARKS

GPO : 1971 O - 445-453

for
BY

IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA

May 12, 1975

IE-75-564

CHARLES W. SANDFORD
EXECUTIVE VICE PRESIDENT

Mr. J. G. Keppler
U.S. Nuclear Regulatory Commission
Directorate of Regulatory Operations
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Re: Duane Arnold Energy Center #1
Subject: IE Bulletins 75-04 and 75-04A, Cable
Fire at Browns Ferry Nuclear Plant
Reference: 1) Your letter to Charles W. Sandford,
dated 4/3/75, same subject
2) Iowa Electric letter IE-75-470 to
J. G. Keppler, dated 4/21/75, same
subject
File: A-110, Q-321

Dear Mr. Keppler:

This is in reply to your letter of April 3, 1975 concerning the subject bulletins. These bulletins requested certain information relative to cable installation at the Duane Arnold Energy Center.

With regard to Section 1 of IE Bulletin 75-04: Construction at the Duane Arnold Energy Center was completed in 1974. Prior to plant operation all scheduled penetrations were sealed and/or fireproofed as required by a sealing log that was kept by construction. The penetration log gave information such as penetration numbers, locations, and methods of sealing. After all penetrations were sealed checks for air leaks into the Reactor Building were checked for by using Orange Furnace Smoke (a product of the Kilgore Corporation). The penetrations in the Control Room floor were initially checked for air leaks by flooding the cable spreading room below with CO₂ from the Cardox System. Following startup the few penetrations that have been opened for the addition of new cables have been resealed using the original sealing methods.

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With regard to Section 2 of IE Bulletin 75-04: The design specifications for sealing and fireproofing wall and floor penetrations are as follows:

Bechtel Power Corporation's Power and Industrial Data Letter No. 10 (Fire Stops for Cable Penetrations in Floors and Walls) describes the methods of fireproofing cable trays and the materials required to form the fire stops.

Bechtel Drawing 7884-M95 (Sleeves and Seal Details) details the methods of fireproofing and sealing electrical sleeves through walls.

Bechtel Specification 7884-E-503 (Conduit and Tray Notes and Details) call on the required fire stop methods for cable trays.

Bechtel Specification 7884-E-512 (Cable and Wire Installation Details) refer to GE Specification 22A3128 and the above Specifications for penetrations and safeguard cable separation.

General Electric Specification 22A3128 (Electrical Equipment, Separation for Safeguard Systems) calls out the minimum requirements GE specifies for fire hazard and cable spreading areas as well as main control room panels.

The primary sealant used in circular floor and wall penetrations was Elastizell - a light density cellular concrete. Froth-Pak Insul-8 (a foam filler) with a $\frac{1}{4}$ " coating of Flameastic 71A (a Thermo-plastic resinous, reinforcing binder and fire retarder) or Minut-foam (a non-combustible urethane foam) were used on the remaining penetrations containing cables. All cables passing from building to building were routed through conduit or circular sleeves with a maximum 6" diameter. No trays were utilized for building to building penetrations.

Cable tray floor and wall penetrations within a building were sealed with forms made from Maranite Board (an incombustible asbestos fiberboard). Space between the forms was filled with an insulating wool filler. All bolts and seams of the forms, as well as the cables leaving and entering the penetrations, were coated with Flameastic 71A.

Unused penetrations were either sealed with cellular concrete, grout, or capped off with rigid steel end caps.

Where resealing has been required for penetrations within a building because of the addition of cables, the original sealing methods were used or asbestos rope with a duct seal coating (a putty-like non-hardening plastic compound with asbestos filler).

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With regard to Section 3 of IE Bulletin 75-04: No ignition sources such as candles, matches, or open lights are used to test for seal leaks in penetrations. Orange Furnace Smoke and visual inspection is used for inspecting cable penetrations. Flammable materials are stored outside the operating areas of the plant (i.e. storeroom, paint shed, machine shop, etc.)

With regard to Section 1 of IE Bulletin 75-04A: See above responses.

With regard to Section 2 of IE Bulletin 75-04A: As previously mentioned, construction activities at DAEC have been completed. Maintenance and modification work is being performed under complete guidance of the Maintenance Supervisor and the responsible plant supervisor. Before maintenance activities are performed they are reviewed on a daily basis by the Chief Engineer and the responsible parties. This staff reviews the work priority, the time frame required to perform the work, and the mode of operation required to perform the work. Reference Administrative Control Procedure (ACP) 1401.4, "Control of Plant Work". Design changes are controlled in accordance with Procedure 1401.4 and 1202.1. The plant Operations Committee gives final approval of the change request. Initiation of the work requires prior release by the Shift Supervisor.

With regard to Section 3a, 3b, 3c, and 3d of IE Bulletin 75-04A: See our response to Section 2 of IE Bulletin 75-04A.

With regard to Section 3e of IE Bulletin 75-04A: With respect to prompt communication with the operating staff various methods of communication are available. The Intra Plant Communications System (PAX-telephone) is powered by its normal battery supply, the Public Address System is supplied by the uninterruptible AC source, and the control room UHF and VHF radio transmitters are supplied by the instrument AC bus. Battery powered, hand held walkie-talkies (where their use is not prohibited) are used for point-to-point communication. Sound powered phone jacks are strategically located throughout the DAEC facilities. All communication systems are available to the control room as well as perimeter locations.

With regard to Section 3f of IE Bulletin 75-04A: Weekly fire extinguisher inspections have been instituted at DAEC. Smoke detection units, as well as control room annunciation, are located in strategically designed areas to give alarms as required.

With regard to Section 3g of IE Bulletin 75-04A: The Fire Protection System supplies river water to all areas of the plant where water is permissible to extinguish a fire. This system is automatic with an electric fire pump and a backup diesel-driven fire pump

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supplying the sprinkler, deluge system, and hydrants. In critical areas where special equipment or probability of an oil/chemical fire exists, mobile or fixed carbon dioxide fire extinguishers are strategically placed. An automatic carbon dioxide (Cardox) system protects the cable spreading room. The cable spreading room is well marked for warning as to activation of the Cardox System. Training of plant personnel is covered under a fire protection plan being implemented. The procedures detail the requirements involved in detecting, locating, isolating, and fighting a fire.

With regard to Section 4 of IE Bulletin 75-04A: Emergency procedures that require alternate methods of a safe plant shutdown have been reviewed in Section 14 of the FSAR. The criteria for shutdown outside the control is provided with a design capability for prompt hot shutdown of the reactor and with a potential capability for subsequent cold shutdown. The Integrated Plant Operating Procedures call out specific methods of shutdown from outside the central room (Reference 10P VII.J, Shutdown from Outside the Control Room).

Very truly yours,


Charles W. Sandford
Executive Vice President

CWS/ms

cc: D. Arnold
J. Newman