



HARTFORD DUDCTRIC CRIEFT COMPANY THIS MASSACHUSE TTS FLECTING COMPANY CRIEF WATCH POWER COMPANY INFORMATING SERVICE COMPANY MERSET UTILITY'S SERVICE COMPANY OF AN TRANSMISSION SERVICE COMPANY P.O. BOX 270 HARTFORD, CONNECTICUT 06101 (203) 666-6911

May 27, 1980

Docket No. 50-245 A00999

Director of Nuclear Reactor Regulation Attn: Mr. Dennis M. Crutchfield, Chief Operating Reactors Branch #5 U. S. Nuclear Regulatory Commission Washington, D. C. 20555

References:

T. A. Ippolito letter to W. G. Counsil dated April 25, 1980.
W. G. Counsil letter to D. M. Crutchfield dated May 2, 1980.
W. G. Counsil letter to D. M. Crutchfield dated April 29, 1980.
W. G. Counsil letter to D. L. Ziemann c ted April 16, 1980.
W. G. Counsil letter to D. L. Ziemann dated March 19, 1980.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1 Effect of a D.C. Power Supply Failure on ECCS Performance

The Millstone Unit Mc. 1 direct current (D.C.) power supply system has been reviewed to verify that the impact of a D.C. failure on ECCS performance is no more limiting than previously analyzed active failures. This is in response to your request contained in Reference (1).

The result of a D.C. failure, as shown on the attached table, is identical to the loss of gas turbine for a small break. Recent submittals (References (2), (3), (4), and (5)) describe this scenario in detail. For a large break, the remaining ECCS is similar to that in the generic analysis provided in Reference (1) and is actually less restrictive for D.C. failure than for LPCI injection valve failure. Attached is a matrix of failures and the remaining ECCS. Therefore, we conclude that the worst possible D.C. failure is no morp limiting than other failures previously analyzed for Millstone Unit 10.1.

If you have any further questions regarding this matter, please contact us.

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Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

W. G. Counsil Vice President

Attachment

## ATTACHMENT

## MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1

EFFECT OF A D.C. POWER SUPPLY FAILURE ON ECCS PERFORMANCE

## MILLSTONE UNIT NO. 1

Break Size	Failure	Break Location	Systems Operable
Large	D.C. Bus 1A	Suction	1CS + 2LPCI + ADS
	D.C. Bus 1A	Discharge	1CS + 2LPCI + ADS
	LPCI-IV	Suction	2CS + FWCI + ADS
	LPCI-IV	Discharge	2CS + FWCI + ADS
Small	D.C. Bus 1A	Suction	1CS + 2LPCI + ADS
	D.C. Bus 1A	Discharge	1CS + 2LPCI* + IC + ADS
	Gas Turbine	Suction	1CS + 2LPCI + ADS
	Gas Turbine	Discharge	1CS + 2LPCI* + IC + ADS

\* Injection into broken loop assumed due to loop selection logic insensitivity; partial loss of LPCI flow out break.

LEGENDCS= Core SprayLPCI= Low Pressure Coolant InjectionFWCI= Feedwater Coolant InjectionADS= Automatic Depressurization SystemIC= Isolation Condenser