

ILLINOIS POWER COMPANY



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CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

December 6, 1985

Docket No. 50-461

Director of Nuclear Reactor Regulation
Attention: Mr. W. R. Butler, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Clinton Power Station Unit 1
Drywell Conduit
Penetration Sealant

Dear Mr. Butler:

The purpose of this letter is to provide you with justification for using a non-fire tested sealant material in conduit penetrations through the drywell wall.

Illinois Power Company (IP) has identified twelve 4 in. and two 6 in. conduit penetrations where the specified sealant material, BISCO SF-150NH, cannot be installed due to its high viscosity, the amount of cable fill, and the required depth of the seal (5 feet minimum).

To properly seal the penetrations, IP will use BISCO sealant material NS-1. This material, although not fire tested, has better flow properties and is comparable to the fire rated SF-150NH in that it contains similar proportions of elastomer, which is the base material for fire resistance.

For comparison, the formulations of NS-1, SF-150NH and SF-150L are given below in pounds per cubic foot of sealant material:

NS-1 (Not Tested)	SF-150NH (Fire Tested)	SF-150L (Fire Tested)
Density - 200 lb/ft ³	Density - 150 lb/ft ³	Density - 150 lb/ft ³
Lead: 130 lb.	BHS (Hydrated Silica): 2.1 lb.	Lead: 81.75 lb.
Boron: 6 lb.	NH (BISCO Additive): 94.4 lb.	Elastomer: 68.25
Elastomer: 64 lb.	Elastomer: 53.5 lb.	

SF-150NH and SF-150L are qualified for 3-hour fire rating under BISCO Fire Test Reports 748-57 and 748-34 respectively, for seals 12 inches in depth.

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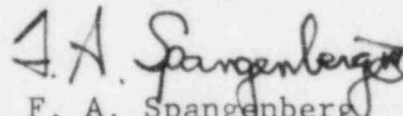
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It is Illinois Power Company's position that the use of the non-tested NS-1 will not degrade the level of fire protection because:

- a. NS-1 contains an amount of elastomer per cubic foot that is comparable to the amount of elastomer in SF-150NH and SF-150L.
- b. The minimum depth of the NS-1 seals will be about 5 feet, which is significantly greater than the 12 inches of SF-150NH or SF-150L required for a 3-hour rated seal.

Illinois Power Company considers the use of NS-1 sealant material to be acceptable in this case based on the justification given above. A formal deviation will be included in the Clinton Power Station Safe Shutdown Analysis. If you need any further information, please advise.

Sincerely yours,


F. A. Spangenberg
Manager - Licensing
and Safety

OV/jkp

cc: B. L. Siegel, NRC Clinton Licensing Project Manager
NRC Resident Office
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety