

### UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

JAN 3 0 1985

MEMORANDUM FOR: Commissioner Asselstine

FROM:

William J. Dircks

Executive Director for Operations

SUBJECT:

DIESEL GENERATOR FAILURES

This memorandum is in response to your memorandum of December 27, 1984, on the subject of the diesel generator failures which occurred during tests at Shoreham and Grand Gulf. We understand your concern that such failures not be inappropriately excluded either from consideration of diesel generator reliability for Probabilistic Risk Analysis or for Technical Specification surveillance purposes.

The staff excludes pre-operational data (failures and successes) from both Technical Specifications surveillance and PRA data bases. This is because pre-operational tests often involve failures (such as wear-in failures) which would occur only during those tests but would not recur during operation of the plant. Pre-operational testing is not considered relevant in establishing the reliability of diesel generator responses to future demands. Since the Shoreham diesel generator failure occurred during pre-operational testing, it is not included in either the Technical Specifications surveillance or PRA data bases.

On the other hand, test failures during operation of a plant are included in the Technical Specification surveillance data, based on the relevance of the test as established in Regulatory Guide 1.108. The fire at Grand Gulf occurred after operating license issuance, and would likely have occurred if the diesel generator had been responding to a true demand instead of being tested. Although the plant was shut down at the time of the event, this should have no bearing on the evaluation of the event. Since neither the nature of the test nor the evaluation of the results are specifically covered by Regulatory Position C.2.e of Regulatory Guide 1.108, the test should be evaluated against the intent of the criteria and therefore be considered a valid test and a failure. We are taking steps to assure that it is evaluated and reported by the licensee in the Technical Specification data. We expect that it will also be reported to the NPRDS and therefore be available for inclusion in future PRAs.

I hope this clarification of our earlier response is helpful in resolving your concerns on this subject.

William J. Dircks

Executive Director for Operations

cc: See next page

8502060453 850130 PDR CDMMS NRCC CORRESPONDENCE PDR

KD-7-2A

cc: Chairman Palladino
Commissioner Roberts
Commissioner Bernthal
Commissioner Zech
SECY
OGC
OPE

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#### \*PREVIOUS CONCURRENCE SEE DATE

RDeYoung

ORAB:DL* FBrenneman:dm 1/09/85	ORAB:DL*	RRAB*	PSB*		C:ORAB:DL*	AD/SA:DL*
	JHannon	AThadani	MSrinivasan		GHolahan	DCrutchfield
	1/09/85	1/09/85	1/09/85		1/09/85	1/10/85
DD/DL*	D/DL*	DD/NRR*		D/NRR *	EDO/Who	
FMiraglia	DEisenhut	ECase		HDenton	WDircks	
1/10/85	1/10/85	1/14/85		1/14/85	1/3/85	



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We understand your concern that such failures not be inappropriately excluded either from consideration of diesel generator reliability for Probabilistic Risk Analysis or for Technical Specification surveillance purposes. However, since both Probabilistic Risk Analysis and Technical Specification surveillance are intended to reflect the performance of diesel generators during actual events (as opposed to testing), some judgment needs to be made as to how individual test results reflect on future performance during actual demands. These judgments are somewhat subjective by their very nature, and each instance would need to be reviewed individually.

Bearing in mind our response to your October 24, 1984 letter on the mechanisms for inclusion of failures in the PRA data base, we believe that the event at Shoreham should not be included in the data base for PRA's, since the test was a pre-operational test. It is best to confine the data (both failures and successes) to tests as well as other demands occurring after reactor operation has begun. The purpose of pre-operational tests is to identify wear-in failure mechanisms and to correct them. However, with respect to the other case at issue, the event at Grand Gulf, we believe that the event should have been included in the data base and we are taking steps to assure that it is. The fire occurred after plant operation had begun, and would likely have occurred if the diesel generator had been responding to a true demand instead of being tested. Although the plant was shut down at the time of the event, this should have no bearing on the evaluation of the event insofar as diesel reliability is concerned. Future diesel generator performance and problems will be reviewed according to Reg. Guide 1.108 and will be included in or excluded from the reliability data in PRA applications on the basis of the circumstances associated with each occurrence.

Contact: G. M. Holahan, NRR/DL x27415 I hope this clarification of our earlier response is helpful in resolving your concerns on this subject.

> William J. Dircks Executive Director for Operations

> > 1/ /85

cc: Chairman Palladino Commissioner Roberts Commissioner Bernthal Commissioner Zech SECY OGC OPE

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JRoe

**MBridgers** 

Marie/DEisenhut

EDO Rdg file

TRehm JOReilly

GCunningham

VStello.

AThadani RMinoque

RDeYoung

VStello.

\*PREVIOUS CONCURRENCE SEE DATE

ORAB: DL\* ORAB: DL\* RRAB\* PSB\* C:ORAB:DL\* AD/SA:DL\* FBrenneman:dm JHannon AThadani MSrinivasan GHolahan DCrutchfield 1/09/85 1/09/85 1/09/85 1/09/85 1/09/85 1/10/85 DD/DL\* D/DL\* DOLNER EDO FMiraglia DEisenhut Ecase WDircks 1/10/85 1/10/85

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cc: See next page

\*PREVIOUS CONCURRENCES OBTAINED

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MEMORANDUM FOR: Commissioner James K. Asselstine

FROM: William J. Dircks

Executive Director for Operations

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Bearing in mind our response to your December 27, 1984 letter on the mechanisms for inclusion of failures in the PRA data base, we believe that the event at the Shoreham should not be included in the data base for PRA's, since the test was a pre-operational test. It is best to confine the data (both failures and successes) to tests as well as other demands occurring after reactor operation has begun. The purpose of pre-operational tests is to identify wear-in failure mechanisms and to correct them. However, with respect to the other case at issue, the event at Grand Gulf, we believe that the event should have been included in the data base and we are taking steps to assure that it is. The fire occurred after plant operation had begun, and would likely have occurred if the diesel generator had been responding to a true demand instead of being tested. Although the plant was shut down at the time of the event, this should have no bearing on the evaluation of the event. Future diesel generator performance and problems will be reviewed according to Reg. Guide 1.108 and be included in or excluded from the reliability data in PRA applications on the basis of the circumstances associated with each occurrence.

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Contact: F.Brenneman, x27214 William J. Dircks Executive Director for Operations

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### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

## EDO PRINCIPAL CORRESPONDENCE CONTROL

exducin 1/18/85 .

FROM:

COMM. ASSELSTINE

TO:

DIRCKS

FOR SIGNATURE OF:

\*\* PRIORITY \*\*

DUE: 91/11/85-

SECY NO:

FINAL REPLY:

EDO CONTROL: 000236

15/Duch 1/30/85

DOC DT: 12/27/84

EXECUTIVE DIRECTOR

DESC:

DIESEL GENERATOR FAILURES

ASSIGNED TO: NRR CONTACT: DENTON DATE: 12/28/84

SPECIAL INSTRUCTIONS OR REMARKS:

REF: EDO 000067

Received NRR: 12/31/84

contact: Eisenhut 1/2/85-HS

ROUTING:

DIRCKS

ROE

REHM

STELLO

GCUNNINGHAM

MINOGUE

DEYOUNG

MURLEY

O'REILLY

cc: Case/Denton
PPAS

Creutifuld 1/2/85

Lolahan/Breune