

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4502

JOHN S. KEMPER
VICE-PRESIDENT
ENGINEERING AND RESEARCH

May 4, 1983

Mr. James R. Tourtellotte
Chairman
Regulatory Reform Task Force
United States Nuclear Regulatory Commission
Washington, DC 20555

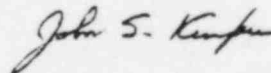
Dear Mr. Tourtellotte:

Your letter of February 8, 1983, to John H. Austin, Jr. has been referred to me for response. My staff has examined the costs associated with the units at our Peach Bottom Station and has provided the attached tabulations in a format similar to your examples.

The backfitting of a nuclear power plant with new systems and equipment is not only expensive but is also time consuming and technically challenging. I hope your efforts result in improvements in the regulatory process so that the cost, time, and effort involved in plant changes are recognized from the outset for comparison with the potential benefits.

Don't hesitate to contact us again if you need additional information.

Sincerely,



Attachments

Peach Bottom Atomic Power Plant, Units 2 & 3
Actual Cost of Backfitting
Total Through December 31, 1982
(Not including AFUDC)

SUMMARY

(a) Costs for NRC Imposed Backfitting (\$1000's)

1. Hardware	\$136,702
2. Analytical	<u>2,683</u>
Total	\$139,385

(b) Costs for NRC TMI Lessons Learned Backfitting (\$1000's)

1. Hardware	\$18,766
2. Analytical	<u>2,219</u>
Total	\$20,985

(c) Costs for Utility Initiated Backfitting (\$1000's)

1. Hardware	\$45,094
-------------	----------

(a) Costs for NRC Imposed Backfitting - Detail

(\$1000's)

1. HARDWARE

Install two additional cooling towers	18,916
High density spent fuel racks	5,637
Installation of plant security system	8,761
Install startup bypass valve on one reactor feed pump valve (NUREG 0619)	793
Automatic isolation of RHR sample line	654
Add radiation monitors on HPSW system	817
Upgrade containment vent & purge valves	386
Purge and pressure protection	320
CRD scram discharge volume modifications (IE Bulletin 80-17)	3,305
Digital meteorological equipment	429
Upgrade of computer facilities	719
Replace feedwater spargers	11,223
Iodine monitoring system and equipment	132
Modify & analyze masonry walls (IE Bulletin 80-11)	975
Solid radwaste facilities	2,948
Mark I containment modifications	64,835
Fire protection improvements	1,841
Seismic monitoring instrumentation	262
Work associated with IE Bulletin 79-14	4,285
Work associated with IE Bulletin 79-02	8,369
<u>All other NRC imposed backfitting</u>	<u>1,095</u>
Hardware Total	\$136,702

2. ANALYTICAL

Control of Heavy loads (NUREG 0612)	727
Environmental Qualification (IE Bullentin 79-01B)	1,366
Atypical welds (IE Bulletin 78-12)	276
Miscellaneous small tasks	314
Analytical Total	\$2,683
Hardware and Analytical Total	\$139,385

(b) Costs for NRC TMI Lessons Learned Backfitting - Detail

(\$1000's)

1. HARDWARE

Provide computerized valve monitoring system	3,535
Install SRV position indicator	762
Modify containment isolation provisions	909
Drywell high range radiation monitors	506
Automatic switchover section	186
Accident monitoring instrumentation system	769
Addition of reactor water recorder	194
Emergency public alert system	1,502
Emergency facilities	2,777
Safety grade air supplies	2,627
Post accident sampling	3,785
Communication facilities	564
Effluent monitor upgrade	180
Improvements in control room habitability- (Sodium hypochlorite system)	379
All other NRC -TMI lessons learned Backfitting	<u>91</u>

Hardware Total \$18,766

2. ANALYTICAL

TMI, Post TMI (NUREG 0737 etc.)	874
Emergency preparedness	<u>1,345</u>
Analytical Total	2,219
Hardware and Analytical Total	\$20,985

(c) Cost for Utility Initiated Backfitting - Detail

(\$1000's)

1. HARDWARE

Piping replacement or removal due to intergranular stress corrosion cracking	4,611
Radwaste system improvements	625
LLRT provisions	286
Interphase seismic Q-Upgrade	578
Install MO stop valves in turbine bleed lines	1,284
Provide breathing air headers	597
LLRT dewpoint instrumentation	259
New sewage treatment plant	1,297
Reroute HPCI & RCIC inboard valve cables	539
Modify reactor water clean-up system	310
Reroute CAD system cables	1,156
Reroute isolation valve cables	640
Support facilities	5,111
Tools, furniture, test equipment	943
Feedwater system	1,384
Cooling towers	2,081
Computer facilities	381
Off-Gas system	3,716
Two 1065 MW units - completion work	16,196
All other utility initiated backfitting	<u>3,100</u>
Hardware Total	\$45,094

Peach Bottom Atomic Power Station - Units 2 & 3
Projected Additional Costs for NRC Imposed
Backfitting Requirements - Existing and Future Projects

(a) NRC Imposed Backfitting

(\$1000's)

Fire protection: cable spreading rooms and remote shutdown areas	20,058
Piping and valve changes (appendix J)	694
ATWS modifications	11,182
Increased spent fuel pool capacity	15,580
Mark I containment modifications	<u>14,600</u>
Total	\$62,114

(b) TMI Lessons Learned Backfitting

Accident monitoring instrumentation (NUREG Guide 1.97)	4,828
Safety parameter display system (NUREG 0737)	<u>1,120</u>
Total	\$5,948

Total Cost for Future Backfitting	\$68,062
-----------------------------------	----------