

Central file

MAR 15 1983

MEMORANDUM FOR: James R. Tourtellotte, Chairman
Regulatory Reform Task Force

FROM: William J. Dircks
Executive Director for Operations

SUBJECT: BACKFITTING IMPACT COSTS

This is in response to your memorandum for William J. Dircks, Executive Director for Operations, dated January 17, 1983. Your memorandum asks six specific questions involving thirteen sub-items for four nuclear stations on the general subject of backfitting impacts and procedures. There are a total of 199 line items to which the thirteen sub-items apply for a total of 2587 separate pieces of information. The plants involved are: Oconee, Dresden, Quad Cities and Zion.

Rather than address all four nuclear stations, we believe that responding to each line item for one plant would be sufficiently representative of NRC's methods of applying backfit (prior to CRGR) for the purpose of your request. Many of the items are repetitive for the other plants.

We therefore have chosen one plant, Quad Cities Units 1 and 2, for this purpose. This plant was chosen in part because the project manager has a lengthy recent association with this station and thus has a reasonably good "corporate memory" for the specific issues. The plant is also a more-or-less typical two-unit station.

Our response has not addressed items listed by the licensee as "Utility Initiated Backfitting."

The first five questions are addressed in tabular form, using coded notations where appropriate.

As regards item six, it is not possible to meaningfully classify each item as to its safety value or significance in the time frame you request. To do this would require quantitative evaluation not only of the general issue raised by the particular backfit item, but specific details of the item as applied to the facility. Such information is known only in the most general sense. For this reason, we have not responded to your item six.

As for your item seven, the Cost Analysis Group of the Office of Resource Management and the Antitrust and Economic Analysis Section of the Site Analysis Branch (NRR) have prepared specific responses to the regulatory impact financial model presented in the enclosure to your memorandum. Their responses are attached. They were independently prepared and are in general agreement.

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PDR REVGP NRGREG PDR

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As shown on the table, NRC-generated cost information is limited, but has been provided where possible. Detailed NRC cost estimates were made for the TMI requirement and are shown in NUREG-0660, Volume 2, pp. 158-178. However, the costs for the TMI line items for Quad Cities are not directly comparable as presented.

(Signed) William J. Dircks

William J. Dircks
Executive Director for Operations

Attachments:
As stated

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SURNAME	RBevan/pn	DVassallo	RACLark	GCLainas	DGEisenhut	HDenton	WJDircks
DATE	3/4/83	3/4/83	3/4/83	3/4/83	3/7/83	3/8/83	3/15/83

KEY TO QUESTIONS 1-5

The first five (5) line items of your request, which we have addressed in tabular form, have been broken down as indicated below:

- 1.a Cost analysis by NRC (Yes/No)?
- 1.b If yes, results, comparison with actual cost.
- 1.c If no, why no analysis?

2. How required (e.g. order, rule, other)?

- 3.a Subject to CRGR (Yes/No)?
- 3.b If not, why not?
- 3.c Substantive Cost/Benefit analysis performed (Yes/No)?
- 3.d If yes, what and by whom?

4. Why backfitted (other than by rule)?

- 5.a Date backfit required?
- 5.b Extent required of others?

Our responses to these questions concerning each line item are contained in the matrix table, supplemented by the table of coded answers.

CODE

- A - No analysis required of NRC by Regulation or other requirement upon NRC
- B - Predated CRGR charter criteria for inclusion
- C - Required to meet State of Illinois water quality stds.
- D - Required by Rule/Regulation
- E - Required by Order
- F - Required by License Condition
- G - Required to meet BTP
- H - Required to meet IEB
- J - Required by NUREG-0737
- K - Required by Regulations
- L - Licensee's analysis
- M - Done to restore original safety margin
- N - NRC analysis
- NC- No comparison possible
- P - Proposed Rule
- R - Letter from NRC
- S - Required by NUREG-0612
- T - Required by NUREG-0654

- a - See NUREG-0460, Vol. 3
- b - Newly perceived inadequacy of existing design
- c - Discovery of a failure to meet design conditions
- d - New concerns arising from an event (e.g. TMI, BFN fire)
- e - To mitigate postulated event
- f - See NUREG-0660, Vol. 2, p 158 et seq.
- g - Response to UCS letters

(Continued on next page)

CODE (Continued)

h - ATWS - recirculation pump trip:		
Staff estimate (based on industry input)	-	\$215 - 600K
Actual spent	-	\$921K
j - ATWS - alternative 3 ("final" fix):		
Staff estimate	-	\$1.4 - 2.3M
Actual spent	-	\$183K
Licensee estimate future cost	-	\$7.2M

Money is budgeted for these items. Money is already spent for these items.

		1.a	1.b	1.c	2	3.a	3.b
1	AOG, U-1	No	-	A	K(ALAP)	No	B
2	AOG, U-2	No	-	A	K(ALAP)	No	B
3	Circ Water Diffusers U1/2	Yes	NC	-	C	No	B
4	Spray Canal Cooling, U1/2	Yes	NC	-	C	No	B
5	Security System Upgrade	No	-	A	D	No	B
6	Fire Stops & Auto Fire Protection	No	-	A	F	No	B, K, G
7	Masonry Walls Upgrade	No	-	A	H	possibly	-
8	ATWS Recirc. Pump Trip	Yes	h	-	E	Yes	-
9	Mark I Ctmt Mod	No	-	A	M	No	M
10	As Built Verif/Mods	No	-	A	H	No	M
11	ATWS Alternative 3, U1/2	Yes	j	-	-	probably	-
12	EQEE	No	-	A	R	No	B
13	SDV-Instr. Vol L.T. Mods	No	-	A	H	possibly	-
14	Mark I Ctmt Study	No	-	A	M	No	M
15	Expansion Anchor Study/Replacement	No	-	A	b or c	No	B
16	Study for Qualif. of Safety Related Equip.	No	-	A	R	No	B
17	Seismic Adequacy of Safety Related Equip.	No	-	A	H	No	B
18	Masonry Walls Study	No	-	A	H	possibly	-
19	Safety Related Piping Study	No	-	A	H	No	-
20	FSAR Study	No	-	A	D	No	B
21	TMI Mods - ST	Yes	f	-	J	No	B
22	TMI Mods - LT	Yes	f	-	J	possibly	-
23	EOF	Yes	f	-	J	possibly	-
24	Prompt Notif. System	No	-	A	J	No	-
25	TMI Accident Review Studies	No	-	A	J	-	B
26	Security System Upgrade	No	-	A	D	No	B
27	Fire Stops & Automatic Fire Protection	No	-	A	F	No	B, K, G
28	Mark I Ctmt Mod	No	-	A	M	No	M
29	"As Built" Mods	No	-	A	H	No	M
30	Mods Derived from SEP Rev	No	-	A	R	possibly	-
31	Seismic Mods from SEP, U1	No	-	A	D	possibly	-
32	Seismic Mods from SEP, U2	No	-	A	D	possibly	-
33	HELB Inside Ctmt SEP, U1	No	-	A	D	possibly	-
34	HELB Inside Ctmt SEP, U2	No	-	A	D	possibly	-
35	ATWS Alt 3 U1/2	Yes	j	-	-	probably	-
36	EQEE	No	-	A	R	No	B
37	Instr. Vol Mods SDV	No	-	A	H	possibly	-
38	Heavy Load Mods (C-10)	No	-	A	S	possibly, (Phase II)	-
39	Mark I Ctmt Study	No	-	A	M	No	M
40	Qualif. of Safety Related Elect Equip Study	No	-	A	R	No	B

Money is budgeted for these items / Money is Already Spent for these items

		3.c	3.d	4	5.a	5.b
1	AOG, U-1	Yes	NRC(ALAP)	To meet ALAP	-	A11
2	AOG, U-2	Yes	NRC(ALAP)	To meet ALAP	-	A11
3	Circ Water Diffusers U1/2	Yes	NRC	C	-	C
4	Spray Canal Cooling, U1/2	Yes	NRC	C	-	C
5	Security System Upgrade	No	-	D	1979	A11
6	Fire Stops & Auto Fire Protection	No	-	d	scheduled	A11
7	Masonry Walls Upgrade	No	-	H	ongoing	A11
8	ATWS Recirc. Pump Trip	No	-	e	12/80	A11
9	Mark I Ctmt Mod	No	-	M	varies	A11
10	As Built Verif/Mods	No	-	M	varies	A11
11	ATWS Alternative 3, U1/2	Yes	N	e	-	A11
12	EQEE	No	-	b	-	A11
13	SDV-Instr. Vol L.T. Mods	No	-	c	negotiated	A11
14	Mark I Ctmt Study	No	-	M	varies	A11
15	Expansion Anchor Study/Replacement	No	-	H	varies	A11
16	Study for Qualif. of Safety Related Equip.	No	-	H	ongoing	A11
17	Seismic Adequacy of Safety Related Equip.	No	-	b	ongoing	A11
18	Masonry Walls Study	No	-	H	ongoing	A11
19	Safety Related Piping Study	No	-	H	varies	A11
20	FSAR Study	No	-	d	7/22/82	A11
21	TMI Mods - ST	No	-	J	per schedule	A11
22	TMI Mods - LT	No	-	J	per schedule	A11
23	EOF	No	-	J	to be negotiated	A11
24	Prompt Notif. System	No	-	T		A11
25	TMI Accident Review Studies	No	-	J	varies	A11
26	Security System Upgrade	No	-	K	1979	A11
27	Fire Stops & Automatic Fire Protection	No	-	d	scheduled	A11
28	Mark I Ctmt Mod	No	-	M	varies	A11
29	"As Built" Mods	No	-	M	varies	A11
30	Mods Derived from SEP Rev	No	-	b	ongoing	some
31	Seismic Mods from SEP, U1	No	-	b	ongoing	some
32	Seismic Mods from SEP, U2	No	-	b	ongoing	some
33	HELB Inside Ctmt SEP, U1	No	-	b	ongoing	some
34	HELB Inside Ctmt SEP, U2	No	-	b	ongoing	some
35	ATWS Alt 3 U1/2	Yes	N	e	-	A11
36	EQEE	No	-	b	-	A11
37	Instr. Vol Mods SDV	No	-	c	negotiated	A11
38	Heavy Load Mods (C-10)	No	-	b	ongoing	A11
39	Mark I Ctmt Study	No	-	M	ongoing	A11
40	Qualif. of Safety Related Elect Equip Study	No	-	b	ongoing	A11