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PENNSYLVANIA PUBLIC UTILITY COMMISSION
v. PHILADELPHIA ELECTRIC COMPANY,
Docket No. R-850152

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Public Utility Commission

DIRECT TESTIMONY OF
N. BARRIE McLEOD, Ph.D., P.E.
E.R. JOHNSON ASSOCIATES, INC.

NUCLEAR PLANT DECOMMISSIONING COSTS

DOCUMENT FOLDER

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September 27, 1985

DIRECT TESTIMONY OF N. BARRIE McLEOD, Ph.D., P.E.

Q. Please state your name and business address for the record.

A. My name is N. Barrie McLeod. My business address is 11702 Bowman Green Drive, Reston, VA 22090.

Q. By whom are you employed and in what capacity?

A. I am currently Vice President of E. R. Johnson Associates, Inc. (JAI), a consulting firm specializing in the technology and costs of nuclear facility design, operation, decommissioning and waste disposal. However, the development of nuclear decommissioning cost estimates for Philadelphia Electric Company, which is the subject of my testimony, was performed within NUS Corporation under my direction as Vice President of Major Projects at NUS, a position I held until October 1984. I continue to work for NUS as an independent consultant and for the purposes of this testimony I am representing NUS Corporation and sponsoring the work done by that organization under my direction and supervision.

Q. Please describe NUS Corporation and its activities.

A. NUS Corporation is a specialized consulting engineering service company with headquarters located in Gaithersburg, Maryland and with offices in eleven other cities in the United States and in five foreign countries. The total staff

is over 1400 people. NUS' major services are in the area of nuclear and fossil-fueled power generation and fuel supply, environmental engineering and industrial waste treatment and process design. NUS provides these services to utility, industrial and government clients, both domestic and foreign.

Q. What is your educational background?

A. I obtained my Ph.D. degree in Nuclear Engineering from the Massachusetts Institute of Technology. I also have a bachelor's degree in Engineering Physics and a master's degree in Nuclear Engineering.

Q. Please describe your work experience.

A. I have over 25 years of experience in Nuclear Engineering and am a Registered Professional Engineer. My earlier responsibilities were for all NUS client work in the field of nuclear fuel management including both technical and cost aspects of nuclear fuel supply. My responsibilities were later expanded to cover the financial evaluation of competitive bids for commercial nuclear power plants. In addition, I have had supervisory responsibility for nuclear plant safety analyses, licensing, pre-operational testing and start-up. My more recent responsibilities include nuclear power plant costs, decommissioning costs, nuclear fuel supply and nuclear waste disposal as a part of the Energy Systems

and Major Projects activities at NUS. Since joining JAI, I have been working principally in the planning and conceptual design of major nuclear waste disposal facilities and in developing the related costs of construction, operation and decommissioning.

Q. Please describe your experience in estimating the costs of nuclear plant decommissioning.

A. Through 25 years of work in the field of nuclear power plant and fuel engineering, I have obtained an in-depth knowledge of nuclear power plants and their systems, licensing, construction, start-up, operations, waste management and decommissioning, plus the supply, use, storage and disposal of their fuel. My direct experience with decommissioning costs began shortly after the publication of SEC Staff Accounting Bulletin No. 19 in early 1978, which was the first official recognition of the need to collect current revenues for the ultimate decommissioning of nuclear power plants. Initially, I developed a method of decommissioning cost recovery which explicitly accommodates inflation as it occurs and also provides equitable treatment of ratepayers over time. I subsequently have directed the development of decommissioning cost estimates for 6 nuclear units owned by 4 utilities and have participated in others. I have served as an expert witness on decommissioning and spent nuclear fuel

cost recovery in rate hearings before the Florida Public Service Commission, the Federal Energy Regulatory Commission and the Pennsylvania Public Utility Commission. In the latter case, I have served as the Company's expert witness in these areas before this Commission at Docket Nos. R-79060865, R-80061225, R-811626, R-822291. I also have presented several papers at professional society meetings and industry conferences on decommissioning costs and cost recovery.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe the development and support for the total and nuclear portions of the estimated costs for decommissioning Philadelphia Electric Company's Peach Bottom, Salem and Limerick 1 nuclear power plants. I will provide these cost estimates as base costs in March 1984 dollars and will also provide a breakdown of these costs to be employed as the basis for escalating these base cost dollars to current and projected future dollar levels. The nuclear portions of the decommissioning costs developed in this testimony are the basis for the Company's request for current revenues to pay for future decommissioning as described in the testimony of Mr. Richard Wright.

A detailed description of nuclear plant decommissioning and the development of the specific decommissioning cost estimates for the Company's nuclear plants are set forth in

Exhibit NBM-1, "Decommissioning Cost Estimates for Limerick Generating Station Units 1 and 2, Peach Bottom Atomic Power Station Units 2 and 3, and Salem Nuclear Generating Station Units 1 and 2." Exhibit NBM-1 itself is a summary of separately bound studies of the cost of decommissioning each station. These supporting volumes set forth the detailed calculations and allocations supporting the cost estimates developed in Exhibit NBM-1. Copies of these supporting documents will be provided upon request.

Q. Please describe what is meant by the decommissioning of a nuclear power plant.

A. When a nuclear power plant reaches the end of its operating life, it must be placed in a condition such that public health and safety is ensured against exposure to residual radioactivity or other hazards present in the facility at the time of shutdown. The various activities and processes required to achieve such a condition are collectively referred to as "decommissioning" of the nuclear power plant. There are three possible overall approaches to decommissioning:

1. Prompt Removal in which all radioactive materials above safe limits are removed as soon as practicable after shutdown and are packaged and shipped to a licensed burial site for disposal. The remainder of the facilities are removed via conventional demolition.

2. Delayed Removal which is similar to prompt removal except for an interim delay period during which much of the original radioactivity decays. Although there is some reduction in the amount of radioactive material disposal, significant monitoring and security costs are incurred during the interim delay period.

3. Entombment in which the radioactive portions of the facility are entombed by the use of welded plates and/or poured concrete to physically assure isolation of those parts of the facility.

The Nuclear Regulatory Commission (NRC), which has licensing jurisdiction over a nuclear plant until all radioactivity is removed, has indicated that it will not accept Entombment for large power reactors. Prompt Decommissioning is the NRC's preferred approach and Delayed Decommissioning of up to 30 or 50 years would be acceptable if significant benefits could be demonstrated.

The decommissioning cost estimates described in this testimony are based on prompt decommissioning of the Company's nuclear units. Prompt decommissioning was selected because it is somewhat less expensive than delayed decommissioning, and because it reduces the financial risks that could arise from changes in regulations or from maintaining the purchasing power of accumulated funds over

longer periods. The costs of delayed decommissioning include costs for initially securing the facility against intrusion and continuing costs of security, monitoring and insurance over the dormant period. These added costs are greater than the reduction in the ultimate costs of removal and disposal that would be realized because of radioactivity decay to lower levels.

It should be noted that although some spent fuel will still be present on site at the end of the operation and will have to be removed prior to completion of decommissioning, the cost of such removal is not included as a part of decommissioning cost because it has already been included as a part of fuel cost during the operation of the power plant.

Q. Please summarize the processes that will be used to decommission the Company's nuclear units following their final shutdown.

A. The sequence and nature of decommissioning activities are largely determined by their most important goal: the safe removal and permanent disposal of all radioactive materials and equipment that remain from plant operations. The specific activities and sequences are selected on the basis of their being the most safe and effective way of physically removing and transferring all radioactive materials and equipment into appropriate licensed sealed containers;

shipping these containers, in shielded casks when necessary, via licensed transport over approved routes to the disposal site; and disposing of these packages at the licensed and regulated permanent disposal sites by underground burial. The remainder of the structures and equipment are removed and disposed of using conventional salvage and demolition practices and the site is then restored to original grade or its usable equivalent.

The principal strategy for ensuring the control of radioactivity during decommissioning is to initially maintain the integrity of the plant's containment structures which control radioactivity during operation and to maintain the operability of the plant's radioactive waste processing systems. In this way, the removal of much of the plant's radioactive materials and equipment is conducted within systems designed to control radioactivity, and is supported by existing systems for processing, compacting and packaging radioactive wastes. Once the other radioactive portions of the plant are removed and packaged, the containment and radwaste systems are themselves decontaminated, dismantled and packaged, completing the removal of all radioactive materials.

The actual decommissioning program activities which accomplish the above general goals can be broadly categorized

into four areas: 1) pre-shutdown planning and preparation; 2) decontamination; 3) equipment removal; and 4) site restoration. These activities proceed generally in the sequence as listed, but there is some overlap between the decontamination and equipment removal. Additional detail on these activities is as follows:

1) Pre-Shutdown Activities

The physical decommissioning of a large nuclear unit is a complex project extending over many years. Thus, sound decommissioning project planning is essential for ensuring that decommissioning activities will be carried out in a safe, timely and cost-effective manner. The NRC specifically requires that a decommissioning plan be submitted no less than one year prior to operating license expiration. This plan will be the basis for amending the NRC facility license from an operating license to a license which permits possession of radioactive materials until they are removed from the site. The planning and related preparations need to be started about three years prior to shutdown and include:

- Preparation of the detailed decommissioning plan for overall project control and scheduling purposes and to meet NRC licensing requirements.
- Preparation of task work plans, staffing plans, and development of procedures.

- Preparation of a quality assurance plan that assures implementation of safety-related procedures and the documentation thereof.
- Selecting special technologies and procuring, designing and testing special equipment.
- Establishing procedures and equipment to ensure occupational and public safety during decommissioning and a radiation survey plan for final release of the site.
- Training project staff and establishing training plans for contractor labor.
- Selecting prime and specialty contractors and subcontractors.
- Selecting the site and transport routes for radioactive waste disposal.
- Selecting the site(s) for non-radioactive waste disposal.

2) Decontamination

At the time of final shutdown, there will be significant radioactive contamination on the surfaces of process systems, equipment and some structures. The goal of decontamination is to promptly remove the bulk of this radioactivity to minimize subsequent personnel exposure and to clean as much material as possible to unrestricted levels, maximizing salvage, and minimizing packaging and disposal. The basic

strategy is to quickly remove as much of this contamination as possible with the simplest methods available and then to use increasingly aggressive and difficult methods.

The simplest methods involve chemical and electro chemical dissolution of the surface films and physical cleaning using vacuuming and scrubbing supplemented by detergents and cleaning compounds. The resultant radioactive liquids and solids are processed and packaged through the plant's existing liquid and solid radwaste facilities. Components whose metal surfaces remain contaminated after this cleaning must be disposed of using the equipment removal techniques described in the next section. Concrete surfaces which remain contaminated can be physically removed (such as by scabbling) and the resulting rubble packaged for radioactive waste disposal. At the completion of the decontamination phase, the majority of the plant radioactivity will have been removed and the principal remaining sources of radioactivity will be in contaminated equipment and systems.

3) Equipment Removal

Once the majority of removable radioactivity has been packaged and shipped for permanent disposal, and the working level of radiation has been correspondingly reduced to the maximum extent, the removal of major equipment and systems can proceed. During this phase, all radioactive equipment is

cut into pieces small enough for disposal packaging and all non-radioactive equipment is removed and salavaged as either scrap or used equipment. The actual sequence of removal is dependent upon the accessability of particular components and the potential personnel exposures. In general, the most radioactive components are removed first or shielded until they can be removed. Systems and components are cut into packagable sections using plasma-arc torches, arc saws, oxyacetylene torches or power saws. Small contaminated equipment is removed and packaged in standard containers. Piping is cut to fit standard packages and tanks are cut into plate segments for packaging. Reactor vessel internals are removed from the vessel, cut up and packaged. The reactor vessel is cut up into segments using a remote manipulator and is packaged. Certain vessels which are only mildly contaminated, such as steam generators, may be removed whole, their openings welded shut, and shipped for direct disposal. Previously-inaccessible contamination is then removed and packaged. All packages are loaded to be within licensed limits, some are shipped unshielded and others are shipped in shielded casks, depending upon approved transport requirements. Once all radioactive materials have been removed, and all areas of the site are verified to meet the standards for unrestricted use, the NRC license can be terminated. Non-contaminated equipment is removed and taken off-site for salvage as scrap or as used equipment.

4) Site Restoration

Once all radioactive materials have been removed, packaged and shipped off-site for permanent disposal, and all other salvageable equipment has been removed, the site is restored to original or equivalent usable condition by the following:

- Demolition of all remaining structures to at least three feet below grade.
- Removal of cooling water intake and discharge structures.
- Collapsing or filling subterranean voids more than three feet below grade, including collapsing of conduits to the turbine building.
- Disposal of all demolition material and rubble at an approved nearby landfill.
- Grading, backfilling, replacement of soil and planting, as required to restore the site to original or equivalent.

Q. Please describe how the demommissioning cost estimates were developed for the Company's three nuclear sites.

A. First, the basic criteria and key assumptions were established. Consistent with these, each nuclear unit was systematically catalogued as to specific quantities of the many different items requiring removal and disposal or salvage. Then, the cost of removing and disposing of one

unit of each of the many items was determined. In this way the total direct costs of removing and disposing of all of the items in each unit were obtained. From these, the total cost of decommissioning was developed by adding the prime contractor's costs, the utility's planning and supervisory costs, and the costs of several specialty contracts. This process is summarized in greater detail, as follows:

Basic Criteria:

1. Decommissioning would be accomplished using current proven technology, under current regulations and radioactive waste would be disposed of at currently available disposal sites. Should the technology, regulations or disposal location change in the future, proper adjustments would be made at that time.
2. The integrity of radioactivity containment and isolation structures would be maintained until radioactivity removal was substantially complete in order to prevent release of radiation into the environment.
3. Decommissioning would be performed by a prime contractor with technical and management oversight by the Company. Certain specialized subcontracts would be awarded for decontamination, waste solidification, conventional demolition, and for health physics and security services.

Key Assumptions

1. Decommissioning will begin immediately following removal of all spent fuel from the site.
2. All radioactive systems and surfaces will be decontaminated prior to dismantling.
3. All large radioactive components will be cut up as necessary to facilitate packaging, transport and disposal.
4. All radioactive waste will be disposed of at the closest licensed disposal facility which is located in Barnwell, South Carolina.
5. Major structural demolition would not begin until after removal of all radioactive materials from the facility.
6. Non-radioactive debris would be disposed of at an on-site landfill at Peach Bottom and Limerick and by sealed disposal at a site 50 miles from Salem.
7. Each site would be restored to a graded and landscaped natural condition.

Cost Development

Initial cost development began with site visits to directly view station layout and obvious features that could impact decommissioning, and to establish the availability of necessary information. An extensive review of the information provided by the Company was then conducted.

Mechanical and electrical engineers used station equipment lists, general arrangements drawings, piping and instrument drawings and licensing documents to identify and quantify components and quantities. Civil engineers reviewed station layout, yard, structural steel and concrete drawings to identify buildings and structures, to classify types of construction and to quantify materials requiring decommissioning. The specific steps in the cost estimating process are as follows:

1. A data base was established for each nuclear station, listing all equipment, structures, materials and services required in decommissioning.
2. The specific quantity of each item on the list was determined. The units used (yd^3, linear feet, tons, etc.) were appropriate to the item and were consistent with the unit costs for that item.
3. Each item was also characterized as belonging to a particular class of unit cost for removal, for disposal, and for salvage.
4. The actual cost for removal of one unit of each class was developed considering fully burdened labor costs, the mix of skills required and the labor productivity losses due to the particular nuclear environment in which the category of work must occur. Demolition engineers provided basic estimates of labor productivity

for various activities. Similar unit costs were developed within each class for the cost of disposal and credit from salvage.

5. Each item in the data base was also identified as to which unit (or common portion) it belonged within the station, the FERC account to which it belonged, and also whether it was a part of the nuclear portion of the plant or not.

6. The quantities of each item in the data base, when multiplied by the unit cost for the designated category of removal, disposal and salvage cost, yield the total removal and disposal costs and the salvage credit, and the overall total for each item in the data base. The grand total for all items in the data base gives the total decommissioning cost for the station; and the grand total of all nuclear-related items in the data base gives the total nuclear-related decommissioning cost for the station.

Q. Please describe the total decommissioning costs that were obtained and discuss the principal reasons for the differences among the stations.

A. The following table summarizes the total cost of decommissioning the Company's Peach Bottom and Salem stations and Unit 1 of the Limerick station:

Total Decommissioning Cost
in March 1984 Dollars
($ Millions)

Station	Removal	Disposal	Salvage	Total
Peach Bottom 2&3	235.1	65.3	(7.9)	292.6
Salem 1&2	171.8	46.3	(6.5)	211.6
Limerick 1 & Common	117.3	32.2	(3.3)	146.2

It should be noted that the Peach Bottom totals include $19.1 million for the removal of the older, entombed Unit 1. This unit is included for two basic reasons. First, the NRC license at Peach Bottom cannot be terminated without removal of Unit 1 as well as Units 2 and 3. Second, the office facilities at Unit 1 are currently being used as the Technical Support Center, the remote Emergency Center and the Communications Center, and as such are an integral and necessary part of the Peach Bottom station. As shown, the Limerick 1 costs include the cost of common facilities shared with Limerick 2.

A comparison of the per-unit costs at each station (the Peach Bottom and Salem stations each have two units) exhibits both similarities and differences. A basic similarity is expected because the units at each station are in the 1055 to 1115 MWe capacity range. The differences between units arise because of reactor type differences, differences in sites, and differences between earlier and later designs of the same reactor type. The Salem reactors are pressurized water

reactor (PWR) types whereas both the Peach Bottom and Limerick stations use boiling water reactors (BWR). By its nature, the PWR tends to be built more into the ground than the BWR and therefore less of it must be physically removed to meet the "three feet below grade" removal criterion. Thus removal of a PWR tends to be inherently less costly than removal of a BWR. Moreover, in the case of Salem, foundation conditions required the establishment of a large and relatively deep foundation pad. As a result, Salem is even more below grade than is typical of PWRs, and its removal costs are even lower than is typical of PWRs relative to BWRs.

The similarity in per-unit decommissioning costs between the older Peach Bottom units and the newer Limerick unit, both of which are BWR's of almost identical capability, masks very real offsetting differences, which by coincidence almost cancel. At the older Peach Bottom station, the lower costs of removing the smaller quantities of equipment and materials used in the older plants is offset by the added cost, unique to Peach Bottom, of removing the cooling water canals and dikes built into Conowingo Reservoir, in order to restore state owned land to its original condition, plus the additional cost of removing the older Peach Bottom Unit 1.

Q. Please summarize the nuclear-related costs that were obtained and describe the basis for defining which costs are nuclear-related.

A. The following summarizes the nuclear-related cost of decommissioning the Company's Peach Bottom and Salem Stations and Unit 1 of the Limerick station:

Nuclear-Related Decommissioning Cost
in March 1984 Dollars
($ Millions)

Station	Removal	Disposal	Salvage	Total
Peach Bottom 2&3	144.1	61.6	(0.6)	205.2
Salem 1&2	115.7	44.6	(0.1)	160.2
Limerick 1 & Common	79.9	30.3	(0.5)	109.7

Again, the above costs for Peach Bottom 2 and 3 include an amount of $13.6 million for the nuclear-related portion of decommissioning the older Peach Bottom 1 unit at the same site. The Limerick 1 costs include the common costs shared with Limerick 2.

As previously mentioned, every item in the decommissioning data base is designated as nuclear or non-nuclear. The above nuclear-related decommissioning costs are the total of all cost items that have been designated as nuclear-related. The basic criterion for defining whether an item is designated as nuclear-related was established to be consistent with prior regulatory practice in the Commonwealth of Pennsylvania. The

original precedent was set by the Pennsylvania Public Utility Commission ruling on the allowable portion of decommissioning costs in 1978 (Pennsylvania Electric Company, 51 Pa P.U.C. at 669), and confirmed in subsequent ratemaking proceedings in connection with the decommissioning costs of Peach Bottom 2 and 3 and Salem 1. In the original Pennsylvania Electric ruling, the Commission did not allow those decommissioning costs that were for the dismantling of non-nuclear structures such as cooling towers, river water pump houses, and miscellaneous structures which by their nature pose no special concern in regard to health and safety. Thus, all equipment and structures which are not normally radioactive or are not likely to be radioactive because they do not contain or control radioactivity are designated non-nuclear, consistent with the original Pennsylvania Electric ruling. Specifically, all equipment and structures related to the cooling water system, including cooling towers and pump houses, and all equipment and structures related to the generation or off-site transmission of electricity are non-nuclear.

As was the case with total decommissioning costs, it should be noted that there are some system differences between BWRs and PWRs. In BWRs, the steam from the reactor goes directly to the turbine through moisture separators/reheaters and then through the condenser, the boiler feed pumps and feedwater

heaters back into the reactor. Thus, the turbine, the condenser and the feedwater system will be contaminated and require radioactive disposal. In the PWR, the water from the reactor passes through the steam generators where it boils water in the secondary system, which then goes to the turbine. However, because the reactor water is isolated from the secondary system, the turbine, condenser and feedwater system would not normally be contaminated. The net result of these differences is that somewhat less equipment requires radioactive packaging, shipment and disposal in the PWR than in the BWR.

Q. Please compare the nuclear-related decommissioning costs which you have just developed with those which were developed and used in previous Company rate proceedings.

A. The cost estimate utilized in prior proceedings was completed in mid-1979. It was performed by determining the major physical differences between the Company's Peach Bottom and Salem 1 units and the Diablo Canyon nuclear station for which a fairly detailed decommissioning cost estimate was available. These major physical differences were then translated into decommissioning cost differences and the decommissioning costs for Diablo Canyon were then adjusted by these differences to provide the decommissioning cost estimates for Peach Bottom 2 and 3 and Salem 1.

Because the Company is adding another nuclear unit at a new site, because the original estimates are now 6 years old and were not detailed, site-specific estimates and because consistency in cost estimating among units is considered essential, the Company has decided to develop the decommissioning cost estimates for all of its units on a detailed site-specific basis. Thus, the current estimates are considered to be more accurate than prior estimates because they are both more current and are now based directly on the sites and detailed designs of the Company's units. When the original 1979 estimate of the total costs of decommissioning of Peach Bottom 2 and 3 and Salem 1 is escalated to current dollar levels and compared to the new total estimate of Peach Bottom 2 and 3 (less Peach Bottom 1), plus 50% of Salem station estimate (for Salem 1), the results are about 12% below the current estimate. This difference is directly attributable to the greater detail of the current estimate.

A more significant difference is that the nuclear-related portion of the new estimate is about 73% of the total, whereas it was approximately 50% of the escalated total using the prior basis. In order to identify the source of this difference both the new estimate and the old estimate were examined. The new estimate is simply the total of all nuclear-related items and it was confirmed that the

designations of nuclear-related items were correct and consistent with the regulatory precedent established in the Pennsylvania Electric decision. The basic source of the difference is that the nuclear-related portion of the Diablo Canyon costs, used as the reference for prior work, were unusually low, for several reasons.

First, the original Diablo Canyon estimate included $30.5 million more for grading, backfilling and landscaping than will be required at the Company's sites. This additional cost is due to a requirement, at that particular site, to restore the site to the original contour as opposed to an acceptable contour. If this difference is removed, the nuclear-related fraction becomes 60% of the total.

Second, the original Diablo Canyon nuclear-related estimate omitted all but the radioactive disposal portion of the auxiliary building and the primary containment building, even though the equipment in these buildings is virtually all nuclear equipment, and the buildings themselves are designed to contain radioactivity releases and become partially radioactive themselves. Including the $10.6 million and $12.4 million costs for removing the auxiliary building and containment building respectively, as nuclear-related costs, raises the nuclear-related costs to about 74% of the total decommissioning cost. With the foregoing corrections, the

nuclear-related portions of the original estimate and the new estimate are consistent.

Q. Please describe the basis that has been developed for adjusting the March 1984 cost estimates to reflect the impact of present and future inflation on the costs of decommissioning.

A. The Commission has established the sound practice of collecting revenues based on current decommissioning costs and of maintaining the current purchasing power of accumulated funds that will be used to pay for future decommissioning. This requires that a realistic assessment be continually made of the impact of inflation. For this reason, the total and nuclear-related costs of decommissioning have been broken down into categories of cost for which reliable indicators of current and projected costs are maintained. These cost categories include craft labor, professional labor, equipment and material, waste disposal, and a number of other costs including energy, less credits for salvaged equipment and materials. The breakdown of total decommissioning costs into these categories is as follows:

Cost by Station
Millions of March 1984 Dollars

Cost Category	Peach Bottom 2 & 3	Salem 1 & 2	Limerick 1 + Common
Craft Labor, Skilled	86.970	62.655	43.581
Craft Labor, Common	39.459	26.266	17.996
Professional/Technical Labor	70.649	61.603	38.527
Equipment	38.466	25.494	17.468
Low Level Waste Burial	39.416	23.687	19.747
Salvage: Iron & Steel	(4.464)	(3.420)	(1.466)
Copper Scrap	(3.447)	(3.080)	(1.894)
Energy and Other	25.575	18.409	12.269
TOTAL	292.624	211.614	146.228

The breakdown of the nuclear-related decommissioning costs into these categories is as follows:

Cost by Station
Millions of March 1984 Dollars

Cost Category	Peach Bottom 2 & 3	Salem 1 & 2	Limerick 1 + Common
Craft Labor, Skilled	44.943	37.848	25.827
Craft Labor, Common	25.632	16.141	10.902
Professional/Technical Labor	57.484	50.239	31.762
Equipment	19.640	15.370	10.378
Low Level Waste Burial	39.416	23.687	19.747
Salvage: Iron & Steel	(0.577)	(0.064)	(0.563)
Energy and Other	18.647	17.003	11.622
TOTAL	205.185	160.224	109.675

Adjustments to the above costs to reflect June 30, 1986 conditions is discussed in the direct testimony of Richard W. Wright. I have reviewed Mr. Wright's escalation calculations and find them to be reasonable and consistent with the indicies suggested herein.

Q. Please describe the possible impact of NRC's recent proposed rulemaking on decommissioning.

A. The NRC published its long awaited proposed rule on "Decommissioning Criteria for Nuclear Facilities" in the Federal Register (Vol. 50, No. 28, Monday, February 11, 1985, Pg 5600). Comments have been requested and the final rule will be issued after comments have been considered. Thus, the rule is not final and is still subject to change.

The proposed rules were not issued until after my study was completed and therefore did not directly influence the assumptions used nor the approach taken in developing the Company's cost estimate. However, the proposed rules confirm the reasonableness of the Company's approach.

The proposed rules confirm the Company's proposed use of Prompt Decommissioning and express a preference for the site specific approach employed by the Company. The proposed rules also appear to confirm the general magnitude of the nuclear-related decommissioning cost estimate and the need for dealing with cost escalation. In particular, the NRC will require financial assurance that adequate nuclear-related decommissioning funds are being collected based on either a facility-specific cost evaluation or in the amount of $100 million (1984 dollars) per unit, to be escalated at a rate of <u>twice</u> the rate of change of the Consumer Price

Index. The Company's facility-specific nuclear-related cost estimates average less than $100 million per unit.

In this regard it should be noted that the proposed rule requires affected utilities to submit a decommissioning funding plan to NRC within 2 years, including both the decommissioning cost estimate and the method of funding. The NRC will review the plan as to the adequacy of both the nuclear-related decommissioning cost estimate itself, and the method of funding. A decommissioning cost basis which falls significantly below the $100 million level suggested by the NRC would face a correspondingly significant risk of NRC disapproval.

For these reasons, I believe the Company's estimate of decommissioning costs is fully consistent and supported by the NRC's proposed regulations.

Q. Does this complete your testimony?

A. Yes, it does.

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DECOMMISSIONING COST ESTIMATES FOR LIMERICK GENERATING STATION, UNITS 1 AND 2 PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2

Prepared for
Philadelphia Electric Company

June 1985

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1.0 INTRODUCTION

When a nuclear electric generation facility reaches the end of its useful life, it must be placed in a condition such that future risk from the facility to public health and safety is negligible. The activities and processes involved in achieving such a condition are referred to as "decommissioning" of the nuclear facility. The costs of decommissioning are a part of the total cost of generating electricity.

This report presents the results of a detailed site-specific decommissioning cost estimate performed for the Philadelphia Electric Company (PECo). The generating facilities for which a decommissioning cost estimate was performed, and the corresponding percentage of PECo ownership in those facilities are as follows:

Station	Percentage Ownership
o Peach Bottom Atomic Power Station, Units 2 and 3	42.49%
o Salem Nuclear Generating Station, Units 1 and 2	42.59%
o Limerick Generating Station, Units 1 and 2	100%

The other owners of the Peach Bottom and Salem stations are Public Service Electric and Gas Company, Atlantic Electric Company and Delmarva Power and Light Company.

1.1 Station Descriptions

1.1.1 Peach Bottom Atomic Power Station

The Peach Bottom site is approximately 620 acres on the Conowingo Reservoir, about 38 miles north-northwest of Baltimore, Maryland. The Peach Bottom Station is comprised of two operating power generating units each using a General Electric boiling water reactor (BWR) steam supply system. Each unit is rated at 1065 MWe net. Also located at the Peach Bottom Station is a "mothballed" 40 MWe high temperature gas cooled (HTGR) generating unit. The decommissioning cost estimate for complete removal of the HTGR unit has been estimated separately from the remainder of the Peach Bottom Station costs.

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Major structures associated with Peach Bottom Units 2 and 3 include reactor buildings, turbine building, radwaste building, recombiner building, circulating water pump and screen structures, five banks of mechanical draft cooling towers, safety-related cooling tower and an on-site low-level radwaste storage facility. In addition, the cooling water system includes piers, walls and dikes extending into the Conowingo Reservoir. Other auxiliary structures/buildings are also located on-site.

1.1.2 Salem Nuclear Generating Station

The Salem Station covers an area of approximately 400 acres of a 700 acre site on the Delaware River, about 8 miles southwest of Salem, New Jersey. The Salem Station is comprised of two power generating units each using a Westinghouse pressurized water reactor (PWR) steam supply system. Salem Unit 1 is rated at 1090 MWe net and Unit 2 at 1115 MWe net.

Major structures include the containments, fuel handling buildings, circulating water and service water intake structures, auxiliary building and turbine building. Other auxiliary structures/buildings are also located on-site.

1.1.3 Limerick Generating Station

The Limerick site is approximately 595 acres on the Schuylkill River, about 21 miles northwest of Philadelphia. The Limerick Station is comprised of two power generating units each using a General Electric BWR steam supply system. Each unit is rated at 1055 MWe net.

Major structures include reactor building, turbine building, radwaste and off-gas building, diesel generator buildings, a circulating water pump house and two hyperbolic natural draft cooling towers. Other auxiliary structures/buildings are also located on-site.

1.2 Contents of Report

The remainder of this report contains the following major sections:

- Section 2.0 SUMMARY AND CONCLUSIONS - This section provides an executive summary of the report including the total costs of decommissioning each of the three stations, the nuclear-related costs of decommissioning and the basis for possible future updating of the early-1984 dollar costs to correspond to then-current dollar costs in recognition of possible future cost inflation.

- Section 3.0 GENERAL DESCRIPTION OF DECOMMISSIONING - This section summarizes the basic features of boiling and pressurized water reactor and power plant systems, the sources of the radioactivity, and the sequence of activities and processes by which all equipment is removed, all structures demolished, and all equipment and materials appropriately disposed of by either burial at radioactive waste disposal sites (radioactive materials), conventional disposal (non-radioactive materials) or salvage (non-radioactive equipment or material with scrap or used-equipment value).

- Section 4.0 DECOMMISSIONING COSTS AND SCHEDULES - This section describes the method for estimating decommissioning costs, the various activities and corresponding cost categories, and the detailed costs for each station by FERC account and by activity. Total and nuclear-related costs are included, as well as the basis for possible future cost adjustments to account for possible future inflation. The activity schedule and corresponding expenditure schedule during decommissioning are provided for each station, and a summary of physical quantities of concrete, steel, pipe and cable, etc. is provided.

2.0 SUMMARY AND CONCLUSIONS

This report summarizes the activities and processes necessary to decommission a nuclear power unit at the end of its useful life, and provides the estimated cost of decommissioning the seven nuclear units at the three nuclear generation stations in which Philadelpha Electric Company has an ownership interest.

The estimates of total decommissioning cost are based on the complete removal of all equipment, material and structures to three feet below grade, and the grading and restoration of the site to original or equivalent contour. The cost estimates are based on the assumption of prompt removal following final station shutdown, as distinguished from interim mothballing or entombment for an extended period followed by delayed removal. The prompt removal option was selected because 1) the decommissioning costs are equivalent or cheaper for prompt removal and 2) the Nuclear Regulatory Commission (NRC) has indicated a strong preference for prompt removal on the basis of overall public health and safety. Decommissioning cost estimates do not include the costs of removal and disposal of spent fuel because those costs are funded currently as a part of nuclear fuel costs.

The actual process of decommissioning begins about three years prior to final shutdown, and consists of developing a detailed plan for decommissioning and submitting this plan to the NRC as part of the basis for amending the operating license once the plant is shut down. Other important activities prior to shutdown include selection of general and specialty contractors, development of detailed work plans and procedures, training of staff, and the selection and procurement of special equipment. The actual decommissioning activities begin with the decontamination by chemical or physical cleaning of all accessible systems and surfaces that contain radioactivity, or physical removal of contaminated surfaces. This removes the majority of the radioactivity and markedly reduces personnel radiation exposure during subsequent operations. Next, all radioactive systems and equipment are removed, cut up and packaged, and all the previously inaccessible contaminated surfaces and materials are removed. All radioactive material is appropriately packaged and shipped by truck to licensed low level radwaste burial facilities for final disposal. At this point all radioactivity above safe levels has been removed and conventional demolition and disposal practices are employed thereafter. All other equipment and salvagable materials are removed and sold as used equipment or scrap. The remaining structures

are then demolished and the resulting materials are disposed of in nearby landfills or in the case of Salem, disposed of at a sea dump site. The site is then graded and restored to original or acceptable equivalent contour.

2.1 Total Cost of Decommissioning

The estimated costs of decommissioning the three nuclear power generating stations, broken down into removal, disposal and salvage components, plus the total costs are:

Station	Total Decommissioning Cost in March 1984 Million Dollars			
	Removal	Disposal	Salvage	Total
Peach Bottom 2 & 3*	219.1	62.1	(7.7)	273.5
Salem 1 & 2	171.8	46.3	(6.5)	211.6
Limerick 1 & 2**	216.6	62.0	(6.0)	272.6

Table 2-1 shows a breakdown of the total decommissioning cost of each station in accordance with Federal Energy Regulatory Commission (FERC) accounts.

A comparison of the estimated costs among the three stations exhibits both similarities and differences. A basic similarity is expected because each station consists of two large units, each of which is in the 1055 Mwe to 1115 Mwe capacity range. The differences between stations arise because of reactor type differences, differences in sites, and differences between earlier and later designs of the same reactor type. The Salem reactors are Pressurized Water Reactor (PWR) types whereas both the Peach Bottom and Limerick stations use Boiling Water Reactors (BWR). By its nature, the PWR tends to be built more into the ground than the BWR, and therefore less of it must be physically removed to meet the "three feet below grade" removal criterion. Thus removal of a PWR tends to be inherently less costly then removal of a BWR. In the particular case of Salem, foundation conditions required the establishment of a large and relatively deep foundation pad. As a result, Salem is even more below grade than is typical of PWRs, and its removal costs are even lower than is typical of PWRs relative to BWRs.

* Does not include an additional cost of $19,072,000 for the removal of Peach Bottom Unit 1, the entombed nuclear facility located on same site.

** Costs for Limerick Station are presented in Appendix C on a per unit and common equipment basis.

TABLE 2-1
Summary of Total Decommissioning
Cost by FERC Account
March 1984
$1,000's

FERC Account Number	FERC Account Title	Total Cost Peach Bottom 2 & 3	Total Cost Salem 1 & 2	Total Cost Limerick 1 & 2
321	Nuclear Production - Structures and Improvements	$ 74,360	$ 36,642	$ 52,135
322	Nuclear Production - Reactor Equipment	80,840	70,474	83,848
323	Nuclear Production - Turbogenerator Units	23,872	7,764	21,898
324	Nuclear Production - Accessory Electric Equipment	10,690	11,363	10,844
352	Transmission Plant - Structures and Improvements	--	111	189
524	Nuclear Power - Miscellaneous Nuclear Power Expenses	7,595	7,495	7,594
920	Administration and General Expenses - Salaries	23,052	21,919	28,427
923	Administration and General Expenses - Outside Services	51,668	54,381	66,569
924	Administration and General Expenses - Property Ins.	1,476	1,465	1,117
	TOTAL	$273,553	$211,614	$272,621

The similarity in decommissioning costs between the older Peach Bottom station and the newer Limerick station, both of which use BWR's of almost identical capacity, masks very real offsetting differences, which by coincidence almost cancel. At the older Peach Bottom station, the lower costs of removing the smaller quantities of equipment and materials used in the older plants is offset by the added cost, unique to Peach Bottom, of removing the cooling water canals and dikes built into Conowingo Reservoir, in order to restore state-owned land to its original condition.

2.2 Nuclear-Related Cost of Decommissioning

In addition to the total cost of decommissioning, the nuclear-related cost of decommissioning has also been estimated. This is the portion of total decommissioning cost which has been established as allowable for ratemaking purposes, consistent with prior regulatory practice in the Commonwealth of Pennsylvania. The original precedent was set by the Pennsylvania Public Utility Commission ruling on the allowable portion of decommissioning costs in 1978 (Pennsylvania Electric Company, 51 Pa P.U.C. at 669), and confirmed in subsequent ratemaking proceedings in connection with the decommissioning costs of Peach Bottom 2 and 3 and Salem 1. In the original Pennsylvania Electric ruling, the Commission did not allow those decommissioning costs that were for the dismantling of non-nuclear structures such as cooling towers, river water pump houses, and miscellaneous structures which by their nature, pose no special concern in regard to health and safety.

Consistent with the above, the nuclear-related portions of the decommissioning costs of the three nuclear power generating stations are:

Station	Nuclear-Related Decommissioning Cost in March 1984 Million Dollars			
	Removal	Disposal	Salvage	Total
Peach Bottom 2 & 3*	133.5	58.5	(0.5)	191.6
Salem 1 & 2	115.7	44.6	(0.1)	160.2
Limerick 1 & 2**	154.8	59.5	(1.1)	213.2

* Does not include an additional nuclear-related cost of $13,581,000 for the removal of Peach Bottom Unit 1, the entombed nuclear facility located on the same site.

** Cost for Limerick Station are presented in Appendix C on a per unit and common equipment basis.

TABLE 2-2
Summary of Nuclear-Related Decommissioning
Cost by FERC Account
March 1984
$1,000's

FERC Account Number	FERC Account Title	Total Cost Peach Bottom 2 & 3	Total Cost Salem 1 & 2	Total Cost Limerick 1 & 2
321	Nuclear Production - Structures and Improvements	$ 34,218	$ 24,806	$ 36,681
322	Nuclear Production - Reactor Equipment	70,894	66,703	73,956
323	Nuclear Production - Turbogenerator Units	17,502	--	17,726
324	Nuclear Production - Accessory Electric Equipment	1,193	791	1,299
352	Transmission Plant - Structures and Improvements	--	--	--
524	Nuclear Power - Miscellaneous Nuclear Power Expenses	6,020	6,145	6,469
920	Administration and General Expenses - Salaries	18,762	17,208	22,682
923	Administration and General Expenses - Outside Services	41,615	43,171	53,369
924	Administration and General Expenses - Property Ins.	1,400	1,400	1,050
	TOTAL	$191,604	$160,224	$213,232

Table 2-2 shows a breakdown of the nuclear-related decommissioning cost of each station in accordance with FERC accounts.

2.3 Escalation of Base-Year Decommissioning Costs

Prior Commission rulings have adopted the sound practice of maintaining the current purchasing power of funds being accumulated to pay for future decommissioning. Central to this concept is an estimate of current decommissioning costs. This has been done by using a cost estimate in base-year dollars and escalating this base-year cost to a current-year cost by use of appropriate inflation indices. These indices are accepted measures of the degree of inflation in each of the various components (i.e., labor, materials, disposal, etc.) which make up the total cost. The bases for adjustments of March 1984 costs to reflect future increases in decommissioning costs is described in subsection 4.4.2.

3.0 GENERAL DESCRIPTION OF DECOMMISSIONING

Once a nuclear facility has reached the end of its operating life, it must be placed in a condition such that the public health and safety is ensured from any residual radioactivity or other hazards present in the facility. The various activities and processes involved in achieving such a condition are generally referred to as the "decommissioning" of the nuclear facility.

A description of the decommissioning of nuclear power plants is presented in this section emphasizing how dismantling, shipping and ultimate disposal of residual radioactive material is accomplished without meaningful risk to the public.

3.1 Summary of Nuclear Plant Features

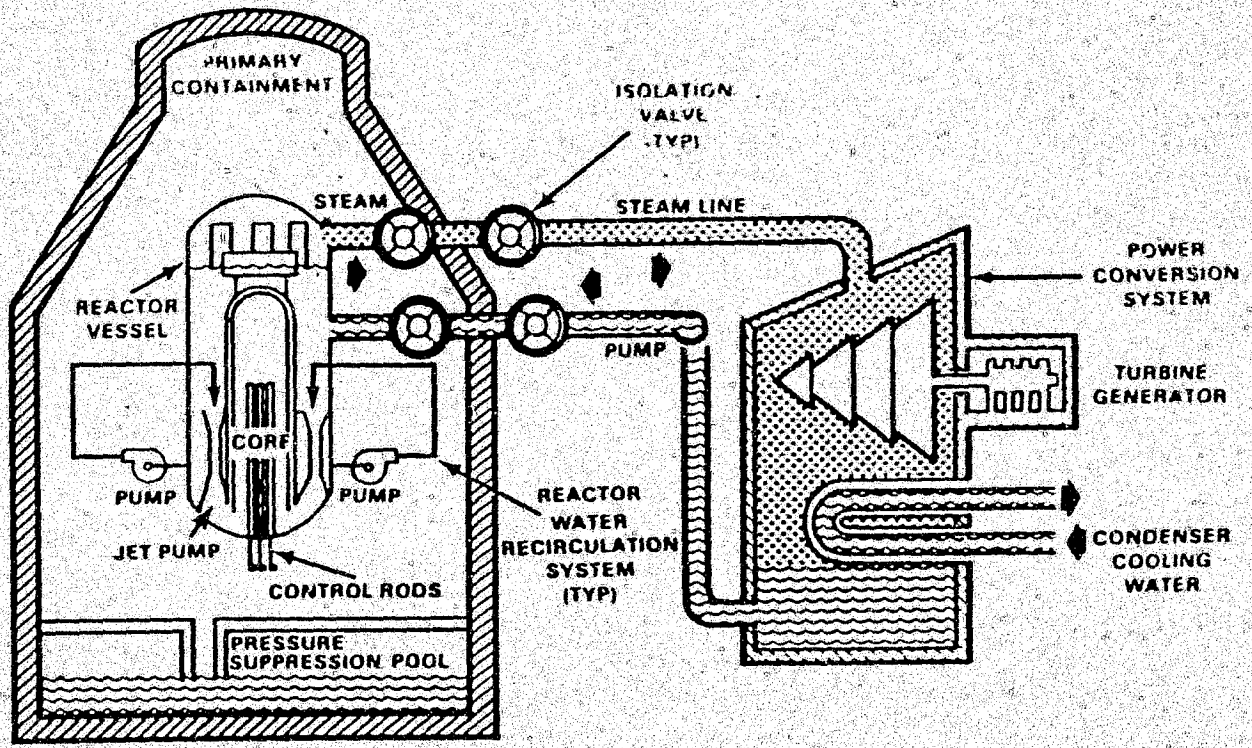
The decommissioning of nuclear power plants is still considered a relatively new experience by the nuclear industry of today. It will become quite a common experience in 30 to 40 years as an increasing number of nuclear power plants reach the end of their operating lives.

To describe decommissioning of the nuclear power plant in general terms, it is useful to begin with the structure and function of a typical nuclear power plant. Since the Philadelphia Electric generating stations include both boiling water reactor (BWR) and pressurized water reactor (PWR) nuclear steam supply systems, a brief description of both types of facilities is provided.

3.1.1 Typical BWR Plant

The Peach Bottom Units 2 and 3 and the Limerick Units 1 and 2 are BWR systems. The general configuration of a typical BWR plant system similar to Limerick Unit 1 or Unit 2 is illustrated in Figure 3-1. Peach Bottom Units 2 and 3 differ in containment configuration and have a torus for a suppression chamber. The basic operation is the same. The principal components and systems of interest are the reactor vessel containing the core and steam generating equipment, the reactor water recirculation system, and the power conversion system.

FIGURE 3–1
GENERAL CONFIGURATION OF
A TYPICAL BOILING WATER REACTOR PLANT



The reactor vessel is a right circular cylinder with a permanently attached hemispheric bottom and a removable hemispheric top. The major reactor internal components are the core (fuel, flow channels, control rods, and instrumentation), the core support structure (including the core shroud, top fuel guide, and core support plate), the shroud head and steam separator assembly, the steam dryer assembly, the jet pumps, the feedwater spargers, and the core spray lines.

The reactor water recirculation system has two loops external to the reactor vessel but inside the primary containment. Each loop contains a pump and two motor-operated isolation valves. Each loop supplies water to jet pumps located inside the reactor vessel in the annular region between the core shroud and the vessel wall.

The power conversion system converts the usable energy from the steam produced in the reactor vessel to electricity, condenses the steam, and heats the condensate and pumps it back to the reactor as feedwater. The system consists of a large steam turbine and generator, moisture separator-reheaters, a single-pass condenser, motor-driven condensate and a full-flow condensate polishing system, turbine-driven feedwater pumps, and several stages of feedwater heating. At Peach Bottom, the condensers are normally cooled by water drawn from and returned to Conowingo Reservoir via mechanical draft cooling towers. At Limerick, the condensers are cooled by water which is cooled in the two large hyperbolic natural draft cooling towers.

Immediately adjacent to the reactor vessel is the biological shield which stops the neutron and gamma radiation from the reactor and the primary containment which provides the ultimate barrier and the energy absorption capability in the event of a rupture of the primary system. The secondary containment structure surrounds the primary containment and houses auxiliary equipment and the spent fuel pool. Outside the secondary containment building, additional other equipment and facilities exist which can be seen at typical fossil power plants; switchyard, intake and discharge structures, cooling tower, turbine building, office and other buildings.

3.1.2 Typical PWR Plant

The Salem Units 1 and 2 are PWR systems. The general configuration of various equipment and systems for a typical PWR plant is illustrated in Figure 3-2. The pressurized water reactor operates on an indirect cycle; the heat generated by the fission of nuclear fuel in the reactor core is removed by high-pressure water (primary coolant) that is circulated through the reactor core. The primary coolant piping system connects the reactor core in series with steam generators and reactor coolant pumps. The primary coolant system transfers the heat through the steam generators to the secondary system in which steam is produced to drive the turbine-generator and generate electricity. The secondary system is isolated from the primary system and does not come into contact with the reactor, and therefore is not radioactive.

The primary coolant system boundary provides a barrier against the release of radioactivity from the reactor, and is designed to ensure a high degree of integrity throughout the life of the PWR plant. It is housed within what is typically called a containment building shown by the dotted boundary in Figure 3-2.

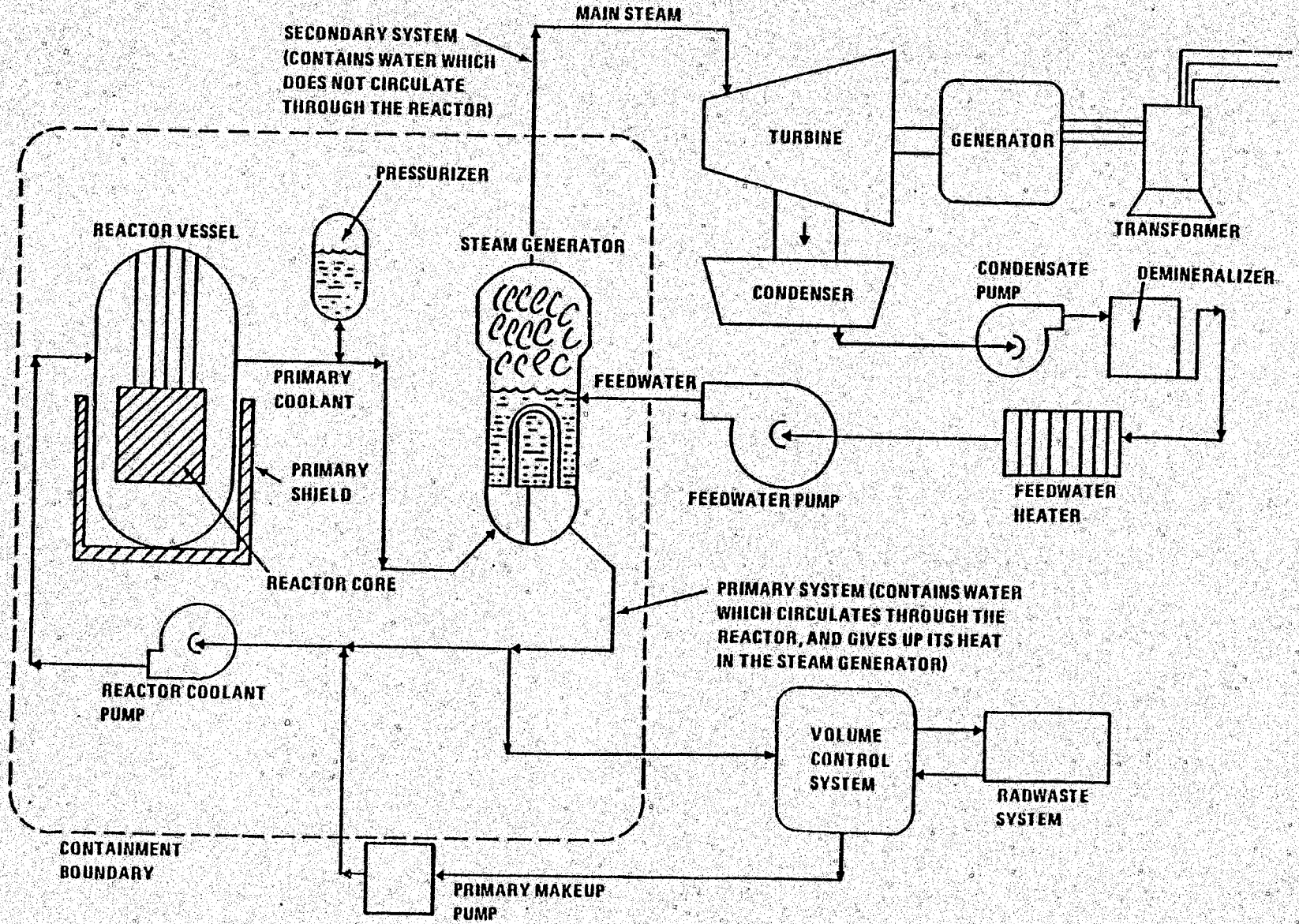
The containment building is made of 3 to 4 feet thick steel-reinforced concrete, and contains the reactor vessel, steam generators, the pressurizer, reactor coolant pumps, and interconnecting piping system.

The reactor vessel is cylindrical, with a welded hemispherical bottom head and a removable, flanged and gasketed, hemispherical upper head. The reactor vessel contains the fuel core, core support structures, control rods and other parts directly associated with the core. Immediately adjacent to the reactor vessel is the primary shield which reduces the neutron and gamma radiation from the reactor.

Outside the containment building, various other equipment and facilities exist which can be seen at typical fossil power plants; turbine-generator, condenser, feedwater pumps, switchyard, intake and discharge structures, office buildings, etc.

FIGURE 3–2

GENERAL LAYOUT OF A TYPICAL PWR PLANT



3.1.3 Sources of Radioactive Materials

The primary source of radioactive materials in all nuclear power plants is the nuclear fuel located in the reactor core; when the nuclear fuel fissions, it produces not only the heat but also radioactive materials called "fission products." By far the majority of radioactivity generated in a power reactor is from the fission products generated in the fuel. The fuel is deliberately designed to retain all of the fission products within the fuel rods. The spent fuel is discharged from the reactor, stored in the spent fuel pool, and ultimately shipped away in specially designed casks. Thus, by far the majority of radioactivity in a power reactor stays with, and goes away with the fuel. Although the last fuel discharged from the reactor may be shipped away during the decommissioning period, spent fuel shipment is a separate activity from decommissioning. Decommissioning does not include spent fuel shipment, but is concerned with the amount of radioactivity that remains in the reactor system after the spent fuel is removed.

Sources of radioactive materials at the time of final reactor shutdown, after the fuel is removed, are basically of two types; neutron-activated components in and surrounding the reactor core and surface contamination from fission products and activated corrosion products deposited inside certain piping and equipment systems, and on some structural surfaces.

Neutron-Activated Components

Radioactive material is produced in the structural components in and around the reactor vessel because of interactions with neutrons produced in the reactor fuel during operation. Three basic types of materials are used in and around the reactor vessel: stainless steel (types 304 and 316), carbon steel (type SA 553), and reinforced concrete. The time dependence of radioactivity concentrations and dose rates of selected radionuclides produced in the structural components indicate that the decay rate of cobalt-60 (Co^{60}) generally controls the reduction of the radiation dose rate for the first 70 years. After that time, the dose rate is increasingly dominated by niobium-94 (Nb^{94}).

Surface Contamination

Both activated corrosion products (from structural materials in contact with the reactor water) and fission products (from leaking fuel) contribute to the radionuclide mixtures and levels of surface contamination.

Specific alloys used in the structural components of the reactor coolant system play a major role in the composition of the internal surface contamination. The activated corrosion product cobalt-60 is dominant because of the abundance of its parent in structural materials, its large-formation cross section, its energetic decay, and its 5.3 year half-life. Cobalt-58 is only a minor source of radiation in a BWR, while in a PWR it can be a significant contributor to the shutdown radiation levels. Depending on the type of condenser tubes and condensate polishing system used, zinc-65 could be an isotope of concern in BWR's.

Mobile fission products from leaking reactor fuel also contribute to the internal surface contamination. Their concentrations are directly related to the number of leaking fuel elements in the reactor core and thus will change during plant operation.

During decommissioning of the nuclear power plant, it will be necessary to remove the primary source of radioactive materials and to decontaminate the equipment, piping systems and structural materials in such a way that the radiation exposure to workers is kept within acceptable limits. Procedures and activities involved in decommissioning are described below.

3.2 Summary of the Decommissioning Process

3.2.1 Pre-Shutdown Activities

The physical decommissioning of a large nuclear power generating facility is a complex undertaking, and its success depends greatly on good planning and completion of preparatory work before final reactor shutdown. The regulatory requirements that must be met are summarized in Appendix A. Planning and preparation work need to be started, in general, about three years prior to final reactor shutdown, and include:

- o satisfying regulatory requirements

- o developing work plans and procedures
- o designing, procuring and testing special equipment
- o training staff
- o selecting specialty contractors (environmental monitoring, explosives, hauling, etc.)
- o removing accumulated spent fuel
- o selecting disposal method
- o selecting disposal location

The activities for immediate dismantlement of a nuclear facility include decontamination, equipment disassembly, packaging, shipping and disposal of radioactive waste, quality assurance, contamination control, and environmental surveillance.

3.2.2 Decontamination

At final reactor shutdown, significant radioactive contamination is present on the surfaces of process systems and equipment. Decontamination is necessary to remove the bulk of this radioactive contamination from selected systems and components to minimize personnel exposure during disassembly, and to clean as much material as possible to unrestricted levels, thereby permitting salvage of valuable material and reducing the quantities of material that must be packaged and shipped to a disposal site.

Three basic methods can be used to remove radioactive materials from contaminated surfaces:

- o dissolution of the surface film containing the radionuclides
- o physical cleaning of the surface
- o physical removal of the contaminated structural material

Two methods can be used to dissolve surface films containing radionuclide contamination; chemical and electrochemical. The chemical method is generally used to decontaminate the internal and, in some cases, external surfaces of in-place piping and equipment. The electrochemical method can sometimes be used in-place for internal decontamination, but it is more commonly applied to disassembled or segmented piping and equipment.

Removal of smearable radioactive contamination from surfaces such as walls, floors, and tank exteriors can be accomplished using a variety of physical cleaning techniques. For small quantities of loose contamination on floors, vacuuming or simple sweeping is often effective. For more tenacious contaminants, various cleansing compounds are utilized in combination with handwiping and scrubbing techniques. Several proprietary decontamination solutions are available. Ordinary household detergents are quite effective but produce sizable quantities of waste water that may require special processing. Aerosol-type foaming cleaners are effective and can eliminate the wastewater problem.

During facility decontamination, removal of both metal and concrete surfaces may be required. However, the techniques for metal-surface removal are the same as those for equipment disassembly. Some concrete in nuclear facilities is contaminated below the surface and cannot be decontaminated to release levels by physical surface cleaning alone. In addition, some of the concrete and structural steel in the sacrificial shield surrounding the reactor vessel is activated as a result of neutron bombardment. In both instances, the structural materials must be physically removed and disposed of offsite to sufficiently decontaminate the facility.

Decontaminated materials will be treated as non-radioactive if the remaining surface contamination meets the guidelines presented in Table 1 of Regulatory Guide 1.86. This study assumed that a nominal 5 to 10% of the structural and miscellaneous steel, conduit, and cable trays in contaminated areas had to be disposed of as radwaste. Also, the non-activated portion of the nuclear steam supply system (NSSS) was assumed to have radioactive contamination levels in excess of allowable levels following decontamination.

3.2.3 Equipment Removal

Decommissioning requires the disassembly and removal of various contaminated equipment systems. The equipment must be segmented into pieces small enough to facilitate packaging for offsite shipment and disposal.

Any of a number of methods can be used to disassemble and remove a particular piece of equipment. However, equipment-related parameters (e.g., size, location, design, and radioactive contamination and/or activation) and manpower/cost efficiencies of

the various methods dictate the appropriate method for any given situation. In some cases, the required tools are available as part of the facility's normal operating-equipment complement; in others, the tools are readily available commercially (e.g., boltcutters, pipe saws, tubing cutters, and impact wrenches). However, some methods require the use of unique specialized tools and equipment.

The exact component removal sequence within a given system or locality is dictated by the component's accessibility and the anticipated personnel exposures during removal. When possible, items that contribute significantly to the general level of exposure in the work area are either removed first or are temporarily shielded while the work goes on. Systems are cut into manageable sections, using an appropriate cutting device (plasma-arc torch, arc saw, oxyacetylene torch, or power hack saw). Piping is cut into lengths compatible with standard shipping boxes. Similarly, tanks are cut into plate segments appropriately sized.

The reactor vessel internals are removed from the reactor vessel with the vessel and the reactor well filled with water. Components welded in place in the reactor vessel are cut loose using an underwater plasma-arc torch. These components are moved under water from the vessel to the dryer and separator storage pool in the case of a BWR and to the refueling canal in the case of a PWR. There they are cut (with a plasma-arc torch or an arc saw) into pieces that fit into DOT-approved shipping containers for transport to the disposal site. The plasma-arc torch that is used to cut the core shroud into packageable segments is guided by a remotely controlled manipulator installed in the reactor vessel.

The reactor vessel is also remotely cut into packageable sections. The vessel is cut in place in an air environment with an appropriate cutting device guided by the remotely controlled manipulator. The exact cutting sequence will differ between a BWR vessel and PWR vessel because of the way in which they are supported. However, the segmenting approach is similar for both types of vessels.

The reactor vessel and its internals are packaged in 120 cubic foot liners. These liners are assumed to be shipped in casks equivalent to the CNS-8-120 cask which can accept waste with radiation levels up to 250 R per hour. In some cases, it was considered necessary to add concrete to the liner to reduce radiation levels.

Small contaminated equipment is removed and packed in standard shipping containers. Large contaminated equipment having no external smearable contamination is sealed by welding steel plates over all openings. Such equipment is then shipped to a burial site, using the outer shell as the packaging. Contaminated equipment that is too large to be shipped as a unit is cut up either into segments that will fit into standard shipping containers or into segments that can be sealed with welded steel plates.

Contaminated concrete is removed using a concrete scabbler, which removes the surface layer. The rubble is packaged in standard shipping containers for disposal.

Packaging of radioactive materials for disposal is accomplished in accordance with DOT regulations published in 49CFR Parts 173 through 178, and with NRC regulations published in 10CFR Part 71 and Regulatory Guide 7.1. Containers are lined with shielding material when necessary to reduce surface dose rates to acceptable levels. Some items such as heat exchangers will have openings welded shut and shipped using the outer shell of the exchanger as the container.

3.2.4 Site Restoration

In addition, all remaining plant equipment and structures including switchyard, fences, roadways and parking facilities are removed. Generally, the following guidelines are observed:

- Removal of all above ground structures to at least three feet below grade.
- Removal of the intake discharge structure and collapsing the conduits to the turbine building.
- Collapsing and/or filling all subterranean voids more than three feet below grade.
- Verifying residual radiation levels equal to or less than Regulatory Guide 1.86.

After removal of all equipment and structures, the site is restored by filling all remaining holes; essential grading, backfilling, planting, and replacement of rock and

soil as required to return the site to essentially preconstruction condition. A final survey of radiation is performed to ensure that the activity level is within the specified limits.

4.0 DECOMMISSIONING COSTS AND SCHEDULES

4.1 Approach to Decommissioning Costing

4.1.1 Approach and Assumptions

In developing the decommissioning cost estimates, three basic criteria were used. The first criteria was that all decommissioning activities would be performed using only established technology.

The second criteria required that before general demolition of structures and components could take place, all radioactively contaminated materials and components would be removed from the various structures. The reasons for this constraint are:

- to prevent the uncontrolled release of radioactive material during demolition
- to prevent the inleakage of rain and ground water into areas of the plant still containing contaminated materials (Should inleakage occur, significant demands could be imposed on the waste processing equipment, which may not be totally intact, as well as presenting a real potential for recontamination of clean areas.)

This criteria, therefore, requires that the basic structure remain intact while radioactive material is removed. As a result there can be a significant impact on normal demolition practices and labor productivity rates. The reason for this is that in many portions of various buildings:

- there exists little or no installed material handling equipment
- the work areas will be extremely confined
- many of the accesses to work areas through which removal equipment must be transferred are of a labyrinth design

It should also be noted that reduced productivity rates will be experienced when the work area is a radiation area and/or has spreadable contamination.

The third criterion is that decommissioning is to be performed under a contracted site decommissioning manager, with technical and management oversight being provided by the utility. It is assumed that the decommissioning effort will be a succession of subcontracted specific efforts such as:

- o Decontamination
- o Mobile solidification
- o General demolition and site reclaimation
- o Health physics service
- o Guard services

Bases for Cost Estimates

The development of a decommissioning cost estimate involves characterizing structures, components and systems in terms of basic units of volume, weight and lengths. To these units, cost factors are applied which represent labor, disposal, salvage and difficulty/constraints associated with labor productivity. This is a standard practice for the estimation of demolition costs. For this project every effort was made to use site specific data in the development of the decommissioning quantities. Information on plant designs, and actual construction quantities, were provided by PECo. This information was supplemented by a thorough review of each of the three stations to identify structural items, mechanical components, and electrical components. The review was made by examining station drawings, equipment lists, safety analysis reports and by visiting each station. In addition, station final safety analysis reports, generic documents such as BWR and PWR plant decommissioning studies, Westinghouse and General Electric technical documents and similar data sources were reviewed and as necessary used as sources for data/information.

The decommissioning cost estimate reflects immediate dismantlement to three feet below grade following removal of the spent nuclear fuel from the site. Dismantlement of all structures and switchyards to the tie-off of the transmission system was to be assumed except at Peach Bottom where the switchyard is an integral part of the PECo systemwide transmission system.

The decommissioning costs were generated in March 1984 dollars. Values of labor and removal cost factors were obtained as follows:

A. Labor rates were based on union wages in the area of the sites.

B. Structural, mechanical and electrical demolition cost factors and salvage values were developed by NUS with input from demolition specialists and/or standard industry cost estimating reference documents.

The labor rates were fully burdened. That is the labor rates were adjusted to include:

- o fringes
- o equipment
- o overhead - indirect labor
- o overhead - travel and living for key personnel
- o workmen's compensation
- o overhead - home office
- o general liability
- o contractor's fee
- o bonding

Guidance on fully burdening the labor rates was provided by demolition specialists.

Cost data in transportation and disposal of radioactive wastes were taken from current rate sheets supplied by waste shippers and radwaste burial site operators. March 1984 dollars were used as the basis since they were the latest figures available at the time this report was compiled.

Major Assumptions

The major assumptions used to develop this cost estimate are:

- o Decommissioning costs are to reflect immediate dismantlement following removal of all spent fuel from the site.

- o Demolition is to be performed to a depth of three feet below grade. All radioactive material below this depth would be removed.

- Large yard buried pipe (36 inches and larger) would be collapsed and backfilled.
- Small yard pipe and conduit would be abandoned in place.
- At Peach Bottom, areas of the site claimed from the Conowingo Reservoir would be returned to the reservoir.
- At Limerick and Peach Bottom, non-radioactive debris would be disposed of at an on-site landfill. Non-radioactive debris from Salem would be disposed of at sea, approximately 50 miles from the Salem site.
- Radioactive waste from all three stations would be disposed of at the Barnwell, South Carolina low-level radwaste disposal facility.
- Secondary side components at the Salem station would not be treated as radioactive waste.
- At all three stations, the NSSS and other radioactive systems would be decontaminated prior to dismantling.
- At all three stations, the large NSSS components would be sectioned to facilitate removal, packaging and transportation.
- Structural demolition of a given facility would not be performed until all radioactive materials have been removed from the facility.
- Sites would be restored to a natural condition, that is graded and landscaped.
- The utility will provide oversight of the decommissioning effort, with a prime decommissioning contractor managing the project.

4.1.2 Major Cost Centers

Following the criteria given above, the total decommissioning cost is developed. This cost being an aggregate of numerous subcosts which can be grouped into major cost

centers. It is along the lines of these cost centers that the subcosts associated with decommissioning were developed. The major cost centers are:

- o Utility planning and oversight of the decommissioning effort
- o General contractor project management and sub-contractor services
- o Structural demolition
- o Mechanical/electrical demolition
- o Waste disposal
- o Miscellaneous (consumables, insurance, etc.)

How costs were developed for these major cost centers is discussed in the following subsections.

4.1.2.1 Cost Development for Utility Planning and Control, General Contractor Management and Subcontractors

The costs for utility planning and control, general contractor management and subcontractors were developed based on the site-specific decommissioning schedule. Prior to the start of physical decommissioning, the principal activities are planning, licensing, contractor selection, and training. Once decommissioning begins, labor requirements for these activities are a function of craft labor on site requiring management, planning/scheduling and subcontractor support. The craft labor on site as a function of time was determined by man loading the decommissioning schedule. Once the craft labor force was established, these indirect labor requirements were determined.

4.1.2.2 Cost Development for Structural, Mechanical and Electrical Demolition

The development of decommissioning costs related to structural, mechanical and electrical demolition necessitated converting structures, components and systems to quantities of volume, weight, and length. The base quantities were further subdivided into demolition categories or groups. All items in a given demolition category have the same base removal cost which is representative of the demolition technique employed.

4.1.2.3 Structural Demolition

For structural decommissioning, the categories are based on the thickness and degree of reinforcement of the concrete components as well as whether or not it is a wall or slab. Basically the structural demolition efforts used can be grouped into three generic categories which are:

Light to Medium Structures

These structures are demolished by use of wrecking balls, track loaders and pneumatic breakers. Cutting torches are used throughout the demolition process to sever steel elements. Debris is handled and removed by front end loader equipment.

Medium to Heavy Structures

These structures are demolished as follows:

A. Superstructures and light walls and slabs are demolished by use of a combination of wrecking balls, pneumatic breakers, and track loader equipment to collapse the components and break them into manageable pieces for disposal.

B. Massive walls and slabs are broken out using explosive demolition methods.

Cutting torches are used throughout the demolition process to sever steel elements. Debris is handled and removed by a combination of crane mounted clam bucket and front end loader equipment.

Heavy to Very Heavy Structures

These structures are demolished as follows:

A. Superstructures and light walls and slabs are demolished by use of a combination of heavy wrecking balls, pneumatic breakers, and track loader equipment to collapse the components and break them into manageable pieces for disposal.

B. Massive walls and slabs are broken out by the very extensive use of explosive demolition methods along with heavy wrecking ball equipment and pneumatic and hydraulic breakers.

Cutting torches are used throughout the demolition process to sever steel elements. Debris is handled by front end loaders and removed by hydraulic backhoes and crane mounted clam buckets.

In addition, at each of the sites under evaluation there were site specific structural demolition activities which could not be addressed generically, these are as follows:

Peach Bottom

A. Off Gas Stack and Associated Piping

The stack is razed using "controlled collapse" explosive demolition methods. Secondary breaking of the razed stack is performed with large track loaders. Throughout the concrete breaking operations, exposed reinforcing bars are severed with cutting torches. Debris is trucked to an on-site disposal area.

Off gas piping is excavated, cut into 20 ft. long sections and transported to a central area where it is decontaminated. The pipe is then trucked to an on-site disposal area.

B. Cooling Towers, Basins, Dredged Fill and Rock Dikes

The five mechanical cooling towers with their basins are demolished with wrecking balls and track loaders similar to method 1 above. Debris is trucked to on-site disposal areas.

The dredged fill and rock dikes are excavated with crawler cranes with drag line, backhoe and clamshell buckets, as is appropriate. Excavated material is trucked to an on-site stockpile area where it is used to grade the site after demolition.

C. Circulating Water Screen Structure

The structure consists of concrete slabs, piers and walls partially submerged in the Susquehanna River with the two ends of the structure built into the rock dike system. Demolition would be by a combination of wrecking ball and explosive demolition methods with the underwater portions demolished using bulk explosive charges. Debris is handled and removed with a crane mounted clam bucket and trucked to an on-site disposal area.

D. Circulating Water Canal Sheet Piling Barrier

Barrier consists of sheet piling placed horizontally in panels between soldier piles. The soldier piles are embedded in the bedrock.

To demolish the barrier a barge mounted crane is floated into the canal through an opening in the screen structure and the sheet piling panels are lifted out. The soldier piles are cut at the underlying bedrock line by divers.

Salem

A. Circulating Water Pipe

All pipe is post-tensioned concrete cylinder water pipe. Pipe in the area of the turbine building is encased in reinforced concrete and the discharge pipe is extended approximately 500 ft. offshore into the river.

Demolition is accomplished as follows:

- Open ends of concrete-encased pipe are plugged with lean concrete.
- Buried on-shore pipe is line drilled, and the top demolished with explosive charges to allow placement of backfill materials.
- Off-shore pipe is abandoned in place.

Limerick

A. Cooling Towers

The hyperbolic natural draft cooling towers are constructed with precast concrete panels at the base, reinforced concrete footings and basin and cast-in-place shells.

The shells are demolished to grade using "controlled collapse" explosive demolition methods. Secondary breaking of the felled concrete shell is performed by large track loaders. The foundations and basin are demolished using wrecking balls, large track loaders and explosive demolition.

B. Schuylkill River and Perkiomen Make-Up Water Intake Structures.

Demolition methods are similar to those used at the Peach Bottom Circulating Water Screen Structure.

C. Circulating Water Pipe

Demolition methods are similar to those used at the Salem Circulating Water Pipe.

4.1.2.4 Mechanical Demolition

Mechanical demolition can be divided into two categories: (1) removal of equipment from inside the contaminated buildings and (2) removal of equipment from the general site bildings where contamination is not present.

Removal of equipment from contaminated buildings include both contaminated and non-contaminated components. The building contamination control envelope must be maintained until all contamination is removed. Additional building HVAC systems, lighting, and basic air and water service systems must be maintained and operated during the equipment removal process.

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This results in difficult access problems for some components and requires that the equipment removal be planned and sequenced in order to minimize the impact on building service systems and to achieve the most efficient removal.

Removal of equipment from non-contaminated buildings is accomplished by standard demolition practice. Walls are removed and equipment extracted in the most rapid manner. Building services and contamination control are not required.

Large and highly contaminated or activated components require special techniques and handling to facilitate their removal. At each station, the reactor vessel, which is highly activated, must be segmented prior to removal into packageable size pieces. Cutting on the reactor vessel must be done with remotely operated tooling such as a plasma arc torch. Each of these pieces must be removed and placed in a 6' diameter by 6' high liner which is then inserted into a shipping cask. Cutting on the vessel creates substantial airborne particulate and require that a HEPA filter HVAC control environment be put in place to allow concurrent work in other areas.

At Limerick and Peach Bottom, the turbines, condensers, and entire feedwater system are contaminated. Turbine covers and condenser shells must be cut to shipment size and wrapped for shipment. Turbine blades are removed and packed in crates. Turbine shafts are broken at the couplings and wrapped for shipment. Condenser tubes are extracted and placed in mechanical shredder to reduce volume for burial. Feedwater heaters are removed and covers welded over each opening prior to shipment.

At Salem, the steam generators, pressurizers, and NSSS piping are contaminated. The turbine, condensers, and feedwater system are considered clean or easily decontaminateable. Steam generators, because of size and weight, must be segmented. Tubes are reduced in volume by mechanical shredder. The pressurizer is segmented into several sections and covers are welded on segments and over openings. Pressurizer segments are used as burial containers for contaminated scrap such as insulation or instrument tubing.

The remaining components at each station were evaluated on the basis of size, location, contamination, and accessibility. Major components were individually tabulated into a data base for cost development. In general, the list consisted of:

- tanks with volumes greater than 1,500 gallons
- pumps with motors having a horsepower rating of greater than 50 horsepower
- heat exchangers with inlet nozzles greater than 8 inches

Items smaller than those listed above were identified and an aggregate weight was used in developing a demolition cost. Typical process piping was classified as large or small bore pipe and an aggregate weight was developed. Large piping, such as reactor coolant and main steam piping was addressed separately when developing its decommissioning cost.

4.1.2.5 Electrical Demolition

Electrical demolition cost estimating followed standard estimating efforts for electrical equipment and components. Equipment classifications used in developing the electrical demolition cost included:

- Cable (control and instrumentation, power 480V and 5 kV)
- Conduit
- Cable trays
- Transformers
- Motor control centers
- Switchgear
- Diesel driven generators
- Main generators

Although the sizes of some of the electrical components addressed in this cost estimate may be larger than those typically encountered in demolition, unique efforts such as NSSS removal or containment demolition were not identified under electrical demolition.

4.1.2.6 Development of Demolition Costs

Having developed quantities for each of the demolition classifications, the decommissioning cost is obtained by applying a demolition cost factor to each of the demolition classification quantities. Demolition cost factors were developed by NUS with input from demolition specialists and standard industry references. These costs factors represented standard industrial demolition practices and when appropriate, required adjustments to reflect particular constraints under which this work is to be performed. Adjustments to the demolition cost factors were made wherever necessary to reflect conditions or practices unique to demolition of a nuclear facility. Adjustments which were made to the base demolition cost factors included:

- o work in a radiation area
- o confined working area
- o work required to provide special packing of contaminated materials

4.1.2.7 Waste Disposal Cost Development

Both radioactive and non-radioactive waste/debris will be produced during the decommissioning of a nuclear power facility. The cost to dispose of the two waste types was developed using the following cost areas and assumptions.

Non-Radioactive Debris

A. Cost Areas

- o labor to load transport vehicles (including loading equipment)
- o transportation of waste
- o disposal fees

B. Assumptions

- o Waste quantities were based on the demolition quantities developed for each site.

- At the Limerick and Peach Bottom stations, debris would be disposed of at an on-site landfill.

- At Salem, the debris will be dumped at sea at approximately fifty miles off-shore.

- When appropriate, debris will be used to fill below-grade areas of the structure from which it was removed as well as below-grade areas of adjacent structures.

- Off-the-road hauling equipment will be used to transport debris from the demolition site to the on-site landfill or to the barge docking site.

- Barges will be of 2,500 ton capacity with a 15 ton capacity crane mounted on the barge to load/unload debris.

- Burial sites at Limerick and Peach Bottom are on land owned by PECo and do not require any dumping fee. However, the costs to open, operate and close the burial sites have been included.

Radioactive Waste Disposal

A. Cost Areas

- disposal containers
- labor to load disposal containers
- labor to load transport vehicle (including loading equipment)
- radiation surveys of waste
- transportation of waste
- cask rental
- disposal fees

NOTE: Cost associated with sectioning of radioactive materials, special preparation for packaging or special tools and equipment for these activities are accounted for under demolition costs.

B. Assumptions

- Waste quantities were based on the removed radioactive quantities developed for each site which were, in turn, based on removal of all radioactivity down to the unrestricted release limits of Regulatory Guide 1.86, which is attached as Appendix B.

- Radioactive waste from all three sites would be sent to the low-level waste disposal facility in Barnwell, South Carolina.

- The transportation routes selected were the most direct, but did not go through cities.

With respect to the disposal of radwaste, the disposal fee includes:

- base disposal fee
- radiation surcharge
- weight surcharge
- curie surcharge
- special handling surcharge
- cask handling fee
- perpetuity escrow fund charges
- low-level radioactive waste disposal tax
- license tax

Not all surcharges were applied to each radwaste shipment. Each waste form was addressed separately and the appropriate surcharges applied.

Using the cost areas and assumptions slated above, the disposal costs for radwaste and non-radwaste debris were developed based on information and data provided by:

- demolition specialists
- companies engaged in sea disposal of waste
- published transportation rates for radioactive material
- published disposal rates for the Barnwell low-level radwaste disposal facility

4.1.2.8 Miscellaneous Costs

The miscellaneous cost center contains those costs that cannot be attributed specifically to one of the other cost centers. Items included in this category include:

- o health physics supplies
- o rental of a mobile solidification service
- o insurance

Costs for these items were based on nuclear power plant experience, supplied by vendors or by PECo.

4.2 Total Decommissioning Cost Base

The total decommissioning cost estimates for the three nuclear generating stations addressed in this cost analysis are:

Station	Total Decommissioning Cost in Millions of March 1984 Dollars
Peach Bottom 2 & 3*	273.5
Salem 1 & 2	211.6
Limerick 1 & 2	272.6

These total costs can be subdivided and grouped in at least two different ways: by the major cost centers decribed above which are based on functional decommissioning activities; and by FERC account which is related to the physical parts of the stations being decommissioned. These two particular subdivisions are described below.

4.2.1 Costs Subdivided by Activity

Table 4-1 summarizes the total decommissioning cost estimate grouped by the cost center activities which were described in Section 4.1 Some cost differences are evident in the table: Limerick general contractor costs are somewhat higher than for the other two stations because Unit 2 shuts down 5 years after Unit 1, extending the

* Does not include an additional cost of $19,072,000 for the removal of Peach Bottom Unit 1, the entombed nuclear facility located on the same site.

TABLE 4-1
Total Decommissioning Cost
Grouped by Major Cost Centers

Cost Center	Total Cost, Million $, March 1984		
	Peach Bottom 2 & 3	Salem 1 & 2	Limerick 1 & 2
Utility Planning and Control	23.0	21.9	28.4
General Contractor and Subcontractor	51.7	54.4	66.5
Mechanical/Electrical Demolition	65.9	55.8	66.4
Structural Demolition	69.4	30.7	46.5
Waste Disposal	62.1	46.3	62.1
Miscellaneous (consumables, insurance)	9.1	9.0	8.8
Salvageable Components and Materials	(7.7)	(6.5)	(6.1)
TOTAL	273.5	211.6	272.6

decommissioning period by about 5 years. The mechanical/electrical demolition, structural demolition, and waste disposal are lower at Salem because it is a PWR and its turbine and condenser are not radioactive. The structural demolition at Peach Bottom is high because of over $20 million dollars of costs to remove the cooling water dikes and canals built into Conowingo Pond. The Peach Bottom and Limerick costs are similar because some large differences between these plants have offsetting costs which by coincidence nearly cancel.

4.2.2 Cost by FERC Account

The total cost in 1984 dollars for the demolition of the Peach Bottom Units 2 and 3, Salem Units 1 and 2, and Limerick Units 1 and 2 stations are shown in Tables 4-2, 4-3, and 4-4 respectively. A breakdown of the total estimated decommissioning cost is provided by Federal Energy Regulatory Commission (FERC) account as well as being subdivided into removal, disposal, and salvage categories. The FERC accounts used are as follows:

321 Nuclear Production - Structures and Improvements
322 Nuclear Production - Reactor Plant Equipment
323 Nuclear Production - Turbogenerated Units
324 Nuclear Production - Accessory Electrical Equipment
352 Transmission Plant - Structure and Improvements
524 Nuclear Power - Miscellaneous Nuclear Power Expenses
920 Administration and General Expenses - Administrative and General Salaries
923 Administration and General Expenses - Outside Services Employed
924 Administration and General Expenses - Property Insurance

The major cost areas for which subtotals are provided are:

Removal Cost

This subtotal includes costs incurred except for disposal costs, that is, equipment, prime and subcontractors, service contractors, fees, insurance and consumables. Basically any cost incurred during and in preparation/support of the demolition/ripout phase of the decommissioning effort is called removal. Also included are site restoration costs.

TABLE 4-2
Decommissioning Cost Summary for the
Peach Bottom Atomic Power Station, Units 2 and 3
(in thousands of March 1984 dollars)
Total Cost

	FERC Account/Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 69,387	$ 8,358	$(3,384)	$ 74,361
322	Reactor Equipment	36,094	45,082	(337)	80,839
323	Turbogenerator	15,977	8,188	(293)	23,872
324	Accessory Electrical	13,923	481	(3,714)	10,690
524	Miscellaneous Nuclear Expense	7,595	0	0	7,595
920	Utility A&G	23,052	0	0	23,052
923	Outside Services	51,668	0	0	51,668
924	Insurance	1,476	0	0	1,476
	TOTAL	$219,171	$62,109	$(7,728)	$273,553

TABLE 4-3
Decommissioning Cost Summary for the
Salem Nuclear Generating Station, Units 1 and 2
(in thousands of March 1984 dollars)
Total

FERC Account	Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 30,573	$ 6,599	$ (530)	$ 36,642
322	Reactor Equipment	31,772	39,223	(471)	70,474
323	Turbogenerator	9,559	144	(1,939)	7,764
324	Accessory Electrical	14,540	301	(3,478)	11,363
352	Transmission Plant	179	20	(88)	111
524	Miscellaneous Nuclear Expense	7,495	0	0	7,495
920	Utility A&G	21,919	0	0	21,919
923	Outside Services	54,381	0	0	54,381
924	Insurance	1,465	0	0	1,465
	TOTAL	$171,833	$46,287	$(6,506)	$211,614

TABLE 4-4
Decommissioning Cost Summary for the
Limerick Generating Station, Units 1 and 2
(in thousands of March 1984 dollars)
Total

FERC Account/Name		Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 46,463	$ 6,890	$(1,218)	$ 52,135
322	Reactor Equipment	37,991	46,719	(862)	83,848
323	Turbogenerator	14,088	7,963	(153)	21,898
324	Accessory Electrical	14,132	438	(3,726)	10,844
352	Transmission Plant	241	36	(90)	187
524	Miscellaneous Nuclear Expense	7,594	0	0	7,594
920	Utility A&G	28,427	0	0	28,427
923	Outside Services	66,569	0	0	66,569
924	Insurance	1,117	0	0	1,117
	TOTAL	$216,622	$62,046	$(6,049)	$272,619

Disposal Cost

This subtotal presents the cost to dispose of both the radioactive and non-radioactive debris/waste produced as a result of the decommissioning effort. Cost items included in this subtotal are containers, labor, transportation and disposal fee.

Salvage Value

This subtotal presents the projected income received from the sale of materials that have a recycle/reuse value as measured in the scrap and used equipment market.

Total Cost

The total cost for each FERC account is the sum of the removal cost and the disposal cost less the salvage value.

4.3 Nuclear-Related Decommissioning Cost Base

Prior regulatory precedent and related ratemaking practice in the Commonwealth of Pennsylvania have established that only the nuclear-related portion of total nuclear station decomissioning costs are allowable for ratemaking purposes. The definition of what is non-nuclear-related is found in the Commission order in connection with the original precedent-setting decommissioning ratemaking in 1978 (Pennslyvania Electric Company, 51 Pa P.U.C. at 669) for the dismantling of non-nuclear structures such as cooling towers, river water pump houses, and miscellaneous structures which by their nature, pose no special concern in regard to health and safety.

Wholly consistent with the above, the nuclear-related portions of total decommissioning costs have been estimated. This has been done by excluding from the estimate all parts of the conventional plant which are not radioactive, including the cooling system and cooling towers, turbine generator, administration buildings, and miscellaneous structures. In addition, parts of the nuclear plant safety system such as the

diesel generators and spray ponds are also excluded because these components and their structures are not radioactive. The turbine generator and condenser systems in the BWR units (Peach Bottom and Limerick) are radioactive, and the radioactive portions and related shielding are included in the nuclear-related portion of the decommissioning cost estimate. The indirect costs of utility control and general contractor management which are not specifically nuclear-related are allocated on the basis of the split between nuclear-related and other costs. The resulting nuclear-related decommissioning cost estimates for the three nuclear generating stations are:

Station	Nuclear-Related Decommissioning Cost in Millions of March 1984 Dollars
Peach Bottom 2 & 3	191.6
Salem 1 & 2	160.2
Limerick 1 & 2	213.2

The corresponding cost breakdowns by activity and by FERC accounts are described below.

4.3.1 Nuclear-Related Costs by Activity

Table 4-5 summarizes the nuclear-related decommissioning cost estimate, grouped by the cost center activities that are described in Section 4.1. A comparison of the nuclear-related costs in Table 4-5 with the total costs in Table 4-1 shows the following differences: the utility planning and control costs drop somewhat, but because most of the planning and licensing is NRC-mandated, most of this cost group is nuclear-related ;similarly, in the general contractor and subcontractor category, almost all of the subcontractor costs are nuclear-related, including decontamination, health physics, and plant security; the mechanical/electrical and the structural demolition costs drop significantly in the nuclear-related case because of the significant part of the physical plant which is not nuclear-related; the waste disposal cost drops very little because almost all of this cost is for radioactive waste disposal; and the salvage credit almost disappears in the nuclear-related case because radioactive equipment is generally not

* Does not include an additional nuclear-related cost of $13,581,000 for the removal of Peach Bottom Unit 1, the entombed nuclear facility located on the same site.

TABLE 4-5
Nuclear-Related Decommissioning Cost
Grouped by Major Cost Centers

Cost Center	Nuclear-Related Cost, Million $, March 1984		
	Peach Bottom 2 & 3	Salem 1 & 2	Limerick 1 & 2
Utility Planning and Control	18.8	17.2	22.7
General Contractor and Subcontractor	41.6	43.2	53.4
Mechanical/Electrical Demolition	37.7	28.1	39.2
Structural Demolition	27.1	19.7	32.0
Waste Disposal	58.5	44.6	59.5
Miscellaneous (consumables, insurance)	7.4	7.5	7.5
Salvageable Components and Materials	(0.5)	(0.1)	(1.1)
TOTAL	190.6	160.2	213.2

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salvagable. The overall nuclear-related costs are significantly below the total costs, with the Peach Bottom nuclear-related cost dropping the most because of the $20 million (non-nuclear) cost of removing the dikes and canals that extend onto state-owned land in Conowingo Reservoir.

4.3.2 Nuclear-Related Costs for FERC Account

The nuclear-related costs of decommissioning the Peach Bottom, Salem, and Limerick stations are shown in Tables 4-6, 4-7, and 4-8 respectively, by FERC Account. The largest decreases in cost occur in: Account 321, Structures and Improvements, which contains many non-nuclear structures; Account 324, Accessory Electrical, which is essentially non-nuclear; and Account 352, Transmission Plant, which is wholly non-nuclear.

4.4 Escalation of Base-Year Decommissioning Costs

Prior rulings of the Commission have established the sound practice of requiring the collection of revenues for decommissioning, based on current decommissioning costs. In parallel, the purchasing power of the funds being accumulated is also maintained at current levels. Both of these practices require periodic estimates of then-current decommissioning costs. This is done by escalating each of the components of the base cost by an appropriate inflation index and obtaining an updated (current) decommissioning cost. The purpose of this section is to identify the specific cost indices to be used and to describe the subdivision of total and nuclear-related decommissioning costs into components that are appropriate for escalation. The cost breakdowns and a one-year projection of the indices using past one-year actual rates are used to estimate March 1985 decommissioning costs.

4.4.1 Selection of Cost Indices for Escallation

The costs in decommissioning are incurred for craft labor, professional labor, equipment and materials, nuclear waste disposal, and a number of "other" costs, including energy, less credits for salvaged equipment and materials. The federal government regularly publishes indices which represent average costs in most of these categories. In addition, a number of private organizations develop indices of costs for special categories not covered by government publications. In the latter category, the

TABLE 4-6
Decommissioning Cost Summary for the
Peach Bottom Atomic Power Station, Units 2 and 3
(in thousands of March 1984 dollars)
Nuclear-Related

	FERC Account/Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 28,173	$ 6,521	$ (476)	$ 34,218
322	Reactor Equipment	26,080	44,814	0	70,894
323	Turbogenerator	10,634	6,868	0	17,502
324	Accessory Electrical	849	344	0	1,193
524	Miscellaneous Nuclear Expense	6,020	0	0	6,020
920	Utility A&G	18,762	0	0	18,762
923	Outside Services	41,615	0	0	41,615
924	Insurance	1,400	0	0	1,400
	TOTAL	$133,533	$58,547	$ (476)	$191,604

TABLE 4-7
Decommissioning Cost Summary for the
Salem Nuclear Generating Station, Units 1 and 2
(in thousands of March 1984 dollars)
Nuclear-Related

FERC Account	Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 19,736	$ 5,122	$ (52)	$ 24,806
322	Reactor Equipment	27,492	39,223	(11)	66,704
323	Turbogenerator	0	0	0	0
324	Accessory Electrical	571	220	0	791
352	Transmission Plant	0	0	0	0
524	Miscellaneous Nuclear Expense	6,145	0	0	6,145
920	Utility A&G	17,208	0	0	17,208
923	Outside Services	43,171	0	0	43,171
924	Insurance	1,400	0	0	1,400
	TOTAL	$115,723	$44,565	$ (63)	$160,225

TABLE 4-8
Decommissioning Cost Summary for the
Limerick Generating Station, Units 1 and 2
(in thousands of March 1984 dollars)
Nuclear-Related

FERC Account	Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 32,040	$ 5,694	$(1,053)	$ 36,681
322	Reactor Equipment	27,531	46,432	(7)	73,956
323	Turbogenerator	10,755	6,974	(3)	17,726
324	Accessory Electrical	924	375	0	1,299
352	Transmission Plant	0	0	0	0
524	Miscellaneous Nuclear Expense	6,469	0	0	6,469
920	Utility A&G	22,682	0	0	22,682
923	Outside Services	53,369	0	0	53,369
924	Insurance	1,050	0	0	1,050
	TOTAL	$154,820	$59,475	$(1,063)	$213,232

government does not publish appropriate regional cost indices for construction craft labor. Because the large statistically-oriented McGraw Hill organization, in its Engineering News Record, publishes cost indices for skilled and common construction labor in the Philadelphia area, these two indices were selected for craft labor. With the exception of nuclear waste burial, appropriate Department of Labor indices have been selected for the other cost component. Nuclear waste burial costs are based on the price lists for current commercial services. Table 4-9 identifies the specific indices that have been selected and the base values for March 1984, which is the base date for the costs in this report.

4.4.2 Cost Components for Escalation

This section summarizes the bases for establishing the costs in each of the cost categories that will be used for escalation. The removal and non-nuclear disposal portions of Account 321, 322, 323, 324, and 352 include craft labor and related burdens plus equipment cost. The latter averages 25.9% of the total cost, the remainder being allocated as craft labor. Craft labor costs are judged to be 35% common and 65% skilled. All of Account 524, except energy, is equipment cost. All of Account 920 plus the A/E, health physics, and corresponding portions of HP training in Account 923, are professional/technical labor costs, and the remainder are craft labor. The nuclear waste disposal cost is allocated 3.7% to craft labor, 17.0% to equipment, 11.8% (transportation) to energy and other, and 67.5% to burial fees. The salvage credits are allocated between the iron and steel scrap and the copper scrap categories. All remaining costs are included in the energy and other category.

Tables 4-10 and 4-11 summarize the actual cost breakdowns for the three stations for the total and nuclear-related decommissioning costs, respectively. The one characteristic shown in these tables that has not been identified previously is the relatively large component for professional/technical labor, compared to what is typical for construction jobs. Part of the reason is that $8 to 11 million of health physics costs are included in this category. The principal reason is the comparatively large amount of planning, licensing, training, and control required for a major decommissioning.

TABLE 4-9
Cost Categories, Cost Indices, and Base Values
for Future Inflation Adjustments

Cost Category	Index	Base Value of Index March 1984
Craft Labor, Skilled	Engineering News Record, "Construction Wage Indexes" for Philadelphia Area	353.6
Craft Labor, Common	Engineering News Record, "Construction Wage Indexes" for Philadelphia Area	420.0
Professional Labor	BLS, Monthly Labor Review, Table 34 "Professional and Technical Workers"	122.2
Equipment	BLS, Producer Prices and Price Indexes, Table 6, Code 112, "Construction Machinery and Equipment"	355.8
Low-Level Waste Burial	Chem-Nuclear Barnwell Price List Effective January 1, 1984 ($14.50/ft^3 base + $2.50/ft^3 escrow, + $4.00/ft^3 S.C. tax + 2.4% county tax)	21.57
Salvage:		
Iron and Steel Scrap	BLS, Producer Prices and Price Indexes, Table 6, Code 1012, "Iron and Steel Scrap	311.8
Copper Scrap	Code 1023.01 "Copper Base Scrap"	149.6
Energy and Other	BLS, Producer Prices and Price Indexes, Table 1, "Materials and Components for Construction"	309.6

NUS CORPORATION

TABLE 4-10
Total Decommissioning Cost
by Cost Escalation Category
(thousands of March 1984 dollars)

Cost Category	Cost by Station		
	Peach Bottom 2 & 3	Salem 1 & 2	Limerick 1 & 2
Craft Labor, Skilled	83,902	62,655	78,569
Craft Labor, Common	38,085	26,266	32,128
Professional/Technical Labor	60,765	61,603	74,154
Equipment	37,127	25,494	31,100
Low-Level Waste Burial	37,568	23,687	38,786
Salvage:			
Iron and Steel	(4,361)	(3,420)	(2,644)
Copper Scrap	(3,367)	(3,080)	(3,405)
Energy and Other	23,833	18,409	23,933
TOTAL	273,552	211,614	272,621

TABLE 4-11
Nuclear-Related Decommissioning Costs
by Cost Escalation Category
(thousands of March 1984 dollars)

Cost Category	Cost by Station		
	Peach Bottom 2 & 3	Salem 1 & 2	Limerick 1 & 2
Craft Labor, Skilled	43,086	37,848	49,901
Craft Labor, Common	24,783	16,141	21,064
Professional/Technical Labor	50,635	50,239	61,758
Equipment	18,826	15,370	20,039
Low-Level Waste Burial	37,568	23,687	38,786
Salvage:			
Iron and Steel	(476)	(64)	(1,063)
Copper Scrap	0	0	0
Energy and Other	17,182	17,003	22,747
TOTAL	191,604	160,224	213,232

4.5 Decommissioning Schedules

At the Salem and Peach Bottom stations, it is planned that the decommissioning of both units at each station be performed simultaneously. At these two stations, both units are currently scheduled to terminate operation in the same year. At the Limerick station, Unit 1 is planned to terminate operation five (5) years before Unit 2. Again, it is planned that the decommissioning occur simultaneously at Limerick. However, to eliminate the cost associated with a short-term "mothballing" of Unit 1, it is planned to proceed with a low-level decommissioning effort. This low-level decommissioning effort would preclude demolition/ripout activities, but would address radiation surveys, cleanup and decontamination efforts. Presented in Figures 4-1, 4-2, and 4-3 are the site specific decommissioning schedules for Peach Bottom Units 2 and 3, Salem Units 1 and 2 and Limerick Units 1 and 2, respectively. These schedules were used to develop PECo prime decommissioning contractor and subcontractor manpower requirements and other cost information relating to the duration of the decommissioning effort.

4.6 Similarities and Differences Among Stations

Two nuclear power stations with the same type of NSSS and same general configuration located at two different sites could be expected to incur decommissioning costs that have both simularities and differences. Some of the reasons why decommissioning costs could differ are:

A. Differences due to local site conditions, including method of cooling

B. Differences due to evolution of plant design - earlier vs. later plant designs

C. The relative amounts of structure that are more than 3 feet below grade

D. The extent to which decontamination is used

E. Differences in the transportation distance to a low-level radwaste disposal site

Provided in Table 4-12 are similarities and differences among the three sites under evaluation. The similarities will tend to draw the cost estimates together while

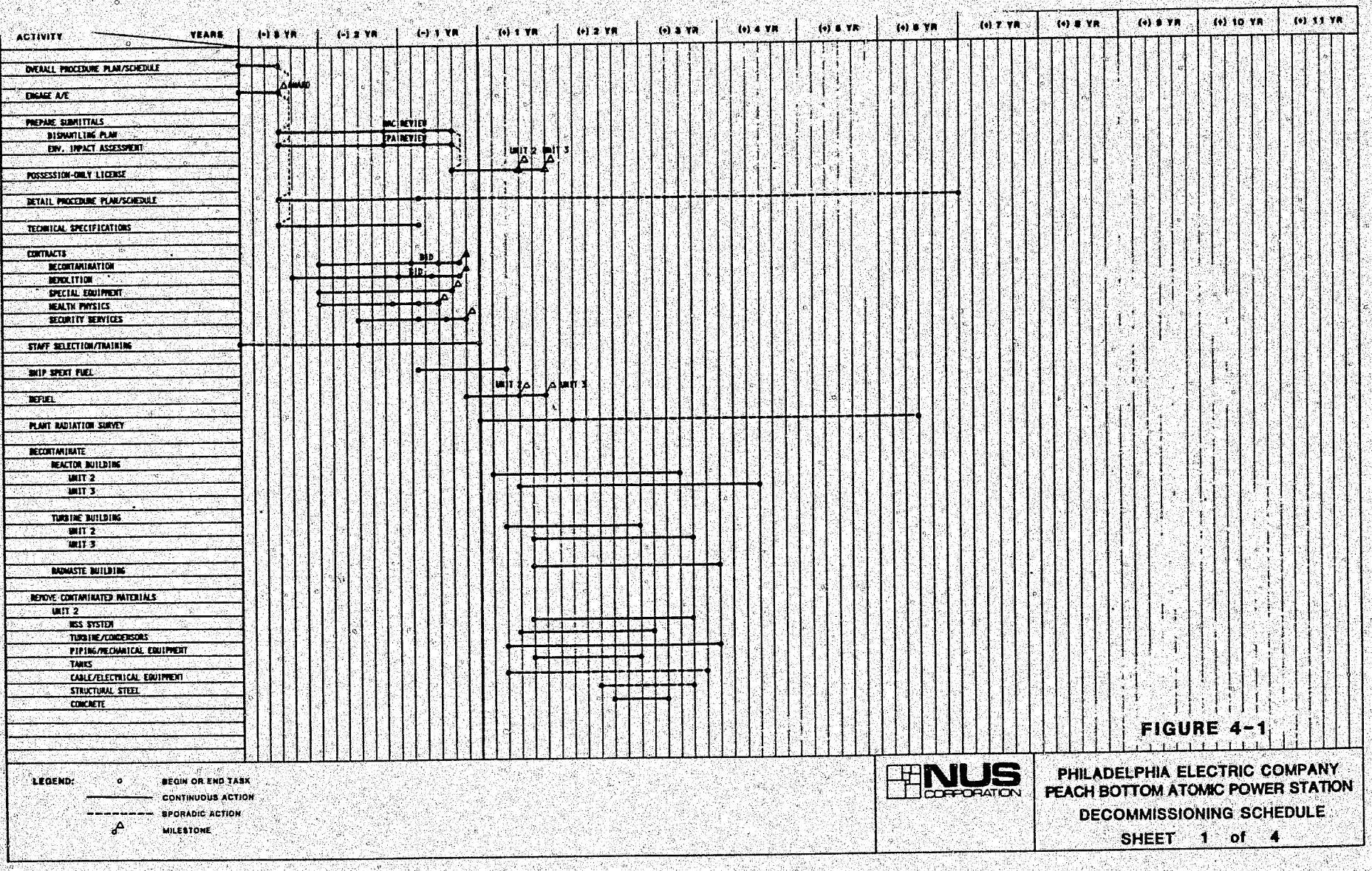


FIGURE 4-1

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM ATOMIC POWER STATION
DECOMMISSIONING SCHEDULE
SHEET 1 of 4

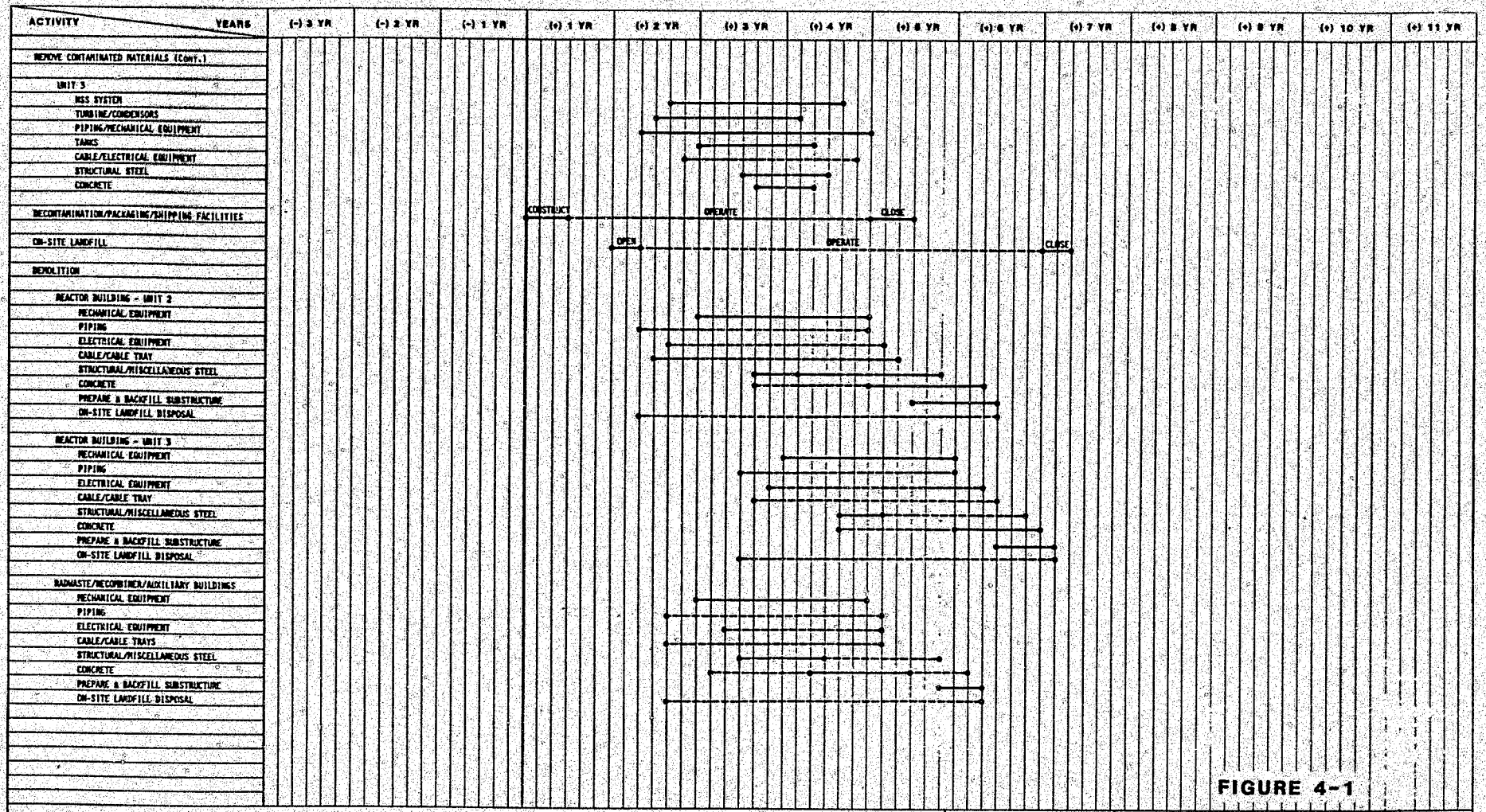
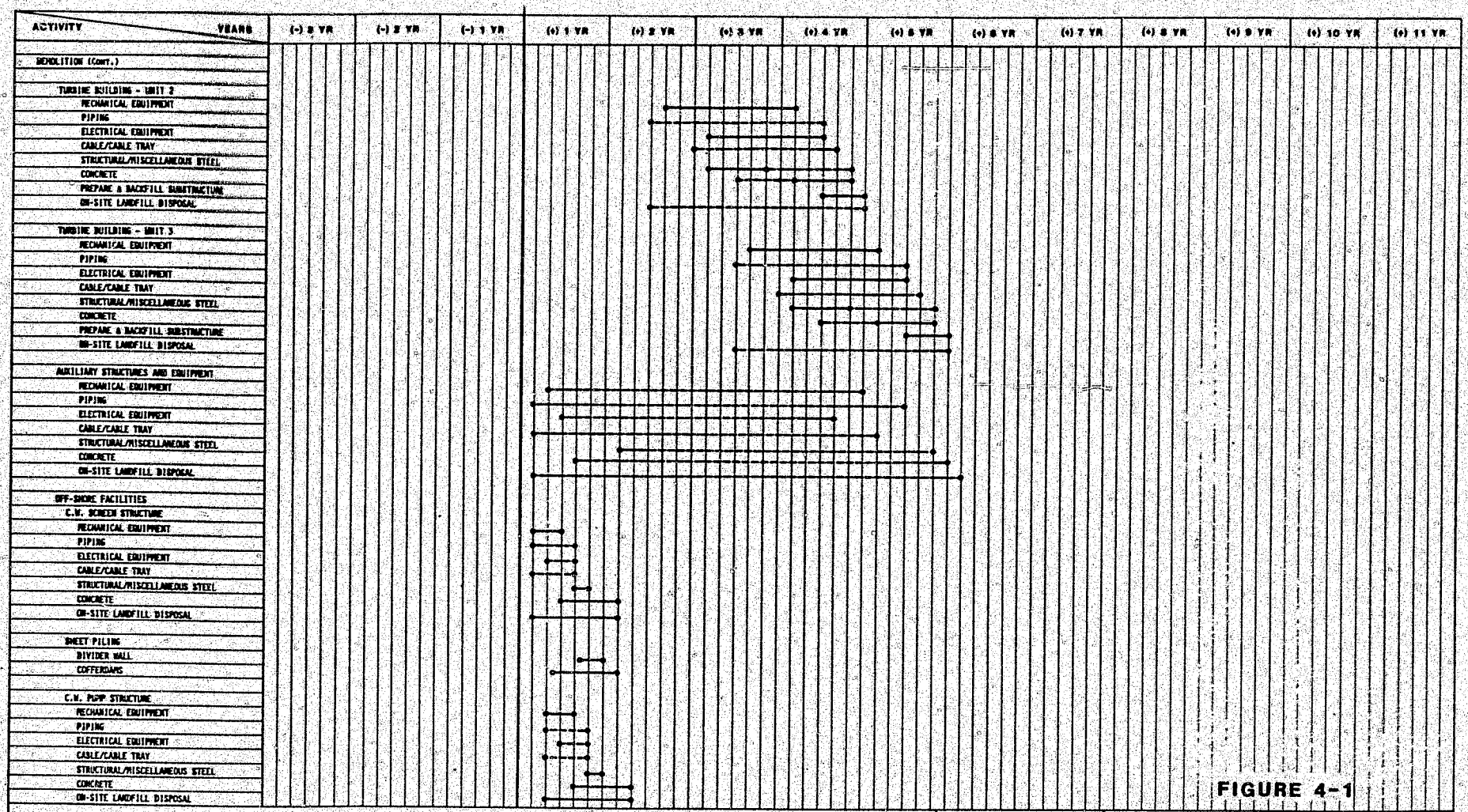


FIGURE 4-1

LEGEND:
- BEGIN OR END TASK
- CONTINUOUS ACTION
- SPORADIC ACTION
- MILESTONE

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM ATOMIC POWER STATION
DECOMMISSIONING SCHEDULE



LEGEND:
- o — BEGIN OR END TASK
- ——— CONTINUOUS ACTION
- - - - - - SPORADIC ACTION
- ◬ — MILESTONE

FIGURE 4-1

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM ATOMIC POWER STATION
DECOMMISSIONING SCHEDULE
SHEET 3 of 4

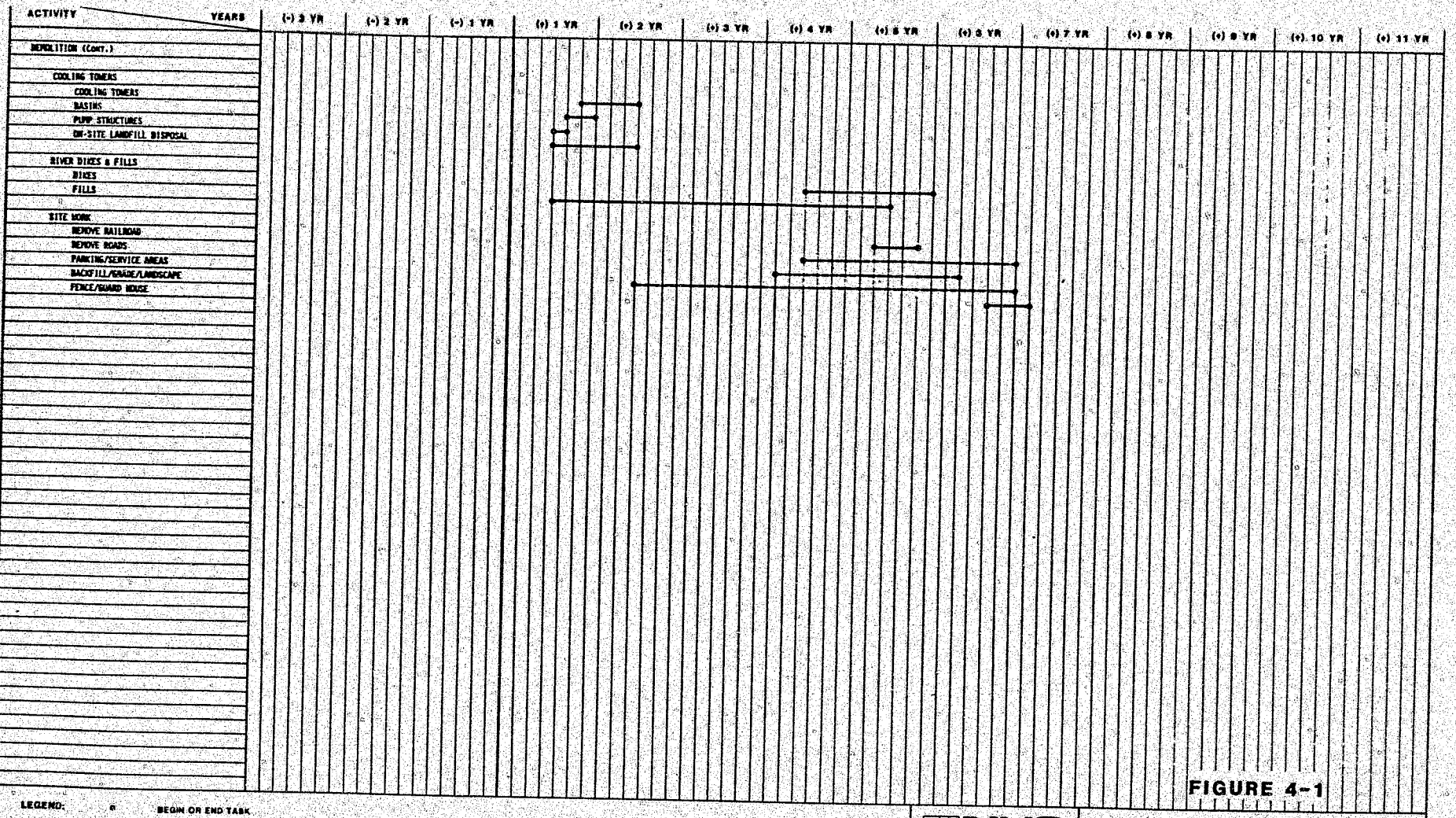
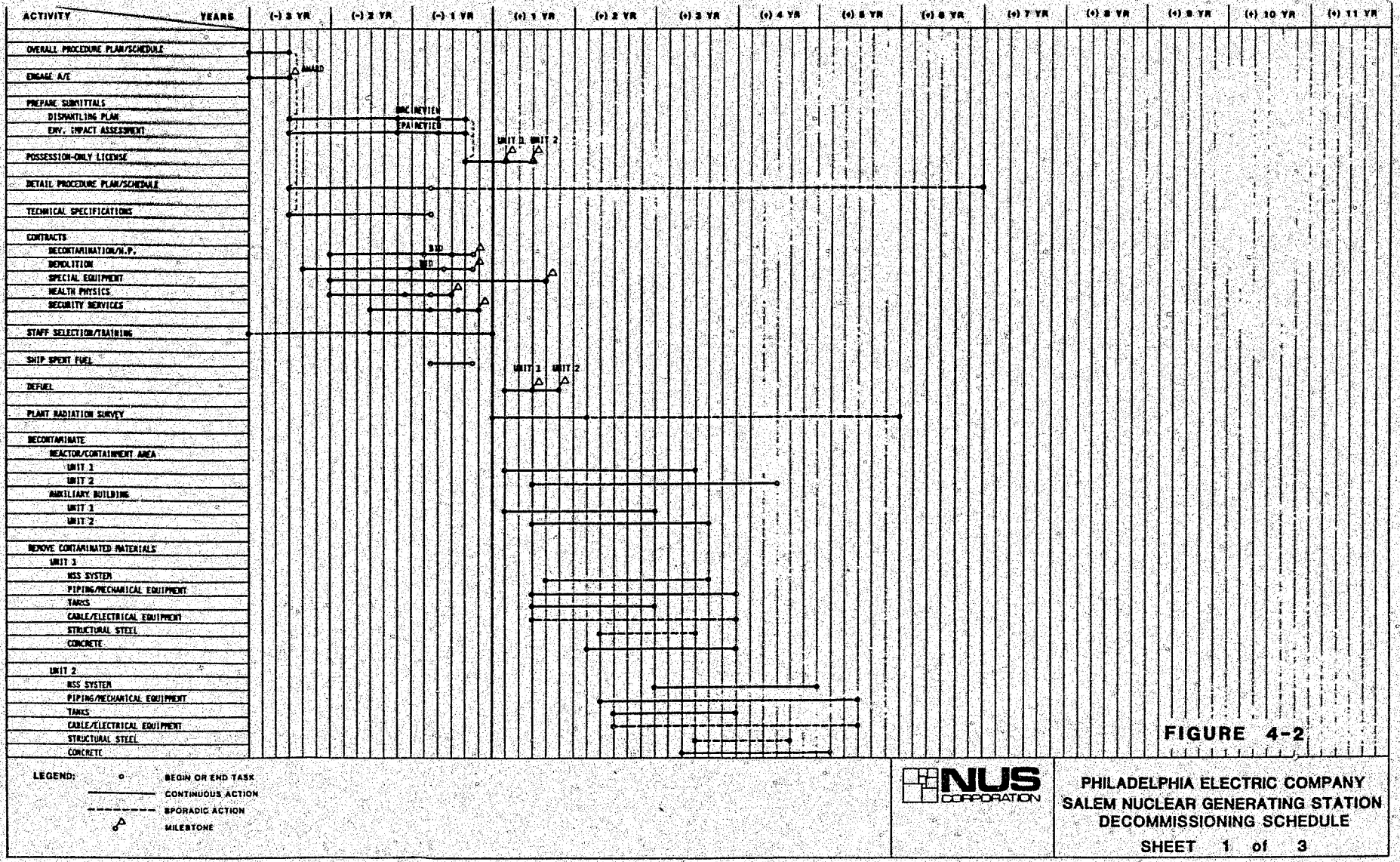


FIGURE 4-1

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM ATOMIC POWER STATION
DECOMMISSIONING SCHEDULE
SHEET 4 of 4



LEGEND:
- BEGIN OR END TASK
- CONTINUOUS ACTION
- SPORADIC ACTION
- MILESTONE

NUS CORPORATION

FIGURE 4-2

PHILADELPHIA ELECTRIC COMPANY
SALEM NUCLEAR GENERATING STATION
DECOMMISSIONING SCHEDULE
SHEET 1 of 3

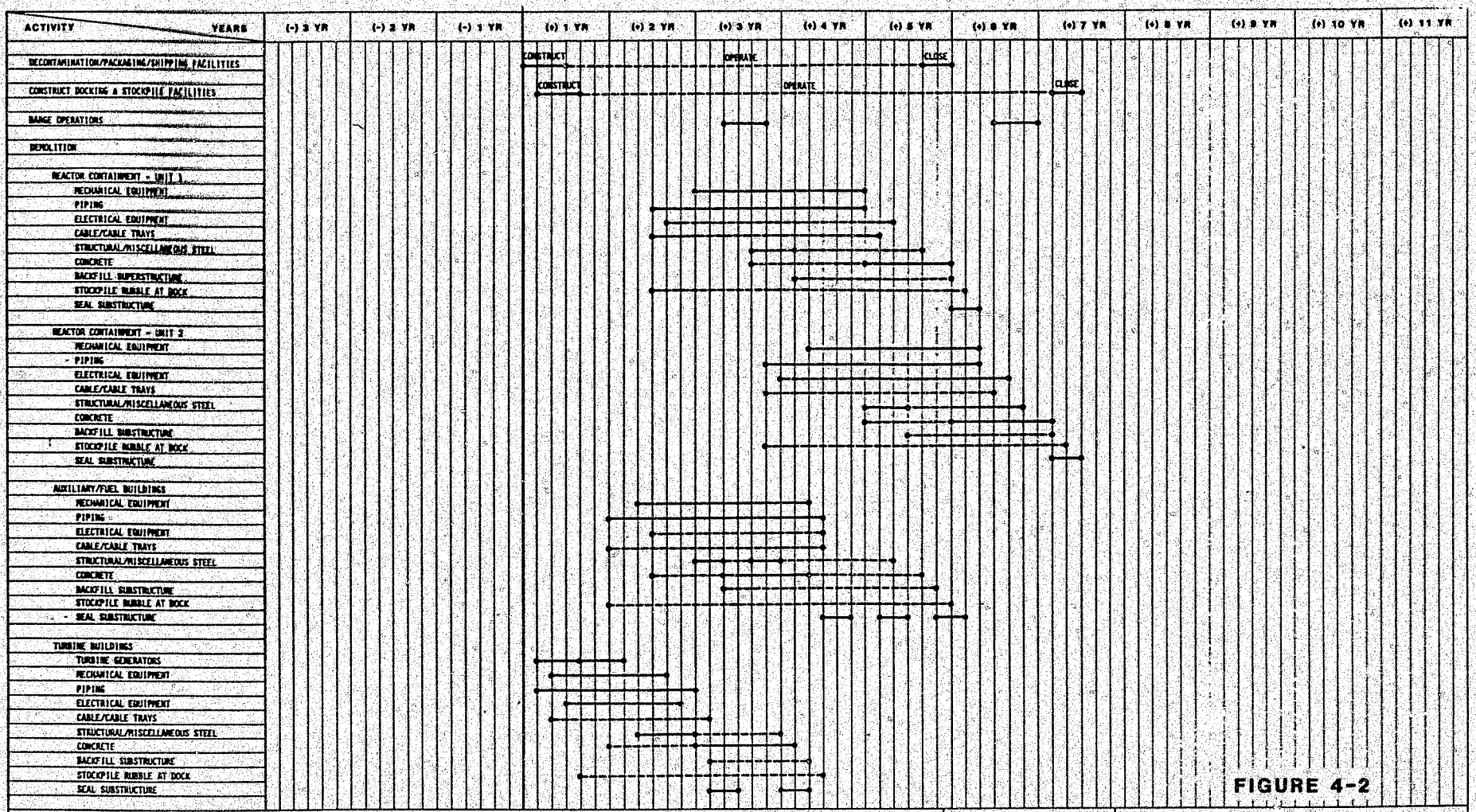


FIGURE 4-2

LEGEND:
- ○ BEGIN OR END TASK
- ——— CONTINUOUS ACTION
- - - - - - - - SPORADIC ACTION
- ◬ MILESTONE

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
SALEM NUCLEAR GENERATING STATION
DECOMMISSIONING SCHEDULE

SHEET 2 of 3

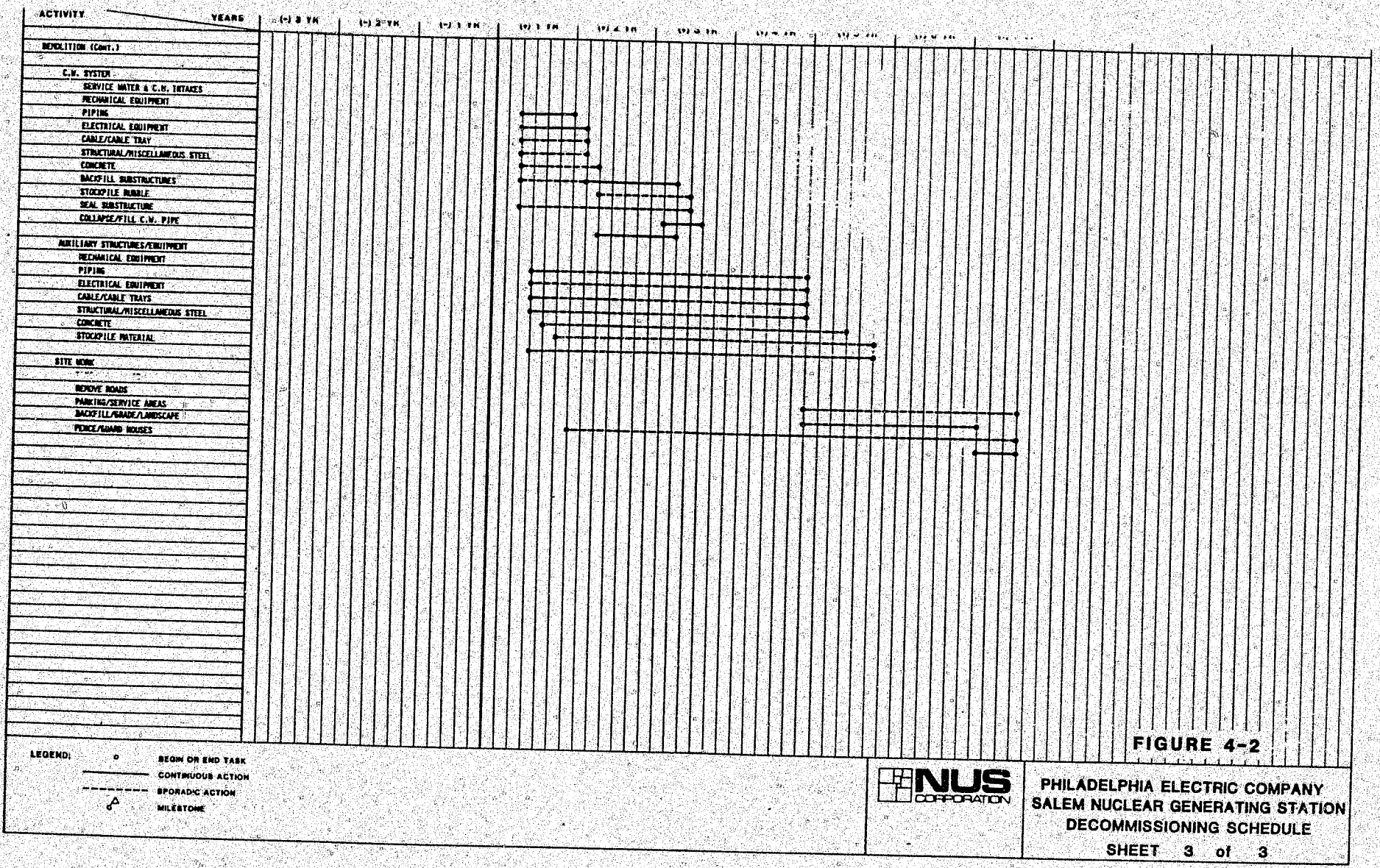


FIGURE 4-2

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
SALEM NUCLEAR GENERATING STATION
DECOMMISSIONING SCHEDULE
SHEET 3 of 3

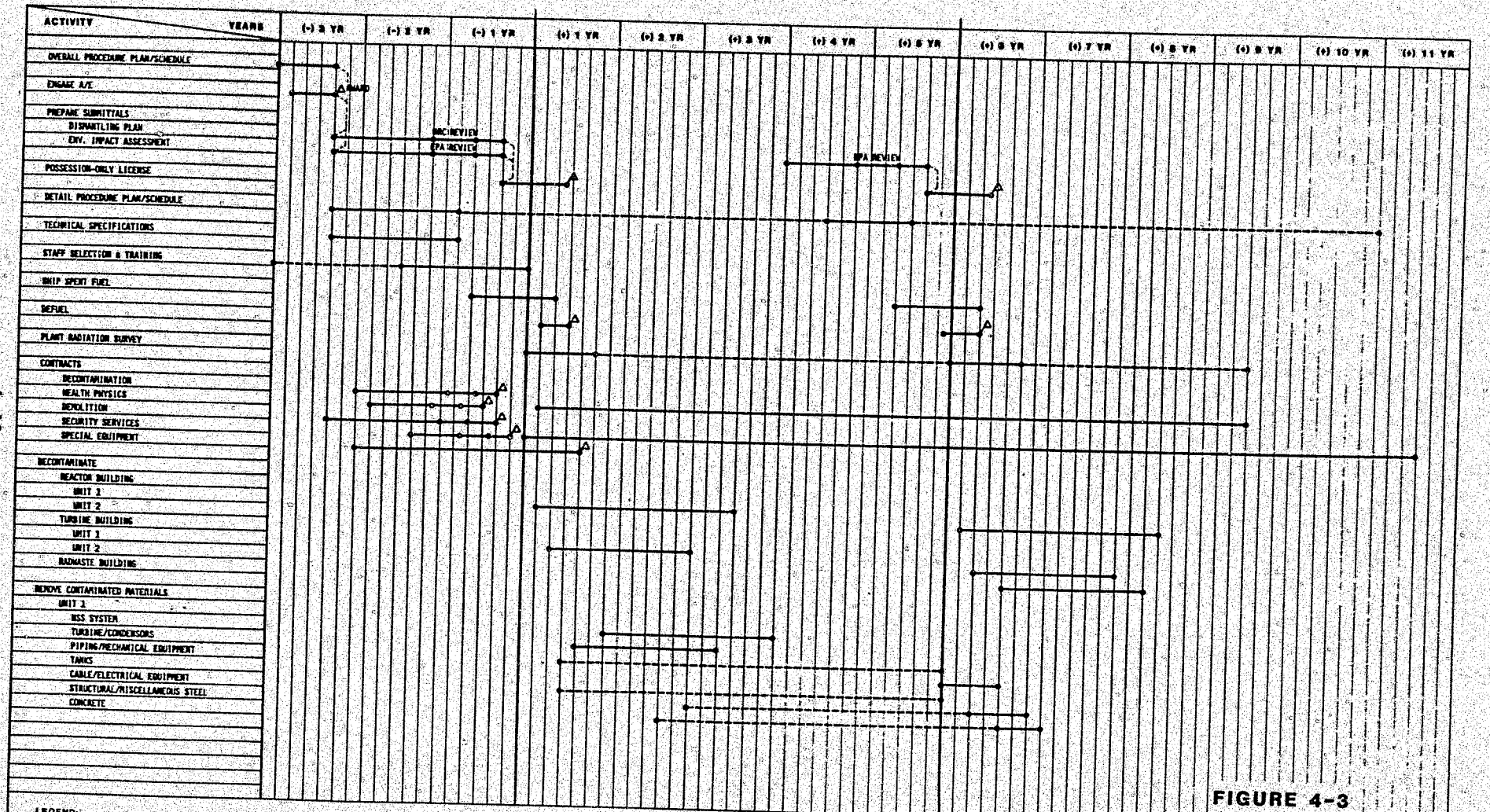
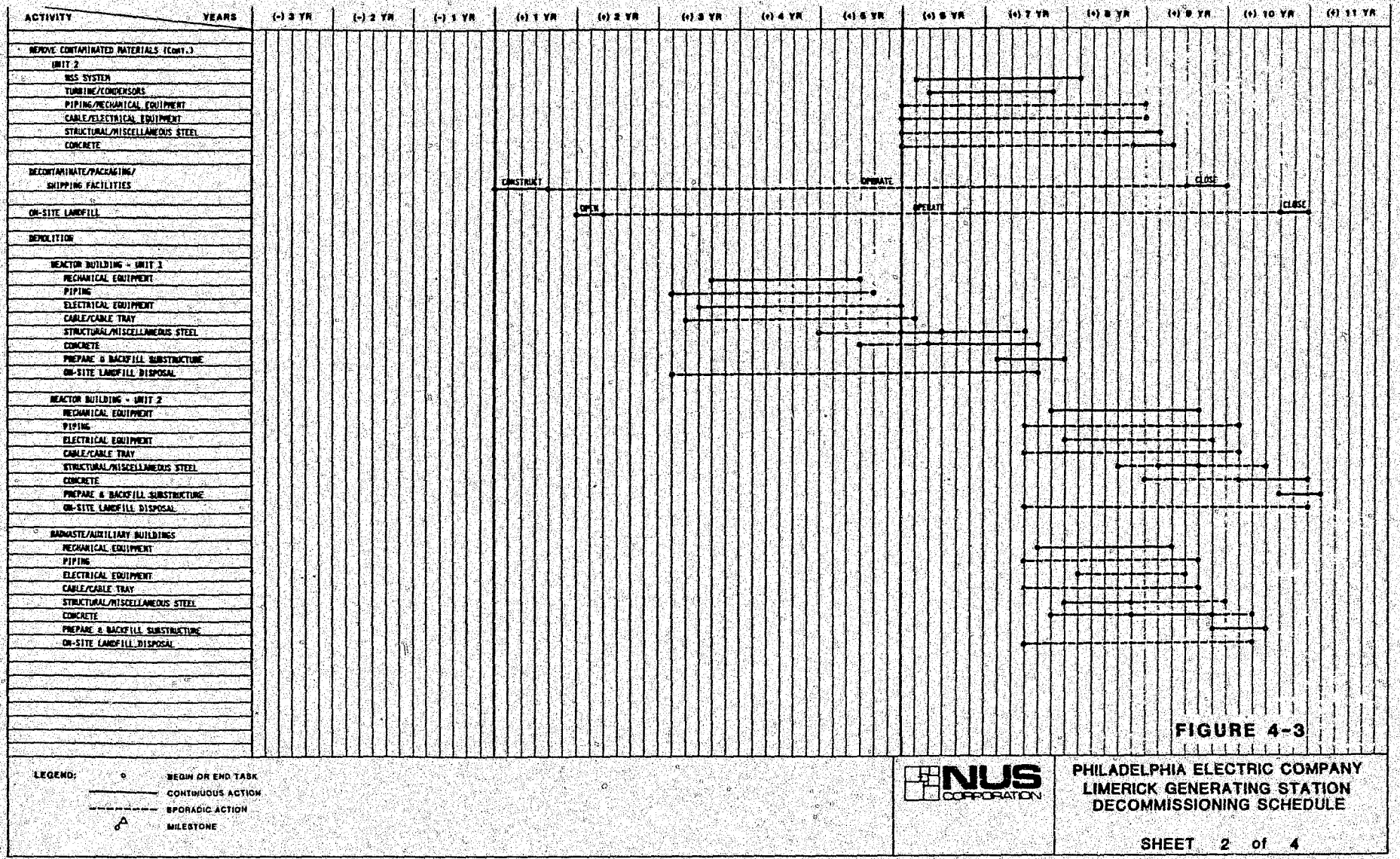


FIGURE 4-3

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
DECOMMISSIONING SCHEDULE

SHEET 1 of 4



LEGEND:
- BEGIN OR END TASK
- CONTINUOUS ACTION
- SPORADIC ACTION
- MILESTONE

NUS CORPORATION

FIGURE 4-3

PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
DECOMMISSIONING SCHEDULE

SHEET 2 of 4

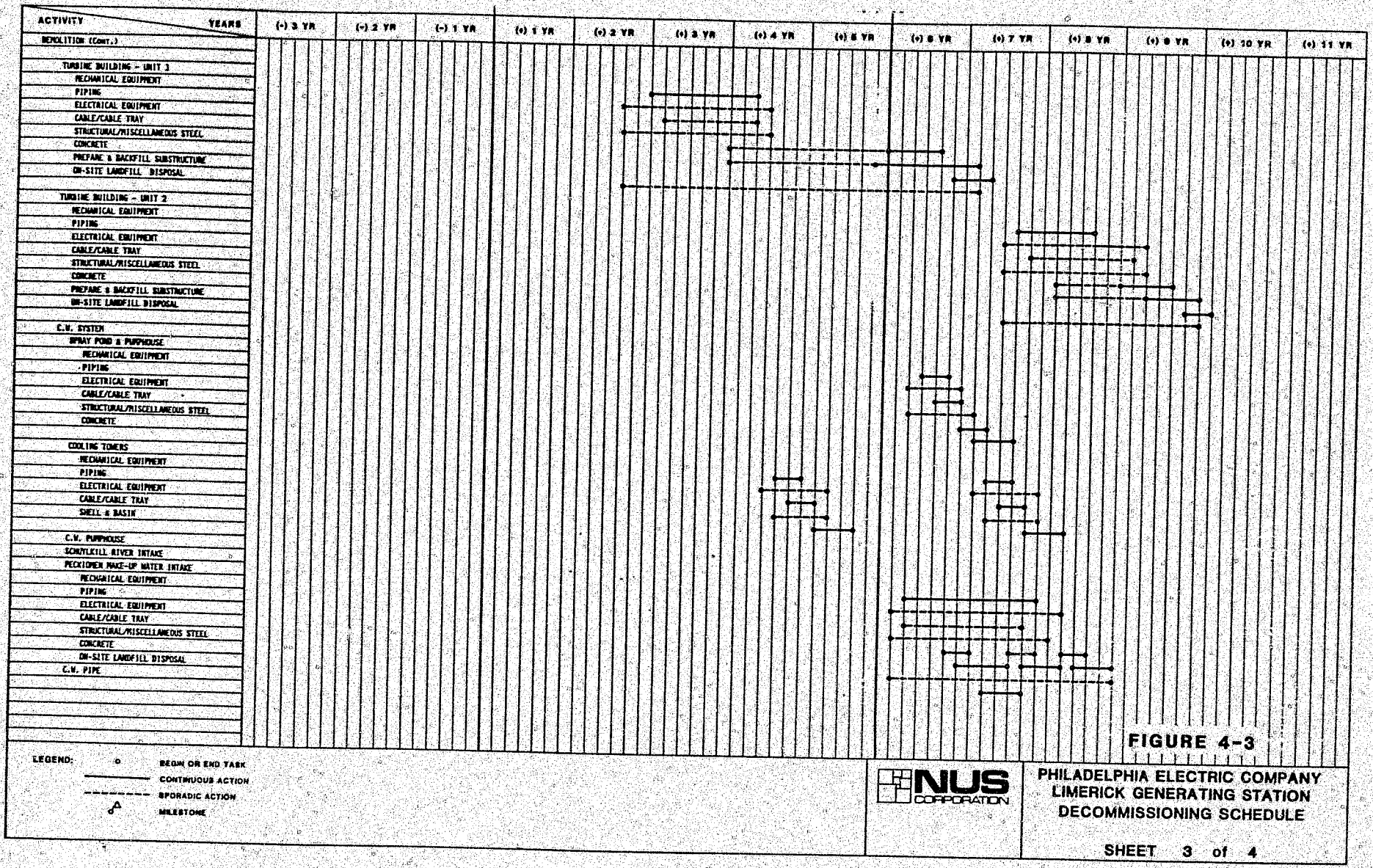


FIGURE 4-3

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
DECOMMISSIONING SCHEDULE

SHEET 3 of 4

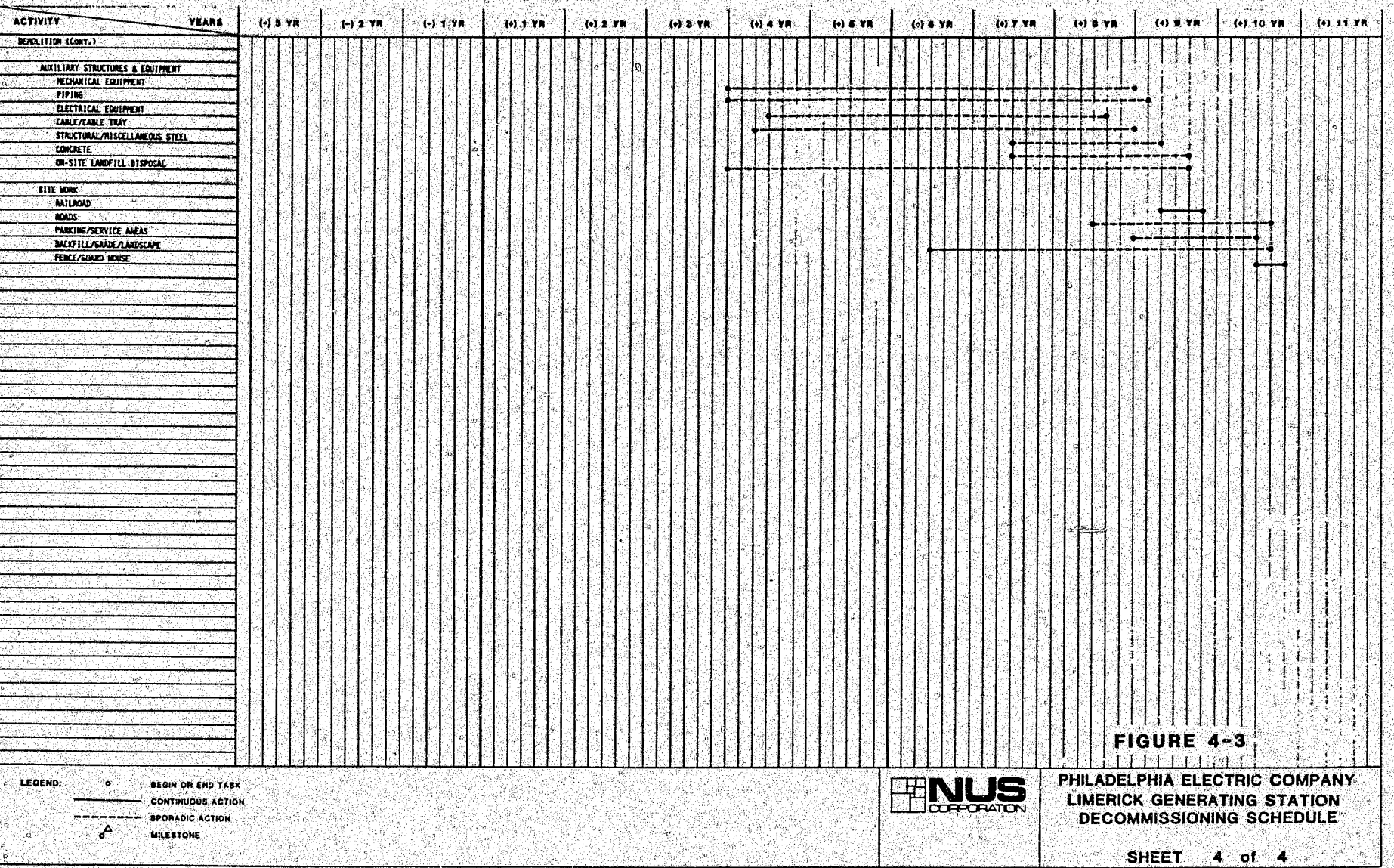


FIGURE 4-3

LEGEND:
- ○ BEGIN OR END TASK
- ——— CONTINUOUS ACTION
- - - - - - - - SPORADIC ACTION
- ◇ MILESTONE

NUS CORPORATION

PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
DECOMMISSIONING SCHEDULE

conversely the differences will tend to spread out the cost estimates. It should be noted that similarities and differences other than those listed in Table 4-12 exist. The items listed are the more obvious and meaningfully affect the cost estimates.

NUS CORPORA

TABLE 4-12

MAJOR SIMILARITIES AND DIFFERENCES AMONG THE LIMERICK, PEACH BOTTOM AND SALEM GENERATING STATIONS THAT WOULD INFLUENCE THEIR ESTIMATED TOTAL COST OF DECOMMISSIONING

SIMILARITIES

ITEM	DISCUSSION
1. Transportation distance from sites to a a low-level waste disposal facility	The subject transporation distance is almost identical for all three sites. There is only a 35 mile difference between the shortest and longest transportation distance.
2. All nuclear steam supply systems and associated systems (i.e., reactor water cleanup system and chemical and volume control systems) will be chemically decontaminated prior to dismantling.	This ensures conformance in the decommissioning approach and cost estimating.
3. Both the Limerick and Peach Bottom Stations use large BWR's.	Removal and disposal of the NSSS is a major cost item. This similarity will tend to draw the cost estimates for these two stations together.
4. The decommissioning cost estimate for Limerick and Peach Bottom assumes all non-radioactive debris/non-salvagable material will be disposed of on-site.	Waste disposal, both radioactive and non-radioactive is costly. This assumption for the two BWR's will tend to keep the cost estimate similar.

TABLE 4-12
MAJOR SIMILARITIES AND DIFFERENCES AMONG THE LIMERICK, PEACH BOTTOM AND SALEM GENERATING STATIONS THAT WOULD INFLUENCE THEIR ESTIMATED TOTAL COST OF DECOMMISSIONING

DIFFERENCES

ITEM	DISCUSSION
1. This decommissioning cost study includes two BWR stations and one PWR station.	The differences in NSSS has a significant impact on the decommissioning cost. The PWR has large components not found in a BWR. These components include (in Salem's case) four steam generators, a pressurizer and safety injection tanks. However, in the case of the BWR's, more of the station systems handle radioactive fluids. In particular, the entire secondary side of a BWR must be treated as radioactively contaminated. This will more than offset any potential saving realized with respect to NSSS removal and disposal.
2. Extent of demolition.	Guidelines established for this cost study provided for demolition of structures to three feet below grade. However, the degree of below grade construction varies significantly with Salem having the most below grade construction and Peach Bottom the least.
3. Cooling towers.	The circulating water system is different at all three sites. At Limerick the circulating water system is a closed cycle using massive concrete natural draft hyperbolic cooling towers. At Peach Bottom the circulating water system is an open cycle, however, prior to discharge to the Conowingo Reservoir the circulating water system discharge is passed through large mechanical draft cooling towers of a wood frame construction. At Salem, no cooling of the circulating water system discharge is performed prior to its entering the Delaware River.

TABLE 4-12
MAJOR SIMILARITIES AND DIFFERENCES AMONG THE LIMERICK, PEACH BOTTOM AND SALEM GENERATING STATIONS THAT WOULD INFLUENCE THEIR ESTIMATED TOTAL COST OF DECOMMISSIONING

DIFFERENCES (Continued)

ITEM	DISCUSSION
4. Demolition of the turbine buildings.	Because the steam in a BWR plant contains a radioactivity inventory, extensive shielding is required in the turbine building. This will add to the demolition cost of a BWR turbine building. This is not the case for PWR's. In fact, at Salem the turbine deck is open.
5. Reactor building demolition.	The reactor building/containment is a very massive structure designed to withstand both natural phenomena (e.g., earthquakes and tornados) as well as design basis accidents. Such structures will be costly to take down regardless of their design. However, each site uses a different design for this structure. Salem uses the standard PWR cyclindrical containment structure. Peach Bottom uses the Mark I reactor containment with a common refueling area in the reactor building. Limerick uses a Mark II reactor containment and separate refueling areas.
6. Disposal of non-radioactive waste.	At Peach Bottom and Limerick it was assumed that the disposal of the non-radioactive demolition debris would be performed on-site. Due to the high ground water level at Salem this is not possible and barged sea disposal was assumed.
7. Site restoration.	Part of the Peach Bottom site was claimed from the Conowingo Reservoir by backfilling along the site shoreline. At the time of site decommissioning, this area will be given back to the Conowingo Reservoir by dredging the backfilled area.

APPENDIX A
SUMMARY OF REGULATORY REQUIREMENTS

The Nuclear Regulatory Commission has licensing jurisdiction over both operating units and decommissioning activities. Current decommissioning regulations are contained in 10CFR Part 40 and in Section 50-33(f), Section 50.82, Appendix C and Appendix F of 10CFR Part 50. General guidance is provided in NRC Regulatory Guide 1.86 appended hereto as Appendix B and in NRC staff guidelines. These cover the requirements and criteria for decommissioning of nuclear facilities. The Nuclear Regulatory Commission is presently developing a more explicit overall policy for decommissioning of commercial nuclear facilities and amending its regulations in Title 10 to the Code of Federal Regulations to include more specific decommissioning guidance for production and utilization facility licensees and byproduct, source and special nuclear material licensees.*

While the general policy and revised rules for decommissioning of light water reactors are not available, the NRC's internal thinking with respect to the mode of decommissioning had been reflected in the past. In the Federal Register dated February 10, 1982 (46FR 11666-11668), the NRC recommended for example "30 years" as the maximum delay for reactor decommissioning, wherein the principal contaminant is radioactive cobalt, because there would be little dose reduction due to delay after a delay of 30 years. This effectively appears to rule out the entombment option as one of decommissioning alternatives as is currently provided in Regulatory Guide 1.86.

A brief summary of current regulations and guidelines is presented below for each decommissioning phase.

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* NUREG-0436, "Plan for Reevaluation of NRC Policy on Decommissioning of Nuclear Facilities," March 1981.

During Planning and Preparation

Prior to terminating operation of a facility, the electric utility (licensee) must decide on a plan for the final disposition of the facility and obtain the approval of the NRC. Termination of the operating license is regulated by the requirements of 10CFR 50, Section 50.82. Regulatory Guide 1.86 describes methods acceptable to the NRC for satisfying the requirements of Section 50.82.

The NRC may issue either a possession-only license appropriate to the selected decommissioning option, or a modified operating license.

Sections 50.59 and 50.90 of 10CFR50 and 10CFR33 provide the rules by which a licensee may amend its license. The NRC approval must be obtained in order to amend requirements in technical specifications applicable to normal operation.

As part of the amended license, the licensee must have authorization for byproduct material (10CFR30), source material (10CFR40), and special nuclear material (10CFR70) until the radioactive material and any sources of special nuclear material are removed from the facility.

An environmental impact statement or appraisal must be prepared describing the probable effects of the proposed decommissioning actions in accordance with 10CFR51. These requirements are defined in Section 51, Subpart A. Section 51.5.b(7) which states that license amendments may or may not require an impact statement, depending upon the circumstances. In determining whether an environmental impact statement should or should not be prepared for such action, the commission shall be guided by the Council on Environmental Quality Guidelines, 40CFR1500.

In addition to Regulatory Guides, the NRC has internal guidance for its staff for evaluating safety analysis reports and environmental impact statements. These guides are found in NUREG-75/087 and NUREG-0158. Decommissioning is also addressed in NUREG-0158.

No current regulation specifically requires a detailed decommissioning plan, but Regulatory Guide 1.86 implies that one is needed. It states that the NRC will impose requirements depending on the decommissioning alternative selected by the licensee.

Such a plan should be included as part of the application for a license amendment and should cover the decommissioning objectives for the facility/site, safety analysis, procedures, safeguard plans, contingency plans for postulated events, and a time schedule.

The decommissioning plan should address quality assurance (QA) for the prevention or mitigation of the consequences of accidents that could cause undue risk to the health and safety of the public (10CFR50, Appendix B). Guidance is also found for nuclear facilities in the NRC's Standard Review Plans (SRP) 17.1 and 17.2. The principles and objectives of such guidance should be applied to all aspects of decommissioning.

Of significant concern are the amounts of the annual license fee and facility insurance premiums required to satisfy regulations during the active decommissioning and continuing care periods.

These costs are dictated by the type and quantity of radioactive and/or special nuclear materials, the type of activities being conducted and the type of license regulating the activities. Licensing fees are addressed in 10CFR170. The requirements for financial protection and indemnity agreements are provided in 10CFR40. The level of protection required for decommissioning is not specifically defined.

During Decommissioning

During the planned shutdown period, and until quantities of radioactive materials and/or special nuclear materials are removed from the facilities, safeguards and security precautions must be continued. Regulations defining required precautions are found in 10CFR70 and 10CFR73.

During decommissioning, radioactive waste will be accumulated, packaged, stored, and transported to one or more disposal sites. Regulations defining the requirements to assure the safety of the public and the protection of occupational workers during such waste-related activities are found in 10CFR20, 10CFR50, and 10CFR70. Means for compliance with these regulations, including safeguards and security precautions, and the procedures for disposal of radioactive materials should be clearly defined in the specifications and plans of the amended license at the start of decommissioning.

Radioactive effluents from waste processing operations or other decommissioning activities must comply with Environmental Protection Agency (EPA) regulations as well as 10CFR20. Specific EPA regulations for radiation limits for decommissioning are now being developed. It is anticipated that the radiation dose limits from waste management operations will be similar to those presented in 40CFR190, and will include decommissioning.

The NRC is presently developing comprehensive waste management regulations that will include wastes from decommissioning.

Regulatory authority for decommissioned facilities in Agreement States (10CFR150)* is relinquished to the States. Since Section 274(b) of the Atomic Energy Act of 1954, as amended, requires Agreement State programs to be compatible with NRC regulations, the NRC will require that these programs reflect the NRC's lead in the area of decommissioning.

Requirements for packaging of radioactive material are defined by transportation regulations. Packaging of the decommissioning wastes will also be affected by their storage and/or ultimate disposal mode. Regulations have been established to prevent the loss or dispersal of radioactive materials during shipment and to assure the safety of the public and transportation workers. Some overlapping responsibilities exist for regulating the safe transport of radioactive materials. Primary responsibility lies with the Department of Transportation (DOT), Material Transportation Bureau, and secondary responsibility lies with the NRC.

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* Agreement States are those states which have developed sufficient capability to assume regulatory authority over radioisotopes, source materials, and special nuclear materials in quantities not sufficient to form a critical mass.

The DOT is responsible for promulgating and enforcing safety standards governing packaging and shipping containers and for the labeling, classification, and marking of all packages under 49CFR173. The DOT also implements safety standards for the mechanical condition of carrier equipment and qualifications of carrier personnel. The NRC develops performance standards for package designs, and reviews package designs for Type B, Fissile, and large quantity packages, under 10CFR71. The Federal Aviation Administration (FAA), the Interstate Commerce Commission (ICC), and the U.S. Coast Guard also exercise some regulatory authority over the shipment of radioactive materials.

The transportation or packaging for transport of radioactive materials is subject to issuance of appropriate licenses. The application must describe proposed controls and precautions to be used in loading, unloading, handling, and transport of radioactive materials and the procedures to be followed in the event of an accident or delay in shipment. Inspection and accountability procedures must also be described.

State governments exercise some control of these shipments. State Highway Departments regulate gross vehicle weights, vehicle dimensions, and other parameters for radioactive shipments. Currently, about half of the states have adopted the U.S. DOT Hazardous Materials Regulations to cover interstate shipments. Several states have adopted additional regulations concerning radioactive materials. The variation of regulations between adjacent states can often require special considerations for interstate shipments.

Because of the anticipated high radiation sources and contaminated work locations, occupational safety is of major importance during decommissioning. Radiation protection to workers is regulated by 10CFR20. Section 20.101 defines exposure limits. These limits have recently been changed to reflect the operating philosophy of As Low As is Reasonably Achievable (ALARA), described in Regulatory Guides 8.8 and 8.10. Although not specifically applicable to decommissioning activity, these guides definitely apply. Additional information on compliance with the ALARA concept can be found in SRP Section 12.1.

In order to release the facility and/or site for unrestricted use, the residual radioactive contamination must be at an acceptably low level. Guidance on permissible levels can be found in Regulatory Guide 1.86.

During decommissioning activities, normal industrial (nonradiation related) safety regulations governing occupational work conditions are provided by Title 29 Code of Federal Regulations, Parts 1900 to end (Occupational Safety and Health Administration (OSHA), Department of Labor).

APPENDIX B

REGULATORY GUIDE 1.86

TERMINATION OF OPERATING LICENSES FOR NUCLEAR REACTORS

June 1974

U.S. ATOMIC ENERGY COMMISSION

REGULATORY GUIDE

DIRECTORATE OF REGULATORY STANDARDS

REGULATORY GUIDE 1.86

TERMINATION OF OPERATING LICENSES FOR NUCLEAR REACTORS

A. INTRODUCTION

Section 50.51, "Duration of license, renewal," of 10 CFR Part 50, "Licensing of Production and Utilization Facilities," requires that each license to operate a production and utilization facility be issued for a specified duration. Upon expiration of the specified period, the license may be either renewed or terminated by the Commission. Section 50.82, "Applications for termination of licenses," specifies the requirements that must be satisfied to terminate an operating license, including the requirement that the dismantlement of the facility and disposal of the component parts not be inimical to the common defense and security or to the health and safety of the public. This guide describes methods and procedures considered acceptable by the Regulatory staff for the termination of operating licenses for nuclear reactors. The Advisory Committee on Reactor Safeguards has been consulted concerning this guide and has concurred in the regulatory position.

B. DISCUSSION

When a licensee decides to terminate his nuclear reactor operating license, he may, as a first step in the process, request that his operating license be amended to restrict him to possess but not operate the facility. The advantage to the licensee of converting to such a possession-only license is reduced surveillance requirements in that periodic surveillance of equipment important to the safety of reactor operation is no longer required. Once this possession-only license is issued, reactor operation is not permitted. Other activities related to cessation of operations such as unloading fuel from the reactor and placing it in storage (either onsite of offsite) may be continued.

A licensee having a possession-only license must retain, with the Part 50 license, authorization for special nuclear material (10 CFR Part 70, "Special Nuclear Material"), byproduct material (10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material"), and source material (10 CFR Part 40, "Licensing of Source Material"), until the fuel, radioactive components, and sources are removed from the facility. Appropriate administrative controls and facility requirements are imposed by the Part 50 license and the technical specifications to assure that proper surveillance is performed and that the reactor facility is maintained in a safe condition and not operated.

A possession-only license permits various options and procedures for decommissioning, such as mothballing, entombment, or dismantling. The requirements imposed depend on the option selected.

Section 50.82 provides that the licensee may dismantle and dispose of the component parts of a nuclear reactor in accordance with existing regulations. For research reactors and critical facilities, this has usually meant the disassembly of a reactor and its shipment offsite, sometimes to another appropriately licensed organization for further use. The site from which a reactor has been removed must be decontaminated, as necessary, and inspected by the Commission to determine whether unrestricted access can be approved. In the case of nuclear power reactors, dismantling has usually been accomplished by shipping fuel offsite, making the reactor inoperable, and disposing of some of the radioactive components.

Radioactive components may be either shipped offsite for burial at an authorized burial ground or secured

USAEC REGULATORY GUIDES

Regulatory Guides are issued to describe and make available to the public methods acceptable to the AEC Regulatory staff of implementing specific parts of the Commission's regulations, to delineate techniques used by the staff in evaluating specific problems or postulated accidents, or to provide guidance to applicants. Regulatory Guides are not substitutes for regulations and compliance with them is not required. Methods and solutions different from those set out in the guides will be acceptable if they provide a basis for the findings requisite to the issuance or continuance of a permit or license by the Commission.

Published guides will be revised periodically, as appropriate, to accommodate comments and to reflect new information or experience.

Copies of published guides may be obtained by request indicating the divisions desired to the U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Director of Regulatory Standards. Comments and suggestions for improvements in these guides are encouraged and should be sent to the Secretary of the Commission, U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Chief, Public Proceedings Staff.

The guides are issued in the following ten broad divisions:

1. Power Reactors
2. Research and Test Reactors
3. Fuels and Materials Facilities
4. Environmental and Siting
5. Materials and Plant Protection
6. Products
7. Transportation
8. Occupational Health
9. Antitrust Review
10. General

on the site. Those radioactive materials remaining on the site must be isolated from the public by physical barriers or other means to prevent public access to hazardous levels of radiation. Surveillance is necessary to assure the long term integrity of the barriers. The amount of surveillance required depends upon (1) the potential hazard to the health and safety of the public from radioactive material remaining on the site and (2) the integrity of the physical barriers. Before areas may be released for unrestricted use, they must have been decontaminated or the radioactivity must have decayed to less than prescribed limits (Table I).

The hazard associated with the retired facility is evaluated by considering the amount and type of remaining contamination, the degree of confinement of the remaining radioactive materials, the physical security provided by the confinement, the susceptibility to release of radiation as a result of natural phenomena, and the duration of required surveillance.

C. REGULATORY POSITION

1. APPLICATION FOR A LICENSE TO POSSESS BUT NOT OPERATE (POSSESSION-ONLY LICENSE)

A request to amend an operating license to a possession-only license should be made to the Director of Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545. The request should include the following information:

a. A description of the current status of the facility.

b. A description of measures that will be taken to prevent criticality or reactivity changes and to minimize releases of radioactivity from the facility.

c. Any proposed changes to the technical specifications that reflect the possession-only facility status and the necessary disassembly/retirement activities to be performed.

d. A safety analysis of both the activities to be accomplished and the proposed changes to the technical specifications.

e. An inventory of activated materials and their location in the facility.

2. ALTERNATIVES FOR REACTOR RETIREMENT

Four alternatives for retirement of nuclear reactor facilities are considered acceptable by the Regulatory staff. These are:

a. **Mothballing.** Mothballing of a nuclear reactor facility consists of putting the facility in a state of protective storage. In general, the facility may be left intact except that all fuel assemblies and the radioactive fluids and waste should be removed from the site. Adequate radiation monitoring, environmental surveillance, and appropriate security procedures should be established under a possession-only license to ensure that the health and safety of the public is not endangered.

b. **In-Place Entombment.** In-place entombment consists of sealing all the remaining highly radioactive or contaminated components (e.g., the pressure vessel and reactor internals) within a structure integral with the biological shield after having all fuel assemblies, radioactive fluids and wastes, and certain selected components shipped offsite. The structure should provide integrity over the period of time in which significant quantities (greater than Table I levels) of radioactivity remain with the material in the entombment. An appropriate and continuing surveillance program should be established under a possession-only license.

c. **Removal of Radioactive Components and Dismantling.** All fuel assemblies, radioactive fluids and waste, and other materials having activities above accepted unrestricted activity levels (Table I) should be removed from the site. The facility owner may then have unrestricted use of the site with no requirement for a license. If the facility owner so desires, the remainder of the reactor facility may be dismantled and all vestiges removed and disposed of.

d. **Conversion to a New Nuclear System or a Fossil Fuel System.** This alternative, which applies only to nuclear power plants, utilizes the existing turbine system with a new steam supply system. The original nuclear steam supply system should be separated from the electric generating system and disposed of in accordance with one of the previous three retirement alternatives.

3. SURVEILLANCE AND SECURITY FOR THE RETIREMENT ALTERNATIVES WHOSE FINAL STATUS REQUIRES A POSSESSION-ONLY LICENSE

A facility which has been licensed under a possession-only license may contain a significant amount of radioactivity in the form of activated and contaminated hardware and structural materials. Surveillance and commensurate security should be provided to assure that the public health and safety are not endangered.

a. Physical security to prevent inadvertent exposure of personnel should be provided by multiple locked barriers. The presence of these barriers should make it extremely difficult for an unauthorized person to gain access to areas where radiation or contamination levels exceed those specified in Regulatory Position C.4. To prevent inadvertent exposure, radiation areas above 5 mR/hr, such as near the activated primary system of a power plant, should be appropriately marked and should not be accessible except by cutting of welded closures or the disassembly and removal of substantial structures

and/or shielding material. Means such as a remote-readout intrusion alarm system should be provided to indicate to designated personnel when a physical barrier is penetrated. Security personnel that provide access control to the facility may be used instead of the physical barriers and the intrusion alarm systems.

b. The physical barriers to unauthorized entrance into the facility, e.g., fences, buildings, welded doors, and access openings, should be inspected at least quarterly to assure that these barriers have not deteriorated and that locks and locking apparatus are intact.

c. A facility radiation survey should be performed at least quarterly to verify that no radioactive material is escaping or being transported through the containment barriers in the facility. Sampling should be done along the most probable path by which radioactive material such as that stored in the inner containment regions could be transported to the outer regions of the facility and ultimately to the environs.

d. An environmental radiation survey should be performed at least semiannually to verify that no signficant amounts of radiation have been released to the environment from the facility. Samples such as soil, vegetation, and water should be taken at locations for which statistical data has been established during reactor operations.

e. A site representative should be designated to be responsible for controlling authorized access into and movement within the facility.

f. Administrative procedures should be established for the notification and reporting of abnormal occurrences such as (1) the entrance of an unauthorized person or persons into the facility and (2) a significant change in the radiation or contamination levels in the facility or the offsite environment.

g. The following reports should be made:

(1) An annual report to the Director of Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545, describing the results of the environmental and facility radiation surveys, the status of the facility, and an evaluation of the performance of security and surveillance measures.

(2) An abnormal occurrence report to the Regulatory Operations Regional Office by telephone within 24 hours of discovery of an abnormal occurrence. The abnormal occurrence will also be reported in the annual report described in the preceding item.

h. Records or logs relative to the following items should be kept and retained until the license is terminated, after which they may be stored with other plant records:

(1) Environmental surveys,

(2) Facility radiation surveys,

(3) Inspections of the physical barriers, and

(4) Abnormal occurrences.

4. DECONTAMINATION FOR RELEASE FOR UNRESTRICTED USE

If it is desired to terminate a license and to eliminate any further surveillance requirements, the facility should be sufficiently decontaminated to prevent risk to the public health and safety. After the decontamination is satisfactorily accomplished and the site inspected by the Commission, the Commission may authorize the license to be terminated and the facility abandoned or released for unrestricted use. The licensee should perform the decontamination using the following guidelines:

a. The licensee should make a reasonable effort to eliminate residual contamination.

b. No covering should be applied to radioactive surfaces of equipment or structures by paint, plating, or other covering material until it is known that contamination levels (determined by a survey and documented) are below the limits specified in Table I. In addition, a reasonable effort should be made (and documented) to further minimize contamination prior to any such covering.

c. The radioactivity of the interior surfaces of pipes, drain lines, or ductwork should be determined by making measurements at all traps and other appropriate access points, provided contamination at these locations is likely to be representative of contamination on the interior of the pipes, drain lines, or ductwork. Surfaces of premises, equipment, or scrap which are likely to be contaminated but are of such size, construction, or location as to make the surface inaccessible for purposes of measurement should be assumed to be contaminated in excess of the permissable radiation limits.

d. Upon request, the Commission may authorize a licensee to relinquish possession or control of premises, equipment, or scrap having surfaces contaminated in excess of the limits specified. This may include, but is not limited to, special circumstances such as the transfer of premises to another licensed organization that will continue to work with radioactive materials. Requests for such authorization should provide:

(1) Detailed, specific information describing the premises, equipment, scrap, and radioactive contaminants and the nature, extent, and degree of residual surface contamination.

(2) A detailed health and safety analysis indicating that the residual amounts of materials on surface areas, together with other considerations such as the prospective use of the premises, equipment, or scrap, are unlikely to result in an unreasonable risk to the health and safety of the public.

e. Prior to release of the premises for unrestricted use, the licensee should make a comprehensive radiation survey establishing that contamination is within the limits specified in Table I. A survey report should be filed with the Director of Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545, with a copy to the Director of the Regulatory Operations Regional Office having jurisdiction. The report should be filed at least 30 days prior to the planned date of abandonment. The survey report should:

(1) Identify the premises;

(2) Show that reasonable effort has been made to reduce residual contamination to as low as practicable levels;

(3) Describe the scope of the survey and the general procedures followed; and

(4) State the finding of the survey in units specified in Table 1.

After review of the report, the Commission may inspect the facilities to confirm the survey prior to granting approval for abandonment.

5. REACTOR RETIREMENT PROCEDURES

As indicated in Regulatory Position C.2, several alternatives are acceptable for reactor facility retirement. If minor disassembly or "mothballing" is planned, this could be done by the existing operating and maintenance procedures under the license in effect. Any planned actions involving an unreviewed safety question or a change in the technical specifications should be reviewed and approved in accordance with the requirements of 10 CFR §50.59.

If major structural changes to radioactive components of the facility are planned, such as removal of the pressure vessel or major components of the primary system, a dismantlement plan including the information required by §50.82 should be submitted to the Commission. A dismantlement plan should be submitted for all the alternatives of Regulatory Position C.2 except mothballing. However, minor disassembly activities may still be performed in the absence of such a plan, provided they are permitted by existing operating and maintenance procedures. A dismantlement plan should include the following:

a. A description of the ultimate status of the facility

b. A description of the dismantling activities and the precautions to be taken.

c. A safety analysis of the dismantling activities including any effluents which may be released.

d. A safety analysis of the facility in its ultimate status.

Upon satisfactory review and approval of the dismantling plan, a dismantling order is issued by the Commission in accordance with §50.82. When dismantling is completed and the Commission has been notified by letter, the appropriate Regulatory Operations Regional Office inspects the facility and verifies completion in accordance with the dismantlement plan. If residual radiation levels do not exceed the values in Table I, the Commission may terminate the license. If these levels are exceeded, the licensee retains the possession-only license under which the dismantling activities have been conducted or, as an alternative, may make application to the State (if an Agreement State) for a byproduct materials license.

TABLE I

ACCEPTABLE SURFACE CONTAMINATION LEVELS

NUCLIDE[a]	AVERAGE[b c]	MAXIMUM[b d]	REMOVABLE[b e]
U-nat, U-235, U-238, and associated decay products	5,000 dpm α/100 cm^2	15,000 dpm α/100 cm^2	1,000 dpm α/100 cm^2
Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	100 dpm/100 cm^2	300 dpm/100 cm^2	20 dpm/100 cm^2
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1000 dpm/100 cm^2	3000 dpm/100 cm^2	200 dpm/100 cm^2
Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above.	5000 dpm β-γ/100 cm^2	15,000 dpm β-γ/100 cm^2	1000 dpm β-γ/100 cm^2

[a]Where surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for alpha- and beta-gamma-emitting nuclides should apply independently.

[b]As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

[c]Measurements of average contaminant should not be averaged over more than 1 square meter. For objects of less surface area, the average should be derived for each such object.

[d]The maximum contamination level applies to an area of not more than 100 cm^2.

[e]The amount of removable radioactive material per 100 cm^2 of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.

APPENDIX C
LIMERICK STATION COST ON A PER UNIT BASIS

Limerick Station, Unit 1 is scheduled to begin operation 5 years prior to Limerick Station, Unit 2. In order to facilitate the inclusion of decommissioning cost attributable to Unit 1 into the rate base, this appendix has separated the Limerick Station decommissioning cost into Unit 1, Unit 2, and common equipment cost.

Total Cost of Decommissioning Per Unit

The following table shows the total decommissioning cost for Limerick Station as developed on Page 2-2, separated into a per unit basis.

	Total Decommissioning Cost in March 1984 Million Dollars			
Limerick Station	Removal	Disposal	Salvage	Total
Unit 1	101.2	30.0	(3.1)	128.1
Unit 2	99.3	29.8	(2.7)	126.4
Common	16.1	2.2	(0.2)	18.1
Station Total	216.6	62.0	(6.0)	272.6

Table C-1 shows a breakdown of the total decommissioning cost of each unit and common equipment in accordance with Federal Energy Regulatory Commission (FERC) Accounts.

Nuclear-Related Cost of Decommissioning

In accordance with the definition of nuclear-related cost presented on Page 2-4, the following table shows Limerick Station nuclear-related cost on a per unit and common equipment basis.

	Total Decommissioning Cost in March 1984 Million Dollars			
Limerick Station	Removal	Disposal	Salvage	Total
Unit 1	75.2	29.3	(0.5)	104.0
Unit 2	75.9	29.2	(0.5)	103.6
Common	4.7	1.0	(0.1)	5.6
Station Total	154.8	59.5	(1.1)	213.2

NUS CORPORAT

TABLE C-1
Limerick Station
Summary of Total Decommissioning by Unit
Cost by FERC Account
March 1984
$1,000's

FERC Account Number	FERC Account Title	Total Cost Limerick Unit 1	Total Cost Limerick Unit 2	Total Cost Limerick Common
321	Nuclear Production - Structures and Improvements	$ 19,561	$ 19,555	$ 13,019
322	Nuclear Production - Reactor Equipment	41,625	41,622	601
323	Nuclear Production - Turbogenerator Units	10,744	10,741	413
324	Nuclear Production - Accessory Electric Equipment	6,119	4,725	0
352	Transmission Plant - Structures and Improvements	13	13	163
524	Nuclear Power - Miscellaneous Nuclear Power Expenses	3,675	3,653	266
920	Administration and General Expenses - Salaries	13,720	13,626	1,081
923	Administration and General Expenses - Outside Services	32,134	31,917	2,518
924	Administration and General Expenses - Property Ins.	543	540	33
	TOTAL	$128,134	$126,392	$ 18,094

Table C-2 shows a breakdown of nuclear-related cost of each unit in accordance with FERC accounts.

Total Decommissioning Cost Base by Activity

Table C-3 presents total decommissioning cost grouped by cost center activities which were described in Section 4.1.

Cost by FERC Account

Consistant with Section 4.2.2, Table C-4, C-5, and C-6 present total cost of Limerick Station decommissioning for each unit and the common equipment by FERC account classification.

Nuclear-Related Decommissioning Cost Base by Activity

Nuclear-related decommissioning cost by activity as discussed in Section 4.3.1 for Limerick Station are displayed in Table C-7.

Nuclear-Related Costs for FERC Account

Tables C-8, C-9, and C-10 present the nuclear-related decommissioning cost for Limerick Station for each unit and common equipment. See Section 4.3.2 for a discussion of nuclear-related costs.

Cost Components for Escalation

As discussed in Section 4.4.2, Tables C-11 and C-12 present Limerick Station total and nuclear-related cost by cost escalation category. These costs can be used with changes in the cost indices (Table 4-9) to evaluate escalated cost in future years.

TABLE C-2
Limerick Station
Summary of Nuclear-Related Decommissioning by Unit
Cost by FERC Account
March 1984
$1,000's

FERC Account Number	FERC Account Title	Total Cost Limerick Unit 1	Total Cost Limerick Unit 2	Total Cost Limerick Common
321	Nuclear Production - Structures and Improvements	$ 16,911	$ 16,911	$ 2,859
322	Nuclear Production - Reactor Equipment	36,679	36,676	601
323	Nuclear Production - Turbogenerator Units	8,863	8,863	0
324	Nuclear Production - Accessory Electric Equipment	783	517	0
352	Transmission Plant - Structures and Improvements	0	0	0
524	Nuclear Power - Miscellaneous Nuclear Power Expenses	3,155	3,142	172
920	Administration and General Expenses - Salaries	11,062	11,016	603
923	Administration and General Expenses - Outside Services	26,028	25,921	1,420
924	Administration and General Expenses - Property Ins.	512	510	28
	TOTAL	$103,992	$103,556	$ 5,683

TABLE C-3
Total Decommissioning Cost
Grouped by Major Cost Centers

Cost Center	Total Cost, Million $, March 1984 Limerick Station		
	Unit 1	Unit 2	Common
Utility Planning and Control	13.7	13.6	1.0
General Contractor and Subcontractor	32.1	31.9	2.5
Mechanical/Electrical Demolition	33.7	31.9	0.8
Structural Demolition	17.5	17.5	11.5
Waste Disposal	29.9	29.9	2.2
Miscellaneous (consumables, insurance)	4.3	4.3	0.4
Salvageable Components and Materials	(3.1)	(2.7)	(0.3)
TOTAL	128.1	126.4	18.1

TABLE C-4
Decommissioning Cost Summary
Limerick Generating Station, Unit 1
(in thousands of March 1984 dollars)
Total

	FERC Account/Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 17,498	$ 2,566	$ (504)	$ 19,561
322	Reactor Equipment	18,892	23,163	(430)	41,625
323	Turbogenerator	6,820	3,982	(58)	10,744
324	Accessory Electrical	7,929	264	(2,073)	6,119
352	Transmission Plant	57	0	(44)	13
524	Miscellaneous Nuclear Expense	3,675	0	0	3,675
920	Utility A&G	13,720	0	0	13,720
923	Outside Services	32,134	0	0	32,134
924	Insurance	543	0	0	543
	TOTAL	$101,268	$29,975	$(3,109)	$128,134

TABLE C-5
Decommissioning Cost Summary
Limerick Generating Station, Unit 2
(in thousands of March 1984 dollars)
Total

FERC Account	Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 17,494	$ 2,565	$ (504)	$ 19,555
322	Reactor Equipment	18,891	23,161	(430)	41,622
323	Turbogenerator	6,818	3,981	(58)	10,741
324	Accessory Electrical	6,204	174	(1,653)	4,725
352	Transmission Plant	57	0	(44)	13
524	Miscellaneous Nuclear Expense	3,653	0	0	3,653
920	Utility A&G	13,626	0	0	13,626
923	Outside Services	31,917	0	0	31,917
924	Insurance	540	0	0	540
	TOTAL	$ 99,200	$29,881	$(2,689)	$126,392

TABLE C-6
Decommissioning Cost Summary
Limerick Generating Station, Common
(in thousands of March 1984 dollars)
Total

	FERC Account/Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 11,472	$ 1,758	$ (211)	$ 13,019
322	Reactor Equipment	208	395	(2)	601
323	Turbogenerator	451	0	(38)	413
324	Accessory Electrical	0	0	0	0
352	Transmission Plant	128	36	(1)	163
524	Miscellaneous Nuclear Expense	266	0	0	266
920	Utility A&G	1,081	0	0	1,081
923	Outside Services	2,518	0	0	2,518
924	Insurance	33	0	0	33
	TOTAL	$ 16,157	$ 2,189	$ (252)	$ 18,094

TABLE C-7
Nuclear-Related Decommissioning Cost
Grouped by Major Cost Centers

Cost Center	Nuclear-Related Cost, Million $, March 1984 Limerick Station		
	Unit 1	Unit 2	Common
Utility Planning and Control	11.0	11.0	0.6
General Contractor and Subcontractor	26.0	25.9	1.4
Mechanical/Electrical Demolition	19.6	19.4	0.2
Structural Demolition	14.9	14.9	2.2
Waste Disposal	29.2	29.2	1.0
Miscellaneous (consumables, insurance)	3.8	3.7	0.3
Salvageable Components and Materials	(0.5)	(0.5)	(0.1)
TOTAL	104.0	103.6	5.6

TABLE C-8
Decommissioning Cost Summary
Limerick Generating Station, Unit 1
(in thousands of March 1984 dollars)
Nuclear-Related

FERC Account	Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 14,900	$ 2,507	$ (496)	$ 16,911
322	Reactor Equipment	13,662	23,019	(3)	36,678
323	Turbogenerator	5,377	3,487	(1)	8,863
324	Accessory Electrical	556	227	0	783
352	Transmission Plant	0	0	0	0
524	Miscellaneous Nuclear Expense	3,155	0	0	3,155
920	Utility A&G	11,062	0	0	11,062
923	Outside Services	26,028	0	0	26,028
924	Insurance	512	0	0	512
	TOTAL	$ 75,252	$29,240	$ (500)	$103,992

TABLE C-9
Decommissioning Cost Summary
Limerick Generating Station, Unit 2
(in thousands of March 1984 dollars)
Nuclear-Related

	FERC Account/Name	Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 14,900	2,507	$ (496)	$ 16,911
322	Reactor Equipment	13,661	23,018	(3)	36,676
323	Turbogenerator	5,377	3,487	(1)	8,863
324	Accessory Electrical	369	148	0	517
352	Transmission Plant	0	0	0	0
524	Miscellaneous Nuclear Expense	3,142	0	0	3,142
920	Utility A&G	11,016	0	0	11,016
923	Outside Services	25,921	0	0	25,921
924	Insurance	510	0	0	510
	TOTAL	$ 74,896	$29,160	$ (500)	$103,556

TABLE C-10
Decommissioning Cost Summary
Limerick Generating Station, Common
(in thousands of March 1984 dollars)
Nuclear-Related

FERC Account/Name		Removal Cost	Disposal Cost	Salvage Gain	Total Cost
321	Structures and Improvements	$ 2,240	$ 680	$ (61)	$ 2,859
322	Reactor Equipment	208	395	(2)	601
323	Turbogenerator	0	0	0	0
324	Accessory Electrical	0	0	0	0
352	Transmission Plant	0	0	0	0
524	Miscellaneous Nuclear Expense	172	0	0	172
920	Utility A&G	603	0	0	603
923	Outside Services	1,420	0	0	1,420
924	Insurance	28	0	0	28
	TOTAL	$ 4,671	$ 1,075	$ (63)	$ 5,683

TABLE C-11
Total Decommissioning Cost
by Cost Escalation Category
(thousands of March 1984 dollars)

Cost Category	Cost by Unit Limerick Station		
	Unit 1	Unit 2	Common
Craft Labor, Skilled	35,942	34,988	7,639
Craft Labor, Common	14,573	14,132	3,423
Professional/Technical Labor	35,854	35,627	2,673
Equipment	14,070	13,631	3,398
Low-Level Waste Burial	19,093	19,039	654
Salvage:			
Iron and Steel	(1,215)	(1,178)	(251)
Copper Scrap	(1,894)	(1,511)	(0)
Energy and Other	11,711	11,664	558
TOTAL	128,134	126,392	18,094

TABLE C-12
Nuclear-Related Cost
by Cost Escalation Category
(thousands of March 1984 dollars)

Cost Category	Cost by Unit Limerick Station		
	Unit 1	Unit 2	Common
Craft Labor, Skilled	24,196	24,074	1,631
Craft Labor, Common	10,214	10,162	688
Professional/Technical Labor	30,120	29,996	1,642
Equipment	9,711	9,661	667
Low-Level Waste Burial	19,093	19,039	654
Salvage:			
Iron and Steel	(500)	(500)	(63)
Copper Scrap	0	0	0
Energy and Other	11,158	11,124	464
TOTAL	103,992	103,556	5,683

PECo Statement No. 20

PY 12-11-85

Hbg

PENNSYLVANIA PUBLIC UTILITY COMMISSION V.

PHILADELPHIA ELECTRIC COMPANY,

DOCKET NO. R-850152

RECEIVED

DEC 13 1985

SECRETARY'S OFFICE
Public Utility Commission

DIRECT TESTIMONY

OF

RICHARD Wm. WRIGHT

EXPLANATION OF CERTAIN RATE BASE

AND EXPENSE ADJUSTMENTS

DOCKETED

DEC 18 1985

SEPTEMBER 27, 1985

DOCUMENT
FOLDER

Q. Please state your name and address for the record.

A. Richard Wm. Wright, 2301 Market Street, Philadelphia, PA 19101.

Q. By whom are you employed and in what capacity?

A. I am a Supervisor in the Financial Division of Philadelphia Electric Company.

Q. What is your educational background?

A. I graduated cum laude from the University of Virginia in 1972 with a BS in Mechanical Engineering. In 1975, I received a Master of Business Administration from Widener University.

Q. Please outline your experience with Philadelphia Electric Company.

A. Following my graduation from college in 1972, I joined Philadelphia Electric Company as a Test Engineer in the Electric Production Department. From 1972 to 1974, I was assigned to Cromby Generating Station and Peach Bottom Atomic Power Station. My responsibilities included conducting performance tests on turbines and boilers, assuring plant conformance with OSHA specifications, formulation of pollution incident prevention plans, and pre-operational testing of numerous nuclear plant systems.

From 1974 to 1976, I was assigned to the SAMAC project within the Services Division of the Electric Production Department. The SAMAC computer system monitors and controls all facets of the operation of Philadelphia Electric Company's electric generation and transmission

systems. My responsibilities included supervision of all activities impacting the master data bank and remote data terminal transmissions as well as the development and implementation of a real time automatic economic generation control system.

In 1977, I transferred to the Finance and Accounting Department where I was assigned as an engineer in the Load and Cost Analysis Section of the Rate Division. My responsibilities included the development of load and cost analysis techniques necessary to meet PURPA requirements, development of a major time-of-day pricing research project, training all technical division personnel in computer programming, and participation in the preparation of testimony and interrogatories in Federal and Pennsylvania jurisdictional rate hearings.

In 1980, I transferred to the Budget and Control Division in the Finance and Accounting Department. My responsibilities in this position included the development and administration of corporate cost control programs, the design and production of the Company's quarterly report to shareholders, coordination of the departmental Quality Circle Program and membership in the Corporate Steam Heating Task Force.

In 1982, I was appointed to the position of Supervisor, Rates and Regulation Section of the Rate Division. I was responsible for the preparation of all filing requirements specified by regulations and the

development and support, through testimony, of studies and exhibits as they relate to rate proceedings.

In May 1985, I was appointed to my present position as Supervisor, in the Financial Division in the Finance and Accounting Department. My present responsibilities include investor relations, preparation of the annual report, administration and performance measurement of the Company's pension plan, and the preparation of financing studies.

Q. What are your professional affiliations?

A. I have been a Registered Professional Engineer in Pennsylvania since 1976. I have been a member of the American Society of Mechanical Engineers since 1970.

Q. Would you outline your prior rate case experience.

A. I have participated in the preparation of rate cases and the preparation of exhibits for rate structure, as well as revenue, expense and other adjustments in prior filings including the 1979 Gas Rate Case (R-79030781), the 1979 Steam Rate Case (R-7904785), the 1979 Electric Rate Case (R-79060865), the 1980 Electric Rate Case (R-80061225), the 1982 Steam Rate Case (R-822101), the 1983 Electric Rate Case (R-822291), the 1983 Steam Rate Case (R-832434) and the 1984 Electric Rate Case (R-842590). I have prepared similar materials necessary for filing applications to the Federal Energy Regulatory Commission in support of rate increases to the Borough of Lansdale and Conowingo Power Company. Finally, I have testified in the 1983 Gas Rate Case (R-832410), the 1984 Electric Rate Case (R-842590), and at

Dockets ER84-9 and ER84-10 before the Federal Energy Regulatory Commission.

Q. What areas will your testimony cover in the present proceeding?

A. My testimony will cover the Company's rate base claim for four items which appear in the C Section of the Company's Accounting Exhibits TPH-1 and TPH-2: (1) non revenue producing construction work in progress, which appears on page C-8, (2) land held for future use, which appears on page C-9, (3) materials and supplies (exclusive of electric fuel inventory), which appears on page C-10, and (4) cash working capital, including average bank balances, which appears on page C-12.

My testimony will also support the following revenue and expense adjustments which appear in the D Section of the Company's Accounting Exhibits: (1) full year effect of present base rates, which appears on page D-2, (2) the adjustment to eliminate revenue and fuel expense associated with sales to the Borough of Lansdale, which appears on page D-13, (3) the decommissioning cost adjustment, which appears on page D-15, and (4) the spent fuel disposal cost adjustment, which appears on page D-16.

Q. Please explain the Company's claim for non-revenue producing construction work in progress.

A. Page C-8 of Company Exhibit TPH-2 provides the Company's claim for non-revenue producing construction work in progress and includes the location and description of each

project, the associated construction authorization (C.A.) number, actual expenditures through June 30, 1985, the total estimated cost at completion, associated retirements, and the projected in-service date. These projects are safety or environmental related, meet the Commission's non-revenue producing and non-expense reducing construction work in progress standards, and are similar to projects whose inclusion in rate base as non-revenue producing and non-expense reducing construction work in progress has been repeatedly approved by the Commission.

The project at Eddystone (C.A. 205201) involves installing a coal pile runoff system consisting of two new retention basins equipped with plastic liners to prevent groundwater contaminination. This project is necessary in order to comply with Pennsylvania Department of Environmental Resources regulations regarding the prevention of groundwater contamination.

The reracking of the fuel pools at Peach Bottom (CA 408301) will increase the spent fuel storage capacity at Peach Bottom and will ensure the continued safe storage of nuclear fuel at this plant. This reracking will extend the capability to discharge a full core to storage for Units 2 and 3 from 1987/1988 to 1992/1993, respectively.

The upgrading of two containment isolation valves (CA 408526) on the backup safety grade nitrogen supply to the automatic depressurization system safety relief valves is necessary to provide complete containment isolation. The existing

valves cannot provide a tight shut off in both directions.

Fire protection requirements of Nuclear Mutual Limited necessitate the installation of sprinkler systems at Salem Unit No. 2. These requirements include: a sprinkler system (C.A. 210182) in the welding shop and storage locker area of the turbine building, a sprinkler head over the waste compactor in the drumming and baling area, and a wet-pipe sprinkler system (C.A. 210908) in the oil storage room.

Development of the second stage of an ash and mine waste disposal site and associated waste drainage system (C.A. 202113) is required to provide waste disposal storage space at the Conemaugh Station in accordance with requirements of the Pennsylvania Department of Environmental Resources.

The installation of a water curtain spray system at Keystone Station (C.A. 406704) is necessary for safety reasons. The system will protect the turbine hall wall adjacent to the transformer bay in case of a fire.

Q. Mr. Wright, please explain the Company's claim for land held for future use.

A. Page C-9 of Company Exhibit TPH-2 contains the Company's claim for land held for future production, transmission, and distribution sites. Provided on page C-9 is the date these projects were originally included in Account 105, the expected date that construction is to start, the expected in-service date for each project, and the investment in each

project at the end of the future test year.

The Commission has consistently approved rate base allowances for land held for future use where: (1) a definite plan exists for the use of the land, and (2) the utilization of the land will occur within a reasonable time period. In recent rate decisions, the Commission has determined that ten years is a reasonable time period. As set forth below, all of the projects listed on page C-9 are currently held under a definite plan for use in the Company's near term Electric Operations, and therefore satisfy the Commission's criteria for rate base treatment of this property.

Q. Please provide a description of each project on page C-9 and how each will be used.

A. The Bradshaw Reservoir Project consists of 38 acres of land required for the Reservoir and approximately eight miles of right-of-way for a water transmission line. The Bradshaw Reservoir is the final point of discharge for the water pumped from the Delaware River by and through the combined facilities consisting of the Point Pleasant intake, the pumping station, and the combined transmission main. At this reservoir the water will be divided and flow either by gravity to the North Branch of the Neshaminy Creek or under pump pressure to the East Branch of the Perkiomen Creek. The reservoir will provide sufficient water storage capacity to meet PECo's maximum flow requirement for one day. This emergency storage would be used in the event of the

unavailability of the Point Pleasant facilities for this period of time. The reservoir has a water surface of about 18 acres. This project will be used in the operation of the Limerick Nuclear Generating Station.

The Merrill Creek Reservoir Project consists of 3,234 acres of land acquired to be used as a reservoir to provide cooling water to various Company generating stations. The Merrill Creek Project, which is a joint undertaking of seven utility companies, was required by the Delaware River Basin Commission as a condition for the withdrawal of water from the Delaware River for use in connection with the operation of the member companies' nuclear and fossil generating plants. This reservoir will provide a means of replacing water withdrawn from the Delaware River during certain periods of low river flow.

The Company's commitment to the Merrill Creek Project is a result of its Delaware River water needs associated with the operation of the Eddystone and Limerick generating stations. Moreover, future development of the Chester generating station site will also require replacement water from the Merrill Creek Project. In addition to Philadelphia Electric Company units, other units presently or soon to be operated by other member companies also contribute to the overall need for the Merrill Creek Project. The future uninterrupted generating capacity of all of these units requires the construction of the Merrill Creek project. Without Merrill Creek, it will be necessary to periodically

curtail operations at one or more of these units in order to assure an adequate flow in the Delaware River at all times of the year.

The Limerick-Whitpain project land (133 acres) is associated with the construction of a 500 kv transmission line between the Limerick generating station and the Whitpain substation. This project is needed for Limerick Unit No. 2 and will also increase the reliability of the Company's transmission system.

Rate base allowances for each of the above three projects were approved by the Commission at Dockets R-811626, R-822291 and R-842590.

The Middletown substation land (9 acres) will be used for the construction of a 230-34 kv substation needed to service local distribution system growth. This project was approved by the Commission at Docket Nos. R-822291 and R-842590.

The Morton substation land (8 acres) will be used for the construction of a 230-138 kv stepdown substation. This substation will allow the Company to add a second supply source to Middletown substation. This second supply is needed in order to maintain system reliability at Middletown.

The Woodbourne substation land (22 acres) will be used for the construction of a 230-34 kv substation. The Dungan service building land (1/2 acre) is for construction of additions to the service building in order to maintain service to our customers. This project was approved by the

Commission at Docket No. R-842590.

As shown on page C-9, construction is currently under way on two projects, anticipated to begin on an additional four projects by 1988, with construction beginning on the remaining project by 1992. The anticipated in service dates for all of the projects are during the 1986 to 1992 period, which is well within the 10-year time frame previously established by the Commission in evaluating such claims.

Q. Please describe the Company's claim for materials and supplies exclusive of the fuel inventory component.

A. The Company's claim for materials and supplies exclusive of fuel inventory as detailed on page C-10 of Exhibits TPH-1 and TPH-2 consists of three components:

(1) The plant materials and supplies component, which represents the Company's investment in such items as boiler plant supplies, spare parts, pipefittings, pipe, wire and cable, and other miscellaneous supplies;

(2) The tools and related equipment component, which represents Electric Operations' portion of the Company's investment in tools and safety and protective equipment; and

(3) The stores expense undistributed component, which represents Electric Operations' portion of expenses incurred in the operation of the Company's storerooms.

The historic test year data for each of these categories reflect a 13-month average for the period June

30, 1984 through June 30, 1985. The future test year claim is based upon the estimate of investment in these items as of June 30, 1986.

The Company's materials and supplies balances are essential for safe, efficient and reliable operation. Maintenance of the reliability of the production, transmission, and distribution systems can only be accomplished with a sufficient inventory of materials and supplies on hand. Such an inventory is needed for emergency or rapid repair of plant to return it quickly to service in the event of a breakdown.

The Company carefully monitors materials and supplies balances to assure maximum operating efficiencies. A computer based inventory management system regulates materials and supplies balances so as to minimize requirements. Additionally, the Company has a centralized direct delivery system for transmission and distribution materials and supplies. This system reduces local storeroom inventory levels through increased reliance on central storeroom inventory levels and an enhanced interstoreroom delivery system.

Q. Why has the Company based its materials and supplies claim on investment projected at the end of the future test year?

A. Ratemaking is prospective, and the use of a future test year end investment level is critical if the rates set in this proceeding are to even partially reflect conditions which will exist during the initial period rates set in this

proceeding are effective. The level of the Company's investment in materials and supplies is projected to increase during the future test year and beyond due to inflation and the addition of new plant and equipment to the Company's system. In addition, the use of end of test year balances is consistent with all other major components of the Company's claimed measure of value.

Q. Mr. Wright, why does the materials and supplies account increase from a June 30, 1985 balance of $41,314,000 to a $48,495,000 balance at June 30, 1986?

A. There are several factors contributing to this increase. The Company's claim is based upon an extensive survey of the Company's generating stations to determine their future materials and supplies needs for the budget period ended June 30, 1986. The bulk of the $7.2 million increase in the plant materials and supplies account reflects approximately $5.0 million for pumps, turbines, piping and other required materials and supplies required for the safe and reliable operation of Limerick 1. Eddystone Generating Station has budgeted an additional $300,000 for the test year, related in part to the scrubbers at the station. Peach Bottom Station will require an estimated additional $400,000 in order to institute safety system improvements. An adjustment of approximately $1,200,000 was made to reflect the impact of anticipated inflation on material and supply costs.

Q. Mr. Wright, please describe the Company's claim for cash

working capital.

A. Page C-12 of Exhibits TPH-1 and TPH-2 details the Company's cash working capital requirements for the historic and future test years. The Company's claim for cash working capital at June 30, 1986 totals $99.4 million, and consists of three components: operating and maintenance expenses, taxes, and average compensating bank balances.

The Company's methodology for determining cash working capital is the same as that approved by the Commission at R-842590. In previous Company rate proceedings, the Commission adjusted the Company's cash working capital claim to reflect a theoretical availability of revenue prior to the payment of interest on long-term debt. In the Company's view, long-term debt interest is a part of the Company's return and is therefore the property of investors from the moment of receipt. If this interest is used to finance part of the Company's working capital requirement, that use is a reinvestment of funds by our investors and the investors are entitled to a return for that use. In addition, it is the Company's position, as set forth in prior proceedings, that there is no lag in the payment of bond interest. On the contrary, revenues lag interest payments, thereby creating an additional working capital requirement. However, for purposes of this proceeding the Company has included a $36.5 million debt interest and preferred dividend offset to its cash working capital claim in an effort to avoid controversy and to

simplify Commission investigation of this case. This offset is presented on pages C-12c and C-12d of Exhibits TPH-1 and TPH-2.

Q. Mr. Wright, please discuss the Company's methodology for determination of its cash working capital requirement.

A. As in past cases, the Company first performed a lead/lag computation analyzing the payment patterns of residential, commercial, and industrial customers to determine the average lag in receipt of revenue. This specific methodology was ordered by the Commission at Docket R-811719 and has been previously accepted by the Commission at Docket R-842590. The lag in receipt of revenue, as based upon this Commission accepted approach, for the period studied was 46 days. A summary of the Company's revenue lag study is attached to this Testimony as Appendix A.

Q. Mr. Wright, what does Appendix A indicate?

A. As indicated in Appendix A, the Company has analyzed residential and commercial electric revenues for six of the 21 billing routes for the twelve month period ending with February 1985 meter readings. For each of the billing routes for a particular month, actual cash receipts (payments) were accumulated on a day-by-day basis starting from the meter reading date and continuing approximately four months beyond the meter reading date. Therefore, the meter readings for the twelve months ended February 1985 include the actual cash payments for the four-month period beyond the meter reading date, ending with June, 1985.

In the case of industrial customers, the computation was based on six billing routes for the months of February and March of 1985. The industrial accounting system was being computerized from October 1984 through January 1985 and, hence, data from this transition period is not available.

The revenue weighted average was taken for residential, commercial, and industrial customers and to that average 15 days were added to account for the midpoint of the period of monthly service rendered to each group. This resulted in 49 lag days for residential customers, 48 days for commercial customers, and 44 lag days for industrial customers. The resultant lag days were then weighted by actual revenue for each of the rate schedules listed on page A-5 of Exhibits TPH-1 and TPH-2.

At the end of the four month period, service to customers with outstanding revenue is terminated and the outstanding revenue is submitted for final collection. In the course of this collection process, a series of steps are taken in a final effort to secure payment prior to writing off the revenue. This final collection procedure is initiated at the time the service is terminated and takes another 74 days after which time revenue is written off and declared uncollectible.

In the Company's last electric rate proceeding at Docket R-842590, the Commission ruled that uncollectible account expense should be removed from operating and

maintenance expenses for purposes of calculating a cash working capital requirement. Accordingly, uncollectible accounts expense is removed from the cash working capital claim on page C-12a at footnote (e).

For purposes of this proceeding, the impact of the 74 day uncollectible accounts expense collection period has been incorporated in the calculation of revenue lag. It is necessary to include this adjustment in order to properly reflect a known lag in the receipt of revenue occurring beyond the four month period in which revenues are explicitly tracked.

Total class revenues for the month were then weighted by the average lag in the receipt of revenues for each of the six routes to determine a time weighted revenue figure. This figure, along with the total class revenues, was accumulated over the twelve month period ending with February 1985 meter readings to develop a twelve month revenue weighted average lag in the receipt of revenue.

Q. Mr. Wright, what procedure was followed in the analysis of average lag in the payment of expenses?

The Company has performed detailed studies for the average lag days in payment of expense for each category listed on Page C-12a of Exhibits TPH-1 and TPH-2. The average lag in the payment of operating expenses utilizing proforma expense levels indicates a lag of 20 days for the historic test year and 22 days for the future test year. The average lag between the receipt of revenues and the

payment of operating expenses is applied to the average daily proforma test year O&M expense level to derive the working capital requirement.

As part of this expense lag calculation, the Company has performed a detailed analysis in order to determine the average lag days associated with the payment of other invoices. A sample of approximately 3,800 invoices was analyzed. The lag days for each invoice were computed and then weighted against the invoice amount. Based on this analysis, the average lag day for other invoices was determined to be 15 days. A summary of the lag day analysis for all expense categories is provided in response to filing requirement II-B-4.

Q. Mr. Wright, how is the cash working capital requirement for the payment of taxes developed?

A. First, the average lag in the payment of taxes is developed on the basis of proforma taxes as shown on page C-12b of Exhibit TPH-2. This analysis indicated a lag of 22 days for the historic test year and 28 days for future test year. This payment lag is then subtracted from the average lag in the receipt of revenues to develop an average lag between the receipt of revenue and the payment of taxes. The resultant average lag is applied to average daily proforma test year taxes to derive the cash working capital requirement.

Q. Mr. Wright, please describe the Company's claim for a $9.7 million cash working capital requirement to support

Electric Operations' portion of average monthly bank balances.

A. These bank balances are maintained to support the Company's lines of credit and to compensate the banks for the cost of numerous services provided to the Company as well as to meet normal operating cash needs.

Bank credit is the most convenient and flexible source of short-term funds available to the Company, and the furnishing of such credit is the most valuable service performed by the Company's depository banks. Such credit is available on demand, and funds can be taken down and repaid at the discretion of the Company. Providing such a continuous service has its costs, and banks have traditionally required customers to have enough funds on deposit to compensate them for these costs. At June 30, 1985, the Company had $351.7 million of bank credit lines of which $178.2 million were supported by compensating bank balances.

In addition to supporting the cost to the bank of making this credit continuously available, compensating balances have enabled the Company to borrow at an interest rate lower than otherwise possible. For example, in situations in which the Company has obtained bank credit under a fee arrangement, the interest rate paid on borrowings was primarily at the bank's prime rate while the Company was able to negotiate rates below prime at most of its line banks where compensating balances were maintained.

A third reason for maintaining bank balances is to compensate banks for the cost of numerous non-credit services provided the Company. These services include traditional third-party payment services (i.e., checking accounts and utility payments), money mobilization services (i.e., wire transfers and courier services), special check sorting and listing services, including advice and information on money market investments or services as agents in the sale of commercial paper.

Bank balances are also kept to meet normal operating needs for cash. Payroll requirements, tax payments, interest and dividend payments, fuel payments and other peak demands for disbursements necessitate the maintenance of minimum cash reserves since such disbursements do not always parallel revenue collections from customers.

I should note that the Company is able to maintain average daily balances at the minimum possible level due to its sophisticated cash management program which was described as both effective and innovative in the management audit report ordered by the Commission. The utilization of such technological innovations as bank direct send techniques, direct deposit of receipt items through a check sorter, rapid extraction desks (envelope openers), and an in-house, high-speed check encoding facility increases the availability of the funds collected, thereby reducing receipt float.

In addition, our cash management program takes full

advantage of the disbursement float and zero balance accounts for paying the Company's bills. Varying proportions of our daily disbursement take from one to four days to pass through the check clearing system. On our records, we deduct these disbursements at the time a check is issued. However, the bank's records do not reflect this charge until some later time when the check is presented for payment. Taking advantage of disbursement float reduces our minimum bank balance requirements.

Also, several of our line banks provide us with a tape of customer payment information which allows us to update our customers' records immediately upon receipt. These banks and their branches are available to our customers for bill payments. The availability of this service is a major convenience to our customers. PECO also maintains accounts at many smaller banks for the sole purpose of allowing our customers the convenience of paying bills locally. The cost of providing this service is partially offset by the minimum cash balances kept in these small accounts.

Q. Have you any documentary support for the understanding that such balances will be maintained?

A. Yes, I do. Letters from our major depository banks stating their understanding that such balances will be maintained are set forth in response to filing interrogatory II-B-5 which indicates current credit lines. The terms of this understanding as reflected in these letters is that balances will be maintained to compensate the bank for the

major services described - i.e., the availability of credit, borrowings under such credit and normal bank services.

Q. Mr. Wright, please discuss the Section D schedules sponsored by you in sequence including any explanations you consider necessary.

A. Page D-2 reflects the full year revenue effect of Tariff No. 26, Supplement No. 11 which became effective January 25, 1985. Since the historic test year represents the twelve month period ending June 30, 1985, it does not reflect the full year effect of the Company's $149.6 million base rate increase granted by the Pennsylvania Public Utility Commission on January 24, 1985. Therefore, it was necessary to increase the historic test year electric base revenues by an additional $87.3 million to show the revenues which the Company would have collected if Tariff No. 26 had been in effect during the entire twelve month period, July 1, 1984 through June 30, 1985.

An adjustment for the twelve months ended June 30, 1986 was not required since the Company's budget year was developed including the Tariff No. 26, Supplement No. 11 rate levels.

Page D-13 eliminates the revenue and the fuel expense associated with sales to the Borough of Lansdale and to Jersey Central Power & Light. Effective July 7, 1985, the Borough of Lansdale no longer receives its power supply from the Philadelphia Electric Company. Effective December

31, 1984, Jersey Central Power & Light no longer purchases the output of Salem #2 from PECo. This adjustment is necessary to the historic test year to establish a normalized level of revenue and expenses that will exist when rates are established by the Commission in this proceeding.

Q. Please describe the Company's claim to recover nuclear plant decommissioning costs.

A. Page D-15 of Exhibits TPH-1 and TPH-2 represents the Company's claim to recover its share of the cost of decommissioning Peach Bottom, Salem, and Limerick 1. The claim is in two parts: (1) a $10.021 million annual expense accrual and (2) a $2.870 million annual accrual reflecting a five year amortization of an adjustment necessary to bring the decommissioning fund in line with the current estimated total cost of decommissioning. The resulting total annual decommissioning expense claim is $12.891 million.

Q. Why is it appropriate for the Company to recover decommissioning costs in this proceeding?

A. Decommissioning is a known cost that the Company will incur when nuclear units are retired. Decommissioning expenses are an integral part of the costs of providing low cost nuclear generation. The Company's claim equitably recovers the cost of decommissioning over the life of the nuclear units.

The Company's decommissioning expense claim in this

proceeding is based upon a detailed site specific study prepared by NUS Corporation. This study identifies a total decommissioning cost to the Company for the nuclear portion of Peach Bottom, Salem and Limerick #1 to be $272,908,000 in March 1984 dollars. The results of the decommissioning cost study are described in detail in the Direct Testimony of N. Barrie McLeod, PhD.

The decommissioning cost identified in the study was escalated from its March 1984 basis to a June 1986 basis to coincide with the data presented in the filing. As described in the Direct Testimony of Dr. McLeod, the total decommissioning cost is segregated into eight categories for purposes of this escalation. These cost categories are escalated to known levels at March 1985, and then are escalated from March 1985 to June 1986 using individual estimates of inflation and other specific cost increases on each of the eight cost categories. Appendix B itemizes the cost categories and escalation factors utilized in the Company's decommissioning claim.

The total cost of decommissioning at June 30, 1986 is then amortized in order to determine the annual accrual portion. The amortization period differs for each plant since it is based on the time when the Company starts collecting for decommissioning expenses until the time the decommissioning process begins.

In addition, the Company is making a $2,870,000 claim to adjust the existing decommissioning reserve with the

current estimate of total decommissioning cost. Because of the large size of the adjustment necessary in this proceeding, the Company has recommended a five year amortization to mitigate the impact of this item on customers. Prior accrual correction is a procedure recognized and approved by the Commission at Dockets R-811626, R-822291 and R-842590.

Q. Mr. Wright, please discuss the Company's claim for the recovery of nuclear spent fuel disposal costs shown on Page D-16 of Exhibits TPH-1 and TPH-2.

A. When nuclear fuel has been discharged from the reactor it must be disposed of safely and permanently. The cost of this disposal is a clearly definable cost element which should be borne by those using and benefitting from the energy generated while the fuel is in the reactor.

Q. Why is the Company making a claim for the recovery of costs of spent nuclear fuel.

A. The "Nuclear Waste Policy Act of 1982", which became effective on January 7, 1983 when it was signed by President Reagan, ordered the Department of Energy to promptly enter into spent fuel disposal contracts with utilities to pay for the ultimate disposal of spent fuel.

In compliance with Section 302 of the Act, on April 7, 1983 the Department of Energy began assessing 1 mill for each kWh of gross electrical output of a nuclear power plant to pay for the shipment and ultimate permanent disposal of spent fuel discharged on or after that date.

The direct implementation of the terms of this Act is through a spent fuel disposal contract between DOE and each utility with an operating nuclear power plant.

Contracts for the disposal of fuel for Peach Bottom Units 2 and 3 and Limerick Unit 1 were signed by the Philadelphia Electric Company on June 1, 1983. The Company's ownership portions in these plants are 42.49% and 100% respectively. A similar contract has been signed by Public Service Electric and Gas Company, the operating partner for Philadelphia Electric Company's 42.59% owned portion of Salem Units No. 1 and No. 2. The 1 mill/kWh fee will be evaluated annually by DOE on the basis of actual and projected program costs and direct transport and disposal costs. The fee is therefore subject to future adjustment, but such adjustments will not be retroactive.

Q. Please describe the basis for the Company's current claim for spent fuel disposal cost as shown on page D-16 of the Company's Accounting Exhibits.

A. The Company's claim is developed by applying the 1 mill per kWh charge to the ownership portion of the normalized annual gross generation for Peach Bottom Units No. 2 and No. 3, Salem Units No. 1 and No. 2, and Limerick Unit No. 1. The result is an annual expense of $17,075,000. The normalized annual gross generation estimates are provided by Company witness John J. Carroll.

Q. Does this conclude your direct testimony at this time?

A. Yes, it does.

Philadelphia Electric Company - Electric Operations
Revenue Lag Study Summary

Residential

Lag Days	Routes 2	9	10	12	14	17	Weighted Average
Mar. 1984	30.6	35.8	33.7	35.0	33.9	34.3	33.8
Apr.	*	*	*	*	33.9	33.6	33.7
May	*	*	*	*	31.2	33.8	32.4
Jun.	*	*	*	*	31.4	31.0	31.2
Jul.	30.7	*	*	*	30.1	32.6	31.1
Aug.	31.2	34.7	32.7	34.5	33.1	33.6	33.2
Sep.	32.5	34.4	32.5	32.3	32.3	31.7	32.6
Oct.	32.1	35.1	32.0	34.6	33.1	33.2	33.3
Nov.	31.5	36.5	33.4	35.1	34.4	32.1	33.8
Dec.	29.9	35.1	*	33.1	34.2	34.1	33.1
Jan. 1985	31.0	32.4	31.1	32.7	32.6	33.2	32.1
Feb.	31.0	34.4	32.4	33.5	*	33.4	32.8

Revenue Weighted Average 32.7 days

Revenue Weighted Average	32.7
Midpoint of Usage - Monthly	15.0
Uncollectible Accounts	0.9
	48.6

*Not Available

Philadelphia Electric Company - Electric Operations
Revenue Lag Study Summary

Commercial

	Routes						
Lag Days	2	9	10	12	14	17	Weighted Average
Mar. 1984	31.8	33.4	32.6	32.5	34.3	32.8	32.9
Apr.	*	*	*	*	33.2	32.4	32.8
May	*	*	*	*	32.4	33.5	32.9
Jun.	*	*	*	*	31.6	30.1	30.9
Jul.	34.1	*	*	*	30.3	31.8	32.1
Aug.	35.3	33.2	32.1	33.2	33.5	32.6	33.4
Sep.	34.5	32.3	30.6	30.8	32.1	29.9	31.8
Oct.	34.1	34.0	30.3	34.3	33.2	32.7	33.1
Nov.	33.0	34.6	33.5	34.3	34.3	29.7	33.1
Dec.	31.2	33.9	*	32.6	33.9	31.8	32.7
Jan. 1985	32.9	30.1	32.5	32.7	33.4	33.9	32.6
Feb.	32.4	34.0	34.2	33.3	*	32.9	33.4

Revenue Weighted Average 32.6 days

Revenue Weighted Average	32.6
Midpoint of Usage - Monthly	15.0
Uncollectible Accounts	0.6
	48.2

*Not Available

Philadelphia Electric Company - Electric Operations
Revenue Lag Study Summary

Industrial

Lag Days	3	6	15	16	18	21	Weighted Average
Feb. '85	29.0	30.4	37.3	27.3	29.1	25.6	27.9
Mar. '85	29.4	27.6	43.9	27.4	29.9	27.6	29.1

Revenue Weighted Average 28.49

Revenue Weighted Average	28.5
Midpoint of Usage - Monthly	15.0
Uncollectible Accounts	0.6
	44.1

Decommissioning Cost Categories, Indices and Escalation Factors

Cost Category	Mar.'84 Index (1)	Mar.'85 Index (2)	June' 86 Index (3)	Mar.'84 - June'86 Escalation Factors (4)=(3)/(1)
Craft Labor, Skilled	353.6	374.3	405.0	14.5%
Craft Labor, Common	420.0	457.3	502.0	19.5
Professional/Technical Labor	122.2	127.7	135.0	10.5
Equipment	355.8	361.8	372.0	4.6
Low Level Waste Burial	21.57	25.49	25.49	18.2
Iron & Steel Scrap	311.8	286.2	275.0	(11.8)
Copper Scrap	149.6	128.8	135.0	(9.8)
Energy and Other	309.6	313.1	326.0	5.3

Note: March 1984 and March 1985 indices represent actual data from the sources listed on page 4-29 of Exhibit NBM-1. June 1986 indices represent Company estimates of these categories as explained in the Direct Testimony of R. W. Wright.

PECo Statement No. 18

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PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PHILADELPHIA ELECTRIC COMPANY

DOCKET NO. R-850152

RECEIVED

DEC 13 1985

SECRETARY'S OFFICE
Public Utility Commission

DIRECT TESTIMONY

OF

THOMAS P. HILL, JR.

OVERVIEW OF RATE REQUEST;

EXPLANATION OF ACCOUNTING DATA AND

CERTAIN RATE BASE AND EXPENSE CLAIMS

September 1985

DOCKETED

DEC 18 1985

DOCUMENT FOLDER

Direct Testimony of Thomas P. Hill, Jr.

Q. Please state your name and address for the record.

A. Thomas P. Hill, Jr., 2301 Market Street, Philadelphia, Pennsylvania.

Q. By whom are you employed and in what capacity?

A. I am the Assistant Manager of the Rate Division of Philadelphia Electric Company.

Q. What is your educational background?

A. I graduated with honors from Lehigh University in 1970 with a BS in Industrial Engineering. I also received my MBA from Lehigh University in 1974.

Q. Please outline your experience with Philadelphia Electric Company?

A. Following my graduation from college in 1970, I joined Philadelphia Electric Company as an Engineer in the Rate Division. I held this position until 1978 when I was appointed Supervisor of Tariff and Special Projects within the Rate Division. In March 1982 I was appointed Assistant Manager.

Q. Would you explain briefly your responsibilities in these assignments?

A. As an Engineer in the Rate Division, I worked in a variety of areas which have included economics and statistical analysis of Company operations. In conjunction with this work, I was an instructor, from 1976 to 1984, in the Company's Engineering Economics Course. My specific

responsibilities as an Engineer included cost analyses, development of tariff pricings, and investigation of various rate forms for all resale and wholesale tariffs of the Company. I have worked extensively in the preparation of materials required for rate filings before the Pennsylvania Public Utility Commission, the Public Service Commission of Maryland, and the Federal Energy Regulatory Commission. In addition, I have worked on the design, filing, and implementation of both State and Federal Fuel Adjustment Clauses. Additionally, I have participated in development of the Plant Mortality Studies required for the determination of depreciation rates for all Company operations and the determination of depreciated plant in service.

As Supervisor of Tariff and Special Projects, I was responsible for the preparation of all rate filing requirements specified by regulations, the development and support, through testimony, of studies and exhibits as they relate to rate proceedings and the maintenance of actuarial data necessary to compute Company depreciation rates.

As Assistant Manager, I report to the Manager of the Rate Division and share with him the responsibilities that relate to the development of tariffs and rates on file with federal and state regulatory commissions, the preparation of all necessary supporting data, the administration of these tariffs and the completion of various studies as assigned by top management.

Q. What are your professional affiliations?

A. I have been a Registered Professional Engineer in Pennsylvania since 1975. From 1979 to 1982 I served as a member of the Edison Electric Institute Depreciation Accounting Committee. I have been a member of the American Gas Association Rate Committee since 1982. I am also a member of the Ad Hoc Rate Committee for the Pennsylvania Electric Association.

Q. Would you outline your prior experience in preparing rate filing materials and testimony given in rate proceedings?

A. I have participated in the preparation of rate cases and the preparation of exhibits for rate base, revenue, expense and other adjustments in prior electric operation filings which include: the 1975 Electric Rate Case (RID 295), the 1977 Electric Rate Case (RID 438), the 1979 Electric Rate Case (R- 79060865), the 1980 Electric Rate Case (R-80061225), the 1981 Electric Rate Case (R-811626), the 1982 Electric Rate Case (R-822291) and the 1984 Electric Rate Case (R-842590). At R- 79060865 I submitted testimony in the areas of nuclear fuel inventory, materials and supplies, land held for future use and non-revenue producing CWIP. At R-80061225, R-811626, R- 822291 and R-842590, I presented testimony on specific revenue adjustments, operating expenses and the Company's claimed rate base exclusive of depreciated plant in service.

I have participated in the preparation of all rate case materials in prior Gas Operations filings including

the 1979 Gas Rate Case (R-79030781), the 1981 Gas Rate Case (R-811719), and the 1983 Gas Rate Case (R-832410). At R-79030781 I presented testimony as the Company depreciation witness responsible for claimed rate base and annual provisions for depreciation. At R-811719 and R-832410, I presented testimony in support of the Company's revenue claim, operating expenses and rate base exclusive of depreciated plant in service.

I have participated in the preparation of rate filing materials for the prior Steam Operations Filings including the 1979 Steam Rate Case (R-79040785), the 1980 Steam Rate Case (R-80071263), the 1981 Steam Rate Case (R-811720), the 1982 Steam Rate Case (R-822101) and 1983 Steam Rate Case (R-832434). At R-79040785, I presented testimony as the Company depreciation witness responsible for rate base and annual provisions for depreciation. At R-80071263, I presented testimony in support of the Company's claims for materials and supplies and cash working capital. At R-822101 and R-832434, I presented testimony supporting the Company's claims for all revenue and expenses.

In addition, I have prepared similar materials necessary for filing rate applications before the Federal Energy Regulatory Commission in support of our rate increases to the Borough of Lansdale and Conowingo Power Company. I have submitted testimony before the FERC at Dockets ER81-318, ER82-294, ER82-295 and ER84-9 and 10. I have also prepared rate filing material including rate base

and all adjustments to rate base for filings before the Public Service Commission of Maryland for our subsidiary Conowingo Power Company.

Finally, I have submitted testimony in several Show Cause proceedings before the Pennsylvania Public Utility Commission. At Dockets No. P-830453 and No. M-840375, I testified on the administration of the Company's Energy Cost Rate and at Docket No. I-840381, I testified on the revenue requirements for Limerick Unit No. 2 and other alternate generation cases.

Q. What is the purpose of your testimony?

A. I will describe the major reasons why the Company is requesting a $670.7 million net base rate increase. I will explain the process of the development of the Company's original cost of plant in service and its book operating revenue and expense levels including various accounting statements as presented in my Exhibits. I will describe and support certain of the adjustments to operating revenues and expenses which have been made to place book levels on a proforma test year basis. I will explain and support the Company's rate base claim for Limerick 1 nuclear fuel assemblies in the reactor, and miscellaneous rate base deductions. Finally, I will describe the Company's revenue requirements associated with Limerick 1 and 100% of common facilities that are to be included in base rates, and the revenue impact of the retirement of Richmond Unit 9, Southwark Units 1 and 2 and miscellaneous

combustion turbines.

Q. Please summarize the major factors which contribute to the rate increase requested by the Company in this proceeding.

A. The Company's claim reflects a net increase in Pennsylvania jurisdictional base electric operating revenues of $670.7 million. As explained in the Statement of Reasons submitted with this filing, this revenue increase is required (1) to permit the Company to recover the capital and operating costs of Limerick 1 offset by energy savings from this unit, (2) to reflect a net decrease in revenue requirements caused by life extensions of coal-fired generating facilities and sales increases offset by increased depreciation and operating and maintenance expense, and (3) to allow the Company's common equity investors an opportunity to earn a fair return on their investment. While the Company believes a fair return on common equity is 16.9% to 17.4% as developed by Company witness J. F. Brennan, we have designed rates that provide for only a 15.75% equity return.

Q. Please explain the derivation of the net $670.7 million requested revenue increase.

A. The net increase is comprised of two components: (1) an $878.2 million increase in rates to reflect additional plant in service and increased operating expenses, and (2) a $207.5 million rate decrease to reflect the reduction in energy costs occasioned by the operation of Limerick 1. These energy savings are reflected in this filing by a

7.505 mills/kwh reduction in the base rate cost of energy. A corresponding reduction in the base cost of energy in the Company's Energy Cost Rate ("ECR") will be filed to become effective coincident with the effective date of Supplement No. 15. To the extent that actual energy savings from Limerick 1 are more or less than projected, this difference will be refunded or recouped in subsequent ECR filings.

Q. Please explain the specific rate impact of Limerick 1.

A. A principal reason for this rate filing is to reflect the capital and operating costs and energy savings associated with Limerick 1. Table 1 to this testimony details these costs and savings. As set forth therein, the net rate impact of Limerick 1 is $742.0 million, consisting of $949.5 million in capital and operating costs and $207.5 million in anticipated energy savings.

Q. Mr. Hill, will you be sponsoring any exhibits in this proceeding?

A. Yes, I will sponsor four exhibits prepared for use in this proceeding. The first two, Exhibits TPH-1 and TPH-2, contain the revenue, expense and rate base accounting data for the Company's historic and future test years. Although I am primarily responsible for the development of these exhibits and administered their preparation, I have not prepared and do not support all of the information in these documents.

There are two additional Company exhibits which I sponsor. First, I administered the preparation of

responses to the Commission filing regulations contained in PECo Exhibit 1, but as with the Exhibits TPH-1 and TPH-2, I share substantive responsibility with other Company witnesses for the specific data set forth therein. I am responsible for that portion of the data which relates to the substantive area discussed in my testimony. I did not participate in the preparation of PECo Exhibit 2, which provides an explanation of the reasons for Limerick cost and schedule growth, as this document was developed by Company witnesses Boyer, Kemper, Clarey, Helwig, Sproat, Kononetz, Mattson and Love. Their testimony describes and supports its contents. The statement of reasons contained in PECo Exhibit 3 was prepared in order to provide a succinct summary of all areas of the Company's case for inclusion in the record. I have participated in the preparation and review of this document.

Q. Please describe the accounting data which you have prepared to support Supplement No. 15 to Tariff Electric--Pa. PUC No. 26.

A. In support of Supplement No. 15, we have provided Exhibit TPH-1, based on an historic test year ended June 30, 1985, which reflects data from the Company's actual books of account. We have also provided Exhibit TPH-2 based on the future test year ended June 30, 1986, which reflects data drawn from the Company's 1985 and 1986 Budgets. Mr. Albert J. Solecki will discuss in greater detail the Company's budget process, which provides the major source of

information necessary to construct Exhibit TPH-2.

Q. Are you responsible for the information contained in Exhibits TPH-1 and TPH-2?

A. Yes, I am, to the extent I have previously described.

Q. Mr. Hill, will you be explaining all the material which appears in these Exhibits?

A. No. I will explain certain items related to the Company's rate base, and revenue and expense claims. As to certain plant and expense adjustments, I will explain the accounting of the adjustment while other witnesses will address the technical subject matter. Certain portions of Exhibits TPH-1 and TPH-2 will be explained entirely by other Company witnesses. I will note in my testimony where other witnesses are responsible for data presented in Exhibits TPH-1 and TPH-2. These same witnesses are responsible for these same subject areas in PECo Exhibit No. 1.

My testimony will concentrate on Exhibit TPH-2, but I will also explain any significant differences between Exhibit TPH-2 and Exhibit TPH-1. I should also note that Exhibit TPH-1 is presented solely for informational purposes and to comply with Commission regulations. The Company has not attempted to adjust the historic test year data to provide a fully accurate assessment of the Company's revenue requirement.

Q. Would you please describe Exhibit TPH-2, noting significant differences between it and Exhibit TPH-1.

A. Exhibit TPH-2 contains four sections:

Section A presents the summary Tables of Income Available for Return, Measure of Value, Adjustments to Income Available for Return, and Kilowatt-hour Sales and Revenue by Tariff Subdivisions;

Section B contains basic accounting information from the Company's records;

Section C contains data relating to the Measure of Value; and Section D shows details of adjustments to Revenues and Expenses.

Q. Please explain your development of the Company's income available for return under present rates for the test year ended June 30, 1986.

A. We have shown this on page A-1 of Exhibit TPH-2. As indicated on that page, our electric operating income under present rates for the June 30, 1986 test year after all adjustments to a proforma ratemaking basis is $444,781,000. This represents a rate of return of 6.39% on the claimed original cost Measure of Value of $6,963,532,000.

Q. Mr. Hill, I note on page A-1 of Exhibit TPH-2 that total additional operating revenues requested in Supplement 15 equal $681,760,000 and that the estimated fuel savings for Limerick 1 operation are $206,990,000. Why do these numbers differ from figures previously cited (i.e. at page 6) in your testimony?

A. These figures differ because they reflect the annualized sales level at the end of the future test year as shown on

page A-5 of Exhibit TPH-2 (i.e. adjustment D-3). I have not used these figures because they are inconsistent with the Company's rate phase-in proposal and were not used in notifying customers of the requested rate increase. For these purposes, we selected to use the total rate increase and fuel savings associated with future test year sales (i.e. not annualized) as a more reasonable valuation of the effects of the proposed increase upon the average customer.

Q. Please discuss the schedules shown in Section A of Exhibits TPH-1 and TPH-2 in sequence including any explanations you consider necessary.

A. Page A-1 presents the income available for return and the rate of return at the present and proposed rate levels. Actual TPH-1 or budgeted TPH-2 revenue, expenses, and income were taken directly from the Electric Operating Income Statement shown on page B-9 of the respective Exhibits and were adjusted for the items shown on page A-3 to derive the proforma income at present rates. The proforma income at present rates was then adjusted to reflect the higher rates of Supplement No. 15 to derive the operating income available for return under the proposed rates.

Page A-2 shows the Measure of Value of electric plant at original cost. The numbers used in development of the measure of value are referenced and will be explained more fully in the discussion of Sections B and C.

The Company has reduced rate base by all accumulated

deferred income taxes associated with accelerated amortization of property and liberalized depreciation on plant in service. Customer Deposits and Customer Advances, which are supplied by ratepayers, are also eliminated from the rate base calculation.

Page A-3 lists the 21 adjustments we have made to income for return. The first 20 adjustments increase income by approximately $16.8 million in the June 30, 1986 test year. The details of each adjustment are included in Section D. The last adjustment, shown on page D-21, reflects reductions in energy expenses resulting from the inclusion of Limerick Unit No. 1 in rates to serve Pennsylvania jurisdictional customers. This adjustment reduces revenue requirements to customers but has no effect on operating income for PECo. I will discuss this adjustment in further detail in the Section D portion of my testimony.

Page A-4 indicates the effect on income for return of Supplement No. 15 and highlights the associated fuel savings from the inclusion of Limerick Unit No. 1 in rates.

Page A-5 shows the number of customers, kwh sales, revenue and revenue increases by tariff subdivisions.

Q. Turning to Section B, please discuss its contents.

A. Section B information in Exhibit TPH-1 was taken directly from the Company's actual accounting records. The data in Exhibit TPH-2 for the specific 12-month period ended June 30, 1986 is taken from the Company's 1985 and 1986 budgets.

Q. Please continue the presentation of Section B with a page-by-page discussion of its contents.

A. Pages B-1 and B-2 of Exhibit TPH-2 represent the Company's estimated balance sheet at June 30, 1986.

Pages B-3 through B-6 show the original cost by plant accounts at test year end of the Company's electric plant and common utility plant, a portion of which is allocated to electric service by the allocation factor developed on page B-17. Mr. Smith is available to explain the Company's accounting procedures used in the development of plant in service.

Page B-7 displays the book reserve for depreciation for the Company's electric plant and electric portion of common plant. Mr. Wroblewski is available to explain the Company's accounting procedures used in the development of its book reserve for depreciation.

Page B-8 shows the consolidated income statement for the Company and its subsidiaries.

Page B-9 presents the operating income statement for the Company's electric operations.

Pages B-10 through B-14 show by primary accounts the expense items for electric operations. I am responsible for preparation of these schedules and for the explanation of historic versus test year claimed expense levels, except in the case of production plant expenditures explained by Mr. Carroll, depreciation explained by Mr. Wroblewski, taxes explained by Mr. Sileo, and nuclear decommissioning

and spent nuclear fuel disposal explained by Mr. Wright.

Pages B-15 and B-16 show the computation of federal income tax and the development of electric operations share of the rate base adjustment for accumulated deferred taxes. Mr. Sileo is available to explain and support the Company's claimed income tax expense.

Page B-17 develops the factors for allocating common utility plant to electric operations. The allocation of the common plant in each Exhibit was made on the basis of the estimated plant investment, revenue, and customers at June 30, 1986 for each type of service.

Page B-18 shows the calculation of the effective income tax rate which is supported by Mr. Sileo.

Pages B-19 and B-20 list the Company's long-term debt and preferred stock outstanding and develops the associated embedded cost for each test year period. Mr. Brennan will explain the development of the Company's embedded cost of long-term debt and preferred stock.

Q. Will you now turn to Section C, the next section of your Exhibits, and explain what is covered there?

A. This section provides the detailed development of the major components that make up the measure of value shown on page A-2.

Q. How do you determine that all plant reflected in the claimed measures of value is used and useful?

A. The Company maintains a detailed system of capital authorizations, covering plant additions and retirements,

under which any unit permanently taken out of service is recorded in the field and that information is transmitted to the Plant Accounting Division where the necessary retirement accounting entry is made. Most retirements occur in connection with a capital improvement project, which supplants the units retired, so that the retirement work order is usually part of a construction authorization. Maps and operating records maintained by the field operating forces provide a running record of physical facilities in service and Plant Accounting Division maintains a cross-check through their related financial records. Our Internal Auditing Division periodically reviews both plant accounting and operating records for accuracy and to insure that changes in property are properly reflected in the accounts.

Page C-1 contains a general description of the Company's claimed measure of value.

Pages C-2 and C-3 summarize by plant groupings the utility plant in service for each test year showing both the original cost and book depreciation reserve. Mr. Smith explains the Company's accounting procedures and the FERC and PaPUC audits which assure that all property contained within these accounts is in fact in service.

Page C-4 provides a description of annual and accrued depreciation and amortization calculations used in the determination of measure of value. Mr. Wroblewski's testimony explains the basis of these annual depreciation

calculations and also the development of the book depreciation reserve.

Pages C-5 through C-6 summarize the annual provision for depreciation.

Page C-7 provides the terminal dates for production plant utilized under the remaining life method of depreciation. The establishment of these dates will be explained by Mr. Rush.

Page C-8 develops the Company's claim for non-revenue producing construction work in progress. This schedule will be discussed by Mr. Wright.

Page C-9 lists land held for future use. This schedule also will be explained by Mr. Wright.

Page C-10 displays the Company's claim for Electric Operation's materials and supplies. This schedule will be explained by Mr. Carroll and Mr. Wright.

Page C-11 reflects the Company's investment associated with Limerick Unit No. 1 in Account 120.3, Nuclear Fuel Assemblies in Reactor. This investment is reflected in Account 120.3 in conformance with the requirements of the Federal Energy Regulatory Commission's Uniform System of accounts which states as follows:

> "This account shall include the cost of nuclear fuel assemblies when inserted in a reactor for the production of electricity."

Since this nuclear fuel investment is essential for the operation of the plant, it is proper that a normalized

level of investment be included in the Company's rate base claim.

Unlike Salem and Peach Bottom fuel which are leased, Limerick Unit No. 1 fuel is owned by the Company. Lease payments provide for both elements of capital recovery, a recovery of investment and a return on investment. For Limerick Unit No. 1, recovery of the investment in nuclear fuel occurs through the Energy Cost Rate as the fuel is consumed. In order to provide for a return on invested capital, rate base inclusion is necessary. A similar claim made by the Company for its Salem Unit No. 1 nuclear fuel investment (prior to its current lease arrangement) was found to be reasonable and was accepted by this Commission in its orders at RID 438 and R-79060865.

The period March 1986 to March 1988 was used to develop the nuclear fuel in reactor claim for several reasons. First, since Limerick is scheduled for commercial operation beginning February 15, 1986, the use of the test year average or year end balance would overstate the claim as it is not representative of a normal period of operation. Second, the period chosen includes a refueling outage which is part of the normal operation of the plant. Use of a one-year period would exclude any refueling outage and understate the average amount of nuclear fuel in reactor. Finally, the two-year average properly reflects the anticipated period rates established in this proceeding will be in effect.

Page C-12 details the levels and requirements for cash working capital at the historic and future test year ends. This schedule will be explained by Mr. Wright.

Q. Would you please explain Section D of your Exhibits?

A. Section D contains the adjustments required to place budgeted or actual operating revenues and expenses on a normalized, year end ratemaking basis in conformance with prior Commission rulings. These detailed adjustments are summarized on pages A-3 and A-4 of the Exhibits and then carried forward to page A-1 to derive proforma operating income at both present and proposed rates.

Q. Please describe the review you performed to determine that the Company's claimed revenues and expenses are "normal" and thus properly claimed for recovery during future periods?

A. There are several steps involved in my review of the future test year claim. First, I compare the budgeted revenues and expenses in the future test year versus those in the historic test year and preceding years. Next, I review any significant changes as shown in filing interrogatory II-D-1 or as developed from my first analysis described above with the responsible individuals to determine reasons for the changes and whether amounts should be included in the test year, excluded from the test year or whether any amortizations or normalization adjustments are necessary. I am specifically responsible for performing this review, i.e. to assure that claimed revenue and expense levels are

"normal" and therefore a proper claim, for (1) transmission and distribution expenses, (2) customer accounts, (3) customers service and informational expense (4) sales expense, and (5) administrative and general expenses. Mr. Carroll is responsible for performing this review for production expenses, Mr. Sileo is responsible for taxes and Mr. Wroblewski is responsible for depreciation. Third, I review with the appropriate divisions and departments data contained in my accounting exhibits and related filing interrogatories to assure that none of this data suggests the need for further adjustment. In conducting these reviews, I consider the effects of the D Schedule adjustments and rely upon my knowledge and that of the responsible technical managers of the contents of these expenses and of major Company or department actions that affect their "normalcy".

Q. Please discuss the Section D schedules in sequence including any explanations you consider necessary.

A. The adjustment on Page D-1 eliminates the state taxes covered by the State Tax Adjustment Clause (STAC) and an amount of revenue equal to those taxes. There is no net effect on income available for return because equal dollars of revenue and taxes are removed. Mr. Sileo will support this adjustment.

Page D-2 reflects the full year revenue effect of Tariff No. 26, Supplement 11, which became effective January 25, 1985. This adjustment is applicable only to

the historic test year. Mr. Wright will discuss this adjustment.

Q. Please describe the Company's adjustment shown on page D-3 of the Accounting Exhibits.

A. Page D-3 summarizes the effects on annual revenues, expenses, income taxes and operating income to reflect the annualization to test year end levels for (1) customers added during the test year periods, and (2) the growth/decline in usage of existing customers. The methodology utilized by the Company in this adjustment is exactly the same as that previously accepted by the Commission most recently in its Order at R-842590. This methodology is shown on pages D-3a and D-3b of Exhibits TPH-1 and TPH-2.

Page D-3a of Exhibits TPH-1 and TPH-2 shows the three year average annual growth for residential, house heating, small commercial and large industrial customers. One half of this average annual growth is multiplied by the number of customers on the system at the beginning of the test year to yield the increased/decreased usage in kilowatt-hours. This is based on the assumption that growth was uniform throughout the test year so that annualization is required for the remaining one-half of the test year. This increased/decreased usage due to growth of existing customers is then multiplied by the average base revenue for each class of customers as obtained from page A-5.

Also shown on page D-3a is a summary of the annualization of usage of customers added during the year. It is estimated that these customers were added uniformly throughout the year so that the annualization is required for the remaining one-half of the test year usage of the new customers. Therefore, one-half of the number of customers added during the test year is multiplied by the average use per customer in each rate classification during the test year to obtain the increased/decreased sales in kilowatt-hours that would result from these new customers had they been served for a full 12 months. The increased/decreased sales in kilowatt-hours are multiplied by the average base revenue obtained from page A-5 to yield the increased/decreased revenue due to this annualization of new customer usage.

An increase in operating expenses resulting from the increase in sales developed on page D-3 could consist of fuel costs as well as other incremental operation and maintenance costs such as incremental production costs other than fuel, distribution expenses and customer-related costs. In order to be conservative in its claim, the Company has included only the increase in base fuel expense, as defined by the Energy Cost Rate, for this adjustment.

The net increase in revenue resulting from the adjustment for each period is carried forward to D-3 where after deduction of the 2% Gross Receipts Tax, the increase

in operating expenses and the increase in income taxes, the net increase in income for return is shown.

Page D-4 eliminates from the test year data the revenues and expenses covered by the energy cost rate (ECR). For the test year ended June 30, 1986, the Electric Energy Cost Rate revenue including the 4.5% Gross Receipts tax is ($53,711,000). This revenue is removed from the test year. The total energy cost allocated to Philadelphia Electric Company Electric Operations for the 12 months ended June 30, 1986 is $509,710,000 of which ($218,208,000) was deferred so that the net fuel and interchanged expense for the year is $727,918,000. The portion of this fuel expense recovered in base rates is $779,209,000 so that the net fuel expense to be removed is ($51,291,000).

When the Gross Receipts Tax of ($2,420,000) is added to the fuel expense of ($51,291,000) the total expense removed is ($53,711,000) which is exactly equal to the fuel revenue to be removed. There is no effect on income for return.

The same methodology was used for the D-4 adjustment included in Exhibit TPH-1.

Page D-5 presents the Company's annualization of wage rates, benefits and number of employees for each of the test years. This adjustment in the historic test year shown in Exhibit TPH-1 adjusts historic labor expenses to annualize for known increases in wages and benefits. Actual regular payroll data for June 1985, as set forth on

page D-5a, is initially annualized to reflect the wage increase which became effective on August 1, 1984. The resulting figure is then further adjusted for the August 1, 1985 wage increase of 5.4%. The 12-month average overtime percentage experienced during the historic test year of 17.5% is then applied to the increase in regular payroll costs. Finally, comparable adjustments are made to annualize for the effect of increased pensions and employee benefits included in the actual August 1, 1984 and August 1, 1985 wage packages. The total annual costs of these changes are developed for combined operations and that portion allocated to Electric Operations is determined.

A similar adjustment is set forth on page D-5 of Exhibit TPH-2 to annualize increased wages and employee benefits effective August 1, 1985 and not fully reflected in the test year data. The overtime percentage of 12.2% for the future test year is based on the June 30, 1986 budget data (page D-5a). Similar adjustments to those described above for the historic test year are made for pensions and benefits.

The Company, in previous electric rate proceedings, has included an adjustment for the effect of the wage increase that would occur during the time period new rates are in effect. Although the Company still supports this position, in this particular proceeding, the Company will not claim future wage and benefit increase expenses.

Page D-6 adjusts the annual depreciation expense to a

ratemaking basis reflecting the test-year end plant in service. Mr. Wroblewski is responsible for the technical depreciation and salvage aspects of this schedule.

Page D-7 develops the change in income available for return due to the change in taxes resulting from the computation of tax depreciation and amortization on the basis of year-end plant in service.

Page D-8 develops the change in income available for return from the normalization of tax deferrals on year-end plant and elimination of tax deferrals reflected on D-1.

Page D-9 shows the calculation of the adjustment to income taxes resulting from the allocation of proforma interest charges based on the Company's rate base at the end of the test year. Mr. Sileo is available to discuss pages D-7 through D-9 in greater detail.

Page D-10 adjusts nuclear and fossil plant production operating and maintenance expenses to reflect a normalized level of expenses for ratemaking purposes. Mr. Carroll will discuss these expense adjustments.

Page D-11 eliminates from budgeted operation and maintenance expense all expenses associated with production plant that is being retired. Mr. Carroll will explain this adjustment.

In addition, Table 2 attached to this testimony details the revenue requirement impact associated with these retirements. As set forth therein, the impact of these retirements is a revenue reduction of $11,491,000.

Page D-12 shows the adjustment of book expenses to reflect the amortization of certain types of expenses provided for in prior rate proceedings. Detailed supporting data is set forth on page D-12a. Previously approved amortizations include rate case expenses, turbine lease cancellation, storm damage expenses, office automation equipment expenses, abandoned engineering at Chester Station, Eddystone Unit No. 1 restoration expenses, deferred taxes - State Tax Rate Change and the Pioneer Uravan amortization. Each of these items was approved in the Company's most recent electric proceeding at Docket No. R-842590. The claimed amounts are based on the amortization periods adopted by the Commission.

The Company is also claiming a two-year amortization of rate case expenses associated with the current rate proceeding and the ECR #9 investigation. This two-year amortization period was chosen to be consistent with the proposed period of time between rate cases. The rate case amortization claimed for the current proceedings is $1,340,000. The amortization claim for the ECR #9 related expense is $300,000. The Company is claiming a $1,100,000 amortization for expenses associated with the current Limerick Unit #2 Show Cause investigation. In an effort to minimize the Company's test year expense claim, and still provide for recovery of this expense, a five-year amortization was chosen for this item. In addition, it was felt that investigations of this type, while occurring

periodically, will not occur with the same regularity as standard rate proceedings. Details of rate case and other PaPUC investigation related expenses are provided in response to Commission's filing requirement (II-D-6).

Finally, the Company is claiming a five-year amortization of the $445,000 representing abandoned engineering charges associated with the Heaton-Byberry Transmission Line. This project has been dropped from the Company's 1985-1993 construction forecast and there are no plans to construct the transmission line. The five-year amortization period was used to be consistent with the Commission's Order in R-801225 where Chester Station abandoned engineering was amortized over five years.

Page D-13 shows the adjustment to eliminate revenue and the fuel expense associated with sales to the Borough of Lansdale. Mr. Wright will explain this adjustment.

Page D-14 shows the adjustment to recognize changes in Federal Social Security Tax Laws. Mr. Sileo is available to explain this adjustment.

Page D-15 shows the adjustment for the cost of decommissioning the Company's nuclear units at Peach Bottom, Salem, and Limerick. Mr. Wright and Dr. McCleod will explain this adjustment.

Page D-16 shows the adjustment to include in the test year operating expenses the Company's cost of spent fuel removal based on the terms set forth in the Nuclear Waste Policy Act. Mr. Wright will explain this adjustment.

Page D-17 provides the Company's claim to recover its investment in certain Salem Unit No. 1 nuclear fuel assemblies which were denied recovery through the Company's Energy Cost Rate mechanism. The investment is associated with fuel assemblies that sustained grid strap (fuel assembly binding) damage during a scheduled refueling outage. The Pennsylvania Public Utility Commission Audit report on the Energy Cost Rate for the year ended December 31, 1982 disclosed that the cost of the damaged fuel assemblies were legitimate costs of doing business but the ECR was not the appropriate recovery mechanism. The audit report states that a more appropriate form of recovery would be a base rate proceeding and therefore we are claiming the expenses in this case.

The expense associated with the damaged nuclear fuel assemblies, while not a normal annual operating expense, is an expense that can occur periodically. Since it is not a normal annual operating expense, it is not reflected in the Company's budgeted expenses, and therefore, expenses such as this can only be recovered through an amortization such as that requested. A three-year amortization was selected based on the Commission ordering a three-year amortization of a deferred fuel adjustment in R-801225.

Page D-18 reflects the full-year effect of the operating and maintenance, pensions and benefits, insurance expenses and payroll taxes associated with Limerick Unit 1. All of the budgeted non-fuel production operation and

maintenance expenses, pensions and benefits, insurance and payroll taxes for Limerick No. 1 unit were deferred under the provisions of the Commission Declaratory Order (P-840514). Consequently, this adjustment is required in order to reflect the proper level of test year expenses for Limerick #1. The Limerick pensions, benefits and payroll taxes utilized are based on the estimated Limerick wage costs and the relationship of direct wage costs and pensions, benefits and payroll taxes for Peach Bottom. The insurance expense is the full-year effect of the property and liability coverage that was deferred for budget purposes. Property insurance was based on an allocation of the total Limerick property insurance to Limerick Unit #1 and common. The allocation is based on insurable value. Liability insurance is a fixed rate per nuclear unit. Mr. Carroll will provide a detailed explanation of the nuclear production operating and maintenance expense adjustment. Mr. Cotton describes the specific activities at Limerick which are funded by these expenditures.

Page D-19 adds in the additional income which would result if the requested system average rate of return was obtained from non-Pennsylvania jurisdictional customers. The Company's cost of service study WFS-1 shows that the current rate of return from the FERC jurisdictional sales and the interdepartmental sales is lower than the overall average Company rate of return sought in this case. This adjustment increases Philadelphia Electric Company's income

for return by $5,526,000. Since this adjustment is based on the Pennsylvania jurisdictional return level, it should be adjusted to reflect the revenue level granted by the Commission in its final order.

A similar adjustment done in exactly the same manner is shown on page D-19 of Exhibit TPH-1 and yields a similar increase in income for return.

Page D-20 reflects a full-year's amortization of utilized investment tax credit on qualifying plant placed in service during the test year. The effect of the adjustment is to place the ITC amortization on a year-end basis. Mr. Sileo will provide a detailed explanation of this adjustment.

Page D-21 adjusts the Company's energy costs to reflect the savings anticipated from the operation of Limerick 1. Specifically, the Company has reduced the cost of energy reflected in base rates by 7.505 mills per kilowatt-hour to reflect energy savings anticipated from the normalized operation of Limerick 1. This net effect is summarized on pages A-4 and A-5 of Exhibit TPH-2. Mr. Carroll will explain the derivation of the reduction calculated on Page D-21.

Q. Mr. Hill, are you aware of the Commission's Order at Docket C-78080459, entered on September 4, 1985, which requires as part of a rate case the filing of certain data and compliance with certain requirements related to the Company's lobbying and certain other activities?

A. Yes, I am.

Q. Has the Company, in the present rate filing, filed the data or complied with the requirements specified by the Order?

A. Not entirely. In preparing the materials filed in this case, the Company did not have sufficient time to respond to all of the additional requirements set forth in the Commission's Order. However, the Company will provide the Commission and all parties of record to this proceeding with an analysis of the matters addressed in the Commission's Order by November 1, 1985.

Q. Does that complete your testimony at this time?

A. Yes.

(Thousand $)

Exhibit TPH-2 Reference				
	Capital Costs			
C-2	Utility Plant in Service	$3,820,000		
C-2	Book Reserve	(38,665)		
C-10	Materials and Supplies	(4,447)		
C-11	Nuclear Fuel in Reactor	82,252		
C-12	Cash Working Capital	6,254		
C-12	Interest and Preferred Dividend Payment Offsets	(19,440)		
B-16	Liberalized Depreciation on Plant in Service	(135,585)		
	Total Measure of Value	$3,710,369 x 20.23%(a)		$750,608
C-5	Book Depreciation $102,737/(1-T)/(1-GRT)			208,699
D-7a	Tax Depreciation $262,069 x T = $130,426/[(1-T)x(1-GRT)]			(264,947)
D-8a	Excess Tax Depreciation $202,796 x FT = $93,286/[(1-T)x(1-GRT)]			189,501
D-20	ITC Amortization $10,313 + 2,334(b) = $12,647/[(1-T)x(1-GRT)]			(25,691)
	Total Revenue Requirements for Capital			$858,170
	Less Non Jurisdictional Customers			9,372(c
	Total Revenue Requirements for Capital - Pa. Jurisdictional			$848,798
	Operating Costs			
D-10a	Outage Expenses		13,506	
D-15	Decommissioning Cost		3,253	
D-16	Spent Fuel Cost		6,247	
D-18	Operating and Maintenance Costs		75,740	
	Operating Cost		$98,746	
	Gross Receipts Tax		2,015	
	Total Operating Cost			$100,761
	Total Revenue Requirement			$949,559
D-21	Less: Fuel Savings - PA Jurisdiciton			207,537
	Net Revenue Requirement			$742,022

(a) Rate of Return Component

	Capitalization	Cost	Wtd Cost	PreTax Rev Req
Debt	50.7	10.84	5.50	5.50
Preferred	10.8	10.54	1.14/ (1-T)	2.27
Common Equity	38.5	15.75	6.06/ (1-T)	12.06
	100.0			19.83/(1-GRT)=20.23%

(b) Limerick Amortization reflected in 1985 budget

Note: T = Effective Tax Rate @ 49.768% (B-18)
GRT = Gross Receipts Tax Rate @ 2% (A-4)
FT = Statutory Federal Tax Rate @ 46% (B-18)

(c) Reflects only portion associated with Limerick Unit #1 and 100% common

Southwark, Richmond and Miscellaneous
Combustion Turbine Revenue Requirement
(Thousand $)

Capital Costs		
Utility Plant in Service		
Land	($2,389)	
Depreciable Plant	(104,308)	
Total	($106,697)	
Less Book Reserve	(104,308)	
Net Plant	($2,389)	
Materials and Supplies	(500)	
Cash Working Capital	(729)	
Total Revenue Reduction A/C Measure of Value	($3,618) x 20.23%(a) =	($732)
Less: Non Jurisdictional Customers		(12)
Total Net Revenue Requirement for Capital		($720)
Operating Costs		
D-11 Test Year Operating and Maintenance Cost (excluding fuel)		($10,556)
Gross Receipts Tax @ 2%		(215)
Total Operating Cost		($10,771)
Total Reduction in Revenue Requirements		($11,491)

(a) Rate of Return Component

	Capitalization	Cost	Wtd Cost	PreTax Rev Req
Debt	50.7	10.84	5.50	5.50
Preferred	10.8	10.54	1.14/ (1-T)	2.27
Common Equity	38.5	15.75	6.06/ (1-T)	12.06
	100.0			19.83/ (1-GRT)=20.23%

PECo Statement No. 18A

8M 12-11-85

pcb 9

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PHILADELPHIA ELECTRIC COMPANY

DOCKET No. R-850152

RECEIVED
DEC 13 1985
SECRETARY'S OFFICE
Public Utility Commission

SUPPLEMENTAL TESTIMONY

OF

THOMAS P. HILL, JR.

DOCKETED
DEC 18 1985

ANALYSIS OF THE COMMISSION ORDER
AT DOCKET R-78080459;
EXPLANATION OF CHANGES IN CERTAIN
RATE BASE AND EXPENSE CLAIMS

NOVEMBER, 1985

DOCUMENT
FOLDER

Q. Mr. Hill, have you previously filed Direct Testimony in this case?

A. Yes, I have. My Direct Testimony was submitted with the Company's initial filing, on September 27, 1985, as Statement No. 18.

Q. What is the purpose of your supplemental testimony?

A. The purpose of my supplemental testimony is three-fold: 1) to respond to the Commission's recent Order in the Keystone Alliance Case at Docket No. C-78080459; 2) to present several additions and corrections to the Company's claim as filed to reflect new information and events which have come to the Company's attention after the filing, and 3) to provide the actual results of operations for the first three months of the future test year.

Q. Mr. Hill, please describe the results of the Company's review of the Commission's Order at Docket No. C-78080459.

A. On September 4, 1985, the Commission entered its final Order in the Keystone Alliance case at Docket No. C-78080459. The Commission's Order finds that certain expenses incurred by the Company should not be recovered from ratepayers, and that the Company should provide information on certain other expenses in future rate proceedings. A copy of the Commission's Order is provided as Schedule 1. The Company believes that the Commission's Order is in error and has appealed the Order to the Commonwealth Court. Therefore, in the Company's view, any adjustment in the current rate proceeding would be

premature. However, in order to provide a complete record in this proceeding, the Company has reviewed each of the 13 paragraphs in the Commission's Order to determine the amount of expense included in the Company's test year claim in this proceeding for each of the programs and items referenced in the Commission's Order, as follows:

Paragraph 1. The total amount of expenditures associated with Energy Education Advisory Council (EEAC) related activities included in the test year is $631,412. These expenses are recorded in FERC Accounts 909, 920, 921.

Paragraph 2. Ms. Mollie McCormick is no longer in PECo's Law Department. She is currently employed in Corporate Communications Department's Public Affairs Section. Ms. McCormick's salary is charged below the operating income line to FERC Account 426, along with other lobbying expenses, and therefore is not included in the Company's test year expense claim. The $6,600 in fringe benefits for Ms. McCormick are charged to FERC Account 926 and are included in the test year claim.

Paragraph 3. The Company's test year expense claim includes $11,000 as a payment to Reverend Cecil D. Gallup as a consultant to PECo's Corporate Communications Department. This expense is recorded in FERC Account 921.

Paragraph 4. The portion of employee salaries and fringe benefits related to Speaker's Bureau activities cannot be directly determined since the Company's payroll system is not designed to provide such an allocation. While the

exact costs are not specifically determinable, I have prepared an estimate of these costs. As set forth in Schedule 2, assuming three hours of employee time per program and assuming that all engagements are on Company time, an estimated $54,000 in electric operations employee wages and benefits are attributable to the Speaker's Bureau program. The development of this estimate is shown on Schedule 2. In the Company's view all of the speaking engagements provide important information to ratepayers and therefore are of direct benefit to ratepayers and should be reflected in rates. Moreover, it is the Company's understanding that Judge Kranzel's Recommended Decision was concerned only about speaking engagements on nuclear or nuclear related topics. As shown on Schedule 2, approximately 30% of the speaking engagements deal with nuclear-related topics and the estimated expenses associated with these engagements would be $16,000. However, I should note that this $16,000 estimate is significantly overstated since many of the speaking engagements are on the employees personal time at no cost in salary or fringe benefits to the Company.

Paragraph 5. The Company's test year claim contains $28,400 in contributions on behalf of the Utility Nuclear Waste Management Group. This expense is recorded in FERC Account 930.2.

Paragraph 6. The Company's test year claim includes $755,830 in expenses for PECo's contribution on behalf of

Edison Electric Institute TMI-Projects. This expense is recorded in FERC Account 930.2.

Paragraph 7. The Company's test year claim includes $5,600 in expenditures on behalf of Life Jobs. This expense is recorded in FERC Account 930.2.

Paragraph 8. The Company's test year claim contains $42,000 in expenditures on behalf of the American Nuclear Society. This expense is recorded in FERC Account 930.2.

Paragraph 9. The Company's test year claim includes no contributions to or expenditures on behalf of Americans For Energy Independence.

Paragraph 10. Budgeted expenditures by Corporate Communications in the current test year, excluding Muddy Run, and less expenditures disallowed in the Commission's Order, exceed the absolute level of 1978's expense by $3,748,432. As shown in Schedule 3 after the application of a wage adjustment to 1978 expenses to account for general wage increases granted by the Company and allowed by this Commission in prior rate orders, the difference is reduced to $1,240,786. Moreover, since 1978 the size and scope of the Corporate Communications Department have grown significantly. The public currently requires significantly more information about Company operations, conservation, safety and rates. As a result of the increase in the public demand for information, Corporate Communications staff has increased from 76 to 95 or 25% since 1978. This increase in staff necessitated by customer and media

requirements for information is the primary cause of the $1,240,786 adjusted increase over 1978's level of expenditures. The Company does not believe it was the intent of the Commission's Order to ignore wage inflation and necessary staff increases since 1978, and that the Corporate Communications expense claimed by the Company is just and reasonable when properly compared to 1978 levels.

Paragraph 11. Lobbying activities on behalf of PECo are conducted by the Public Affairs Section of the Corporate Communications Department. The Public Affairs Section has five employees, of which four are registered lobbyists. Eighty percent of the Public Affairs Section expenses are charged below the line to lobbying expense in FERC Account 426. The remaining 20% of expenses are charged to Electric (Accounts 920 and 921), Gas and Steam Operations. Since all lobbying expenses are booked to Account 426, the Company's test year expense claim contains no lobbying expenses.

Paragraph 12. There are no expenses in the test year associated with the litigation of Docket Number C-78080459.

Paragraph 13. Schedule 4 provides a list of industry associations to which the Company pays money for itself or its employees. The total amount paid to these associations included in the test year is approximately $1.1 million. This expense is recorded in Account 930.2. Provided below is a description of each association and the benefits to ratepayers of Company membership.

The Edison Electric Institute (EEI) is a nationwide industry organization to which the Company belongs. The organization's programs cover numerous areas ranging from Load Research and Rate Design to Depreciation Methods and Accounting Policies to Industry Safety. These committees enable members of the association to keep abreast of current changes or advances in the different areas of the industry. Current information in these areas is necessary to operate a utility properly and therefore benefits the ratepayer through improved operations.

The Pennsylvania Electric Association (PEA) is a statewide industry organizaton to which the Company belongs. This association helps the Company keep abreast of the changing regulatory environment through analyzing new and proposed regulations. Current knowledge on the impact of new and proposed legislation is necessary for the Company to properly operate its system and therefore is a proper cost of doing business which directly benefits the ratepayer.

The Electrical Association of Philadelphia is an association of electrical contractors. The Company serves as the coordinator of the association. The Association's goal is to assure that all associated contractors maintain proper safety standards and are up to date in industry standards, i.e. ASHRAE Standards. The Company considers it of utmost importance to itself and its ratepayers to have contractors that the ratepayers know will do a safe job and

conform to the most recent standards.

The Atomic Industrial Forum is a trade association for the nuclear power industry. AIF analyzes new and proposed regulations regarding nuclear power, and monitors new technologies in the industry. Such information, especially regarding the ever-changing technology and regulation of the nuclear industry is of great benefit to companies such as PECo with a large investment in nuclear power. For example, up-to-date knowledge in areas such as spent fuel disposal and safer plant operations provides for safer and, in some cases, improved operations, and clearly benefits ratepayers.

The American Nuclear Energy Council monitors current legislation regarding nuclear power. Knowledge of pending changes can be beneficial to the Company for planning purposes. Better planning provides for more efficient operation and thus benefits ratepayers.

Q. Mr. Hill, please summarize the additions and corrections to the Company's expense and rate base claim in this proceeding.

A. Several additions and corrections have been made to reflect new information, subsequent events and minor errors discovered after filing. These changes consist of: 1) a revision to the insurance claim for Limerick, 2) the addition of a storm damage claim, 3) a revision to local real estate tax expense, 4) a claim to recover the Company's investments in the Sequoyah Uranium Project and

the Lee Mine Uranium Supply Project, 5) the removal of the Bradshaw Reservoir construction project from rate base, 6) a change in Delaware #7 and #8 expected retirement dates, and 7) a correction to the Company's rate base claim for Number 2 oil inventory. My supplemental testimony will describe each of these changes and the schedules attached will provide supporting data where appropriate. Details on certain of these adjustments can be provided by the specific witness responsible for the details of the individual adjustment. The Company has chosen to present these additions and corrections at this time rather than at the Pre-Hearing Conference in order to provide the parties with additional time to review and consider these changes in the preparation of their cases. The total effect of these adjustments is to reduce the Company's overall revenue requirement by approximately $2.6 million. All of the adjustments included herein will be incorporated into the Company's final accounting exhibit and at that time the full effect of the adjustments (i.e. including effect on cash working capital) will be presented.

Q. Please describe the proposed adjustments to the Company's claimed expenses.

A. The first adjustment is to Limerick insurance expense (D-18). As filed, the Company's claim was $5,534,000. After filing, the Company discovered that the premiums are going to be higher in 1986 than initially projected due to an expected 25% increase effective January 1986 for the

cost of liability and replacement power coverage, and that due to an oversight the original claim included only 50% of common plant. The proposed adjustment increases the Company's claim from $5,534,000 to $6,435,000 and reflects both the higher premium ($339,000) and the inclusion of 100% of common facilities ($562,000). A revised D-18 adjustment is presented on Schedule 5.

The second adjustment to the Company's claim is to request recovery of an estimated $2 million in storm damage expense resulting from Hurricane Gloria on September 26-27, 1985. The Company does not budget costs associated with such storms, and though we insure for damage, the insurance deductible is $3.75 million. The Company therefore requests approval to recover the $2 million in storm damage expense through a three-year amortization allowance of $667,000 per year. This request is consistent with the three-year period employed by the Commission to amortize storm damage at Docket No. R-842590. Schedule 6 provides the details of this adjustment which will be included in the final accounting exhibit as page D-22.

The third revision is for local real estate tax expense. In further reviewing the Company's filing it was revealed that the 1985-86 Budget used to develop the Company's claim did not contain any real estate taxes for the Essex MgO facilities located in Newark, New Jersey. These taxes will be $1,212,000 per year, based on current payments. This expense will be included in FERC Account

950. Schedule 7 provides details of the proposed adjustment, which will be included as page D-23 in the Company's final accounting exhibit.

The fourth revision to expenses is a claim for the recovery of a loss on a major portion of the Company's investment in the Salem Nuclear Fuel Commitments, and on the write-off of the Lee Mine Uranium Supply Project. The Company was informed on October 3, 1985, that the Sequoyah Project portion of Salem Nuclear Fuel Commitments was terminated effective September 15, 1985. Additionally, the Company will be writing off its investment in the Lee Mine project in November 1985, as a result of an agreement with its joint owner, Quivira Mining Company, in which the Company will exhcange its current 50% equity interest in the project for an in-kind production royalty on any ore mined from the project. These projects were prudent investments initiated to secure uranium supplies for the Company's nuclear power stations. The recovery of the Company's investment therefore is reasonable and appropriate.

The Company currently has $12,094,000 invested in these projects. There will be no collateral received as a result of project termination. In developing this claim, the Company is deducting from the investment, $1,554,000, representing actual revenues collected from customers as a result of including the above investments in rate base at Docket R-811626.

The Company is requesting that the Commission allow recovery of the net investment ($10,540,000), net of tax savings, over a five-year period beginning with the effective date of rates in this proceeding. The Company is not seeking a return on the unamortized balances. This adjustment results in an annual increase to expense of $1,322,000 and an increase in revenue requirement of approximately $2.7 million. The method used to calculate the amount recoverable from ratepayers is consistent with the methodology used by the Commission at Docket No. R-842590 for recovery of the Company's investment in the Pioneer-Uravan project. Schedule 8 provides the details of this proposed adjustment, which will be included as Page D-24 of the Company's final accounting exhibit.

Finally, subsequent to filing the case, the Company has determined that in order to avoid capacity deficiency charges on the PJM Interconnection during the 1988 to 1990 period, it would be prudent to delay retirement of Delaware #7 and 8 Units from 1988 to 1990. This delay results in a reduction in depreciation accrual of approximately $2.6 million and an estimated increase in deferred taxes due to normalization of $65,000. As shown on Schedule 9 the net adjustment results in an estimated $5.2 million reduction in revenue requirements. This adjustment will be reflected in the Company's final accounting exhibit.

Q. Please describe the changes to the Company's rate base and the reasons for these changes?

A. The Company's $3.82 billion rate base claim for Limerick 1 and common plant includes $12.9 million associated with construction at the Bradshaw Reservoir site. Since it is apparent that the Bradshaw Project will not be completed and in service by the end of the future test year, the Company is eliminating the investment in plant, depreciation reserve and the annual depreciation accrual from its claimed rate base. Schedule 10 shows the development of the estimated $2.7 million reduction in revenue requirements from this change. Included on this Schedule are the reserve, accrual and accumulated deferred taxes associated with Bradshaw.

In addition, Mr. Carroll is revising the claimed inventory for No. 2 oil from 263,000 bbls. to 228,000 bbls to correct a math error. This results in a $1,117,200 reduction to the Comany's fuel inventory claim as shown on page C-10. Schedule 11 provides a copy of the revised C-10. Both of these rate base adjustments will be included in the Company's final accounting exhibit.

Q. Mr. Hill, has the Company a prepared exhibit to compare actual versus budget data for the first three months of the future test year?

A. Yes, in accordance with Commission regulations, the Company has prepared Exhibit TPH-3 (Attached as Schedule 12) which compares the results of actual operations to the budget for the first three months of the future test year.

Q. Does that conclude your supplemental testimony?

A. Yes.

PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17120

Public Meeting held August 28, 1985

Commissioners Present:

Linda C. Taliaferro, Chairman, dissenting
James H. Cawley
Frank Fischl
Bill Shane

Keystone Alliance
V.
Philadelphia Electric Company

C-78080459

ORDER

BY THE COMMISSION:

We adopt as our action the Initial Decision of Administrative Law Judge Isador Kranzel dated August 31, 1983, and that Exceptions be denied; THEREFORE,

IT IS ORDERED:

1. All expenditures by PECO on behalf of its Energy Education Advisory Council programs, including program materials, payments to consultants and salaries of PECO employees engaged in EEAC-related activities, shall henceforth be classified as a contribution, with such expenditures being disallowed as an expenditure to be borne by the ratepayers in the current PECO rate proceeding at R-822291.

2. The salary, including fringe benefits, of Ms. Mollie McCormick of PECO's Law Department shall henceforth be classified entirely as lobbying and, therefore, disallowed as an expense charged to the ratepayers in the current PECO rate proceeding at R-822291.

3. All payments to Reverend Cecil D. Gallup, a consultant to the Corporate Communications Department, shall be classified entirely as lobbying and, therefore, disallowed as an expense charged to the ratepayers in the current PECO rate proceeding at R-822291.

4. Salaries, including fringe benefits, of all PECO employees engaged in Speakers Bureau activities shall be reported to the PUC and a calculation shall be made in order to determine that proportion of each employee's time spent on Speakers Bureau activities, so that in future rate cases an appropriate disallowance shall be made for the amount of time spent by PECO employees which is of no direct benefit to the ratepayers.

5. Expenditures by PECO on behalf of the Utility Nuclear Waste Management Group (UNWMG) shall be classified as a contribution and, therefore, shall not be chargeable to the ratepayers in the current rate proceeding at R-822291.

6. Expenditures by PECO on behalf of Edison Electric Institute's TMI-related projects shall be classified as a contribution and, therefore, shall not be chargeable to the ratepayers in the current rate proceeding at R-822291.

7. Expenditures by PECO on behalf of Life Jobs shall be classified as a contribution and, therefore, shall not be chargeable to the ratepayers in the current rate proceeding at R-822291.

8. Expenditures by PECO on behalf of the American Nuclear Society shall be classified as a contribution and, therefore, shall not be chargeable to the ratepayers in the current rate proceeding at R-822291.

9. Expenditures by PECO on behalf of Americans for Energy Independence shall be classified as a contribution and, therefore, shall not be chargeable to the ratepayers in the current rate proceeding at R-822291.

10. Expenditures by the Corporate Communications Department in the amount of $2,829,970, less already disallowed expenditures related to the Energy Education Advisory Council, the Utility Waste Management Group, Life Jobs, the American Nuclear Society, the Edison Electric Institute-TMI, and the Americans for Energy Independence, are to be disallowed as expenses to be borne by the ratepayers in the current PECO rate investigation at R-822291.

11. In all future rate proceedings, PECO is required to specify hours spent by PECO employees in lobbying and to notify the PUC as to the same, so that such expenditures will no longer be borne by the ratepayers.

12. All litigation costs incurred by PECO in the instant case (Keystone Alliance v. Philadelphia Electric Company, Docket Number C-78080459) shall be disallowed as an expense to be borne by the ratepayers in the current PECO rate proceeding at R-822291 and any future rate proceedings where allowances for such costs are requested.

13. In all future rate proceedings PECO is required to specify any payments to industry associations such as the Atomic Industrial Forum, the Edison Electric Institute, the Pennsylvania Electric Association and any other industry association to which PECO pays monies, either on behalf of PECO or its employees, in order to determine whether any such expenditures are of a direct benefit to the ratepayers.

BY THE COMMISSION,

(SEAL)

Jerry Rich
Secretary

ORDER ADOPTED: August 28, 1985

ORDER ENTERED: SEP 4 1985

Philadelphia Electric Company

ESTIMATED SPEAKERS BUREAU COSTS

1984 Speaking Engagement Breakdown

	Total Engagements	% of Total	Nuclear or Quasi-Nuclear Related
Conservation	252	27.5%	
Rates	180	19.7	
Nuclear Power	144	15.7	15.7%
Energy Alternatives	133	14.5	14.5
Safety	104	11.3	
Community Programs	103	11.3	
	916	100.0%	30.2%

Assumptions

- 916 is a normal number of engagements
- Three hours per engagement (includes travel time)
- Assume 90% of hours allocated to Electric Operations
- Assume all engagements on Company time.

Calculation of Cost

Total Payroll (Regular Time)	=	$424,256,000	(D-5a, TPH-2)
Total Pensions & Benefits	=	93,420,000	(55,118(C-12a, TPH-2) /59 (D-5, TPH-2)
Total Labor Related Expenses	=	$517,676,000	
Employees @ 6/30/86	=	11,286	
Average Per Employee	=	$45,869	
Employees Allocated to Electric (a)	=	1.19	
Cost Allocated to Electric	=	$54,370	
Nuclear Related	=	30.2%	(from above)
Total	=	$16,418	

(a)

916	Engagements
x 3	Hours
2,748	Hours
x .9	Allocated to Electric
2,473	Hours
/ 2080	Hours/Person-Year
= 1.19	Person-Years

Philadelphia Electric Company
CORPORATE COMMUNICATIONS EXPENSE

1978 Corporate Communications Expense (Excluding Muddy Run) = $3,482,841

Wage Increases

1978 = 2.9% (7.0% x 5/12)	1982 = 8.8%
1979 = 7.2	1983 = 6.75%
1980 = 9.5	1984 = 6.0%
1981 = 9.75	1985 = 5.4%

Cumulative Wage Adjustment Factor =
(1.029)(1.072)(1.095)(1.0975)(1.099)(1.0675)(1.06)(1.054)
= 1.72

Inflation Adjusted 1978 Corporate
Communications Expense = $3,482,841 x 1.72 = $5,990,487

Employees in 1978 = 76
Current Level = 95
Increase = 25%

	W/O Inflation	W/Inflation
June 30, 1986 Test Year Corporate Communications =	$8,694,515	$8,694,515
Less: 1978 Corporate Communicatons =	3,482,841	5,990,487
Excess of Test Year Expenses Over the 1978 Level =	$5,211,674	$2,704,028
Less: TMI-Cleanup	631,412	631,412
EEAC Expenses	631,412	631,412
Utility Nuclear Waste Management Group	28,400	28,400
Life Jobs	5,600	5,600
American Nuclear Society	42,000	42,000
Expenses in Excess of 1978 Level	$3,748,432	$1,240,786
Adjustment to Reflect Increase in Staff	870,710 (a)	1,497,672 (a)
Expenses in Excess of the 1978 Level Adjusted for Wage Inflation and Required Staffing Increases	$2,877,222	($256,836)

(a) Adjustment for 25% increase in staff.

	W/O Inflation	W/Inflation
1978 Expense	$3,482,841	$5,990,487
Adjustment @ 25%	870,710	1,397,622

Schedule 4

Philadelphia Electric Company

ASSOCIATION DUES
12 MONTHS ENDING JUNE 30, 1986

American Nuclear Energy Council	$20,625
Atomic Industrial Forum	62,400
Edison Electric Institute	627,000
Electrical Association of Philadelphia	114,800
Pennsylvania Electric Association	313,937
Other	8,650
Total	$1,147,412

Philadelphia Electric Company - Electric Operations

Adjustment to Reflect Full Year O&M Expenses
for Limerick No. 1 Unit
(Thousand $)

This adjustment is necessary to reflect a full year effect of the operating and maintenance expenses associated with Limerick No. 1 Unit which were not included in the original budget data.

Additional information regarding nuclear O&M expenses is contained in the Direct Testimony of J. J. Carroll. Refer to the Direct Testimony of T. P. Hill, Jr. for additional discussion regarding pensions, benefits, insurance and payroll taxes.

Description	Accounts	Amount	
Nuclear O&M Expenses	517 to 532	$63,448	(Carroll)
Pensions and Benefits	926	6,408	(Hill)
Insurance	924, 925	6,435	(Hill)
Payroll Taxes	950	350	(Hill)
Total Annual O&M		$76,641	
Amount Included in Budget		0	
Increase in O&M Expense		$76,641	
Decrease in Income Taxes		38,143	
Decrease in Income for Return		$38,498	

Philadelphia Electric Company - Electric Operations
Adjustment to Reflect Increased
Expenses Resulting From Storm Damage
($1,000's)

This adjustment provides for the expense incurred by the Company as a result of a severe storm which struck the PECo service territory during September of 1985. Although the Company maintains insurance coverage for such events with a group of insurers, this coverage provides for a $3.75 million deductible for each occurrence. Since these expenses are of an extraordinary nature, they were not included in the Company's budget and forecast and therefore have not been reflected in the Company's future test year expenses. Refer to the Supplemental Testimony of T. P. Hill, Jr. for a discussion of this adjustment.

The purpose of this adjustment is to recover, through a three-year amortization, those expenses associated with this storm damage which is not covered by insurance.

Expenses associated with storm damage	$2,000	
Annual amortization over 3 years ($2,000/3)		$667
Less: Income tax @ 49.768%		332
Decrease in income for return		$335

Schedule 7
D-23
11/4/85

Philadelphia Electric Company - Electric Operations
Adjustment to Local Real Estate Taxes
To Include the Essex MgO Facilities
12 Months Ending June 30, 1986

The purpose of this adjustment is to incorporate into the Company's test year expenses the real estate tax on the Essex MgO facilities. These taxes were not included in the Company's budget and forecast. Refer to the Supplemental Testimony of T. P. Hill, Jr. for additional discussion on this adjustment.

Local Real Estate Taxes 12 months ending 6/30/86	$2,019
Local Real Estate Taxes per budget (B-14)	807
Increase Taxes other than Income Taxes	$1,212
Decrease in Income Taxes @ 49.768%	603
Decrease in Income Available for Return	$609

Philadelphia Electric Company - Electric Operations

Recovery of Losses on the
Sequoyah Uranium Supply Project
and the
Lee Mine Uranium Supply Project

The purpose of this adjustment is to amortize over a five year period the loss incurred by PECo as a result of the termination of the Sequoyah uranium mining project and the write-off of the investment in the Quivira/PECo Lee Mine Uranium Mining Project. Discussion of this adjustment is provided in the Supplemental Testimony of Thomas P. Hill, Jr.

	Sequoyah	Lee Mine	Total	Total to be Amortized	5 Year Amortization
Book Cost - 1985	$8,845	$3,249	$12,094		
Revenue Recovered From Customers (a)	1,239	315	1,554		
Book Loss	$7,606	$2,934	$10,540	$10,540	$2,108
AFUDC	2,230	410	2,640		
Tax Loss	$5,376	$2,524	$7,900		
Decrease in Taxes @ 49.768%				3,932	786
Book Loss Net of Taxes				$6,608	$1,322
Reduction in Income for Return					$1,322

(a) Revenue received from customers during the effective period of rates established at Docket R-811626. The effective period was from May 21, 1982 to November 23, 1983.

Philadelphia Electric Company - Electric Operations

EFFECT OF POSTPONING THE RETIREMENT OF DELAWARE #7, #8
($1,000)

Depreciation Accrual

Based on 1988 Terminal Date =	$5,203	(2 Year Remaining Life)
Based on 1990 Terminal Date =	$2,602	(4 Year Remaining Life)
Decrease in Accrual	($2,601)	
Effect on Revenue Requirement	($5,284)	

Deferred Tax Normalization

S/L Tax Depreciation Post 1980 Additions - Filed =	$171
S/L Tax Depreciation Post 1980 Additions - Revised =	$102
Decrease in Tax Depreciation =	$69
Change in Deferred Taxes @ 46% =	$32
Effect on Revenue Requirement =	$65

Total Effect on Revenue Requirement

Depreciation =	($5,284)
Deferred Taxes =	65
Total =	($5,219)

Philadelphia Electric Company

EFFECT OF THE ELIMINATION OF BRADSHAW RESERVOIR
FROM THE COMPANY'S CLAIM
($1,000)

Rate Base

O. C. Plant =	$12,875	
Reserve @ 6/30/86 =	126	(a)
Net	$12,749	
Less: Acc. Deferred Taxes =	636	
Rate Base =	$12,113	
Revenue Requirement @ 20.23% =	($2,450)	

Expense

Decrease in Accrual =	($331)
Decrease in Deferred Tax =	(559)
Increase in Income Tax =	761
Total	($129)
Revenue Requirements	($262)

Impact of
Total Adjustment

Rate Base	($2,450)
Expense	(262)
Total	($2,712)

(a) Based on 4.5 months of depreciation at a 2.60% annual rate.

Philadelphia Electric Company - Electric Operations
MATERIALS AND SUPPLIES
June 30, 1986
(Thousand $)

The adjustment to rate base for materials and supplies is shown below. Regarding electric fuel inventory, the quantities of fuel expressed in either tons of coal or barrels of oil represent design averages required to maintain an adequate fuel supply. The unit price for coal and oil represent the estimated prices as of June 30, 1986. The Direct Testimony of J. J. Carroll provides additional discussion on the Company's fuel inventory claim. The Direct Testimony of R. W. Wright provides additional discussion of the Company's non-fuel materials and supplies.

Electric Fuel Inventory (J. J. Carroll)			
Coal			
Philadelphia Area	204,000 tons @ $47.75/ton =	$9,741	
Keystone	121,000 tons @ $34.47/ton =	4,171	
Conemaugh	119,000 tons @ $37.34/ton =	4,444	
Total Coal Inventory			$18,356*
Oil			
No.6-1.0% Sulphur	100,000 bbls @ $26.00/bbl =	$2,600	
-0.5% Sulphur	350,000 bbls @ $27.00/bbl =	9,450	
No.2	228,000 bbls @ $31.92/bbl =	7,278	
Total Oil Inventory			$19,328*
Plant Materials and Supplies (R. W. Wright)			
Electric operating			
Total			$48,495**
Tools and related equipment			
Electric			$2,221
Stores Expense Undistributed			
Allocated portion $1,199 x 86.188% (a)			1,033
Total Electric Materials and Supplies			$89,433

(a) page B-17

* Refer to the Direct Testimony of J. J. Carroll, for the effect of Limerick on Fuel Inventory

** Non-Limerick materials and supplies = $43,495
Limerick Materials and supplies = 5,000
Total $48,495

Philadelphia Electric Company
Electric Operations
R-850152

Actual Experience in the Future Test Year
3 Months Ended September 30, 1985

October 1985

Philadelphia Electric Company - Electric Operations
STATEMENT OF ELECTRIC OPERATING INCOME
3 Months Ended September 30, 1985
(Thousand $)

		Budget	Actual	Over/Under Budget
OPERATING REVENUE				
	Sales of Electricity:			
440	Residential	$280,023	$262,418	($17,605)
442	Small Commercial and Industrial	106,383	109,168	2,785
	Large Commercial and Industrial	293,541	277,517	(16,024)
444	Public Street and Highway Lighting	9,335	9,455	120
445	Other Sales to Public Authorities	-	-	-
446	Sales to Railroads and Railways	12,969	13,538	569
447	Sales for Resale	6,069	6,173	104
448	Interdepartmental Sales	1,034	1,062	28
	Total Sales of Electricity	$709,354	$679,331	($30,023)
	Other Operating Revenues:			
450	Forfeited Discounts	$2,821	$2,628	($193)
451	Miscellaneous Service Revenues	627	683	56
453	Sale of Water and Water Power	-	-	-
454	Rent from Electric Property	2,583	2,626	43
455	Interdepartmental Rents	470	453	(17)
456	Other Electric Revenues	2,991	4,342	1,351
	Total Other Operating Revenues	$9,492	$10,732	$1,240
	Total Electric Operating Revenues	$718,846	$690,063	($28,783)
OPERATING EXPENSES				
401	Operation and Maintenance Expense:			
	Power Production	$304,609	$286,193	($18,416)
	Transmission	6,062	5,221	(841)
	Distribution	25,479	27,950	2,471
	Customer Accounts	21,249	22,390	1,141
	Customer Service & Information	2,519	2,421	(98)
	Sales	194	229	35
	Administrative and General Expense	36,331	38,886	2,555
	Total Operation and Maintenance Expense	$396,443	$383,290	($13,153)
403	Depreciation Expense	$40,248	$42,028	$1,780
405	Amortization of Other Electric Plant	(160)	(162)	(2)
407	Amortization of Property Losses	420	108	(312)
	Taxes			
408.1	Taxes Other Than Income Taxes	$54,808	$56,254	$1,446
409.1	Income Taxes	53,313	53,070	(243)
410.1	Provisions for Deferred Income Taxes	34,907	4,179	(30,728)
411.1	Inc. Taxes Deferred in Prior Yrs-Credit	(19,666)	(6,866)	12,800
411.4	Investment Tax Credit Adjustments	22,361	30,734	8,373
	Payrop Tax Credit Adjustment	-	-	-
	Total Taxes	$145,723	$137,371	($8,352)
411.6&7	Gain or Loss from Disposition of Utility Plant	-	-	-
	Total Operating Expenses	$582,674	$562,635	(20,039)
	Operating Income	$136,172	$127,428	($8,744)

3 Months Ended September 30, 1985
(Thousand $)

		Budget	Actual	Over/Under Budget
I.	POWER PRODUCTION EXPENSES			
	STEAM POWER GENERATION			
	OPERATION			
500	Operation Supervision	$3,793	$3,535	($258)
501	Fuel	67,938	63,222	(4,716)
502	Steam Expenses	9,067	6,670	(2,397)
504	Steam Transferred - Credit	(6,001)	(4,667)	1,334
505	Electric Expenses	1,960	1,745	(215)
506	Miscellaneous Steam Power Expenses	3,215	3,532	317
507	Rents	3,766	3,770	4
	Total Operation	$83,738	$77,807	($5,931)
	MAINTENANCE			
510	Maintenance Supervision and Engineering	$2,326	$2,570	$244
511	Maintenance of Structures	3,514	2,288	(1,226)
512	Maintenance of Boiler Plant	14,129	14,944	815
513	Maintenance of Electric Plant	3,298	2,608	(690)
514	Maintenance of Miscellaneous Steam Plant	755	846	91
	Total Maintenance	$24,022	$23,256	($766)
	Total Power Production Expenses-Steam Power	$107,760	$101,063	($6,697)
	NUCLEAR POWER GENERATION			
	OPERATION			
517	Operation Supervision and Engineering	$3,236	$1,024	($2,212)
518	Fuel	30,049 (a)	23,813 (b)	(6,236)
519	Coolants and Water	281	(52)	(333)
520	Steam Expenses	3,693	3,913	220
523	Electric Expenses	451	434	(17)
524	Miscellaneous Nuclear Power Expenses	9,649	11,530	1,881
525	Rents	22	25	3
	Total Operation	$47,381	$40,687	($6,694)
	MAINTENANCE			
528	Maintenance Supervision and Engineering	$4,049	$1,185	($2,864)
529	Maintenance of Structures	984	1,115	131
530	Maintenance of Reactor Plant Equipment	2,840	7,547	4,707
531	Maintenance of Electric Plant	2,114	1,838	(276)
532	Maintenance of Miscellaneous Nuclear Plant	1,257	2,403	1,146
	Total Maintenance	$11,244	$14,088	$2,844
	Total Power Production Expenses-Nuclear Power	$58,625	$54,775	($3,850)

(a) Includes $3,332 associated with spent nuclear fuel disposal expense.
(b) Includes $3,707 associated with spent nuclear fuel disposal expense.

Electric Operations

ERATING EXPENSES

3 Months Ended September 30, 1985

(Thousand $)

		Budget	Actual	Over/Under Budget
	HYDRAULIC POWER GENERATION			
	OPERATION			
535	Operation Supervision and Engineering	$98	$94	($4)
536	Water and Power	368	352	(16)
537	Hydraulic Expenses	305	277	(28)
538	Electric Expenses	53	55	2
539	Misc. Hydraulic Power Generation Expenses	98	46	(52)
540	Rents	1	-	(1)
	Total Operation	$923	$824	($99)
	MAINTENANCE			
541	Maintenance Supervision and Engineering	$131	$136	$5
542	Maintenance of Structures	65	25	(40)
543	Maintenance of Reservoirs, Dams & Waterways	28	21	(7)
544	Maintenance of Electric Plant	272	911	639
545	Maintenance of Miscellaneous Hydraulic Plant	36	51	15
	Total Maintenance	$532	$1,144	$612
	Total Power Production Expenses-Hydraulic Power	$1,455	$1,968	$513
	OTHER POWER GENERATION			
	OPERATION			
546	Operation Supervision and Engineering	$269	$256	($13)
547	Fuel	4,728	3,797	(931)
548	Generation Expenses	353	297	(56)
549	Miscellaneous Other Power Generation Expenses	359	437	78
550	Rents	1,140	1,140	-
	Total Operation	$6,849	$5,927	($922)
	MAINTENANCE			
551	Maintenance Supervision and Engineering	$161	$153	($8)
552	Maintenance of Structures	65	126	61
553	Maintenance of Generating and Electric Plant	1,865	2,712	847
554	Maintenance of Miscellaneous Other Power	26	22	(4)
	Total Maintenance	$2,117	$3,013	$896
	Total Power Production Expenses - Other Power	$8,966	$8,940	($26)
	OTHER POWER SUPPLY EXPENSES			
555	Purchased Power	$62,985	$108,723	$45,738
556	System Control and Load Dispatching	1,504	1,336	(168)
557	Other Expenses	63,314	9,388	(53,926)
	Total Other Power Supply Expenses	$127,803	$119,447	($8,356)
	Total Power Production Expenses	$304,609	$286,193	($18,416)

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
3 Months Ended September 30, 1985
(Thousand $)

		Budget	Actual	Over/Under Budget
	TRANSMISSION EXPENSES			
OPERATION				
560	Operation Supervision and Engineering	$571	$583	$12
561	Load Dispatching	392	351	(41)
562	Station Expenses	442	406	(36)
563	Overhead Line Expenses	57	128	71
564	Underground Line Expenses	61	54	(7)
566	Miscellaneous Transmission Expenses	321	286	(35)
567	Rents	1,785	1,810	25
	Total Operation	$3,629	$3,618	($11)
MAINTENANCE				
568	Maintenance Supervision and Engineering	$218	$225	$7
569	Maintenance of Structures	73	53	(20)
570	Maintenance of Station Equipment	1,280	1,002	(278)
571	Maintenance of Overhead Lines	710	695	(15)
572	Maintenance of Underground Lines	152	(381)	(533)
573	Maintenance of Miscellaneous Transmission Plant	-	9	9
	Total Maintenance	$2,433	$1,603	($830)
	Total Transmission Expenses	$6,062	$5,221	($841)
	DISTRIBUTION EXPENSES			
OPERATION				
580	Operation Supervision and Engineering	$1,991	$2,090	$99
581	Load Dispatching	445	400	(45)
582	Station Expenses	1,363	1,414	51
583	Overhead Line Expenses	1,557	1,394	(163)
584	Underground Line Expenses	735	914	179
585	Street Lighting and Signal System Expenses	154	178	24
586	Meter Expenses	1,149	1,147	(2)
587	Customer Installation Expenses	1,207	1,262	55
588	Miscellaneous Distribution Expenses	2,785	2,924	139
589	Rents	1,047	1,023	(24)
	Total Operation	$12,433	$12,746	$313
MAINTENANCE				
590	Maintenance Supervision and Engineering	$968	$1,034	$66
591	Maintenance of Structures	239	210	(29)
592	Maintenance of Station Equipment	1,989	1,953	(36)
593	Maintenance of Overhead Lines	5,922	6,755	833
594	Maintenance of Underground Lines	2,485	3,233	748
595	Maintenance of Line Transformers	423	595	172
596	Maintenance of Street Lighting and Signal System	282	322	40
597	Maintenance of Meters	446	614	168
598	Maintenance of Miscellaneous Distribution Plant	292	488	196
	Total Maintenance	$13,046	$15,204	$2,158
	Total Distribution Expenses	$25,479	$27,950	$2,471

Philadelphia Electric Company - Electric Operation

OPERATING EXPENSES

(Thousand $)

3 Months Ended September 30, 1985

		Budget	Actual	Over/Under Budget
	IV CUSTOMER ACCOUNTS EXPENSES			
OPERATION				
901	Supervision	$635	$669	$34
902	Meter Reading Expenses	3,520	3,182	(338)
903	Customer Records and Collection	11,939	11,903	(36)
904	Uncollectible Accounts	5,022	6,503	1,481
905	Miscellaneous Customer Accounts Expenses	133	133	-
	Total Customer Accounts Expenses	$21,249	$22,390	$1,141
	V CUSTOMER SERVICE & INFORMATIONAL EXPENSES			
OPERATION				
907	Supervision	$259	$260	$1
908	Customer Assistance Expenses	1,561	1,345	(216)
909	Informational & Instructional Advertising Exp.	609	743	134
910	Misc. Cust. Serv. & Information Expenses	90	73	(17)
	Total Cust. Serv. & Information Expenses	$2,519	$2,421	($98)
	VI SALES EXPENSES			
OPERATION				
911	Supervision	$31	$31	-
912	Demonstrating and Selling Expenses	89	81	($8)
913	Advertising Expenses	49	117	68
916	Miscellaneous Sales Expenses	25	-	(25)
	Total Sales Expenses	$194	$229	$35
	VII ADMINISTRATIVE AND GENERAL EXPENSES			
OPERATION				
920	Administrative and General Salaries	$9,355	$8,504	($851)
921	Office Supplies and Expenses	3,645	3,612	(33)
923	Outside Services Employed	1,293	1,446	153
924	Property Insurance	2,362	2,661	299
925	Injuries and Damages	2,028	2,095	67
926	Employee Pensions and Benefits	11,896	13,064	1,168
928	Regulatory Commission Expenses	1,302	3,018	1,716
929	Duplicate Charges - Credit	(300)	(469)	(169)
930	General Advertising and Miscellaneous	4,373	4,593	220
	Total Operation	$35,954	$38,524	$2,570
MAINTENANCE				
935	Maintenance of General Plant	377	362	(15)
	Total Administrative and General Expenses	$36,331	$38,886	$2,555
	VIII TOTAL OPERATION & MAINTENANCE EXP.(B-9)	$396,443	$383,290	$13,153
	IX DEPRECIATION AND AMORTIZATION			
940	Depreciation (B-9)	$40,248 (a)	$42,028 (b)	$1,780
943	Amortization of Other Electric Plant	(160)	(162)	(2)
944	Amortization of Property Losses	420	108	(312)
	Total Depreciation and Amortization	$40,508	$41,974	$1,466

(a) Includes $900 of nuclear decommissioning accruals.
(b) Includes $1,047 of nuclear decommissioning accruals.

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
3 Months Ended September 30, 1985
(Thousand $)

	Budget	Actual	Over/Under Budget
X TAXES			
TAXES OTHER THAN INCOME TAXES			
State and Local			
Capital Stock - Pennsylvania	$6,153	$6,153	-
Capital Stock - New Jersey	31	31	-
Gross Receipts	31,402	30,060	(1,342)
Real Estate - Local	201	499	298
Real Estate - State	11,864	14,423	2,559
State Unemployment Compensation	348	342	(6)
Philadelphia Realty Occupancy	112	112	-
Other State and Local	140	155	15
Total State and Local	$50,251	$51,775	$1,524
Federal			
Telephone and Telegraph	$6	$6	-
Federal Unemployment Compensation	199	193	(6)
Federal Old Age Benefits	4,300	4,209	(91)
Other	52	71	19
Total Federal	$4,557	$4,479	($78)
Total Taxes Other Than Income	$54,808	$56,254	$1,446
INCOME TAXES			
State - Pennsylvania	$13,387	$14,813	$1,426
State - Maryland	51	59	8
State - New Jersey	465	538	73
Federal	39,410	37,660	(1,750)
Total Income Taxes	$53,313	$53,070	($243)
Provisions for Deferred Income Taxes	$34,907	$4,179	($30,728)
Income Taxes in Prior Years - Credit	(19,666)	(6,866)	12,800
Investment Tax Credit Adjustments	22,361 (a)	30,734 (b)	8,373
Paysop Tax Credit Adjustment	-	-	-
TOTAL ALL TAXES	$145,723	$137,371	($8,352)
XII TOTAL OPERATING EXPENSES (8-9)	$582,674	$562,635	($20,039)

(a) Investment tax credit of $24,924 less amortization of $2,563
(b) Investment tax credit of $33,522 less amortization of $2,788

June 1985 to September 1985
(Thousand $)

	June 1985 Filing	3 Months Net Budget Additions	Budget As of Sept.30,1985	June 1985 Actual Filing	3 Months Actual Additions	Actual As of Sept.30,1985	Over(Under) Budget
Electric Plant in Service							
Intangible Plant	$163	-	$163	$163	-	$163	-
Steam Production Plant	$1,116,749	$7,910	$1,124,659	$1,116,749	$10,664	$1,127,413	$2,754
Nuclear Production Plant	1,372,002	11,178	1,383,180	1,372,002	21,580	1,393,582	10,402
Hydraulic Production	83,866	17	83,883	83,866	3	83,869	(14)
Other Production Plant	133,955	-	133,955	133,955	5	133,960	5
Total Production Plant	$2,706,572	$19,105	$2,725,677	$2,706,572	$32,252	$2,738,824	$13,147
Transmission Plant	$588,114	$1,855	$589,969	$588,114	$578	$588,692	($1,277)
Distribution Plant	1,425,028	15,949	1,440,977	1,425,028	26,573	1,451,601	10,624
General Plant	35,113	541	35,654	35,113	723	35,836	182
Total Electric Plant in Service	$4,754,990	$37,450	$4,792,440	$4,754,990	$60,126	$4,815,116	$22,676
Common Plant in Service							
Intangible Plant	$677	-	$677	$677	-	$677	-
General Plant	130,509	1,236	131,745	130,509	232	130,741	(1,004)
Total Common Plant	$131,186	$1,236	$132,422	$131,186	$232	$131,418	($1,004)



Philadelphia Electric Company - Electric Operations A-1

INCOME AVAILABLE FOR RETURN

12 MONTHS ENDED JUNE 30, 1985

(Thousand $)

	Actual (B-5)	Adjustments (A-3)	Proforma Pres. Rates	Addl. Revs. (A-4)	Proforma Proposed Rates
Operating Revenue	2,455,954	(23,670)	2,486,284	664,781	2,091,075
Operating Expenses					
Operating & Maintenance Exp.	1,515,648	109,954	1,625,602	(201,855)	1,423,747
Depn. & Amort. (incl. salvage)	160,804	95,863	256,667		256,667
Provision for Taxes					
Taxes Other Than Inc.	190,263	(117,005)	73,258	13,295	86,553
Income Taxes	106,135	(250,451)	(144,316)	424,691	280,375
Provision for Deferred Taxes	74,712	95,860	170,572		170,572
Income Taxes Def.-Prior Yrs.	(36,756)	4,635	(34,121)		(34,121)
ITC Adjustment-(net)	50,803	(8,856)	41,947		41,947
Total Taxes	383,157	(275,817)	107,340	437,986	545,326
Loss on Disposition	(153)		(153)		(153)
Total Operating Expenses	2,059,456	(70,000)	1,989,456	236,131	2,225,587
Operating Income Avail. for Return	396,498	46,330	436,828	488,650	865,488
Original Cost Measure of Value(p. A-2)			7,014,834		7,014,834
Return on Original Cost			6.23		12.34

Philadelphia Electric Company - Electric Operations A-2

MEASURES OF VALUE
AT JUNE 30, 1985
(Thousand $)

	Reference	Original Cost
Utility Plant in Service		
Electric	C-2	8,605,971
Allocated Common	C-2	113,067
Total O.C. Plant in Service		8,719,038
Less: Book Reserve on Plant in Service	C-2	1,620,086
		7,098,952
Plus: Non-Revenue Producing CWIP	C-8	219
Land Held for Future Use	C-9	8,504
Materials and Supplies	C-10	93,451
Nuclear Fuel in Reactor	C-11	82,252
Cash Working Capital	C-12	105,608
Total Additions		290,034
Less: Accumulated Deferred Inc. Taxes		
Accelerated Amortization	B-2	3,278
Liberalized Depreciation	B-16	363,818
Customer Deposits	B-2	7,247
Customer Advances	B-2	409
Total Deductions		374,752
Measures Of Value		7,014,234

Philadelphia Electric Company - Electric Operations

ADJUSTMENTS TO INCOME AVAILABLE FOR RETURN

12 Months Ended June 30, 1985

(Thousand $)

Test Year Adjustments	Section Page	Operating Revenues	Oper. Exp. Excl. Taxes	Taxes Other Than Income	State Share Income Taxes	Federal Share Income Taxes	Effect on Income for Return
Elimination of STAC Revenue and Taxes	D-1	(131,430)		(122,031)	(9,399)		0
Full Year Effect of Present Base Rates	D-2	87,344		1,747	5,972	36,688	42,997
Annualization for Growth and Customers	D-3	16,766	4,936	335	802	4,919	5,774
Elimination of Energy Cost Adjustment	D-4	31,253	29,185	1,408	53	325	381
Wage and Benefit Increases	D-5		30,892		(2,155)	(13,219)	(15,518)
Book Depn at Year End, including Salvage	D-6		86,979				(86,979)
Tax Depreciation and Amort. at Year End	D-7				(18,137)	(111,239)	129,376
Normalization of Tax Deferrals	D-8				0	96,804	(96,804)
Tax Savings on Proforma Interest	D-9				(13,362)	(83,180)	96,542
Nuclear and Steam Prod. O&M Exp. Adj.	D-10		6,727		(469)	(2,879)	(3,379)
Reduction in O&M exp. to Reflect Retire.	D-11		(13,093)		914	5,603	6,578
Miscellaneous Adjustments & Amortization	D-12		(12,957)		898	5,506	6,753
Elimination of Lanadale Revenue and Fuel	D-13	(26,779)	(8,732)		(1,957)	(12,001)	(14,089)
Full Year Effect of Incr. in FICA Tax	D-14			1,536	(107)	(657)	(772)
Decommissioning Cost Adjustment	D-15		8,884		(620)	(3,801)	(4,463)
Spent Fuel Disposal Cost Adjustment	D-16		624		(44)	(267)	(313)
Damaged Nuclear Fuel Assbly. Amort.	D-17		310		(22)	(132)	(155)
Full Year of Limerick O&M Expense	D-18	0	75,740		(5,284)	(32,410)	(38,045)
Non-Jurisdictional Rate of Return	D-19	3,136	(3,617)		471	2,890	3,392
ITC Annualization	D-20	0			0	(8,885)	8,885
Adjustment to Roll Fuel Out of Base Rate	D-21e	(802,975)	(801,855)	(4,180)			0
Total		(29,670)	205,817	(117,005)	(42,646)	(116,166)	40,330

*Not included in totals, reflected on p. A-4

Philadelphia Electric Company - Electric Operations A-4

EFFECTS ON INCOME FOR RETURN
OF SUPPLEMENT NO. 15
12 Months Ending June 30, 1985
(Thousand $)

	Increase in Base Rates		
	Base Rate Increase Before Fuel Roll-Out	Fuel Roll-out From Base $.007505/kwh (D-21)	Net Base Rate Increase
Increase in Revenue (A-5)	870,756	(205,975)	664,781
Less: 2% Gross Receipts Tax	17,415	(4,120)	13,295
Less: Fuel Rolled-out of Base		(201,855)	(201,855)
Increase in Income Before Taxes	853,341	0	853,341
Increase in Income Taxes 049.758%	424,691	0	424,691
Increase in Income for Return	428,650	0	428,650

Philadelphia Electric Company - Electric Operations
Kilowatt Hour Sales and Revenue by Tariff Subdivisions
Twelve Months Ended June 30, 1985
($1,000)

	MWh Sales Year Ended 6/30/85 (1)	Number of Customers 6/30/85 (2)	Total Book Rev (3)	Less: Book STAC (4)	Less: Book Energy Cost Rate Revenue (5)	Base Revenue (6)=(3)-(4)-(5)	Tariff 26 Full Year Effect of Increase(D-2) (7)	Total Proforma Base Rev. (8)=(7)+(6)
R	6,309,814	1,118,266	$713,186	$40,102	($7,036)	$680,120	$43,985	$724,105
RH	1,421,620	92,062	119,608	6,755	(2,031)	114,884	4,622	119,506
OP-Off Peak (MH)	418,313	104,832 (a)	28,238	1,598	(553)	27,193	1,140	28,333
POL	8,378	3,529 (a)	1,650	93	(11)	1,568	-	1,568
GS	3,329,957	120,711	365,755	20,600	(4,328)	349,483	5,952	355,435
PD(incl Riders)	2,007,489	2,501	171,113	9,647	(2,340)	163,806	6,415	170,221
HT(incl Riders)	12,683,464	2,393	861,056	48,273	(15,205)	827,988	20,120	848,108
EP-A	427,274	1	28,697	1,781	(536)	27,452	2,180	29,632
EP-S	263,490	2	20,166	1,138	(334)	19,362	763	20,125
SLP	100,872	2	14,374	805	(115)	13,684	846	14,530
SLS	60,823	522	17,984	1,004	(75)	17,055	1,163	18,218
TL	38,065	207	3,930	221	(53)	3,762	144	3,906
BLI	62	3	7	-	-	7	-	7
Trans Rent Rider	-	(a)	269	15	-	254	14	268
Total Elec.	27,269,821	1,336,630	$2,346,033	$132,032	($32,617)	$2,246,618	$87,344	$2,333,962
Other Elec. Operations	1,217,847	3	109,931	-	-	109,931	-	109,931
Total Elec.	28,487,668	1,336,633	$2,455,964	$132,032	($32,617)	$2,356,549	$87,344	$2,443,893
Plus: STAC in Excess of STAC Related Taxes (D-1)								602
Plus: Revenue from Growth Adjustment (D-3)								16,766
Plus: Interest on overcollections - Time of Use (D-4)								(1,324)
Plus: Revenues Associated with Sales to Jersey Central Power and Light & the Borough of Lansdale (D-13)								(36,779)
Plus: Non Jurisdictional Rates Adjustment (D-19)								3,136
Total Revenue								$2,426,294

(a) Duplicate customers not included in total.

Philadelphia Electric Company - Electric Operations
Kilowatt Hour Sales and Revenue by Tariff Subdivisions
Twelve Months Ended June 30, 1985
($1,000)

	Total Proforma Base Rev. (8)=(7)+(6)	Proposed Base Revenue Prior To Roll-Out (9)	Roll-out of .7505¢/kWh per D-21 (10)=(1)x .7505¢	Proposed Net Base Revenue Supp. No. 15 (11)=(9)+(10)	$ Increase (12)=(11)-(8)	% Increase (13)=(12)/(8
R	$724,105	$986,112	($47,355)	$938,757	$214,652	29.6%
RH	119,506	161,128	(10,669)	150,459	30,953	25.9
OP-Off Peak (WH)	28,333	31,472	(3,139)	28,333	0	0
POL	1,568	1,632	(64)	1,568	0	0
GS	355,435	487,626	(26,492)	461,134	105,699	29.7
PD(Incl Riders)	170,221	235,754	(15,066)	220,688	50,467	29.6
HT(Incl Riders)	848,108	1,194,713	(95,189)	1,099,524	251,416	29.6
EP-A	29,632	36,614	(3,207)	33,407	3,775	12.7 (a
EP-S	20,125	25,095	(1,977)	23,116	2,991	14.9
SLP	14,530	15,287	(757)	14,530	0	0
SLS	18,218	18,674	(456)	18,218	0	0
TL	3,906	4,192	(286)	3,906	0	0
BLI	7	10	(1)	9	2	28.6
Trans Rent Rider	268	346	-	346	78	29.1
Total Elec.	$2,333,962	$3,198,653	($204,658)	$2,993,995	$660,033	28.3%
Other Elec. Operations	109,931	109,931	-	109,931	-	-
Total Elec.	$2,443,893	$3,308,584	($204,658)	$3,103,926	$660,033	27.0%
Plus: STAC In Excess of STAC Related Taxes (D-1)	602	602	-	602	-	-
Plus: Revenue from Growth Adjustment (D-3)	16,766	22,831	(1,317)	21,514	4,748	28.3%
Plus: Interest on overcollections - Time of Use (D-4)	(1,324)	(1,324)	-	(1,324)	-	-
Plus: Revenues Associated with Sales to Jersey Central Power and Light & the Borough of Lansdale (D-13)	(36,779)	(36,779)	-	(36,779)	-	-
Plus: Non Jurisdictional Rates Adjustment (D-19)	3,136	3,136	-	3,136		
Total Revenue	$2,426,294	$3,297,050	($205,975)	$3,091,075	$664,781	27.4%

(a) Percentage shown is based on comparison of proposed increase and revenues associated with actual load characteristics reflected in the March 1985 contract agreement. Refer to the Company's proof of revenue calculations, Interrogatory response IV-C-1, for the details supporting this percentage.

Philadelphia Electric Company - Electric Operations
Kilowatt Hour Sales and Revenue by Tariff Subdivisions
Twelve Months Ended June 30, 1985
($1,000)

	Total Proforma Base Rev. (6)=(7)+(8)	Proposed Base Revenue Prior To Roll-Out (9)	Roll-out of .7505¢/kWh per D-21 (10)=(11)x .7505¢	Proposed Net Base Revenue Supp. No. 15 (11)=(9)+(10)	$ Increase (12)=(11)-(8)	% Increase (13)=(12)/(
R	$724,105	$986,112	($47,355)	$938,757	$214,652	29.6%
RH	119,506	161,128	(10,669)	150,459	30,953	25.9
OP-Off Peak (MH)	28,333	31,472	(3,139)	28,333	0	0
POL	1,568	1,632	(64)	1,568	0	0
GS	355,435	487,626	(26,492)	461,134	105,699	29.7
PD(Incl Riders)	170,221	235,754	(15,066)	220,688	50,467	29.6
HT(Incl Riders)	848,108	1,194,713	(95,189)	1,099,524	251,416	29.6
EP-A	29,632	36,614	(3,207)	33,407	3,775	12.7
EP-S	20,125	25,095	(1,977)	23,116	2,991	14.9
SLP	14,530	19,287	(757)	14,530	0	0
SLS	18,218	18,674	(456)	18,218	0	0
TL	3,906	4,192	(286)	3,906	0	0
BL1	7	10	(1)	9	2	28.6
Trans Rent						
Rider	288	346	-	346	78	29.1
Total Elec.	$2,333,962	$3,198,653	($204,658)	$2,993,995	$660,033	28.3%
Other Elec. Operations	109,931	109,931	-	109,931	-	-
Total Elec.	$2,443,893	$3,308,584	($204,658)	$3,103,926	$660,033	27.0%
Plus: STAC In Excess of STAC Related Taxes (D-1)	602	602	-	602	-	-
Plus: Revenue from Growth Adjustment (D-3)	16,766	22,831	(1,317)	21,514	4,748	28.3%
Plus: Interest on overcollections - Time of Use (D-4)	(1,324)	(1,324)	-	(1,324)	-	-
Plus: Revenues Associated with Sales to Jersey Central Power and Light & the Borough of Lansdale (D-13)	(36,779)	(36,779)	-	(36,779)	-	-
Plus: Non Jurisdictional Rates Adjustment (D-19)	3,136	3,136	-	3,136		
Total Revenue	$2,426,294	$3,297,050	($205,975)	$3,091,075	$664,781	27.4%

(a) Percentage shown is based on comparison of proposed increase and revenues associated with actual load characteristics reflected in the March 1985 contract agreement. Refer to the Company's proof of revenue calculations, Interrogatory response IV-C-1, for the details supporting this percentage.

Philadelphia Electric Company - Combined Operations
BALANCE SHEET
June 30, 1985
(Thousand $)

ASSETS AND OTHER DEBITS	COMPANY	SYSTEM
Utility Plant		
Electric	$4,771,915	$4,915,596
Gas	456,864	456,864
Steam	53,820	53,820
Common	131,573	131,573
Construction Work in Progress	4,470,950	4,471,375
Total Utility Plant	$9,885,122	$10,029,228
Less Provision for Depreciation	(1,748,661)	(1,798,509)
Net Utility Plant	$8,136,461	$8,230,719
Nuclear Fuel	222,134	222,134
Property Under Capital Leases Incl. Nuclear Fuel	341,007	341,007
Net Utility Plant, incl. Nuclear Fuel	$8,699,602	$8,793,860
Other Property and Investments		
Non-Utility Property	$13,152	$13,374
Investments in Subsidiary Companies	129,743	57,060
Decommissioning Escrow Funds	10,079	10,079
Other Investments	1,000	1,000
Total	$153,974	$81,513
Current and Accrued Assets		
Cash	$25,419	$25,416
Temporary Cash Investments	20,991	24,772
Escrow Deposits	16,561	16,561
Special Deposits and Working Funds	9,212	9,214
Accounts Receivable	349,264	345,781
Materials and Supplies	125,909	126,612
Prepayments	70,598	72,292
Deferred Fuel Expense	187,790	188,800
Compensated Absences	40,864	41,478
Total	$846,608	$850,926
Deferred Debits		
Unamortized Debt Expense	14,781	14,802
Extraordinary Property Losses	4,275	4,275
Clearing Accounts	404	802
Miscellaneous Deferred Debits	59,821	61,058
Unamortized Loss on Reacquired Debt	12	12
Accumulated Deferred Taxes	41,649	41,649
Total	$120,942	$122,598
TOTAL ASSETS AND OTHER DEBITS	$9,821,126	$9,848,897

Philadelphia Electric Company - Combined Operations
BALANCE SHEET
June 30, 1985
(Thousand $)

LIABILITIES AND OTHER CREDITS	COMPANY	SYSTEM
Proprietary Capital		
Common Capital Stock	$2,469,098	$2,469,098
Preferred Capital Stock	890,881	890,881
Premium on Preferred Stock	1,214	1,214
Other Paid in Capital	6,091	6,091
Retained Earnings	$3,367,284	$3,367,284
Total	564,804	564,804
	$3,932,088	$3,932,088
Long-Term Debt		
Bonds	$3,104,000	$3,119,350
Pollution Control Notes	273,175	273,175
Other Long-Term Debt	796,866	796,866
Unamortized Premium on Long-Term Debt	(17,981)	(18,021)
Total	$4,156,060	$4,171,370
Current and Accrued Liabilities		
Short-Term Debt	-	$5,000
Pollution Control Notes	-	-
Obligations Under Capital Lease - Current	75,848	75,846
Compensated Absences Payable	40,864	41,478
Current Maturities of Long-Term Debt	-	-
Accounts Payable	129,155	125,299
Customers' Deposits	7,427 (a)	7,511
Taxes Accrued	53,585	55,396
Interest Accrued	104,299	104,625
Dividends Declared	117,872	117,872
Miscellaneous Current & Accrued Liabilities	23,010	23,109
Deferred Income Taxes on Fuel	96,273	96,738
Total	$648,333	$652,874
Deferred Credits		
Customers' Advances for Construction	$774 (b)	$884
Accumulated Deferred Investment Tax Credits	340,320	342,413
Other Deferred Credits	59,391	59,456
Unamortized Gain on Reacquired Debt	9,040	12,061
Obligation Under Capital Leases	265,160	265,160
Accumulated Deferred Income Taxes		
Accelerated Amortization Property	3,278	3,278
Other Property	399,327	401,958
Other	7,355	7,355
Total	$1,084,645	$1,092,565
TOTAL LIABILITIES AND OTHER CREDITS	$9,821,126	$9,848,897

(a) Electric Portion = $7,247
(b) Electric Portion = $409

Philadelphia Electric Company - Electric Operations

ELECTRIC PLANT
AT JUNE 30, 1985
(Thousand $)

Electric Plant In Service		
Intangible Plant		
302.	Franchises and Consents	$163
Production Plant		
Steam Production Plant		
310.	Land and Land Rights	7,598
311.	Structures and Improvements	222,007
312.	Boiler Plant Equipment	588,162
314.	Turbogenerator Units	180,054
315.	Accessory Electric Equipment	106,034
316.	Miscellaneous Power Plant Equipment	12,895
	Total Steam Production Plant	$1,116,750
Nuclear Production		
320.	Land and Land Rights	357
321.	Structures and Improvements	307,048
322.	Reactor Plant Equipment	614,150
323.	Turbogenerator Units	224,960
324.	Accessory Electric Equipment	181,741
325.	Miscellaneous Power Plant Equipment	43,747
	Total Nuclear Production Plant	$1,372,003
Hydraulic Production		
330.	Land and Land Rights	1,421
331.	Structures and Improvements	14,484
332.	Reservoirs, Dams and Waterways	34,292
333.	Water Wheels, Turbines and Generators	21,971
334.	Accessory Electric Equipment	8,662
335.	Miscellaneous Power Plant Equipment	2,039
336.	Roads, Railroads and Bridges	998
	Total Hydraulic Production Plant	$83,867
Other Production Plant		
340.	Land and Land Rights	849
341.	Structures and Improvements	4,406
342.	Fuel Holders, Producers and Accessories	22,449
343.	Prime Movers	-
344.	Generators	90,905
345.	Accessory Electric Equipment	13,064
346.	Miscellaneous Power Plant Equipment	2,282
	Total Other Production Plant	$133,955
Total Production Plant		$2,706,575

Philadelphia Electric Company - Electric Operations

ELECTRIC PLANT
AT JUNE 30, 1985
(Thousand $)

Electric Plant In Service (Continued)

Transmission Plant		
350.	Land and Land Rights	$47,850
352.	Structures and Improvements	14,934
353.	Station Equipment	219,022
354.	Towers and Fixtures	183,834
355.	Poles and Fixtures	444
356.	Overhead Conductors and Devices	83,864
357.	Underground Conduit	2,521
358.	Underground Conductors and Devices	33,914
359.	Roads and Trails	1,730
	Total Transmission Plant	$588,113
Distribution Plant		
360.	Land and Land Rights	21,195
361.	Structures and Improvements	35,022
362.	Station Equipment	280,305
364.	Poles, Towers and Fixtures	131,562
365.	Overhead Conductors and Devices	197,119
366.	Underground Conduit	140,481
367.	Underground Conductors and Devices	248,347
368.	Line Transformers	152,904
369.	Services	100,516
370.	Meters	90,918
371.	Installations on Customers' Premises	278
373.	Street Lighting and Signal Systems	26,378
	Total Distribution Plant	$1,425,025
General Plant		
389.	Land and Land Rights	1,967
390.	Structures and Improvements	17,219
391.	Office Furniture & Equipment	3,160
393.	Stores Equipment	404
394.	Tools, Shop and Garage Equipment	4,974
395.	Laboratory Equipment	7,382
397.	Communication Equipment	1,830
398.	Miscellaneous Equipment	961
	Sub-Total	$37,897
399.	Other Tangible Property Antitrust Price Adjustment	(2,783)
	Total General Plant	$35,114
Total Electric Plant In Service (carried forward)		$4,754,990

Philadelphia Electric Company - Electric Operations

ELECTRIC PLANT
AT JUNE 30, 1985
(Thousand $)

Total Electric Plant In Service (brought forward)	$4,754,990
Construction Work in Progress	4,464,217
Plant Held for Future Use	
Land and Land Rights	16,905
Other Than Land and Land Rights	21
Total	$16,926
Total Electric Plant	$9,236,133

Philadelphia Electric Company - Electric Operations

COMMON UTILITY PLANT
AT JUNE 30, 1985
(Thousand $)

Intangible Plant		
301.	Organization	$677
General Plant		
389.	Land and Land Rights	2,393
390.	Structures and Improvements	84,710
391.	Office Furniture and Equipment	20,191
392.	Transportation Equipment	8,809
393.	Stores Equipment	1,830
394.	Tools, Shop and Garage Equipment	6,952
396.	Power Operated Equipment	1,422
397.	Communication Equipment	1,866
398.	Miscellaneous Equipment	2,335
	Total - General Plant	$130,508
Total Common Utility Plant in Service		$131,185
Construction Work in Progress		$2,513
Plant Held for Future Use (Land and Land Rights)		$388
Total Common Utility Plant		$134,086

Philadelphia Electric Company
BOOK ACCUMULATED PROVISION FOR DEPRECIATION
OF UTILITY PLANT IN SERVICE
INCLUDING DECOMMISSIONING EXPENSE
JUNE 30, 1985
(Thousand $)

Effective with the Commission Order at Docket R-842590 (January 25, 1985), the Company began to maintain book depreciation reserve information by detailed plant accounts for electric and common plant. The reserve by plant account for electric operations, including allocated common can be found in Exhibit AW-2.

Reserve for Depreciation - Electric	$1,555,274
Decommissioning Expense (D-15)	15,746
Total Electric Reserve	$1,571,020
Share of Common $47,182 x 86.188% (B-17)	40,665
Total	$1,611,685

Philadelphia Electric Company and Subsidiary Companies

12 MONTHS ENDING JUNE 30, 1985
CONSOLIDATED STATEMENT OF INCOME
(Thousand $)

Operating Revenue	
Electric	$2,473,625
Gas	447,469
Steam	74,490
Total Operating Revenue	$2,995,584
Operating Expenses	
Total Operation and Maintenance	1,916,219
Provision for Depreciation and Amortization	179,484
Provision for Taxes	
Federal Income Taxes	105,269
State and Local Income Taxes	36,741
Investment Tax Credit Adjustments-Net	52,407
Deferred Income Taxes	37,884
Taxes Other Than Income	217,899
Total Provision for Taxes	450,200
Gain or Loss	(153)
Total Operating Expenses	2,545,750
Operating Income	449,834
Other Income	
Allowance for Other Funds Used During Construction	152,838
Other Income and Deductions	(6,189)
Income Taxes	129,489
Total Other Income	276,138
Income Before Interest Charges	725,972
Interest Charges	
Interest on Long-Term Debt	421,199
Other Interest	28,305
Allowance for Borrowed Funds - Credit	(242,957)
Total Interest Charges	206,547
Net Income	519,425
Dividends on Preferred Stocks	87,633
Earnings Available for Common Stock	$431,792
Common Stock Outstanding	
Average	161,315
Earnings per average share (dollars)	$2.68

Philadelphia Electric Company - Electric Operations
STATEMENT OF ELECTRIC OPERATING INCOME
TWELVE MONTHS ENDED JUNE 30
(Thousand $)

		1983	1984	1985
	OPERATING REVENUE			
	Sales of Electricity:			
440	Residential	691,272	788,995	861,032
442	Commercial & Industrial	1,196,892	1,243,821	1,399,574
444	Public Street and Highway Lighting	29,449	31,572	36,289
445	Other Sales to Public Authorities	-	-	-
446	Sales to Railroads and Railways	41,854	46,203	48,863
447	Sales for Resale	94,135	90,324	63,821
448	Interdepartmental Sales	3,996	4,163	4,266
	Sub-Total	$2,057,598	$2,205,078	$2,413,845
	Other Operating Revenues:			
450	Forfeited Discounts	7,867	8,037	9,176
451	Miscellaneous Service Revenues	2,025	2,088	2,232
454	Rent from Electric Property	7,640	10,876	10,574
455	Interdepartmental Rents	4,503	4,503	4,503
456	Other Electric Revenues	18,689	36,821	15,634
	Sub-Total	$40,724	$62,325	$42,119
	Total Electric Operating Revenues	$2,098,322	$2,267,403	$2,455,964
	OPERATING EXPENSES			
401	Operation and Maintenance Expense:			
	Power Production	979,651	1,005,444	1,156,648
	Transmission	22,294	21,936	24,082
	Distribution	87,462	96,274	101,239
	Customer Accounts	63,814	68,474	74,975
	Customer Service & Information	6,283	7,629	8,871
	Sales	481	776	611
	Administrative and General Expense	117,760	128,077	149,222
	Total Operation and Maintenance Expense	$1,277,745	$1,328,610	$1,515,648
403	Depreciation Expense	129,382	159,054	161,743
405	Amortization of Other Electric Plant	(641)	(641)	(644)
407	Amortization of Property Losses	2,781	3,191	(295)
	Taxes			
408.1	Taxes Other Than Income Taxes	148,186	167,694	190,263
409.1	Income Taxes (a)	89,702	56,806	106,135
410.1	Provisions for Deferred Income Taxes	49,325	166,628	74,712
411.1	Inc. Taxes Deferred in Prior Yrs. - Credit	(3,494)	(4,093)	(38,756)
411.4	Investment Tax Credit Adjustments	48,862	(5,445)	50,803
	Total Taxes	$332,581	$381,590	$383,157
411.6&7	Gain from Disposition of Utility Plant	82	(226)	(153)
	Total Operating Expenses	$1,741,930	$1,871,578	$2,059,456
	OPERATING INCOME	$356,392	$395,825	$396,508

(a) Includes Paysop tax credit adjustment, see p. B-14

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
TWELVE MONTHS ENDED JUNE 30
(Thousand $)

I. POWER PRODUCTION EXPENSES

STEAM POWER GENERATION

		1983	1984	1985
OPERATION				
500	Operation Supervision & Engineering	$8,824	$11,949	$13,722
501	Fuel	291,506	400,051	365,774
502	Steam Expenses	12,712	26,887	32,456
504	Steam Transferred - Credit - Fuel	(47,780)	(52,327)	(46,305)
505	Electric Expenses	6,180	6,256	6,965
506	Miscellaneous Steam Power Expenses	10,959	11,572	13,294
507	Rents	46	2,839	10,375
	Total Operation	$282,447	$407,227	$396,281
MAINTENANCE				
510	Maintenance Supervision and Engineering	7,016	7,533	8,527
511	Maintenance of Structures	5,024	5,906	7,142
512	Maintenance of Boiler Plant	43,627	60,391	56,054
513	Maintenance of Electric Plant	14,317	12,773	16,964
514	Maintenance of Miscellaneous Steam Plant	2,951	2,664	3,078
	Total Maintenance	$72,935	$89,267	$91,765
	Total Power Production Expenses-Steam Power	$355,382	$496,494	$488,046

NUCLEAR POWER GENERATION

OPERATION				
517	Operation Supervision and Engineering	$7,497	$9,032	$11,048
518	Fuel - Nuclear	65,426 (a)	68,531 (a)	75,196 (a)
519	Coolants and Water	883	780	730
520	Steam Expenses	19,963	15,770	19,498
523	Electric Expenses	1,734	1,502	1,634
524	Miscellaneous Nuclear Power Expenses	33,534	31,837	44,723
525	Rents	71	232	116
	Total Operation	$129,108	$127,684	$152,945
MAINTENANCE				
528	Maintenance Supervision and Engineering	12,933	16,295	16,562
529	Maintenance of Structures	4,189	4,366	6,192
530	Maintenance of Reactor Plant Equipment	22,254	20,436	27,368
531	Maintenance of Electric Plant	15,800	10,406	11,637
532	Maintenance of Miscellaneous Nuclear Plant	4,080	3,899	6,714
	Total Maintenance	$59,256	$55,402	$68,473
	Total Power Production Expenses-Nuclear Power	$188,364	$183,086	$221,418

(a) Includes spent nuclear fuel disposal expense of:
1983 - 16,408
1984 - 19,021
1985 - 16,451

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
Twelve Months Ended June 30
(Thousand $)

		1983	1984	1985
HYDRAULIC POWER GENERATION				
OPERATION				
535	Operation Supervision and Engineering	$324	$371	$358
536	Water and Power	217	297	313
537	Hydraulic Expenses	846	826	786
538	Electric Expenses	218	231	217
539	Misc. Hydraulic Pwr Generation Expenses	284	314	417
540	Rents	1	-	-
	Total Operation	$1,890	$2,039	$2,091
MAINTENANCE				
541	Maintenance Supervision and Engineering	372	465	552
542	Maintenance of Structures	178	150	115
543	Maintenance of Reservoirs, Dams & Waterways	340	239	147
544	Maintenance of Electric Plant	3,062	3,192	2,445
545	Maintenance of Miscellaneous Hydraulic Plant	165	204	536
	Total Maintenance	$4,117	$4,250	$3,795
	Total Pwr Prod. Expenses-Hydraulic Pwr	$6,007	$6,289	$5,886
INTERNAL COMBUSTION GENERATION				
OPERATION				
546	Operation Supervision and Engineering	990	1,056	1,020
547	Fuel	21,139	46,914	20,869
548	Generation Expenses	1,283	1,596	1,375
549	Misc. Other Power Generation Expenses	1,250	1,308	1,615
550	Rents	4,561	4,561	4,561
	Total Operation	$29,223	$55,435	$29,440
MAINTENANCE				
551	Maintenance Supervision and Engineering	497	556	603
552	Maintenance of Structures	331	451	331
553	Maintenance of Generating and Electric Plant	3,841	5,858	4,586
554	Maintenance of Miscellaneous Other Power	78	74	113
	Total Maintenance	$4,747	$6,939	$5,633
	Total Internal Combustion	$33,970	$62,374	$35,073
OTHER POWER SUPPLY EXPENSES				
555	Purchased Power	429,859	468,904	451,553
556	System Control and Load Dispatching	4,304	4,565	4,923
557	Other Expenses	(38,235)(a)	(216,268)(a)	(50,251)(a)
	Total Other Power Supply Expenses	$395,928	$257,201	$406,225
	Total Power Production Expenses	$979,651	$1,005,444	$1,156,648

(a) Electric Fuel Deferral - 1983 - ($38,245)
1984 - ($216,284)
1985 - ($50,283)

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
Twelve Months Ended June 30
(Thousand $)

TRANSMISSION EXPENSES

		1983	1984	1985
OPERATION				
560	Operation Supervision and Engineering	$1,996	$1,976	2,159
561	Load Dispatching	1,013	1,138	1,334
562	Station Expenses	1,994	1,880	1,764
563	Overhead Line Expenses	191	183	219
564	Underground Line Expenses	230	193	209
566	Miscellaneous Transmission Expenses	1,158	1,085	1,845
567	Rents	7,042	6,736	6,822
	Total Operation	$13,624	$13,191	$14,352
MAINTENANCE				
568	Maintenance Supervision and Engineering	901	730	764
569	Maintenance of Structures	247	350	375
570	Maintenance of Station Equipment	4,353	4,898	4,870
571	Maintenance of Overhead Lines	2,464	2,220	2,547
572	Maintenance of Underground Lines	593	531	1,121
573	Maintenance of Miscellaneous Transmission Plant	112	16	53
	Total Maintenance	$8,670	$8,745	$9,730
	Total Transmission Expenses	$22,294	$21,936	$24,082

DISTRIBUTION EXPENSES

OPERATION				
580	Operation Supervision and Engineering	6,232	7,077	7,749
581	Load Dispatching	1,321	1,399	1,564
582	Station Expenses	4,912	5,179	5,169
583	Overhead Line Expenses	6,340	6,380	6,618
584	Underground Line Expenses	2,638	2,913	3,171
585	Street Lighting and Signal System Expenses	783	930	722
586	Meter Expenses	4,167	4,253	4,765
587	Customer Installation Expenses	4,495	4,432	4,424
588	Miscellaneous Distribution Expenses	8,927	10,163	11,274
589	Rents	2,614	4,225	3,961
	Total Operation	$42,429	$46,951	$49,417
MAINTENANCE				
590	Maintenance Supervision and Engineering	3,451	3,426	3,778
591	Maintenance of Structures	866	847	1,055
592	Maintenance of Station Equipment	6,370	7,284	8,117
593	Maintenance of Overhead Lines	21,672	23,470	23,091
594	Maintenance of Underground Lines	7,836	8,991	9,275
595	Maintenance of Line Transformers	1,247	1,579	1,738
596	Maintenance of Street Lighting and Signal System	1,302	1,093	1,142
597	Maintenance of Meters	1,482	1,550	2,188
598	Maintenance of Miscellaneous Distribution Plant	807	1,083	1,438
	Total Maintenance	$45,033	$49,323	$51,822
	Total Distribution Expenses	$87,462	$96,274	$101,239

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
Twelve Months Ended June 30
(Thousand $)

		1983	1984	1985
IV CUSTOMER ACCOUNTS EXPENSES				
OPERATION				
901	Supervision	$1,988	$1,921	$2,272
902	Meter Reading Expenses	11,307	11,102	11,829
903	Customer Records	33,433	38,475	41,941
904	Uncollectible Accounts	15,962	15,941	18,123
905	Miscellaneous Customer Accounts Expenses	1,124	1,035	810
	Total Customer Accounts Expenses	$63,814	$68,474	$74,975
V CUSTOMER SERVICE & INFORMATIONAL EXPENSES				
OPERATION				
907	Supervision	946	1,080	1,087
908	Customer Assistance Expenses	3,749	4,064	4,846
909	Informational & Instructional	1,104	1,833	2,534
910	Miscellaneous	484	652	404
	Total Cust. Serv. & Information Expenses	$6,283	$7,629	$8,871
VI SALES EXPENSES				
OPERATION				
911	Supervision	111	125	124
912	Demonstrating and Selling Expenses	310	326	326
913	Advertising Expenses	38	234	155
916	Miscellaneous Sales Expenses	22	91	6
	Total Sales Expenses	$481	$776	$611
VII ADMINISTRATIVE AND GENERAL EXPENSES				
OPERATION				
920	Administrative and General Salaries	24,418	28,701	31,704
921	Office Supplies and Expenses	13,368	12,877	15,752
923	Outside Services Employed	4,408	4,882	4,694
924	Property Insurance	8,624	8,804	8,805
925	Injuries and Damages	6,786	8,081	10,321
926	Employee Pensions and Benefits	43,723	46,474	49,010
928	Regulatory Commission Expenses	3,134	3,767	11,601
929	Duplicate Charges - Credit	(3,455)	(3,594)	(2,610)
930	General Advertising and Miscellaneous	15,938	16,938	18,353
	Sub-Total	$116,944	$126,930	$147,630
MAINTENANCE				
932	Maintenance of General Plant	816	1,147	(647)
935	Maintenance of General Plant	-	-	2,239
	Total Administrative and General Expenses	$117,760	$128,077	$149,222
	VIII TOTAL OPERATION AND MAINTENANCE EXP.	$1,277,745	$1,328,610	$1,515,648
	IX DEPRECIATION AND AMORTIZATION			
942	Depreciation	129,382 (a)	159,054 (a)	161,743 (a)
943	Amortization of Other Electric Plant	(641)	(641)	(644)
944	Amortization of Property Losses	2,781	3,191	(295)
	Total Depreciation and Amortization	$131,522	$161,604	$160,804

(a) Includes accruals for Nuclear Decommissioning of:
1983 - $3,260
1984 - $3,444
1985 - $3,832

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
Twelve Months Ended June 30
(Thousand $)

X TAXES	1983	1984	1985
TAXES OTHER THAN INCOME TAXES			
State and Local			
Capital Stock - Pennsylvania	$16,151	$18,402	$12,740
Capital Stock - New Jersey	245	212	149
Gross Receipts	87,728	94,594	105,213
Real Estate - Local	813	1,228	1,833
Real Estate - State	27,864	34,150	50,917
State Unemployment Compensation	472	1,795	1,032
Philadelphia Realty Occupancy	418	420	460
Other State and Local	1,120	1,760	1,191
Total State and Local	$134,811	$152,561	$173,535
Federal			
Telephone and Telegraph	16	46	51
Federal Unemployment Compensation	605	683	833
Federal Old Age Benefits	12,386	14,173	15,577
Other	368	231	267
Total Federal	$13,375	$15,133	$16,728
Total Taxes Other Than Income	$148,186	$167,694	$190,263
INCOME TAXES			
State - Pennsylvania	$28,317	$9,533	$29,253
State - Maryland	129	61	150
State - New Jersey	1,195	920	1,331
Federal	60,061	43,868	76,240
Total Income Taxes	$89,702	$54,382	$106,974
Provisions for Deferred Income Taxes	49,325	166,628	74,712
Income Taxes Deferred in Prior Years - Credit	(3,494)	(4,093)	(38,756)
Investment Tax Credit Adjustments*	48,862	(5,445)	50,803
Paysop Tax Credit Adjustment	-	2,424	(839)
TOTAL ALL TAXES	332,581	$381,590	$383,157
XI GAIN OR LOSS FROM DISPOSITION OF UTILITY PLANT -	82	(226)	(153)
XII TOTAL OPERATING EXPENSES (B-9)	$1,741,930	$1,871,578	$2,059,456

	1983	1984	1985
*Investment Tax Credit	$56,316	($205)	$59,210
Less: Amortization	(7,454)	(5,240)	(8,407)
	$48,862	($5,445)	$50,803

Philadelphia Electric Company - Electric Operations
FEDERAL INCOME TAX COMPUTATION
12 MONTHS ENDED JUNE 30, 1985
(Thousand $)

Operating Revenue		$2,455,964
Less: Operating Expenses		
Operating and Maintenance Expense	1,515,648	
Depreciation and Amortization	160,804	
State and Local Income Taxes	30,734	
Taxes Other Than Income	190,263	
Gain (Loss) on Utility Plant	(153)	
Balance		$558,668
Adjustments for Additional Items Affecting Taxable Income		
Deductions		
Gross Interest Charges Allocated to Electric Operations	193,578	
Additional Depreciation for Tax Purposes	23,258	
Contribution to Pension Fund Charged to Const.	8,161	
Taxes Charged to Construction	5,506	
Preferred Dividend Credit	787	
Amortization of Various Expenses Capitalized by R.A.	106	
Amort. Gain on Reacquired Bonds	1,056	
Spent Fuel - Pre 4/7/83	(9,608)	
Amortization of Easements & Clearing Rights of Way	523	
Net Leasing Expense - Salem 2	3,848	
Nuclear Fuel: Excess of Tax over Burn-up	1,649	
Deferred Fuel	50,283	
Schuylkill Abandon Losses	727	
Purta Recoverable	3,641	
Employee Benefits Capitalized	6,948	
Loss on ACRS Retirements	1,673	
Cost of Removal	2,742	
Gain on Sale of Real Estate	153	
Additions		
Reimburse Federal Income Taxes of SPCo	2,372	
Amortization of loss on Chester 5&6 and Barbadoes 6&7	432	
Nuclear Plant Decommissioning Expense	184	
Amortization of Turbine Lease Cancellation	10,027	
Purta Escrow	14,914	
R. R. Maint. Def. Rent Expense	31	
Amortization Pioneer Uravan Loss	189	
Miscellaneous Additions	741	
Sub-Total Net Deductions	$266,141	
Federal Income Tax Base - Operations		$292,527
Federal Income Tax @ 46%		134,562
Less: Paysop Credit		(839)
Investment Tax Credit (a)		59,209
Add: Prior Period Adjustment		48
Total Federal Income Tax Liability		$76,240

(a) There is $132,410 of ITC available to be carried forward to future years, exclusive of Trasop.

Philadelphia Electric Company - Electric Operations

ACCUMULATED DEFERRED TAXES
PER BALANCE SHEET (B-2) AS OF JUNE 30, 1985
(Thousand $)

The balance as of 6/30/85 in Accumulated Deferred Income Taxes including allocated common which amounts to $363,818 for electric operations as developed below, is deducted from the Company's investment in developing the rate base measures of value (A-2).

Combined Operations

	Total Per Balance Sheet (a)	Accumulated Deferred Taxes Common Allocated (b)	Accumulated Deferred Taxes Including Allocated Common
Electric	$357,112	$6,706	$363,818 (c)
Gas	31,709	1,006	32,715
Steam	2,725	69	2,794
Common	7,781	(7,781)	-
Total	$399,327		$399,327

a. Per B-2
b. Per B-17

Electric	86.188%
Gas	12.930
Steam	0.882
Total	100.000%

c. Includes capitalized pensions, taxes and fringe benefits of $33,148 for Electric

Philadelphia Electric Company - Combined Operations

DEVELOPMENT OF FACTORS FOR ALLOCATING COMMON
TO ELECTRIC, GAS, & STEAM OPERATIONS
June 30, 1986

	Plant in Service (1)	By Total Revenue (2)	By Total Customers (3)	Average (4)=(1)+(2)+(3) / 3
Basic Data	(Thousand $)	(Thousand $)	(Number)	
Electric	$8,726,738	$2,528,293	1,343,513	
Gas	485,912	450,484	309,770	
Steam	53,080	62,075	515	
Subtotal	$9,265,730	$3,040,852	1,653,798	
Common	142,487	-	-	
Total	$9,408,217	$3,040,852	1,653,798	
Allocation Factors				
Electric	94.183%	83.144%	81.238%	86.188%
Gas	5.244	14.814	18.731	12.930
Steam	0.573	2.042	0.031	0.882
Total	100.000%	100.000%	100.000%	100.000%

Philadelphia Electric Company - Combined Operations

CALCULATION OF EFFECTIVE INCOME TAX RATE

The effective income tax rate developed below combines into a single rate the effects of the federal income tax rate of 46% and the Pennsylvania income tax rate of 7.5%. The Pennsylvania income tax rate of 7.5% is the rate in effect prior to 1971 and is used here to reflect the level of Pennsylvania income taxes collectible through base rates. Changes in the Pennsylvania income tax rate since 1970 are collected through operation of the State Tax Adjustment Clause.

This effective income tax rate is intended for application to incremental changes in taxable income which result from 1) changes in revenue, less gross receipts taxes, associated with ratemaking adjustments, 2) changes in tax deductible expense associated with ratemaking adjustments and 3) additional revenues yielded by proposed rates. Because the effective income tax rate is applied to incremental changes in taxable income, it is independent of the overall average income tax rate experienced during the test year.

In 1970, prior to the establishment of the State Tax Adjustment Clause, Pennsylvania income taxes were deductible in determining both state and federal taxable incomes. Consequently, the effective state, federal or combined income tax rates must be determined either by a trial and error procedure or by use of algebraic formulae. The algebraic formulae used here act to determine an effective income tax rate to be applied to changes in taxable income before payment of both Pennsylvania and federal income taxes.

Pennsylvania Effective Income Tax, s:

$$s = 0.075 \times (\text{taxable income} - s)$$
$$s = (0.075 \times \text{taxable income}) - (0.075 \times s)$$
$$s + (0.075 \times s) = (0.075 \times \text{taxable income})$$
$$s \times (1 + 0.075) = (0.075 \times \text{taxable income})$$
$$s = \frac{0.075 \times \text{taxable income}}{1.075}$$
$$s = 0.06977 \times \text{taxable income}$$

Federal Effective Income Tax, f:

$$f = 0.46 \times (\text{taxable income} - s)$$
$$f = (0.46 \times \text{taxable income}) - (0.46 \times 0.06977 \times \text{taxable income})$$
$$f = (0.4600 - 0.03209) \times \text{taxable income}$$
$$f = 0.42791 \times \text{taxable income}$$

Summary:

	Rate		
	Statutory	Effective	Effective In % of Total
Pennsylvania	7.5%	6.977%	14.019%
Federal	46.0%	42.791	85.981
Total		49.768%	100.000%

PHILADELPHIA ELECTRIC COMPANY

DEBT CAPITAL
DEVELOPMENT OF WEIGHTED EFFECTIVE COST RATE
JUNE 30, 1985

($1,000)

Debt Issue	Nominal Date of Issue	Principal Amount Outstanding	Premium or (Discount)	Issue Expense	Net Proceeds Amount	Net Proceeds Per $100	Cost of Money Yield to Maturity	Cost of Money Weighted Interest
Mortgage Bonds & Debs								
12-1/2% due 2005	10/15/79	100,000	(883)	175	98,942	98.94	12.64%	12,640
10-1/2% due 2015	5/15/85	245,000	(6,039)	321	238,640	97.40	10.79%	26,436
4.65% S.F.deb due 1986	10/1/61	40,000	0	189	39,811	99.53	3.38%	1,352
4-5/8% due 1987	9/1/57	40,000	(284)	131	39,585	98.96	4.69%	1,876
3-3/4% due 1988	5/1/58	40,000	(360)	123	39,517	98.79	3.82%	1,528
4-3/8% due 1986	12/1/58	50,000	(315)	148	49,537	99.07	4.43%	2,215
5% due 1989	10/1/59	50,000	171	153	50,018	100.04	5.00%	2,500
4-1/2% due 1994	5/1/64	50,000	160	134	50,026	100.05	4.50%	2,250
5-1/8% due 1997	10/1/67	75,000	(270)	115	74,615	99.49	6.16%	4,620
6-1/2% due 1993	3/1/68	60,000	(401)	79	59,520	99.20	6.57%	3,942
9% S.F. due 1995	2/1/70	80,000	1,071	111	80,960	101.20	8.49%	6,792
7-3/4% S.F. due 2000	12/15/70	80,000	(772)	107	79,121	98.90	7.43%	5,944
8-1/4% due 1996	8/1/71	80,000	(369)	126	79,505	99.38	8.31%	6,648
7-3/8% due 2001	12/15/71	80,000	49	132	79,917	99.90	7.38%	5,904
7-1/2% due 1998	6/15/72	100,000	(14)	142	99,844	99.84	7.51%	7,510
7-1/2% due 1999	1/22/73	100,000	(384)	116	99,500	99.50	7.54%	7,540
8-1/2% due 2004	1/16/74	125,000	34	145	124,889	99.91	8.51%	10,638
11-5/8% due 2000	4/15/75	65,000	(423)	104	64,473	99.19	11.73%	7,625
11% due 2000	11/1/75	80,000	(700)	177	79,123	98.90	10.72%	8,576
9-1/8% due 2006	3/1/76	100,000	(875)	159	98,966	98.97	9.23%	9,230
9-5/8% due 2002	8/1/76	100,000	(875)	168	98,957	98.96	9.74%	9,740
8-5/8% due 2007	3/15/77	75,000	(670)	119	74,211	98.95	8.72%	6,540
8% due 2007	2/1/77	23,500	(429)	210	22,861	97.28	8.21%	1,459
8-5/8% due 2003	7/15/77	75,000	(429)	141	74,430	99.24	8.70%	6,525
9-1/8% due 2008	3/15/78	100,000	110	152	99,958	99.96	9.13%	9,130
13-3/4% due 1992	10/15/80	125,000	(904)	169	123,927	99.14	13.90%	17,375
14-3/4% due 2005	4/15/80	100,000	(687)	207	99,106	99.11	14.89%	14,890
14-1/8% due 1990	4/15/80	50,000	(334)	78	49,588	99.18	14.28%	7,140
17-5/8% due 2011	7/1/81	125,000	(2,344)	290	122,366	97.89	18.01%	22,513
18-3/4% due 2009	9/15/81	125,000	(1,089)	288	123,623	98.90	18.96%	23,700
15-1/4% due 1996	4/28/81	52,500	0	411	52,089	99.22	15.40%	8,085
15% due 1996	4/28/81	21,000	0	184	20,816	99.12	15.17%	3,186
18% due 2012	4/1/82	100,000	(1,875)	216	97,909	97.91	18.39%	18,390
15-3/8% due 2010	10/1/82	100,000	(701)	305	98,994	98.99	15.53%	15,530
13-3/8% due 2013	6/15/83	125,000	(2,301)	348	122,351	97.88	13.67%	17,088
14-1/2% SF Debs due 2009	2/15/84	150,000	(1,875)	308	147,817	98.54	14.74%	22,110
13.05% due 1994	11/26/84	20,000	0	148	19,852	99.26	13.19%	2,639
14% due 1986-94	12/1/84	80,000	0	369	79,631	99.54	14.10%	11,280
Subtotal		3,187,000	(25,007)	6,998	3,154,995			353,086

PHILADELPHIA ELECTRIC COMPANY

DEBT CAPITAL
DEVELOPMENT OF WEIGHTED EFFECTIVE COST RATE
JUNE 30, 1985

($1,000)

Debt Issue	Nominal Rate of Issue	Principal Amount Outstanding	Premium or (Discount)	Issue Expense	Net Proceeds Amount	Net Proceeds Per $100	Cost of Money Yield to Maturity	Cost of Money Weighted Interest
Mortgage Bonds & Debs								
12-1/2% due 2005	10/15/79	100,000	(883)	175	98,942	98.94	12.64%	12,640
10-1/2% due 2015	5/15/85	245,000	(6,039)	321	238,640	97.40	10.79%	26,436
4.85% S.F.deb due 1985	10/1/61	40,000	0	189	39,811	99.53	4.85%	1,931
4-5/8% due 1987	9/1/57	40,000	(284)	131	39,585	98.96	4.69%	1,857
3-3/4% due 1988	5/1/58	40,000	(260)	123	39,517	98.79	3.80%	1,502
4-3/8% due 1986	12/1/58	30,000	(315)	148	29,537	99.07	4.43%	1,309
5% due 1989	10/1/59	50,000	171	153	50,018	100.04	5.00%	2,501
4-1/2% due 1994	5/1/64	50,000	160	134	50,026	100.05	4.50%	2,252
6-1/8% due 1997	10/1/67	75,000	(270)	115	74,615	99.49	6.16%	4,593
6-1/2% due 1993	3/1/68	60,000	(401)	79	59,520	99.20	6.57%	3,911
9% S.F. due 1995	2/1/70	80,000	1,071	111	80,960	101.20	8.49%	6,875
7-3/4% S.F. due 2000	12/15/70	80,000	(772)	107	79,121	98.90	7.83%	6,192
8-1/4% due 1996	8/1/71	80,000	(369)	126	79,505	99.38	8.31%	6,607
7-3/8% due 2001	12/15/71	80,000	49	132	79,917	99.90	7.38%	5,898
7-1/2% due 1998	6/15/72	100,000	(14)	142	99,844	99.84	7.51%	7,500
7-1/2% due 1999	1/22/73	100,000	(384)	116	99,500	99.50	7.54%	7,540
8-1/2% due 2004	1/16/74	125,000	34	145	124,889	99.91	8.51%	10,638
11-5/8% due 2000	4/15/75	65,000	(423)	104	64,473	99.19	11.73%	7,628
11% due 2000	11/1/75	80,000	(700)	177	79,123	98.90	10.72%	8,476
9-1/8% due 2006	3/1/76	100,000	(875)	159	98,966	98.97	9.23%	9,230
8-5/8% due 2002	8/1/76	100,000	(875)	158	98,967	98.96	9.74%	9,740
8-5/8% due 2007	3/15/77	75,000	(670)	119	74,211	98.95	8.72%	6,540
6% due 2007	2/1/77	23,500	(429)	210	22,861	97.28	6.21%	1,459
8-5/8% due 2003	7/15/77	75,000	(429)	141	74,430	99.24	8.70%	6,525
9-1/8% due 2008	3/15/78	100,000	110	152	99,958	99.96	9.13%	9,130
13-3/4% due 1992	10/15/80	125,000	(904)	169	123,927	99.14	13.90%	17,373
14-3/4% due 2005	4/15/80	100,000	(687)	207	99,106	99.11	14.89%	14,890
14-1/8% due 1990	4/15/80	50,000	(334)	78	49,588	99.18	14.28%	7,140
17-5/8% due 2011	7/1/81	125,000	(2,344)	290	122,366	97.89	18.01%	22,513
18-3/4% due 2009	9/15/81	125,000	(1,089)	288	123,623	98.90	18.96%	23,700
15-1/4% due 1996	4/28/81	52,500	0	411	52,089	99.22	15.40%	8,085
15% due 1996	4/28/81	21,000	0	184	20,816	99.12	15.17%	3,185
18% due 2012	4/1/82	100,000	(1,875)	216	97,909	97.91	18.39%	18,390
15-3/8% due 2010	10/1/82	100,000	(701)	305	98,994	98.99	15.53%	15,530
13-3/8% due 2013	6/15/83	125,000	(2,301)	348	122,351	97.88	13.67%	17,088
14-1/2% SF Debs due 2009	2/15/84	150,000	(1,875)	308	147,817	98.54	14.74%	22,110
12.03% due 1994	11/26/84	20,000	0	148	19,852	99.26	12.19%	2,438
14% due 1988-94	12/1/84	80,000	0	369	79,631	99.54	14.18%	11,280
Subtotal		3,187,000	(25,007)	6,998	3,154,995			357,085

PHILADELPHIA ELECTRIC COMPANY

DEBT CAPITAL
DEVELOPMENT OF WEIGHTED EFFECTIVE COST RATE
JUNE 30, 1985

($1,000)

Debt Issue	Nominal Date of Issue	Principal Amount Outstanding	Premium or (Discount)	Issue Expense	Net Proceeds Amount	Net Proceeds Per $100	Cost of Money Yield to Maturity	Weighted Interest
Subtotal Carried Forward		3,187,000	(25,007)	6,998	3,154,995			353,086
Cumulative Reacquired S.F								
4.85% Debs due 1986	10/1/61	(19,200)	0	(91)	(19,109)	99.53	3.38%	(649)
7-3/4 S.F. due 2000	12/15/70	(19,200)	185	(26)	(18,989)	98.90	7.43%	(1,427)
9.0% S.F. due 1995	2/3/70	(20,548)	(275)	(29)	(20,794)	101.20	8.49%	(1,745)
11% S.F due 2000	11/1/75	(24,062)	211	(53)	(23,798)	98.90	10.72%	(2,579)
Bank Notes								
Citibank due 1988-89	5/28/79	75,000	0	0	75,000	100.00	9.50%(1)	7,125
Morgan due 1985	7/13/78	25,000	0	0	25,000	100.00	9.98%(2)	2,495
Chase due 1987	7/13/78	25,000	0	0	25,000	100.00	10.00%(3)	2,500
Chase due 1987	4/30/79	50,000	0	0	50,000	100.00	10.00%(3)	5,000
Chemical due 1987	5/28/79	50,000	0	0	50,000	100.00	9.98%(2)	4,990
Citibank due 1988	4/30/84	550,000	0	0	550,000	100.00	9.75%(4)	53,625
Unsecured Notes								
17% due 1986-87	6/29/82	20,000	0	36	19,964	99.82	17.06%	3,412
Pollution Control								
5.50% S.F. due 1997	10/1/72	33,000	0	581	32,419	98.24	5.02%	1,657
5.50% S.F due 1997	10/1/72	(8,515)	0	(150)	(8,365)	98.24	5.02%	(427)
13% due 2010	6/1/81	71,500	(1,793)	190	69,517	97.23	13.38%	9,567
11-1/2% due 2011	6/1/81	18,500	(2,236)	49	16,215	87.65	13.16%	2,435
Variable rate due 2012	12/1/82	60,000	(750)	174	59,076	98.46	5.87%	3,522
Variable rate due 2012	12/1/82	40,000	(500)	116	39,384	98.46	5.68%	2,272
Variable rate due 2013	9/1/83	50,000	(625)	177	49,198	98.40	5.69%	2,845
Variable rate due 2012	9/1/84	4,500	(56)	79	4,365	97.00	5.38%	242
Variable rate due 2012	9/1/84	4,200	(53)	63	4,084	97.24	5.38%	226
Other								
Note to Jean, Adeline & Nancy Vaserio		98	0	0	98	100.00	6.00%	6
Note to Samuel & Catherine Edwards	7/19/77	102	0	0	102	100.00	8.00%	8
Note to Conrail		1,540	0	0	1,540	100.00	0.00%	0
Note to Ida Mack		31	0	0	31	100.00	12.00%	4
Note for Petro Pipeline		95	0	0	95	100.00	12.00%	11
Total		4,174,041	(30,899)	8,114	4,135,028			448,201
								10.74

(1) = Prime (Prime @ 9.50%) = 9.50%
(2) = 105% of Prime (Prime @ 9.50%) = 9.98%
(3) = 1/2 Of 1% over Prime (prime @ 9.50%) = 10.00%
(4) =Prime (Prime @ 9.50%) + .25% = 9.75%

A detailed discussion regarding the Embedded Cost of Debt is provided in the Direct Testimony of Joseph F Brennan

PHILADELPHIA ELECTRIC COMPANY

DEBT CAPITAL
DEVELOPMENT OF WEIGHTED EFFECTIVE COST RATE
JUNE 30, 1985

($1,000)

Debt Issue	Nominal Date of Issue	Principal Amount Outstanding	Premium or (Discount)	Issue Expense	Net Proceeds Amount	Net Proceeds Per $100	Cost of Money Yield to Maturity	Weighted Interest
Subtotal Carried Forward		3,187,000	(25,007)	6,998	3,154,995			353,086
Cumulative Reacquired S.F								
4.85% Debs due 1985	10/1/61	(19,800)	0	(91)	(19,109)	99.53	2.38%	(649)
7-3/4 S.F. due 2000	12/15/70	(19,200)	185	(25)	(18,989)	98.90	7.43%	(1,427)
9.0% S.F. due 1995	2/3/70	(20,548)	(275)	(29)	(20,794)	101.20	8.45%	(1,745)
11% S.F due 2000	11/1/75	(24,062)	211	(533)	(23,796)	98.90	10.72%	(2,579)
Bank Notes								
Citibank due 1988-89	5/28/79	75,000	0	0	75,000	100.00	9.50%(1)	7,125
Morgan due 1988	7/13/78	25,000	0	0	25,000	100.00	9.98%(2)	2,495
Chase due 1987	7/13/78	25,000	0	0	25,000	100.00	10.00%(3)	2,500
Chase due 1987	4/30/79	50,000	0	0	50,000	100.00	10.00%(3)	5,000
Chemical due 1987	5/28/79	50,000	0	0	50,000	100.00	9.98%(2)	4,990
Citibank due 1988	4/30/84	550,000	0	0	550,000	100.00	9.75%(4)	53,625
Unsecured Notes								
17% due 1986-87	6/29/82	20,000	0	36	19,964	99.82	17.06%	3,412
Pollution Control								
5.50% S.F. due 1997	10/1/72	33,000	0	581	32,419	98.24	5.02%	1,657
5.50% S.F due 1997	10/1/72	(8,515)	0	(150)	(8,365)	98.24	5.02%	(427)
13% due 2010	6/1/81	71,500	(1,793)	190	69,517	97.23	13.38%	9,557
11-1/2% due 2011	6/1/81	18,500	(2,236)	49	16,215	87.65	13.16%	2,435
Variable rate due 2012	12/1/82	60,000	(750)	174	59,076	98.46	5.87%	3,522
Variable rate due 2012	12/1/82	40,000	(500)	116	39,384	98.46	5.68%	2,272
Variable rate due 2013	9/1/83	50,000	(625)	177	49,198	98.40	5.69%	2,845
Variable rate due 2012	9/1/84	4,500	(56)	79	4,365	97.00	5.38%	242
Variable rate due 2012	9/1/84	4,200	(53)	63	4,084	97.24	5.38%	225
Other								
Note to Leon, Adeline & Nancy Masorio		98	0	0	98	100.00	6.00%	6
Note to Samuel & Catherine Edwards	7/19/77	102	0	0	102	100.00	8.00%	8
Note to Conrail		1,540	0	0	1,540	100.00	0.00%	0
Note to Ida Mack		31	0	0	31	100.00	12.00%	4
Note for Petro Pipeline		93	0	0	93	100.00	12.00%	11
Total		4,174,041	(30,899)	8,114	4,135,028			448,201
								10.74

(1) = Prime (Prime @ 9.50%) = 9.50%
(2) = 105% of Prime (Prime @ 9.50%) = 9.98%
(3) = 1/2 Of 1% over Prime (prime @ 9.50%) = 10.00%
(4) =Prime (Prime @ 9.50%) + .25% = 9.75%

A detailed discussion regarding the Embedded Cost of Debt is provided in the Direct Testimony of Joseph F Brennan

Philadelphia Electric Company
Preferred Stock
Development of Weighted Effective Cost Rate

June 30, 1985
($1,000)

Issue	Shares	Date of Issue	Principal Amount Outstanding	Total Discount and Expense or Net Premium	Net Proceeds Amount	Net Proceeds Per $100	Weighted Cost	Effective Cost Rate-%
4.400% Cumulative	225,499	Dec. 1941	$22,550	$0	$22,550	100.00%	$981	4.33%
4.400%	48,221	Mar. 1942	$4,822	$449	$5,271	109.31%	$209	4.33%
3.800% Cumulative	300,000	12/4/45	$30,000	($30)	$29,970	99.90%	$1,140	3.80%
4.300% Cumulative	150,000	2/5/48	$15,000	($468)	$14,532	96.88%	$666	4.44%
4.680% Cumulative	150,000	5/14/53	$15,000	($264)	$14,736	98.37%	$714	4.76%
7.000% Cumulative	400,000	2/4/69	$40,000	($646)	$39,354	98.39%	$2,884	7.21%
8.750% Cumulative	650,000	7/22/70	$65,000	($1,040)	$63,960	98.40%	$5,779	8.89%
7.850% Cumulative	500,000	3/10/71	$50,000	($801)	$49,199	98.40%	$3,990	7.98%
7.750% Cumulative	200,000	11/15/71	$20,000	($399)	$19,601	98.01%	$1,582	7.91%
7.800% Cumulative	750,000	4/20/72	$75,000	($1,106)	$73,894	98.53%	$5,940	7.92%
7.325% Cumulative	750,000	4/2/73	$75,000	($442)	$74,558	99.41%	$5,550	7.40%
9.500% Cumulative	750,000	4/18/74	$75,000	($1,093)	$73,907	98.54%	$7,230	9.64%
9.520% Cumulative	500,000	5/4/76	$50,000	($920)	$49,080	98.16%	$4,915	9.83%
8.750% Cumulative	500,000	5/1/78	$50,000	($225)	$49,775	99.55%	$4,405	8.81%
15.250% Cumulative	500,000	3/18/80	$50,000	($925)	$49,075	98.15%	$7,860	15.72%
10.000% Cumulative	220,000	3/18/80	$22,000	($131)	$21,869	99.40%	$2,215	10.07%
17.125% Cumulative	300,000	2/18/82	$30,000	($525)	$29,475	98.25%	$5,286	17.62%
12.800% Cumulative	750,000	2/9/83	$75,000	($3,443)	$71,557	95.41%	$10,053	13.42%
13.350% Cumulative	750,000	11/15/83	$75,000	($3,384)	$71,616	95.49%	$10,485	13.98%
14.625% Cumulative	500,000	3/29/84	$50,000	($888)	$49,112	98.22%	$7,445	14.89%
14.150% Cumulative	500,000	12/11/84	$50,000	($2,323)	$47,677	95.35%	$7,420	14.84%
(Redeemed)								
7.000% Cumulative	(104,000)		($10,400)	$168	($10,232)	98.38%	($730)	7.21%
7.325% Cumulative	(210,000)		($21,000)	$184	($20,816)	99.41%	($1,554)	7.40%
9.520% Cumulative	(105,210)		($10,531)	$194	($10,337)	98.16%	($1,035)	9.83%
8.750% Cumulative	(66,500)		($6,650)	$20	($6,630)	99.55%	($587)	8.81%
Total at 6/30/85			$890,881	($18,068)	$872,813		$92,835	10.42%

A detailed discussion regarding The Embedded Cost of Preferred Stock is contained in the Direct Testimony of Joseph F Brennan

Philadelphia Electric Company - Electric Operations

DESCRIPTION OF COMPANY'S CLAIMED
MEASURES OF VALUE

The Company's claimed rate base is its depreciated original cost of electric plant in service, including allocated common plant, and necessary other investment in used and useful plant facilities and working capital, at June 30, 1986. Depreciable plant and necessary investments in plant facilities and working capital as of June 30, 1985 are shown on page A-2.

Claimed utility plant in service has been taken from the Company's books of account which were originally approved by the Pennsylvania Public Utility Commission in the mid-1940's and have since been maintained in conformity with the Commission's regulations and with the Uniform System of Accounts for Class A electric companies prescribed by the Federal Energy Regulatory Commission (FERC). The Company's books of account were last audited by FERC in 1982, with the Pennsylvania Commission participating in that audit, and are audited on an annual basis by a firm of independent certified public accountants. In addition, the PaPUC audit staff recently completed an audit of the Company's property records through December 1983.

The Direct Testimony of Warren H. Smith, explains the detailed internal accounting procedures utilized by the Company to ensure that the original cost of utility plant is properly recorded in these accounts. A detailed description, together with extensive supporting documentation of the Company's depreciation reserve associated with plant in service at June 30, 1985 is presented in the Statement and Exhibits of Mr. Alfred Wroblewski. The several additions to Depreciated Utility Plant in Service as shown on page A-2 are discussed in Sections B and C of this Exhibit and are further described in the Statements and Exhibits of the Company witnesses there identified. The several deductions to Depreciated Utility Plant in Service are described by Thomas P. Hill, Jr.

Philadelphia Electric Company - Electric Operations
SUMMARY OF ORIGINAL COST OF PLANT
AND RELATED BOOK DEPRECIATION RESERVE
AS OF JUNE 30, 1985
($1,000's)

	Original Cost		
	Plant	Book Reserve	Net
Depreciable Plant in-Service (C-2f)	$8,489,025	$1,593,169	$6,895,856
Non-depreciable Plant in-Service (C-2g)	85,965	-	85,965
Total Electric Plant in Service per books	$8,574,990 (a)	$1,593,169 (a)	$6,981,821 (a)
Book Reserve Adjustments			
Additional AFUDC for Ratemaking (C-2h)	35,109	4,548	30,561
Excess Salvage (C-2h)	-	(14,284)	14,284
Adjusted plant and reserve	$8,610,099	$1,583,433	$7,026,666
Other Ratemaking Adjustments			
25 Cycle Equipment	(4,128)	(4,128)	-
Adjusted for Ratemaking	$8,605,971	$1,579,305	$7,026,666
Allocated Common from C-3	113,067	40,781	72,286
Total Electric and Allocated Common	$8,719,038	$1,620,086	$7,098,952

(a) Limerick 1 (C-2c)

Limerick 100% Common Facilities	$2,532,627	$25,839	$2,506,788
Non-depreciable (AW-3, page 5)	7,349	-	7,349
Depreciable (C-2d)	1,271,675	12,731	1,258,944
Limerick Transmission (C-2d)	8,349	95	8,254
Sub-Total Limerick	$3,820,000	$38,665	$3,781,335
Other Electric Plant in-service (B-5)	4,754,990	1,554,504	3,200,486
Total Electric Plant in Service	$8,574,990	$1,593,169	$6,981,821

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
SCHUYKILL (1,3)		STEAM PRODUCTION			1992 = TERMINAL YEAR
1	3110	STRUCTURES AND IMPROVEMENTS	12269	8431	3838
1	3120	BOILER PLANT EQUIPMENT	43614	28800	14815
1	3140	TURBOGENERATOR UNITS	10405	7820	2585
1	3150	ACCESSORY ELECTRIC EQUIPMENT	10198	9444	755
1	3160	MISCELLANEOUS POWER PLANT EQUIP.	1180	774	406
STATION TOTAL			77666	55268	22398
CROMBY 2		STEAM PRODUCTION			1990 = TERMINAL YEAR
4	3110	STRUCTURES AND IMPROVEMENTS	7949	5882	2068
4	3120	BOILER PLANT EQUIPMENT	17612	15181	2431
4	3140	TURBOGENERATOR UNITS	10400	7863	2537
4	3150	ACCESSORY ELECTRIC EQUIPMENT	2699	2528	172
4	3160	MISCELLANEOUS POWER PLANT EQUIP.	678	640	39
STATION TOTAL			39339	32093	7246
EDDYSTONE 1 + 2		STEAM PRODUCTION			2010 = TERMINAL YEAR
6	3110	STRUCTURES AND IMPROVEMENTS	63148	25057	38091
6	3120	BOILER PLANT EQUIPMENT	186980	79329	107651
6	3140	TURBOGENERATOR UNITS	47574	26709	20865
6	3150	ACCESSORY ELECTRIC EQUIPMENT	27011	11161	15849
6	3160	MISCELLANEOUS POWER PLANT EQUIP.	2948	1673	1275
STATION TOTAL			327660	143929	183731
CROMBY 1		STEAM PRODUCTION			2004 = TERMINAL YEAR
7	3110	STRUCTURES AND IMPROVEMENTS	33713	10195	23518
7	3120	BOILER PLANT EQUIPMENT	61675	22827	38847
7	3140	TURBOGENERATOR UNITS	7736	5212	2524
7	3150	ACCESSORY ELECTRIC EQUIPMENT	5100	2836	2264
7	3160	MISCELLANEOUS POWER PLANT EQUIP.	632	457	175
STATION TOTAL			108855	41527	67328
DELAWARE (7,8)		STEAM PRODUCTION			1988 = TERMINAL YEAR
9	3110	STRUCTURES AND IMPROVEMENTS	16597	14055	2542
9	3120	BOILER PLANT EQUIPMENT	26244	18602	7642
9	3140	TURBOGENERATOR UNITS	11046	8747	2300
9	3150	ACCESSORY ELECTRIC EQUIPMENT	10044	8798	1246
9	3160	MISCELLANEOUS POWER PLANT EQUIP.	1799	1383	416
STATION TOTAL			65730	51585	14145
10	3110	STRUCTURES AND IMPROVEMENTS	14266	14097	169
10	3120	BOILER PLANT EQUIPMENT	16131	15184	947
10	3140	TURBOGENERATOR UNITS	7291	7024	267
10	3160	MISCELLANEOUS POWER PLANT EQUIP.	660	578	82
STATION TOTAL			41483	41177	305
12	3110	STRUCTURES AND IMPROVEMENTS	11919	10613	1306
12	3120	BOILER PLANT EQUIPMENT	21853	21281	572
12	3140	TURBOGENERATOR UNITS	9918	9668	250
STATION TOTAL			52123	50907	1216

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

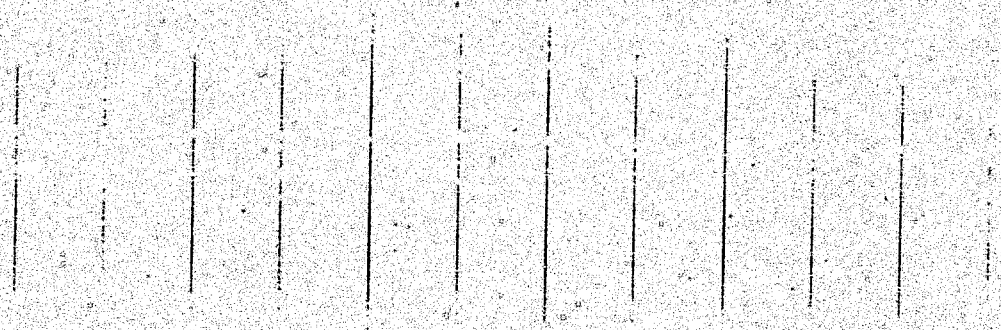
LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET	
CONEMAUGH (1,2)		STEAM PRODUCTION				2006 * TERMINAL YEAR
15	3110	STRUCTURES AND IMPROVEMENTS	5618	1843	3775	
15	3120	BOILER PLANT EQUIPMENT	33922	12941	20981	
15	3140	TURBOGENERATOR UNITS	15241	5826	9416	
15	3150	ACCESSORY ELECTRIC EQUIPMENT	4154	1349	2804	
15	3160	MISCELLANEOUS POWER PLANT EQUIP.	749	224	524	
STATION TOTAL			59684	22184	37501	
KEYSTONE (1,2)		STEAM PRODUCTION				2003 * TERMINAL YEAR
17	3110	STRUCTURES AND IMPROVEMENTS	8404	2550	5854	
17	3120	BOILER PLANT EQUIPMENT	32545	11359	21186	
17	3140	TURBOGENERATOR UNITS	12840	5509	7331	
17	3150	ACCESSORY ELECTRIC EQUIPMENT	3485	1294	2191	
17	3160	MISCELLANEOUS POWER PLANT EQUIP.	708	271	438	
STATION TOTAL			57983	20982	37000	
EDDYSTONE 3		STEAM PRODUCTION				2009 * TERMINAL YEAR
71	3110	STRUCTURES AND IMPROVEMENTS	45845	13680	32165	
71	3120	BOILER PLANT EQUIPMENT	95472	24585	70887	
71	3140	TURBOGENERATOR UNITS	27273	8909	18364	
71	3150	ACCESSORY ELECTRIC EQUIPMENT	22363	5560	16803	
71	3160	MISCELLANEOUS POWER PLANT EQUIP.	2567	677	1890	
STATION TOTAL			193520	53411	140110	
EDDYSTONE 4		STEAM PRODUCTION				2011 * TERMINAL YEAR
72	3120	BOILER PLANT EQUIPMENT	51072	13548	37524	
72	3140	TURBOGENERATOR UNITS	20328	5510	14817	
72	3150	ACCESSORY ELECTRIC EQUIPMENT	2132	1511	621	
STATION TOTAL			73531	20569	52962	
ALLIED CHEMICAL		STEAM PRODUCTION				1995 * TERMINAL YEAR
305	3110	STRUCTURES AND IMPROVEMENTS	130	14	116	
305	3150	ACCESSORY ELECTRIC EQUIPMENT	221	14	207	
STATION TOTAL			351	66	284	
ESSEX CHEMICAL		STEAM PRODUCTION				1995 * TERMINAL YEAR
306	3110	STRUCTURES AND IMPROVEMENTS	2150	407	1743	
STATION TOTAL			2150	407	1743	
TOOLS + WORK EQUIPMENT		STEAM PRODUCTION				0 * TERMINAL YEAR
372	3120	BOILER PLANT EQUIPMENT	1042	640	402	
STATION TOTAL			1042	640	402	
SAMAC		STEAM PRODUCTION				1992 * TERMINAL YEAR
503	3150	ACCESSORY ELECTRIC EQUIPMENT	8034	1641	6393	
STATION TOTAL			8034	1641	6393	

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET	
TOTAL STEAM PRODUCTION						
999	3110	STRUCTURES AND IMPROVEMENTS	222007	106822	115185	
999	3120	BOILER PLANT EQUIPMENT	588162	264316	323846	
999	3140	TURBOGENERATOR UNITS	180054	98798	81256	
999	3150	ACCESSORY ELECTRIC EQUIPMENT	106034	58760	47273	
999	3160	MISCELLANEOUS POWER PLANT EQUIP.	12895	7690	5204	
FUNCTIONAL TOTAL			1109151	536387	572764	
SALEM 1		NUCLEAR PRODUCTION			2012 = TERMINAL YEAR	
61	3210	STRUCTURES AND IMPROVEMENTS	49325	9880	39445	
61	3220	REACTOR PLANT EQUIPMENT	142566	28771	113795	
61	3230	TURBOGENERATOR UNITS	41929	6984	34944	
61	3240	ACCESSORY ELECTRIC EQUIPMENT	54850	10998	43852	
61	3250	MISCELLANEOUS POWER PLANT EQUIP.	7138	1747	5390	
STATION TOTAL			295807	58380	237427	
SALEM 2		NUCLEAR PRODUCTION			2016 = TERMINAL YEAR	
62	3210	STRUCTURES AND IMPROVEMENTS	56397	5468	50930	
62	3220	REACTOR PLANT EQUIPMENT	187151	20829	166322	
62	3230	TURBOGENERATOR UNITS	60062	-4446	64509	
62	3240	ACCESSORY ELECTRIC EQUIPMENT	67195	6643	60552	
62	3250	MISCELLANEOUS POWER PLANT EQUIP.	10658	698	9959	
STATION TOTAL			381463	29192	352271	
SALEM CF		NUCLEAR PRODUCTION			2016 = TERMINAL YEAR	
63	3210	STRUCTURES AND IMPROVEMENTS	98352	19925	78427	
63	3220	REACTOR PLANT EQUIPMENT	40712	8797	31915	
63	3230	TURBOGENERATOR UNITS	42647	8460	34187	
63	3240	ACCESSORY ELECTRIC EQUIPMENT	21955	3605	18350	
63	3250	MISCELLANEOUS POWER PLANT EQUIP.	7298	1470	5828	
STATION TOTAL			210965	42257	168708	
PEACH BOTTOM 2 + 3		NUCLEAR PRODUCTION			2009 = TERMINAL YEAR	
66	3210	STRUCTURES AND IMPROVEMENTS	101461	30439	71022	
66	3220	REACTOR PLANT EQUIPMENT	243720	43930	199790	
66	3230	TURBOGENERATOR UNITS	80323	20122	60201	
66	3240	ACCESSORY ELECTRIC EQUIPMENT	37740	11542	26199	
66	3250	MISCELLANEOUS POWER PLANT EQUIP.	18602	3929	14673	
STATION TOTAL			481847	109963	371884	
LIMERICK 0 1		NUCLEAR PRODUCTION			2023 = TERMINAL YEAR	
91	3210	STRUCTURES AND IMPROVEMENTS	313744	3042	310702	
91	3220	REACTOR PLANT EQUIPMENT	1488167	15156	1473011	
91	3230	TURBOGENERATOR UNITS	251741	2826	248915	
91	3240	ACCESSORY ELECTRIC EQUIPMENT	360902	3654	357248	
91	3250	MISCELLANEOUS POWER PLANT EQUIP.	118073	1161	116912	
STATION TOTAL			2532627	25839	2506788	

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
LIMERICK 100% COM		NUCLEAR PRODUCTION			2023 = TERMINAL YEAR
99	3210	STRUCTURES AND IMPROVEMENTS	469201	4554	464647
99	3220	REACTOR PLANT EQUIPMENT	491607	5009	486598
99	3230	TURBOGENERATOR UNITS	40966	459	40507
99	3240	ACCESSORY ELECTRIC EQUIPMENT	192787	1953	190834
99	3250	MISCELLANEOUS POWER PLANT EQUIP.	77114	756	76358
STATION TOTAL			1271675	12731	1258944
NUCLEAR TRAINING CENTER		NUCLEAR PRODUCTION			2015 = TERMINAL YEAR
385	3210	STRUCTURES AND IMPROVEMENTS	1512	218	1294
385	3250	MISCELLANEOUS POWER PLANT EQUIP.	52	4	48
STATION TOTAL			1563	222	1342
TOTAL NUCLEAR PRODUCTION					
999	3210	STRUCTURES AND IMPROVEMENTS	1089993	73525	1016467
999	3220	REACTOR PLANT EQUIPMENT	2593924	122492	2471431
999	3230	TURBOGENERATOR UNITS	517667	34405	483262
999	3240	ACCESSORY ELECTRIC EQUIPMENT	735430	38394	697035
999	3250	MISCELLANEOUS POWER PLANT EQUIP.	238934	9766	229168
FUNCTIONAL TOTAL			5175947	276583	4897364
MUDDY RUN (1,2,3,4,5,6,7,8)		HYDRAULIC PRODUCTION			0 = TERMINAL YEAR
19	3311	GENERATION	12061	2753	9308
19	3312	CONSERVATION OF FISH +WILDLIFE	128	26	102
19	3313	RECREATION	2295	1008	1287
19	3321	GENERATION	33428	5832	27596
19	3323	RECREATION	864	137	727
19	3330	WATER WHEELS, TURBINES, GENS.	21971	5492	16479
19	3340	ACCESSORY ELECTRIC EQUIPMENT	8662	2469	6193
19	3351	GENERATION	1873	711	1162
19	3353	RECREATION	166	43	123
19	3360	ROADS, RAILROADS AND BRIDGES	998	506	492
STATION TOTAL			82445	18978	63467
TOTAL OTHER PRODUCTION					
999	3410	STRUCTURES AND IMPROVEMENTS	4406	2751	1655
999	3420	FUEL HOLDERS,PRODUCERS,ACCESSORI	22449	8338	14111
999	3440	GENERATORS	90905	43522	47383
999	3450	ACCESSORY ELECTRIC EQUIPMENT	13064	5742	7322
999	3460	MISCELLANEOUS POWER PLANT EQUIP.	2282	673	1609
FUNCTIONAL TOTAL			133106	61026	72080
TOTAL TRANSMISSION PLANT					
601	3520	STRUCTURES AND IMPROVEMENTS	14934	4580	10354
601	3530	STATION EQUIPMENT	219022	79932	139089
601	3531	LIMERICK TRANSMISSION	8349	95	8254
601	3540	TOWERS AND FIXTURES	183834	47286	136548
601	3550	POLES AND FIXTURES	444	248	197
601	3560	OVERHEAD CONDUCTORS AND DEVICES	83864	25242	58622
601	3570	UNDERGROUND CONDUIT	2521	1599	922
601	3580	UNDERGROUND CONDUCTORS + DEVICES	33914	21669	12245



PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
TOTAL DISTRIBUTION PLANT					
601	3610	STRUCTURES AND IMPROVEMENTS	35022	13216	21806
601	3620	STATION EQUIPMENT	280305	136220	144086
601	3640	POLES, TOWERS AND FIXTURES	131562	47215	84347
601	3650	OVERHEAD CONDUCTORS AND DEVICES	197119	76525	120594
601	3660	UNDERGROUND CONDUIT	140481	46320	94161
601	3670	UNDERGROUND CONDUCTORS & DEVICES	248347	74048	174300
601	3680	LINE TRANSFORMERS	152904	50439	102465
601	3691	AERIAL	32351	14766	17584
601	3692	UNDERGROUND	68169	14458	53710
601	3701	METERS	64452	15654	48798
601	3702	METER INSTALLATIONS	26466	6279	20187
601	3710	INSTAL. ON CUSTOMERS' PREMISES	278	190	88
601	3730	LUMINARIES	14833	5957	8877
601	3731	AERIAL CONDUCTORS	376	355	21
601	3732	UNDERGROUND CONDUCTORS	9163	1995	7168
601	3733	P O L CONDUCTORS	2005	891	1114
FUNCTIONAL TOTAL			1403833	504529	899304
TOTAL GENERAL PLANT					
601	3900	STRUCTURES AND IMPROVEMENTS	17219	7025	10194
601	3911	OFFICE MACHINES	81	3	78
601	3912	OFFICE FURNITURE AND EQUIPMENT	2115	82	2034
601	3913	COMPUTERS	964	85	879
601	3930	STORES EQUIPMENT	404	186	218
601	3940	TOOLS, SHOP AND GARAGE EQUIPMENT	4974	1870	3104
601	3951	TESTING DIVISION	6144	1625	4519
601	3952	METER DIVISION	712	277	435
601	3953	CHEMICAL LABORATORY	526	132	394
601	3970	COMMUNICATION EQUIPMENT	1830	370	1459
601	3980	MISCELLANEOUS EQUIPMENT	960	636	325
FUNCTIONAL TOTAL			35930	12291	23639
CLASS OF SERVICE			8489025	1593169	6895856

SUMMARY BY PRIMARY ACCOUNTS OF ORIGINAL COST
FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
($1,000'S)

NON DEPRECIABLE ACCOUNTS

302.	FRANCHISES & CONSENTS (INTANG.)	163
310.	LAND & LAND RIGHTS(STEAM PROD.)	7598
320.	LAND & LAND RIGHTS(NUCLEAR PROD.)	7706
330.	LAND & LAND RIGHTS(HYDRAL PROD.)	1421
340.	LAND & LAND RIGHTS(OTHER PROD.)	849
350.	LAND & LAND RIGHTS(TRANSMISSION)	47859
360.	LAND & LAND RIGHTS(DISTRIBUTION)	21195
389.	LAND & LAND RIGHTS(GENERAL)	1967
399.	OTHER INTANGIBLE (GENERAL)	-2782
	TOTAL NON-DEPRECIABLE	85965

SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
ADDITIONAL AFUDC					
EDDYSTONE 4		ADDITIONAL AFUDC - STEAM PROD.			2011 = TERMINAL YEAR
72	63110	STRUCTURES AND IMPROVEMENTS	2608	722	1886
72	63120	BOILER PLANT EQUIPMENT	1249	347	902
72	63140	TURBOGENERATOR UNITS	530	147	383
72	63150	ACCESSORY ELECTRIC EQUIPMENT	220	60	160
72	63160	MISCELLANEOUS POWER PLANT EQUIP.	128	36	92
STATION TOTAL			4735	1312	3423
SALEM 2		ADDITIONAL AFUDC - NUCLEAR PROD.			2016 = TERMINAL YEAR
62	63210	STRUCTURES AND IMPROVEMENTS	13418	1294	12124
62	63220	REACTOR PLANT EQUIPMENT	5584	542	5042
62	63230	TURBOGENERATOR UNITS	5757	558	5199
62	63240	ACCESSORY ELECTRIC EQUIPMENT	2939	285	2654
62	63250	MISCELLANEOUS POWER PLANT EQUIP.	1208	118	1090
STATION TOTAL			28906	2797	26109
PEACH BOTTOM 2 & 3		ADDITIONAL AFUDC - NUCLEAR PROD.			2009 = TERMINAL YEAR
66	63210	STRUCTURES AND IMPROVEMENTS	1468	438	1030
STATION TOTAL			1468	438	1030
TOTAL ADDITIONAL AFUDC			35109	4548	30561
TOTAL EXCESS SALVAGE - DISTRIBUTION					
601	63640	POLES, TOWERS AND FIXTURES	0	-6635	6636
601	63650	OVERHEAD CONDUCTORS AND DEVICES	0	-7648	7647
FUNCTIONAL TOTAL			0	-14283	14284

Philadelphia Electric Company - Common
SUMMARY OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE
FOR COMMON PLANT IN SERVICE
AS OF JUNE 30, 1985
($1,000's)

	Original Cost		
	Plant	Book Reserve	Net
Common Plant in Service (C-3a)	$116,419	$39,974	$76,445
Transportation Plant in Service (C-3b)	11,697	7,342	4,355
Total Depreciable Common Plant	$128,116	$47,316	$80,800
Add:			
Non-Depreciable			
301. Organization (Intangible)(B-6)	677	-	677
389. Land & Land Rights (General)(B-6)	2,393	-	2,393
Total Non-Depreciable	3,070	-	3,070
Total Common Plant in Service (B-6)	$131,186	$47,316	$83,870
Total Common Plant in Service Allocated			
(Per B-17)			
Electric 86.188%	$113,067	$40,781	$72,286
Gas 12.930	16,962	6,118	10,844
Steam 0.882	1,157	417	740
Total 100.000%	$131,186	$47,316	$83,870

ACCUMULATED RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

LOCATION ACCOUNT			ORIGINAL COST		
			PLANT	RESERVE	NET
TOTAL GENERAL PLANT					
601	43900	STRUCTURES AND IMPROVEMENTS	84710	28939	55771
601	43911	OFFICE MACHINES	2976	1275	1701
601	43912	FURNITURE AND EQUIPMENT	8698	4168	4530
601	43913	COMPUTERS	8518	996	7522
601	43930	STORES EQUIPMENT	1830	418	1412
601	43941	CONSTRUCTION TOOLS	281	229	52
601	43942	TRANSMISSION AND DIST. TOOLS	4759	1847	2912
601	43944	TRANS. AND DIST. INSTRUMENTS	395	181	215
601	43962	CONSTRUCTION TOOLS	1	1	0
601	43963	TRANSMISSION AND DIST. TOOLS	51	51	0
601	43970	COMMUNICATION EQUIPMENT	1866	407	1459
601	43981	MISC. EQUIP. OTHER THAN FIRE FTG	494	456	38
601	43982	FIRE FIGHTING EQUIP. NOT DATED	1760	969	791
601	43983	FIRE FIGHTING EQUIP. SPEC.DATED	81	39	42
FUNCTIONAL TOTAL			116419	39974	76444
CLASS OF SERVICE			116419	39974	76444

(THOUSANDS $)

LOCATION ACCOUNT			ORIGINAL COST		
			PLANT	RESERVE	NET
TOTAL TRANSPORTATION					
601	53920	TRANSPORTATION EQUIPMENT	8809	5937	2872
601	53943	GARAGE EQUIPMENT	1517	283	1234
601	53961	VEHICLES	1371	1122	249
FUNCTIONAL TOTAL			11697	7342	4355
CLASS OF SERVICE			11697	7342	4355

Philadelphia Electric Company - Electric Operations
Description of Annual and Accrued Depreciation

The depreciation figures claimed in this filing are based on plant life estimates developed in the Company's 1985 Plant Life Study (Exhibit AW-1) for electric and common plant.

The 1985 Plant Life Study (1985 Study) is the Company's latest plant mortality study and updates the 1984 study which was filed in R-842590. The update, identified as Exhibit AW-1, includes the addition of one year of additional retirement experience for 1983. Production plant retirement dates are based on the latest Engineering Department estimates available at the time the study was made. This includes a 15-year life span extension for Cromby 1 and Eddystone 1 and 2 coal units. This life extension, to which the Company is now committed, reduces the claimed annual depreciation substantially.

Effective February 1, 1985, the Company switched its depreciation methodology for electric and common plant from the whole life method to the remaining life method for financial accounting purposes. The remaining life method is used in developing annual and accrued depreciation in this filing with the book reserve adjusted to a rate making basis consistent with the Commission's order at R-842590. The annual depreciation accrual, book reserve and rate making adjustments are developed in Exhibit AW-2 and Exhibit AW-3 and are summarized in Section C of this exhibit.

Experienced net salvage is calculated separately and averaged over a five-year period. The net negative salvage is not adjusted for third party payments as claimed by the Company in the past, pending a decision on the appeal of this issue in the Commonwealth Court.

The Company plans to depreciate Limerick Unit No. 1 and its common facilities under the remaining life method used for the other electric plant. The Limerick life span used for depreciation purposes is 39 years. This is based on a 40 year license which began with low power testing in late 1984. Allowing for one year of pre-commercial testing results in a 39 year life span for depreciation purposes.

Additional information regarding the annual and the accrued depreciation is contained in the Direct Testimony of A. Wroblewski.

Philadelphia Electric Company - Electric Operations

SUMMARY
Adjusted Book Remaining Life Accruals
for Plant-in-Service at June 30, 1985
$1,000's

	Plant	Book Reserve	Net	Remaining Life Annual Accrual
Total Per Books (a) (C-5f)	$8,574,990	$1,593,169	$6,981,821 (c)	$235,338
Book Reserve Adjustment				
Additional AFUDC (C-5g)	35,109	4,548	30,561	1,052
Excess Salvage (C-5g)	-	(14,284)	14,284	487
Adjusted Remaining Life Accrual	$8,610,099	$1,583,433	$7,026,666	$236,877
Other Ratemaking Adjustments				
25 Cycle Equipment	(4,128)	(4,128)	-	- (b)
Total for Ratemaking	$8,605,971	$1,579,305	$7,026,666	$236,877

(a) Limerick 1 (C-5c) $2,532,627 $25,839 $2,506,788 $68,656
Limerick 100% Common Facilities
Non-depreciable (AW-3, page 5) 7,349 - 7,349 -
Depreciable (C-5d) 1,271,675 12,731 1,258,944 33,824
Limerick Transmission (C-5d) 8,349 95 8,254 254
Sub-Total Limerick $3,820,000 $38,665 $3,781,335 $102,734
Other Electric (B-5) 4,754,990 1,554,504 3,200,486 132,604
Total Per Books $8,574,990 $1,593,169 $6,981,821 $235,338

(b) Fully depreciated, no adjustment required.
(c) Includes $85,965 of non-depreciable plant-in-service

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - SCHUYKILL (1,3)						1992 = TERMINAL YEAR		
1	3110 STRUCTURES AND IMPROVEMENTS	3838	14.37	1992	90-R4			552
1	3120 BOILER PLANT EQUIPMENT	14815	14.50	1992	70-R2			2148
1	3140 TURBOGENERATOR UNITS	2585	14.55	1992	75-R2			376
1	3150 ACCESSORY ELECTRIC EQUIPMENT	755	14.55	1992	75-R2			110
1	3160 MISCELLANEOUS POWER PLANT EQUIP.	406	14.43	1992	80-R3			59
STATION TOTAL		22398	14.48					3244
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - CROMBY 2						1990 = TERMINAL YEAR		
4	3110 STRUCTURES AND IMPROVEMENTS	2068	20.03	1990	90-R4			414
4	3120 BOILER PLANT EQUIPMENT	2431	20.27	1990	70-R2			493
4	3140 TURBOGENERATOR UNITS	2537	20.20	1990	75-R2			512
4	3150 ACCESSORY ELECTRIC EQUIPMENT	172	20.23	1990	75-R2			35
4	3160 MISCELLANEOUS POWER PLANT EQUIP.	39	20.12	1990	80-R3			8
STATION TOTAL		7246	20.18					1462
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 1 & 2						2010 = TERMINAL YEAR		
6	3110 STRUCTURES AND IMPROVEMENTS	38091	4.02	2010	90-R4			1531
6	3120 BOILER PLANT EQUIPMENT	107651	4.20	2010	70-R2			4520
6	3140 TURBOGENERATOR UNITS	20865	4.23	2010	75-R2			882
6	3150 ACCESSORY ELECTRIC EQUIPMENT	15849	4.16	2010	75-R2			660
6	3160 MISCELLANEOUS POWER PLANT EQUIP.	1275	4.11	2010	80-R3			52
STATION TOTAL		183731	4.16					7645
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - CROMBY 1						2004 = TERMINAL YEAR		
7	3110 STRUCTURES AND IMPROVEMENTS	23518	5.27	2004	90-R4			1240
7	3120 BOILER PLANT EQUIPMENT	38847	5.42	2004	70-R2			2105
7	3140 TURBOGENERATOR UNITS	2524	5.50	2004	75-R2			139
7	3150 ACCESSORY ELECTRIC EQUIPMENT	2264	5.43	2004	75-R2			123
7	3160 MISCELLANEOUS POWER PLANT EQUIP.	175	5.38	2004	80-R3			9
STATION TOTAL		67328	5.37					3616
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - DELAWARE (7,8)						1988 = TERMINAL YEAR		
9	3110 STRUCTURES AND IMPROVEMENTS	2542	33.49	1988	90-R4			851
9	3120 BOILER PLANT EQUIPMENT	7642	33.59	1988	70-R2			2567
9	3140 TURBOGENERATOR UNITS	2300	33.57	1988	75-R2			772
9	3150 ACCESSORY ELECTRIC EQUIPMENT	1246	33.64	1988	75-R2			419
9	3160 MISCELLANEOUS POWER PLANT EQUIP.	416	33.42	1988	80-R3			139
STATION TOTAL		14145	33.56					4748
10	3110 STRUCTURES AND IMPROVEMENTS	169	100.00	1985	90-R4			169
10	3120 BOILER PLANT EQUIPMENT	947	100.00	1985	70-R2			947
10	3140 TURBOGENERATOR UNITS	267	100.00	1985	75-R2			267
10	3160 MISCELLANEOUS POWER PLANT EQUIP.	82	100.00	1985	80-R3			82
STATION TOTAL		305	100.00					305
12	3110 STRUCTURES AND IMPROVEMENTS	1306	100.00	1985	90-R4			1306
12	3120 BOILER PLANT EQUIPMENT	572	100.00	1985	70-R2			572
12	3140 TURBOGENERATOR UNITS	250	100.00	1985	75-R2			250
STATION TOTAL		1216	100.00					1216

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - CONEMAUGH (1,2)					2006 = TERMINAL YEAR		
15	3110 STRUCTURES AND IMPROVEMENTS	3775	4.77	2006	90-R4			180
15	3120 BOILER PLANT EQUIPMENT	20981	4.93	2006	70-R2			1035
15	3140 TURBOGENERATOR UNITS	9416	4.92	2006	75-R2			463
15	3150 ACCESSORY ELECTRIC EQUIPMENT	2804	4.91	2006	75-R2			138
15	3160 MISCELLANEOUS POWER PLANT EQUIP.	524	4.81	2006	80-R3			25
STATION TOTAL		37501	4.91					1841
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - KEYSTONE (1,2)					2003 = TERMINAL YEAR		
17	3110 STRUCTURES AND IMPROVEMENTS	5854	5.56	2003	90-R4			326
17	3120 BOILER PLANT EQUIPMENT	21186	5.74	2003	70-R2			1215
17	3140 TURBOGENERATOR UNITS	7331	5.71	2003	75-R2			419
17	3150 ACCESSORY ELECTRIC EQUIPMENT	2191	5.72	2003	75-R2			125
17	3160 MISCELLANEOUS POWER PLANT EQUIP.	438	5.61	2003	80-R3			25
STATION TOTAL		37000	5.70					2110
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 3					2009 = TERMINAL YEAR		
71	3110 STRUCTURES AND IMPROVEMENTS	32165	4.17	2009	90-R4			1343
71	3120 BOILER PLANT EQUIPMENT	70887	4.33	2009	70-R2			3068
71	3140 TURBOGENERATOR UNITS	18364	4.31	2009	75-R2			792
71	3150 ACCESSORY ELECTRIC EQUIPMENT	16803	4.31	2009	75-R2			725
71	3160 MISCELLANEOUS POWER PLANT EQUIP.	1890	4.22	2009	80-R3			80
STATION TOTAL		140110	4.29					6008
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 4					2011 = TERMINAL YEAR		
72	3120 BOILER PLANT EQUIPMENT	37524	4.00	2011	70-R2			1503
72	3140 TURBOGENERATOR UNITS	14817	3.99	2011	75-R2			591
72	3150 ACCESSORY ELECTRIC EQUIPMENT	621	3.99	2011	75-R2			25
STATION TOTAL		52962	4.00					2118
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - ALLIED CHEMICAL					1995 = TERMINAL YEAR		
305	3110 STRUCTURES AND IMPROVEMENTS	115	10.00	1995	90-R4			12
305	3150 ACCESSORY ELECTRIC EQUIPMENT	207	10.00	1995	75-R2			21
STATION TOTAL		284	10.05					29
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - ESSEX CHEMICAL					1995 = TERMINAL YEAR		
306	3110 STRUCTURES AND IMPROVEMENTS	1743	10.00	1995	90-R4			174
STATION TOTAL		1743	10.00					174
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - TOOLS + WORK EQUIPMENT					0 = TERMINAL YEAR		
372	3120 BOILER PLANT EQUIPMENT	402				30-80	5.73	23
STATION TOTAL		402					5.73	23
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - SAMAC					1992 = TERMINAL YEAR		
503	3150 ACCESSORY ELECTRIC EQUIPMENT	6393	14.99	1992	30-R2			958
STATION TOTAL		6393	14.99					958

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
STEAM PRODUCTION	- TOTAL OF ALL STATIONS		- TOTAL			0 = TERMINAL YEAR		
999	3110 STRUCTURES AND IMPROVEMENTS	115185	0.0	0	0-			8099
999	3120 BOILER PLANT EQUIPMENT	323846	0.0	0	0-			20191
999	3140 TURBOGENERATOR UNITS	81256	0.0	0	0-			5463
999	3150 ACCESSORY ELECTRIC EQUIPMENT	47273	0.0	0	0-			1306
999	3160 MISCELLANEOUS POWER PLANT EQUIP.	5204	0.0	0	0-			438
FUNCTIONAL TOTAL		572764					6.20	35496
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS		- SALEM 1			2012 = TERMINAL YEAR		
61	3210 STRUCTURES AND IMPROVEMENTS	39445	3.71	2012	90-R4			1463
61	3220 REACTOR PLANT EQUIPMENT	113795	3.85	2012	70-R2			4386
61	3230 TURBOGENERATOR UNITS	34944	4.14	2012	50-R1			1446
61	3240 ACCESSORY ELECTRIC EQUIPMENT	43852	3.84	2012	75-R2			1682
61	3250 MISCELLANEOUS POWER PLANT EQUIP.	5390	3.75	2012	80-R3			202
STATION TOTAL		237427	3.87					9179
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS		- SALEM 2			2016 = TERMINAL YEAR		
62	3210 STRUCTURES AND IMPROVEMENTS	50930	3.23	2016	90-R4			1646
62	3220 REACTOR PLANT EQUIPMENT	166322	3.36	2016	70-R2			5596
62	3230 TURBOGENERATOR UNITS	64509	3.64	2016	50-R1			2347
62	3240 ACCESSORY ELECTRIC EQUIPMENT	60552	3.35	2016	75-R2			2028
62	3250 MISCELLANEOUS POWER PLANT EQUIP.	9959	3.27	2016	80-R3			325
STATION TOTAL		352271	3.39					11942
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS		- SALEM CF			2016 = TERMINAL YEAR		
63	3210 STRUCTURES AND IMPROVEMENTS	78427	3.23	2016	90-R4			2537
63	3220 REACTOR PLANT EQUIPMENT	31915	3.39	2016	70-R2			1082
63	3230 TURBOGENERATOR UNITS	34187	3.68	2016	50-R1			1257
63	3240 ACCESSORY ELECTRIC EQUIPMENT	18350	3.36	2016	75-R2			617
63	3250 MISCELLANEOUS POWER PLANT EQUIP.	5828	3.28	2016	80-R3			191
STATION TOTAL		168708	3.37					5684
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS		- PEACH BOTTOM 2 + 3			2009 = TERMINAL YEAR		
66	3210 STRUCTURES AND IMPROVEMENTS	71022	4.17	2009	90-R4			2965
66	3220 REACTOR PLANT EQUIPMENT	199790	4.32	2009	70-R2			8627
66	3230 TURBOGENERATOR UNITS	60201	4.63	2009	50-R1			2788
66	3240 ACCESSORY ELECTRIC EQUIPMENT	26199	4.31	2009	75-R2			1130
66	3250 MISCELLANEOUS POWER PLANT EQUIP.	14673	4.21	2009	80-R3			618
STATION TOTAL		371884	4.34					16128
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS		- LIMERICK # 1			2023 = TERMINAL YEAR		
91	3210 STRUCTURES AND IMPROVEMENTS	310702	2.60	2023	90-R4			8089
91	3220 REACTOR PLANT EQUIPMENT	1473011	2.73	2023	70-R2			40274
91	3230 TURBOGENERATOR UNITS	248915	3.01	2023	50-R1			7496
91	3240 ACCESSORY ELECTRIC EQUIPMENT	357248	2.72	2023	75-R2			9713
91	3250 MISCELLANEOUS POWER PLANT EQUIP.	116912	2.64	2023	80-R3			3084
STATION TOTAL		2506788	2.74					68656

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - LIMERICK 100% COM					2023 = TERMINAL YEAR		
99	3210 STRUCTURES AND IMPROVEMENTS	464647	2.60	2023	90-R4			12097
99	3220 REACTOR PLANT EQUIPMENT	486598	2.73	2023	70-R2			13304
99	3230 TURBOGENERATOR UNITS	40507	3.01	2023	50-R1			1220
99	3240 ACCESSORY ELECTRIC EQUIPMENT	190834	2.72	2023	75-R2			5188
99	3250 MISCELLANEOUS POWER PLANT EQUIP.	76358	2.64	2023	80-R3			2014
STATION TOTAL		1258944	2.69					33824
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - NUCLEAR TRAINING CENTER					2015 = TERMINAL YEAR		
385	3210 STRUCTURES AND IMPROVEMENTS	1294	3.34	2015	90-R4			43
385	3250 MISCELLANEOUS POWER PLANT EQUIP.	48	3.37	2015	80-R3			2
STATION TOTAL		1342	3.34					45
NUCLEAR PRODUCTION	- TOTAL OF ALL STATIONS - TOTAL					0 = TERMINAL YEAR		
999	3210 STRUCTURES AND IMPROVEMENTS	1016467	0.0	0	0-			28840
999	3220 REACTOR PLANT EQUIPMENT	2471431	0.0	0	0-			73269
999	3230 TURBOGENERATOR UNITS	403262	0.0	0	0-			16555
999	3240 ACCESSORY ELECTRIC EQUIPMENT	697035	0.0	0	0-			28357
999	3250 MISCELLANEOUS POWER PLANT EQUIP.	229168	0.0	0	0-			6437
FUNCTIONAL TOTAL		4897364					2.97	145458
HYDRAULIC PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - MUDDY RUN (1,2,3,4,5,6,7,8)					0 = TERMINAL YEAR		
19	3311 GENERATION	9308				87-R1	1.35	126
19	3312 CONSERVATION OF FISH +WILDLIFE	102				87-R1	1.24	1
19	3313 RECREATION	1287				87-R1	1.32	17
19	3321 GENERATION	27896				100-R2	1.19	328
19	3323 RECREATION	727				100-R2	1.19	9
19	3330 WATER WHEELS, TURBINES, GENS.	16479				40-R2	3.79	624
19	3340 ACCESSORY ELECTRIC EQUIPMENT	6193				40-S2	3.82	237
19	3351 GENERATION	1162				50-R2	2.74	32
19	3353 RECREATION	123				50-R2	2.61	3
19	3360 ROADS, RAILROADS AND BRIDGES	498				60-R2	2.28	11
STATION TOTAL		63467					2.19	1387
OTHER PRODUCTION	- TOTAL OF ALL STATIONS - TOTAL					0 = TERMINAL YEAR		
999	3410 STRUCTURES AND IMPROVEMENTS	1655	0.0	0	0-			159
999	3420 FUEL HOLDERS,PRODUCERS,ACCESSORI	14111	0.0	0	0-			1078
999	3440 GENERATORS	47383	0.0	0	0-			4269
999	3450 ACCESSORY ELECTRIC EQUIPMENT	7322	0.0	0	0-			680
999	3460 MISCELLANEOUS POWER PLANT EQUIP.	1609	0.0	0	0-			120
FUNCTIONAL TOTAL		72080					8.75	6306
TRANSMISSION PLANT	- MISCELLANEOUS - 601					0 = TERMINAL YEAR		
601	3520 STRUCTURES AND IMPROVEMENTS	10354				50-R5	2.94	304
601	3530 STATION EQUIPMENT	139089				45-S2	3.08	4287
601	3531 LIMERICK TRANSMISSION	8254				45-S2	3.08	254
601	3540 TOWERS AND FIXTURES	136548				35-S3	4.23	5775
601	3550 POLES AND FIXTURES	197				25-S2	8.78	17
601	3560 OVERHEAD CONDUCTORS AND DEVICES	58622				45-S2	3.07	1798
601	3570 UNDERGROUND CONDUIT	922				50-R4	6.00	55
601	3580 UNDERGROUND CONDUCTORS + DEVICES	12245				40-R4	5.53	677
601	3590 ROADS AND TRAILS	1005				25-R5	8.93	90

DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/05
(THOUSANDS $)

DESIG. ACCOUNT			NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
DISTRIBUTION PLANT		- MISCELLANEOUS		- 601					
								0 = TERMINAL YEAR	
601	3610	STRUCTURES AND IMPROVEMENTS	21806				40-R4	5.96	1299
601	3620	STATION EQUIPMENT	144086				40-R2	3.96	5705
601	3640	POLES, TOWERS AND FIXTURES	84347				40-R1	3.40	2869
601	3650	OVERHEAD CONDUCTORS AND DEVICES	120594				40-L1	3.41	4113
601	3660	UNDERGROUND CONDUIT	94161				50-R4	3.50	3291
601	3670	UNDERGROUND CONDUCTORS & DEVICES	174300				55-RA	2.16	3768
601	3680	LINE TRANSFORMERS	102465				35-L0	3.61	3699
601	3691	AERIAL	17584				28-R3	6.09	1071
601	3692	UNDERGROUND	53710				40-R1	3.80	1611
601	3701	METERS	48798				29-S1	5.52	2693
601	3702	METER INSTALLATIONS	20187				52-S6	2.62	528
601	3710	INSTAL. ON CUSTOMERS' PREMISES	88				30-O3	3.48	3
601	3730	LUMINARIES	6877				17-R1	9.58	851
601	3731	AERIAL CONDUCTORS	21				7-L0	71.27	15
601	3732	UNDERGROUND CONDUCTORS	7168				27-LA	4.69	336
601	3733	P O L CONDUCTORS	1114				12-SA	14.28	158
FUNCTIONAL TOTAL			899304					3.86	32010
GENERAL PLANT		- MISCELLANEOUS		- 601					
								0 = TERMINAL YEAR	
601	3900	STRUCTURES AND IMPROVEMENTS	10194				30-R4	7.05	719
601	3911	OFFICE MACHINES	78				10-L0	12.04	9
601	3912	OFFICE FURNITURE AND EQUIPMENT	2034				10-L0	11.67	237
601	3913	COMPUTERS	879				10-L0	11.03	97
601	3930	STORES EQUIPMENT	218				23-L2	10.29	22
601	3940	TOOLS, SHOP AND GARAGE EQUIPMENT	3184				45-R2	3.10	96
601	3951	TESTING DIVISION	4519				45-L1	2.76	125
601	3952	METER DIVISION	435				35-R2	4.10	18
601	3953	CHEMICAL LABORATORY	394				42-R3	3.16	12
601	3970	COMMUNICATION EQUIPMENT	1459				30-R3	4.12	60
601	3980	MISCELLANEOUS EQUIPMENT	325				23-S1	8.09	26
FUNCTIONAL TOTAL			23639					6.02	1423
CLASS OF SERVICE			6895856					3.41	235338

FOR PLANT IN SERVICE AT 6/30/85
(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
ADDITIONAL AFUDC - STEAM PROD. - ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 4					2011 = TERMINAL YEAR		
72 63110 STRUCTURES AND IMPROVEMENTS	1886	3.86	2011	90-R4			73
72 63120 BOILER PLANT EQUIPMENT	902	4.00	2011	70-R2			36
72 63140 TURBOGENERATOR UNITS	383	3.99	2011	75-R2			15
72 63150 ACCESSORY ELECTRIC EQUIPMENT	160	3.99	2011	75-R2			6
72 63160 MISCELLANEOUS POWER PLANT EQUIP.	92	3.90	2011	80-R3			4
STATION TOTAL	3423	3.92					134
ADDITIONAL AFUDC - NUCLEAR PROD. - NUCLEAR POWER GENERATING STATNS - SALEM 2					2016 = TERMINAL YEAR		
62 63210 STRUCTURES AND IMPROVEMENTS	12124	3.23	2016	90-R4			392
62 63220 REACTOR PLANT EQUIPMENT	5042	3.36	2016	70-R2			170
62 63230 TURBOGENERATOR UNITS	3199	3.64	2016	50-R1			169
62 63240 ACCESSORY ELECTRIC EQUIPMENT	2654	3.35	2016	75-R2			89
62 63250 MISCELLANEOUS POWER PLANT EQUIP.	1090	3.27	2016	80-R3			36
STATION TOTAL	26109	3.35					875
ADDITIONAL AFUDC - NUCLEAR PROD. - NUCLEAR POWER GENERATING STATNS - PEACH BOTTOM 2 & 3					2009 = TERMINAL YEAR		
66 63210 STRUCTURES AND IMPROVEMENTS	1030	4.17	2009	90-R4			43
STATION TOTAL	1030	4.17					43
TOTAL ADDITIONAL AFUDC	30561					3.44	1052
EXCESS SALVAGE - DISTRIBUTION					0 = TERMINAL YEAR		
601 63640 POLES, TOWERS AND FIXTURES	6636				48-R1	3.40	226
601 63650 OVERHEAD CONDUCTORS AND DEVICES	7647				48-L1	3.41	261
FUNCTIONAL TOTAL	14284					3.41	487

Philadelphia Electric Company - Electric Operations

SUMMARY
Remaining Life Accruals for Common
Plant In Service at June 30, 1985
($1,000)

	Plant	Book Reserve	Net	Remaining Life Annual Accrual
Total Per Books (C-6a and C-6b)	$131,186	$47,316	$83,870 (a)	$5,892
Less Transportation Cleared to Operating Expense (C-6b)				
392 Transportation	$8,809	$5,937	$2,872	$714
394.3 Garage Equipment	1,517	283	1,234	52
396.1 Vehicles	1,371	1,122	249	93
Total Transportation	$11,697	$7,342	$4,355	859
Total Common Less Transportation (C-6a)	$119,489	$39,974	$79,515	$5,033
Allocation of Common Less Transportation				
Per B-17				
Electric 86.188%	$102,985	$34,453	$68,532	$4,338
Gas 12.930	15,450	5,169	10,281	651
Steam 0.882	1,054	352	702	44
100.000%	$119,489	$39,974	$79,515	$5,033

(a) includes $3,070 of non-depreciable plant-in-service

(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
GENERAL PLANT - MISCELLANEOUS		- 601			0 = TERMINAL YEAR		
601 43900 STRUCTURES AND IMPROVEMENTS	55771				30-L2	5.22	2909
601 43911 OFFICE MACHINES	1701				10-L0	14.15	241
601 43912 FURNITURE AND EQUIPMENT	4530				10-L0	14.63	663
601 43913 COMPUTERS	7522				10-L0	12.15	914
601 43930 STORES EQUIPMENT	1412				40-L2	3.02	43
601 43941 CONSTRUCTION TOOLS	52				30-S0	5.07	3
601 43942 TRANSMISSION AND DIST. TOOLS	2912				30-S0	4.51	131
601 43944 TRANS. AND DIST. INSTRUMENTS	215				30-S0	5.07	11
601 43962 CONSTRUCTION TOOLS	0				10-S1	100.00	0
601 43963 TRANSMISSION AND DIST. TOOLS	0				10-S1	100.00	0
601 43970 COMMUNICATION EQUIPMENT	1459				30-R3	3.85	56
601 43981 MISC. EQUIP. OTHER THAN FIRE FTG	38				20-L2	9.75	4
601 43982 FIRE FIGHTING EQUIP. NOT DATED	791				20-L2	7.14	56
601 43983 FIRE FIGHTING EQUIP. SPEC.DATED	42				20-L2	6.79	3
FUNCTIONAL TOTAL	76444					6.58	5033
CLASS OF SERVICE	76444					6.58	5033

(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
TRANSPORTATION - MISCELLANEOUS - 601							
						0 = TERMINAL YEAR	
601 53920 TRANSPORTATION EQUIPMENT	2872				11-L2	24.87	714
601 53943 GARAGE EQUIPMENT	1234				30-S0	4.20	52
601 53961 VEHICLES	249				10-S1	37.28	93
FUNCTIONAL TOTAL	4355					19.72	859
CLASS OF SERVICE	4355					19.72	859

Philadelphia Electric Company - Electric Operations
PRODUCTION PLANT
LIFE SPAN DATA

Station	Unit	Terminal Year
Steam Production		
Richmond #9		1985
Cromby #1		2004 (1)
Cromby #2		1990
Delaware		1988
Eddystone 1&2		2010 (1)
Schuylkill		1992
Southwark		1985
Keystone		2003
Conemaugh		2006
Eddystone #3		2009
Eddystone #4		2011
Other Production (Excl. Croydon)		
Station	Unit	
Southwark	3,4,5&6	1992
Eddystone	10,20,30,40	1994
Cromby	Diesel	1990
Delaware	Diesel	1988
Richmond	Diesel	1990
Southwark	Diesel	1985
Schuylkill	Diesel	1993
Delaware	9,10,11,&12	1994
Schuylkill	10	1994
Chester	7,8,9	1994
Keystone	Diesel	2003
Falls	1,2,&3	1995
Moser	1,2,&3	1995
Conemaugh	Diesel	2006
Richmond	81,91,92	1998
Portable Equipment		1996
Salem	C.T.	1996
Croydon		1999
Richmond		1985
Nuclear		
Peach Bottom 2 &3		2009 (3)
Salem #1		2012 (3)
Salem #2		2016 (3)
Limerick #1		2024 (2)

(1) The terminal dates for Cromby 1 and Eddystone 1 and 2 include a 15 year life extension over the terminal year used in the prior rate proceeding at R-842590.
(2) Based on a 40 year operating license issued in 1984. The life span for depreciation purposes is 39 years, allowing one year for pre-commercial testing.
(3) Life span for ratemaking purposes is 35 years from in-service date.

Philadelphia Electric Company

Non-Revenue Producing Construction Work in Progress
(Thousand $)

Non Revenue Producing CWIP	C.A. Number	Exp. @ 6/30/85	Exp. to Complete	Total	Est. Orig. Cost. Ret.	In-Service Date	Classification
Eddystone							
Install Fire Line Riser in Crusher House	405614	$24	$154	$178	-	12/85	Safety
Peach Bottom							
Provide Personnel Door Inside Railroad Door	408532	6	35	41	-	10/85	Safety
Total Non Revenue Producing CWIP		$30	$189	$219	-		
Net to A-2 ($219 - 0)				$219			

Additional information and discussion of this claim is contained in the Direct Testimony of R. W. Wright.

Philadelphia Electric Company - Electric Operations
Land Held for Future Use (Account 105)
As of June 30, 1985
(Thousand $)

Location of Property	Date Originally Included in Plant Accounts	Date Construction Expected to Start	Expected In Service Date	Balance
Production				
Bradshaw Reservoir & Water R/W	1979	Under Construction	1986	$2,498
Merrill Creek Reservoir	1981	1985 (a)	1987	4,770
Total Production				$7,268
Transmission				
Land for Future Substations and Lines				
500 kv Line, Limerick-Whitpain	1972	1987	1989	$371
Total Transmission				$371
Distribution				
Land for Future Substations				
Middletown Substation	1974	Under Construction	1986	$388
Morton Substation	1975	1988	1990	409
Land for Expansion of Present Substations				
Woodbourne Substation	1974	1987	1989	52
Land for Expansion of Service Building				
Dungan Service Building	1974	1992	1992	16
Total Distribution				$865
Total Land Held for Future Use				$8,504

(a) Date construction is expected to start is contingent on government approval to build structures.

Additional information and discussion of this claim is provided in the Direct Testimony of R. W. Wright.

Philadelphia Electric Company - Electric Operations
MATERIALS AND SUPPLIES
June 30, 1985
(Thousand $)

The adjustment to rate base for materials and supplies is shown below. Regarding electric fuel inventory, the quantities of fuel expressed in either tons of coal or barrels of oil represent design averages required to maintain an adequate fuel supply. The unit price for coal and oil represent inventory prices as of June 30, 1985. The Direct Testimony of J. J. Carroll provides additional discussion on the Company's fuel inventory claim. The Direct Testimony of R. W. Wright provides additional discussion of the Company's non-fuel materials and supplies.

Electric Fuel Inventory (J. J. Carroll)			
Coal			
Philadelphia Area	300,000 tons @ $46.62/ton	$13,986	
Keystone	121,000 tons @ $30.41/ton	3,680	
Conemaugh	119,000 tons @ $37.85/ton	4,504	
Total Coal Inventory			$22,170
Oil			
No. 6 1.0% Sulphur	95,000 bbls @ $26.31/bbl	$2,499	
0.5% Sulphur	390,000 bbls @ $27.29/bbl	10,643	
No. 2	300,000 bbls @ $34.08/bbl	10,224	
Total Oil Inventory			$23,366
Plant Materials and Supplies (R. W. Wright)			
Electric operating			
Total			$44,495
Tools and related equipment			
Electric			2,444
Stores Expense Undistributed			
Allocated portion $1,132 x 86.188% (a)			976
Total Electric Materials and Supplies			$93,451

(a) page B-17

Philadelphia Electric Company - Electric Operations

AVERAGE ELECTRIC M&S AND
TOOLS AND RELATED EQUIPMENT
Thirteen Months Ended 6/30/85
($1,000's)

	Electric Fuel Inventory			Electric Tools and	All Operations Stores Exp.
	Coal	Oil	M&S	Related Equip	Undistributed
Jun. 1984	24,109	37,764	45,770	2,609	407
Jul.	24,007	30,803	45,710	2,662	515
Aug.	25,596	29,676	45,342	2,695	803
Sep.	26,397	31,195	45,622	2,550	979
Oct.	27,665	25,345	45,044	2,548	1,269
Nov.	27,263	31,123	45,367	2,555	1,364
Dec.	27,084	35,415	44,488	2,435	1,406
Jan. 1985	28,066	28,220	45,217	2,419	1,416
Feb.	19,075	28,364	44,176	2,410	1,558
Mar.	20,332	28,483	43,738	2,354	1,411
Apr.	21,230	31,992	43,405	2,291	1,268
May	19,403	30,357	43,241	2,172	1,184
June	18,877	26,722	41,314	2,067	1,138
13 Month Total	$309,104	$395,459	$578,434	$31,767	$14,718
13 Month Average	$23,777	$30,420	$44,495	$2,444	$1,132
Applicable to Electric - %					86.188%
- $					$976

Philadelphia Electric Company - Electric Operations

ADDITIONAL CAPITAL REQUIREMENT
ASSOCIATED WITH NUCLEAR FUEL ASSEMBLIES IN REACTOR
($1,000)

The purpose of this adjustment is to reflect in the Company's rate base claim, the value of the Limerick Unit #1 nuclear fuel assemblies in the reactor. The claim is based on the average anticipated level of nuclear fuel in the reactor during the two year operating period March 1986 through March 1988. Additional information regarding this claim is contained in the Direct Testimony of Thomas P. Hill, Jr.

Description	Amount
Limerick #1 Nuclear Fuel Cost	$129,736
Avg. Accumulated Burnup (3/86-3/88)	47,484
Average Nuclear Fuel in-stock	$82,252

Limerick #1 Fuel in Reactor

	Total Cost	Accumulated Book Burn	Net Balance
March 1986	$110,002	$5,224	$104,778
April	110,002	9,571	100,431
May	110,002	14,405	95,597
June	110,002	18,494	91,508
July	110,002	22,558	87,444
August	110,002	26,557	83,445
September	110,002	30,767	79,235
October	110,002	34,880	75,122
November	110,002	38,572	71,430
December	110,002	42,474	67,528
January 1987	110,002	47,623	62,379
February	110,002	51,428	58,574
March	110,002	51,428	58,574
April	110,002	51,428	58,574
May	154,852*	51,428	103,424
June	154,852	54,655	100,197
July	154,852	58,258	96,594
August	154,852	61,462	93,390
September	154,852	64,940	89,912
October	154,852	67,893	86,959
November	154,852	70,516	84,336
December	154,852	73,161	81,691
January 1988	154,852	76,970	77,882
February	154,852	80,197	74,655
March	154,852	82,204	72,648
25 Month Avg.	$129,736	$47,484	$82,252

*Includes $44,850 for reload

Philadelphia Electric Company - Electric Operations C-12
Cash Working Capital
June 30, 1985
(Thousands $)

Additional information regarding this claim is provided in the Direct Testimony of R. W. Wright.

Operating and Maintenance Expense	(C-12a)	98,930
Taxes	(C-12b)	33,960
Interest Payments	(C-12c)	(37,202)
Preferred Dividend Payment	(C-12d)	220
Average Bank Balances	(Below)	9,700 (a)
Total (to A-2)		105,608

(a) Average Monthly Bank Balances for the future test year are expected to be $11.3 million(II-B-5) of which 86.188%(p. B-17) or $9.7 million is allocated to Electric Operations

Philadelphia Electric Company
Cash Working Capital Required for
Operating and Maintenance Expense
June 30, 1985
(0000)

C-12a

Average Lag in Receipt of Revenue	46	(a)
Average Lag in Payment of O&M Expenses	80	(b)
Average Lag in Days Between Receipt of Revenue and Payment of Expenses	34	
Proforma Test Year O&M Expenses	1,388,991	
Average Daily Expenses	3,805	
Working Capital Requirement	98,920	

a) Class of Service

	Dollars	Lag Days	Lag $
Residential	861,032	49	42,190,568
Small Comm. &Ind.	357,405	49	17,513,440
Large Comm. &Ind.	1,117,596	44	49,174,224
	2,346,033		108,000,232

46 Days

(b) Average Lag in Payment of Expenses

	Actual	Pro Forma Adjustments		Pro Forma Expenses	Lag Days	Lag Dollars
Payroll	252,857	28,680	(c)	281,537	11	3,096,907
Net Interchange	401,270	(209,858)	(d)	192,002	35	6,720,070
Nuclear Fuel	75,196			75,196	47	3,534,212
Coal	104,440			104,440	31	3,237,640
Coal Freight Bills	20,683			20,683	5	103,415
Oil	211,738			211,738	19	4,023,022
Benefits	22,102	6,049	(c)	28,151	2	56,302
Pensions	25,908	2,571	(c)	28,479	15	442,185
Other Invoices	311,535	41,479	(e)	353,014	15	5,295,210
A&G Expenses and Rents	98,751			98,751	15	1,391,865
Total O&M Expenses	1,519,480	(130,489)		1,388,991		27,900,828

Average Lag in Payment of Expenses 80

(c) D-8 30,882
D-18 4,408

(d) D-3 4,936
D-13 (8,728)
D-21 (201,855)
D-19 (5,211)
(209,858)

(e) D-10 6,727
D-11 (13,093)
D-12 (12,870)
D-15 8,884
D-16 624
D-18 59,332
D-13 (18,123) (uncollectible accounts)
41,479

Philadelphia Electric Company
Cash Working Capital Required For
Payment of Taxes
June 30, 1985
(Thousand $)

Average Lag in Receipt of Revenue	46	(a)
Average Lag in Payment of Taxes	22	(b)
Average Lag in Days Between The Receipt of Revenue and Payment of Taxes	24	
Proforma Test Year Taxes	316,595	
Average Daily Taxes	1,415	
Working Capital Requirement	33,960	

Note a) See C-12a

Note b) Average Lag in Payment of Taxes

	Actual	Pro Forma Adjustments		Pro Forma Taxes	Lag Days	Lag Dollars
Ad Valorem	65,629			65,629	26	1,706,614
Other Taxes Other Than Income	184,684	37,041	(c)	151,643	(21)	(3,011,615)
State Income Taxes	30,734	25,339	(d)	56,073	62	3,490,166
Federal Income Taxes	76,240	156,758	(d)	232,998	47	10,930,906
Total Taxes	397,227	219,368		516,595		11,126,071
Average Lag in Payment of Taxes						22

Note (c) Taxes Other Than Income

A-4(GRT @ 4.2%)	40,209
D-2(GRT @ 4.2%)	4,033
D-3(GRT @ 4.2%)	774
D-14	1,536
D-21(GRT @ 4.2%)	(9,511)
	37,041

Note (d) Income Taxes

	State	Federal
A-4	59,527	265,154
D-2	5,972	26,600
D-3	802	4,919
D-5	(2,153)	(13,219)
D-7	(18,137)	(111,239)
D-9	(13,562)	(83,180)
D-10	(469)	(2,879)
D-11	914	5,603
D-12	198	1,217
D-13	(1,957)	(12,001)
D-14	(107)	(657)
D-15	(620)	(3,801)
D-16	(44)	(267)
D-18	(5,284)	(32,410)
D-19	471	2,890
Total	25,339	156,758

Cash Working Capital
Interest Payment Offset
(Thousand $)

Consistent with the Commission Order at Docket R-842590, the Company is including in its cash working capital claim, the effect of the lag in the payment of interest.

Rate Base (A-2) @ 6/30/85	7,014,234
% Financed by Debt	51.50
Rate Base Financed by Debt	3,612,331
Cost of Debt per B-19a	10.74
Interest Allocated to Rate Base	387,964
Average Daily Interest	1062.9
Net Lag Days(a)	35
Decrease in Cash Working Capital	37,202

(a) From Exhibit TPH-2, page C-12c

Cash Working Capital
Preferred Dividend Payment Offset
(Thousand $)

Consistent with the Commission Order at Docket R-842590, the Company is including in its cash working capital claim, the effect of the lag in the payment of preferred dividends.

Rate Base (A-2) @ 6/30/85	7,014,234
% Financed by Preferred	11.00
Rate Base Financed by Preferred	771,566
Cost of Preferred per B-20	10.42
Dividends Allocated to Rate Base	80,397
Average Daily Dividends	220.3
Net Lag Days(a)	(1)
Increase in Cash Working Capital	220

(a) See Exhibit TPH-2, page C-12d

Philadelphia Electric Company - Electric Operations
ELIMINATION OF STATE TAXES AND RELATED STAC REVENUE
12 Months Ending June 30, 1985
(Thousand $)

Certain State Taxes are recovered by the State Tax Adjustment Clause (STAC) in the Company's tariff. The following adjustment removes the effect of higher state taxes enacted since 1969 and removes related STAC revenues. Additional discussion of this adjustment is contained in the Direct Testimony of G. A. Sileo.

State Taxes to be Removed		
Realty	50,917 (a)	
Gross Receipts Tax	61,908 (b)	
Capital Stock Tax	9,206 (c)	
Corporate Net Income Tax	9,399 (d)	
Total		$131,430
Related STAC Revenue to be Removed		
Actual STAC	132,032	
Portion not removed	602	
Portion removed		$131,430
Effect on income available for return		$0

(a) Actual Realty Tax

(b) Actual Gross Receipts Tax from B-14	105,213
Less: 4.5% GRT on STAC rev. of $132,032	5,941
Less: 4.5% GRT on ECR rev of ($32,617)	(1,468)
Remainder: 4.5% GRT on other revenue	$100,740
Portions of GRT related to 1970 tax rate increase	
Full GRT on STAC rev	$5,941
Excess GRT on other revenue: $100,740x(2.5% incr/4.5% total)	55,967
Total	$61,908
(c) Actual Capital Stock Tax (CST) (From B-14)	$12,740
Portion of CST related to 1970 tax rate increase	
$23,015 x (0.4% incr / 1.0% total)	9,206
(d) Actual Corporate Net Income Tax (CNI) from B-14	$29,253
Plus: CNI portion of deferred taxes A/C liberalized depreciation on plant	523
CNI portion of deferred taxes on deferred fuel expense	421
Total	$30,197
Portion of CNI related to pre-1970 tax rates	
Actual test year taxable income for CNI	$321,224
Less: STAC revenue	132,032
Less: Tax Preference Items	334
Plus: Realty Tax	50,917
Plus: STAC - related Gross Receipts Tax	61,908
Plus: STAC - related Capital Stock	9,206
Pre-1970 taxable income for CNI	$310,889
Pre-1970 CNI tax @ 6.977%	$21,691
Portion of CNI related to 1970 tax rate increase ($30,197 - 21,691)	$8,506
Portion of CNI to be removed = ($8,506 / (1-State Income Tax Rate)	$9,399

Philadelphia Electric Company - Electric Operations

FULL YEAR EFFECT OF PRESENT BASE RATES
12 Months Ending June 30, 1985
($1,000)

By Commission Order adopted January 25, 1985 in R-842590 the Company was granted a base rate increase in the amount of $149.6 million based on a future test year ending December 31, 1984. New rates became effective January 25, 1985. Developed below is the full year effect of Tariff #26, Supp. No. 11 base rates for the 12 months ending June 30, 1985. Refer to the Direct Testimony of R. W. Wright for a more detailed explanation of this adjustment.

	12 Months Ending June 30, 1985		
	Book Base Revenue (Actual) (1)	Pro Forma Supp.No.11 Base Rev. (2)	Additional Revenue From New Rates (3)=(2)-(1)
R	$680,120	$724,105	$43,985
RH	114,884	119,506	4,622
OP	27,193	28,333	1,140
POL	1,568	1,568	-
GS	349,483	355,435	5,952
PD	163,806	170,221	6,415
HT (Incl. Riders)	827,988	848,108	20,120
EP-A	27,452	29,632	2,180
EP-S	19,362	20,125	763
SLP	13,684	14,530	846
SLS	17,055	18,218	1,163
TL	3,762	3,906	144
BLI	7	7	-
TRR	254	268	14
Total	$2,246,618	$2,333,962	$87,344
Increase in Base Revenue			$87,344
Less: Gross Receipts Tax @ 2%			1,747
Increase in Taxable Income			$85,597
Income Taxes @ 49.768%			42,600
Increase in Income Available for Return			$42,997

Philadelphia Electric Company - Electric Operations

SUMMARY OF ANNUALIZATION OF REVENUES, EXPENSES & TAXES
FOR CUSTOMERS ADDED AND INCREASED USAGE
12 Months Ended June 30, 1985
(Thousand $)

The purpose of this adjustment is to annualize revenues, expenses, and taxes in order to reflect the level of customers and the year-end usage per customer. A description of the methodology used in this adjustment is provided in the Direct Testimony of T. P. Hill, Jr..

	Total
Increase in Base Revenue (D-3a)	$16,766
Less: Gross Receipts Tax @ 2.0%	335
Increase in Revenue After Gross Receipts Tax	$16,431
Less: Increase in Operating Expenses 175,176,307 kWh (a) x 2.8178¢/kWh (b)	4,936
Increase in Taxable Income	$11,495
Less: Income Taxes @ 49.768%	5,721
Increase in Income for Return	$5,774

(a) From D-3a

Increase in usage of existing customers	342,633,396 kWh
Increase (decrease) in usage from new customers	(167,457,089) kWh
	175,176,307 kWh

(b) Represents fuel expense included in base rates

Philadelphia Electric Company - Electric Operations

GROWTH IN USAGE OF EXISTING CUSTOMERS
AND ANNUALIZATION OF NEW CUSTOMER USAGE (a)
12 Months Ended June 30, 1985
(Thousand $)

				Large Commercial & Industrial		
Growth In Usage of Existing Customers And Additional Revenue	Residential	House Heating	Small Comm. & Industrial	20 Largest Customers	All Other	Total
Annual Growth In kWh, 3-Yr. Average (D-3b)	27	(511)	1,027	(2,709,167)	122,831	
1/2 of Annual Growth In kWh	14	(256)	514	(1,354,584)	61,416	
No. of Custs. Beginning of Test Year (D-3b)	1,220,568	81,625	118,174	20	5,093	
Increase Usage	17,087,952	(20,896,000)	60,741,436	(27,091,680)	312,791,688	342,633,396
Revenue, cents per kWh (b)	10.20¢	8.08¢	9.75¢	6.18¢	7.07¢	
Increased Revenue, Thousand $	$1,743	($1,688)	$5,922	($1,674)	$22,114	$26,417
Annualization of New Customer Usage and Additional Revenue						
Customers Added During Year (D-3b)	2,530	10,437	2,537	0	(256)	
1/2 of Customers Added During Year	1,265	5,219	1,269	0	(128)	
Average Use Per Customer In kWh (D-3b)	5,502	16,315	29,584	-	2,321,150	
Increased Sales In kWh	6,960,030	85,147,985	37,542,096	-	(297,107,200)	(167,457,089)
Revenue, Cents per kWh (b)	10.20¢	8.08¢	9.75¢	-	7.07¢	
Increased Revenue, Thousand $	$710	$6,880	$3,660	-	($21,005)	($9,755)
Customer Charge - Annual	$54.00	$54.00	$94.22	-	$2,860	
Revenue from Customer Charge, Thousand $	$68	$282	$120	-	($366)	$104
Total Additional Revenue	$2,521	$5,474	$9,702	($1,674)	$743	$16,766

a. Residential is total of Rates R and OP. House Heating is Rate RH. Small Commercial and Industrial is total of Rate GS. Large Commercial and Industrial is total of Rates PD and HT.

b. Revenue in cents per kWh is the average unit base revenue at Tariff No. 26, Supplement No. 11 (excluding customer charge revenue).

Philadelphia Electric Company - Electric Operations

DEVELOPMENT OF AVERAGE ANNUAL GROWTH IN KWH PER CUSTOMER

	12 Months Ended June 1982	12 Months Ended June 1985	3-Yr. Avg.
Residential			
mWh Sales	6,601,163	6,728,127	
Number of Customers			
Beginning of Period	1,217,336	1,220,568	
End of Period	1,216,987	1,223,098	
Monthly Average	1,217,909	1,222,961	
kWh per Average Customer	5,420	5,502	
Growth in kWh per Average Customer -		82	27
House Heating			
mWh Sales	1,183,649	1,421,620	
Number of Customers			
Beginning of Period	62,865	81,625	
End of Period	68,855	92,062	
Monthly Average	66,323	87,138	
kWh per Average Customer	17,847	16,315	
Growth in kWh per Average Customer -		(1,532)	(511)
Small Commercial & Industrial			
mWh Sales	3,038,426	3,529,957	
Number of Customers (excl. OL)			
Beginning of Period	114,518	118,174	
End of Period	114,843	120,711	
Monthly Average	114,650	119,320	
kWh per Average Customer	26,502	29,584	
Growth in kWh per Average Customer -		3,082	1,027

Philadelphia Electric Company - Electric Operations

DEVELOPMENT OF AVERAGE ANNUAL GROWTH IN KWH PER CUSTOMER

	12 Months Ended June 1982	12 Months Ended June 1985	3-Yr. Avg.
20 Largest Customers			
mWh Sales	3,936,197	3,773,647	
Number of Customers			
Beginning of Period	20	20	
End of Period	20	20	
Monthly Average	20	20	
kWh per Average Customer	196,809,850	188,682,350	
Growth in kWh per Average Cust.		(8,127,500)	(2,709,167)
Large Commercial & Industrial Other Than 20 Largest			
mWh Sales	11,067,653	11,608,070	
Number of Customers			
Beginning of Period	5,725	5,093	
End of Period	5,584	4,837	
Monthly Average	5,668	5,001	
kWh per Average Customer	1,952,656	2,321,150	
Growth in kWh per Average Customer		368,494	122,831

Philadelphia Electric Company - Electric Operations
ELIMINATION OF ENERGY COST RATE REVENUE AND
RELATED FUEL EXPENSE
12 MONTHS ENDED JUNE 30, 1985
(Thousand $)

During the test year ended June 30, 1985, the Energy Cost Rate was in effect and permitted recovery of energy costs in excess of that level included in base rates. Under the ECR, energy costs collected in base rates equalled 2.8178¢ per kilowatthour during the test year. This adjustment removes from test year revenues and expenses all energy costs above the base cost of 2.8178¢ per kilowatthour and all associated ECR revenues. Refer to the Direct Testimony of T. P. Hill, Jr. for a more detailed explanation of this adjustment.

ECR Revenue to be Removed		
Test Year ECR revenue Including GRT @ 4.5%	($31,293) (a)	
Revenue Over Base to be Removed		($31,293)
Fuel Expenses to be Removed		
Total Energy Cost Allocated to PECo (D-4a)	$786,045	
Less: Fuel Expense Deferred 12 Months Ended 6/30/85 (D-4a)	50,283	
Net Fuel and Interchange Expense	$735,762	
Less: Fuel expense recovered in base rates Total Applicable Sales x base cost 27,144,871 mWh x 2.8178¢/kWh	$764,888	
Fuel Expense to be Removed		($29,126)
Gross Receipts Tax to be Removed		
Gross Receipts Tax on ECR Revenue ($31,293) x 4.5%	($1,408)	
Gross Receipts Tax to be Removed		($1,408)
Total Expenses to be Removed		($30,534)
Increase in Taxable Income		$759
Income Tax @ 49.768%		378
Increase in Income for Return		$381

(a) Gross ECR Revenue - ($31,293)
Interest on Overcollections - Time of Use (1,324)
Net ECR Revenue ($32,617) (A-5)

DEVELOPMENT OF RECOVERABLE ENERGY COSTS AND
ENERGY COSTS DEFERRED
12 Months Ended June 30, 1985
(Thousand $)

	Total Applicable Energy Costs (1)	Allocation Factor (2)	Allocated Energy Cost (3)	Recovered In Base Rates (4)	Recoverable (5)=(3)-(4)	Deferral ECR Revenue (6)	Deferral ECR Revenue Excl. GRT (7)=(6)x.995	Deferred (8)=(5)-(7)
Jul. 1984	86,668	.9776	84,727	71,784	12,942	814	777	12,165
Aug.	96,974	.9763	94,676	71,494	23,182	937	895	22,287
Sept.	63,837	.9774	62,394	62,264	130	770	735	(605)
Oct.	67,001	.9755	65,359	60,416	4,944	(171)	(163)	5,107
Nov.	93,715	.9758	91,447	58,417	33,030	(153)	(146)	33,176
Dec.	58,588	.9749	57,118	62,824	(5,706)	(461)	(440)	(5,266)
Jan. 1985	75,357	.9743	73,420	67,497	5,923	(469)	(448)	6,371
Feb.	72,464	.9741	70,587	69,300	1,287	(6,802)	(6,496)	7,783
Mar.	56,365	.9755	54,984	62,455	(7,471)	(8,859)	(8,460)	989
Apr.	48,582	.9758	47,406	59,951	(12,545)	(6,582)	(6,286)	(6,259)
May	42,181	.9770	41,211	58,621	(17,410)	(5,499)	(5,252)	(12,158)
June	43,700	.9775	42,716	59,865	(17,149)	(4,818)	(4,601)	(12,548)
	$805,432		$786,045	$764,888	$21,157	($31,293)	($29,885)	$51,042*

(a)

Account	Total	FOB Fuel Only	Non Fuel Chgs. Excluding Nucl. Spent Fuel	Nuclear Spent Fuel
501,504	$319,469	$316,130	$3,339	-
518	75,196	39,136	19,609	$16,451
547	20,869	20,780	89	-
555	451,553	439,016	12,537	-
Sub-Total	$867,087	$815,062	$35,574	$16,451
Less:Salem #2	5,944	3,282	2,020	642
Sub-Total	$861,143	$811,780	$33,554	$15,809
Less: HT Rider Energy	-	6,348	-	-
Total	$861,143	$805,432	$33,554	$15,809

* Deferral per books = $29,138. Included in the book deferred fuel account is a credit of $21,145 for fuel savings associated with Salem Unit No. 2. There is also a $759 adjustment for prior period corrections.

Philadelphia Electric Company - Electric Operations
ANNUALIZATION OF WAGES, BENEFITS AND
NUMBER OF EMPLOYEES
($1,000)

This adjustment annualizes the increases in wage and benefits expenses effective August 1, 1984. In addition, this adjustment develops the increase in wage and benefit expenses effective August 1, 1985 not reflected in the test year. Additional discussion regarding this adjustment is contained in the Direct Testimony of T. P. Hill, Jr..

Wages - Total Company

June 1985 - Regular payroll (D-5a)	$29,541
Paid days - June 1985	20
Average payroll per paid day	$1,477.1
Average payroll per paid day revised for 8/1/85 increase (1,477.1 x 1.054)(a)	1,556.9
Annualized regular payroll at June 1985 ($1,556.9 x 261 days/year)	$406,351
Less: 12 months regular payroll (D-5a)	364,980
Increased Wage Expense	$41,371
Plus: Overtime at 17.5% (D-5a)	7,240
Increase in total payroll expense	$48,611

Pensions and Benefits - Total Company

Increase in Pensions and Benefits as a result of 8/1/84 package	$5,742
Estimated increase in pensions and benefits as a result of 8/1/85 package	3,271
Less: Portion of increase pensions and benefits included in test year	5,264
Total increase in Pensions and Benefits	$3,749

Total Increase in Wages, Pensions and Benefits

Total PE Company ($48,611 + $3,749)	$52,360
Total Allocated to Electric Operations $52,360 x 59.0% (b)	30,892
Decrease in Income Taxes @ 49.768%	15,374
Decrease in Income for Return	$15,518

(a) Actual 5.4% annual increase effective 8/1/85
(b) Page D-5a of Exhibit TPH-1

Philadelphia Electric Company

PAYROLL DATA
TWELVE MONTHS ENDED JUNE 30, 1985
(Thousand $)

Month	Total PE Company (1)	PE Company Electric Oper. (2)	PE Company Overtime (3)	PE Company Regular Payroll (4)=(1)-(3)	Electric Oper. As % of Total Payroll (5)=(2)/(1)	OT as % of PE Regular Payroll (6)=(3)/(4)	Number of Employees (7)
July 1984	34,138	20,423	4,811	29,327	59.8	16.4	10,739
August	37,019	21,457	5,073	31,946	58.0	15.9	10,680
September	33,329	19,681	5,370	27,959	59.1	19.2	10,448
October	37,997	22,441	5,608	32,389	59.1	17.3	10,481
November	37,087	21,301	5,684	31,403	57.4	18.1	10,480
December	34,681	20,212	4,811	29,870	58.3	16.1	10,513
January 1985	38,035	22,538	5,302	32,733	59.3	16.2	10,488
February	34,018	19,725	5,255	28,763	58.0	18.3	10,449
March	36,046	21,678	6,025	30,021	60.1	20.1	10,430
April	36,780	21,074	5,408	31,372	57.3	17.2	10,414
May	34,798	22,434	5,142	29,656	64.5	17.3	10,601
June	34,907	19,893	5,366	29,541	57.0	18.2	10,803
Total	428,835	252,857	63,855	364,980	59.0	17.5	10,544 (Avg.)

Philadelphia Electric Company - Electric Operations

ADJUST BOOK DEPRECIATION ACCRUAL TO REFLECT
YEAR-END PLANT AS OF JUNE 30, 1985
(Thousand $)

Additional information regarding this adjustment is contained in the Direct Testimony of A. Wroblewski.

Total Depreciation accrual Associated with Plant for Ratemaking purposes (C-5)	$236,877
Anti-Trust Price Adjustment	(644)
Allocated Common Depreciation Accrual, excluding Transportation (C-6)	4,338
Calculated Depreciation Accrual	$240,571
Less: Experienced Net Salvage Expense	(3,380) (1)
Total Calculated Depreciation Including Net Salvage Expense	$243,951
Book Depreciation Accrual and Amortization Excluding Decommissioning (B-13)	156,972
Increase in Depreciation Accrual	$86,979
Decrease in Income for Return	$86,979

(1) Development of experienced net salvage expense for five years ended June 30, 1985 utilizing methodology adopted by the Commission in its Order at R-842590.

	Salvage	
	Electric	Common
1980 (6 months)	(895)	(600)
1981	(271)	(170)
1982	(3,757)	397
1983	(3,907)	572
1984	(5,673)	(180)
1985 (6 months)	(3,382)	1,127
Five Year Average excluding Common	($3,577)	$229
Electric's Share of Common @ 86.188% (B-17)	197	
Total	($3,380)	

Philadelphia Electric Company
Increase in Income Tax by Computing
Tax Depreciation on Year-End Base
As of June 30, 1985
(Thousand $)

Refer to the Direct Testimony of G. A. Sileo for additional discussion of this adjustment.

Tax Depreciation and Amortization Year Ended June 30, 1985 Electric (D-7a)				$174,768
Tax Depreciation on Limerick #1 (D-7a, TPH-2)				262,069
Common (D-7a)				
Allocated To:	Per B-17			
Electric	86.188%	$4,744		4,744
Gas	12.930	712		
Steam	0.882	48		
Total	100.000%	$5,504		
Electric including allocated common				$441,581
Less: Amortization of Anti-trust Settlement for Tax Purposes				400
Total Allowance Tax Depreciation & Amortization on year-end Basis at June 30, 1985				$441,181
Less: Tax Depreciation accrued per books for 12 months ending June 30, 1985 including allocated Common				
Book Depreciation (B-13)			$157,911	
Amortization of Anti-Trust (B-13)			(644)	
Add: Transportation Depreciation Charged to Clearing				
	Per B-17			
Electric	86.188%	698	$698	
Gas	12.930	105		
Steam	0.882	7		
Total	100.000%	$810		
Excess of Tax Depreciation and Amortization over Book Depreciation (B-15)			$23,258	
Total Accrued Tax Depreciation and Amortization for 12 Months Ended June 30, 1985				$181,223
Total Increase in Tax Depreciation and Amortization				$259,958
Decrease in Income Taxes @ 49.768%				$129,376
Increase in Income for Return				$129,376

Philadelphia Electric Company - Electric Operations
Depreciable Tax Bases and Resulting Depreciation
As of June 30, 1985
(Thousand $)

Electric	Depreciation Base For Taxes (a)	Depreciation Rate For Taxes (b)	Tax Depreciation (c)
S/L Plant Installed Prior to 1954	$291,623	0.13%	$373
Liberalized Plant Installed 1954-1969	227,090	9.49	21,541
Liberalized Plant Installed 1970	33,512	12.48	4,181
Liberalized Plant Installed 1971	29,396	17.80	5,233
Liberalized Plant Installed 1972	18,766	14.30	2,684
Liberalized Plant Installed 1973	33,201	14.99	4,977
Liberalized Plant Installed 1974	102,940	19.92	20,501
Liberalized Plant Installed 1975	30,606	12.30	3,952
Liberalized Plant Installed 1976	59,995	13.49	8,091
Liberalized Plant Installed 1977	88,780	18.51	16,430
Liberalized Plant Installed 1978	28,964	11.45	3,317
Liberalized Plant Installed 1979	37,542	11.68	4,386
Liberalized Plant Installed 1980	39,368	11.09	4,367
Liberalized Plant Installed 1981	91,854	15.93	14,630
Liberalized Plant Installed 1982	189,248	11.42	21,605
Liberalized Plant Installed 1983	121,249	11.74	14,234
Liberalized Plant Installed 1984	127,091	11.76	14,946
Liberalized Plant Installed 1985	94,593	9.85	9,320
Total	$1,645,798		$174,768
Tax Depreciation - Common			
S/L Plant Installed Prior to 1954	$5,961	1.88%	$112
Liberalized Plant Installed 1954 to 1969	5,785	4.81	287
Liberalized Plant Installed 1970	1,005	6.77	68
Liberalized Plant Installed 1971	245	8.98	22
Liberalized Plant Installed 1972	25,221	4.43	1,117
Liberalized Plant Installed 1973	961	5.41	52
Liberalized Plant Installed 1974	358	8.66	31
Liberalized Plant Installed 1975	328	6.10	20
Liberalized Plant Installed 1976	187	5.88	11
Liberalized Plant Installed 1977	590	5.42	32
Liberalized Plant Installed 1978	700	5.14	36
Liberalized Plant Installed 1979	1,706	5.33	91
Liberalized Plant Installed 1980	1,250	7.20	90
Liberalized Plant Installed 1981	3,043	17.09	520
Liberalized Plant Installed 1982	4,420	33.87	1,497
Liberalized Plant Installed 1983	3,213	17.62	566
Liberalized Plant Installed 1984	4,194	14.62	613
Liberalized Plant Installed 1985	2,442	13.88	339
Total	61,609		5,504

(a) Plant in Service at 6/30/85 less tax reserves as of 7/1/85.
(b) Depreciation rates are composites based on plant life estimates which are prescribed by U.S. Treasury Guideline Regulation as modified in the Revenue Acts of 1971, 1981 and 1982.
(c) Liberalized Tax Depreciation has been computed under the declining balance method, switched to either straight line or sum-of-the-years method as appropriate.

Philadelphia Electric Company - Electric Operations
NORMALIZATION OF TAX DEFERRALS ON YEAR-END PLANT
AND ELIMINATION OF TAX DEFERRALS FROM 1970 TAX
LEGISLATION REFLECTED ON D-1
(Thousand $)

Refer to the Direct Testimony of G. A. Sileo for further discussion of this adjustment.

Plant

Excess Depreciation (a) (D-8a)		$55,425
Excess Depreciation - Limerick No. 1 (D-8a,TPH-2)		202,796
Common Allocated to Electric (b)		1,487
Total		$259,708
Tax Deferral on 6/30/85 Plant @ 46%		$119,466
Tax Deferral on Plant Per Books (c)	$23,185	
Less: Deferred Tax Removed through STAC A/C Excess Depreciation on Plant (D-1)	523	
Net Per Books		
Change in Tax Deferral on Plant		$22,662
		$96,804

Fuel

Fuel Expense Deferred 12 Months ended 6/30/85		$50,283
Tax Deferral on fuel @ 49.768%		25,025
Tax Deferral on Fuel per books (c)	$25,446	
Less: Deferred tax removed through STAC A/C Deferred (D-1)	421	
Net per books		25,025
Change in tax deferred on fuel		0
Decrease in Income for Return		$96,804

(a) The amounts reflected represent normalization of tax deferrals, generated by the use of liberalized tax depreciation for plant additions increasing capacity and installed after 1969 and before 1981, plus the deferral resulting from use of the Class Life System (ADR) of the Revenue Act of 1971. Pursuant to the Pa.P.U.C. Order dated 8/17/73 at RID 29, these figures exclude depreciation on plant replacing capacity. The amounts also reflect normalization of tax deferrals associated with all public utility property placed in service after 1980 under the Economic Recovery Tax Act of 1981.

(b) Allocation of Common:

	Percent (B-17)	Depreciation Subject to Normalization
Electric	86.188	$1,487
Gas	12.930	223
Steam	0.882	15
Total	100.000%	$1,725 (D-8a)

(c) Total provision for deferred income taxes as shown on B-9 is comprised as follows:

Portion a/c capitalized Pensions & Taxes	6,163
Portion a/c capitalized Employee Benefits	3,245
Portion a/c deferred fuel cost	25,446
Portion a/c state carryover loss adjustment	181
Portion a/c excess depreciation on Plant	23,185
Portion a/c nuclear fuel	56
Portion a/c Recoverable Purta	8,118
Portion a/c interest on Capital Stock Assessment	393
Portion a/c Nuclear fuel storage	3,390
Portion a/c Decommissioning expense	924
Portion a/c Turbine lease cancellation	2,495
Portion a/c Schuylkill Plant	843
Portion a/c other deferred taxes	273
Total Deferred Income Taxes	$74,712

Philadelphia Electric Company
Tax Depreciation Subject To Normalization
June 30, 1985
(Thousand $)

	Depreciation Base			Depreciation Rate		Depreciation		
	For S/L Base (1)	Tax Reserve (2)	For Liberalized Base (3)=(1)-(2)	Liberalized (4)=(6)/(3)	S/L (5)=(7)/(1)	Liberalized (6)	S/L (7)	Excess (8)=(6)-(7)
Electric Plant								
1970	$117,784	$87,584	$30,200	13.10%	3.39%	$3,957	$3,988	($31)
1971	141,673	116,525	25,148	19.07	3.39	4,795	4,799	(4)
1972	69,567	54,653	14,914	15.64	3.28	2,332	2,279	53
1973	110,666	84,071	26,595	16.53	3.40	4,397	3,759	638
1974	497,656	401,563	96,093	20.49	4.27	19,694	21,241	(1,547)
1975	70,457	48,762	21,695	14.76	3.47	3,203	2,443	760
1976	157,008	98,833	58,175	13.65	3.55	7,939	5,571	2,368
1977	283,265	197,730	85,535	18.89	4.68	16,159	13,263	2,896
1978	52,288	27,191	25,097	11.89	3.60	2,984	1,880	1,104
1979	60,827	29,599	31,228	12.33	3.87	3,850	2,351	1,499
1980	60,107	25,013	35,094	11.49	3.92	4,034	2,356	1,678
1981	164,367	72,533	91,834	15.93	3.22	14,630	5,285	9,345
1982	270,328	81,080	189,248	11.42	3.83	21,605	10,367	11,238
1983	155,015	33,766	121,249	11.74	3.11	14,234	4,820	9,414
1984	143,361	16,270	127,091	11.76	3.68	14,946	5,275	9,671
1985	97,896	3,303	94,593	9.85	3.04	9,320	2,977	6,343
Total	$2,452,265	$1,378,476	$1,073,789			$148,079	$92,654	55,425
Common Plant								
1970	$2,566	$1,645	$921	6.84%	1.79%	$63	$46	$17
1971	2,643	2,573	70	18.57	0.49	13	13	-
1972	39,614	18,267	21,347	4.44	2.17	948	859	89
1973	4,004	3,114	890	5.28	1.02	47	41	6
1974	1,185	1,000	185	11.89	1.60	22	19	3
1975	1,807	1,658	149	8.72	0.61	13	11	2
1976	3,235	3,157	78	7.69	0.15	6	5	1
1977	1,242	769	473	5.29	2.50	25	31	(6)
1978	1,126	542	584	4.97	2.84	29	32	(3)
1979	2,545	941	1,604	5.11	3.69	82	94	(12)
1980	1,744	600	1,144	7.26	4.01	83	70	13
1981	6,744	3,701	3,043	17.09	7.40	520	499	21
1982	10,036	5,616	4,420	33.87	8.06	1,497	809	688
1983	4,580	1,367	3,213	17.62	5.39	566	247	319
1984	4,887	693	4,194	14.62	4.89	613	239	374
1985	2,578	136	2,442	13.88	4.89	339	126	213
Total	$90,536	$45,779	$44,757			$4,866	$3,141	$1,725

Philadelphia Electric Company - Electric Operations
ADJUSTMENT OF INCOME TAXES TO REFLECT
PRO FORMA INTEREST CHARGES BASED ON
YEAR-END PLANT AND EMBEDDED COST OF DEBT
As of June 30, 1985

D-9

As permitted by the Pa. P.U.C. order dated August 17, 1973, the Company adopted Income Tax Allocation effective October 1, 1973, under which electric operating income is credited with the tax savings on interest charges associated with debt issued to finance plant actually in service.

This adjustment is necessary to reflect the pro forma interest charges on the Company's rate base as of June 30, 1985 and the 10.74% embedded cost of debt at 6/30/85 (Page B-19). Refer to the Direct Testimony of G.A. Silso for additional information regarding this adjustment.

	(Thousand $)
Actual Test Year Interest Charges Allocated To Electric in Developing Operating taxes (B-15)	193,578
Pro Forma Interest Charges Allocable to Electric Based on Rate Base Claim	
O.C. Measure of Value at 6/30/85 (A-2)	7,014,234
% Financed by Debt	51.5
Amount Financed with Debt	3,612,331
Pro Forma Interest Charges @ 10.74%	387,964
Increase in Interest Charges Allocated	194,386
Change in Income Taxes @ 49.768%	(96,742)
Increase in Income for Return	96,742

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

ADJUSTMENT TO ACTUAL
NUCLEAR AND FOSSIL PLANT PRODUCTION
OPERATION AND MAINTENANCE EXPENSES
FOR THE TEST YEAR ENDING
June 30, 1985
($1,000's)

Actual expenses must be reviewed and adjusted, when necessary, to conform with normalized levels appropriate for ratemaking purposes. The adjustment below reflects the increase in test year expenses resulting from the difference between actual and normalized level of expenses for Electric Production O&M. In addition, this adjustment reflects the amortization of non-recurring costs associated with the Salem Management Evaluation Program. A detailed explanation of these expenses is provided in the Direct Testimony of J. J. Carroll.

Nuclear Plant O&M Increases (D-10a)	$6,654
Fossil Plant O&M Increases (D-10b)	2,455
Salem Management Evaluation Program - Decrease (D-10c)	(2,382)
Net Increase in O&M Expenses	$6,727
Income Tax @ 49.768%	3,348
Decrease In Income for Return	$3,379

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment to Actual Operation and Maintenance
Expense for Nuclear Plants
To Reflect a Normalized 2/3 Outages Per Unit Per Year
For the Test Year Ending June 30, 1985
($1,000)

Normalized Outage Expenses		
Peach Bottom Station	$12,034	
Salem No. 1 Unit	5,320	
Salem No. 2 Unit	5,320	
Limerick #1 Unit	13,067	
		$35,741
Actual Outage Expenses		
Peach Bottom Station	$11,715	
Salem No. 1 Unit	10,483	
Salem No. 2 Unit	6,889	
Limerick No. 1 Unit	0	
		$29,087
Adjustment to O&M (D-10)		$6,654

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment to Actual Operation and Maintenance
Expenses for Fossil Plants
To Reflect a Normalized Level of Outages
For the Test Year Ending June 30, 1985
($1,000)

Normalized Expenses	$21,802
Actual Outage Expenses	19,347
Adjustment to O&M (D-10)	$2,455

Philadelphia Electric Company - Electric Operations

ADJUSTMENT TO OPERATION & MAINTENANCE
EXPENSE TO REFLECT THE AMORTIZATION
OF COSTS ASSOCIATED WITH THE SALEM
MANAGEMENT EVALUATION PROGRAM
12 Months Ended June 30, 1985
($1,000)

The purpose of this adjustment is to amortize over a two-year period the costs associated with the Salem Management Evaluation Program that are non-recurring. Additional information on this adjustment is contained in the Direct Testimony of J. J. Carroll.

Annual Amortization of Non-Recurring Expense ($7,283/2)	$3,642	
Non-Recurring Expense Included in Test Year	6,024	
Reduction in Test Year Expense		$2,382

Philadelphia Electric Company - Electric Operations

Adjustment to Reflect Decrease in Operation and Maintenance Expense for Retirements in the Test Year Ending June 30, 1985
(Thousand $)

The purpose of this adjustment is to eliminate from actual operation and maintenance expense all expenses associated with production plant that is being retired. Refer to the Direct Testimony of J. J. Carroll for further detail.

Retirement of Richmond No. 9 Unit	
Operating and Maintenance Expense (less fuel)	$2,272
Retirement of scheduled Internal Combustion Units - Richmond No.'s 21, 22, 31, 32, 41, 42, 43, 44, 51, 52, 61, 62, 71 72, 73 and 74, Plymouth Meeting No's 9 and 15 and Southwark Diesel	
Operating and Maintenance Expense (less fuel)	5,450
Retirement of Southwark No.'s 1 and 2.	
Operating and Maintenance Expense (less fuel)	5,373
Total Decrease in O&M	$13,095
Income Tax @ 49.768%	6,517
Increase in Income for Return	$6,578

Philadelphia Electric Company - Electric Operations
AMORTIZATION OF ADJUSTMENTS ORDERED
IN PRIOR CASES AND PROPOSED AMORTIZATION
OF CURRENT EXPENSES
JUNE 30, 1985
($1,000)

In prior proceedings the Commission, for ratemaking purposes, provided for the amortization of certain expense items. Developed below is the adjustment to book expense to reflect these prior period items together with the company's claim for current rate case and abandoned engineering expenses. Additional discussion of this adjustment is provided in the Direct Testimony of T. P. Hill, Jr..

	Amount Booked In Test Year (1)	Ratemaking Claim (a) (2)	Adjustment (3)=(2)-(1)
1. Rate Case Expenses			
- RID 129,295,438,865	-	132	132
- R-842590	189	-	(189)
- Current Case	2,615	1,340	(1,275)
- ECR #8	1,470	116	(1,354)
- ECR #9	-	300	300
- Limerick #2 Show Cause	4,362	1,100	(3,262)
2. Turbine Lease Cancellation	10,027	-	(10,027)
3. Storm Damage	(871)	261	1,132
4. Office Automation Equip.	330	86	(244)
5. Abandoned Engineering Chester Station	-	40	40
6. Eddystone #1 Restoration	-	1,877	1,877
Subtotal Change in O&M			($12,870)
Change in Income Taxes a/c O&M expenses @ 49.768%			$6,405
7. Def. Taxes-State Tax Rate Chg	(224)	(425)	(201)
8. Pioneer Uravan Amortization	190	459	269
9. Abandoned Engineering Heaton-Byberry 230 kv line	445	89	(356)
Total Incr. in Income for Return [$12,870-(6,405-201+269-356)]			$6,753

(a) For detail see Page D-12a.

Philadelphia Electric Company - Electric Operations
DEVELOPMENT OF RATEMAKING CLAIM FOR
CERTAIN EXPENSE ITEMS
($1,000)

Item	Case Authorizing Authorization	Original Amount to be Amortized	Amortized as of 6/30/85	Unamortized as of 6/30/85	Current Year's Claimed Amortization
1. Rate Case Expenses					
- RID 129, 295, 438, 865	R-811626	2,755	1,954	801	132
- Current Case		2,680	-	2,680	1,340 (1)
- ECR #8	R-842590	1,650	321	1,329	116
- ECR #9		600	-	600	300 (1)
- Limerick #2 Show Cause		5,500	-	5,500	1,100 (2)
2. Amort. of Turbine Lease Cancellation	R-811626	40,108	30,917	9,191	-
3. Storm Damage	R-842590	1,000	145	855	261 (3)
4. Office Automation Start-up Costs	R-842590	330	48	282	86 (3)
5. Abandoned Engr. Chester Station	R-801225	970	727	243	40 (3)
6. Eddystone #1 Restoration	R-842590	7,185	1,041	6,144	1,877 (3)
7. State Tax Rate Change	R-842590	(3,018)	(438)	(2,580)	(787)(4)
8. Pioneer Uravan,	R-842590	2,296	200	2,096	459
9. Abandoned Engineering Heaton Byberry 230 kv line		445	-	445	89 (2)

(1) Reflects a 2 year normalization
(2) Reflects a 5 year normalization
(3) Reflects a 2 year amortization of the unamortized balance
(4) Current year net of Deferred Federal Income Tax effect = (425); 2 year amortization of unamortized balance

Philadelphia Electric Company - Electric Operations
ADJUSTMENT TO ELIMINATE THE REVENUE
AND FUEL EXPENSE ASSOCIATED WITH SALES
TO BOTH THE BOROUGH OF LANSDALE AND TO
JERSEY CENTRAL POWER & LIGHT THAT ARE
INCLUDED IN THE TEST YEAR ENDED
JUNE 30, 1985
(Thousand $)

Effective on 12/31/84, Jersey Cental Power & Light no longer purchases the output of Salem #2 from PECo. In addition effective 7/85, the Borough of Lansdale will no longer receive its power supply from the Philadelphia Electric Company. The purpose of this adjustment is to eliminate all revenues and fuel expenses associated with sales to Lansdale and Jersey Central Power & Light from the 6/30/85 test year. Refer to the Direct Testimony of R. W. Wright for a more detailed description of this adjustment.

	Lansdale	JCP&L	Total
Revenue included in test year	$7,847	$28,932	$36,779
Less: Fuel	3,585	5,147	8,732
Taxable income to be removed	$4,262	$23,785	$28,047
Decrease in income taxes	2,121	11,837	13,958
Decrease in income for return	$2,141	$11,948	$14,089

Philadelphia Electric Company - Electric Operations
FEDERAL OLD AGE BENEFITS
FOR THE YEAR ENDED 6/30/85
(Thousand $)

Effective 1/1/85 the wage base subject to federal old age benefits tax increased to $39,600 from $37,800 and the rate of tax increases from 7.00% to 7.05%. Additional discussion of this adjustment is contained in the Direct Testimony of G. A. Sileo.

Developed below is the increase in expense on account of the above increase.

Total Company

7/1/84 to 6/30/85 FICA Wage Base @ $39,600	$341,619
Full year effect of 7.05% FICA Rate ($341,619 x 7.05%)	24,084
7/1/84 to 6/30/85 Expense Included in Test Year	21,481
Increase	$2,603
Allocation to Electric Operations	
$2,603 x 59.0% (a)	$1,536
Decrease in income taxes @ 49.768%	764
Decrease in income for return	$772

(a) Based on 12 months ended June 30, 1985 (Ref: Page D-5a of Exhibit TPH-1)

Philadelphia Electric Company - Electric Operations
DECOMMISSIONING COST ADJUSTMENT FOR
PEACH BOTTOM NO. 1, 2 & 3, SALEM NO. 1 & 2 AND LIMERICK NO. 1
12 Months Ended June 30, 1985
($1,000's)

In its order at R-842590, the Commission permitted the Company an annual accrual for decommissioning expense of four nuclear units - Peach Bottom Units No. 2 and No. 3 and Salem Units No. 1 and No. 2. Subsequent to this order the Company performed a new decommissioning cost study for all our nuclear plants. This adjustment utilizes the new study to (1) include Peach Bottom Unit No. 1 and Limerick Unit No. 1 in the estimate (2) reflect the increase in the total estimated cost of decommissioning (3) provide recovery of the reserve deficiency over a five year period for historic accruals for Peach Bottom Units No. 2 and No. 3 and Salem Units No. 1 and No. 2 and (4) recover future accruals through the year 2008 for the Peach Bottom and Salem Units and through the year 2024 for Limerick Unit No. 1. The Direct Testimony of N. B. McLeod provides a discussion of the decommissioning study performed for all of the Company's nuclear units. The Direct Testimony of R. W. Wright provides a description of the Company's expense accounting.

Development of Future Annual Accrual for Decommissioning

PECo share of estimated total cost of decommissioning: (6/30/86)		
- Peach Bottom Units No.1,No.2,No.3	$107,257	
- Salem Units No.1, No.2	76,684	
- Limerick Unit No.1	123,629	
	$307,570	
Annual decommissioning expense		
- Peach Bottom Units No.1, No.2, No.3		3,979
- Salem Units No.1, No.2		2,789
- Limerick Unit No. 1		3,253
		$10,021

Expense to Correct Prior Accruals

Reserve requirement at 6/30/85 for Peach Bottom Units No. 2 and 3 and Salem Units No. 1 and No. 2	$29,219	
Actual reserve through 6/30/85 including interest	15,746	
Increase in Decommissioning Expense necessary to correct prior accruals	13,473	
5 yr amortization of incr. in decommissioning expense to correct prior accruals		2,695
Total expense associated with decommissioning		12,716
Decommissioning expense included in test year		3,832
Increase in Decommissioning Expense		$8,884
Decrease in Income Taxes @ 49.768%		4,421
Decrease in Income for Return		$4,463

Philadelphia Electric Company - Electric Operations

SPENT FUEL DISPOSAL COST ADJUSTMENT
FOR PEACH BOTTOM NO. 2 & 3, SALEM NO. 1 & 2, AND LIMERICK NO. 1
12 Months Ending June 30, 1985
($1,000)

In its order at R-842590, the Commission permitted the Company spent fuel expense allowances for Peach Bottom Units No. 2 and No. 3 and Salem Units No. 1 and No. 2 based on an estimate by DOE of 1 mill/kWh of gross electrical output for spent fuel removal beginning on April 7, 1983.

The purpose of this adjustment is to include in test year operating expenses the Company's cost for spent fuel removal.

This claim applies the DOE assessment of 1 mill/gross kWh to the anticipated average annual generation by Peach Bottom Units No. 2 and No. 3, Salem Units No. 1 and No. 2 and Limerick Unit No. 1. The Direct Testimony of J. J. Carroll provides detail on the development of anticipated average annual nuclear generation. Also, refer to the Direct Testimony of R. W. Wright for a detailed description of the Company's spent fuel expense accounting.

Estimated Annual Spent Fuel Expense:	
Peach Bottom 2	$2,647
Peach Bottom 3	2,600
Salem 1	2,754
Salem 2	2,827
Limerick 1	6,247
Total Expense Associated with Spent Fuel Removal	$17,075
Less: Spent Fuel Included in Test Year	16,451
Increase in Spent Fuel Expense	$624
Change in Income Taxes @ 49.768%	311
Decrease in Income for Return	$313

Philadelphia Electric Company - Electric Operations

ADJUSTMENT TO AMORTIZE THE LOSS ON
THE SALEM #1 DAMAGED NUCLEAR FUEL ASSEMBLIES
(Thousand $)

During the course of a PUC 1982 fuel audit approximately $929,000 related to damaged nuclear fuel assemblies was eliminated from recoverable fuel costs. The purpose of this adjustment is to amortize the cost of Salem #1 damaged nuclear fuel assemblies to base rates over a period of three years. The amount being amortized is equal to the amount of the adjustment in the 1982 Pa.PUC fuel audit. Refer to the Direct Testimony of T. P. Hill, Jr. for further discussion of this adjustment.

Total to be amortized	$929
Annual amortization (3 years)	$310
Decrease in deferred taxes @ 49.768%	154
Decrease in Income for Return	$156

Philadelphia Electric Company - Electric Operations

Adjustment to Reflect Full Year O&M Expenses
for Limerick No. 1 Unit
(Thousand $)

This adjustment is necessary to reflect a full year effect of the operating and maintenance expenses associated with Limerick No. 1 Unit which were not included in the original budget data.

Additional information regarding nuclear O&M expenses is contained in the Direct Testimony of J. J. Carroll. Refer to the Direct Testimony of T. P. Hill, Jr. for additional discussion regarding pensions, benefits, insurance and payroll taxes.

Description	Accounts	Amount	
Nuclear O&M Expenses	517 to 532	$63,448	(Carroll)
Pensions and Benefits	926	6,408	(Hill)
Insurance	924, 925	5,534	(Hill)
Payroll Taxes	950	350	(Hill)
Total Annual O&M		$75,740	
Amount Included in Budget		0	
Increase in O&M Expense		$75,740	
Decrease in Income Taxes		37,694	
Decrease in Income for Return		$38,046	

Philadelphia Electric Company - Electric Operations

NON JURISDICTIONAL RATES
RATE OF RETURN ADJUSTMENT
12 Months Ending June 30, 1985
(Thousand $)

As per the Company's cost of service study, Exhibit WFS-1, the current return level from those customers not subject to Pennsylvania regulation is lower than the overall Company average return being sought in this case. The purpose of this adjustment is to reflect the additional income which results from applying the system average return to these customers. Refer to the Direct Testimony of T. P. Hill, Jr. for additional discussion of this adjustment.

	FERC Jurisdiction	Interdepartmental	Total
Revenue at proposed return level (12.70%)	$29,633	$4,803	$34,436*
Less: Revenues included in June 30, 1985 test year	27,034	4,266	31,300
Additional Revenue	$2,599	$537	$3,136
Decrease in fuel expense @ 491,712,722 kWh (a) @ .7355¢/kWh (D-21)			3,617
Increase in taxable income			6,753
Income taxes @ 49.768%			$3,361
Increase in income for return			$3,392

*Assumes full rate increase is granted. Therefore, this is subject to change if a portion of the increase is disallowed.

(a)	FERC	427,601,757 kWh
	Interdepartmental	64,110,965 kWh
		491,712,722 kWh

Philadelphia Electric Company - Electric Operations

ADJUSTMENT TO REFLECT FULL YEAR AMORTIZATION OF
INVESTMENT TAX CREDIT
ON A YEAR-END PLANT BASIS
12 MONTHS ENDED JUNE 30, 1985
(Thousand $)

The purpose of this adjustment is to reflect a full year's amortization of investment tax credit on qualifying plant placed in service during the test year assuming the proforma proposed rates were in effect during this period. The effect of the adjustment is to place the ITC amortization on a year-end plant basis. Additional information on this adjustment is contained in the Direct Testimony of G. A. Sileo.

Amortization on the $50,609 Plant in Service Portion of the total $132,410 ITC Carryover at 6/30/85 (per B-15)	3,859	
Amortization of Limerick Unit 1 with 100% Common	4,997	
Annualization Adjustment for Plant in Service Portion of ITC Carryover		$8,856*
Increase in ITC Amortization		$8,856
Increase in Income Available for Return		$8,856

*Assumes full rate increase is granted. Therefore it is subject to change if a portion of the increase is disallowed.

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment to Base Rates to Reflect
A Roll-out of .7505¢/kWh of Fuel Expense
(Thousand $)

Effective with the commercial operation date of Limerick Unit #1, it is expected that the Company's energy costs will be significantly reduced. The purpose of this adjustment is to reflect the effect of this cost reduction through a .7505¢/kWh roll-out of fuel from base rates. The development of the fuel roll-out is shown below. Refer to the Direct Testimony of J. J. Carroll for further discussion on the development of the energy savings.

Decrease in Revenue (D-21a)		$205,975
Decrease in Fuel Expense	$201,855	
Decrease in Gross Receipts Tax	4,120	
Total Decrease in Expense		$205,975
Change in Taxable Income		$0

Philadelphia Electric Company - Electric Operations

Adjustment to Base Rates to Reflect
A Roll-Out of .7505¢/kWh
of Fuel Expense
(Thousand $)

Total Fuel & Interchange Expense without Limerick No. 1 Unit 7/1/86 to 6/30/88	$1,378,043
Total Fuel & Interchange Expense with Limerick No. 1 Unit 7/1/86 to 6/30/88	$961,407
Reduction in Fuel & Interchange Expense resulting from Limerick No. 1 Unit supplying PECo System Sales	$416,636
PECo System Sales from 7/1/86 to 6/30/88	56,647,100 Mwh
Reduction in Cost per kWh $\frac{\$416,636,000}{56,647,100 \text{ MWh}}$ =	7.355 M/kWh
Tax Effect 1/1-T (T=2.0%)	1.02041
Reduction in Energy Cost per kWh	7.505 m/kWh
Applicable Sales for Test Year (Adjusted for Growth)	27,444,997 MWh
Decrease in Revenue	$205,975

PLC EXHIBIT TDH-7
GA 15-11-31
R-850355
PA-7

PHILADELPHIA ELECTRIC COMPANY
ELECTRIC OPERATIONS

REVENUE, EXPENSES, INCOME & MEASURES OF VALUE

TWELVE MONTHS ENDING
JUNE 30, 1986

RECEIVED
DEC 18 1985
SECRETARY'S OFFICE
Public Utility Commission

DOCKETED
DEC 18 1985

SEPTEMBER, 1985

DO NOT
REMOVE

Philadelphia Electric Company - Electric Operations
INCOME AVAILABLE FOR RETURN
12 MONTHS ENDED JUNE 30, 1986
(Thousand $)

	Actual (B-9)	Adjustments (A-3)	Proforma Pres. Rates	Addl. Revs. (A-4)	Proforma Proposed Rates
Operating Revenue	2,528,293	(26,300)	2,501,993	681,760	3,183,753
Operating Expenses					
Operating & Maintenance Exp.	1,502,703	145,544	1,648,247	(206,990)	1,441,257
Depn. & Amort. (incl. salvage)	164,429	100,448	264,877		264,877
Provision for Taxes					
Taxes Other Than Inc.	199,837	(113,785)	86,052	13,635	99,687
Income Taxes	132,673	(98,641)	34,032	435,527	469,559
Provision for Deferred Taxes	107,815	(66,804)	41,011		41,011
Income Taxes Def.-Other	(14,033)	427	(13,606)		(13,606)
ITC Adjustment-(net)	6,912	(10,313)	(3,401)		(3,401)
Total Taxes	433,204	(289,116)	144,088	449,162	593,250
Total Operating Expenses	2,100,336	(43,124)	2,057,212	242,172	2,299,384
Operating Income Avail. for Return	427,957	16,824	444,781	439,588	884,369
Original Cost Measure of Value (A-2)			6,963,532		6,963,532
Return on Original Cost			6.39		12.70

RATE OF RETURN COMPONENTS

	Ratio	Cost	Wtd. Cost
DEBT (B-19a)	0.307	10.84	3.50
PREFERRED (B-20)	0.108	10.54	1.14
COMMON EQUITY	0.385	15.75	6.06
			12.70

Philadelphia Electric Company - Electric Operations
MEASURES OF VALUE
AT JUNE 30, 1986
(Thousand $)

	Reference	Original Cost
Utility Plant in Service		
Electric	C-2	8,757,719
Allocated Common	C-2	122,807
Total O.C. Plant in Service		8,880,526
Less: Book Reserve on Plant in Service	C-2	1,665,850
		7,214,676
Plus: Non-Revenue Producing CWIP	C-8	4,657
Land Held for Future Use	C-9	8,651
Materials and Supplies	C-10	90,550
Nuclear Fuel in Reactor	C-11	82,252
Cash Working Capital	C-12	99,351
Total Additions		285,461
Less: Accumulated Deferred Inc. Taxes		
Accelerated Amortization	B-2	2,323
Liberalized Depreciation	B-16	526,166
Customer Deposits	B-2	7,682
Customer Advances	B-2	434
Total Deductions		536,605
Measures Of Value		6,963,532

Philadelphia Electric Company - Electric Operations

ADJUSTMENTS TO INCOME AVAILABLE FOR RETURN

12 Months Ended June 30, 1986

(Thousand $)

Test Year Adjustments	Section Page	Operating Revenues	Oper. Exp. Excl. Taxes	Taxes Other Than Income	State Share Income Taxes	Federal Share Income Taxes	Effect on Income for Return
Elimination of STAC Revenue and Taxes	D-1	(126,007)		(117,721)	(8,286)		0
Full Year Effect of Present Base Rates	D-2	0		0	0	0	0
Annualization for Growth and Customers	D-3	38,771	13,805	775	1,688	10,351	12,152
Elimination of Energy Cost Adjustment	D-4	53,711	51,291	2,420			0
Wage and Benefit Increases	D-5		5,695		(397)	(2,437)	(2,861)
Book Depn at Year End, including Salvage	D-6		91,747				(91,747)
Tax Depreciation and Amort. at Year End	D-7				5,418	33,225	(38,644)
Normalization of Tax Deferrals	D-8				0	(70,025)	70,025
Tax Savings on Proforma Interest	D-9				(13,613)	(83,490)	97,103
Nuclear and Steam Prod. O&M Exp. Adj.	D-10		12,386		(874)	(5,360)	(6,298)
Reduction in O&M exp. to Reflect Retire.	D-11		(10,535)		736	4,518	5,302
Miscellaneous Adjustments & Amortization	D-12		(4,852)		377	2,891	1,584
Elimination of Lansdale Revenue and Fuel	D-13	0	0		0	0	0
Full Year Effect of Incr. in FICA Tax	D-14			741	(52)	(317)	(372)
Decommissioning Cost Adjustment	D-15		8,701		(607)	(3,723)	(4,371)
Spent Fuel Disposal Cost Adjustment	D-16		5,360		(374)	(2,294)	(2,692)
Damaged Nuclear Fuel Assbly. Amort.	D-17		310		(22)	(132)	(156)
Full Year of Limerick O&M Expense	D-18	0	75,740		(5,284)	(32,410)	(38,046)
Non-Jurisdictional Rate of Return	D-19	7,225	(3,775)		767	4,707	5,526
ITC Annualization	D-20				0	(10,313)	10,313
Adjustment to Roll Fuel Out of Base Rate	D-21*	(211,214)	(206,990)	(4,224)			0
Total		(26,300)	245,992	(113,785)	(20,523)	(154,808)	16,824

* Not included in totals; Reflected on A-4

Philadelphia Electric Company - Electric Operations
EFFECTS ON INCOME FOR RETURN
OF SUPPLEMENT NO. 15
12 Months Ending June 30, 1986
(Thousand $)

	Increase in Base Rates		
	Base Rate Increase Prior To Fuel Roll-out	Fuel Roll-out From Base @ $.007505/kwh Per D-21	Net Base Rate Increase
Increase in Revenue (A-5)	892,974	(211,214)	681,76
Less: 2% Gross Receipts Tax	17,859	(4,224)	13,63
Less: Fuel Rolled-out of Base		(206,990)	(206,99
Increase in Income Before Taxes	875,115	0	875,11
Increase in Income Taxes @49.758%	435,527	0	435,52
Increase in Income for Return	439,588	0	439,58

Philadelphia Electric Company - Electric Operations
Kilowatt Hour Sales and Revenue by Tariff Subdivisions
Twelve Months Ended June 30, 1986
($1,000)

	mWh Sales Year Ended 6/30/86 (1)	Number of Customers 6/30/86 (2)	Total Book Rev (3)	Less: Book STAC (4)	Less: Book Energy Cost Rate Revenue (5)	Base Revenue (6)=(3)-(4)-(5)	Proposed Base Revenue Prior to Roll-Out (7)	Roll-out of .7505¢/kWh Per D-21 (8)=1x.7505¢	Proposed Net Base Revenue Supp.No.15 (9)=(7)+(8)	$ Increase (10)=(9)-(6)	% Increase (11)=(10)/(6)
H	6,465,900	1,120,500	$769,638	$40,779	($10,608)	$739,467	$1,007,200	($48,527)	$958,673	$219,206	29.6%
P-Off Peak (WH)	1,543,300	97,300	131,968	7,025	(2,481)	127,424	172,009	(11,582)	160,427	33,003	25.9
OL	393,600	102,250 (a)	26,686	1,433	(736)	25,989	28,943	(2,954)	25,989	0	0
S	8,320	3,430 (a)	1,596	84	(15)	1,527	1,589	(62)	1,527	0	0
D(Incl Riders)	3,406,780	120,027	357,866	18,957	(5,929)	344,838	472,610	(25,568)	447,042	102,204	29.6
T(Incl Riders)	2,241,000	2,620	197,446	10,497	(4,061)	191,010	264,458	(16,818)	247,640	56,630	29.6
P-A	12,696,300	2,316	885,276	47,318	(23,025)	860,983	1,211,355	(95,286)	1,116,069	255,086	29.6
P-S	431,500	1	32,567	1,696	(807)	31,683	36,392	(3,238)	33,154	1,471	12.7 (b)
P	268,500	2	20,780	1,151	(476)	20,100	25,103	(2,015)	23,088	2,988	14.9
S	104,148	2	15,654	823	(162)	14,993	15,775	(782)	14,993	0	0
	60,840	535	19,007	995	(117)	18,129	18,586	(457)	18,129	0	0
	32,880	205	3,620	191	(57)	3,486	3,733	(247)	3,486	0	0
I	62	3	7	-	-	7	10	(1)	9	2	28.6
ans Rent Rider	-	(a)	323	17	-	306	395	-	395	89	29.1
otal Electric	27,653,130	1,343,511	$2,462,434	$130,966	($48,474)	$2,379,942	$3,258,158	($207,537)	$3,050,621	$670,679	28.2%
ther Elec. perations	513,200	2	65,859	-	-	65,859	65,859	-	65,859	-	-
otal Electric	28,166,330	1,343,513	$2,528,293	$130,966	($48,474)	$2,445,801	$3,324,017	($207,537)	$3,116,480	$670,679	27.4%
lus: STAC In Excess of STAC Related Taxes (D-1)						4,959	4,959	-	4,959	-	-
lus: Revenue from Growth Adjustment (D-3)						38,771	53,529	(3,677)	49,852	11,081	28.6
lus: Interest on ECR Overcollections (D-4)						5,237	5,237	-	5,237	-	-
lus: Non-Jurisdictional Rates Adjustment (D-19)						7,225	7,225	-	7,225	-	-
otal Revenue						$2,501,993	$3,394,967	($211,214)	$3,183,753	$681,760	27.2%

a) Duplicate customers not included in total.
b) Percentage shown is based on comparison of proposed revenue and revenue associated with actual load characteristics reflected in the March 1985 contract agreement. Refer to the Company's proof of revenue calculations, Interrogatory response IV-C-1, for the details supporting this percentage.

Philadelphia Electric Company - Combined Operations
BALANCE SHEET
June 30, 1986
(Thousand $)

ASSETS AND OTHER DEBITS	COMPANY
Utility Plant	
Electric	$8,743,664
Gas	485,914
Steam	54,098
Common	142,875
Construction Work in Progress	1,211,750
Total Utility Plant	$10,638,301
Less Provision for Depreciation	1,869,058
Net Utility Plant	$8,769,243
Nuclear Fuel	262,237
Property Under Capital Leases Incl. Nuclear Fuel	302,306
Net Utility Plant, incl. Nuclear Fuel	$9,333,786
Other Property and Investments	
Non-Utility Property	$13,016
Investments in Subsidiary Companies	132,814
Decommissioning Escrow Fund	15,279
Other Investments	1,000
Total	$162,109
Current and Accrued Assets	
Cash	$36,944
Temporary Cash Investments	32,250
Escrow Deposits	17,555
Special Deposits & Working Funds	9,765
Accounts Receivable	472,210
Materials and Supplies	151,928
Prepayments	79,834
Deferred Fuel Expense	(13,817)
Compensated Absences	43,316
Total	$829,985
Deferred Debits	
Unamortized Debt Expense	$13,137
Extraordinary Property Losses	6,687
Clearing Accounts	428
Miscellaneous Deferred Debits	73,410
Unamortized Loss on Reacquired Debt	12
Accumulated Deferred Income Taxes	28,811
Total	$122,485
TOTAL ASSETS AND OTHER DEBITS	$10,448,365

Philadelphia Electric Company - Combined Operations
BALANCE SHEET
June 30, 1986
(Thousand $)

LIABILITIES AND OTHER CREDITS

	COMPANY
Proprietary Capital	
Common Capital Stock	$2,641,663
Preferred Capital Stock	926,182
Premium on Preferred Stock	1,214
Other Paid in Capital	6,091
Retained Earnings	671,071
Total	$4,246,221
Long-Term Debt	
Bonds	$2,988,190
Pollution Control Notes	518,185
Other Long Term Debt	675,326
Unamortized Net Discount on Long Term Debt	(17,176)
Total	$4,164,525
Current and Accrued Liabilities	
Short-Term Debt	$56,335
Obligations Under Capital Leases	67,233
Compensated Absences Payable	43,316
Current Maturities of Long Term Debt	190,800
Accounts Payable	136,862
Customers' Deposits	7,873 (a)
Taxes Accrued	56,800
Interest Accrued	110,557
Dividends Declared	123,990
Miscellaneous Current & Accrued Liabilities	24,391
Deferred Income Taxes on Fuel	(7,818)
Total	$810,339
Deferred Credits	
Customers' Advances for Construction	$819 (b)
Accumulated Deferred Investment Tax Credits	346,613
Other Deferred Credits	62,954
Unamortized Gain on Reacquired Debt	7,816
Obligation Under Capital Leases	235,073
Accumulated Deferred Income Taxes	
Accelerated Amortization Property	2,323
Other Property	569,092
Other	2,590
Total	$1,227,280
TOTAL LIABILITIES AND OTHER CREDITS	$10,448,365

(a) Electric Portion = $7,682
(b) Electric Portion = $434

Philadelphia Electric Company - Electric Operations

ELECTRIC PLANT
AT JUNE 30, 1986
(Thousand $)

Electric Plant In Service		
Intangible Plant		
302.	Franchises and Consents	$163
Production Plant		
Steam Production Plant		
310.	Land and Land Rights	5,211
311.	Structures and Improvements	214,089
312.	Boiler Plant Equipment	566,635
314.	Turbogenerator Units	168,960
315.	Accessory Electric Equipment	97,439
316.	Miscellaneous Power Plant Equipment	12,322
	Total Steam Production Plant	$1,064,656
Nuclear Production		
320.	Land and Land Rights	7,706
321.	Structures and Improvements	1,101,939
322.	Reactor Plant Equipment	2,645,837
323.	Turbogenerator Units	527,305
324.	Accessory Electric Equipment	739,907
325.	Miscellaneous Power Plant Equipment	243,088
	Total Nuclear Production Plant	$5,265,782
Hydraulic Production		
330.	Land and Land Rights	1,421
331.	Structures and Improvements	14,484
332.	Reservoirs, Dams and Waterways	34,955
333.	Water Wheels, Turbines and Generators	21,971
334.	Accessory Electric Equipment	8,662
335.	Miscellaneous Power Plant Equipment	2,039
336.	Roads, Railroads and Bridges	998
	Total Hydraulic Production Plant	$84,530
Other Production Plant		
340.	Land and Land Rights	846
341.	Structures and Improvements	4,218
342.	Fuel Holders, Producers and Accessories	21,321
343.	Prime Movers	-
344.	Generators	82,131
345.	Accessory Electric Equipment	12,552
346.	Miscellaneous Power Plant Equipment	2,266
	Total Other Production Plant	$123,334
Total Production Plant		$6,538,302

Philadelphia Electric Company - Electric Operations

ELECTRIC PLANT
AT JUNE 30, 1986
(Thousand $)

Electric Plant In Service (Continued)

Transmission Plant		
350.	Land and Land Rights	47,970
352.	Structures and Improvements	16,644
353.	Station Equipment	238,021
354.	Towers and Fixtures	184,125
355.	Poles and Fixtures	496
356.	Overhead Conductors and Devices	101,715
357.	Underground Conduit	2,521
358.	Underground Conductors and Devices	43,090
359.	Roads and Trails	1,730
	Total Transmission Plant	$636,312
Distribution Plant		
360.	Land and Land Rights	22,510
361.	Structures and Improvements	35,372
362.	Station Equipment	300,311
364.	Poles, Towers and Fixtures	136,407
365.	Overhead Conductors and Devices	208,206
366.	Underground Conduit	148,663
367.	Underground Conductors and Devices	263,562
368.	Line Transformers	160,797
369.	Services	112,176
370.	Meters	96,450
371.	Installations on Customers' Premises	278
373.	Street Lighting and Signal Systems	28,087
	Total Distribution Plant	$1,512,819
General Plant		
389.	Land and Land Rights	1,967
390.	Structures and Improvements	19,149
391.	Office Furniture & Equipment	3,205
393.	Stores Equipment	404
394.	Tools, Shop and Garage Equipment	4,980
395.	Laboratory Equipment	7,480
397.	Communication Equipment	1,830
398.	Miscellaneous Equipment	2,263
	Sub-Total	$41,278
399.	Other Tangible Property Anti-trust Price Adjustment	(2,136)
	Total General Plant	$39,142
Total Electric Plant In Service (carried forward)		$8,726,738

Philadelphia Electric Company - Electric Operations

ELECTRIC PLANT
AT JUNE 30, 1986
(Thousand $)

Total Electric Plant In Service (brought forward)	$8,726,738
Construction Work in Progress	1.174,729
Plant Held for Future Use	
Land and Land Rights	16,905
Other Than Land and Land Rights	21
Total	$16,926
Total Electric Plant	$9,918,393

Philadelphia Electric Company - Electric Operations

COMMON UTILITY PLANT
AT JUNE 30, 1986
(Thousand $)

Intangible Plant		
301.	Organization	$677
General Plant		
389.	Land and Land Rights	3,115
390.	Structures and Improvements	94,170
391.	Office Furniture and Equipment	22,706
392.	Transportation Equipment	7,021
393.	Stores Equipment	2,028
394.	Tools, Shop and Garage Equipment	6,965
396.	Power Operated Equipment	1,422
397.	Communication Equipment	1,866
398.	Miscellaneous Equipment	2,517
	Total - General Plant	$141,810
Total Common Utility Plant in Service		$142,487
Construction Work in Progress		2,857
Plant Held for Future Use (Land and Land Rights)		388
Total Common Utility Plant		$145,732

Philadelphia Electric Company
BOOK ACCUMULATED PROVISION FOR DEPRECIATION
OF UTILITY PLANT IN SERVICE
INCLUDING DECOMMISSIONING EXPENSE
JUNE 30, 1986
(Thousand $)

Effective with the Commission Order at Docket R-842590 (January 25, 1985), the Company began to maintain book depreciation reserve information by detailed plant accounts for electric and common plant. The reserve by plant account for electric operations, including allocated common can be found in Exhibit AW-2.

Reserve for Depreciation - Electric (C-2)	$1,633,742
Decommissioning Reserve (D-15)	20,946
Total Electric Reserve	$1,654,688
Share of Common $51,600 (C-3)x 86.188% (B-17)	44,473
Total	$1,699,161

Philadelphia Electric Company and Subsidiary Companies

12 MONTHS ENDING JUNE 30, 1986
CONSOLIDATED STATEMENT OF INCOME
(Thousand $)

Operating Revenue	
Electric	$2,550,517
Gas	450,484
Steam	62,075
Total Operating Revenue	$3,063,076
Operating Expenses	
Total Operation and Maintenance	$1,908,141
Provision for Depreciation and Amortization	$183,924
Provision for Taxes	
Federal Income Taxes	124,434
State and Local Income Taxes	29,799
Investment Tax Credit Adjustments-Net	6,177
Deferred Income Taxes	105,879
Taxes Other Than Income	228,822
Total Provision for Taxes	495,111
Total Operating Expenses	$2,587,176
Operating Income	$475,900
Other Income	
Allowance for Other Funds Used During Construction	79,001
Other Income and Deductions	88,500
Income Taxes	147,008
Total Other Income	$314,509
Income Before Interest Charges	$790,409
Interest Charges	
Interest on Long-Term Debt	475,092
Other Interest	10,418
Allowance for Borrowed Funds - Credit	(284,551)
Net Interest Charges	$200,959
Net Income	589,450
Dividends on Preferred Stocks	95,437
Earnings Available for Common Stock	$494,013
Common Stock Outstanding	
End of Period (1000)	183,505
Average (1000)	176,248
Earnings per average share (dollars)	$2.803

Philadelphia Electric Company - Electric Operations
STATEMENT OF ELECTRIC OPERATING INCOME
12 Months Ending June 30, 1986
(Thousand $)

OPERATING REVENUE		
	Sales of Electricity:	
440	Residential	$928,292
442	Commercial & Industrial	1,442,184
444	Public Street and Highway Lighting	38,281
446	Sales to Railroads and Railways	53,347
447	Sales for Resale	23,085
448	Interdepartmental Sales	4,126
	Total Sales of Electricity	$2,489,315
	Other Operating Revenues:	
450	Forfeited Discounts	9,420
451	Miscellaneous Service Revenues	2,150
454	Rent from Electric Property	10,449
455	Interdepartmental Rents	4,423
456	Other Electric Revenues	12,536
	Total Other Operating Revenues	$38,978
	Total Electric Operating Revenues	$2,528,293
OPERATING EXPENSES		
401	Operation and Maintenance Expense:	
	Power Production	1,138,824
	Transmission	23,224
	Distribution	101,778
	Customer Accounts	80,738
	Customer Service & Information	10,463
	Sales	906
	Administrative and General Expense	146,770
	Total Operation and Maintenance Expense	$1,502,703
403	Depreciation Expense	163,391
405	Amortization of Other Electric Plant	(641)
407	Amortization of Property Losses	1,679
	Taxes	
408.1	Taxes Other Than Income Taxes	$199,837
409.1	Income Taxes	132,673
410.1	Provisions for Deferred Income Taxes	107,815
411.1	Inc. Taxes Deferred - Other	(14,033)
411.4	Investment Tax Credit Adjustments	6,912
	Total Taxes	$433,204
411.6&7	Gain or Loss from Disposition of Utility Plant	-
	Total Operating Expenses	$2,100,336
	Operating Income	$427,957

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
12 Months Ending JUNE 30, 1986
(Thousand $)

I. POWER PRODUCTION EXPENSES
STEAM POWER GENERATION

OPERATION		
500	Operation Supervision	15,217
501	Fuel	269,280
502	Steam Expenses	38,124
504	Steam Transferred - Credit	(46,600)
505	Electric Expenses	7,682
506	Miscellaneous Steam Power Expenses	13,356
507	Rents	15,065
	Total Operation	$312,124
MAINTENANCE		
510	Maintenance Supervision and Engineering	9,599
511	Maintenance of Structures	9,042
512	Maintenance of Boiler Plant	64,728
513	Maintenance of Electric Plant	18,284
514	Maintenance of Miscellaneous Steam Plant	3,552
	Total Maintenance	$105,205
	Total Power Production Expenses-Steam Power	$417,329
	NUCLEAR POWER GENERATION	
OPERATION		
517	Operation Supervision and Engineering	12,727
518	Fuel	136,823 (a)
519	Coolants and Water	1,138
520	Steam Expenses	18,798
523	Electric Expenses	2,356
524	Miscellaneous Nuclear Power Expenses	39,955
525	Rents	87
	Total Operation	$211,884
MAINTENANCE		
528	Maintenance Supervision and Engineering	16,795
529	Maintenance of Structures	3,715
530	Maintenance of Reactor Plant Equipment	16,884
531	Maintenance of Electric Plant	10,049
532	Maintenance of Miscellaneous Nuclear Plant	5,448
	Total Maintenance	$52,891
	Total Power Production Expenses-Nuclear Power	$264,775

(a) Includes $11,715 for spent nuclear fuel disposal expense; $26,985 for Limerick fuel costs from January 1, 1986 through June 30, 1986.

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
12 Months Ending JUNE 30, 1986
(Thousand $)

	HYDRAULIC POWER GENERATION	
OPERATION		
535	Operation Supervision and Engineering	$404
536	Water and Power	368
537	Hydraulic Expenses	1,170
538	Electric Expenses	230
539	Miscellaneous Hydraulic Power Generation Expenses	424
540	Rents	1
	Total Operation	$2,597
MAINTENANCE		
541	Maintenance Supervision and Engineering	540
542	Maintenance of Structures	210
543	Maintenance of Reservoirs, Dams & Waterways	247
544	Maintenance of Electric Plant	3,133
545	Maintenance of Miscellaneous Hydraulic Plant	147
	Total Maintenance	$4,277
	Total Power Production Expenses-Hydraulic Power	$6,874
	OTHER POWER GENERATION	
OPERATION		
546	Operation Supervision and Engineering	1,029
547	Fuel	10,192
548	Generation Expenses	1,327
549	Miscellaneous Other Power Generation Expenses	1,479
550	Rents	1,140
	Total Operation	$15,167
MAINTENANCE		
551	Maintenance Supervision and Engineering	629
552	Maintenance of Structures	233
553	Maintenance of Generating and Electric Plant	6,221
554	Maintenance of Miscellaneous Other Power	102
	Total Maintenance	$7,185
	Total Power Production Expenses - Other Power	$22,352
	OTHER POWER SUPPLY EXPENSES	
555	Purchased Power	116,213
556	System Control and Load Dispatching	6,022
557	Other Expenses	305,259 (a)
	Total Other Power Supply Expenses	$427,494
	Total Power Production Expenses	$1,138,824

(a) Includes $218,208 of Deferred Fuel; $43 for Limerick precommercial generation in July 1985; $86,978 for the value of Limerick #1 generation from 8/1/85 through 12/31/85.

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
12 Months Ending JUNE 30, 1986
(Thousand $)

	TRANSMISSION EXPENSES	
OPERATION		
560	Operation Supervision and Engineering	2,264
561	Load Dispatching	1,601
562	Station Expenses	1,767
563	Overhead Line Expenses	221
564	Underground Line Expenses	247
566	Miscellaneous Transmission Expenses	1,296
567	Rents	6,722
	Total Operation	$14,118
MAINTENANCE		
568	Maintenance Supervision and Engineering	879
569	Maintenance of Structures	333
570	Maintenance of Station Equipment	5,112
571	Maintenance of Overhead Lines	2,146
572	Maintenance of Underground Lines	636
573	Maintenance of Miscellaneous Transmission Plant	-
	Total Maintenance	$9,106
	Total Transmission Expenses	$23,224
	DISTRIBUTION EXPENSES	
OPERATION		
580	Operation Supervision and Engineering	7,902
581	Load Dispatching	1,821
582	Station Expenses	5,461
583	Overhead Line Expenses	6,416
584	Underground Line Expenses	2,975
585	Street Lighting and Signal System Expenses	674
586	Meter Expenses	4,654
587	Customer Installation Expenses	4,868
588	Miscellaneous Distribution Expenses	11,240
589	Rents	3,973
	Total Operation	$49,984
MAINTENANCE		
590	Maintenance Supervision and Engineering	3,854
591	Maintenance of Structures	957
592	Maintenance of Station Equipment	7,794
593	Maintenance of Overhead Lines	23,354
594	Maintenance of Underground Lines	10,107
595	Maintenance of Line Transformers	1,720
596	Maintenance of Street Lighting and Signal System	1,113
597	Maintenance of Meters	1,687
598	Maintenance of Miscellaneous Distribution Plant	1,208
	Total Maintenance	$51,794
	Total Distribution Expenses	$101,778

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
(Thousand $)
12 Months Ending June 30, 1986

	IV CUSTOMER ACCOUNTS EXPENSES	
OPERATION		
901	Supervision	2,540
902	Meter Reading Expenses	14,215
903	Customer Records and Collection	46,975
904	Uncollectible Accounts	16,472
905	Miscellaneous Customer Accounts Expenses	536
	Total Customer Accounts Expenses	$80,738
	V CUSTOMER SERVICE & INFORMATIONAL EXPENSES	
OPERATION		
907	Supervision	1,044
908	Customer Assistance Expenses	6,299
909	Informational & Instructional Advertising Expenses	2,768
910	Misc. Cust. Serv. & Information Expenses	352
	Total Cust. Serv. & Information Expenses	$10,463
	VI SALES EXPENSES	
OPERATION		
911	Supervision	128
912	Demonstrating and Selling Expenses	360
913	Advertising Expenses	340
916	Miscellaneous Sales Expenses	78
	Total Sales Expenses	$906
	VII ADMINISTRATIVE AND GENERAL EXPENSES	
OPERATION		
920	Administrative and General Salaries	37,754
921	Office Supplies and Expenses	15,894
923	Outside Services Employed	4,859
924	Property Insurance	9,550
925	Injuries and Damages	8,475
926	Employee Pensions and Benefits	48,285
928	Regulatory Commission Expenses	4,353
929	Duplicate Charges - Credit	(1,800)
930	General Advertising and Miscellaneous	17,793
	Total Operation	$145,163
MAINTENANCE		
935	Maintenance of General Plant	1,607
	Total Administrative and General Expenses	146,770
	VIII TOTAL OPERATION AND MAINTENANCE EXP. (B-9)	$1,502,703
	IX DEPRECIATION AND AMORTIZATION	
940	Depreciation	163,391 (a)
943	Amortization of Other Electric Plant	(641)
944	Amortization of Property Losses	1,679
	Total Depreciation and Amortization	$164,429

(a) Includes $4,190 of nuclear decommissioning accruals.

Philadelphia Electric Company - Electric Operations
OPERATING EXPENSES
12 Months Ending June 30, 1986
(Thousand $)

X TAXES

TAXES OTHER THAN INCOME TAXES	
State and Local	
Capital Stock - Pennsylvania	25,793
Capital Stock - New Jersey	92
Gross Receipts	110,055
Real Estate - Local	807
Real Estate - State	42,432
State Unemployment Compensation	1,362
Philadelphia Realty Occupancy	451
Other State and Local	582
Total State and Local	$181,574
Federal	
Telephone and Telegraph	25
Federal Unemployment Compensation	778
Federal Old Age Benefits	17,491
Other	(31)
Total Federal	$18,263
Total Taxes Other Than Income	$199,837
INCOME TAXES	
State - Pennsylvania	25,654
State - Maryland	122
State - New Jersey	1,124
Federal	105,773
Total Income Taxes	$132,673
Provisions for Deferred Income Taxes	107,815
Income Taxes Deferred - Other	(14,033)
Investment Tax Credit Adjustments*	6,912
TOTAL ALL TAXES	$433,204
XII TOTAL OPERATING EXPENSES (B-9)	$2,100,336

*Investment tax credit of $17,618 less amortization of $10,706

Philadelphia Electric Company - Electric Operations

FEDERAL INCOME TAX COMPUTATION
12 MONTHS ENDED June 30, 1986
(Thousand $)

Operating Revenue		$2,528,293
Less: Operating Expenses		
Operating and Maintenance Expense	1,502,703	
Depreciation and Amortization	164,429	
State and Local Income Taxes	26,900	
Taxes Other Than Income	199,837	
Balance		$634,424
Adjustments for Additional Items Affecting Taxable Income		
Deductions:		
Gross Interest Charges Allocated to Electric Operations	187,595	
Additional Depreciation for Tax Purposes	371,029	
Contribution to Pension Fund Charged to Const.	8,766	
Taxes Charged to Construction	5,373	
Employee Benefits Charged to Construction	7,615	
Preferred Dividend Credit	786	
Amortization of Various Expenses Capitalized by R.A.	73	
Amortization of Gain on Required Debt	1,696	
Amortization of Easements & Clearing Rights of Way	511	
Net Leasing Expense - Salem 2	4,566	
Nuclear Fuel: Excess of Tax over Burn-up	(20,861)	
Deferred Fuel Expense	(218,208)	
Removal Costs	5,383	
Turbine Lease Cancellation	30,917	
Deferred Limerick Costs	93,491	
Additions:		
Reimburse Federal Income Taxes of SPCo	2,285	
Amortization of loss on Chester 5&6 & Barbadoes 6&7	432	
Purta Escrow	11,456	
Amortization of loss on Schuylkill	1,247	
Purta Recoverable	8,750	
Precommercial generation (July 1985) - Limerick 1	43	
Value of Generation (8/1/85-12/31/85) - Limerick I	86,978	
Miscellaneous Additions	1,356	
Sub-Total Net Deductions		$366,185
Federal Income Tax Base - Operations		$268,239
Federal Income Tax @ 46%		$123,390
Investment Tax Credit (a)		17,617
Federal Income Tax Charged to Operations		$105,773

(a) There is $187,323 ITC available to be carried forward to future years, exclusive of TRASOP.

Philadelphia Electric Company - Electric Operations

ACCUMULATED DEFERRED TAXES
PER BALANCE SHEET (B-2) AS OF JUNE 30, 1986
(Thousand $)

The balance as of 6/30/86 in Accumulated Deferred Income Taxes including allocated common which amounts to $526,166 for electric operations as developed below, is deducted from the Company's investment in developing the rate base measures of value (A-2).

Combined Operations

	Total Per Balance Sheet (a)	Accumulated Deferred Taxes Common Allocated (b)	Accumulated Deferred Taxes Including Allocated Common
Electric	$518,386	7,780	$526,166 (c)
Gas	38,779	1,167	39,946
Steam	2,900	80	2,980
Common	9,027	(9,027)	-
Total	$569,092		$569,092

a. Per B-2
b. Per B-17

Electric	86.188%
Gas	12.930
Steam	.882
Total	100.000%

c. Includes: 1) capitalized pensions, taxes and fringe benefits balance of $42,726, 2) Limerick Unit No. 1 & 100% common balance of $135,585.

Philadelphia Electric Company - Combined Operations

DEVELOPMENT OF FACTORS FOR ALLOCATING COMMON
TO ELECTRIC, GAS, & STEAM OPERATIONS
June 30, 1986

	Plant in Service (1)	By Total Revenue (2)	By Total Customers (3)	Average (4)=(1)+(2)+(3) / 3
Basic Data	(Thousand $)	(Thousand $)	(Number)	
Electric	$8,726,738	$2,528,293	1,343,513	
Gas	485,912	450,484	309,770	
Steam	53,080	62,075	515	
Subtotal	$9,265,730	$3,040,852	1,653,798	
Common	142,487	-	-	
Total	$9,408,217	$3,040,852	1,653,798	
Allocation Factors				
Electric	94.183%	83.144%	81.238%	86.188%
Gas	5.244	14.814	18.731	12.930
Steam	0.573	2.042	0.031	0.882
Total	100.000%	100.000%	100.000%	100.000%

Philadelphia Electric Company - Combined Operations

CALCULATION OF EFFECTIVE INCOME TAX RATE

The effective income tax rate developed below combines into a single rate the effects of the federal income tax rate of 46% and the Pennsylvania income tax rate of 7.5%. The Pennsylvania income tax rate of 7.5% is the rate in effect prior to 1971 and is used here to reflect the level of Pennsylvania income taxes collectible through base rates. Changes in the Pennsylvania income tax rate since 1970 are collected through operation of the State Tax Adjustment Clause.

This effective income tax rate is intended for application to incremental changes in taxable income which result from 1) changes in revenue, less gross receipts taxes, associated with ratemaking adjustments, 2) changes in tax deductible expense associated with ratemaking adjustments and 3) additional revenues yielded by proposed rates. Because the effective income tax rate is applied to incremental changes in taxable income, it is independent of the overall average income tax rate experienced during the test year.

In 1970, prior to the establishment of the State Tax Adjustment Clause, Pennsylvania income taxes were deductible in determining both state and federal taxable incomes. Consequently, the effective state, federal or combined income tax rates must be determined by use of algebraic formulae. The algebraic formulae used here act to determine an effective income tax rate to be applied to changes in taxable income before payment of both Pennsylvania and federal income taxes.

Pennsylvania Effective Income Tax, s:

$$s = 0.075 \times (\text{taxable income} - s)$$
$$s = (0.075 \times \text{taxable income}) - (0.075 \times s)$$
$$s + (0.075 \times s) = (0.075 \times \text{taxable income})$$
$$s \times (1 + 0.075) = (0.075 \times \text{taxable income})$$
$$s = \frac{0.075 \times \text{taxable income}}{1.075}$$
$$s = 0.06977 \times \text{taxable income}$$

Federal Effective Income Tax, f:

$$f = 0.46 \times (\text{taxable income} - s)$$
$$f = (0.46 \times \text{taxable income}) - (0.46 \times 0.06977 \times \text{taxable income})$$
$$f = (0.4600 - 0.03209) \times \text{taxable income}$$
$$f = 0.42791 \times \text{taxable income}$$

Summary:

	Rate		
	Statutory	Effective	Effective In % of Total
Pennsylvania	7.5%	6.977%	14.019%
Federal	46.0%	42.791	85.981
Total		49.768%	100.000%

PHILADELPHIA ELECTRIC COMPANY

DEBT CAPITAL
DEVELOPMENT OF WEIGHTED EFFECTIVE COST RATE
JUNE 30, 1986

($1,000)

Debt Issue	Nominal Date of Issue	Principal Amount Outstanding	Premium or (Discount)	Issue Expense	Net Proceeds		Cost of Money	
					Amount	Per $100	Yield to Maturity	Weighted Interest
Mortgage Bonds & Debs								
12-1/2% due 2005	10/15/79	100,000	(883)	175	98,942	98.94	12.64%	12,640
4.85% S.F.deb due 1986	10/1/61	40,000	0	189	39,811	99.53	3.38%	1,352
4-5/8% due 1987	9/1/57	40,000	(284)	131	39,585	98.96	4.69%	1,876
3-3/4% due 1988	5/1/58	40,000	(350)	123	39,517	98.79	3.82%	1,528
4-3/8% due 1986	12/1/58	50,000	(315)	148	49,537	99.07	4.43%	2,215
5% due 1989	10/1/59	50,000	171	153	50,018	100.04	5.00%	2,500
4-1/2% due 1994	5/1/64	50,000	160	134	50,026	100.05	4.50%	2,250
6-1/8% due 1997	10/1/67	75,000	(271)	115	74,614	99.49	6.16%	4,620
6-1/2% due 1993	3/1/68	60,000	(401)	79	59,520	99.20	6.57%	3,942
9% S.F. due 1995	2/1/70	80,000	1,071	111	80,960	101.20	8.49%	6,792
7-3/4% S.F. due 2000	12/15/70	80,000	(772)	107	79,121	98.90	7.43%	5,944
8-1/4% due 1996	8/1/71	80,000	(369)	126	79,505	99.38	8.31%	6,648
7-3/8% due 2001	12/15/71	80,000	49	132	79,917	99.90	7.38%	5,904
7-1/2% due 1998	6/15/72	100,000	(14)	142	99,844	99.84	7.51%	7,510
7-1/2% due 1999	1/22/73	100,000	(384)	116	99,500	99.50	7.54%	7,540
8-1/2% due 2004	1/16/74	125,000	34	145	124,889	99.91	8.51%	10,638
11-5/8% due 2000	4/15/75	55,000	(423)	104	54,473	99.19	11.73%	7,628
11% due 2000	11/1/75	80,000	(700)	177	79,123	98.90	10.72%	8,576
9-1/8% due 2006	3/1/76	100,000	(879)	159	98,966	98.97	9.23%	9,230
9-5/8% due 2002	8/1/76	100,000	(875)	168	98,957	98.96	9.74%	9,740
8-5/8% due 2007	3/15/77	75,000	(670)	119	74,211	98.95	8.78%	6,540
6% due 2007	2/1/77	23,500	(429)	210	22,861	97.28	6.21%	1,459
8-5/8% due 2003	7/15/77	75,000	(429)	141	74,430	99.24	8.70%	6,525
9-1/8% due 2008	3/15/78	100,000	110	152	99,958	99.96	9.13%	9,130
13-3/4% due 1992	10/15/80	125,000	(904)	169	123,927	99.14	13.90%	17,375
14-3/4% due 2005	4/15/80	100,000	(687)	207	99,106	99.11	14.89%	14,890
14-1/8% due 1990	4/15/80	50,000	(334)	78	49,588	99.18	14.28%	7,140
17-5/8% due 2011	7/1/81	125,000	(2,344)	290	122,366	97.89	18.01%	22,513
16-3/4% due 2009	9/15/81	125,000	(1,089)	288	123,623	98.90	18.96%	23,700
15-1/4% due 1996	4/28/81	52,500	0	411	52,089	99.22	15.40%	8,085
15% due 1996	4/28/81	21,000	0	184	20,816	99.12	15.17%	3,186
18% due 2012	4/1/82	100,000	(1,875)	216	97,909	97.91	18.39%	18,390
15-3/8% due 2010	10/1/82	100,000	(701)	305	98,994	98.99	15.53%	15,530
13-3/8% due 2013	6/15/83	125,000	(2,301)	348	122,351	97.88	13.67%	17,088
14-1/2% SF Debs due 2009	2/15/84	150,000	(1,875)	311	147,814	98.54	14.74%	22,110
13.05% due 1994	11/26/84	20,000	0	148	19,852	99.26	13.19%	2,638
14% due 1988-94	12/1/84	80,000	0	369	79,631	99.54	14.10%	11,280
12.5% due 2015	11/1/85	100,000	(750)	250	99,000	99.00	12.63%	12,630
12.5% due 2016	5/1/86	100,000	(750)	250	99,000	99.00	12.63%	12,630
Subtotal		$3,142,000	($20,469)	$7,180	$3,114,351			$351,909

PHILADELPHIA ELECTRIC COMPANY

DEBT CAPITAL
DEVELOPMENT OF WEIGHTED EFFECTIVE COST RATE
JUNE 30, 1986

($1,000)

Debt Issue	Nominal Date of Issue	Principal Amount Outstanding	Premium or (Discount)	Issue Expense	Net Proceeds Amount	Net Proceeds Per $100	Cost of Money Yield to Maturity	Cost of Money Weighted Interest
Subtotal Carried Forward		3,142,000	(20,469)	7,180	3,114,351			351,909
Cumulative Reacquired S.F								
4.85% Debs due 1986	10/1/61	(19,200)	0	(91)	(19,109)	99.53	3.38%	(649)
7-3/4 S.F. due 2000	12/15/70	(19,200)	185	(25)	(18,989)	98.90	7.43%	(1,427)
9.0% S.F. due 1995	2/3/70	(20,548)	(275)	(29)	(20,794)	101.20	8.49%	(1,745)
11% S.F due 2000	11/1/75	(24,062)	211	(53)	(23,798)	98.90	10.72%	(2,579)
Bank Notes								
Citibank due 1988-89	5/28/79	75,000	0	0	75,000	100.00	9.50%(1)	7,125
Morgan due 1988	7/13/78	25,000	0	0	25,000	100.00	9.98%(2)	2,495
Chase due 1987	7/13/78	25,000	0	0	25,000	100.00	10.00%(3)	2,500
Chase due 1987	4/30/79	50,000	0	0	50,000	100.00	10.00%(3)	5,000
Chemical due 1987	5/28/79	50,000	0	0	50,000	100.00	9.98%(2)	4,990
Citibank due 1988	4/30/84	550,000	0	0	550,000	100.00	9.75%(4)	53,625
Unsecured Notes								
17% due 1986-87	6/29/82	20,000	0	36	19,964	99.82	17.06%	3,412
Pollution Control								
5.50% S.F. due 1997	10/1/72	33,000	0	581	32,419	98.24	5.02%	1,657
5.50% S.F due 1997	10/1/72	(8,515)	0	(150)	(8,365)	98.24	5.02%	(427)
13% due 2010	6/1/81	71,500	(1,793)	190	69,517	97.23	13.38%	9,567
11-1/2% due 2011	6/1/81	18,500	(2,236)	49	16,215	87.65	13.16%	2,435
Variable rate due 2012	12/1/82	60,000	(750)	174	59,076	98.46	6.25%	3,756
Variable rate due 2012	12/1/82	40,000	(500)	116	39,384	98.46	5.87%	2,348
Variable rate due 2013	9/1/83	50,000	(625)	177	49,198	98.40	5.87%	2,935
Variable rate due 2012	9/1/84	4,500	(56)	79	4,365	97.00	5.67%	255
Variable rate due 2012	9/1/84	4,200	(53)	63	4,084	97.24	5.67%	238
10.5% due 2015	5/15/85	245,000	(6,039)	321	238,640	97.40	10.78%	26,411
Other								
Note to Leon, Adeline & Nancy Naserio		98	0	0	98	100.00	6.00%	6
Note to Samuel & Catherine Edwards	7/19/77	102	0	0	102	100.00	8.00%	8
Note to Ida Mack		31	0	0	31	100.00	12.00%	4
Note for Petro Pipeline		95	0	0	95	100.00	12.00%	11
Total		$4,372,501	($32,400)	$8,617	$4,331,484			$473,860
								10.84%

(1) Prime (Prime @ 9.50%) = 9.50%
(2) 105% of Prime (Prime @ 9.50%) = 9.98%
(3) 1/2 Of 1% over Prime (prime @ 9.50%) = 10.00%
(4) Prime (Prime @9.5%) plus .25% = 9.75%

A detailed discussion regarding the Embedded Cost of Debt is provided in The Direct Testimony of Joseph F Brennan.

Philadelphia Electric Company
Preferred Stock
Development of Weighted Effective Cost Rate

June 30, 1986
($1,000)

Issue	Shares	Date of Issue	Principal Amount Outstanding	Total Discount and Expense or Net Premium	Net Amount	Proceeds Per $100	Weighted Cost	Effective Cost Rate-%
4.400% Cumulative	226,499	Dec. 1941	$22,650	$0	$22,650	100.00%	$997	4.40%
4.400%	48,221	Mar. 1942	$4,822	$449	$5,271	109.31%	$194	4.03%
3.800% Cumulative	300,000	12/4/46	$30,000	($30)	$29,970	99.90%	$1,140	3.80%
4.300% Cumulative	150,000	2/5/48	$15,000	($468)	$14,532	96.88%	$666	4.44%
4.680% Cumulative	150,000	5/14/53	$15,000	($244)	$14,756	98.37%	$714	4.76%
7.000% Cumulative	400,000	2/4/69	$40,000	($646)	$39,354	98.39%	$2,884	7.21%
8.750% Cumulative	650,000	7/22/70	$65,000	($1,040)	$63,960	98.40%	$5,779	8.89%
7.850% Cumulative	500,000	3/10/71	$50,000	($801)	$49,199	98.40%	$3,990	7.98%
7.750% Cumulative	200,000	11/16/71	$20,000	($399)	$19,601	98.01%	$1,582	7.91%
7.800% Cumulative	750,000	4/20/72	$75,000	($1,106)	$73,894	98.53%	$5,940	7.92%
7.325% Cumulative	750,000	4/2/73	$75,000	($442)	$74,558	99.41%	$5,550	7.40%
9.500% Cumulative	750,000	4/18/74	$75,000	($1,093)	$73,907	98.54%	$7,230	9.64%
9.520% Cumulative	500,000	5/4/76	$50,000	($920)	$49,080	98.16%	$4,915	9.83%
8.750% Cumulative	500,000	5/1/78	$50,000	($225)	$49,775	99.55%	$4,405	8.81%
15.250% Cumulative	500,000	3/18/80	$50,000	($925)	$49,075	98.15%	$7,860	15.72%
10.000% Cumulative	220,000	3/18/80	$22,000	($131)	$21,869	99.40%	$2,215	10.07%
17.125% Cumulative	300,000	2/18/82	$30,000	($525)	$29,475	98.25%	$5,286	17.62%
12.800% Cumulative	750,000	2/9/83	$75,000	($3,443)	$71,557	95.41%	$10,065	13.42%
13.350% Cumulative	750,000	11/15/83	$75,000	($3,384)	$71,616	95.49%	$10,485	13.98%
14.625% Cumulative	500,000	3/28/84	$50,000	($888)	$49,112	98.22%	$7,445	14.89%
14.150% Cumulative	500,000	12/11/84	$50,000	($2,323)	$47,677	95.35%	$7,420	14.84%
12.500% Cumulative	500,000	5/86	$50,000	($500)	$49,300	99.00%	$6,315	12.63%
(Redeemed)								
7.000% Cumulative	(104,000)		($10,400)	$168	($10,232)	98.38%	($750)	7.21%
7.325% Cumulative	(240,000)		($24,000)	$141	($23,859)	99.41%	($1,776)	7.40%
9.520% Cumulative	(120,000)		($12,000)	$221	($11,779)	98.16%	($1,180)	9.83%
8.750% Cumulative	(99,900)		($9,990)	$45	($9,945)	99.55%	($880)	8.81%
10.000% Cumulative	(44,000)		($4,400)	$26	($4,374)	99.41%	($443)	10.07%
15.250% Cumulative	(25,000)		($2,500)	$46	($2,454)	98.16%	($393)	15.72%
Total			$926,182	($18,437)	$907,745		$97,655	10.54%

A detailed discussion regarding the Embedded Cost of Preferred Stock is contained in The Direct Testimony of Joseph F. Brennan.

Philadelphia Electric Company - Electric Operations

DESCRIPTION OF COMPANY'S CLAIMED MEASURES OF VALUE

The Company's claimed rate base is to its depreciated original cost of electric plant in service, including allocated common plant at June 30, 1986 and necessary other investments in used and useful plant facilities and working capital, as shown on page A-2.

Claimed utility plant in service has been taken from the Company's books of account which were originally approved by the Pennsylvania Public Utility Commission in the mid-1940's and have since been maintained in conformity with the Commission's regulations and with the Uniform System of Accounts for Class A electric companies prescribed by the Federal Energy Regulatory Commission (FERC). The Company's books of account were last audited by FERC in 1982, with the Pennsylvania Commission participating in that audit, and are audited on an annual basis by a firm of independent certified public accountants. In addition, the PaPUC audit staff recently completed an audit of the Company's property records through December 1983.

The Direct Testimony of Warren H. Smith, explains the detailed internal accounting procedures utilized by the Company to ensure that the original cost of utility plant is properly recorded in these accounts. A detailed description, together with extensive supporting documentation of the Company's depreciation reserve associated with plant in service at June 30, 1986 is presented in the Statement and Exhibits of Mr. Alfred Wroblewski. The several additions to Depreciated Utility Plant in Service as shown on page A-2 are discussed in Sections B and C of this Exhibit and are further described in the Statements and Exhibits of the Company witnesses there identified. The several deductions to Depreciated Utility Plant in Service are described by Thomas P. Hill, Jr.

Philadelphia Electric Company - Electric Operations
SUMMARY OF ORIGINAL COST OF PLANT
AND RELATED BOOK DEPRECIATION RESERVE
AS OF JUNE 30, 1986
($1,000's)

	Original Cost		
	Plant	Depreciation Reserve	Net
Depreciable Plant in Service (C-2e)	$8,641,080	$1,633,742	$7,007,338
Non-Depreciable Plant in Service (C-2f)	85,658	-	85,658
Total Electric Plant in Service per books (B-5,7)	$8,726,738 (a)	$1,633,742(a)	$7,092,996(a)
Book Reserve Adjustments			
Additional AFUDC for Ratemaking (C-2g)	35,109	5,585	29,524
Excess Salvage (C-2g)	-	(13,822)	13,822
Adjusted plant and reserve	$8,761,847	$1,625,505	$7,136,342
Other Ratemaking Adjustments			
25 Cycle Equipment	(4,128)	(4,128)	-
Adjusted for Ratemaking	$8,757,719	$1,621,377	$7,136,342
Allocated Common from C-3	122,807	44,473	78,334
Total Electric and Allocated Common	$8,880,526	$1,665,850	$7,214,676
(a) Limerick 1 (C-2c)	$2,532,627	$25,839	$2,506,788
Limerick 100% common facilities			
Non-depreciable (AW-3 page 5)	7,349	-	7,349
Depreciable (C-2c)	1,271,675	12,731	1,258,944
Limerick Transmission (C-2d)	8,349	95	8,254
Sub-Total Limerick	$3,820,000	$38,665	$3,781,335
Other Electric	4,906,738	1,595,077	3,311,661
Total Electric Plant in Service	$8,726,738	$1,633,742	$7,092,996

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
SCHUYKILL (1,3)		STEAM PRODUCTION			1992 = TERMINAL YEAR
1	3110	STRUCTURES AND IMPROVEMENTS	12405	8948	3457
1	3120	BOILER PLANT EQUIPMENT	44536	31002	13534
1	3140	TURBOGENERATOR UNITS	10471	8199	2271
1	3150	ACCESSORY ELECTRIC EQUIPMENT	10289	9562	727
1	3160	MISCELLANEOUS POWER PLANT EQUIP.	1596	857	739
STATION TOTAL			79295	58568	20728
CROMBY 2		STEAM PRODUCTION			1990 = TERMINAL YEAR
4	3110	STRUCTURES AND IMPROVEMENTS	7949	6296	1653
4	3120	BOILER PLANT EQUIPMENT	17612	15674	1939
4	3140	TURBOGENERATOR UNITS	10460	8376	2025
4	3150	ACCESSORY ELECTRIC EQUIPMENT	2699	2562	137
4	3160	MISCELLANEOUS POWER PLANT EQUIP.	678	648	31
STATION TOTAL			39339	33555	5784
EDDYSTONE 1 + 2		STEAM PRODUCTION			2010 = TERMINAL YEAR
6	3110	STRUCTURES AND IMPROVEMENTS	70387	29575	40813
6	3120	BOILER PLANT EQUIPMENT	191229	88340	102888
6	3140	TURBOGENERATOR UNITS	47640	28833	18807
6	3150	ACCESSORY ELECTRIC EQUIPMENT	27080	12634	14446
6	3160	MISCELLANEOUS POWER PLANT EQUIP.	3364	1818	1546
STATION TOTAL			339700	161200	178500
CROMBY 1		STEAM PRODUCTION			2004 = TERMINAL YEAR
7	3110	STRUCTURES AND IMPROVEMENTS	33835	14901	18934
7	3120	BOILER PLANT EQUIPMENT	64053	30746	33307
7	3140	TURBOGENERATOR UNITS	7805	5720	2085
7	3150	ACCESSORY ELECTRIC EQUIPMENT	5100	3290	1809
7	3160	MISCELLANEOUS POWER PLANT EQUIP.	708	506	202
STATION TOTAL			111501	55163	56338
DELAWARE (7,8)		STEAM PRODUCTION			1988 = TERMINAL YEAR
9	3110	STRUCTURES AND IMPROVEMENTS	16628	14912	1717
9	3120	BOILER PLANT EQUIPMENT	26898	21311	5588
9	3140	TURBOGENERATOR UNITS	11381	9589	1792
9	3150	ACCESSORY ELECTRIC EQUIPMENT	10106	9225	882
9	3160	MISCELLANEOUS POWER PLANT EQUIP.	1952	1575	377
STATION TOTAL			66966	56610	10355
10	3110	STRUCTURES AND IMPROVEMENTS	0	-3	4
STATION TOTAL			0	-3	4
CONEMAUGH (1,2)		STEAM PRODUCTION			2006 = TERMINAL YEAR
15	3110	STRUCTURES AND IMPROVEMENTS	6094	2045	4049
15	3120	BOILER PLANT EQUIPMENT	39159	13511	25648
15	3140	TURBOGENERATOR UNITS	20365	6353	14012
15	3150	ACCESSORY ELECTRIC EQUIPMENT	4951	1287	3664
15	3160	MISCELLANEOUS POWER PLANT EQUIP.	749	249	500
STATION TOTAL			71318	23445	47873

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET	
KEYSTONE (1,2)		STEAM PRODUCTION				2003 = TERMINAL YEAR
17	3110	STRUCTURES AND IMPROVEMENTS	18666	2165	16502	
17	3120	BOILER PLANT EQUIPMENT	35562	11668	23894	
17	3140	TURBOGENERATOR UNITS	12840	5927	6913	
17	3150	ACCESSORY ELECTRIC EQUIPMENT	3585	1410	2175	
17	3160	MISCELLANEOUS POWER PLANT EQUIP.	708	293	415	
STATION TOTAL			71362	21463	49899	
EDDYSTONE 3		STEAM PRODUCTION				2009 = TERMINAL YEAR
71	3110	STRUCTURES AND IMPROVEMENTS	45845	15012	30833	
71	3120	BOILER PLANT EQUIPMENT	95472	27612	67860	
71	3140	TURBOGENERATOR UNITS	27413	9685	17727	
71	3150	ACCESSORY ELECTRIC EQUIPMENT	22388	6275	16114	
71	3160	MISCELLANEOUS POWER PLANT EQUIP.	2567	757	1811	
STATION TOTAL			193686	59341	134345	
EDDYSTONE 4		STEAM PRODUCTION				2011 = TERMINAL YEAR
72	3120	BOILER PLANT EQUIPMENT	51072	15050	36022	
72	3140	TURBOGENERATOR UNITS	20644	6094	14549	
72	3150	ACCESSORY ELECTRIC EQUIPMENT	2153	1532	621	
STATION TOTAL			73869	22676	51192	
ALLIED CHEMICAL		STEAM PRODUCTION				1995 = TERMINAL YEAR
305	3110	STRUCTURES AND IMPROVEMENTS	130	24	105	
305	3150	ACCESSORY ELECTRIC EQUIPMENT	221	31	190	
STATION TOTAL			351	95	256	
ESSEX CHEMICAL		STEAM PRODUCTION				1995 = TERMINAL YEAR
306	3110	STRUCTURES AND IMPROVEMENTS	2150	581	1568	
STATION TOTAL			2150	581	1568	
TOOLS + WORK EQUIPMENT		STEAM PRODUCTION				0 = TERMINAL YEAR
372	3120	BOILER PLANT EQUIPMENT	1042	663	379	
STATION TOTAL			1042	663	379	
SAMAC		STEAM PRODUCTION				1992 = TERMINAL YEAR
503	3150	ACCESSORY ELECTRIC EQUIPMENT	8868	2434	6434	
STATION TOTAL			8868	2434	6434	
TOTAL STEAM PRODUCTION						
999	3110	STRUCTURES AND IMPROVEMENTS	214089	94454	119635	
999	3120	BOILER PLANT EQUIPMENT	566635	255616	311019	
999	3140	TURBOGENERATOR UNITS	168960	88777	80183	
999	3150	ACCESSORY ELECTRIC EQUIPMENT	97439	50240	47199	
999	3160	MISCELLANEOUS POWER PLANT EQUIP.	12323	6702	5621	
FUNCTIONAL TOTAL			1059446	495789	563657	

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET	
SALEM 1		NUCLEAR PRODUCTION				2012 = TERMINAL YEAR
	61	3210 STRUCTURES AND IMPROVEMENTS	49694	11353	38340	
	61	3220 REACTOR PLANT EQUIPMENT	145090	33037	112053	
	61	3230 TURBOGENERATOR UNITS	42729	8367	34362	
	61	3240 ACCESSORY ELECTRIC EQUIPMENT	55822	12695	43127	
	61	3250 MISCELLANEOUS POWER PLANT EQUIP.	7138	1949	5188	
STATION TOTAL			300473	67402	233071	
SALEM 2		NUCLEAR PRODUCTION				2016 = TERMINAL YEAR
	62	3210 STRUCTURES AND IMPROVEMENTS	56972	7096	49876	
	62	3220 REACTOR PLANT EQUIPMENT	193201	25614	167587	
	62	3230 TURBOGENERATOR UNITS	63859	-2247	66108	
	62	3240 ACCESSORY ELECTRIC EQUIPMENT	67999	8635	59364	
	62	3250 MISCELLANEOUS POWER PLANT EQUIP.	10658	987	9671	
STATION TOTAL			392688	40083	352606	
SALEM CF		NUCLEAR PRODUCTION				2016 = TERMINAL YEAR
	63	3210 STRUCTURES AND IMPROVEMENTS	99689	22866	76823	
	63	3220 REACTOR PLANT EQUIPMENT	68463	10397	58067	
	63	3230 TURBOGENERATOR UNITS	47432	9934	37499	
	63	3240 ACCESSORY ELECTRIC EQUIPMENT	22633	4325	18308	
	63	3250 MISCELLANEOUS POWER PLANT EQUIP.	7480	1690	5790	
STATION TOTAL			245697	49211	196486	
PEACH BOTTOM 2 + 3		NUCLEAR PRODUCTION				2009 = TERMINAL YEAR
	66	3210 STRUCTURES AND IMPROVEMENTS	111128	33799	77329	
	66	3220 REACTOR PLANT EQUIPMENT	259309	52756	206553	
	66	3230 TURBOGENERATOR UNITS	80577	22577	58000	
	66	3240 ACCESSORY ELECTRIC EQUIPMENT	39763	12691	27072	
	66	3250 MISCELLANEOUS POWER PLANT EQUIP.	22574	4705	17869	
STATION TOTAL			513351	126528	386823	
LIMERICK # 1		NUCLEAR PRODUCTION				2024 = TERMINAL YEAR
	91	3210 STRUCTURES AND IMPROVEMENTS	313744	3042	310702	
	91	3220 REACTOR PLANT EQUIPMENT	1488167	15156	1473011	
	91	3230 TURBOGENERATOR UNITS	251741	2826	248915	
	91	3240 ACCESSORY ELECTRIC EQUIPMENT	360902	3654	357248	
	91	3250 MISCELLANEOUS POWER PLANT EQUIP.	118073	1161	116912	
STATION TOTAL			2532627	25839	2506788	
LIMERICK 100% COM		NUCLEAR PRODUCTION				2024 = TERMINAL YEAR
	99	3210 STRUCTURES AND IMPROVEMENTS	469201	4554	464647	
	99	3220 REACTOR PLANT EQUIPMENT	491607	5009	486598	
	99	3230 TURBOGENERATOR UNITS	40966	459	40507	
	99	3240 ACCESSORY ELECTRIC EQUIPMENT	192787	1953	190834	
	99	3250 MISCELLANEOUS POWER PLANT EQUIP.	77114	756	76358	
STATION TOTAL			1271675	12731	1258944	

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION	ACCOUNT	ORIGINAL COST PLANT	RESERVE	NET
NUCLEAR TRAINING CENTER	NUCLEAR PRODUCTION			2015 = TERMINAL YEAR
385	3210 STRUCTURES AND IMPROVEMENTS	1512	261	1251
385	3250 MISCELLANEOUS POWER PLANT EQUIP.	52	5	46
STATION TOTAL		1563	266	1297
TOTAL NUCLEAR PRODUCTION				
999	3210 STRUCTURES AND IMPROVEMENTS	1101939	82971	1018968
999	3220 REACTOR PLANT EQUIPMENT	2645837	141969	2503868
999	3230 TURBOGENERATOR UNITS	527305	41915	485390
999	3240 ACCESSORY ELECTRIC EQUIPMENT	739907	43953	695954
999	3250 MISCELLANEOUS POWER PLANT EQUIP.	243088	11254	231835
FUNCTIONAL TOTAL		5258075	322061	4936014
MUDDY RUN (1,2,3,4,5,6,7,8)	HYDRAULIC PRODUCTION			0 = TERMINAL YEAR
19	3311 GENERATION	12061	2879	9182
19	3312 CONSERVATION OF FISH +WILDLIFE	128	28	101
19	3313 RECREATION	2295	1025	1270
19	3321 GENERATION	33428	6160	27268
19	3323 RECREATION	1527	153	1374
19	3330 WATER WHEELS, TURBINES, GENS.	21971	6116	15855
19	3340 ACCESSORY ELECTRIC EQUIPMENT	8662	2634	6028
19	3351 GENERATION	1873	743	1130
19	3353 RECREATION	166	47	119
19	3360 ROADS, RAILROADS AND BRIDGES	998	517	481
STATION TOTAL		83108	20301	62807
TOTAL OTHER PRODUCTION				
TOTAL OTHER PRODUCTION				
999	3410 STRUCTURES AND IMPROVEMENTS	4218	2726	1492
999	3420 FUEL HOLDERS,PRODUCERS,ACCESSORI	21320	8296	13024
999	3440 GENERATORS	82131	39176	42956
999	3450 ACCESSORY ELECTRIC EQUIPMENT	12552	5873	6680
999	3460 MISCELLANEOUS POWER PLANT EQUIP.	2266	777	1489
FUNCTIONAL TOTAL		122488	56848	65640
TOTAL TRANSMISSION PLANT				
601	3520 STRUCTURES AND IMPROVEMENTS	16644	4908	11735
601	3530 STATION EQUIPMENT	229672	85034	144638
601	3531 LIMERICK TRANSMISSION	8349	95	8254
601	3540 TOWERS AND FIXTURES	184126	52921	131205
601	3550 POLES AND FIXTURES	496	264	232
601	3560 OVERHEAD CONDUCTORS AND DEVICES	101715	26698	75017
601	3570 UNDERGROUND CONDUIT	2521	1654	867
601	3580 UNDERGROUND CONDUCTORS + DEVICES	43090	22723	20367
601	3590 ROADS AND TRAILS	1730	872	858
FUNCTIONAL TOTAL		588342	195169	393173

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
TOTAL DISTRIBUTION PLANT					
601	3610	STRUCTURES AND IMPROVEMENTS	35372	13911	21461
601	3620	STATION EQUIPMENT	300311	140743	159568
601	3640	POLES, TOWERS AND FIXTURES	136407	48815	87592
601	3650	OVERHEAD CONDUCTORS AND DEVICES	208206	78634	129572
601	3660	UNDERGROUND CONDUIT	148663	49599	99064
601	3670	UNDERGROUND CONDUCTORS + DEVICES	263562	77361	186201
601	3680	LINE TRANSFORMERS	160797	53949	106848
601	3691	AERIAL	34329	15951	18378
601	3692	UNDERGROUND	77647	16291	61356
601	3701	METERS	68689	17275	51414
601	3702	METER INSTALLATIONS	27761	6649	21112
601	3710	INSTAL. ON CUSTOMERS' PREMISES	278	193	85
601	3730	LUMINARIES	14833	6807	8027
601	3731	AERIAL CONDUCTORS	937	513	424
601	3732	UNDERGROUND CONDUCTORS	10193	2359	7834
601	3733	P O L CONDUCTORS	2124	1049	1075
FUNCTIONAL TOTAL			1490309	530099	960211
TOTAL GENERAL PLANT					
601	3900	STRUCTURES AND IMPROVEMENTS	19149	7763	11386
601	3911	OFFICE MACHINES	81	5	76
601	3912	OFFICE FURNITURE AND EQUIPMENT	2160	153	2007
601	3913	COMPUTERS	964	175	789
601	3930	STORES EQUIPMENT	404	209	195
601	3940	TOOLS, SHOP AND GARAGE EQUIPMENT	4980	1967	3014
601	3951	TESTING DIVISION	6144	1746	4398
601	3952	METER DIVISION	810	204	606
601	3953	CHEMICAL LABORATORY	526	144	381
601	3970	COMMUNICATION EQUIPMENT	1830	419	1410
601	3980	MISCELLANEOUS EQUIPMENT	2263	690	1573
FUNCTIONAL TOTAL			39312	13476	25836
CLASS OF SERVICE			8641080	1633742	7007338

FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
($1,000'S)

NON DEPRECIABLE ACCOUNTS

302. FRANCHISES & CONSENTS (INTANG.)	163
310. LAND & LAND RIGHTS(STEAM PROD.)	5211
320. LAND & LAND RIGHTS(NUCLER PROD.)	7706
330. LAND & LAND RIGHTS(HYDRAL PROD.)	1421
340. LAND & LAND RIGHTS(OTHER PROD.)	846
350. LAND & LAND RIGHTS(TRANSMISSION)	47970
360. LAND & LAND RIGHTS(DISTRIBUTION)	22510
389. LAND & LAND RIGHTS(GENERAL)	1967
399. OTHER INTANGIBLE (GENERAL)	-2135
TOTAL NON-DEPRECIABLE	85658

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC RATEMAKING ADJUSTMENTS
SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION	ACCOUNT		ORIGINAL COST PLANT	RESERVE	NET
ADDITIONAL AFUDC					
EDDYSTONE 4		ADDITIONAL AFUDC - STEAM PROD.			2011 = TERMINAL YEAR
72	63110	STRUCTURES AND IMPROVEMENTS	2608	795	1813
72	63120	BOILER PLANT EQUIPMENT	1249	383	866
72	63140	TURBOGENERATOR UNITS	530	162	368
72	63150	ACCESSORY ELECTRIC EQUIPMENT	220	67	153
72	63160	MISCELLANEOUS POWER PLANT EQUIP.	128	39	89
STATION TOTAL			4735	1446	3289
SALEM 2		ADDITIONAL AFUDC - NUCLEAR PROD.			2016 = TERMINAL YEAR
62	63210	STRUCTURES AND IMPROVEMENTS	13418	1686	11732
62	63220	REACTOR PLANT EQUIPMENT	5584	712	4872
62	63230	TURBOGENERATOR UNITS	5757	732	5025
62	63240	ACCESSORY ELECTRIC EQUIPMENT	2939	374	2565
62	63250	MISCELLANEOUS POWER PLANT EQUIP.	1208	153	1055
STATION TOTAL			28906	3657	25249
PEACH BOTTOM 2 + 3		ADDITIONAL AFUDC - NUCLEAR PROD.			2009 = TERMINAL YEAR
66	63210	STRUCTURES AND IMPROVEMENTS	1468	481	987
STATION TOTAL			1468	481	987
TOTAL ADDITIONAL AFUDC			35109	5585	29524
TOTAL EXCESS SALVAGE - DISTRIBUTION					
601	63640	POLES, TOWERS AND FIXTURES	0	-6420	6421
601	63650	OVERHEAD CONDUCTORS AND DEVICES	0	-7400	7401
FUNCTIONAL TOTAL			0	-13821	13822

Philadelphia Electric Company - Common
SUMMARY OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE
FOR COMMON PLANT IN SERVICE
AS OF JUNE 30, 1986
($1,000's)

	Original Cost		
	Plant	Depreciation Reserve	Net
Common Plant in Service (C-3a)	$128,786	$44,973	$83,813
Transportation Plant-in-Service (C-3b)	9,909	6,627	3,282
Total Depreciable Common Plant	$138,695	$51,600	$87,095
Add:			
Non-Depreciable			
301. Organization (Intangible)(B-6)	677	-	677
389. Land & Land Rights (General)(B-6)	3,115	-	3,115
Total Non-Depreciable	3,792	-	3,792
Total Common Plant in Service (B-6)	$142,487	$51,600	$90,887
Total Common Plant in Service Allocated			
(Per B-17)			
Electric 86.188%	$122,807	$44,473	$78,334
Gas 12.930	18,424	6,672	11,752
Steam 0.882	1,256	455	801
Total 100.000%	$142,487	$51,600	$90,887

SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION ACCOUNT			ORIGINAL COST PLANT	RESERVE	NET
TOTAL GENERAL PLANT					
601	43900	STRUCTURES AND IMPROVEMENTS	96170	31827	62342
601	43911	OFFICE MACHINES	3126	1516	1610
601	43912	FURNITURE AND EQUIPMENT	10974	4837	6137
601	43913	COMPUTERS	8606	1910	6696
601	43930	STORES EQUIPMENT	2028	463	1565
601	43941	CONSTRUCTION TOOLS	294	232	62
601	43942	TRANSMISSION AND DIST. TOOLS	4759	1974	2785
601	43944	TRANS. AND DIST. INSTRUMENTS	395	192	204
601	43962	CONSTRUCTION TOOLS	1	1	0
601	43963	TRANSMISSION AND DIST. TOOLS	51	51	0
601	43970	COMMUNICATION EQUIPMENT	1866	454	1411
601	43981	MISC. EQUIP. OTHER THAN FIRE FTG	511	461	51
601	43982	FIRE FIGHTING EQUIP. NOT DATED	1924	1013	912
601	43983	FIRE FIGHTING EQUIP. SPEC.DATED	81	42	39
FUNCTIONAL TOTAL			128786	44973	83814
CLASS OF SERVICE			128786	44973	83814

SUMMARY OF PRIMARY ACCOUNTS OF ORIGINAL COST
AND RELATED DEPRECIATION RESERVE FOR ELECTRIC PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

LOCATION ACCOUNT			ORIGINAL COST PLANT	RESERVE	NET
TOTAL TRANSPORTATION					
601	53920	TRANSPORTATION EQUIPMENT	7021	5107	1914
601	53943	GARAGE EQUIPMENT	1517	330	1187
601	53961	VEHICLES	1371	1189	182
FUNCTIONAL TOTAL			9909	6627	3282
CLASS OF SERVICE			9909	6627	3282

Philadelphia Electric Company - Electric Operations
Description of Annual and Accrued Depreciation

The depreciation figures claimed in this filing are based on plant life estimates developed in the Company's 1985 Plant Life Study (Exhibit AW-1) for electric and common plant.

The 1985 Plant Life Study (1985 Study) is the Company's latest plant mortality study and updates the 1984 study which was filed in R-842590. The update, identified as Exhibit AW-1, includes the addition of one year of additional retirement experience for 1983. Production plant retirement dates are based on the latest Engineering Department estimates available at the time the study was made. This includes a 15-year life span extension for Cromby 1 and Eddystone 1 and 2 coal units. This life extension, to which the Company is now committed, reduces the claimed annual depreciation substantially.

Effective February 1, 1985, the Company switched its depreciation methodology for electric and common plant from the whole life method to the remaining life method for financial accounting purposes. The remaining life method is used in developing annual and accrued depreciation in this filing with the book reserve adjusted to a rate making basis consistent with the Commission's order at R-842590. The annual depreciation accrual, book reserve and rate making adjustments are developed in Exhibit AW-2 and Exhibit AW-3 and are summarized in Section C of this exhibit.

Experienced net salvage is calculated separately and averaged over a five-year period. The net negative salvage is not adjusted for third party payments as claimed by the Company in the past, pending a decision on the appeal of this issue in the Commonwealth Court.

The Company plans to depreciate Limerick Unit No. 1 and its common facilities under the remaining life method used for the other electric plant. The Limerick life span used for depreciation purposes is 39 years. This is based on a 40 year license which began with low power testing in late 1984. Allowing for one year of pre-commercial testing results in a 39 year life span for depreciation purposes.

Additional information regarding the annual and the accrued depreciation is contained in the Direct Testimony of A. Wroblewski.

Philadelphia Electric Company - Electric Operations

SUMMARY
Adjusted Book Remaining Life Accruals
for Plant-in-Service at June 30, 1986
$1,000's

	Plant	Depreciation Reserve	Net Plant	Remaining Life Annual Accrual
Total Per Books (a)(C-5e)	$8,726,738	$1,633,742	$7,092,996	(b) $241,962
Book Reserve Adjustment				
Additional AFUDC (C-5f)	35,109	5,585	29,524	1,051
Excess Salvage (C-5f)	-	(13,822)	13,822	473
Adjusted Remaining Life Accrual	$8,761,847	$1,625,505	$7,136,342	$243,486
Other Ratemaking Adjustments				
25 Cycle Equipment	(4,128)	(4,128)	-	- (c)
Total for Ratemaking	$8,757,719	$1,621,377	$7,136,342	$243,486
(a) Limerick 1 (C-5c)	$2,532,627	$25,839	$2,506,788	$68,656
Limerick 100% common facilities				
Non Depreciable (AW-3, page 5)	7,349	-	7,349	-
Depreciable (C-5c)	1,271,675	12,731	1,258,944	33,824
Limerick Transmission (C-5d)	8,349	95	8,254	257
Sub-Total Limerick	$3,820,000	$38,665	$3,781,335	$102,737
Other Electric	4,906,738	1,595,077	3,311,661	139,225
Total Per Books	$8,726,738	$1,633,742	$7,092,996	$241,962

(b) Includes $85,658 of non-depreciable plant in service.
(c) Fully depreciated, no adjustment required.

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - SCHUYKILL (1,3)					1992 = TERMINAL YEAR		
1 3110 STRUCTURES AND IMPROVEMENTS	3457	16.76	1992	90-R4			579
1 3120 BOILER PLANT EQUIPMENT	13534	16.88	1992	70-R2			2285
1 3140 TURBOGENERATOR UNITS	2271	16.93	1992	75-R2			385
1 3150 ACCESSORY ELECTRIC EQUIPMENT	727	16.93	1992	75-R2			123
1 3160 MISCELLANEOUS POWER PLANT EQUIP.	739	16.80	1992	80-R3			124
STATION TOTAL	20728	16.87					3496
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - CROMBY 2					1990 = TERMINAL YEAR		
4 3110 STRUCTURES AND IMPROVEMENTS	1653	25.03	1990	90-R4			414
4 3120 BOILER PLANT EQUIPMENT	1939	25.28	1990	70-R2			490
4 3140 TURBOGENERATOR UNITS	2025	25.21	1990	75-R2			510
4 3150 ACCESSORY ELECTRIC EQUIPMENT	137	25.24	1990	75-R2			35
4 3160 MISCELLANEOUS POWER PLANT EQUIP.	31	25.13	1990	80-R3			8
STATION TOTAL	5784	25.18					1457
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 1 + 2					2010 = TERMINAL YEAR		
6 3110 STRUCTURES AND IMPROVEMENTS	40813	4.19	2010	90-R4			1708
6 3120 BOILER PLANT EQUIPMENT	102888	4.37	2010	70-R2			4493
6 3140 TURBOGENERATOR UNITS	18807	4.40	2010	75-R2			827
6 3150 ACCESSORY ELECTRIC EQUIPMENT	14446	4.33	2010	75-R2			626
6 3160 MISCELLANEOUS POWER PLANT EQUIP.	1546	4.27	2010	80-R3			66
STATION TOTAL	178500	4.32					7720
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - CROMBY 1					2004 = TERMINAL YEAR		
7 3110 STRUCTURES AND IMPROVEMENTS	18934	5.57	2004	90-R4			1054
7 3120 BOILER PLANT EQUIPMENT	33307	5.71	2004	70-R2			1901
7 3140 TURBOGENERATOR UNITS	2085	5.80	2004	75-R2			121
7 3150 ACCESSORY ELECTRIC EQUIPMENT	1809	5.72	2004	75-R2			104
7 3160 MISCELLANEOUS POWER PLANT EQUIP.	202	5.66	2004	80-R3			11
STATION TOTAL	56338	5.66					3191
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - DELAWARE (7,8)					1988 = TERMINAL YEAR		
9 3110 STRUCTURES AND IMPROVEMENTS	1717	50.16	1988	90-R4			861
9 3120 BOILER PLANT EQUIPMENT	5588	50.26	1988	70-R2			2809
9 3140 TURBOGENERATOR UNITS	1792	50.24	1988	75-R2			901
9 3150 ACCESSORY ELECTRIC EQUIPMENT	882	50.32	1988	75-R2			444
9 3160 MISCELLANEOUS POWER PLANT EQUIP.	377	50.08	1988	80-R3			189
STATION TOTAL	10355	50.24					5203
10 3110 STRUCTURES AND IMPROVEMENTS	4	100.00	1985	90-R4			4
STATION TOTAL	4	100.00					4
STEAM PRODUCTION - ELECTRIC STEAM GENERATING STATNS - CONEMAUGH (1,2)					2006 = TERMINAL YEAR		
15 3110 STRUCTURES AND IMPROVEMENTS	4049	5.01	2006	90-R4			203
15 3120 BOILER PLANT EQUIPMENT	25648	5.17	2006	70-R2			1327
15 3140 TURBOGENERATOR UNITS	14012	5.16	2006	75-R2			723
15 3150 ACCESSORY ELECTRIC EQUIPMENT	3664	5.15	2006	75-R2			189
15 3160 MISCELLANEOUS POWER PLANT EQUIP.	500	5.06	2006	80-R3			25
STATION TOTAL	47873	5.15					2466

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - KEYSTONE (1,2)					2003 = TERMINAL YEAR		
17	3110 STRUCTURES AND IMPROVEMENTS	16502	5.89	2003	90-R4			972
17	3120 BOILER PLANT EQUIPMENT	23894	6.05	2003	70-R2			1447
17	3140 TURBOGENERATOR UNITS	6913	6.04	2003	75-R2			418
17	3150 ACCESSORY ELECTRIC EQUIPMENT	2175	6.05	2003	75-R2			132
17	3160 MISCELLANEOUS POWER PLANT EQUIP.	415	5.94	2003	80-R3			25
STATION TOTAL		49899	6.00					2992
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 3					2009 = TERMINAL YEAR		
71	3110 STRUCTURES AND IMPROVEMENTS	30833	4.36	2009	90-R4			1343
71	3120 BOILER PLANT EQUIPMENT	67860	4.51	2009	70-R2			3063
71	3140 TURBOGENERATOR UNITS	17727	4.50	2009	75-R2			797
71	3150 ACCESSORY ELECTRIC EQUIPMENT	16114	4.50	2009	75-R2			725
71	3160 MISCELLANEOUS POWER PLANT EQUIP.	1811	4.40	2009	80-R3			80
STATION TOTAL		134345	4.47					6008
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 4					2011 = TERMINAL YEAR		
72	3120 BOILER PLANT EQUIPMENT	36022	4.16	2011	70-R2			1499
72	3140 TURBOGENERATOR UNITS	14549	4.14	2011	75-R2			603
72	3150 ACCESSORY ELECTRIC EQUIPMENT	621	4.14	2011	75-R2			26
STATION TOTAL		51192	4.16					2128
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - ALLIED CHEMICAL					1995 = TERMINAL YEAR		
305	3110 STRUCTURES AND IMPROVEMENTS	105	11.11	1995	90-R4			12
305	3150 ACCESSORY ELECTRIC EQUIPMENT	190	11.20	1995	75-R2			21
STATION TOTAL		256	11.16					29
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - ESSEX CHEMICAL					1995 = TERMINAL YEAR		
306	3110 STRUCTURES AND IMPROVEMENTS	1568	11.11	1995	90-R4			174
STATION TOTAL		1568	11.11					174
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - TOOLS + WORK EQUIPMENT					0 = TERMINAL YEAR		
372	3120 BOILER PLANT EQUIPMENT	379				30-S0	5.92	22
STATION TOTAL		379					5.92	22
STEAM PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - SAMAC					1992 = TERMINAL YEAR		
503	3150 ACCESSORY ELECTRIC EQUIPMENT	6434	17.42	1992	30-R2			1121
STATION TOTAL		6434	17.42					1121
STEAM PRODUCTION	- TOTAL OF ALL STATIONS		- TOTAL			0 = TERMINAL YEAR		
999	3110 STRUCTURES AND IMPROVEMENTS	119635	0.0	0	0-			7324
999	3120 BOILER PLANT EQUIPMENT	311019	0.0	0	0-			19332
999	3140 TURBOGENERATOR UNITS	80183	0.0	0	0-			5284
999	3150 ACCESSORY ELECTRIC EQUIPMENT	47199	0.0	0	0-			3544
999	3160 MISCELLANEOUS POWER PLANT EQUIP.	5621	0.0	0	0-			528
FUNCTIONAL TOTAL		563657					6.39	36011

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - SALEM 1					2012 = TERMINAL YEAR		
61	3210 STRUCTURES AND IMPROVEMENTS	38340	3.85	2012	90-R4			1477
61	3220 REACTOR PLANT EQUIPMENT	112053	4.00	2012	70-R2			4482
61	3230 TURBOGENERATOR UNITS	34362	4.28	2012	50-R1			1470
61	3240 ACCESSORY ELECTRIC EQUIPMENT	43127	3.98	2012	75-R2			1717
61	3250 MISCELLANEOUS POWER PLANT EQUIP.	5188	3.90	2012	80-R3			202
STATION TOTAL		233071	4.01					9348
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - SALEM 2					2016 = TERMINAL YEAR		
62	3210 STRUCTURES AND IMPROVEMENTS	49876	3.34	2016	90-R4			1665
62	3220 REACTOR PLANT EQUIPMENT	167587	3.48	2016	70-R2			5824
62	3230 TURBOGENERATOR UNITS	66108	3.75	2016	50-R1			2480
62	3240 ACCESSORY ELECTRIC EQUIPMENT	59364	3.46	2016	75-R2			2054
62	3250 MISCELLANEOUS POWER PLANT EQUIP.	9671	3.38	2016	80-R3			326
STATION TOTAL		352606	3.50					12350
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - SALEM CF					2016 = TERMINAL YEAR		
63	3210 STRUCTURES AND IMPROVEMENTS	76823	3.34	2016	90-R4			2568
63	3220 REACTOR PLANT EQUIPMENT	58067	3.50	2016	70-R2			2031
63	3230 TURBOGENERATOR UNITS	37499	3.78	2016	50-R1			1419
63	3240 ACCESSORY ELECTRIC EQUIPMENT	18308	3.47	2016	75-R2			636
63	3250 MISCELLANEOUS POWER PLANT EQUIP.	5790	3.38	2016	80-R3			196
STATION TOTAL		196486	3.49					6849
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - PEACH BOTTOM 2 + 3					2009 = TERMINAL YEAR		
66	3210 STRUCTURES AND IMPROVEMENTS	77329	4.36	2009	90-R4			3368
66	3220 REACTOR PLANT EQUIPMENT	206553	4.50	2009	70-R2			9285
66	3230 TURBOGENERATOR UNITS	58000	4.80	2009	50-R1			2784
66	3240 ACCESSORY ELECTRIC EQUIPMENT	27072	4.50	2009	75-R2			1218
66	3250 MISCELLANEOUS POWER PLANT EQUIP.	17869	4.39	2009	80-R3			784
STATION TOTAL		386823	4.51					17438
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - LIMERICK # 1					2024 = TERMINAL YEAR		
91	3210 STRUCTURES AND IMPROVEMENTS	310702	2.60	2024	90-R4			8089
91	3220 REACTOR PLANT EQUIPMENT	1473011	2.73	2024	70-R2			40274
91	3230 TURBOGENERATOR UNITS	248915	3.01	2024	50-R1			7496
91	3240 ACCESSORY ELECTRIC EQUIPMENT	357248	2.72	2024	75-R2			9713
91	3250 MISCELLANEOUS POWER PLANT EQUIP.	116912	2.64	2024	80-R3			3084
STATION TOTAL		2506788	2.74					68656
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - LIMERICK 100% COM					2024 = TERMINAL YEAR		
99	3210 STRUCTURES AND IMPROVEMENTS	464647	2.60	2024	90-R4			12097
99	3220 REACTOR PLANT EQUIPMENT	486598	2.73	2024	70-R2			13304
99	3230 TURBOGENERATOR UNITS	40507	3.01	2024	50-R1			1220
99	3240 ACCESSORY ELECTRIC EQUIPMENT	190834	2.72	2024	75-R2			5188
99	3250 MISCELLANEOUS POWER PLANT EQUIP.	76358	2.64	2024	80-R3			2014
STATION TOTAL		1258944	2.69					33824

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG.	ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
NUCLEAR PRODUCTION	- NUCLEAR POWER GENERATING STATNS - NUCLEAR TRAINING CENTER					2015 = TERMINAL YEAR		
385	3210 STRUCTURES AND IMPROVEMENTS	1251	3.45	2015	90-R4			43
385	3250 MISCELLANEOUS POWER PLANT EQUIP.	46	3.49	2015	60-R3			2
STATION TOTAL		1297	3.46					45
NUCLEAR PRODUCTION	- TOTAL OF ALL STATIONS - TOTAL					0 = TERMINAL YEAR		
999	3210 STRUCTURES AND IMPROVEMENTS	1018968	0.0	0	0-			29308
999	3220 REACTOR PLANT EQUIPMENT	2503868	0.0	0	0-			75199
999	3230 TURBOGENERATOR UNITS	485390	0.0	0	0-			16869
999	3240 ACCESSORY ELECTRIC EQUIPMENT	695954	0.0	0	0-			20525
999	3250 MISCELLANEOUS POWER PLANT EQUIP.	231835	0.0	0	0-			6609
FUNCTIONAL TOTAL		4936014					3.01	148510
HYDRAULIC PRODUCTION	- ELECTRIC STEAM GENERATING STATNS - MUDDY RUN (1,2,3,4,5,6,7,8)					0 = TERMINAL YEAR		
19	3311 GENERATION	9182				87-R1	1.36	125
19	3312 CONSERVATION OF FISH +WILDLIFE	101				87-R1	1.26	1
19	3313 RECREATION	1270				87-R1	1.33	17
19	3321 GENERATION	27268				100-R2	1.20	327
19	3323 RECREATION	1374				100-R2	1.11	15
19	3330 WATER WHEELS, TURBINES, GENS.	15855				40-R2	3.90	619
19	3340 ACCESSORY ELECTRIC EQUIPMENT	6028				40-S2	3.95	238
19	3351 GENERATION	1130				50-R2	2.80	32
19	3353 RECREATION	119				50-R2	2.67	3
19	3360 ROADS, RAILROADS AND BRIDGES	481				60-R2	2.29	11
STATION TOTAL		62807					2.21	1389
OTHER PRODUCTION	- MISCELLANEOUS - 601							
OTHER PRODUCTION	- TOTAL OF ALL STATIONS - TOTAL					0 = TERMINAL YEAR		
999	3410 STRUCTURES AND IMPROVEMENTS	1492	0.0	0	0-	0 = TERMINAL YEAR		
999	3420 FUEL HOLDERS,PRODUCERS,ACCESSORI	13024	0.0	0	0-			120
999	3440 GENERATORS	42956	0.0	0	0-			1039
999	3450 ACCESSORY ELECTRIC EQUIPMENT	6680	0.0	0	0-			4125
999	3460 MISCELLANEOUS POWER PLANT EQUIP.	1489	0.0	0	0-			648
FUNCTIONAL TOTAL		65640						117
							9.21	6049
TRANSMISSION PLANT	- MISCELLANEOUS - 601					0 = TERMINAL YEAR		
601	3520 STRUCTURES AND IMPROVEMENTS	11735				50-R5	2.88	338
601	3530 STATION EQUIPMENT	144638				45-S2	3.11	4502
601	3531 LIMERICK TRANSMISSION	8254				45-S2	3.11	257
601	3540 TOWERS AND FIXTURES	131205				35-S3	4.37	5728
601	3550 POLES AND FIXTURES	232				25-S2	8.82	20
601	3560 OVERHEAD CONDUCTORS AND DEVICES	75017				45-S2	3.14	2353
601	3570 UNDERGROUND CONDUIT	867				50-R4	6.27	54
601	3580 UNDERGROUND CONDUCTORS + DEVICES	20367				40-R4	4.56	928
601	3590 ROADS AND TRAILS	858				25-R5	9.70	83
FUNCTIONAL TOTAL		393173					3.63	14264

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC PLANT
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG. ACCOUNT			NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
DISTRIBUTION PLANT - MISCELLANEOUS				- 601				0 = TERMINAL YEAR	
601	3610	STRUCTURES AND IMPROVEMENTS	21461				40-R4	6.14	1318
601	3620	STATION EQUIPMENT	159568				40-R2	3.97	6330
601	3640	POLES, TOWERS AND FIXTURES	87592				40-R1	3.45	3022
601	3650	OVERHEAD CONDUCTORS AND DEVICES	129572				40-L1	3.40	4410
601	3660	UNDERGROUND CONDUIT	99064				50-R4	3.43	3393
601	3670	UNDERGROUND CONDUCTORS + DEVICES	186201				55-RA	2.16	4020
601	3680	LINE TRANSFORMERS	106848				35-L0	3.63	3879
601	3691	AERIAL	18378				28-R3	6.15	1131
601	3692	UNDERGROUND	61556				40-R1	3.04	1871
601	3701	METERS	51414				29-S1	5.56	2861
601	3702	METER INSTALLATIONS	21112				52-S6	2.64	557
601	3710	INSTAL. ON CUSTOMERS' PREMISES	85				30-O3	3.49	3
601	3730	LUMINARIES	8027				17-R1	10.26	824
601	3731	AERIAL CONDUCTORS	424				7-L0	21.89	93
601	3732	UNDERGROUND CONDUCTORS	7834				27-LA	4.73	371
601	3733	P O L CONDUCTORS	1075				12-SA	14.91	160
FUNCTIONAL TOTAL			960211					3.57	34242
GENERAL PLANT - MISCELLANEOUS				- 601				0 = TERMINAL YEAR	
601	3900	STRUCTURES AND IMPROVEMENTS	11386				30-R4	6.06	690
601	3911	OFFICE MACHINES	76				10-L0	13.04	10
601	3912	OFFICE FURNITURE AND EQUIPMENT	2007				10-L0	11.54	232
601	3913	COMPUTERS	789				10-L0	11.45	90
601	3930	STORES EQUIPMENT	195				23-L2	10.66	21
601	3940	TOOLS, SHOP AND GARAGE EQUIPMENT	3014				45-R2	3.21	97
601	3951	TESTING DIVISION	4398				45-L1	2.84	125
601	3952	METER DIVISION	606				35-R2	3.83	23
601	3953	CHEMICAL LABORATORY	381				42-R3	3.25	12
601	3970	COMMUNICATION EQUIPMENT	1410				30-R3	4.25	60
601	3980	MISCELLANEOUS EQUIPMENT	1573				23-S1	8.72	137
FUNCTIONAL TOTAL			25836					5.79	1497
CLASS OF SERVICE			7007338					3.45	241962

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC RATEMAKING ADJUSTMENTS
DEPRECIATION ACCRUAL BY ACCOUNTS
FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
ADDITIONAL AFUDC - STEAM PROD. - ELECTRIC STEAM GENERATING STATNS - EDDYSTONE 4					2011 = TERMINAL YEAR		
72 63110 STRUCTURES AND IMPROVEMENTS	1813	4.01	2011	90-R4			73
72 63120 BOILER PLANT EQUIPMENT	866	4.16	2011	70-R2			36
72 63140 TURBOGENERATOR UNITS	368	4.14	2011	75-R2			15
72 63150 ACCESSORY ELECTRIC EQUIPMENT	153	4.14	2011	75-R2			6
72 63160 MISCELLANEOUS POWER PLANT EQUIP.	89	4.06	2011	80-R3			4
STATION TOTAL	3289	4.07					134
ADDITIONAL AFUDC - NUCLEAR PROD. - NUCLEAR POWER GENERATING STATNS - SALEM 2					2016 = TERMINAL YEAR		
62 63210 STRUCTURES AND IMPROVEMENTS	11732	3.34	2016	90-R4			392
62 63220 REACTOR PLANT EQUIPMENT	4872	3.48	2016	70-R2			169
62 63230 TURBOGENERATOR UNITS	5025	3.75	2016	50-R1			189
62 63240 ACCESSORY ELECTRIC EQUIPMENT	2565	3.46	2016	75-R2			89
62 63250 MISCELLANEOUS POWER PLANT EQUIP.	1055	3.38	2016	80-R3			36
STATION TOTAL	25249	3.46					874
ADDITIONAL AFUDC - NUCLEAR PROD. - NUCLEAR POWER GENERATING STATNS - PEACH BOTTOM 2 + 3					2009 = TERMINAL YEAR		
66 63210 STRUCTURES AND IMPROVEMENTS	987	4.36	2009	90-R4			43
STATION TOTAL	987	4.36					43
TOTAL ADDITIONAL AFUDC	29524					3.56	1051
EXCESS SALVAGE - DISTRIBUTION					0 = TERMINAL YEAR		
601 63640 POLES, TOWERS AND FIXTURES	6421				40-R1	3.45	222
601 63650 OVERHEAD CONDUCTORS AND DEVICES	7401				40-L1	3.40	252
FUNCTIONAL TOTAL	13822					3.43	473

Philadelphia Electric Company - Electric Operations

SUMMARY
Remaining Life Accruals for Common
Plant-In-Service at June 30, 1986
($1,000)

	Plant	Depreciation Reserve	Net Plant		Remaining Life Annual Accrual
Total Per Books (C-6a & C-6b)	$142,487	$51,600	$90,887	(a)	$6,379
Less Transportation Cleared to Operating Expense (C-6b)					
392 Transportation	$7,021	$5,107	1,914		$508
394.3 Garage Equipment	1,517	330	1,187		51
396.1 Vehicles	1,371	1,189	182		79
Total Transportation	$9,909	$6,626	$3,283		$638
Total Common Less Transportation (C-6a)	$132,578	$44,974	$87,604	(a)	$5,741
Allocation of Common Less Transportation					
	Per B-17				
Electric	86.188%	$114,266	$38,762	$75,504	$4,948
Gas	12.930	17,142	5,815	11,327	742
Steam	0.882	1,170	397	773	51
	100.000%	$132,578	$44,974	$87,604	$5,741

(a) Includes $3,792 of non-depreciable plant in service

FOR PLANT IN SERVICE AT 6/30/86
(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
GENERAL PLANT - MISCELLANEOUS		- 601			0 = TERMINAL YEAR		
601 43900 STRUCTURES AND IMPROVEMENTS	62342				30-L2	5.40	3369
601 43911 OFFICE MACHINES	1610				10-L0	14.93	240
601 43912 FURNITURE AND EQUIPMENT	6137				10-L0	15.47	949
601 43913 COMPUTERS	6696				10-L0	12.81	858
601 43930 STORES EQUIPMENT	1565				40-L2	3.10	49
601 43941 CONSTRUCTION TOOLS	62				30-S0	5.23	3
601 43942 TRANSMISSION AND DIST. TOOLS	2765				30-S0	4.65	129
601 43944 TRANS. AND DIST. INSTRUMENTS	204				30-S0	5.23	11
601 43962 CONSTRUCTION TOOLS	0				10-S1	100.00	0
601 43963 TRANSMISSION AND DIST. TOOLS	0				10-S1	100.00	0
601 43970 COMMUNICATION EQUIPMENT	1411				30-R3	3.99	56
601 43981 MISC. EQUIP. OTHER THAN FIRE FTG	51				20-L2	10.22	5
601 43982 FIRE FIGHTING EQUIP. NOT DATED	912				20-L2	7.50	68
601 43983 FIRE FIGHTING EQUIP. SPEC.DATED	39				20-L2	7.17	3
FUNCTIONAL TOTAL	83814					6.85	5741
CLASS OF SERVICE	83814					6.85	5741

(THOUSANDS $)

DESIG. ACCOUNT	NET PLANT BASE	LIFE SPAN RATE %	LIFE SPAN TERM DATE	LIFE SPAN INTERIM CURVE	AVERAGE AGE LIFE & CURVE	AVERAGE AGE RATE %	ANNUAL ACCRUAL
TRANSPORTATION - MISCELLANEOUS		- 601			0 = TERMINAL YEAR		
601 53920 TRANSPORTATION EQUIPMENT	1914				11-L2	26.54	508
601 53943 GARAGE EQUIPMENT	1187				30-S0	4.32	51
601 53961 VEHICLES	182				10-S1	43.25	79
FUNCTIONAL TOTAL	3282					19.43	638
CLASS OF SERVICE	3282					19.43	638

Philadelphia Electric Company - Electric Operations
PRODUCTION PLANT
LIFE SPAN DATA

Station	Unit	Terminal Year
Steam Production		
Richmond #9		1985*
Cromby #1		2004 (1)
Cromby #2		1990
Delaware		1988
Eddystone #1 & #2		2010 (1)
Schuylkill		1992
Southwark		1985*
Keystone		2003
Conemaugh		2006
Eddystone #3		2009
Eddystone #4		2011
Other Production (Excl. Croydon)		
Station	Unit	
Southwark	3,4,5&6	1992
Eddystone	10,20,30,40	1994
Cromby	Diesel	1990
Delaware	Diesel	1988
Richmond	Diesel	1990
Southwark	Diesel	1985*
Schuylkill	Diesel	1993
Delaware	9,10,11,&12	1994
Schuylkill	10	1994
Chester	7,8,9	1994
Keystone	Diesel	2003
Falls	1,2,&3	1995
Moser	1,2,&3	1995
Conemaugh	Diesel	2006
Richmond	81,91,92	1998
Portable Equipment		1996
Salem	C.T.	1996
Croydon		1999
Richmond	73,74	1985*
Nuclear		
Peach Bottom #2 & #3		2009 (3)
Salem #1		2012 (3)
Salem #2		2016 (3)
Limerick #1		2024 (2)

(1) The terminal dates for Cromby 1 and Eddystone 1 and 2 include a 15 year life extension over the terminal year used in the prior rate proceeding at R-842590.

(2) Based on a 40 year operating license issued in 1984. The life span for depreciation purposes is 39 years, allowing one year for pre-commercial testing.

(3) Life span for ratemaking purposes is 35 years from in-service date.

* Not included in test year claim

Philadelphia Electric Company

Non-Revenue Producing Construction Work in Progress
(Thousand $)

	C.A.	Exp. @ 6/30/85	Exp. To Comp.	Total	Est. Orig. Cost.Ret.	In Service Date	Classification
Non-Revenue Producing CWIP							
Eddystone							
Install Coal Pile Runoff System	205201	1,092	560	1,652	-	12/86	Environment
Peach Bottom							
Upgrade ADS Isolation valves on safety grade nitrogen supply	408526	8	12	20	-	7/86	Safety
Increase Spent Fuel Storage Capacity	408301	438	3,522	3,960	2,518	8/86	Safety
Salem							
Fire Protection in Welding Shop & Storage Locker to satisfy Nuclear Mutual Limited Fire Protection	210182	2	58	60	-	12/86	Safety
Fire Protection in Oil Storage Room to satisfy Nuclear Mutual Limited Fire Protection	210908	33	74	107	-	12/86	Safety
Conemaugh							
Ash & Mine Refuse Disposal Site Preparation	202113	1,170	165	1,335	-	12/86	Environment
Keystone							
Installation of Water Curtain Spray System	406704	0	41	41	-	12/86	Safety
Total Non Revenue Producing CWIP		$2,743	$4,432	$7,175	$2,518		
Net to A-2 ($7,175 - $2,518)				$4,657			

Additional information and discussion of this claim is contained in the Direct Testimony of R. W. Wright.

Philadelphia Electric Company - Electric Operations
Land Held for Future Use (Account 105)
As of June 30, 1986
(Thousand $)

Location of Property	Date Originally Included in Plant Accounts	Date Construction Expected to Start	Expected In Service Date	Balance
Production				
Bradshaw Reservoir & Water R/W	1979	Under Constr.	1986	$2,515
Merrill Creek Reservoir	1981	1985 (a)	1987	4,900
Total Production				$7,415
Transmission				
Land for Future Substations and Lines				
500 kv Line, Limerick-Whitpain	1972	1987	1989	$371
Total Transmission				$371
Distribution				
Land for Future Substations				
Middletown Substation	1974	Under Constr.	1986	$388
Morton Substation	1975	1988	1990	409
Land for Expansion of Present Substations				
Woodbourne Substation	1974	1987	1989	52
Land for Expansion of Service Building				
Dungan Service Building	1974	1992	1992	16
Total Distribution				$865
Total Land Held for Future Use				$8,651

(a) Date construction is expected to start is contingent on governmental approval to build structures.

Additional information and discussion of this claim is provided in the Direct Testimony of R. W. Wright.

Philadelphia Electric Company - Electric Operations
MATERIALS AND SUPPLIES
June 30, 1986
(Thousand $)

The adjustment to rate base for materials and supplies is shown below. Regarding electric fuel inventory, the quantities of fuel expressed in either tons of coal or barrels of oil represent design averages required to maintain an adequate fuel supply. The unit price for coal and oil represent the estimated prices as of June 30, 1986. The Direct Testimony of J. J. Carroll provides additional discussion on the Company's fuel inventory claim. The Direct Testimony of R. W. Wright provides additional discussion of the Company's non-fuel materials and supplies.

Electric Fuel Inventory (J. J. Carroll)			
Coal			
Philadelphia Area	204,000 tons @ $47.75/ton =	$9,741	
Keystone	121,000 tons @ $34.47/ton =	4,171	
Conemaugh	119,000 tons @ $37.34/ton =	4,444	
Total Coal Inventory			$18,356*
Oil			
No.6-1.0% Sulphur	100,000 bbls @ $26.00/bbl =	$2,600	
-0.5% Sulphur	350,000 bbls @ $27.00/bbl =	9,450	
No.2	263,000 bbls @ $31.92/bbl =	8,395	
Total Oil Inventory			$20,445*
Plant Materials and Supplies (R. W. Wright)			
Electric operating			
Total			$48,495**
Tools and related equipment			
Electric			$2,221
Stores Expense Undistributed			
Allocated portion $1,199 x 86.188% (a)			1,033
Total Electric Materials and Supplies			$90,550

(a) page B-17

* Refer to the Direct Testimony of J. J. Carroll, for the effect of Limerick on Fuel Inventory

** Non-Limerick materials and supplies = $43,495
Limerick Materials and supplies = 5,000
Total $48,495

Philadelphia Electric Company - Electric Operations

ADDITIONAL CAPITAL REQUIREMENT
ASSOCIATED WITH NUCLEAR FUEL ASSEMBLIES IN REACTOR
($1,000)

The purpose of this adjustment is to reflect in the Company's rate base claim, the value of the Limerick Unit #1 nuclear fuel assemblies in the reactor. The claim is based on the average anticipated level of nuclear fuel in the reactor during the two year operating period March 1986 through March 1988. Additional information regarding this claim is contained in the Direct Testimony of Thomas P. Hill, Jr.

Description	Amount
Limerick #1 Nuclear Fuel Cost	$129,736
Avg. Accumulated Burnup (3/86-3/88)	47,484
Average Nuclear Fuel in-stock	$82,252

Limerick #1 Fuel in Reactor

	Total Cost	Accumulated Book Burn	Net Balance
March 1986	$110,002	$5,224	$104,778
April	110,002	9,571	100,431
May	110,002	14,405	95,597
June	110,002	18,494	91,508
July	110,002	22,558	87,444
August	110,002	26,557	83,445
September	110,002	30,767	79,235
October	110,002	34,880	75,122
November	110,002	38,572	71,430
December	110,002	42,474	67,528
January 1987	110,002	47,623	62,379
February	110,002	51,428	58,574
March	110,002	51,428	58,574
April	110,002	51,428	58,574
May	154,852*	51,428	103,424
June	154,852	54,655	100,197
July	154,852	58,258	96,594
August	154,852	61,462	93,390
September	154,852	64,940	89,912
October	154,852	67,893	86,959
November	154,852	70,516	84,336
December	154,852	73,161	81,691
January 1988	154,852	76,970	77,882
February	154,852	80,197	74,655
March	154,852	82,204	72,648
25 Month Avg.	$129,736	$47,484	$82,252

*Includes $44,850 for reload

Philadelphia Electric Company - Electric Operations
Cash Working Capital
June 30, 1986
(Thousands $)

Additional information regarding the Company's cash working capital claim is contained in the Direct Testimony of R. W. Wright.

Operating and Maintenance Expense	(C-12a)	91,104
Taxes	(C-12b)	35,028
Interest Payments	(C-12c)	(36,698)
Preferred Dividend Payment	(C-12d)	217
Average Bank Balances	(a)	9,700
Total (to A-2)		99,351 *

(a) Average Monthly Bank Balances for the future test year are expected to be $11.3 million(II-B-5) of which 86.188%(B-17) or $9.7 million is allocated to Electric Operations

* The Limerick components are as follows:(Testimony of T.P.Hill,Jr.)

O&M Expenses	750
Taxes	5,504
Interest Payment	(19,555)
Preferred Dividend Payment	115
Total	(13,186)

Philadelphia Electric Company
Cash Working Capital Required for
Operating and Maintenance Expense
June 30, 1986
($000)

Average Lag in Receipt of Revenue	46	(a)
Average Lag in Payment of O&M Expenses	22	(b)
Average Lag in Days Between Receipt of Revenue and Payment of Expenses	24	
Proforma Test Year O&M Expenses	1,385,327	
Average Daily Expenses	3,796	
Working Capital Requirement	91,104	

a)

Class of Service	Dollars	Lag Days	Lag $	
Residential	928,292	49	45,486,308	
Small Comm.&Ind.	399,462	48	17,254,176	
Large Comm.&Ind.	1,174,680	44	51,685,920	
	2,452,434		114,426,404	46 Days

(b) Average Lag in Payment of Expenses

	Actual	Pro Forma Adjustments		Pro Forma Expenses	Lag Days	Lag Dollars
Payroll	275,364	5,270	(c)	280,634	11	3,089,174
Net Interchange	421,472	(196,960)	(d)	224,512	35	7,857,920
Nuclear Fuel	136,823			136,823	47	6,430,681
Coal	84,660			84,660	31	2,624,460
Coal Freight Bills	16,766			16,766	5	83,830
Oil	120,360			120,360	19	2,286,840
Benefits	19,276	6,194	(c)	25,470	2	50,940
Pensions	29,009	639	(c)	29,648	15	444,720
Other Invoices	315,051	63,491	(e)	378,542	15	5,678,130
A&G Expenses and Rents	87,912			87,912	15	1,318,680
Total O&M Expenses	1,506,893	(121,366)		1,385,327		29,865,375

Average Lag in Payment of Expenses 22

(c)

D-5	5,695
D-18	5,408

(d)

D-3	13,805
D-13	0
D-19	(3,775)
D-21	(206,990)
	(196,960)

(e)

D-10	12,586
D-11	(10,536)
D-12	(5,400)
D-15	8,701
D-16	5,360
D-18	69,332
B-13	(16,472) (uncollectible accounts)
	63,491

Philadelphia Electric Company
Cash Working Capital Required For
Payment of Taxes
June 30, 1986
(Thousand $)

Average Lag in Receipt of Revenue	46	(a)
Average Lag in Payment of Taxes	28	(b)
Average Lag in Days Between The Receipt of Revenue and Payment of Taxes	18	
Proforma Test Year Taxes	710,342	
Average Daily Taxes	1,946	
Working Capital Requirement	35,028	

Note a) See C-12a

Note b) Average Lag in Payment of Taxes

	Actual	Pro Forma Adjustments		Pro Forma Taxes	Lag Days	Lag Dollars
Ad Valorum	69,124			69,124	26	1,797,224
Other Taxes Other Than Income	130,713	34,013	(c)	164,726	(31)	(5,106,506)
State Income Taxes	26,900	48,201	(d)	75,101	62	4,656,262
Federal Income Taxes	105,773	295,618	(d)	401,391	47	18,865,377
Total Taxes	332,510	377,832		710,342		20,212,357
Average Lag in Payment of Taxes						28

Note (c) Taxes Other Than Income

A-4 (GRT @ 4.5%)	41,825
D-2 (GRT @ 4.5%)	0
D-3 (GRT @ 4.5%)	1,790
D-14	741
D-21 (GRT @ 4.5%)	(9,753)
	34,013

Note (d) Income Taxes	State	Federal
A-4	61,057	374,470
D-2	0	0
D-3	1,688	10,351
D-5	(397)	(2,437)
D-7	5,418	33,225
D-9	(13,613)	(83,490)
D-10	(874)	(5,360)
D-11	735	4,518
D-12	(254)	(1,523)
D-13	0	0
D-14	(52)	(317)
D-15	(607)	(3,723)
D-16	(374)	(2,294)
D-18	(5,284)	(32,410)
D-19	767	4,707
Total	48,201	295,618

Cash Working Capital
Interest Payment Offset
(Thousand $)

Consistent with the Commission Order at Docket R-842590, the Company is including an interest payment offset in its cash working capital claim.

Rate Base (A-2) @ 6/30/86	6,963,532
% Financed by Debt	50.70
Rate Base Financed by Debt	3,530,511
Cost of Debt per B-19a	10.84
Interest Allocated to Rate Base	382,707
Average Daily Interest	1048.5
Net Lag Days (a)	35
Decrease in Cash Working Capital	36,698

(a) Lag in Payment of Interest = 81 days
Lag in Receipt of Revenue = 46 days
Net Payment Lag = 35 days

Cash Working Capital
Preferred Dividend Payment Requirement
(Thousand $)

Consistent with the Commission Order at Docket R-842590, the Company is including a preferred dividend payment requirement in its cash working capital claim.

Rate Base (A-2) @ 6/30/86	6,963,532
% Financed by Preferred	10.80
Rate Base Financed by Preferred	752,061
Cost of Preferred per B-20	10.54
Dividends Allocated to Rate Base	79,267
Average Daily Dividends	217.2
Net Lag Days (a)	(1)
Increase in Cash Working Capital	217

(a) Lag in Payment of Dividends = 45 days
Lag in Receipt of Revenue = 46 days
Net Lag Days = (1) days

Philadelphia Electric Company - Electric Operations
ELIMINATION OF STATE TAXES AND RELATED STAC REVENUE
12 Months Ending June 30, 1986
(Thousand $)

Certain State Taxes are recovered by the State Tax Adjustment Clause (STAC) in the Company's tariff. The following adjustment removes the effect of higher state taxes enacted since 1969 and removes related STAC revenues. Additional discussion of this adjustment is contained in the Direct Testimony of G. A. Sileo.

State Taxes to be Removed		
Realty	42,432 (a)	
Gross Receipts Tax	64,972 (b)	
Capital Stock Tax	10,317 (c)	
Corporate Net Income Tax	8,286 (d)	
Total		$126,007
Related STAC Revenue to be Removed		
Actual STAC	130,966	
Portion not removed	4,959	
Portion removed		126,007
Effect on income available for return		$0

(a) Actual Realty Tax from B-14 — 110,055

(b) Actual Gross Receipts Tax from B-14 — 5,893
Less: 4.5% GRT on STAC rev. of $130,966 — (2,181)
Less: 4.5% GRT on ECR rev of ($48,474)
Remainder: 4.5% GRT on other revenue — $106,343

Portions of GRT related to 1970 tax rate increase
Full GRT on STAC rev — $5,893
Excess GRT on other revenue
$106,343 x (2.5% incr / 4.5% total) — 59,079
Total — $64,972

(c) Actual Capital Stock Tax (CST) from B-14 — $25,793
Portion of CST related to 1970 tax rate increase
$25,793 x (0.4% incr / 1.0% total) — 10,317

(d) Actual Corporate Net Income Tax (CNI) from B-14 — $25,654
Plus: CNI portion of deferred taxes on deferred fuel expense — (2,503)
Plus: CNI tax effects of Limerick Depreciation - deferred — 3,856
Total — $27,007

Portion of CNI related to pre-1970 tax rates
Actual test year taxable income for CNI — $294,147
Less: STAC revenue — 130,966
Less: Tax Preference Items — 1,292
Plus: Realty Tax — 42,432
Plus: STAC - related Gross Receipts Tax — 64,972
Plus: STAC - related Capital Stock — 10,317
Pre-1970 taxable income for CNI — $279,610
Pre-1970 CNI tax @ 6.977% — $19,508

Portion of CNI related to 1970 tax rate increase ($27,007 - $19,508) — $7,499
Portion of CNI to be removed = $7,499/(1- State Income Tax Rate) — $8,286

Philadelphia Electric Company - Electric Operations

FULL YEAR EFFECT OF PRESENT BASE RATES
12 Months Ending June 30, 1986
($1,000)

Not Applicable

Philadelphia Electric Company - Electric Operations

SUMMARY OF ANNUALIZATION OF REVENUES, EXPENSES & TAXES
FOR CUSTOMERS ADDED AND INCREASED USAGE
12 Months Ended June 30, 1986
(Thousand $)

The purpose of this adjustment is to annualize revenues, expenses and taxes in order to reflect the year end level of customers and the year end usage per customer.

A description of the methodology used in this adjustment is provided in the Direct Testimony of Thomas P. Hill, Jr.

Total

Increase in Base Revenue (D-3a)	$38,771
Less: Gross Receipts Tax @ 2.0%	775
Increase in Revenue After Gross Receipts Tax	$37,996
Less: Change in Operating Expenses 489,931,906 kWh (a) x 2.8178¢/kWh (b)	13,805
Increase in Taxable Income	$24,191
Less: Income Taxes @ 49.768%	12,039
Increase in Income for Return	$12,152

(a) From D-3a

Increase in usage of existing customers	459,842,612 kWh
Increase (Decrease) in usage from new customers	30,089,294 kWh
	489,931,906 kWh

(b) Represents fuel expense included in base rates

GROWTH IN USAGE OF EXISTING CUSTOMERS
AND ANNUALIZATION OF NEW CUSTOMER USAGE (a)
12 Months Ended June 30, 1986
(Thousand $)

	Residential	House Heating	Small Comm. & Industrial	Large Commercial & Industrial: 20 Largest Customers	Large Commercial & Industrial: All Other	Total
Growth In Usage of Existing Customers And Additional Revenue						
Annual Growth In kWh, 3-Yr. Average (D-3b)	87	191	691	2,609,900	133,190	
1/2 of Annual Growth In kWh	44	96	346	1,304,950	66,595	
No. of Custs. Beginning of Test Year (D-3b)	1,219,850	89,600	119,337	20	4,958	
Increase Usage	53,673,400	8,601,600	41,290,602	26,099,000	330,178,010	459,842,612
Revenue cents per kWh (b)	10.20¢	7.93¢	9.79¢	6.32¢	7.16¢	
Increase Revenue, Thousand $	$5,475	$682	$4,042	$1,649	$23,641	$35,489
Annualization of New Customer Usage and Additional Revenue						
Customers Added During Year (D-3b)	2,900	7,700	388	-	(39)	
1/2 of Customers Added During Year	1,450	3,850	194	-	(20)	
Average Use Per Customer In kWh (D-3b)	5,611	16,480	28,456	-	2,350,756	
Increased Sales In kWh	8,135,950	63,448,000	5,520,464		(47,015,120)	30,089,294
Revenue, Cents per kWh (b)	10.20¢	7.93¢	9.79¢	-	7.16¢	
Increased Revenue, Thousand $	$830	$5,031	$540	-	($3,366)	$3,035
Customer Charge - Annual	$54.00	$54.00	$94.22		$2,860	
Revenue from Customer Charge	$78	$208	$18		($57)	$247
Total Additional Revenue	$6,383	$5,921	$4,600	$1,649	$20,218	$38,771

a. Residential is total of Rates R and OP. House Heating is Rate RH. Small Commercial and Industrial is total of Rate GS. Large Commercial and Industrial is total of Rates PD and HT.

b. Revenue in cents per kWh is the average unit base revenue at Tariff No. 26, Supplement 11 (excluding customer charge revenue).

Philadelphia Electric Company - Electric Operations

DEVELOPMENT OF AVERAGE ANNUAL GROWTH IN KWH PER CUSTOMER

	12 Months Ended June 1983	12 Months Ended June 1986	3-Yr. Avg.
Residential			
mWh Sales	6,517,290	6,859,500	
Number of Customers			
Beginning of Period	1,216,987	1,219,850	
End of Period	1,217,652	1,222,750	
Monthly Average	1,218,072	1,222,332	
kWh per Average Customer	5,350	5,611	
Growth in kWh per Average Customer		261	87
House Heating			
mWh Sales	1,136,947	1,543,300	
Number of Customers			
Beginning of Period	68,855	89,600	
End of Period	74,147	97,300	
Monthly Average	71,469	93,647	
kWh per Average Customer	15,908	16,480	
Growth in kWh per Average Customer		572	191
Small Commercial & Industrial			
mWh Sales	3,046,760	3,406,880	
Number of Customers (Excl. POL)			
Beginning of Period	114,843	119,337	
End of Period	116,234	120,027	
Monthly Average	115,488	119,725	
kWh per Average Customer	26,382	28,456	
Growth in kWh per Average Customer		2,074	691

Philadelphia Electric Company - Electric Operations

DEVELOPMENT OF AVERAGE ANNUAL GROWTH IN KWH PER CUSTOMER

	12 Months Ended June 1983	12 Months Ended June 1986	3-Yr. Avg.
20 Largest Customers			
mWh Sales	3,865,619	4,022,215	
Number of Customers			
Beginning of Period	20	20	
End of Period	20	20	
Monthly Average	20	20	
kWh per Average Customer	193,281,000	201,110,800	
Growth in kWh per Average Cust.		7,829,800	2,609,900
Large Commercial & Industrial Other Than 20 Largest			
mWh Sales	10,729,578	11,615,085	
Number of Customers			
Beginning of Period	5,583	4,958	
End of Period	5,386	4,919	
Monthly Average	5,499	4,941	
kWh per Average Customer	1,951,187	2,350,756	
Growth in kWh per Average Customer		399,569	133,190

Philadelphia Electric Company - Electric Operations
ELIMINATION OF ENERGY COST RATE REVENUE AND
RELATED FUEL EXPENSE
12 MONTHS ENDED JUNE 30, 1986
(Thousand $)

During the future test year ending June 30, 1986, the Energy Cost Rate will be in effect and permit recovery of energy costs in excess of that level included in base rates. Under the ECR, energy costs collected in base rates equalled 2.8178¢ per kilowatthour during the test year. This adjustment removes from test year revenues and expenses all energy costs above the base cost of 2.8178¢ per kilowatthour and all associated ECR revenues. Refer to the Direct Testimony of T. P. Hill, Jr. for further discussion on this adjustment.

ECR Revenue to be Removed		
Test Year ECR revenue Including GRT @ 4.5%	($53,711) (a)	
Revenue Over Base to be Removed		($53,711)
Fuel Expenses to be Removed		
Total Energy Cost Allocated to PECo (D-4a)	$509,710	
Less: Fuel Expense Deferred 12 Months Ended 6/30/86 (D-4a)	(218,208)	
Net Fuel and Interchange Expense	$727,918	
Less: Fuel expense recovered in base rates Total Applicable Sales x base cost 27,653,130 mWh x 2.8178¢/kWh	$779,209	
Fuel Expense to be Removed		($51,291)
Gross Receipts Tax to be Removed		
Gross Receipts Tax on ECR Revenue ($53,711) x 4.5%	($2,420)	
Gross Receipts Tax to be Removed		($2,420)
Total Expenses to be Removed		($53,711)
Increase in Taxable Income		$0
Income Tax @ 49.768%		0
Increase in Income for Return		$0

(a) Gross ECR Revenue - ($53,711)
Interest on Prior Period Over Collections 5,237
Net ECR Revenue (A-5) ($48,474)

Philadelphia Electric Company - Electric Operations
DEVELOPMENT OF RECOVERABLE ENERGY COSTS AND
ENERGY COSTS DEFERRED
12 Months Ended June 30, 1986
(Thousand $)

	Total Applicable Energy Costs (1)	Allocation Factor (2)	Allocated Energy Cost (3)	Recovered in Base Rates (4)	Recoverable (5)=(3)-(4)	ECR Revenue (6)	ECR Revenue Excl. GRT (7)=(6)x.955	Deferred (8)=(5)-(7)
Jul 1985	$63,302	.9806	$62,074	$70,688	($8,614)	($999)	($954)	($7,660)
Aug	61,504	.9808	60,323	71,643	(11,320)	(1,012)	(966)	(10,354)
Sep	51,997	.9821	51,067	66,937	(15,870)	(946)	(903)	(14,967)
Oct	42,790	.9781	41,853	62,415	(20,562)	(882)	(842)	(19,720)
Nov	49,677	.9808	48,723	59,160	(10,437)	(836)	(798)	(9,639)
Dec	50,586	.9768	49,413	65,909	(16,496)	(931)	(889)	(15,607)
Jan 1986	32,740	.9765	31,970	70,964	(38,994)	(1,002)	(957)	(38,037)
Feb	27,414	.9781	26,813	67,602	(40,789)	(955)	(912)	(39,877)
Mar	32,263	.9784	31,566	63,925	(32,359)	(903)	(862)	(31,497)
Apr	37,014	.9788	36,229	61,581	(25,352)	(15,482)	(14,785)	(10,567)
May	35,149	.9800	34,446	56,802	(22,356)	(14,280)	(13,637)	(8,718)
June	35,893	.9816	35,233	61,583	(26,350)	(15,483)	(14,786)	(11,565)
Total	$520,329 (a)		$509,710	$779,209	($269,499)	($53,711)	($51,291)	($218,208)

(a)

Account	Total	FOB Fuel Only	Non Fuel Chgs. Excluding Nucl. Spent Fuel	Nuclear Spent Fuel
501,504	$222,680	$220,276	$2,404	-
518*	136,823	103,473	21,635	$11,715
547	10,192	10,012	180	-
555,557*	203,234	186,568	16,666	-
Total	$572,929	$520,329	$40,885	$11,715

* For budget purposes Limerick Unit #1 was considered precommercial through 7/31/85, commercial 8/1/85 and included in rates 1/1/86. Account 557 includes $43 for precommercial generation in July 1985. Account 557 also includes $86,978 for the value of Limerick generation from August 1, 1985 through December 31, 1985. Account 518 includes $26,985 for Limerick fuel costs from January 1, 1986 through June 30, 1986.

Philadelphia Electric Company - Electric Operations
ANNUALIZATION OF WAGES, BENEFITS AND
NUMBER OF EMPLOYEES
($1,000)

This adjustment develops the increase in wage and benefits expenses effective August 1, 1985 not yet fully reflected in the test year ending June 30, 1986. Additional discussion regarding this adjustment is contained in the Direct Testimony of T. P. Hill, Jr.

Wages - Total Company

June 1986 - Regular Payroll (D-5a)	$34,166
Paid days - June 1986	21
Average payroll per paid day (a)	$1,627.0
Average payroll per paid day revised for actual 8/1/85 increase $1,627.0 (1.054/1.055)(b)	$1,625.5
Annualized regular payroll at June 1986 $1,625.5 x 261 paid days/year	$424,256
Less: 12 months regular payroll (D-5a)	416,296
Increased Wage Expense	$7,960
Plus: Overtime @ 12.2% (D-5a)	971
Increase in total payroll expense	$8,931

Pensions and Benefits - Total Company

Increase in Pensions and Benefits as a result of 8/1/85 package	$3,271
Less: Portion of increase in pensions and benefits included in budget	2,550
Total increase in Pensions and Benefits	$721

Total increase in wages, pensions and benefits

Total, PE Company ($8,931 + $721)	$9,652
Total, allocated to Electric Operations $9,652 x 59.0% (c)	$5,695
Decrease in income taxes @ 49.768%	2,834
Decrease in income for return	$2,861

(a) Includes a budgeted 5.5% annual increase effective 8/1/85
(b) Actual 8/1/85 wage increase is 5.4%
(c) Page D-5a of Exhibit TPH-1

Philadelphia Electric Company

PAYROLL DATA
BUDGET YEAR ENDED JUNE 30, 1986
(Thousand $)

Month	Total Payroll	Less Overtime	Regular Payroll	OT as % of PE Regular Payroll	Number of Employees
July 1985	38,835	4,001	34,834	11.5	11,250
Aug.	39,458	4,563	34,895	13.1	11,250
Sep.	37,663	4,410	33,253	13.3	10,961
Oct.	41,088	4,505	36,583	12.3	10,947
Nov.	37,957	4,204	33,753	12.5	10,936
Dec.	39,109	4,019	35,090	11.5	10,927
Jan. 1986	40,987	4,170	36,817	11.3	10,952
Feb.	36,441	4,170	32,271	12.9	10,956
Mar.	37,761	4,111	33,650	12.2	10,953
Apr.	39,560	4,202	35,358	11.9	10,936
May	39,815	4,189	35,626	11.8	11,085
June	38,383	4,217	34,166	12.3	11,286
Total	$467,057	$50,761	$416,296	12.2	11,037 (Avg.)

Philadelphia Electric Company - Electric Operations

ADJUST BOOK DEPRECIATION ACCRUAL TO REFLECT
YEAR-END PLANT AS OF JUNE 30, 1986
(Thousand $)

Additional information regarding this adjustment is contained in the Direct Testimony of Alfred Wroblewski.

Total Depreciation Accrual Associated with Plant for Ratemaking purposes (C-5)	$243,486
Anti-Trust Price Adjustment	(647)
Allocated Common Depreciation Accrual, excluding Transportation (C-6)	4,948
Book Depreciation Accrual	$247,787
Less: Experienced Net Salvage Expense	(4,199) (1)
Total Calculated Depreciation Including Net Salvage Expense	$251,986
Book Depreciation Accrual and Amortization Excluding Decommissioning (B-13)	160,239
Increase in Depreciation Accrual	$91,747
Decrease in Income for Return	$91,747

(1) Development of experienced net salvage expense for five years ended June 30, 1986 utilizing the methodology adopted by the Commission in its Order at R-842590.

	Net Salvage	
	Electric	Common
1981 (6 months)	($1,666)	(397)
1982	(3,757)	397
1983	(3,907)	572
1984	(5,673)	(180)
1985	(4,446)	263
1986 (6 months)	(2,223)	132
Five Year Average excluding Common	($4,334)	$157
Electric's Share of Common @ 86.188% (B-17)	135	
Total	($4,199)	

Philadelphia Electric Company
Increase in Income Tax by Computing
Tax Depreciation and Amortization on a Year-End Base
As of June 30, 1986
(Thousand $)

Refer to the Direct Testimony of G. A. Sileo for additional discussion on this adjustment.

Tax Depreciation and amortization year ended June 30, 1986				
Electric (D-7a)				$447,663
Common (D-7a)				
Allocated To:				
	Per B-17			
Electric	86.188%	$5,287		5,287
Gas	12.930	793		
Steam	0.882	54		
Total	100.000%	$6,134		
Electric including allocated common				$452,950
Less: Amortization of Anti-trust Settlement for Tax Purposes				400
Total Allowable Tax Depreciation & Amortization on year-end Basis at June 30, 1986				$452,550
Less: Tax Depreciation accrued per books for 12 months ending June 30, 1986 including allocated Common				
Book Depreciation (B-13)			$159,201	
Amortization of Anti-Trust (B-13)			(641)	
Add: Transportation Depreciation Charged to Clearing				
	Per B-17			
Electric	86.188%	$610	610	
Gas	12.930	92		
Steam	0.882	6		
Total	100.000%	$708		
Excess of Tax Depreciation and Amortization over Book Depreciation (B-15)			$371,029	
Total Accrued Tax Depreciation and Amortization for 12 Months Ended June 30, 1986				$530,199
Total Decrease in Tax Depreciation and Amortization				$77,649
Increase in Income Taxes @ 49.768%				$38,644
Decrease in Income for Return				$38,644

Philadelphia Electric Company - Electric Operations
Depreciable Tax Bases and Resulting Depreciation and Amortization
As of June 30, 1986
(Thousand $)

Electric	Depreciation Base For Taxes (a)	Depreciation Rate For Taxes (b)	Tax Depreciation and Amortization (c)
S/L Plant Installed Prior to 1954	$291,623	0.13	$373
Liberalized Plant Installed 1954-1969	205,549	10.45	21,474
Liberalized Plant Installed 1970	29,331	13.33	3,909
Liberalized Plant Installed 1971	24,163	19.58	4,732
Liberalized Plant Installed 1972	16,082	15.35	2,469
Liberalized Plant Installed 1973	28,224	16.25	4,586
Liberalized Plant Installed 1974	82,439	21.51	17,734
Liberalized Plant Installed 1975	26,654	13.64	3,642
Liberalized Plant Installed 1976	51,904	14.42	7,487
Liberalized Plant Installed 1977	72,349	20.13	14,562
Liberalized Plant Installed 1978	25,647	12.02	3,082
Liberalized Plant Installed 1979	33,157	12.26	4,064
Liberalized Plant Installed 1980	35,001	11.59	4,055
Liberalized Plant Installed 1981	77,203	17.86	13,785
Liberalized Plant Installed 1982	167,643	12.04	20,187
Liberalized Plant Installed 1983	107,015	11.83	12,663
Liberalized Plant Installed 1984	112,145	11.80	13,234
Liberalized Plant Installed 1985	184,144	12.71	23,398
Liberalized Plant Installed 1986	2,344,398 (d)	11.61	272,227*
Total	3,914,671		$447,663
Tax Depreciation - Common			
S/L Plant Installed Prior to 1954	$5,961	1.88	$112
Liberalized Plant Installed 1954 to 1969	5,498	5.02	276
Liberalized Plant Installed 1970	937	7.04	66
Liberalized Plant Installed 1971	223	9.42	21
Liberalized Plant Installed 1972	24,104	4.43	1,069
Liberalized Plant Installed 1973	909	5.50	50
Liberalized Plant Installed 1974	327	9.17	30
Liberalized Plant Installed 1975	308	6.17	19
Liberalized Plant Installed 1976	176	6.25	11
Liberalized Plant Installed 1977	558	5.38	30
Liberalized Plant Installed 1978	664	4.67	31
Liberalized Plant Installed 1979	1,615	5.02	81
Liberalized Plant Installed 1980	1,160	6.64	77
Liberalized Plant Installed 1981	2,523	13.12	331
Liberalized Plant Installed 1982	2,923	35.82	1,047
Liberalized Plant Installed 1983	2,647	20.14	533
Liberalized Plant Installed 1984	3,581	15.75	564
Liberalized Plant Installed 1985	5,581	17.79	993
Liberalized Plant Installed 1986	7,634	10.39	793
Total	$67,329		$6,134

(a) Plant in Service at 6/30/86 less tax reserves as of 7/1/86.
(b) Depreciation rates are composites based on plant life estimates which are prescribed by U.S. Treasury Guideline Regulation as modified in the Revenue Acts of 1971, 1981 and 1982.
(c) Liberalized Tax Depreciation has been computed under the declining balance method, switched to either straight line or sum-of-the-years method as appropriate.
(d) Includes $2,225,523 of net depreciable cost of Limerick Unit #1 and 100% common facilities, placed in service for tax purposes August 1985 but not until February 1986 for book purposes (date of commercial operation).
* Includes $262,069 for Limerick Unit No. 1 + 100% Common Facilities

Philadelphia Electric Company - Electric Operations
NORMALIZATION OF TAX DEFERRALS ON YEAR-END PLANT AND ELIMINATION OF TAX DEFERRALS FROM 1970 TAX LEGISLATION REFLECTED ON D-1
(Thousand $)

Refer to the Direct Testimony of G. A. Sileo for further discussion of this adjustment.

Plant		
Excess Depreciation and Amortization (a) (D-8a)		$261,210
Common Allocated to Electric (b)		1,614
Total		$262,824
Tax Deferral on 6/30/86 Plant @ 46%		$120,899
Tax Deferral on Plant Per Books (c)	194,780	
Less: Deferred tax removed through STAC A/C Excess Depr on Limerick Plant (D-1)	3,856	190,924
Change in Tax Deferral on Plant		($70,025)
Fuel		
Fuel Expense Deferred 12 Months ended 6/30/86		($218,208)
Tax Deferral on fuel @ 49.768%		(108,599)
Tax Deferral on Fuel per books (c)	(111,102)	
Less: Deferred tax removed through STAC A/C Deferred (D-1)	(2,503)	
Net per books		(108,599)
Change in tax deferred on fuel		0
Increase in Income for Return		$70,025

(a) The amounts reflected represent normalization of tax deferrals, generated by the use of liberalized tax depreciation for plant additions increasing capacity and installed after 1969 and before 1981, plus the deferral resulting from use of the Class Life System (ADR) of the Revenue Act of 1971. Pursuant to the Pa.P.U.C. Order dated 8/17/73 at RID 29, these figures exclude depreciation on plant replacing capacity. The amounts also reflect normalization of tax deferrals associated with all public utility property placed in service after 1980 under the Economic Recovery Tax Act of 1981.

(b) Allocation of Common:

	Percent (B-17)	Depreciation Subject to Normalization	
Electric	86.188%	$1,614	
Gas	12.930	242	
Steam	.882	16	
Total	100.000%	$1,872	(D-8a)

(c) Total provision for deferred income taxes as shown on B-9 is comprised as follows:

Portion a/c turbine lease cancellation	$15,387
Portion a/c capitalized pensions & taxes	6,012
Portion a/c capitalized employee benefits	3,566
Portion a/c deferred fuel cost	(111,102)
Portion a/c excess depn. on nuclear fuel	(4,121)
Portion a/c excess depreciation on plant	194,780
Portion a/c Limerick deferred costs	47,600
Portion a/c Limerick No. 1 Value of Generation and precommercial generation	(44,307)
Total Deferred Income Taxes	$107,815

Philadelphia Electric Company
Tax Depreciation and Amortization Subject To Normalization
June 30, 1986
(Thousand $)

	Depreciation Base			Depreciation Rate		Depreciation		
	For S/L Base (1)	Tax Reserve (2)	For Liberalized Base (3)=1-2	Liberalized (4)=4/3	S/L (5)=7/1	Liberalized (6)	S/L (7)	Excess (8)=(6)-(7)
Electric Plant								
1970	$117,784	$91,541	$26,243	14.06%	3.39%	$3,689	$3,988	($299)
1971	141,673	121,320	20,353	21.10	3.39	4,294	4,799	(505)
1972	69,567	56,985	12,582	16.83	3.28	2,117	2,279	(162)
1973	110,666	88,468	22,198	18.08	3.40	4,014	3,760	254
1974	497,656	421,257	76,399	22.18	4.27	16,948	21,241	(4,293)
1975	70,457	51,965	18,492	15.96	3.47	2,951	2,443	508
1976	157,008	106,772	50,236	14.63	3.55	7,348	5,571	1,777
1977	283,265	213,890	69,375	20.63	4.68	14,314	13,263	1,051
1978	52,288	30,175	22,113	12.56	3.59	2,778	1,879	899
1979	60,827	33,448	27,379	13.05	3.86	3,574	2,346	1,228
1980	60,107	29,047	31,060	12.07	3.92	3,750	2,355	1,395
1981	164,367	87,164	77,203	17.86	3.22	13,785	5,285	8,500
1982	270,328	102,685	167,643	12.04	3.83	20,187	10,367	9,820
1983	155,015	48,000	107,015	11.83	3.11	12,663	4,820	7,843
1984	143,361	31,216	112,145	11.80	3.68	13,234	5,275	7,959
1985	210,093	25,949	184,144	12.71	3.71	23,398	7,791	15,607
1986	2,432,230	87,832	2,344,398	11.61	2.57	272,227	62,599	209,628*
Total	$4,996,692	$1,627,714	$3,368,978			$421,271	$160,061	$261,210
Common Plant								
1970	$2,566	$1,708	$858	7.23	1.79	$62	$46	$16
1971	2,643	2,586	57	21.05	0.49	12	13	(1)
1972	39,614	19,215	20,399	4.44	2.17	906	859	47
1973	4,004	3,161	843	5.34	1.02	45	41	4
1974	1,185	1,022	163	12.88	1.43	21	17	4
1975	1,807	1,671	136	9.56	0.55	13	10	3
1976	3,235	3,163	72	8.33	0.15	6	5	1
1977	1,242	794	448	5.36	2.50	24	31	(7)
1978	1,126	571	555	4.68	2.84	26	32	(6)
1979	2,545	1,023	1,522	4.86	2.83	74	72	2
1980	1,744	683	1,061	6.79	3.78	72	65	6
1981	6,744	4,221	2,523	13.12	7.21	331	486	(155)
1982	10,036	7,113	2,923	35.82	8.05	1,047	808	239
1983	4,580	1,933	2,647	20.14	5.39	533	247	286
1984	4,887	1,306	3,581	15.75	4.89	564	239	325
1985	6,733	1,152	5,581	17.79	6.33	993	426	567
1986	7,941	307	7,634	10.39	3.17	793	252	541
Total	$102,632	$51,629	$51,003			$5,522	$3,650	$1,872

* Includes $202,796 for Limerick Unit No. 1 + 100% Common Facilities.

Philadelphia Electric Company - Electric Operations
ADJUSTMENT TO INCOME TAXES TO REFLECT
PRO FORMA INTEREST CHARGES BASED ON
YEAR-END PLANT AND EMBEDDED COST OF DEBT
As of June 30, 1986

As permitted by the Pa. P.U.C. order dated August 17, 1973, the Company adopted Income Tax Allocation effective October 1, 1973, under which electric operating income is credited with the tax savings on interest charges associated with debt issued to finance plant actually in service.

This adjustment is necessary to reflect the pro forma interest charges on the Company's rate base as of June 30, 1986 and the 10.84% embedded cost of debt at 6/30/86 (Page B-19). Refer to the Direct Testimony of G. A. Silso for further discussion on this adjustment.

	(Thousand $)
Actual Test Year Interest Charges Allocated To Electric in Developing Operating taxes (B-15)	187,595
Pro Forma Interest Charges Allocable to Electric Based on Rate Base Claim	
O.C. Measure of Value at 6/30/86 (A-2)	6,963,532
% Financed by Debt	50.7
Amount Financed with Debt	3,530,511
Pro Forma Interest Charges @ 10.84%	382,707
Increase in Interest Charges Allocated	195,112
Change in Income Taxes @ 49.768%	(97,103)
Change in Income for Return	97,103

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

ADJUSTMENT TO BUDGETED
NUCLEAR AND FOSSIL PLANT PRODUCTION
OPERATION AND MAINTENANCE EXPENSES
FOR THE TEST YEAR ENDING
JUNE 30, 1986
($1,000's)

In preparing the budget for the Electric Production Department, known areas of expense are considered for inclusion according to a fixed schedule. Budgeted expenses must be reviewed and adjusted, when necessary, to conform with normalized levels appropriate for rate making purposes.

The adjustment below reflects the increase in test year expenses resulting from known changes to the original budget expense levels for Electric Production O&M. In addition, this adjustment reflects the amortization of non-recurring costs associated with the Salem Management Evaluation Program. A detailed explanation of these expenses is provided in the Direct Testimony of Company witness J. J. Carroll.

Nuclear Plant O&M Increases (D-10a)	$20,651	
Fossil Plant O&M Increases (D-10b)	4,028	
Revisions to Maintenance Schedule - Decreases (D-10c)	(15,795)	
Salem Management Evaluation Program - Increase (D-10d)	3,642	
Net Increase in O&M Expenses		$12,526
Income Tax at 49.768%		6,234
Decrease in Income for Return		$6,292

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment to Budget Operation and Maintenance Expenses for Nuclear Plants to Reflect a Normalized 2/3 Outages Per Unit Per Year in the Test Year Ending June 30, 1986
($1,000)

Normalized Outage Expenses		
Peach Bottom Station	$12,737	
Salem Station	11,262	
Limerick No. 1 Unit	13,506	
		$37,505
Budget Outage Expenses		
Peach Bottom Station	$8,849	
Salem Station	8,005	
Limerick No. 1 Unit	0	
		$16,854
Change in O&M Expense		$20,651

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment to Budget Operation and Maintenance Expense
To Reflect Normalized Fossil Plant Outages
in the Test Year Ending June 30, 1986
($1,000)

Normalized Outage Expenses	$22,728
Outage Expense Per Budget	18,700
Change in O&M Expense	$4,028

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment in Budget Operation and Maintenance
Expenses Which Reflects Revision to the Maintenance Schedule
For Test Year Ending
June 30, 1986
($1,000)

1.	Remove Eddystone No. 2 unit outage Rescheduled out of Test Year	($10,425)
2.	Remove Delaware No. 8 unit outage Rescheduled out of Test Year	(1,147)
3.	Remove Peach Bottom No. 2 unit outage Rescheduled out of Test Year	(7,754)
4.	Add Peach Bottom No. 3 unit outage Rescheduled into Test Year	7,709
5.	Remove Swede Street Dam Repair Postponed from 1984	(700)
6.	Eddystone No. 1 Annual Inspection Replacement of Transition Tubes	
	Budget value for the test year	$3,578
	Revised cost for 2-year project of $3,400 one-half included in Test Year outage	$1,700
	Net Reduction	(1,878)
7.	Reduced dredging expenses corrected for computer error and re-estimate	(1,600)
	Total Change in O&M (D-10)	($15,795)

Philadelphia Electric Company - Electric Operations

ADJUSTMENT TO BUDGET OPERATION & MAINTENANCE
EXPENSE TO REFLECT THE AMORTIZATION
OF COSTS ASSOCIATED WITH THE SALEM
MANAGEMENT EVALUATION PROGRAM

The purpose of this adjustment is to amortize over a two-year period the costs associated with the Salem Management Evaluation Program that are non-recurring. Additional information on this adjustment is contained in the Direct Testimony of J. J. Carroll.

Total Cost to PECo	$7,283
Annual Amortization ($7,283/2)	$3,642 (D-10)

Philadelphia Electric Company - Electric Operations

Adjustment to Reflect Decrease in Budget Operation and Maintenance Expense for Retirements in the Test Year Ending June 30, 1986
(Thousand $)

The purpose of this adjustment is to eliminate from budgeted operation and maintenance expense all expenses associated with production plant that is being retired. Refer to the direct testimony of J. J. Carroll for further detail.

Retirement of Richmond No. 9 Unit	
Operating and Maintenance Expense (less fuel)	$2,166
Retirement of scheduled internal combustion units - Richmond No's 21, 22, 31, 32, 41, 42, 43, 44, 51, 52, 61, 62, 71, 72, 73 and 74, Plymouth Meeting No's 9 and 15, & Southwark Diesel	
Operating and Maintenance Expense (less fuel)	3,043
Retirement of Southwark No's 1 and 2	
Operating and Maintenance Expense (less fuel)	5,347
Total Decrease in O&M	$10,556
Income Tax @ 49.768%	5,254
Increase in Income for Return	$5,302

Philadelphia Electric Company - Electric Operations
AMORTIZATION OF ADJUSTMENTS ORDERED
IN PRIOR CASES AND PROPOSED AMORTIZATION
OF CURRENT EXPENSES
JUNE 30, 1986
($1,000)

In prior proceedings the Commission, for ratemaking purposes, provided for the amortization of certain expense items. Developed below is the adjustment to book expense to reflect these prior period items together with the company's claim for current rate case expenses and abandoned engineering costs. Additional discussion on this adjustment is provided in the Direct Testimony of T. P. Hill, Jr.

	Amount Booked In Test Year (1)	Ratemaking Claim (a) (2)	Adjustment (3)=(2)-(1)
1. Rate Case Expenses			
- RID 129,295,438,865	-	132	132
- Current Case	1,361	1,340	(21)
- ECR #8	100	116	16
- ECR #9	0	300	300
- Limerick #2 Show Cause	0	1,100	1,100
2. Turbine Lease Cancellation	9,191	-	(9,191)
3. Storm Damage	-	261	261
4. Office Automation Equip.	-	86	86
5. Abandoned Engineering Chester Station	-	40	40
6. Eddystone #1 Restoration	-	1,877	1,877
Subtotal Change in O&M	-	-	($5,400)
Change in Income Taxes a/c O&M expenses @ 49.768%			$2,687
7. Def. Taxes-State Tax Rate Chg	(1,006)	(425)	581
8. Pioneer Uravan Amortization	-	459	459
9. Abandoned Engineering Heaton-Byberry 230 kV line	-	89	89
Total Increase in Income for Return [$5,400-(2,687+581+459+89)]			$1,584

(a) For detail see Page D-12a.

Philadelphia Electric Company - Electric Operations
DEVELOPMENT OF RATEMAKING CLAIM FOR
CERTAIN EXPENSE ITEMS
($1,000)

Item	Case Authorizing Amortization	Original Amount to be Amortized	Amortized as of 6/30/86	Unamortized as of 6/30/86	Current Year's Claimed Amortization
1. Rate Case Expenses					
- RID 129, 295, 438, 865	R-811626	2,755	2,086	669	132
- Current Case		2,680	-	2,680	1,340 (1)
- ECR #8	R-842590	1,650	787	863	116
- ECR #9		600	-	600	300 (1)
- Limerick #2 Show Cause		5,500	-	5,500	1,100 (2)
2. Amort. of Turbine Lease Cancellation	R-811626	40,108	40,108	-	-
3. Storm Damage	R-842590	1,000	478	522	261 (3)
4. Office Automation Start-up Costs	R-842590	330	158	172	86 (3)
5. Abandoned Engr. Chester Station	R-801225	970	890	80	40 (3)
6. Eddystone #1 Restoration	R-842590	7,185	3,431	3,754	1,877 (3)
7. State Tax Rate Change	R-842590	(3,018)	(1,445)	(1,573)	(787)(4)
8. Pioneer Uravan	R-842590	2,296	659	1,637	459
9. Heaton-Byberry Abandoned Engineering		445	-	445	89 (2)

(1) Reflects a 2 year normalization
(2) Reflects a 5 year amortization
(3) Reflects a 2 year amortization of the unamortized balance
(4) Current Year Net of Deferred Federal Income Tax Effect = ($425);
2 year amortization of unamortized balance

Philadelphia Electric Company - Electric Operations
ADJUSTMENT TO ELIMINATE THE REVENUE
AND FUEL EXPENSE ASSOCIATED WITH SALES
TO THE BOROUGH OF LANSDALE INCLUDED IN
THE TEST YEAR ENDED JUNE 30, 1986
(Thousand $)

Not Applicable

Philadelphia Electric Company - Electric Operations
FEDERAL OLD AGE BENEFITS
FOR THE YEAR ENDED JUNE 30, 1986
(Thousand $)

Effective 1/1/86 the wage base subject to federal old age benefits tax will increase to $41,700 from $39,600 while the rate of tax will increase from 7.05% to 7.15%. Additional discussion of this adjustment is contained in the Direct Testimony of Guy A. Sileo.

Developed below is the increase in expense on account of the above increase.

Total Company

7/1/85 to 6/30/86 FICA Wage Base @ $41,700	$404,134
Full Year of FICA @ 7.15% ($404,134 x 7.15%)	$28,896
7/1/85 to 6/30/86 Expense Included in Test Year	27,640
Increase	$1,256

Allocation to Electric Operations

$1,256 x 59.0% (a)	$741
Decrease in income taxes @ 49.768%	369
Decrease in income for return	$372

(a) Based on 12 months ended June 30, 1985 (Ref: Page D-5a of Exhibit TPH-1)

Philadelphia Electric Company - Electric Operations
DECOMMISSIONING COST ADJUSTMENT FOR
PEACH BOTTOM NO. 1, 2 & 3, SALEM NO. 1 & 2 AND LIMERICK NO. 1
12 Months Ended June 30, 1986
($1,000's)

In its order at R-842590, the Commission permitted the Company an annual accrual for decommissioning expense of four nuclear units - Peach Bottom Units No. 2 and No. 3 and Salem Units No. 1 and No. 2. Subsequent to this order the Company performed a new decommissioning cost study for all our nuclear units. This adjustment utilizes the new study to (1) include Peach Bottom Unit No. 1 and Limerick Unit No. 1 in the estimate (2) reflect the increase in the total estimated cost of decommissioning (3) provide recovery of the reserve deficiency over a five year period for historic accruals for Peach Bottom Units No. 2 and No. 3 and Salem Units No. 1 and No. 2 and (4) recover future accruals through the year 2008 for the Peach Bottom and Salem Units and through the year 2024 for Limerick Unit No. 1. The Direct Testimony of N. B. McLeod provides a discussion of the decommissioning study performed for all of the Company's nuclear units. The Direct Testimony of R. W. Wright provides a description of the Company's expense accounting.

Development of Future Annual Accrual for Decommissioning

PECo share of estimated total cost of decommissioning: (6/30/86)		
- Peach Bottom Units No.1,No.2,No.3	$107,257	
- Salem Units No.1, No.2	76,684	
- Limerick Unit No.1	123,629	
	$307,570	
Annual decommmissioning expense		
- Peach Bottom Units No.1, No.2, No.3		$3,979
- Salem Units No.1, No.2		2,789
- Limerick Unit No. 1		3,253
		$10,021

Expense to Correct Prior Accruals

Reserve requirement at 6/30/86 for Peach Bottom Units No. 2 and 3 and Salem Units No. 1 and No. 2	$35,296	
Estimated actual reserve through 6/30/86 including interest	20,946	
Increase in Decommissioning expense necessary to correct prior accruals	14,350	
5 yr amortization of incr. in decommissioning expense to correct prior accruals		2,870
Total expense associated with decommissioning		$12,891
Decommissioning Included in Budget (B-13)		4,190
Increase in Decommissioning Expense		$8,701
Decrease in Income Taxes @ 49.768%		4,330
Decrease in Income for Return		$4,371

Philadelphia Electric Company - Electric Operations

SPENT FUEL DISPOSAL COST ADJUSTMENT
FOR PEACH BOTTOM NO. 2 & 3, SALEM NO. 1 & 2, AND LIMERICK NO. 1
12 Months Ended June 30, 1986
($1,000)

In its order at R-842590, the Commission permitted the Company spent fuel expense allowances for Peach Bottom Units No. 2 and No. 3 and Salem Units No. 1 and No. 2 based on an estimate by DOE of 1 mill/kWh of gross electrical output for spent fuel removal beginning on April 7, 1983.

The purpose of this adjustment is to include in test year operating expenses the Company's cost for spent fuel removal.

This claim applies the DOE assessment of 1 mill/gross kWh to the anticipated average annual generation by Peach Bottom Units No. 2 and No. 3, Salem Units No. 1 and No. 2 and Limerick Unit No. 1. The Direct Testimony of J. J. Carroll provides detail on the development of anticipated average annual nuclear generation.

The Direct Testimony of R. W. Wright provides a detailed description of the Company's spent fuel expense accounting.

Estimated Annual Spent Fuel Expense:	
Peach Bottom 2	$2,647
Peach Bottom 3	2,600
Salem 1	2,754
Salem 2	2,827
Limerick 1	6,247
Total Expense Associated with Spent Fuel Removal	$17,075
Less: Spent Fuel Included in Budget (B-10)	11,715
Increase in Spent Fuel Expense	$5,360
Change in Income Taxes @ 49.768%	2,668
Decrease in Income for Return	$2,692

Philadelphia Electric Company - Electric Operations

ADJUSTMENT TO AMORTIZE THE LOSS ON
THE SALEM #1 DAMAGED NUCLEAR FUEL ASSEMBLIES
(Thousand $)

During the course of a PUC 1982 fuel audit approximately $929,000 related to damaged nuclear fuel assemblies was eliminated from recoverable fuel costs. The purpose of this adjustment is to amortize the cost of Salem #1 damaged nuclear fuel assemblies to base rates over a period of three years. The amount being amortized is equal to the amount of the adjustment in the 1982 Pa.PUC fuel audit. Refer to the Direct Testimony of T. P. Hill, Jr. for further discussion of this adjustment.

Total to be amortized	$929
Annual amortization (3 years)	$310
Decrease in deferred taxes @ 49.768%	154
Decrease in Income for Return	$156

Philadelphia Electric Company - Electric Operations

Adjustment to Reflect Full Year O&M Expenses
for Limerick No. 1 Unit
(Thousand $)

This adjustment is necessary to reflect a full year effect of the operating and maintenance expenses associated with Limerick No. 1 Unit which were not included in the original budget data.

Additional information regarding nuclear O&M expenses is contained in the Direct Testimony of J. J. Carroll. Refer to the Direct Testimony of T. P. Hill, Jr. for additional discussion regarding pensions, benefits, insurance and payroll taxes.

Description	Accounts	Amount	
Nuclear O&M Expenses	517 to 532	$63,448	(Carroll)
Pensions and Benefits	926	6,408	(Hill)
Insurance	924, 925	5,534	(Hill)
Payroll Taxes	950	350	(Hill)
Total Annual O&M		$75,740	
Amount Included in Budget		0	
Increase in O&M Expense		$75,740	
Decrease in Income Taxes		37,694	
Decrease in Income for Return		$38,046	

Philadelphia Electric Company - Electric Operations

NON JURISDICTIONAL RATES
RATE OF RETURN ADJUSTMENT
12 Months Ending June 30, 1986
(Thousand $)

As per the Company's cost of service study, Exhibit WFS-1, the current return level from those customers not subject to Pennsylvania regulation is lower than the overall Company average return being sought in this case. The purpose of this adjustment is to reflect the additional income which results from applying the system average return to these customers. Refer to the Direct Testimony of T. P. Hill, Jr. for additional discussion of this adjustment.

	FERC Jurisdiction	Interdepartmental	Total
Revenue at proposed return level (12.70%)	$29,633	$4,803	$34,436*
Less: Revenues included in June 30, 1986 Test Year	23,085	4,126	27,211
Additional Revenue	$6,548	$677	$7,225
Decrease in fuel expense 513,200,000 kWh (a) @ .7355¢/kWh (D-21)			3,775
Increase in Income taxable income			$11,000
Increase in Income taxes			5,474
Increases in Income for return			$5,526

* Assumes full rate increase is granted therefore it is subject to change if a portion of the increase is disallowed.

(a)

FERC	449,800,000 kWh
Interdepartmental	63,400,000 kWh
Total (A-5)	513,200,000 kWh

Philadelphia Electric Company - Electric Operations

ADJUSTMENT TO REFLECT FULL YEAR AMORTIZATION OF
INVESTMENT TAX CREDIT ON A YEAR-END PLANT BASIS
12 Months Ending June 30, 1986
(Thousand $)

The purpose of this adjustment is to reflect a full year's amortization of investment tax credit on qualifying plant placed in service during the test year assuming the proforma proposed rates were in effect during this period. The effect of the adjustment is to place the ITC amortization on a year-end plant basis. Additional information on this adjustment is contained in the Direct Testimony of G. A. Sileo.

Amortization on the $134,646 Plant in Service Portion of the total $187,323 ITC Carryover at 6/30/86 (per B-15)		
Limerick 1 with 100% Common	$1,387	
Other Electric	7,650	
Annualization Adjustment for Plant in Service Portion of ITC Carryover		$9,037*
Amortization on the $140,771 Limerick 1 with 100% Common Progress Payment ITC previously utilized	$3,610	
Less: Limerick Amortization Reflected on B-14	2,334	
Annualization Adjustment for Amortization of ITC Previously Utilized		1,276
Increase in ITC Amortization		$10,313
Increase in Income Available for Return		$10,313

*Assumes full rate increase is granted therefore it is subject to change if a portion of the increase is disallowed.

PHILADELPHIA ELECTRIC COMPANY - ELECTRIC OPERATIONS

Adjustment to Base Rates to Reflect
A Roll-Out of .7505¢/kWh
of Fuel Expense
(Thousand $)

Effective with the commercial operation date of Limerick Unit #1, it is expected that the Company's energy costs will be significantly reduced. The purpose of this adjustment is to reflect the effect of this cost reduction through a .7505¢/kWh roll-out of fuel from base rates. The development of the fuel roll-out is shown below. Refer to the Direct Testimony of J. J. Carroll for further discussion on the development of the energy savings.

Decrease in Revenue (D-21a)		$211,214
Decrease in Fuel Expense	$206,990	
Decrease in Gross Receipts Tax	4,224	
Total Decrease in Expense (D-21a)		$211,214
Change in Taxable Income		$0

Philadelphia Electric Company - Electric Operations

Adjustment to Base Rates to Reflect
A Roll-Out of .7505¢/kWh
of Fuel Expense
(Thousand $)

Total Fuel & Interchange Expense without Limerick No. 1 Unit 7/1/86 to 6/30/88	$1,378,043
Total Fuel & Interchange Expense with Limerick No. 1 Unit 7/1/86 to 6/30/88	$961,407
Reduction in Fuel & Interchange Expense resulting from Limerick No. 1 Unit supplying PECo System Sales	$416,636
PECo System Sales from 7/1/86 to 6/30/88	56,647,100 Mwh
Reduction in Cost per kWh	
$\frac{\$416,636,000}{56,647,100 \text{ MWh}}$ =	7.355 m/kWh
1/1-T (T=2.0%)	x 1.02041
Reduction in Energy Cost per kWh	7.505 m/kWh
Applicable Sales for Test Year (Adjusted for Growth)	28,143,062 MWh
Decrease in Revenue	$211,214