

Dockets Nos. 50-213
and 50-336

DEC 27 1979

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Mr. W. G. Council, Vice President
Nuclear Engineering & Operations
Connecticut Yankee Atomic Power Company
and Northeast Nuclear Energy Company
P. O. Box 270
Hartford, Connecticut 06101

Dear Mr. Council:

Your letter of ^{November 30,} ~~December 3,~~ 1979 to Chairman Hendrie which discussed a number of concerns related to the requirement for an automatically initiated auxiliary feedwater system (AFWS) at the Haddam Neck Plant and Millstone Unit No. 2 facilities has been directed to this office for reply. This response should not be construed as a detailed reply to each of the concerns expressed in that letter.

On September 13, 1979, a letter was issued by the NRC to each power reactor licensee which defined a set of short-term requirements resulting from the NRC staff investigation. On October 30, 1979 another letter was issued clarifying certain staff requirements and their corresponding implementation schedules, and indicating those items requiring prior NRC review and approval. This second letter indicated that for those items requiring prior NRC approval, your design details should be submitted in a timely manner so that this approval and your implementation of the item can be completed by the required date. One such item was 2.1.7a, which required automatic initiation of the AFWS by January 1, 1980. The purpose of this letter is to set forth our position regarding short-term recommendations 2.1.7a on the Haddam Neck and Millstone Unit No. 2 facilities.

Your letter of December 3, 1979 indicated that Connecticut Yankee Atomic Power Company (CYAPCO) and Northeast Nuclear Energy Company (NNECO) have determined that implementation of the requirements of 2.1.7a, without incorporating automatic isolation in the event of a steam or feedwater line break which is a feature not required by item 2.1.7a, would constitute an unreviewed safety question pursuant to 10 CFR 50.59. You stated that for both Haddam Neck and Millstone Unit No. 2 implementation of an automatic AFWS without the isolation feature would, for a steam line break, accident, result in a positive reactivity insertion in excess of that documented in current safety analyses potentially resulting in a return to criticality. In addition, you stated that for this case, there would be increased mass and energy released to containment. As a consequence, the potential exists for a more severe condition considering both containment integrity and environmental qualification than in currently approved analyses.

OFFICE

SURNAME

DATE

90023269

We have evaluated this information and have reached the conclusion that for the Haddam Neck and Millstone 2 proposed designs, cred. for operator action to isolate the automatically initiated AFWS flow to a failed steam generator is the same as credit for operator initiation of the present manual start AFWS. We find that if a problem exists with safety evaluations for the main steam line/feedwater line break accidents, it also exists for the current manual start AFWS case. Therefore, you are requested to provide an analysis of the effect of failure to isolate feedwater flow to the affected steam generator in the event of a main steam line or feedwater line break assuming early initiation of the auxiliary feedwater system. This analysis should be provided promptly to allow resolution of this question in sufficient time to meet the implementation schedule.

With regard to your 10 CFR 50.59 determination, we accept your finding. This means that our review and approval of your modification is required prior to implementation which is exactly what is required by our letter of October 30, 1979.

You should reevaluate your overall approach and develop alternative strategies to meet the staff recommended goal of implementing an approved AFWS design. We are available to meet with you at an early date to discuss these matters further.

Sincerely,

Original signed by
Darrell G. Eisenhut

Harold R. Denton, Director
Office of Nuclear Reactor
Regulation

90023270



*SEE PREVIOUS YELLOW FOR CONCURRENCES

C-ORB#2:DOR
DZiemann*
12/11/79

B&OTF:DOR-D
DFRoss*
12/13/79

4	OFFICE	ORB#4:DOR	ORB#4:DOR-C	A-AD-ORP:DOR	A-D:DOR	DD:NRR	D:NRR
	SURNAME	MConner/eb	RReid*	WGammill*	DEisenhut*	ECase	HDenton
	DATE	12/26/79	12/13/79	12/13/79	13/18/79	12/ /79	12/ /79

We have evaluated this information and have reached the conclusion that for the Haddam Neck and Millstone 2 proposed designs, credit for operator action to isolate the automatically initiated AFWS flow to a failed steam generator is the same as credit for operator initiation of the present manual start AFWS. We find that if a problem exists with safety evaluations for the main steam line/feedwater line break accidents, it also exists for the current manual start AFWS case. Therefore, you are requested to provide an analysis of the effect of failure to isolate feedwater flow to the affected steam generator in the event of a main steam line or feedwater line break assuming early initiation of the auxiliary feedwater system. This analysis should be provided promptly to allow resolution of this question in sufficient time to meet the implementation schedule. As a result of this concern, the staff presented to the Commission a proposal to delay full implementation of automatically initiated AFWS flow until January 31, 1980.

With regard to your 10 CFR 50.59 determination, we accept your finding. This means that our review and approval of your modification is required prior to implementation which is exactly what is required by our letter of October 30, 1979.

You should reevaluate your overall approach and develop alternative strategies to meet the staff recommended goal of implementing an approved AFWS design by January 31, 1980. We are available to meet with you at an early date to discuss these matters further.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor
Regulation

*SEE PREVIOUS YELLOWS FOR
CONCURRENCES

C-ORB#2:DOR
DZiemann*
12/11/79

B&O TF-D:DOR
DRoss*
12/13/79

90023271

3	OFFICE	ORB#4:DOR	C-ORB#4:DOR	A-AD-ORP:DOR	A-D:DOR	DD:NRR	D:NRR
	SURNAME	MCORP	RReid*	WGammill*	DEisenhut	ECase	HDenton
	DATE	12/21/79	12/13/79	12/13/79	12/13/79	12/ /79	12/ /79

We have evaluated this information and have reached the conclusion that for the Haddam Neck and Millstone 2 proposed designs, credit for operator action to isolate the automatically initiated AFWS flow to a failed steam generator is the same as credit for operator initiation of the present manual start AFWS. We find that if a problem exists with safety evaluations for the main steam line/feedwater line break accidents, it also exists for the current manual start AFWS case. Therefore, you are requested to provide an analysis of the effect of failure to isolate feedwater flow to the affected steam generator in the event of a main steam line or feedwater line break assuming early initiation of the auxiliary feedwater system. This analysis should be provided promptly to allow resolution of this question in sufficient time to meet the implementation schedule. As a result of this concern, the Commission has agreed to delay full implementation of automatically initiated AFWS flow until January 31, 1980.

With regard to your 10 CFR 50.59 determination, we accept your finding. This means that our review and approval of your modification is required prior to implementation which is exactly what is required by our letter of October 30, 1979.

You should reevaluate your overall approach and develop alternative strategies to meet the goal of implementing a staff-approved AFWS design by January 31, 1980. We are available to meet with you at an early date to discuss these matters further.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor
Regulation

90023272

C-ORB#2:DOR
DZiemann*
12/11/79

B&O TF:DOR-D
Dross
12/11/79

*SEE PREVIOUS YELLOW FOR CONCURRENCE

2	OFFICE	ORB#4:DOR	C-ORB#4:DOR	A-AD-ORPDOR	A-D:DOR	DD:NRR	D:NRR
	SURNAME	McEnner/eb	RReid*	WGammill*	DEisenhut	ECase	HDenton
	DATE	12/13/79	12/13/79	12/13/79	12/ /79	12/ /79	12/ /79

We have evaluated this information and have reached the conclusion that credit for operator action to isolate the automatically initiated AFWS flow to a failed steam generator is the same as credit for operator initiation of the present manual start AFWS. Therefore, if a problem exists with safety evaluations for the main steam line/feedwater line break accidents, it also exists for the current manual start AFWS case. Therefore, you and other similarly designed reactors have been requested to provide an analysis of the effect of failure to isolate feedwater flow to the affected steam generator in the event of a main steam line or feedwater line break assuming early initiation of the auxiliary feedwater system. This analysis should be provided promptly to allow resolution of this question in sufficient time to meet the implementation schedule of January 1, 1980.

With regard to your 10 CFR 50.59 determination, we accept your finding. This means that our review and approval of your modification is required prior to implementation which is exactly what is required by our letter of October 30, 1979.

You should reevaluate your overall approach and develop alternative strategies in order to meet the goal of implementing a staff-approved AFWS design by January 1, 1980. We are available to meet with you at an early date to discuss these matters further.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor
Regulation

as requested
DB

C-ORB#2:DOR
DZiemann
12/11/79

D-B&O TF:DOR
DFRoss
12/ /79

90023273

OFFICE	ORB#4:DOR	C-ORB#4:DOR	A-ADORP:DOR	A-D:DOR	DD:NRR	D:NRR
SURNAME	McConnel	Reid	WGandy	Deisenhut	EGCase	HRDenton
DATE	12/11/79	12/13/79	12/13/79	12/ /79	12/ /79	12/ /79