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July 11, 1984

50-293

Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road, Bldg. 4  
Glen Ellyn, IL 60137

ATTENTION: Director of Region III

SUBJECT: Nicked Conductors  
Analog Trip Cabinets  
Pilgrim Nuclear Power Plant  
Nutherm International, Inc.

Dear Sir:

In accordance with 10 CFR 21, I am writing to inform you of the delivery of equipment containing a defect to the Pilgrim Nuclear Power Plant of the Boston Edison Company (BECO) by Nutherm International, Incorporated.

On June 21, 1984, Boston Edison Company notified Nutherm that they had found nicked insulation on individual conductors resulting from the jacket stripping of Rockbestos Firewall III single pair shielded cable by Nutherm. The jacket stripping was performed at Nutherm's Mt. Vernon, Illinois, plant during August, 1983, while manufacturing Analog Trip Cabinets for the Pilgrim Scram Discharge Volume system.

Cabinets affected at Pilgrim are equipment numbers C2228A1, C2228A2, C2229B1, and C2229B2.

On June 26, 1984, a Nutherm Quality Assurance Engineer arrived at Pilgrim. With the assistance of BECO personnel, he performed 100% inspection of the conductors. It was found that 264 of 672 conductor ends were nicked. During the period ending July 2, 1984, all cables containing the nicked conductors were replaced by Boston Edison Company. The work was witnessed by Nutherm's QA Engineer.

On July 11, 1984, Nutherm was informed verbally by BECO that a situation could be hypothesized; involving a ground through resistance; that could be considered adverse to safety, had the problem gone undetected.

Other Analog Trip Cabinets containing Rockbestos jacketed cable have been delivered to Commonwealth Edison Company's Quad Cities Units 1 and 2 and Dresden Units 2 and 3.

On July 10, 1984, a Nutherm QA Engineer inspected 100% of the conductors in the Quad Cities cabinets. Only 5 nicked conductors were found during inspection of the 176 conductor ends. The 5 cables containing nicked conductors were replaced by CECO personnel and witnessed by Nutherm's QA Engineer.

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Nutherm requested to inspect at Dresden July 11, 1984. CECO indicated that inspection at Dresden was not possible this week but that it would be scheduled as soon as possible.

Affected cabinets at Commonwealth Edison's plants are as follows:

|               |                    |
|---------------|--------------------|
| Quad Cities 1 | 2201-73A, 2201-73B |
| Quad Cities 2 | 2202-73A, 2202-73B |
| Dresden 2     | 2202-73A, 2202-73B |
| Dresden 3     | 2203-73A, 2202-73B |

None of the affected cabinets at the five plants have been placed in service. The problem has been corrected at three units and will be corrected at the two Dresden units as soon as CECO schedules the inspection.

The root cause of the problem was inexperience with jacketed cable and lack of training for QA inspection personnel covering the stripping aspect of cable dressing.

Remedial corrective action is being accomplished by on-site cable replacement.

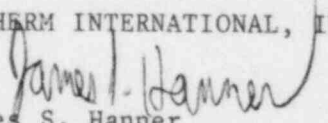
Generic corrective action has been completed at Nutherm. A new cable jacket stripping procedure has been written and training has been conducted. On any future jobs involving jacketed cable, QA will assure the shop personnel and inspectors assigned have been trained to the procedure.

In summary, a cable dressing defect was found in Nutherm equipment potentially affecting five plants. None of the equipment was in service. Quick and effective corrective action has been implemented.

It is hoped the condition is adequately explained and that our corrective action will be considered appropriate.

Sincerely,

NUTHERM INTERNATIONAL, INC.

  
James S. Hanner  
Executive Vice President

JSH/dms

cc: Brian Viehl  
Commonwealth Edison

Hawley Brannon  
Boston Edison Company

Ronald J. Heifner  
Nutherm International, Inc.