

9. ACCOUNTING FOR PENSION COSTS (Cont'd)

The Pension Plan provides retirement benefits as well as death and disability benefits. Retirement benefits vest after 10 years of credited service. Employees who retire at or after age 65 are entitled to receive an annual retirement benefit, payable monthly, in an amount equal to the greater of:

- (i) 1.25% of the first \$6,600 of Final Average Earnings plus 1.75% of the excess of Final Average Earnings over \$6,600, times Credited Service, with a maximum of 60% of the highest annual earnings during the last 10 years of Credited Service, applicable to all participants.
- (ii) 2% of total earnings received during the period of Credited Service plus 22.5% of the first \$100 of such amount, applicable only to participants who were employees on or prior to March 24, 1967.

Final-average earnings are the employee's average pay, over the highest 5 of the last 10 years of credited service. Employees with 15 years of credited service may retire at or after age 55 and receive a reduced retirement benefit.

Covered employees are not required to contribute to the Pension Plan. The Company is required by statute to contribute the amounts necessary to finance the Plan. Benefit and contribution provisions are established by City ordinance and may be amended only as allowed by City ordinance.

B. Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting Pension Plan financial statements are prepared using the accrual basis of accounting. Employer contributions are recognized as revenues in the period in which employee services are performed.

Method Used to Value Investments Pension Plan equity securities are reported at cost. Fixed-income securities are reported at par value; investment income is recognized as earned. Gains and losses on sales and exchanges of fixed-income securities are recognized on the transaction date.

9. ACCOUNTING FOR PENSION COSTS: (Cont'd)

C. Funding Status and Progress

The amount shown below as "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the Pension Plan's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among PERS.

The pension benefit obligation was determined as part of an actuarial valuation at September 1, 1988 adjusted to reflect the impact of the Early Retirement Incentive Program (see Note 1). Significant actuarial assumptions used include: (a) a rate of return on the investment of present and future assets of 7 percent per year compounded annually, (b) projected salary increases of 5 percent per year compounded annually, and (c) 62 as the assumed retirement age.

At September 1, 1988, the unfunded pension benefit obligation adjusted to reflect the impact of the Early Retirement Incentive Program (see Note 1) was \$99,721,000, as follows:

Pension benefit obligation:

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$187,173,000
Current employees -	
Accumulated employee contributions including allocated investment income	None
Vested	48,362,000
Non-vested	<u>59,004,000</u>
Total pension benefit obligation	\$294,539,000
Net assets available for benefits, at cost (Market Value \$187,496,000)	194,818,000
	<hr/>
Unfunded pension benefit obligation	<u>\$ 99,721,000</u>

D. Contributions Required and Contributions Made

The Pension Plan funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Level percentages of payroll employer contribution rates are determined using the Projected Unit Credit actuarial funding method.

9. ACCOUNTING FOR PENSION COSTS: (Cont'd)

Contributions totaling approximately \$21,500,000 were made in 1989. These contributions consisted of approximately: (a) \$6,840,000 normal cost and (b) \$14,660,000 amortization of the unfunded actuarial accrued liability. Fiscal 1989 contributions represented contributions in the amount of approximately \$17,600,000 in accordance with the actuarial recommended contribution through the actuarial study performed in September, 1986 (latest valuation available when such contribution requirements were determined) and an additional contribution of approximately \$3,900,000 principally representing the impact of the Early Retirement Incentive Program (see Note 1).

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension obligation discussed above.

E. Post Retirement Benefit Information

In addition to providing pension benefits, the Company also provides health care and life insurance benefits to plan beneficiaries and their dependents. The Company recognizes the cost of providing these benefits, by charging the annual insurance premiums to expense. The cost of providing benefits for the 1,930 and 1,524 beneficiaries and their dependents for the 1989 and 1988 fiscal years, respectively, is not separable from the cost of providing benefits for approximately 2,500 active employees and their dependents. Total premiums incurred amounted to \$12,900,000 and \$12,300,000 for 1989 and 1988, respectively.

F. Trend Information

Trend information gives an indication of the progress made in accumulating sufficient assets to pay benefits when due. Certain historical trend information for the Company's PERS is presented below for the last three years.

	<u>For the Years Ended</u>		
	<u>August 31</u>		
	<u>1988</u>	<u>1987</u>	<u>1986</u>
Net assets available for benefits (at cost) as a percentage of the pension benefit obligation:	66.1%	68.0%	64.8%
Unfunded actuarial accrued liability as a percentage of the annual covered payroll:	103.0%	97.7%	108.1%
Company contributions to the PERS as a percentage of the annual covered payroll:	17.6%	18.6%	20.5%

Contributions were made in accordance with actuarially determined contribution requirements except as disclosed at Note 9 D.

9. ACCOUNTING FOR PENSION COSTS: (Cont'd)

G. Ten-Year Historical Trend Information (unaudited)

Additional historical trend information designed to provide information about the progress made by the Philadelphia Gas Works in accumulating sufficient assets to pay pension benefits as they become due is presented on page 20 for the past 10 years ("The Analysis of Pension Funding Progress").

10. COMMITMENTS AND CONTINGENCIES:

Commitments for major construction and maintenance contracts were approximately \$3,405,000 and \$6,752,000 as of August 31, 1989 and 1988, respectively.

The Company is committed under various noncancellable operating lease agreements to pay minimum annual rentals as follows:

<u>Year Ended</u> <u>August 31,</u>	<u>Thousands of Dollars</u>
1990	\$ 798
1991	611
1992	201
1993	<u>9</u>
Total	<u>\$1,619</u>

Rent expense for the years ended August 31, 1989 and 1988 amounted to \$1,964,000 and \$2,107,000; respectively.

In May 1988, the Company began paying as part of its normal monthly bills pipeline take-or-pay costs billed by its interstate pipeline suppliers under FERC approved tariffs. As of August 31, 1989, the amount of these costs paid by the Company was approximately \$8,246,000 which represents approximately \$6,412,000 and \$1,834,000 for the years ended August 31, 1989 and 1988. The Company estimates a total remaining liability of approximately \$29 million under the multi-year cost recovery period established by FERC. Approximately \$11 million of the liability relates to charges which the Company must pay regardless of future purchases and has been recorded as both a deferred debit and a deferred credit on the Balance Sheet. The remaining \$18 million will be assessed based on future purchases of gas. Costs incurred by the Company since May, 1988 have been recovered through the normal GCR tariff.

PHILADELPHIA GAS WORKSREQUIRED PENSION SUPPLEMENTARY INFORMATION
ANALYSIS OF PENSION FUNDING PROGRESS (Unaudited)

Ten-year historical trend information designed to provide information about the Pension Plan's progress made in accumulating sufficient assets to pay benefits when due is presented below:

ANALYSIS OF PENSION FUNDING PROGRESS
(Thousands of Dollars)
(unaudited)

Year	(1) Net Assets Available for Benefits	(2) Pension Benefit Obligation	(3) Percentage Funded (1)/(2)	(4) Unfunded Pension Benefit Obligation (2) - (1)	(5) Annual Covered Payroll Contribution	(6) Contri- bution as a % of Covered Payroll	Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4)/(5)
1979	\$ 46,308	\$ N/A		\$ N/A	\$ 9,928	19.9	
1980	57,857	139,132	41.6%	81,275	11,851	20.8	142.4%
1981	72,371	163,654	44.2	91,283	13,840	22.6	149.3
1982	91,115	190,323	47.9	99,208	15,181	22.5	147.0
1983	111,012	N/A		N/A	16,276	23.1	
1984	129,803	N/A		N/A	16,710	22.2	
1985	145,845	232,714	62.7	86,869	16,936	21.2	108.6
1986	169,936	262,394	64.8	92,458	17,571	20.5	108.1
1987	187,417	275,514	68.0	88,097	16,763	18.6	97.7
1988	194,818	294,539	66.1	99,721	17,016	17.6	103.0

N/A - Information not available for these periods.

Isolated analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Pension Plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the Pension Plan. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the Pension Plan's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the Pension Plan.

APPENDIX B

SUMMARIES OF LEGISLATION
AUTHORIZING THE ISSUANCE
OF GAS WORKS REVENUE BONDS

SUMMARIES OF LEGISLATION AUTHORIZING
THE ISSUANCE OF
GAS WORKS REVENUE BONDS

The following are summaries of certain provisions of The First Class City Revenue Bond Act (the "Act") and the General Gas Works Revenue Bond Ordinance of 1975, as amended (the "General Ordinance"), which authorize the issuance of Gas Works Revenue Bonds generally and the Twelfth Supplemental Gas Works Bond Ordinance (the "Twelfth Supplemental Ordinance") which authorizes the issuance of the Twelfth Series A Bonds. The summaries are not, and should not be regarded as complete statements of the provisions of this legislation or of the portions thereof summarized. Reference is made to the Act, the General Ordinance and the Twelfth Supplemental Ordinance, copies of which are available from the Office of the Director of Finance, Room 1420, Municipal Services Building, Philadelphia, Pennsylvania 19102, for the complete terms and provisions thereof. Certain terms used in this summary are defined below. Other terms used herein are defined in the Act, the General Ordinance and the Twelfth Supplemental Ordinance and, unless otherwise stated, shall have the meanings set forth therein.

THE FIRST CLASS CITY REVENUE BOND ACT

(Act 234 of the General Assembly of the Commonwealth,
approved October 18, 1972, P.L. 955; 53 P.S. §§15901-24)

General Authorization; Definitions; Bonds to be Special Obligations

The Act is intended to provide a comprehensive authorization to the City of Philadelphia (the "City") and any other Pennsylvania city of the first class to issue revenue bonds ("Bonds") to finance various types of projects and to issue Bonds to refund previously issued Bonds and certain other bonds, as more fully described herein under "Refunding."

"Project" is defined to include, inter alia, any building, structure, facility or improvement of a public nature, the related land and rights or leasehold estates therein and the related furnishings, machinery, apparatus or equipment of a capital nature, which the City is authorized to own, construct, acquire, improve, lease,

operate, maintain or support; any item of construction, acquisition or extraordinary maintenance or repair thereof; the City's share of the cost of any of the foregoing undertaken jointly with others; and any combination of the foregoing or any undivided portion of the cost of any of the foregoing as may be designated a "project" by the City for financing purposes and in respect of which the City may reasonably be expected to receive Project Revenues.

"Project Revenues" mean, in respect of a Project, all rents, rates, tolls or charges imposed or charged for the use or product of, or services generated from the Project to the ultimate users or customers thereof, all payments under bulk contracts with municipalities, government instrumentalities or other bulk users, all subsidies or payments payable by federal, state or local governments or governmental agencies on account of the cost of operation of the Project, or the payment of the principal of or interest on moneys borrowed to finance the cost of the Project, and may include reasonable estimates of all interest on and profits from investment of moneys derived from the foregoing.

Bonds issued under the Act are required to be payable solely from Project Revenues and to be secured solely by such revenues and by any reserve funds which may be created or funded in connection with the Bonds. The Bonds are not permitted to pledge the credit or taxing power of the City, to create a debt or charge against the tax or general revenues of the City, or to create a lien against any City property other than the Project Revenues pledged therefor and the reserve funds established in respect of the Bonds. The amount of the Bonds does not constitute a debt of the City, and is excluded from the calculation of the City's debt-incurring capacity under the Pennsylvania Constitution.

Estimate of Future Revenues

In order to establish that Project Revenues will be sufficient to amortize all Bonds outstanding, the Act requires a finding to be made in the ordinance authorizing the issuance of the Bonds that the pledged Project Revenues will be sufficient to pay any prior parity charges on such pledged Project Revenues and the principal of and interest on the Bonds. This finding is to be based on a report of the chief fiscal officer of the City filed with the City Council and supported by appropriate schedules and summaries. The report of the chief fiscal officer of the City may be based on the final report of the head of the department or agency of the City having jurisdiction over the project involved or on a certificate of registered

engineers engaged by the City to compile relevant data.

For the purpose of estimating future Project Revenues, the Act provides that only the following shall be included: (i) those rents, rates, tolls or charges to the general public which, under existing authorizations, are or will be in effect and will be reasonably collectible during the fiscal year under the rate schedule which is or will be in effect during such fiscal year, or which may be imposed by administrative action without future legislation; (ii) those bulk payments which may be imposed under existing legislation or which are provided under existing agreements or are the subject of an expression of intent by the prospective obligor deemed reliable by the chief fiscal officer of the City; and (iii) those governmental subsidies or payments which, under existing legislation, are subject to reasonably precise calculation and, unless stated in such legislation or authorization to be of an annual or more frequently recurring nature, are payable in such year.

Details of Bonds and City Covenants

The Act provides that the ordinance authorizing the issuance of the Bonds shall fix the aggregate amount of Bonds to be issued and determine, or designate officers of the City to determine, the form and details of the Bonds. Subject to applicable constitutional provisions, the City may include in its bond ordinance various covenants with bondholders, including covenants governing the imposition, collection and disbursement of Project Revenues, project operation and maintenance, the establishment, segregation, maintenance, custody, investment and disbursement of sinking funds and reserves, the issuance of additional priority or parity Bonds, the redemption of Bonds and such other provisions as the City deems necessary or desirable in the interest of or for the protection of the City or of such bondholders. Under the Act, such covenants, terms and provisions of the bond ordinance constitute contractual obligations of the City subject to modification, with such limitations as may be specified in the bond ordinance, by agreement with a majority in interest of the bondholders or such larger portion thereof as may be provided in the bond ordinance.

Sinking Fund

The Act requires that the bond ordinance shall provide for the establishment and maintenance of a sinking fund or shall designate a previously established fund for the payment of the principal of and interest on the Bonds. Payment into such sinking fund shall be made in annual or more frequent installments and shall be sufficient to pay

or accumulate for payment all principal of and interest on the Bonds for which the sinking fund is established as and when the same shall become due and payable. The sinking fund shall be managed by the chief fiscal officer of the City and moneys therein, to the extent not currently required, shall be invested, subject to limitations established by the bond ordinance and the Act. Interest and profits from investment of moneys in the sinking fund shall be added to such fund and may be applied in reduction of or to complete required deposits to the sinking fund. Excess moneys in the sinking fund shall be repaid to the City for its general purposes or as otherwise provided in the bond ordinance. All moneys deposited in the sinking fund, including the Sinking Fund Reserve established by the General Ordinance, are subject to a perfected security interest for the Bonds for which the fund is established until properly disbursed.

Refunding

Bonds from time to time outstanding under the Act or other bonds issued for purposes for which Bonds are issuable under the Act, whether issued before or after the effective date of the Act, may be refunded by Bonds issued under the Act and are subject to the same protections and provisions required for the issuance of an original issue of Bonds. Bonds will no longer be deemed to be outstanding obligations when the City shall have deposited with a bank, bank and trust company or trust company funds represented by demand deposits, interest-bearing time accounts, savings deposits, certificates of deposit (insured or secured as public funds) or specified obligations of the United States or of the Commonwealth of Pennsylvania, the principal and interest of which are sufficient to effect, and which are irrevocably pledged to, the redemption or payment of such Bonds and, in the case of redemption, notice of such redemption or irrevocable instructions to give such notice shall have been duly given.

Validity of Proceedings; Suits and Limitations Thereon

Prior to the delivery of any Bonds, the City must file with the Court of Common Pleas a transcript of the proceedings authorizing the issuance of the Bonds. If no action asserting the invalidity of such proceedings, or of the Bonds, is brought on or before the twentieth day following the date of recording of the transcript, the validity of the proceedings, the City's right to issue the Bonds, the lawful nature of the purpose for which the Bonds are issued, and the validity and enforceability of the Bonds in accordance with their terms may not thereafter be inquired into judicially, in equity, at law, or by civil or

criminal proceedings, or otherwise, either directly or collaterally, except where a constitutional question is involved.

Exemption from State Taxation

The Commonwealth pledges with the holders from time to time of Bonds issued under the Act that such Bonds, their transfer and the income therefrom, including any gains made on the sale thereof (other than underwriting profits in a distribution thereof), shall at all times be free from taxation within and by the Commonwealth of Pennsylvania, but this exemption does not extend to underwriting profits or to gift, succession or inheritance taxes or any other taxes not levied directly on the Bonds, the receipt of income therefrom or the realization of gains on the sale thereof.

Defaults and Remedies

If the City should fail to pay the principal of or interest on any Bond when the same shall be due and payable, the remedy provisions of the Act permit the holder of such Bond, subject to the limitations described below, to recover the amount due in an action in Philadelphia Common Pleas Court. However, a judgment rendered in favor of the bondholder in such an action is collectible only from Project Revenues. The holders of 25% in aggregate principal amount of Bonds which are in default, whether because of failure of timely payment which is not cured within 30 days or failure of the City to comply with any other provisions of the Bonds or any bond ordinance, may appoint a trustee to represent them. On being appointed, the trustee shall be the exclusive representative for the affected bondholders. The trustee may and, upon written request of the holders of 25% in aggregate principal amount of such Bonds, and on being furnished with indemnity satisfactory to it, shall take one or more of the following actions which, if taken, shall preclude similar action, whether previously or subsequently initiated by individual holders of Bonds: enforce, by proceedings at law or in equity, all rights of the holders of Bonds; bring suit on the Bonds; bring suit in equity to require the City to make an accounting for all pledged Project Revenues received and to enjoin lawful action or action in violation of the holders' rights; and, after 30 days' written notice to the City, declare the unpaid principal of the Bonds to be immediately due and payable, together with interest thereon at the rates stated in the Bonds until final payment, and, upon the curing of all defaults, to annul such declaration. In any suit, action or proceeding by or on behalf of holders of defaulted Bonds, trustee fees and expenses,

including operating costs of a project and reasonable counsel fees and all such costs and disbursements allowed by the Court, shall be deemed additional principal due on the Bonds and shall be paid in full from any recovery prior to any distribution to the holders of the Bonds. The General Ordinance limits any such recovery to Project Revenues. The trustee shall make distribution of any sums so collected in accordance with the Act.

Refunding With General Obligation Bonds

Upon certification by the City's chief fiscal officer that Project Revenues for the payment of Bonds have become insufficient to meet the requirements of the ordinance or ordinances under which the Bonds were issued, the City Council is empowered, but not required, subject to applicable Pennsylvania constitutional debt limitation, to authorize the issuance and sale of general obligation refunding bonds of the City without limitation as to rate of interest, in such principal amount (subject to the aforesaid limitations on indebtedness) as may be required, together with other available funds, to pay and redeem such Bonds, together with interest to the redemption date and redemption premium, if any.

THE GENERAL ORDINANCE

Ordinance of City Council approved May 30, 1975 -
Bill No. 1871, as amended by Ordinance of City
Council approved July 26, 1979 - Bill No. 2068,

Ordinance of City Council approved July 31, 1980 -
Bill No. 274,

Ordinance of City Council approved September 22, 1982
- Bill No. 1316, and

Ordinance of City Council approved May 17, 1985 -
Bill No. 534

Pursuant to the authorization contained in the Act, the City has adopted the General Ordinance. The City has made a pledge of, and has granted a security interest in all Project Revenues and all accounts, contract rights and general intangibles representing Project Revenues for the security and payment of all Bonds issued under the General Ordinance.

Definitions

"City Charges" are defined to be the proportionate charges for services performed for the Gas Works by all officers, departments, boards or commissions of the City which are contained in the computation of Operating Expenses of the Gas Works including, without limitation, the expenses of the Gas Commission and the base payments to the City contained in the agreement between the City and the manager of the Gas Works and all other payments made to the City from Project Revenues.

"Fiscal Year" is defined as the fiscal year for the Gas Works as provided in any ordinance of the City from time to time enacted and, if no other fiscal year is established by ordinance, it shall mean the fiscal year of the City.

"Net Operating Expenses" are defined to be Operating Expenses exclusive of City Charges.

"Operating Expenses" are defined to be all costs and expenses of the Gas Works necessary and appropriate to operate and maintain the Gas Works in good operable condition during each Fiscal Year including, without limitation, the manager's fee, salaries and wages, purchases of services by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement thereof or for any work or project related to the Gas Works which does not have a probable useful life of at least five years, pension and welfare plan and workmen's compensation requirements, provision for claims, refunds and uncollectible receivables and for City Charges, all in accordance with generally acceptable municipal accounting principles consistently applied, but shall exclude depreciation and interest and sinking fund charges.

"Project Revenues" are defined to include all rents, rates and charges imposed or charged by the City upon the owners or occupants of properties connected to, and upon all users of gas distributed by the Gas Works and all other Project Revenues (as such term is defined in the Act) derived from the Gas Works, and all accounts, contract rights and general intangibles representing the Project Revenues.

Additional Bonds

Bonds may be issued in one or more series as the City may from time to time determine by supplemental ordinance (a. "Supplemental Ordinance"). The General Ordinance provides for the method of setting the details and terms of the Bonds authorized by such Supplemental Ordinance. The General Ordinance sets forth the manner of making payment of principal, interest and premium, the requirements governing such payment, the rules regarding registration, transfer and exchange of Bonds, and general provisions governing redemption and the effect thereof. The General Ordinance authorizes the issuance of definitive and temporary Bonds, provides for the execution of the Bonds and provides for the issuance of Bonds to replace mutilated, destroyed, lost or stolen Bonds.

Purposes For Which Bonds May Be Issued, Conditions of Issuance - Engineering Report

Bonds may be issued to (1) pay the cost of projects related to the Gas Works, (2) reimburse any City fund from which such costs shall have been paid or advanced, (3) fund any such cost for which the City shall have outstanding bond anticipation notes or other obligations, (4) refund any Bonds of the City issued for the foregoing purposes under the Act, or (5) refund any general obligation bonds of the City issued for the foregoing purposes. However, the City covenants that it will not issue Bonds to provide funds to refund general obligation bonds or notes issued prior to January 1, 1974.

The City covenants that so long as any Bonds shall remain outstanding, no Bonds will be issued unless the financial report of the City's chief fiscal officer, required by the Act to be filed with the City Council in connection with such issuance, shall be accompanied by an engineering report of an independent consulting engineer or an independent firm of consulting engineers, in either case having broad experience in the design and analysis of the operation of gas works or gas distribution systems of the magnitude and scope of the Gas Works and a favorable reputation for competence in such field. The report must contain a statement that the engineers have made an investigation of the physical properties and of the books and records of the Gas Works.

On the basis of such investigation, the engineering report must contain the same matters, statements and opinions as are required to be contained in the report of the chief fiscal officer to the City Council, namely: (1) a

brief description of the project or projects for which the Bonds are to be issued; (2) a statement identifying the sources from which the pledged Project Revenues are to be derived; (3) a statement that, on the basis of actual and estimated future annual financial operations of the project from which the pledged Project Revenues are to be derived, the project will, in the opinion of the engineers, yield pledged Project Revenues over the amortization period of such Bonds sufficient to meet the payment or deposit requirements of operating expenses, reserve requirements, debt service of all Bonds outstanding for which Project Revenues are pledged and surplus requirements fixed by the General Ordinance, or the Supplemental Ordinance authorizing the issuance of any series of Bonds, and (4) that the revenues upon which the preceding statements are based comply with the definition of "Project Revenues" contained in the Act. The General Ordinance also requires that the engineering report state that the pledged Project Revenues are currently and will be sufficient to comply with the Rate Covenant and that the Gas Works are in good operating condition or that adequate steps are being taken to make them so.

Prior to the issuance of the Bonds, a transcript of the proceedings authorizing the issuance of the Bonds shall also be filed with the Fiscal Agent, together with a copy of the engineering report.

Security

The Bonds are and will be equally and ratably secured by a pledge of and a security interest in all Project Revenues and the Sinking Fund, including the Sinking Fund Reserve.

Priority in Application of Project Revenues

Prior to default, the General Ordinance establishes the following priorities in the application of Project Revenues during each fiscal year:

First: to Net Operating Expenses;

Second: to required payments into the Sinking Fund to pay the principal of and interest on all Bonds issued under the General Ordinance and to accumulate, or to restore any deficiency in the Sinking Fund Reserve;

Third: to the payment of general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from the Gas Works;

Fourth: to the payment of interest and sinking fund charges of other general obligation debt incurred for the Gas Works; and

Fifth: to the payment of City Charges.

The balance of the Project Revenues in any fiscal year may, upon the approval of the Gas Commission, be paid to the City, provided that in a given fiscal year the balance so paid does not exceed the amount of earnings on the Sinking Fund Reserve transferred and paid to PGW's operating funds during the same fiscal year. The General Ordinance does not require the segregation of revenues upon their collection prior to default. An ordinance adopted by the City in September of 1983 allows the issuance of Gas Works Revenue Notes secured by Project Revenues, payment of which Notes shall be subordinated to the payments listed in clauses First through Fourth above.

Rate Covenant

The City covenants that it has authorized the imposition of rates and charges by the Gas Commission sufficient to comply with the Rate Covenant in the General Ordinance, and that it will not repeal or materially adversely dilute such authorization.

The Rate Covenant requires the City, at a minimum, to impose, charge and collect in each Fiscal Year such gas rates and charges as shall, together with all other Project Revenues to be received in such Fiscal Year, equal not less than the greater of:

A. The sum of:

(i) all Net Operating Expenses payable during such Fiscal Year;

(ii) 150% of the amount required to pay Sinking Fund requirements for the principal of and interest on all Bonds issued and outstanding under the General Ordinance which will become due and payable during such Fiscal Year; and

(iii) the amount, if any, required to be paid into the Sinking Fund Reserve during such Fiscal Year; or

B. The sum of:

(i) all Net Operating Expenses payable during such Fiscal Year; and

(ii) all Sinking Fund deposits required during such Fiscal Year in respect of all outstanding Bonds and in respect of all outstanding general obligation bonds issued for improvements to the Gas Works and all amounts, if any, required during such Fiscal Year to be paid into the Sinking Fund Reserve.

Additional Covenants

The City further covenants: that it will pay or cause to be paid from the Project Revenues the principal of, premium, if any, and interest on all Bonds as the same shall become due and payable; that it will continuously maintain in good condition and operate the Gas Works; and that it will not, in any Fiscal Year, pay from Project Revenues any City Charges or deposit from the Project Revenues in the general sinking fund of the City any sinking fund charges in respect of general obligation bonds of the City unless, prior to or concurrently with such payment, it shall satisfy all Sinking Fund requirements on Bonds outstanding under the General Ordinance for such Fiscal Year.

Report Requirements

The City shall file with the Fiscal Agent not later than 120 days after the close of each Fiscal Year a report of the operation of the Gas Works, including specified financial data, showing compliance with the Rate Covenant and accompanied by a certificate of the manager of the Gas Works that the Gas Works are in good operating condition and a certificate of the Director of Finance that, as of the date of such report, the City has complied with all covenants and requirements of the General Ordinance and Supplemental Ordinances. Copies of such report will be available to bondholders and may be inspected and copied at all reasonable times by bondholders or their representatives.

General Obligation Bonds - Junior Lien Revenue Bonds

The City reserves the right to finance Gas Works projects by issuing general obligation bonds or revenue bonds, under authorization other than the General Ordinance and Supplemental Ordinances, for the payment of which Project Revenues may be pledged, provided that such pledge is subject and subordinate to the prior payments in each Fiscal Year of all Sinking Fund requirements of all Bonds issued under the General Ordinance.

Sinking Fund and Sinking Fund Reserve

A Gas Works Revenue Bond Sinking Fund is established for the benefit of all Bonds issued under the General Ordinance which shall be held in an account separate and apart from all other accounts of the City. On or before each interest and principal payment date for the Bonds, the Director of Finance shall deposit in the Sinking Fund from Project Revenues the amount sufficient, together with interest and profits on investments held therein, to pay the principal of and interest on the Bonds due and payable on such interest or principal payment date. The General Ordinance authorizes the appointment, in accordance with legal procedures, of one or more banks to act as Fiscal Agent and/or paying agent for all Bonds or for any series of Bonds issued thereunder and reserves to the City the right to appoint other or additional banks from time to time. The Fiscal Agent for any particular series will act as registrar and Sinking Fund Depository for that series. The moneys in the Sinking Fund are required to be secured, and invested and reinvested under the management of the Director of Finance.

The Sinking Fund Reserve is established as a separate account in the Sinking Fund and is to be held by the Sinking Fund Depository. The Sinking Fund Reserve shall be funded from the proceeds of each series of Bonds in an amount equal to the maximum amount required in any Fiscal Year to pay the debt service on the Bonds of such series becoming due and payable in such Fiscal Year.

The moneys and investments (valued at market) in the Sinking Fund Reserve shall be maintained in an amount equal at all times to the maximum principal and interest requirements in any subsequent fiscal year of all Bonds issued and outstanding under the General Ordinance; provided, however, that the Supplemental Ordinance authorizing the issuance of any such series may provide for the funding of such amount from Project Revenues over a period of not more than six Fiscal Years after the issuance

and delivery of such Bonds. If at any time the moneys in the Sinking Fund, other than in the Sinking Fund Reserve, are insufficient to pay when due the principal of (and premium, if any) or interest on any Bond or Bonds, the Sinking Fund Depository shall withdraw from the Sinking Fund Reserve and pay to the Fiscal Agent the amount of such deficiency. If, by reason of such withdrawal or for any other reason, there shall be a deficiency in the Sinking Fund Reserve, the City covenants to restore such deficiency by daily deposits of at least 50% of Project Revenues.

Transfer of Income on Sinking Fund Reserve

The General Ordinance provides that all interest and income earned on moneys held in the Sinking Fund Reserve may, to the extent not required to comply with the requirements of the General Ordinance relating to the Sinking Fund Reserve, be transferred to the operating funds of the Gas Works to be applied as Project Revenues in accordance with the terms of the General Ordinance. To the extent that in any Fiscal Year a balance remains in the Project Revenues, such balance, upon approval of the Gas Commission, may be paid to the City, provided that in a given Fiscal Year such balance does not exceed the amount of Sinking Fund Reserve Earnings transferred to the operating funds during the same Fiscal Year.

Remedies; Limitations on Liabilities of City

In addition to the remedies provided by the Act, if the City shall fail or neglect to make deposits into the Sinking Fund, including the Sinking Fund Reserve, in the amounts and at the times required by the General Ordinance or if, for any reason, moneys in the Sinking Fund shall be insufficient to pay debt service on any Bonds, the City shall, immediately and without notice, deposit on a daily basis 50% of all Project Revenues, or such greater percentage thereof as the Director of Finance shall determine, in the Sinking Fund, so long as the default or deficiency shall continue. The General Ordinance provides that all remedies are enforceable only against pledged Project Revenues and investments thereof, and that no decree or judgment against the City on an action brought under the provisions of the General Ordinance shall order, or be construed to permit, the occupation, attachment, seizure or sale upon execution of any other property of the City.

Amendments

The General Ordinance and any Supplemental Ordinance may be amended without the consent of any bondholders to

cure ambiguities, formal defects or omissions, or to grant to bondholders or any trustee therefor additional rights, remedies, powers or security, to comply with mandatory provisions of state or federal law or with permissive provisions of such law which do not substantially impair the security or right to payment of bondholders. The General Ordinance may be amended in such other respects as may be authorized by 67% in principal amount of the holders of Bonds outstanding and affected, but no alteration of the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or of the redemption provisions may be made without the consent of the holders of all Bonds outstanding and affected.

Amendments Not Affecting Outstanding Bonds

The General Ordinance or any part thereof may be amended and the foregoing covenants (including the Rate Covenant) may be rescinded, amended or supplemented by further covenants and agreements, from time to time by Supplemental Ordinance, but no such amendments or further provisions, terms, covenants or agreements contained in a Supplemental Ordinance, other than those permitted by and adopted pursuant to Section 8.01 of the General Ordinance governing amendments generally, which shall be inconsistent with, or would impair a prior covenant in, the General Ordinance as at the time amended or supplemented, shall become effective until all Bonds, the holders of which are entitled to the protection of, or to force compliance with, such prior provisions or covenants, shall cease to be outstanding.

THE TWELFTH SUPPLEMENTAL ORDINANCE

(Ordinance of City Council approved August 8, 1989,
Bill No. 511)

The Twelfth Supplemental Ordinance authorizes the Mayor, City Controller and City Solicitor (the "Bond Committee"), or a majority of them, to sell, in one or more series, Gas Works Revenue Bonds in the maximum principal amount of \$135,000,000, provided that such maximum principal amount may be increased to reflect sales of such Bonds at discounts which are in lieu of periodic interest, and authorizes a majority of the Bond Committee to establish the terms and provisions of such Bonds.

The Twelfth Supplemental Ordinance states that the Bonds issued thereunder are to be issued for any or all of the following purposes: (i) acquiring and constructing the

capital improvements included in the capital program of PGW as from time to time included in the capital budgets of PGW, as approved by City Council; (ii) the refunding of certain maturities of the City's Gas Works Revenue Bonds, Eighth Series, or such other series as shall be designated by the Director of Finance; (iii) paying the costs of issuing the Bonds, and making any required deposit to the Sinking Fund Reserve; and (iv) paying any other Project costs (as defined in the Act.)

Based on the report of the Director of Finance filed with City Council pursuant to the Act, the Twelfth Supplemental Ordinance determines that Project Revenues will be sufficient to comply with the Rate Covenant contained in the General Ordinance and also to pay other costs, expenses and payments required to be paid therefrom in their order of priority as set forth in the General Ordinance.

The City covenants in the Twelfth Supplemental Ordinance that the proceeds of the sale of the Bonds issued thereunder for refunding of prior Bonds shall be deposited in an escrow or similar account with the Fiscal Agent, separate and apart from any other account of the City or the Gas Works and further covenants that the proceeds of such Bonds available for payment of costs of capital improvements shall be deposited and held in and disbursed from one or more unsegregated accounts of PGW which shall be separate and apart from and not commingled with the consolidated cash account of the City or any other account of the City not held exclusively for Gas Works purposes.

The City covenants in the Twelfth Supplemental Ordinance that, so long as any Bonds issued thereunder remain unpaid, it shall make payments or cause payments to be made out of the Sinking Fund at such times and in such amounts as shall be sufficient to pay interest on and principal of any Bonds when due.

It authorizes the Director of Finance and any member of the Bond Committee to make such covenants as may be necessary or advisable to assure that the Bonds issued thereunder will not be "arbitrage bonds" as defined in the Internal Revenue Code of 1986, as amended.

The Twelfth Supplemental Ordinance authorizes the City to accumulate from Project Revenues over a period of not more than six Fiscal Years from the date or dates of issuance and delivery of the Bonds issued thereunder the amount required to be deposited in the Sinking Fund Reserve in respect thereof.

APPENDIX C

CITY OF PHILADELPHIA
GENERAL INFORMATION

General

The Twelfth Series A Bonds are revenue bonds payable solely from moneys derived, directly or indirectly, from the Project Revenues of the Philadelphia Gas Works. The Twelfth Series A Bonds do not pledge the credit or the taxing power of the City of Philadelphia or create any debt or charge against its tax or general revenues or create any lien against any City property other than the Project Revenues of PGW, as is more fully described elsewhere in this Official Statement. The information below regarding the City is provided in summary form for general information purposes. More complete information regarding the City and its finances can be obtained by writing the City of Philadelphia, Office of the Director of Finance, 1420 Municipal Services Building, Philadelphia, PA 19102.

The City

The City of Philadelphia was founded in 1682. In 1854, the City and County of Philadelphia were merged. In 1953 the City assumed all powers and duties of County government. Today the boundaries of the City include an area of approximately 129 square miles with a resident population of approximately 1.6 million people.

There are two principal governmental entities in Philadelphia: the City, which performs both the ordinary municipal functions and traditional county functions, and the School District of Philadelphia, Pennsylvania ("School District") which has boundaries coextensive with the City and has responsibility for all public education activities. The City is governed largely under the 1951 Philadelphia Home Rule Charter (the "Charter" or "Home Rule Charter"), which provides for the election, organization, powers and duties of the legislative branch ("City Council"); the powers and duties of the executive and administrative branch; and fiscal and budgetary matters, contracts, procurement, property and records.

Elected and Appointed Officials

The Mayor is elected for a term of four years and is eligible to succeed himself for one consecutive term. Each of the seventeen members of City Council is also elected for a four-year term which runs concurrently with that of the Mayor. There is no limitation as to the number of terms which may be served by members of City Council. Of the seventeen members of City Council, ten are elected from districts and seven at large, with a minimum of two of the seven representing other than the majority party. Also elected at the same time are the Clerk of Quarter Sessions, the Sheriff, and members of the Board of Elections, who are officially known as City Commissioners. Elected at the mid-point of the term of these officials are the District Attorney and the City Controller. In performance of his Home Rule Charter-mandated pre-audit functions, the City Controller, who has a staff of approximately 150 persons, reviews each transaction involving a disbursement of City moneys. The City Controller also reviews competitive bidding, which is required for all City purchases in excess of \$2,000 except in the

purchase of unique articles or services and items which for any other reason cannot be obtained in the open market.

The principal officers of the City's government appointed by the Mayor are the Managing Director, the Director of Finance, the City Solicitor and the City Representative and Director of Commerce. These officials and the Housing Director currently constitute the Mayor's Cabinet which, together with the Mayor, constitutes the major policy making group in the City's government.

The Office of the Managing Director of the City is responsible for supervising the departments and agencies of the City which render the various municipal services provided by the City. The current Managing Director, James Stanley White, has tendered his resignation effective April 1, 1990. The City Representative and Director of Commerce is charged with giving wide publicity to any items reflecting the activities and accomplishments of the City's inhabitants, commerce and industry and with promoting and developing commerce and industry. The City Solicitor acts as legal advisor to the Mayor, City Council and all the agencies of the City government and heads the Law Department, established by the Charter. The Law Department is responsible for all of the City's civil litigation, the preparation and approval as to form of all of the City's contracts and bonds, and for assisting City Council, the Mayor and City agencies in the preparation of ordinances for introduction to City Council. The Director of Housing is responsible for developing an overall City housing plan and for supervising the housing programs operated by the City or by delegated agencies funded by and under contract with the City.

Under the Home Rule Charter, substantially all of the financial functions of the City are placed under the Office of the Director of Finance. The Director of Finance, who is the chief financial, accounting and budget officer and is selected from three names submitted to the Mayor by a Finance Panel, is responsible for development of financial policy, development of the annual operating budget, assistance in the development of the capital budget and the capital program, supervision of the execution of the operating budget and the financial aspects of the capital budget, development and administration of the accounting system, collection of revenues through the Department of Revenue, supervision of purchasing and some aspects of property management through the Procurement Department, oversight of pension administration as Chairman of the Board of Pensions and Retirement, development and execution of the City's program of temporary and long-term borrowing, direction of the treasury functions handled by the City Treasurer appointed by her and general coordination of other financial matters.

The Board of Revision of Taxes, which administers the assessment of real and personal property taxes, is appointed by the Board of Judges of the Court of Common Pleas of Philadelphia.

Governmental Services

Municipal services provided by the City include police and fire protection; health care; construction and maintenance of streets, highways and bridges; trash collection and disposal; provision for recreational programs and facilities; water and sewer systems; acquisition and maintenance of City real and personal property, including vehicles; maintenance of building codes and regulation of licenses and permits; maintenance of records; collection of taxes and revenues; purchase of supplies and equipment; construction and maintenance of airport facilities; and maintenance of the prison system. The City also owns the Philadelphia Gas Works ("Gas Works"), the sole gas distribution utility within the geographical limits of the City. Funding for most public assistance benefits or payments is provided by the Commonwealth and the Federal government. The City shares responsibility with the Commonwealth for costs of the Care of Dependent and Neglected Children Program and the Mental Health Program.

Local and Governmental Agencies

There are a number of significant governmental authorities and quasi-governmental nonprofit corporations which provide services within the City. These include the Philadelphia Parking Authority, the Philadelphia Municipal Authority, the Philadelphia Redevelopment Authority, the Philadelphia Housing Development Corporation, the Hospitals and Higher Education Facilities Authority of Philadelphia, the Philadelphia Industrial Development Corporation and the Philadelphia Authority for Industrial Development.

The Southeastern Pennsylvania Transportation Authority ("SEPTA"), which is supported by transit revenues and Federal, Commonwealth and local funds, is responsible for developing and operating a comprehensive and coordinated public transportation system in the southeastern Pennsylvania region. As of January 1, 1983, SEPTA's Regional High Speed Line Division assumed direct operations of the commuter rail system formerly operated under contract by Conrail.

DISCUSSION BY THE OFFICE OF THE DIRECTOR OF FINANCE OF CERTAIN FINANCIAL INFORMATION

Independent Audit and Opinion of the City Controller

The Office of the City Controller has examined and expressed opinions on financial statements of the various funds of the City contained in the Comprehensive Annual Financial Reports of the Director of Finance for all prior Fiscal Years of the City.

The City Controller has not participated in the preparation of this Appendix nor in the preparation of the budget estimates and

projections set forth in the various tables contained in this Appendix or otherwise set forth herein. Consequently, the City Controller expresses no opinion with respect to any of the data contained in this Appendix. The financial statements, tables, statistics and other information contained in this Appendix have been prepared by the Office of the Director of Finance and can be reconciled to the financial statements in the Comprehensive Annual Financial Reports of the Director of Finance.

Certificate of Conformance in Financial Reporting

The Government Finance Officers Association of the United States and Canada ("GFOA") awarded a Certificate of Conformance in Financial Reporting, now called the Certificate of Achievement in Financial Reporting ("Certificate"), to the City for its Comprehensive Annual Financial Report for each of the Fiscal Years ended June 30, 1980 through June 30, 1988.

In order to be awarded a Certificate, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards and must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate is valid for a period of one year only. The GFOA has also awarded the City an award for Distinguished Budget Presentation for the Fiscal Years 1986-1989, as well as an award for excellence in financial management in 1989.

Basis of Accounting

The City's basis of accounting for annual reporting purposes is as follows:

(A) Governmental Funds (which include the General Fund, County Liquid Fuels Tax Fund, Grants Revenue Fund, Community Development Fund, Comprehensive Employment and Training Fund, Hotel Room Rental Tax Fund, Capital Improvement Funds and Debt Service Funds) and Expendable Trust and Agency Funds are accounted for on the modified accrual basis. Under this method, revenues are recognized in the accounting period in which they become both available and measurable. License and permit fees, charges for services, fines and forfeits and miscellaneous revenues are recorded as revenues when received in cash because they are generally not measurable until actually received. General property taxes, self-assessed taxes and investment earnings are recorded when earned as they are measurable and available. Expenditures are recognized in the accounting period in which the fund liability is incurred, if measurable, except expenditures for debt service, prepaid expenditures, and other long term obligations which are recognized when paid.

(B) Proprietary Funds (which include the Water Fund and Aviation Fund) and Pension Trust Funds are accounted for on the

accrual basis, in which revenues are recognized in the accounting period in which they are earned and expenses are recognized at the time they are incurred.

During Fiscal Year 1979, financial statements for the Proprietary Funds were changed to conform to the description above in order to bring their presentation into accord with generally accepted accounting principles as recommended by the National Council on Governmental Accounting as outlined in Statement No. 1. However, the Proprietary Funds are shown in the tables herein on the modified accrual basis for two reasons: (i) because the City's Operating Budget is prepared on a modified accrual basis; and (ii) in order to achieve a consistent presentation of the City's finances as a whole.

① Budget Adoption Procedure

At least thirty days before the end of each fiscal year, as required by the Home Rule Charter, the Council must adopt by ordinance an operating budget, a capital budget for the ensuing fiscal year and a capital program for the six ensuing years. Within ten days after the adoption of each of such ordinances and its receipt by the Mayor, he must approve or disapprove such ordinance or the ordinance becomes effective.

The operating budget for the next fiscal year is prepared by the Mayor in proposed form and is required by the Home Rule Charter to be submitted at least ninety days before the end of the fiscal year to the Council for adoption. The budget as adopted must be balanced and provide for discharging any estimated deficit or using any estimated surplus carried over from the current fiscal year and make appropriations for all items to be met from City revenues. The Mayor's budgetary estimates of revenues for the ensuing fiscal year and of surplus or deficit, if any, for the current fiscal year may not be altered by the Council. Not later than the passage of the operating budget ordinance, the Council must enact such revenues measures as will, in the opinion of the Mayor, yield sufficient revenues to balance the budget.

The capital program is prepared annually by the City Planning Commission to show the capital expenditures planned for each of the six ensuing fiscal years, including the estimated total costs of each project and the sources of funding (local, state, Federal and private) estimated to be required to finance each project. The capital program is reviewed by the Mayor and transmitted to the Council for adoption with his recommendation thereon.

The capital budget ordinance, authorizing in detail the capital expenditures to be made or incurred in the ensuing fiscal year from Council controlled or appropriated funds, is adopted by the Council concurrently with the capital program. The capital budget must be in full conformity with that part of the capital program applicable to the fiscal year which it covers.

SUMMARIES OF FINANCIAL OPERATIONS

Tables 1 and 2 summarize the operation of the City's General Fund and its Principal Operating Funds (Debt Related), including the General Fund, for the Fiscal Years 1983-1989, the adopted budget and the estimated operations of such Funds for Fiscal Year 1990.

FY 1989 Operating Results

The City's Fiscal Year 1989 General Fund audited financial statements reflect a June 30, 1989 deficit of \$75.2 million. The FY 1989 deficit is a result of both revenue and obligation factors.

Net General Fund revenues in FY 1989 were \$15.9 million (0.8%) less than the original adopted budget. This variance was a function of:

Local Taxes

Local tax revenues were \$37 million lower than projected in the original budget for FY 1989. Real estate tax receipts were \$12.5 million lower than anticipated reflecting a continuing decline in FY 1989 of the Common Level Ratio (a statewide standard ratio of assessed to market value); and a shortfall of \$21.1 million in realty transfer taxes reflecting: (a) windfall tax yield in June of 1988 in advance of the July 1, 1988 rate increase followed by a period of lower real estate activity after the July 1, 1988 rate increase, and (b) an overall softening in real estate values, particularly residential real estate. Variances in other tax revenues totaled \$3.4 million.

Locally Generated Non-Tax Revenue

The net variance against original budget was a positive \$6.5 million, consisting of a \$16 million gain from the sale of City Hall Annex (originally contemplated for FY 1988); a \$7.4 million shortfall in parking and parking amnesty revenue; a \$5.1 million shortfall in fees for sliding scale contributions for homeless shelter and housing services; and other miscellaneous net positive adjustments of \$3.4 million.

Revenue from Other Governments

There was a net increase against the original budget of \$11.6 million in revenue from other governments, reflecting additional state aid for children and youth Act 148 programs of \$8.8 million; additional state awards for pension costs under Act 205 of \$3 million; payments by the Philadelphia Port Corporation of \$1.5 million; a shortfall in state homeless aid

of \$6.4 million; an increase in Utility Tax Refund payments of \$1.5 million; and other net positive adjustments totaling \$3.2 million.

Revenue from Other Funds

A net increase of \$3 million against the original budget resulted from higher than forecast reimbursements from the Water Fund to the General Fund in FY 1989.

Net General Fund obligations in FY 1989 exceeded the original adopted budget by \$67.4 million, or 3.6%. The major variances included:

Core Courts

The failure of the Commonwealth to appropriate funds pursuant to a Supreme Court order requiring unified state funding for county courts combined with the local courts overspending against the original budget resulted in a \$60 million negative variance.

Judgments and Claims

The City settled long-outstanding litigation with the D.C. 33 labor union Employee Health and Welfare Fund, and an unanticipated indemnity payment of \$15 million in FY 1989 resulted.

Employee Compensation

Negotiated one-time nonrecurring bonuses for civilians and base wage increases for uniformed employees, awarded through interest arbitration in combination with arbitrator-awarded health and welfare benefits for uniformed employees which increased General Fund obligations by approximately \$45 million in FY 1989. These additional costs were offset by a work force reduction of over 2000 employees achieved with an early retirement program and an incentive retirement program.

Additional reductions and cancellation of prior year and current Year encumbrances allowed the City to limit the net negative variance of General Fund obligations to \$67.4 million in FY 1989.

FY 1990 Current Outlook and Financial Strategy

The Fiscal Year 1990 budget reflected the view that prior to the consideration of any additional local taxes, the City should make further expenditure reductions, reorder basic municipal priorities, pursue efforts to hold the state accountable for a fair share of

mandated human services costs, and support local tax reform in order to distribute local tax burdens more equitably.

Several uncertainties faced the City as FY 1990 began: potent weakening of the local economy, continued escalation of mandated human services programs, and the potential for adverse decisions in pending litigation. The current estimated net impact of these uncertainties results in a projected Fiscal Year 1990 end deficit of \$61.8 million. As shown in footnote (c) to Table 1, there is a potential for a deficit of \$86.8 million if the contingent liability for a negative outcome of realty transfer tax litigation becomes recognizable in Fiscal Year 1990. See "LITIGATION AND OTHER MATTERS" in this Appendix C.

The estimated \$61.8 million cumulative ending General Fund deficit for FY 1990 is a net estimate resulting from \$83.9 million in projected favorable variances, \$147.9 million in projected unfavorable variances and a beginning fund deficit that was \$70.1 million lower than originally stated in the FY 1990 General Fund budget adopted in May, 1989. Favorable revenue factors are estimated at \$12.1 million and favorable obligation factors are estimated at \$71.8 million. Unfavorable revenue variances total approximately \$77.8 million and unfavorable obligation variances are now estimated at \$70.1 million over the originally adopted FY 1990 budget.

The following describes the highlights of the current FY 1990 forecast:

Revenue

As shown in Table 1, total General Fund revenue for FY 1990 is currently projected at \$65.7 million less than the original budget. Of this total, \$30.5 million represents State Pension Fund contributions that were anticipated, received, and deposited directly to the credit of the City's Pension Fund rather than passed through the City's General Fund as had occurred in prior years. There is no adverse financial impact from this change in deposit practice. The remaining shortfall reflects a slight weakening in the local economy resulting in a wage and earnings tax revenue shortfall of \$2.1 million. This same weakening is also the cause of realty transfer tax receipts being estimated at \$7.4 million less than budgeted. The original FY 1990 budget assumed a bond refunding in FY 1990 which would have provided \$4.5 million to the General Fund; that refunding is not presently considered feasible. Other shortfalls of \$12.1 million are projected at this time, due primarily to lower parking and moving violation collections and decreased Philadelphia Nurseries Home reimbursements. These total unfavorable adjustments of \$12.1 million are partially offset by \$12.1 million in favorable adjustments due primarily to increased child welfare revenue, payment of Port arrearages and increased state training reimbursements for police.

Obligations

As shown in Table 1, total obligations in FY 1990 are projected to be a net \$1.7 million less than those provided for in the originally adopted budget.

Four categories of obligations adversely impact the FY 1990 budget: litigation and judgments, non-executive branch overspending, caseload growth in state mandated human services programs, and reductions in planned executive branch management savings caused by increased prison caseloads, homicide cases and other demand factors.

(1) Litigation and Judgments

An excess of \$21.5 million over budget in litigation judgments and/or settlements is currently estimated. \$10.9 million of this total represents additional uniformed employee health and welfare benefits. The Fraternal Order of Police sued to prevent competitive bidding of uniformed health and welfare benefits. The City had proceeded with selection of an alternate vendor for health and welfare plans but was prevented from installing the alternative plans as a result of the suit.

The FY 1990 impact of the D.C. 33 settlement concerning prior year health and welfare claims was \$5.0 million and was not known or anticipated at the time of budget adoption.

A \$3.5 million arbitrator's award was rendered in favor of a contractor originally involved in the MOVE reconstruction project. See "LITIGATION AND OTHER MATTERS" in this Appendix C. That award also had not been anticipated at the time of budget adoption.

A \$2.1 million City loan guarantee for a commercial development in North Philadelphia (Strawberry Square) was executed in 1984. The rental payments were lower than originally anticipated and were insufficient to cover the FY 1990 debt service payment and, as a result, the loan guarantee was drawn on. Legislation to approve a debt restructuring and new outside lender has been approved and the City is likely to be repaid. However, the \$2.1 million is still being reflected as an FY 1990 expenditure, since there is no assurance that the new loan will close in the current fiscal year.

(2) Non-executive Branch Overspending

A total of \$22.1 million in spending over budget is now forecast for non-executive branch agencies. \$15.7 million of this total reflects the impact of a mandamus action with respect to court funding. See "LITIGATION AND OTHER MATTERS" in this Appendix C.

\$5.0 million reflects the additional amount over the City's original appropriation which it may contribute as part of the City's share of SEPTA's budget.

The remaining \$1.4 million is comprised of \$900,000 for indigent defense costs and \$500,000 for Philadelphia Zoo's annual water bill liability.

(3) State-Mandated Human Services Program Caseloads

The FY 1990 budget assumed an average 10% growth in Act 148 state-mandated children and youth services, including foster care, family services, care of medically needy infants, delinquent youth, and abused and neglected children. Actual caseload growth is substantially in excess of 10%. The additional state overmatch that would be required from the City to meet the increased caseload is now estimated at a minimum of \$8.6 million.

Prison overcrowding persists with concurrent escalation of overtime, labor, and offender custody costs. \$6.7 million in prison overspending is currently forecast.

(4) Executive Branch Management Savings

More than \$16 million in projected management savings were budgeted for FY 1990. The majority of those savings has been realized. Shortfalls have occurred, however, because of increased police overtime and failure to realize the anticipated net additional revenue from expansion of the Philadelphia Nursing Home. A total shortfall in savings of \$8.6 million is currently forecast.

The current estimate also contains a contingency for overspending of approximately \$2.6 million in order to cover all other potential program overspending and savings shortfalls that could occur during the balance of the year.

Positive Factors

While the above-mentioned deposit of \$30.5 million of State funds directly to the credit of the City's Pension Fund will give rise to lower stated General Fund revenues, it will also result in an equal and offsetting savings in General Fund appropriations. Other favorable developments affecting the General Fund include:

(1) Debt Service Savings

Total savings of \$13.0 million are currently projected in FY 1990 for debt service. Of this, \$9.0 million is associated

with the City's successful short-term note sale. The City sold non-credit-enhanced notes at competitive sale for the first time in more than ten years. The savings in issuance costs, smaller sizing and lower than expected interest rates caused overall costs to be \$9.0 million below the original budget.

The City also delayed a planned general obligation bond issue until early 1990. The delay will result in the deferral of debt service payments originally estimated at \$4.0 million until FY 1991.

(2) Work Force and Other Savings

The value of the work force reductions in FY 1989 exceeded the original FY 1990 budget estimates. In combination with anticipated FY 1990 encumbrances that could lapse unexpended by year-end, a total of \$16.0 million in savings is anticipated against original budget.

(3) Lower FY 1989 Deficit

The FY 1989 ending fund balance deficit was \$2.2 million lower than originally projected at the time the 1990 budget was adopted. Because the City's Charter requires that any deficit be fully discharged in the subsequent year's budget, the adopted FY 1990 budget contains an extra \$2.2 million, which is available to offset FY 1990 obligations.

(4) Additional Revenues

The City currently anticipates receiving \$12.1 million of additional revenues, including state aid in excess of the adopted budget, payments with respect to the Philadelphia Port and additional reimbursement for police training from the Commonwealth.

(5) Lease Payment Capitalization

The original FY 1990 budget included appropriations for lease payments to the Philadelphia Municipal Authority with respect to the Criminal Justice Center. Interest earnings on construction funds accumulated during a project delay so that \$12.3 million in payments did not have to be made by the City, thus reducing FY 1990 General Fund requirements.

Anticipated Course of Action

The City is taking measures to minimize the projected FY 1990 General Fund deficit, now estimated to be \$61.8 million to \$86.8 million.

On December 28, 1989, the City released its Midyear Financial Report and Five Year Outlook (the "1989 Financial Strategy"). The 1989 Financial Strategy discussed the factors causing the projected Fiscal Year 1990 General Fund deficit and which, if left uncorrected, would lead to increasingly larger deficits in subsequent fiscal years. The 1989 Financial Strategy outlined the elements of a permanent solution which included the following:

- (1) additional base state aid must be provided;
- (2) cost containment--particularly of employee benefits--must continue to generate real City cost savings in future years;
- (3) SEPTA and the Philadelphia School District must have stable and predictable streams of revenue; SEPTA must have a dedicated revenue source; and
- (4) the local tax structure must be revised so that the additional local taxes that are required can be imposed as equitably and with as little adverse impact on the economy and quality of life as possible.

Because most of the options described above require combination of state and local legislative action and, in the case of (2) above, require in part renegotiation or revision of certain collective bargaining agreements, the immediate implementation of these options is not within the City's sole control. On January 30, 1990, the Mayor announced the formation of a Fiscal Advisory Committee to examine the current fiscal position of the City and to recommend a viable course of action to, among other things, address the Fiscal Year 1990 estimated deficit. In addition, on February 7, 1990 the Mayor executed Executive Order No. 3-90, which imposed spending controls on the City. The spending controls included (1) the imposition of strict hiring criteria for all currently authorized but unfilled positions, excepting certain uniformed police, fire and correctional personnel; (2) a freeze on certain unobligated balances so that any additional expenditures and encumbrances would be subject to prior authorization of the Director of Finance; and (3) prior review and approval in writing of the procurement of goods and services.

It is not anticipated that these spending controls will eliminate the FY 1990 deficit by June 30, 1990. In such case, the City Charter requires that the City Council adopt a balanced operating budget for FY 1991, which includes revenues sufficient to discharge the FY 1990 deficit.

The 1989 Financial Strategy also outlined four budget balance options which the City must undertake, either separately or in combination, because the permanent solutions cited above cannot immediately be implemented:

1. Further expenditure cuts affecting the level of municipal services.
2. Sale and disposition of certain municipal assets, as a one-time non-recurring source of supplemental revenues.
3. Increases in taxes, fees and fines imposed by the City.
4. Interim borrowing to cover operating gaps in the short-term and to smooth the fiscal and economic consequences of adopting other long-term structural changes.

It is anticipated that the Mayor's FY 1991 budget proposal, to be announced on March 29, 1990, will draw upon one or more of the options enumerated above to satisfy the City Charter budget balancing requirements. See "Budget Adoption Procedure" in this Appendix C.

TABLE 2
CITY OF PHILADELPHIA
PRINCIPAL OPERATING FUNDS (DEBT RELATED)
SUMMARY OF OPERATIONS
(Modified Accrual Basis)
(Amounts in Millions of Dollars)

	Actual						Current (Adopted) 1990 ⁽¹⁾	Estimate 1990 ^(d)	
	1983	1984	1985	1986	1987	1988			1989
Cumulative Fund Balance (Deficit) Beginning of Year	\$ 29.2	\$ 18.8	\$ 79.7	\$ 67.5	\$ 50.4	\$ 39.8	\$ 18.0	\$ (47.6)	\$ (47.6)
REVENUES									
General Funds (a)	1,287.1	1,439.6	1,535.6	1,651.7	1,731.3	1,830.0	1,945.9	2,082.1	2,016.4
Water Fund (b)	211.7	201.2	236.2	233.1	254.4	282.6	273.2	282.8	282.8
Aviation Fund (c)	51.6	54.6	56.4	60.2	61.2	70.2	72.3	106.2	106.2
Other Operating Funds	19.7	17.4	18.3	18.4	18.2	18.7	19.4	65.1	65.1
TOTAL REVENUE	<u>1,570.1</u>	<u>1,712.8</u>	<u>1,846.5</u>	<u>1,963.4</u>	<u>2,065.1</u>	<u>2,201.5</u>	<u>2,310.8</u>	<u>2,536.2</u>	<u>2,470.5</u>
OBLIGATIONS/ APPROPRIATIONS									
Personal Services	648.9	706.0	730.7	789.2	833.4	885.3	905.8	903.7	921.9
Purchase of Supplies	352.9	376.5	468.6	500.5	545.3	605.9	699.9	748.2	755.4
Materials, Supplies and Equipment	70.3	70.1	78.3	83.9	84.6	83.5	79.6	98.2	96.5
Employee Benefits	240.4	259.0	280.6	293.1	315.9	343.4	355.4	390.0	366.5
Indemnities, Taxes and Grants	60.6	35.4	43.6	55.4	65.8	98.4	66.5	48.1	56.6
Debt Service	199.7	214.1	238.8	236.9	217.2	214.6	263.8	291.1	280.2
Other	-	-	0.4	0.1	-	-	-	5.0	5.0
Payments to Other Funds	31.2	26.3	36.1	37.2	33.5	34.5	39.6	33.1	33.6
TOTAL OBLIGATIONS/ APPROPRIATIONS	<u>1,604.0</u>	<u>1,687.4</u>	<u>1,877.1</u>	<u>1,996.3</u>	<u>2,095.7</u>	<u>2,265.6</u>	<u>2,410.6</u>	<u>2,517.4</u>	<u>2,515.7</u>
Operating Surplus (Deficit) for the year	(33.9)	25.4	(30.6)	(32.9)	(30.6)	(64.1)	(99.8)	18.8	(45.2)
Adjustments to Beginning Fund Balance	23.6	35.5	18.4	15.8	20.1	42.3	34.2	23.8	23.8
Adjustments to Ending Fund Balance	-	-	-	-	-	-	-	-	-
Cumulative Fund Balance (Deficit) End of Year	\$ 18.8	\$ 79.7	\$ 67.5	\$ 50.4	\$ 39.8	\$ 18.0	\$ (47.6)	\$ 1.0	\$ (69.0)

NOTES:

- (a) See Table 1 for details.
- (b) Water and Sewer Rates were increased July 1, 1983 and January 10, 1986. Revenues of the Water Fund are not legally available for payment of other obligations of the City until, on an annual basis, all revenue bond debt service requirements and covenants relating to those bonds have been satisfied, and then only to the extent of \$4,994,000 per year provided certain further conditions are satisfied. The City has determined that only \$4,138,000 per year shall be available for transfers from the Water Fund to the General Fund provided certain other conditions are met.
- (c) Airport revenues are not available for other City purposes.
- (d) Estimate as of February, 1990.

Figures may not add due to rounding.

TABLE 1

CITY OF PHILADELPHIA
GENERAL FUND
SUMMARY OF OPERATIONS
(Modified Accrual Basis)
(Amounts in Millions of Dollars)

	1983	1984	1985	1986	1987	1988	1989	Current (Adopted) 1990	Estimate 1990(d)	Increase/ (Decrease)
Cumulative Fund Balance (Deficit) Beginning of Year	\$ 20.9	\$ (17.8)	\$ 25.5	\$ 11.5	\$ 4.7	\$ 12.4	\$ (32.1)	\$ (77.4)	\$ (75.2)	\$ 2.2
REVENUES										
Real and Personal Property Taxes	233.4	238.3	228.3	241.2	261.3	275.2	286.7	322.7	322.7	-
Wage and Earnings Tax	575.2	671.2	712.5	753.3	803.6	856.7	892.3	961.0	937.3	(23.7)
Net Profits Tax	31.3	38.9	33.1	25.7	31.3	31.6	21.7	23.4	20.4	(3.0)
Mercantile License Tax/ Business Privilege Tax (a)	75.6	86.8	107.1	135.2	156.6	165.7	201.7	204.6	209.1	4.5
Other Taxes	29.7	40.9	48.9	60.0	73.8	86.7	89.0	106.9	98.6	(8.3)
Total Taxes	945.2	1,076.1	1,129.9	1,215.4	1,326.6	1,415.9	1,491.4	1,618.6	1,588.1	(30.5)
Locally Generated										
Non-Tax Revenue	77.6	92.0	102.5	106.8	100.4	105.9	123.4	130.5	116.6	(13.9)
Revenue from Other Governments	248.9	257.6	286.6	315.5	286.9	288.7	310.8	311.1	292.1	(19.0)
Receipts from Other City Funds	15.4	13.9	16.6	14.0	17.4	19.5	20.2	21.9	19.6	(2.3)
TOTAL REVENUE	1,287.1	1,439.6	1,535.6	1,651.7	1,731.3	1,830.0	1,945.9	2,082.1	2,016.4	(65.7)
OBLIGATIONS/APPROPRIATIONS										
Personal Services	589.9	642.7	663.8	712.6	753.1	797.0	810.7	798.5	816.7	18.2
Purchase of Services	302.4	331.4	411.9	435.5	472.0	533.1	623.9	614.1	621.3	7.2
Materials, Supplies and Equipment	48.0	49.2	51.8	50.9	48.4	51.7	51.3	57.6	55.9	(1.7)
Employee Benefits	222.8	240.7	258.7	269.2	286.4	313.4	321.3	349.5	326.0	(23.5)
Indemnities, Taxes and Grants (b)	59.1	33.9	42.0	54.6	63.7	93.0	59.9	43.5	52.0	8.5
Debt Service	112.2	113.7	121.6	120.9	98.8	93.7	129.3	137.5	126.6	(10.9)
Other	-	-	0.4	0.1	-	-	-	4.0	4.0	-
Payments to Other Funds	7.9	10.4	11.2	17.5	11.6	12.5	14.5	13.0	13.5	0.5
TOTAL OBLIGATIONS/ APPROPRIATIONS	1,342.3	1,421.9	1,561.4	1,661.3	1,734.0	1,894.4	2,010.9	2,017.7	2,016.0	(1.7)
Operating Surplus (Deficit) for the Year	(55.2)	17.7	(25.8)	(9.6)	(2.7)	(64.4)	(65.0)	64.4	.4	(64.0)
Adjustments to Beginning Fund Balance	16.5	25.6	11.8	2.8	10.4	19.9	21.9	13.0	13.0	-
Adjustments to Ending Fund Balance	-	-	-	-	-	-	-	-	-	-
Cumulative Fund Balance (Deficit) End of Year	\$ (17.8)	\$ 25.5	\$ 11.5	\$ 4.7	\$ 12.4	\$ (32.1)	\$ (75.2)	\$ 0.0	\$ (61.8)(c)	\$ (61.8)

NOTES:

- (a) Ordinance enacted by the City of May 31, 1984, repealed the Mercantile License Tax and imposed a new Business Privilege Tax beginning July 1, 1984, on persons engaging in business within the City. (See "Revenues and Expenditures of the City - Business Privilege Tax" for explanation and tax rates.)
- (b) Includes the City's contributions to the School District in Fiscal Years 1983 (\$22.6 million), 1984 (\$6.2 million), 1985 (\$2.2 million), and 1988 (\$8.0 million). There were no contributions in Fiscal Years 1986, 1987, 1989 or 1990.
- (c) This number does not reflect a possible liability of \$25.0 million that could result from an adverse court decision regarding the City's realty transfer tax litigation. (See "LITIGATION AND OTHER MATTERS" in this Appendix C.)
- (d) Estimate as of February, 1990.

Figures may not add due to rounding.

THE ECONOMY

The Philadelphia economy is composed of a diversity of industries. Virtually all classes of industrial and commercial business are represented. Philadelphia is a major business and personal service center with strengths in insurance, law, finance, health, and education. When the Industrial Revolution transformed America, Philadelphia earned the title of "Workshop of the World". Now the service industry is changing the way America works and, once again, Philadelphia is responding with substantial growth in the service sector.

The cost of living in Philadelphia is relatively moderate compared to other major metropolitan areas. Along with a relatively low cost of living, Philadelphia also offers a generally lower cost for business operations. Philadelphia as one of the country's education centers offers the business community a large, diverse and industrious labor pool. Robust office rental activity in Center City has resulted in rapid appreciation in rental rates. Between 1984 and the end of 1987, average office rental rates per square foot increased by approximately \$1.85 (6.5 percent) for prime new space in Center City. Despite these increases in the rental cost per square foot, office rental rates in Philadelphia remained competitive in comparison to most other major cities. The table below compares the rental costs available in Philadelphia's central business district to average rates recorded in the central business districts of other major cities.

TABLE 3

Average Cost Per Square Foot of Office Space
in Selected Cities

<u>city</u>	<u>New CBD Space</u>	<u>City</u>	<u>Existing CBD Space</u>
Pittsburgh	\$27.50	Pittsburgh	\$18.59
Hartford	29.00	PHILADELPHIA	22.10
PHILADELPHIA	30.10	Hartford	25.00
Los Angeles	34.00	Chicago	28.95
Washington	34.00	Washington, DC	32.00
Chicago	38.08	Los Angeles	34.00
Boston	42.00	Boston	35.00
New York	52.00	New York	40.00

Notes: Rental costs include base rent plus operating costs. CBD means central business district.

Source: International Office Market Report - Spring/Summer 1988

As shown in the table, Philadelphia was the third most competitive among eight major cities for new office space and the second most competitive for existing space.

Because of strong office development activity in recent years, occupancy rates (the percent of total available space that is either occupied or committed through pre-leasing arrangements), have recently been decreasing. Set forth below is a table comparing office vacancy rates in major U.S. cities, including Philadelphia:

Table 4

Office Vacancy Rates: Top Ten Cities

<u>City</u>	<u>Vacancy Rate</u>
New York City	9.7%
Boston	12.6%
San Francisco	15.0%
Baltimore	15.8%
PHILADELPHIA	16.5%
Chicago	17.0%
Los Angeles	19.0%
Dallas	29.1%
Houston	31.8%
Detroit	N/A

Source: International Office Market Report, Spring/Summer 1988

Employment

Since 1983, overall employment has expanded. Philadelphia's 1988 non-farm payroll employment represented approximately 33.5 percent of the metropolitan area's (Philadelphia PMSA) total employment. The employment changes within the City principally have been due to declines in the manufacturing sector and the relatively stronger performance of the service industries. The Philadelphia unemployment rate has remained at or below the national average since 1985.

TABLE 5
Labor Force Data

	<u>1980</u>	<u>1982</u>	<u>1984</u>	<u>1986</u>	<u>1988</u>
Philadelphia (000)**					
Labor Force	694.7	692.9	700.6	728.6	747.6
Employment	634.5	622.1	636.5	678.6	702.7
Unemployment	60.3	70.8	64.0	50.0	44.9
Unemployment Rate (%)	8.7	10.2	9.1	6.9	6.0
Philadelphia, PA - NJ PMSA (000)**					
Labor Force	2,173.5	2,207.4	2,253.9	2,364.9	2,465.1
Employment	2,025.9	2,018.3	2,101.1	2,241.8	2,355.4
Unemployment	147.6	189.2	152.7	123.2	109.7
Unemployment Rate (%)	6.8	8.6	6.8	5.2	4.4
United States (000,000)					
Labor Force	107.0	110.3	113.5	117.8	122.0
Employment	99.3	100.4	105.0	109.6	115.2
Unemployment	7.7	8.3	8.5	8.2	6.9
Unemployment Rate (%)	7.2	7.6	7.5	7.0	5.6

** Re-benchmarked Figures

Source: Commonwealth of Pennsylvania Department of Labor and Industry, Office of Employment Security (Research and Statistics) and Wharton Econometrics

TABLE 6

City of Philadelphia Non-Farm Payroll Employment

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
Total Employment	752.4	755.5	762.6	774.7	777.8
Manufacturing	109.2	103.2	100.0	96.0	94.0
Non-Manufacturing	643.8	652.3	662.6	678.7	683.8
Construction	17.2	17.5	18.5	17.7	17.8
Transportation/Public Facilities	46.4	45.2	44.8	45.0	46.0
Trade	145.0	145.7	148.3	148.6	151.3
Finance/Insurance/Real Estate	66.4	66.6	69.4	73.3	74.1
Services	228.5	235.9	242.3	250.8	247.6
Government	140.3	141.5	139.2	143.3	147.0

Amounts in thousands

Source: Commonwealth of Pennsylvania Department of Labor and Industry,
Office of Employment Security (Research and Statistics)

Income

Over the past ten years, real per-capita income has generally outpaced the urban cost of living index, suggesting that on average, the newly created service jobs have generated positive real income growth for Philadelphia wage earners. The following table shows comparable data relating to personal and disposable income for the City, the Philadelphia PMSA, and the United States.

TABLE 7

Income Statistics

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Personal Income (Billions\$)				
Philadelphia	18.6	19.6	20.5	23.0
Philadelphia PMSA.	65.5	70.1	74.5	N/A
United States.	3,012.1	3,314.5	3,485.7	3,746.2
Per Capita Personal Income				
Philadelphia	11,247.3	11,928.9	12,473.1	N/A
Philadelphia PMSA.	13,736.3	14,652.4	15,438.2	N/A
United States.	12,683.0	13,582.0	14,381.3	N/A
Disposable Personal Income (Billions\$)				
Philadelphia	15.5	16.4	17.4	18.0
Philadelphia PMSA.	56.5	60.3	64.2	N/A
United States.	2,576.8	2,828.0	2,971.6	3,181.5
Disposable Personal Income Per Capita (\$)				
Philadelphia	9,407.7	9,974.3	10,556.7	N/A
Philadelphia PMSA.	11,848.8	12,604.0	13,151.4	N/A
United States.	10,850.0	11,818.0	12,307.3	N/A

Source: Wharton Econometric Forecasting Associates

Retail Sales

Over the past decade, year to year retail sales performance has been somewhat unstable, but as a result of substantial decreases in durable goods sales, overall retail sales in Philadelphia dropped 20 percent between 1978 and 1987. In striking contrast, retail sales in the Philadelphia PMSA increased by 79 percent. This disparity suggests that the City lost a considerable amount of retail sales activity to the suburbs, where retail construction has been extremely strong. The following table compares retail sales activity between the City, the City's PMSA, and the United States.

TABLE 8

Retail Sales

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Philadelphia (Billions)					
Durable Goods	1.3	1.4	1.2	1.1	2.1
Non-Durable Goods	5.0	5.1	5.3	5.1	4.8
Total	6.3	6.5	6.5	6.2	6.9
Total Per Capita (\$)	3,799.1	3,938.6	3,956.2	3,770.9	N/A
Philadelphia PMSA (Billions)					
Durable Goods	7.1	8.4	9.8	11.9	11.1
Non-Durable Goods	14.8	16.0	17.3	18.0	18.5
Total	21.9	24.4	27.1	30.1	29.6
Total Per Capita (\$)	4,619.0	5,125.0	5,659.9	6,246.5	N/A
United States PMSA (Billions)					
Durable Goods	395.8	463.0	511.3	562.8	421.9
Non-Durable Goods	775.6	830.9	866.5	882.7	997.9
Total	1,171.4	1,293.9	1,377.9	1,445.5	1,419.8
Total Per Capita (\$)	4,997.0	5,448.0	5,740.0	5,983.1	N/A

Source: Wharton Econometric Forecasting Associates

Infrastructure

Transportation. The residents of the City and surrounding counties are served by a commuter system operated by the Southeastern Pennsylvania Transportation Authority ("SEPTA"). This system includes two subway lines, a network of buses and trolleys, and a commuter rail network joining Center City and other areas of the City to the surrounding counties. A direct high speed train line runs from southern New Jersey to Center City and is operated by the Delaware River Port Authority ("DRPA"). An important addition to the area's transportation system was the opening of the airport high speed line between Center City and the Philadelphia International Airport in 1985, which places the airport less than 25 minutes from the Center City business district and connects directly with the commuter rail network and the site of the planned Convention Center. More than 100 truck lines serve the Philadelphia Area. One major line has added eight terminals in less than seven years.

The opening of the commuter rail tunnel in 1984 provided a unified city transportation system linking the commuter rail system, the SEPTA bus, trolley, and subway lines and the high speed line to New Jersey, and the airport high speed line.

Amtrak, SEPTA, Conrail and CSX provide inter-city, commuter and freight rail services connecting Philadelphia to the other major cities and markets in the United States.

Airports. The City owns the Philadelphia International Airport located eight miles southwest of Center City and a smaller airport in Northeast Philadelphia. The International Airport is accessible by major highways within the City and from surrounding communities. Philadelphia International Airport is the principal air carrier airport serving the City of Philadelphia and the surrounding metropolitan area. Philadelphia is classified as a large air traffic hub by the Federal Aviation Administration (FAA).

The Airport is served by 11 scheduled major and national passenger airlines and 14 regional and commuter airlines. Passenger enplanements increased steadily and rapidly from 4.5 million in Fiscal Year 1983 to 7.8 million in Fiscal Year 1988, an average annual increase of approximately 10%.

In addition to increases in originating passenger traffic at the Airport, connecting passenger traffic increased significantly between Fiscal Year 1985 and Fiscal Year 1988. Much of the increase in connecting traffic is a result of the increased activity at Philadelphia by USAir, which began a significant expansion of its hubbing operations at the Airport in 1986. Midway Airlines has begun hub operations in Philadelphia, making it the second largest airline at the airport, and once again substantially increasing airport traffic.

The Airport is also served by 5 international airlines, 5 charter airlines, and 9 all-cargo airlines. Much of the charter activity is by commercial airline flights for the Military Airlift Command (MAC).

Because of the increased activity in international traffic, the City is in the process of completing an additional terminal which it intends to operate as a joint domestic/international facility.

In 1985, United Parcel Service, Inc. (UPS) selected the Airport as its site for construction of a major East Coast hub package handling and sorting facility. This facility began operations in September 1989. More recently, the U.S. Postal Service announced plans to construct a new 30-acre air mail facility at the Airport.

Port of Philadelphia. The City's port is the world's largest freshwater port and one of its highest tonnage ports. It is one of the distribution centers for northeastern United States imports and is utilized for the cruise business as well. Port facilities can be purchased or leased in the foreign trade zone for international business. General cargo facilities, including two modern container terminals, are publicly owned and privately operated. A recently completed auto import/export terminal further contributes to the port's economic diversity. Plans to update and modernize existing facilities are now being implemented.

In July 1989 the Governor of Pennsylvania signed legislation creating a state port authority, the Philadelphia Regional Port Authority, which is ultimately expected to unify operation of the ports of Southeastern Pennsylvania and Southern New Jersey. The establishment of this agency releases significant state funding for improvements to Philadelphia's port. Other targeted goals under the new authority include the development of a rail yard at the Port.

Utilities

"Water and Wastewater". The water and wastewater systems of Philadelphia are owned by the City and operated by the City's Water Department. The water system provides water to the City (129 square mile service area) and a relatively smaller quantity of water to the Bucks County Water and Sewer Authority. The City obtains approximately 55 percent of its water from the Delaware River and the balance from the Schuylkill River. Water treatment is provided by three plants. The water system serves over 500,000 households through 3,300 miles of mains and provides fire protection through more than 26,700 fire hydrants.

The wastewater system services a total of 279 square miles of which 129 square miles are within the City and 148 square miles are in suburban areas. The total population served is approximately 2,354,900 according to the 1980 Census. The wastewater system contains three water pollution control plants, 16 pumping stations and approximately 2,920 miles of sewers. By order of the Delaware River Basin Commission, the City is required to achieve effluent limitations which are considered more stringent than those required to achieve secondary treatment levels as defined in the Federal Water Pollution Control Act Amendments of 1972.

"Philadelphia Gas Works". Philadelphia Gas Works ("PGW") is owned by the City and stores, processes and distributes, as sole supplier, gas within the entire 129 square mile area of the City. PGW is managed by the Philadelphia Facilities Management Corporation. Rates and charges are fixed by the Gas Commission, established under the Home Rule Charter.

"Solid Waste Disposal". The City is responsible for collecting solid wastes from other than industrial or commercial sources. Approximately 3,200 tons per day of solid waste is collected by the City. Municipal solid waste is disposed of at various landfills operated outside City limits. The City has entered into an agreement through 1994 with a major private contractor for landfill space.

Housing

Philadelphia boasts a diversity of neighborhoods and housing opportunities. There are over 100 neighborhoods, some of which trace their origin to the eighteenth century and the early settlements of Philadelphia. The City offers a wide spectrum of residential possibilities.

Although median sales prices of single family housing units have doubled since 1980, housing prices in Philadelphia are still relatively low in comparison to other major cities. Philadelphia also has significantly higher percent of owner-occupancy than most comparable major cities. New residential development in Philadelphia has also been strong, particularly since 1984. Most of this activity has been concentrated in the far Northeast and in Center City.

TABLE 9
Housing Affordability in Major Cities

<u>City</u>	<u>Percentage (1)</u>
San Diego	33.3%
New York City Area.	33.1
Boston Area	32.9
Los Angeles Area.	31.7
San Francisco Bay Area.	28.2
Phoenix	28.2
U.S. Average.	28.0
Washington.	27.5
Atlanta	27.3
Baltimore	27.1
Dallas-Ft. Worth.	27.0
Houston Area.	25.3
PHILADELPHIA AREA	25.1
Chicago	24.8
Detroit-Ann Arbor	23.4
Kansas City	22.9
Miami-Ft. Lauderdale.	22.1
Cleveland Area.	20.2
St. Louis	18.2

Source: U.S. Housing Markets/The Lomas & Nettleton Co.

(1) Represents the percent of average income in each market needed for payments on an average conventionally financed house bought in 1987.

Real Estate

While the City's housing market has remained fairly stable, there has been significant development in the commercial area. Primarily fueled by the expansion of the service sector, commercial and office construction has been strong since 1983. Total investment in commercial and office development has been impressive and compared to other major cities, rental and operating costs per square foot in Philadelphia are still extremely competitive. The tables below summarize certain information concerning real estate assessments and construction activity.

TABLE 10
Construction Authorized by Building Permit
Declared Valuation
(Millions of Dollars)

	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Other (a)</u>	<u>Total</u>	<u>New Housing Units Authorized</u>
1979.....	\$56.9	\$122.1	\$9.6	\$138.4	\$327.0	\$2,190
1980.....	116.2	128.2	18.8	372.2 (b)	635.4	2,704
1981.....	99.1	160.9	16.0	151.9	427.9	2,060
1982.....	88.0	111.4	11.3	166.9	377.6	1,768
1983.....	56.6	124.2	16.0	125.8	322.6	1,152
1984.....	66.7	197.0	44.2	233.7	541.7	1,498
1985.....	147.7	317.7	32.0	94.8	592.2	3,027
1986.....	113.6	197.7	37.8	281.4	630.8	2,592
1987.....	96.8	(c)	(c)	18.2	643.4	1,561
1988.....	143.5	(c)	(c)	13.0	896.0 (d)	2,549

(a) Includes construction by government, medical and educational units.

(b) Major projects were undertaken by the Water Department, the Community College, the City (Commuter Tunnel) and various hospitals.

(c) Commercial and industrial building permits aggregated \$528.3 in 1987 and \$739.4 in 1988.

(d) Amounts shown for 1988 are for the eight months ended August 31, 1988.

Figures may not add due to rounding.

Source: City of Philadelphia, Department of Licenses and Inspections.

TABLE 11
Ten Highest Certified Market and Assessment Values
For Tax Year 1989 of Fully Taxable Properties

<u>Location</u>	<u>Market Value</u>	<u>Assessment Value</u>
1500-42 Market St.	\$212,676,000	\$64,228,152
1600-22 Market St.	125,000,000	37,750,000
1414A-38 S. Penn Sq. (Air Rights)	99,387,000	30,014,874
1414-38 S. Penn Sq. (Land) . . .	<u>8,067,850</u>	<u>2,436,491</u>
	107,454,850	32,451,365
1700-40 Market St.	92,583,100	27,960,096
1818-28 Market St.	85,465,200	25,810,490
1601-23 Market St.	79,306,000	23,950,412
130 N. 18th St	75,029,100	22,658,788
1801-21 Market St.	74,797,000	22,588,694
2000-24 Market St.	73,337,000	22,148,046
200 N. 16th St	73,000,000	22,046,000

Source: City of Philadelphia, Board of Revision of Taxes

TABLE 12

Ten Highest Certified Market and Assessment Values
For Tax Year 1989 of Real Estate Tax Abated Properties

<u>Location</u>	<u>Market Value</u>	<u>Taxable Assessment Value</u>	<u>Exempt Assessment Value</u>
2001-51 Market Street	\$123,000,000	\$6,984,705	\$30,161,295
1650 Market Street	111,914,400	3,925,517	29,872,632
701-39 Market Street	100,000,000	3,400,000	26,800,000
4301 Byberry Road	94,530,000	7,746,300	20,801,760
1835 Market Street	87,269,400	1,948,502	24,406,857
1101-11 Market Street	85,000,000	1,397,900	24,272,100
1601-29 JFK Boulevard	74,439,000	7,787,000	14,693,759
200 South Broad Street	70,545,000	5,760,000	15,544,590
124-48 South Sixth Street	70,000,000	8,500,000	12,640,000
One South Delaware Avenue	68,134,900	-0-	20,576,740

Source: City of Philadelphia, Board of Revision of Taxes

LITIGATION AND OTHER MATTERS

The following discussion concerning claims against the City, prepared by the Law Department of the City, does not include litigation concerning the Philadelphia Gas Works or the School District, which is a separate governmental entity. A discussion of litigation involving the Philadelphia Gas Works is set forth in the section entitled "LITIGATION" included in the forepart of this Official Statement.

The City is represented in its litigation by the City Solicitor and her staff which comprise the Law Department. The Law Department does not represent the Gas Works or the School District; however, the Law Department acts on behalf of the City and the School District in respect of matters arising from the selection of subjects of taxation and rates of taxation by City Council and collection of taxes by the City for the School District.

Generally, judgments and settlements on claims against the City are payable out of the General Fund, except for claims against the Water Department and the Aviation Division. Claims against the Water Department are paid first from the Water Fund and only secondarily from the General Fund which is then reimbursed by the Water Fund. Claims against the Aviation Division, to the extent not covered by insurance, are paid first from the Aviation Fund and only secondarily from the General Fund. The Act of October 5, 1980, P.L. 693, No. 142, known as the "Political Subdivision Tort Claims Act," establishes a \$500,000 aggregate limitation on damages arising from the same cause of action or transaction or occurrence or series of causes of action, transactions or occurrences with respect to governmental units in the Commonwealth such as the City. The constitutionality of that aggregate limitation has been upheld by the Pennsylvania Supreme Court. In February, 1987, an appeal of that decision to the United States Supreme Court was dismissed for want of jurisdiction.

General

Various claims have been asserted against the City from time to time, and in some cases suits thereon have been instituted. Many of these claims are reduced to judgment or otherwise settled in a manner requiring payments by the City. As of March 1989, the estimate of the aggregate loss which would result from claims in which some amount of loss is deemed to be probable was approximately \$34,000,000. The City believes that these claims will not have a material adverse effect on the financial position of the City. Included among these claims are several actions involving catastrophic injuries. The potential exposure in many of these cases is well in excess of \$500,000, and in certain of these cases the City may be liable in such amounts, notwithstanding

the \$500,000 limitation on cases brought under the Political Subdivision Tort Claims Act mentioned above.

Specific Litigation

Not included in the above claims are the following matters:

As part of the City's budget adoption process for Fiscal Year 1989 beginning July 1, 1988, City Council enacted an ordinance increasing the City realty transfer tax by 1.57% of the value of the property. The Ordinance, Bill No. 164, was signed by the Mayor on June 16, 1988. On June 24, 1988, a taxpayer and a consumer activist organization filed suit in the Court of Common Pleas of Philadelphia County (June Term 1988, No. 3659), alleging that the tax increase ordinance was improperly enacted. On June 30, 1988, the Court granted a preliminary injunction restraining implementation of the tax increase pending full hearing of the case. The injunction was upheld on appeal by the Commonwealth Court on November 15, 1988. On December 16, 1988 the City filed an immediate petition with the Pennsylvania Supreme Court for permission to appeal to that Court. Both the original plaintiffs and the Philadelphia Board of Realtors, who have joined as plaintiffs in the suit, filed briefs in opposition. On October 24, 1989, the Supreme Court denied the City's petition. On October 31, 1989, the City filed an application with the Supreme Court for reconsideration of its order denying the City's petition for appeal. No ruling has been made to date. On December 8, 1989, the Court of Common Pleas, in consolidating the preliminary and permanent injunctive hearings before it, ruled that the City was permanently enjoined from enforcing the provisions of Ordinance No. 164 and imposing and collecting any increase in the amount of real estate transfer tax pursuant to Ordinance No. 164 on or after July 1, 1988. The City has notified the Supreme Court of this order and has requested the Supreme Court to consider the consolidated record of the Court of Common Pleas as part of the record currently before the Supreme Court on reconsideration. Since the appeal process has precluded the injunctive order of the Court of Common Pleas from going into effect, the City has collected the entire increased tax for Fiscal Year 1989. Meanwhile, another year's (Fiscal Year 1990) budget has been adopted. As part of that process, City Council enacted a new realty transfer tax ordinance, Bill No. 440, which was signed by the Mayor on June 1, 1989. Bill No. 440 includes a retroactive provision that maintains the 1.57% increase in the tax for Fiscal Year 1989 if the Supreme Court strikes down Bill No. 164. On July 10, 1989, the Board of Realtors filed in the Court of Common Pleas a motion to amend the complaint in the case challenging Bill No. 164. The proposed Amended Complaint alleged that the retroactive provisions of Bill No. 440 are invalid. On November 13, 1989, the Court of Common Pleas denied the motion to amend the complaint. On November 2, 1989, a group of taxpayers, who paid the increased realty transfer tax in Fiscal Year 1989, filed a class action suit in the Court of Common Pleas (Haas, et

al., v. Department of Revenue, City of Philadelphia, October Term 1989, No. 7152) seeking refunds for all taxpayers who paid the increased realty transfer tax in Fiscal Year 1989. On January 16, 1990, the City filed preliminary objections to the class action suit. Meanwhile, the Board of Realtors, with the approval of the class action plaintiffs, has petitioned the Pennsylvania Supreme Court to assume extraordinary jurisdiction over "this matter" (i.e., the prior suit and the class action suit) and order refunds. The City believes that this petition is meritless and that the Supreme Court will not take such jurisdiction. The City will continue to vigorously defend the validity of both tax increase ordinances and believes that its position is supported by persuasive legal precedent. In the event both Bill No. 164 and the retroactive provisions of Bill No. 440 are eventually held invalid, the City may be required to rebate all or a portion of amounts collected as a result of the 1.57% increase. The total collection of such amounts for Fiscal Year 1989 was \$25 million.

The largest City employees' union, District Council #33, American Federation of State, County and Municipal Employees, AFL-CIO ("District Council #33"), and the Trustees of that union's Health and Welfare Fund, instituted three suits against the City in the Court of Common Pleas of Philadelphia County alleging underpayment by the City in its contributions to the District Council #33 Health and Welfare Fund. The first suit (C.P. January Term 1983, No. 3504), relating to payments due under the collective bargaining agreement in force between July 1, 1982 and June 30, 1984, was litigated through the appellate courts and ultimately resulted in court ordered payments by the City totaling \$27.2 million, including \$3.9 million being withheld pending resolution of a dispute over proper allocation of attorneys' fees. The second suit (C.P. May Term 1985, No. 4134), concerns an agreement in force between July 1, 1984 and June 30, 1986, in which District Council #33 seeks damages described in the Complaint as in excess of \$17 million. In the third suit (C.P. June Term 1986, No. 5932), concerning an agreement in force between July 1, 1975 and December 31, 1982, District Council #33 seeks damages described in the Complaint as in excess of \$20 million. On June 29, 1989, the City entered into a settlement agreement with District Council #33 concerning the second and third suits pursuant to which the City has agreed to pay District Council #33 the sum of \$35,270,175.00 over a six-year period beginning in Fiscal Year 1991 and ending in Fiscal Year 1996.

On December 1, 1988, the Supreme Court of Pennsylvania ordered the City to spend an additional \$54 million to fund the operations of the Philadelphia court system during Fiscal Year 1989. The order was entered in an Action in Mandamus against the City initiated in June 1988 by the Court of Common Pleas of Philadelphia County, other local judicial agencies, and the Sheriff of Philadelphia, encaptioned Bradley, et al. v. Goode, et al., June Term 1988, No. 5132. The same plaintiffs had also filed an Action

in Mandamus against the Commonwealth of Pennsylvania in the Commonwealth Court, encaptioned Bradley, et al. v. Casey, et al., No. 1573, C.D. 1988, seeking to enforce compliance with a December 1987 decision of Pennsylvania Supreme Court (County of Allegheny v. Commonwealth, 517 Pa. 65, 534 A.2d 760) requiring that the Commonwealth fully fund local judicial operations. On consolidated hearing of both Actions in Mandamus, the Commonwealth Court held that the Commonwealth is not responsible to provide funding for the Philadelphia judicial system for Fiscal Year 1989 and barred the City from presenting evidence of its overall financial situation as a factor in the Court's determining the "reasonable and necessary" funding of the system. The Supreme Court's Order of December 12, 1988 was entered on the City's and Common Pleas Court's appeals from the Commonwealth Court's decisions. On June 16, 1989, the same plaintiffs filed an action against the City in the Court of Common Pleas seeking in excess of \$25 million for additional funding of local court operations in Fiscal Year 1990 (Bradley, et al. v. Goode, et al., June Term 1989, No. 2595). The City is vigorously defending this action. On August 31, 1989, the trial court entered an Order, based upon stipulation of the parties, directing the commission of an independent study of local court management and financial needs, and directing the City to provide interim funding of the local courts until completion of the mentioned study, at the level of previous Fiscal Year funding with certain increases reflecting anticipated salary increases for certain local court employees. Upon completion of the study, the parties will resume litigation of this matter, relying upon estimates and recommendations of the study. The City will continue to vigorously defend this litigation. The City believes the additional expenditures occasioned by the stipulation will not have an adverse effect on the cash position of the General Fund.

On December 26, 1985, the City was served with a complaint alleging sex discrimination in its employment practices. The suit was filed in the U.S. District Court for the Eastern District of Pennsylvania (C.A. No. 85-7418) by District Council #33 and ten individual City employees. The complaint was not accompanied by any request for preliminary relief. On August 14, 1986, the City's motion to dismiss the complaint was denied. On January 20, 1988 a class was certified and discovery has begun.

On January 18, 1990 a jury in the Federal Court for the Eastern District of Pennsylvania entered a verdict in the amount of \$2.4 million against the City and some officials in Keenan v. City of Philadelphia, et al., C.A. No. 88-7156. The case involved allegations of sex discrimination in the Police Department. The City has already filed post-verdict motions asserting major errors with the verdict, particularly its amount, and intends to vigorously argue its appeal.

In October 1988 fifteen (15) Police Detectives filed an age discrimination Complaint against the City encaptioned Briqnola v.

City of Philadelphia, No. 88-8116. The Detectives allege they were transferred from the Homicide Unit to other Police Department Detective Units based on their age. Although the plaintiffs seek over \$2,000,000.00 in damages, the City has denied any liability and intends to vigorously defend against the suit.

On October 23, 1989, a complaint was filed against the City in the Court of Common Pleas encaptioned Temple University v. City of Philadelphia, October Term, 1989, No. 4518. The plaintiff is seeking declaratory and injunctive relief which would require the City to pay for emergency and non-emergency inpatient and outpatient hospital care rendered by Temple University Hospital to indigent City residents. Although the plaintiff is seeking an amount in excess of \$20,000 for free care allegedly provided by it, the City may incur multimillion dollar liability should it lose this case. The City has filed preliminary objections to the complaint, denying liability for such payments.

On May 13, 1985, when City Police were attempting to serve warrants on members of the radical organization known as "MOVE", a fire occurred which destroyed approximately 60 homes and caused damage to numerous others. The City has rebuilt the destroyed homes, repaired the damaged homes and resolved many property damage claims. To date, 38 lawsuits have been filed arising out of the fire, 28 of which have been settled, withdrawn, dismissed or consolidated. Of the 10 active cases, 9 are pending in federal district court and 1 case is pending in state court. The federal court cases include: a class action, filed on behalf of all persons (except MOVE members) who lived in the sixty homes and sustained damage as a result of the fire and have not yet reached settlement with the City; 1 case involving persons who have opted out of the class; 3 suits filed on behalf of persons who died in the fire; 2 suits by the surviving residents of the MOVE house; and 2 suits disputing prior settlements. All federal court actions seek compensatory and punitive damages in an unspecified amount in excess of \$75,000 in addition to attorneys' fees and costs, for claimed violations of federal constitutional law and state law. In the state court, one of the actions was commenced by summons only and was brought on behalf of persons who died in the fire. The other action, brought by the child of a deceased MOVE member and the child's father, seeks compensatory damages in an amount in excess of \$20,000 in addition to attorneys' fees and costs, for claimed violations of state law, and it duplicates an action brought in federal court. Since more than four years have now passed from the date of the incident, the City does not expect any more suits to be filed. While participating fully in relief efforts, the City also intends to defend vigorously all claims asserted in the described suits. On the basis of information currently available, the City does not expect any litigation or other claims arising from this incident to have a material adverse effect on the financial condition of the City.

In May 1989, an action was instituted against the City in the Court of Common Pleas (Bulkhandling Inc. v. City of Philadelphia, May Term, 1989, No. 2193), asserting liability on the part of the City, in excess of \$4.5 million, in connection with a contract in which Bulkhandling Inc. had agreed to dispose of a quantity of incinerator ash from the City's Northwest Incinerator. The City denies any liability in this matter and has asserted a counterclaim against Bulkhandling Inc.

In July 1989, an action was instituted against the City in the Court of Common Pleas encaptioned Tony DePaul & Sons v. City of Philadelphia, July Term, 1989, No. 2426. This claim is brought by the general contractor on the East Market Street reconstruction project. The plaintiff is alleging that the City is liable to plaintiff for damages in excess of \$1 million for breach of contract and delay on the project. The City has answered the complaint, denying all liability. Discovery is proceeding.

In 1971 and 1982, two complaints were filed against the City which alleged that the City was violating the constitutional rights of the plaintiffs by imprisoning them in overcrowded and deficient prison facilities (Jackson v. Hendricks, February Term, 1971, No. 2437 was filed in state court in 1971; Harris v. Reeves, C.A. No. 82-1847 was filed in federal court in 1982). Remedies claimed include expanded prison facilities (which, if undertaken, would be incorporated in the City's capital budget), as well as increased staff and repairs to existing facilities. If these remedies were implemented, the cost for repairs could be as much as \$10 million, and the increase in annual personnel costs could be as much as \$7 million. On August 4, 1988 the court approved a consent decree entered into by the City and the plaintiff in respect to the remedies requested. On January 4, 1990, the court ordered the City to comply with the consent decree. In consideration of budget constraints and a need for timeline flexibility, the City filed a motion with the court for reconsideration of the January 4, 1990 order. The City's motion was granted.

In July, 1986, an action was instituted against the City in the U.S. District Court for the Eastern District of Pennsylvania, Walton v. City, et al. (C.A. No. 86-3964) asserting liability on the part of the City in excess of \$3 million in connection with a particular case of child abuse involving permanent brain injury. The asserted City liability is premised upon alleged negligence and violation of the child's civil rights by failing to protect the child from parental abuse. The City denies any liability in this matter. Proceedings in Walton v. City were suspended by the District Court pending a decision by the United States Supreme Court in a related case. The February 22, 1989 decision by the Supreme Court in Deshaney v. Winnebago County Dept. of Social Services et al., 57 U.S.L.W. 4218 (1989), has released the case from suspension. The Court in Walton v. City established an activity schedule on March 14, 1989. The City believes the

Deshaney decision greatly increases the likelihood of its success in the case, and has filed a motion requesting that judgment be entered in favor of the City. The motion is currently pending.

In 1986, a complaint was filed against the City in federal court (McLaughlin v. City of Philadelphia, 693 F.Supp. 318 (1988)) challenging the City's decision to remove a child from the care of the plaintiff foster parents allegedly because of the race of the plaintiffs. In 1988, the court issued an injunction ordering the City to make plans to return the foster child to the care of the plaintiffs. The City has complied and the plaintiffs currently have physical custody of the child. However, there is a damage issue remaining in this case in which the plaintiffs are seeking in excess of \$1 million. Settlement negotiations are in progress and there is a likelihood that the City will be able to settle this issue for less than \$1 million.

In 1988, a complaint was filed against the City and the Commonwealth in federal court (Edward K. v. City of Philadelphia, C.A. No. 88-3358) by patients at the Philadelphia State Hospital known as Byberry. The plaintiffs are seeking to force the City and the Commonwealth to fund community-based treatment facilities, to replace services being discontinued by the Commonwealth. The cost of operating such facilities is estimated at \$28 million to \$45 million per year. The City and the Commonwealth have jointly filed papers with the court which indicate that such costs should be borne by the Commonwealth. After months of negotiations, the Commonwealth has halted all activity regarding closure of Byberry due to three deaths by former patients who were placed by the Commonwealth into the community. The City believes that the court will rule that the Commonwealth is responsible for funding community-based treatment facilities, if necessary, and that the City has zero liability in this respect.

In 1988, representatives of a child killed while in foster care filed a suit against the City in federal court (Campbell v. City of Philadelphia, C.A. No. 88-6976), alleging that the City's Department of Health and Human Services was negligent. Damages claimed will probably be in excess of \$1 million. The City has filed a motion for summary judgment, which is currently pending before the court. If the motion is denied, the City will probably pursue an out-of-court settlement.

In 1989 and 1990, four suits were filed against the City arising out of a riot at Holmesburg Prison on October 28, 1989. Butler v. City of Philadelphia, C.A. No. 89-7922 was filed in federal court as a class action suit involving up to 125 potential plaintiffs. Benson v. City of Philadelphia, C.A. No. 89-8571 was filed in federal court by 27 individual plaintiffs. Robinson v. City of Philadelphia, C.A. No. 89-3098 was filed in federal court by 4 plaintiffs. Matos v. City of Philadelphia, C.A. No. 90-1309 is being litigated by a single plaintiff in federal court. All of

the above-referenced cases allege injuries from excess use of force by guards when they regained control of the prison. Damages include treatment costs, punitive damages, attorneys fees and costs to improve prison facilities. The City has answered all the complaints described above and believes it can prove that the force used was justifiable and that the City is not liable for the damages claimed. However, the City's potential liability in these cases is well in excess of \$1 million.

In 1989, a complaint was filed against the City in federal court (T.M. v. City of Philadelphia, C.A. No. 89-4630) alleging that the City had an obligation, through court funding, to provide guardians ad litem for all children in Family Court cases. A judgment against the City could result in liability in excess of \$1 million. The City is currently conducting negotiations with the plaintiffs to settle the case for a considerably lesser amount.

In 1988, the City was joined as a defendant in an action against the Commonwealth (Castille v. Commonwealth of Pennsylvania v. City of Philadelphia, Commonwealth Court, No. 2533 C.D. 1988). This case began when the Philadelphia District Attorney's office filed a Mandamus against the Commonwealth of Pennsylvania to enforce removal of juveniles committed to Commonwealth facilities from the Youth Study Center. The Commonwealth joined the City of Philadelphia alleging that the City's failure to adequately contract for private placements results in over utilization of the state facilities in the delinquent system. The City counter-claimed and challenged the now existing cap on the allocations for Children and Youth Services. The court threatened to hold the Commonwealth in contempt for failure to remove their juveniles from the Youth Study Center in a timely fashion. The court ordered that if the state did not remove its juveniles within ten days of its commitment order it will be fined \$5,000.00 per day per juvenile in the Youth Study Center. At a hearing on January 17, 1990, the court determined that the Commonwealth was not in contempt of such order. The Commonwealth petitioned the family court for a change in the commitment order of 40 juveniles committed to open placements in the Commonwealth system. The Commonwealth approached private providers and asked that they review the juveniles and also discussed contracting with them. The likelihood of success in the City's challenge of the Commonwealth cap on reimbursement of Children and Youth Services is at least 50/50. The chances for success diminish if the case proceeds through the appellate system. The risk is that the City will continue to be underfunded and the City will exceed its budget. On March 7, 1990, the parties argued preliminary objections before the court en banc. Essentially, the objections were jurisdictional in nature and filed by the Commonwealth against the City's counterclaim. A decision is pending.

On October 10, 1989, a complaint was filed against the City and certain officials of the City in the Court of Common Pleas,

Philadelphia County, by persons alleged to be taxpayers of Philadelphia, and various organizations alleged to be representing such taxpayers (Weiner, et al. v. City of Philadelphia, et al., October Term, 1989, No. 1575). The plaintiffs, in reaction to the City's plan to construct a convention center in Philadelphia, are challenging the validity of a Lease and Service Agreement between the City, as lessor, and Pennsylvania Convention Center Authority (the "Authority"), as lessee. The Authority was created pursuant to state law and given broad powers, by itself or in agreement with others, to develop, finance, construct, maintain, operate and lease convention centers within the Commonwealth. The plaintiffs also challenge the validity of the City ordinance (Bill No. 533, June 29, 1989) which authorizes the City to enter into the Lease and Service Agreement. The plaintiffs contend, in the above-regard, that the Lease and Service Agreement and the ordinance are violative of state law and the City's Home Rule Charter, respectively. In Counts I and II of the complaint, plaintiffs complain that the Service Fee to be paid by the City to the Authority under the Lease and Service Agreement, which includes an amount sufficient to enable the Authority to make payment of the annual debt service on the bonds issued by the Authority to finance the construction and development of the convention center, constitutes an impermissible debt of the City. The plaintiffs further complain in Count III of the complaint that, notwithstanding legislation authorizing the financing and construction of the convention center, this matter should first have been submitted to a public referendum. The plaintiffs are seeking a declaratory and injunctive order from the Court which would declare the Lease and Service Agreement null and void and preclude the City from performing its obligations under the Lease and Service Agreement. The City contends that the Service Fee does not constitute debt of the City under applicable state law and, with respect to Count III of plaintiffs' complaint, the City contends that it has complied with applicable state law and the City's Home Rule Charter in enacting Bill No. 533 and that no public referendum was required prior to the Bill's enactment. The City has filed preliminary objections to the complaint and has requested the Court to dismiss the complaint for failure to state a cause of action. Similar claims have been consistently rejected by the Pennsylvania Supreme Court and the City has every reason to believe that this litigation will be resolved in favor of the City and the Lease and Service Agreement and the ordinance will be upheld as valid and binding on all parties.

On December 1, 1987, a complaint was filed against the Pennsylvania Convention Center Authority (PCCA) and the City in the Court of Common Pleas, Philadelphia County, by persons allegedly representing two classes of taxpayers (Paustian, et al. v. Pennsylvania Convention Center Authority, et al., November Term, 1987, No. 5396). The first class of plaintiffs is comprised of those persons who do not reside in Pennsylvania but stay in Philadelphia hotels and pay the City's Hotel Room Rental Tax prior

to the completion of construction of a convention center within Philadelphia. The second class of plaintiffs is comprised of three persons who reimburse members of the first class for their expenses. The plaintiffs contend that the Hotel Room Rental Tax violates the equal protection and due process clauses of the 14th and 15th amendments to the United States Constitution, respectively; and that such tax burdens interstate commerce and infringes on the right to travel, all allegedly in violation of the U.S. Constitution. On July 19, 1988, the Common Pleas Court decided this case in favor of PCCA and the City and ordered the plaintiff's action dismissed. The Commonwealth Court, on appeal by the plaintiffs, affirmed the decision of the Common Pleas Court on August 4, 1989. Thereafter, the plaintiffs filed a petition requesting the Pennsylvania Supreme Court to hear their appeal. The PCCA and the City filed a response contending that the Pennsylvania Supreme Court should not hear this appeal.

The following environmental matters are currently being litigated:

Amtrak filed an amended third-party complaint naming the City as a third-party defendant in a suit instituted in the U.S. District Court for the Eastern District of Pennsylvania (U.S. v. SEPTA, et al., E.D. Pa., C.A. No. 86-1094) by the United States Environmental Protection Agency ("EPA") against Amtrak, Conrail, Monsanto Company and SEPTA, for clean-up of PCB's at the site known as the Paoli Yard located in Chester County, Pennsylvania. While EPA has not announced any estimated PCB clean-up cost, SEPTA has estimated the cost to be approximately \$30 million. The City denies any responsibility for the Paoli Yard pollution. In addition, the City has been named as a defendant or third party defendant in at least 61 private suits for damages and equitable relief, involving over 254 individual plaintiffs, now pending in the Court of Common Pleas, Philadelphia County (In re: Paoli Railroad Yard PCB Litigation, CCP, Philadelphia County, Master Dockets, January Term, 1990, No. 1046), in one such private suit pending in the Court of Common Pleas, Chester County (Stewart v. SEPTA, et al., CCP, Chester County, No. 87-02291) and in an additional five such private suits pending in the United States District Court, all based upon the same alleged site pollution. Argument has been scheduled on a joint petition of defendants to transfer venue in all cases pending in the Court of Common Pleas, Philadelphia County, to Chester County. The City denies any liability in these private suits. In November 1988, the U.S. District Court granted partial summary judgment for all defendants, including the City, on personal injury claims in 21 private law suits involving 38 plaintiffs, pending before that court. This decision has been appealed to the U.S. Court of Appeals for the Third Circuit and a decision is expected shortly. The cases pending in the Court of Common Pleas, Philadelphia County, have been assigned to a single judge, and discovery has begun. The City will file motions for judgment on the pleadings or for summary

judgment in all cases, on the basis that all plaintiffs' tort claims are barred by governmental immunity and that the plaintiffs cannot assert a claim against the City under the Federal Employers Liability Act.

The City has been named as a defendant in two suits for damages in the Court of Common Pleas of Philadelphia County regarding the Clearview site, a landfill located in Delaware County, Pennsylvania (Smalls, et al. v. Korman Corp., et al., CCP, Philadelphia County, April Term, 1985, No. 633 and January Term, 1986, No. 781). The suits were brought in April 1985 and January 1986, respectively, by approximately 100 nearby residents. The site has not been declared a hazardous site by either federal or state agencies. The cases have been assigned to a judge and are in discovery phases. The City believes that it has very strong defenses, including immunity under state law against certain types of claims which are alleged by the lawsuits. A motion for summary judgment will be filed once discovery is completed.

A putative class action against the City relating to the City's Northwest Incinerator was filed in the Court of Common Pleas of Philadelphia County, encaptioned James J. Passalacqua v. City of Philadelphia, September Term, 1988, No. 1223. The action has been removed to the United States District Court for the Eastern District of Pennsylvania, Civil Action No. 88-7755, and trial is scheduled for May, 1990. Plaintiff sought certification of a class of "all persons residing in zip codes 19127 or 19128 who have sustained cancer or brain tumors or who have died therefrom." The motion for class certification was denied. Damages have alleged to be in excess of \$20,000. The City has denied all liability and has filed a motion for summary judgment in its favor on the basis that these claims are barred by the Political Subdivision Tort Claims Act. The City has also filed a motion for sanctions, seeking dismissal of the case, with prejudice.

In October, 1988 EPA served upon the City three complaints alleging violations of the Toxic Substances Control Act. The complaints arise out of a December, 1987 inspection of transformers in certain City buildings and the City's alleged failure to comply with PCB reporting and labelling requirements. It has been proposed that the City pay approximately \$140,000.00, consolidating all three complaints, as penalty for the alleged violations. In July, 1989, EPA served upon the City a fourth complaint alleging violation of the Toxic Substances Control Act. This complaint arose out of a December, 1987 inspection of certain facilities at the Philadelphia International Airport and the City's alleged failure to comply with PCB reporting and labeling requirements. It has been proposed that the City pay approximately \$740,000.00 as penalty for such alleged violations. Settlement negotiations are currently in progress involving all four complaints which have been consolidated. A greatly reduced settlement is probable.

In June 1987, SEPTA instituted an action against the City and Urban Engineers, a private engineering firm, asserting that one or both of the defendants were responsible for the removal of loose asbestos alleged to be present as insulation on pipes located in certain tunnels beneath Suburban Station railroad station. The suit brought in the Court of Common Pleas of Philadelphia County (June Term 1987, No. 5781) alleges that the subject tunnels were incorporated into the ventilation system for an underground rail link, known as the Center City Commuter Tunnel, constructed by the City. Because of the presence of asbestos, the ventilation system has not been put into operation. The cost of asbestos removal is alleged by SEPTA to be in excess of \$3 million. The City denies any liability in the matter and disputes the alleged cost of removal.

In November 1989, the Environmental Protection Agency filed a complaint against the City in the United States District Court for the Eastern District of Pennsylvania (United States of America v. Aluminum of America; City of Philadelphia, et al., Civil Action No. 89-7421) pursuant to the Comprehensive Environmental Response, Compensations and Liability Act (CERCLA), known as the "Superfund Law." The site, located in Montgomery County, Pennsylvania, is the former Moyer's landfill. Currently there are seventeen other defendants named in the complaint. The EPA has estimated the cost of cleanup at \$28 million. After adding various appurtenant costs as well as cost over-runs, the City believes the outside cost might be as high as \$40 million. The City was named as a defendant because it shipped incinerator ash to the site. The City is seeking dismissal from the case based upon the fact that the ash does not meet the definition of a hazardous substance pursuant to the Superfund Law and EPA has in the past explicitly confirmed the same.

In May, 1989, another of the City's ash-haulers filed suit against the City in the Court of Common Pleas of Philadelphia County, Joseph Paolino & Sons, Inc. v. City of Philadelphia, May Term, 1989, No. 5762. The plaintiff alleged causes of action for breach of contract and unjust enrichment/quantum meruit, claiming that the City refused to pay \$630,005.81 under an ash-hauling requirements contract. The City filed preliminary objections to the quantum meruit/unjust enrichment claim, which were sustained. The ash-hauling involved in the case is that of the M/V "Khian Sea". The City believes that its defense in this case is very strong. Under the contract, the plaintiff was required to dispose of the ash in strict accordance with the regulations of governing state and local environmental agencies and to perform all work and services in compliance with all applicable laws, statutes, ordinances, rules, regulations, methods and procedures. The City contends that plaintiff did not comply with these provisions, and has never provided the City -- despite repeated requests -- with documentation from any environmental agency or authority that the ash was disposed of in accordance with applicable law.

The following Water Department matters are currently being litigated:

The following are description of lawsuits against the Water Department in which some amount of loss or an adverse determination is reasonably possible. In the opinion of the City, the resolution of these cases will have no material adverse effect on the financial position or future operations of the Water Fund.

Consumer Education and Protective Association v. Philadelphia Water Department is an appeal by ratepayers from the Water Commissioner's 1985 rate determination, effective January 10, 1986, which challenges the constitutional validity of the administrative rate determination procedure as well as the appropriateness of the rates. The Court of Common Pleas dismissed the appeal on August 3, 1988. The Consumer Education and Protective Association has appealed this ruling to Commonwealth Court, whose decision is pending.

United States of America v. City of Philadelphia, C.A. No. 88-6791, is a federal civil enforcement action in which the EPA and the Pa. DER are seeking substantial penalties for the discharge of pollutants into the Delaware River from the City's Southwest Water Pollution Control Plant in amounts alleged to be in excess of those allowable. The City answered the complaint on October 21, 1988 and the EPA and the Pa. DER have filed a motion for summary judgment. Discovery is on-going. Settlement negotiations with those agencies are currently in progress.

Contractor Curtis T. Bedwell and Sons Inc. has initiated four actions in the Court of Common Pleas against the City totaling \$7 million in contract disputes over four major construction projects at the Northeast and Southwest Pollution Control Plants. Bedwell alleges that the City has wrongfully withheld the contract balance and moneys for additional work performed and delay damages. Bedwell also seeks indemnification for damages resulting from suits brought against the plaintiff by its subcontractors. The City denies liability.

The City is the defendant in litigation instituted by certain private parties in the United States District Court for the Eastern District of Pennsylvania, docketed as C.A. No. 85-14, concerning odors alleged to be emitted from the Water Department's Northeast Water Pollution Control Plant. The plaintiffs are nearby residents. By order dated July 25, 1986, the District Court enjoined maintenance or operation of the plant in any manner which causes odor emission violative of state or city air management regulations and ordered the City to proceed with "debugging" of air management control equipment incorporated into the plant. Following a hearing concerning alleged odor incidents subsequent to the July 1986 order, the Court held the City to be in contempt

of the order. The Court then directed by order dated January 28, 1987, that with respect to odor incidents occurring thereafter, any issuance of three or more air management code violation notices within a thirty-day period shall be deemed a violation of the injunction for which the City shall pay a \$10,000 penalty. The January 28, 1987 order also directed the City to contract for an independent study of the plant and odor problem, which study was made by Malcolm Pirnie. On March 31, 1988, the United States Court of Appeals for the Third Circuit denied the City's Appeal from the District Court's January 28, 1987 order and in September 1988, the City's petition for writ of certiorari was denied by the United States Supreme Court. Plaintiffs seek to have the recommendations made in the Malcolm Pirnie study made mandatory and to have Malcolm Pirnie retained to monitor compliance. The City has objected to this request on the grounds that all recommendations in the study have either been implemented or alternatives have been offered. The City and plaintiffs have agreed to have the independent consultant return to the Plant to review implementation and the effect of the recommended and adopted odor control program. In light of this agreement, the Court has dismissed as moot plaintiffs' motion to make mandatory the recommendations of the Malcolm Pirnie report.

Claims of City responsibility in connection with alleged pollution violations at the Gems Landfill, located in Gloucester Township, New Jersey, arise primarily out of the action of a subcontractor of one of the City's contractors in placing on the site as a closure material residue from dismantled City Water Department "Imhoff" tanks, a substance approved for such use by the New Jersey Department of Environmental Protection. Accordingly, the City strenuously denies that the material in question is a "hazardous substance" and denies any responsibility for necessary site clean-up or site-related alleged injury to private parties. The City is named as an additional insured under policies of insurance obtained by the City's contractor providing coverage of approximately \$11 million, and applicable in the City's opinion to the claims now made. The contractor is also contractually obligated to indemnify the City for any loss suffered as a consequence of such claims and, in connection with award of the subject contract, filed a performance bond in the amount of \$28.9 million payable to the City. With respect to the Gems Landfill, the City is currently a defendant in site clean-up proceedings instituted by the New Jersey Department of Environmental Protection wherein claims relating to the City's use of the site for trash and incinerator residue disposal for three months during 1980 have also been raised. In February 1989, without admitting any liability, the City entered into a settlement agreement for "Phase I" of a site clean-up that would commit the City to pay \$1.5 million dollars. One million dollars of the settlement amount was paid by the City's primary insurance carrier. The additional \$500,000.00, plus punitive damages (Philadelphia v. Fireman's Fund Insurance Company, D.N.J., C.A. 80-1547), and on May 10, 1989 filed

a confession of judgment action on the performance bond executed by the excess insurance carrier. "Phase II" of the site clean-up is expected to cost substantially less and also be covered by the City's insurance. The City is also a named defendant in at least nine private actions for damages in the New Jersey state courts including two class actions.

Fourteen homeowners have brought lawsuits against the City for property damages allegedly caused either by the Water Department's failure to timely repair a leak in the water conveyance system which occurred immediately before the strike by municipal employees in July, 1986 or an underground stream allegedly encapsulated by the City. These complaints were filed in the Court of Common Pleas and the matters are in discovery. The City contends that the aggregate value of these claims is subject to the limitation imposed by the Political Subdivision Tort Claims Act discussed above.

In addition to the above described litigation, various claims for property damage and personal injuries involving the City's Water Department are asserted against the City from time to time. In Fiscal Year 1989, \$4.9 million was paid out of the Water Fund to cover losses due to such claims. For Fiscal Year 1990, the aggregate estimate of the losses which could result due to unfavorable legal determinations rendered against the Water Department with respect to these claims is \$4.5 million.

The City and School District receive significant assistance from numerous federal, state and local government agencies in the form of grants and federal revenue sharing entitlements. The disbursement of funds received under these programs generally requires compliance with terms and conditions specified in the grant agreements and is subject to audit. Any disallowed claims resulting from such audits and relating to the City could become a liability of the General Fund or other applicable funds. In the opinion of City officials, the only significant contingent liabilities related to matters of compliance are the unresolved and questioned costs in the City's Single Audit of Federal Financial Assistance for the Fiscal Year ended June 30, 1989, which amounted to \$57.2 million for all open program years as of December 19, 1989. Of this amount, \$40.1 million represents unresolved costs due to the inability to obtain audit reports from subrecipients. In addition, the U.S. Department of Housing and Urban Development has demanded repayment of approximately \$14 million disbursed for emergency repairs to privately owned apartments rented to the poor.

APPENDIX D

MUNICIPAL BOND INSURANCE POLICY

Municipal Bond Insurance Policy

AMBAC Indemnity Corporation
c/o CT Corporation Systems
222 W. Washington Ave., Madison, WI 53703
Administrative Office:
One State Street Plaza, New York, NY 10004

Issuer:

Policy Number:

Bonds:

Premium:

AMBAC

AMBAC Indemnity Corporation (AMBAC) A Wisconsin Stock Insurance Company

in consideration of the payment of the premium and subject to the terms of this Policy, hereby agrees to pay to the United States Trust Company of New York, as trustee, or its successor (the "Insurance Trustee"), for the benefit of Bondholders, that portion of the principal of and interest on the above-described debt obligations (the "Bonds") which shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

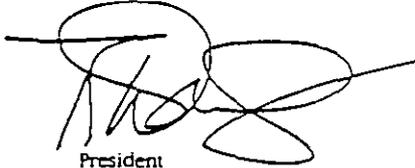
AMBAC will make such payments to the Insurance Trustee within 5 days following notification to AMBAC of Nonpayment. Upon a Bondholder's presentation and surrender to the Insurance Trustee of such unpaid Bonds or appurtenant coupons, uncanceled and in bearer form and free of any adverse claim, the Insurance Trustee will disburse to the Bondholder the face amount of principal and interest which is then Due for Payment but is unpaid. Upon such disbursement, AMBAC shall become the owner of the surrendered Bonds and coupons and shall be fully subrogated to all of the Bondholder's rights to payment.

In cases where the Bonds are issuable only in a form whereby principal is payable to registered Bondholders or their assigns, the Insurance Trustee shall disburse principal to a Bondholder, as aforesaid only upon presentation and surrender to the Insurance Trustee of the unpaid Bond, uncanceled and free of any adverse claim, together with an instrument of assignment, in form satisfactory to the Insurance Trustee, duly executed by the Bondholder or such Bondholder's duly authorized representative, so as to permit ownership of such Bond to be registered in the name of AMBAC or its nominee. In cases where the Bonds are issuable only in a form whereby interest is payable to registered Bondholders or their assigns, the Insurance Trustee shall disburse interest to a Bondholder, as aforesaid only upon presentation to the Insurance Trustee of proof that the claimant is the person entitled to the payment of interest on the Bond and delivery to the Insurance Trustee of an instrument of assignment, in form satisfactory to the Insurance Trustee, duly executed by the claimant Bondholder or such Bondholder's duly authorized representative, transferring to AMBAC all rights under such Bond to receive the interest in respect of which the insurance disbursement was made. AMBAC shall be subrogated to all of the Bondholders' rights to payment on registered Bonds to the extent of the insurance disbursements so made.

As used herein the term "Bondholder" means any person other than the Issuer who, at the time of Nonpayment, is the owner of a Bond or of a coupon appertaining to a Bond. "Due for Payment", when referring to the principal of Bonds, is when the stated maturity date or mandatory redemption date for the application of a required sinking fund installment has been reached and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by application of required sinking fund installments), acceleration or other advancement of maturity; and, when referring to interest on the Bonds, is when the stated date for payment of interest has been reached. "Nonpayment" means the failure of the Issuer to have provided sufficient funds to the paying agent for payment in full of all principal of and interest on the Bonds which are Due for Payment.

This Policy is noncancelable. The premium on this Policy is not refundable for any reason, including payment of the Bonds prior to maturity. This Policy does not insure against loss of any redemption, prepayment or acceleration premium which at any time may become due in respect of any Bond, nor against risk other than Nonpayment.

In witness whereof, AMBAC has caused this Policy to be affixed with a facsimile of its corporate seal and to be signed by its duly authorized officers in facsimile to become effective as its original seal and signatures and binding upon AMBAC by virtue of the counter-signature of its duly authorized representative.



President



Secretary

Effective Date:

Authorized Representative

UNITED STATES TRUST COMPANY OF NEW YORK acknowledges that it has agreed to perform the duties of Insurance Trustee under this Policy.



Authorized Officer

APPENDIX E

PROPOSED OPINION OF CO-BOND COUNSEL

March 29, 1990

City of Philadelphia
1420 Municipal Services Building
Philadelphia, Pennsylvania 19102

Re: \$50,420,551.45 City of Philadelphia,
Pennsylvania, Gas Works Revenue Bonds,
Twelfth Series A

Gentlemen:

We have acted as co-bond counsel in connection with the authorization, issuance and sale of City of Philadelphia, Pennsylvania, Gas Works Revenue Bonds, Twelfth Series A (the "Twelfth Series A Bonds"), under and pursuant to authority contained in the Act of the General Assembly of the Commonwealth of Pennsylvania of October 18, 1972 (P.L. 955) (the "Act"), the City of Philadelphia General Gas Works Revenue Bond Ordinance of 1975, as amended (the "General Ordinance"), and the Twelfth Supplemental Ordinance thereto approved August 8, 1989 (the "Twelfth Supplemental Ordinance"). The Twelfth Series A Bonds consist of \$42,025,000 aggregate principal amount of the Twelfth Series A Bonds bearing interest each May 15 and November 15, commencing May 15, 1990 (the "Current Interest Bonds"), and \$8,395,551.45 initial principal amount of Twelfth Series A Bonds issued at a discount from the amount payable thereon at maturity (the "Capital Appreciation Bonds"). The Twelfth Series A Bonds have been issued for the purpose of providing funds which, together with certain funds available therefor under the General Ordinance, will be applied for and towards the refunding of certain outstanding maturities of the City of Philadelphia, Pennsylvania, Gas Works Revenue Bonds, Eighth Series, making a deposit to the sinking fund reserve created under the General Ordinance and payment of costs of issuance of the Twelfth Series A Bonds.

Eleven series of Gas Works Revenue Bonds have heretofore been issued pursuant to the General Ordinance and approximately \$547,475,000 in aggregate principal amount of such bonds are presently outstanding, including \$40,685,000 of Eighth Series Bonds to be refunded with the proceeds of the Twelfth Series A Bonds. The Twelfth Series A Bonds are

equally and ratably secured with all such prior bonds and will be equally and ratably secured with all bonds issued in the future under the General Ordinance (all such prior bonds, the Twelfth Series A Bonds and all bonds to be issued under the General Ordinance in the future, collectively, the "Bonds").

The City of Philadelphia (the "City") has made a pledge of, and granted a security interest in, all Project Revenues (as defined in the General Ordinance) and all accounts, contract rights and general intangibles representing Project Revenues to secure the payment of the Bonds. Prior to default, the General Ordinance establishes the following priorities in application of the Project Revenues: (1) Net Operating Expenses, as defined therein; (2) required payments into the sinking fund to pay principal of and interest on the Bonds and to accumulate, or to restore any deficiency in, the sinking fund reserve in respect thereof; (3) payment of general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from the Philadelphia Gas Works ("PGW"); (4) payment of interest and sinking fund charges of other general obligation debt incurred for PGW; and (5) payment of City Charges, as defined therein. Under certain circumstances, the remaining balance may be applied to other proper purposes of the City. In the Twelfth Supplemental Ordinance, the City has covenanted that, as long as any of the Twelfth Series A Bonds issued thereunder remain outstanding, all Project Revenues shall be deposited in, held in and disbursed from one or more unsegregated accounts of PGW which shall be separate from and not commingled with moneys or accounts of the City not held exclusively for PGW purposes.

We have examined (a) such constitutional provisions, statutes and regulations as we deemed necessary, including the Act, the General Ordinance and the Twelfth Supplemental Ordinance, (b) the proceedings authorizing the issuance and sale of the Twelfth Series A Bonds, and (c) such certificates, opinions, receipts and other documents as we have deemed necessary, including a non-arbitrage certificate of the City. In making the aforesaid examinations, we have assumed the authenticity of all original documents and the conformity to original documents of all conformed copies and photocopies of documents, the genuineness of all signatures, the due authorization, execution and delivery of all documents and the authority to do so of all persons executing such documents.

On the basis of the foregoing, we are of the opinion that:

1. The City has the power to perform its obligations under the General Ordinance, the Twelfth

Supplemental Ordinance and the Twelfth Series A Bonds and is authorized to issue the Twelfth Series A Bonds.

2. The terms of the Twelfth Series A Bonds comply with the requirements of the Act, the General Ordinance and the Twelfth Supplemental Ordinance, and the purposes for which the Twelfth Series A Bonds have been issued are lawful purposes under the Act and the General Ordinance.

3. The Twelfth Series A Bonds constitute valid, legal and binding obligations of the City, enforceable in accordance with their terms (subject to any applicable bankruptcy, insolvency, moratorium or other laws or equitable principles affecting the enforcement of creditors' rights generally).

4. Under existing statutes, regulations, rulings and court decisions, interest on the Twelfth Series A Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed upon individuals and corporations. It should be noted, however, that, for the purpose of computing the alternative minimum tax imposed on corporations (as defined for federal income tax purposes), such interest is taken into account in determining adjusted net book income (adjusted current earnings for taxable years beginning after December 31, 1989). Ownership of the Twelfth Series A Bonds may give rise to certain collateral federal income tax consequences as to which co-bond counsel express no opinion.

5. Under the laws of the Commonwealth of Pennsylvania (the "Commonwealth"), as enacted and construed on the date hereof, the Twelfth Series A Bonds are exempt from personal property taxes in the Commonwealth and interest on the Twelfth Series A Bonds and the gain from the sale thereof are exempt from the Commonwealth personal income tax and the Commonwealth corporate net income tax.

The initial public offering price of the Capital Appreciation Bonds and the initial public offering price of the Current Interest Bonds scheduled to mature on May 15, 2012 (the "Discount Bonds") is less than the amount payable on such Twelfth Series A Bonds at stated maturity. The difference, in each case, between the initial public offering price of the Capital Appreciation Bonds and Discount Bonds and the principal amount payable thereon at maturity, constitutes interest. A portion of such interest (the "Original Issue Discount"), depending on the holding period of any Capital Appreciation Bond or Discount Bond by each owner, will, upon the disposition of such Capital Appreciation Bond or Discount Bond by each owner (including redemption or payment at maturity), be treated as interest excludable from gross income for federal income tax

purposes. Owners of any of the Capital Appreciation Bonds or Discount Bonds should consult their own tax advisors with respect to the consequences of owning such Capital Appreciation Bonds or Discount Bonds, including the effect of such ownership under applicable state and local law.

In providing this opinion, we advise you as follows:

(a) It may be determined in the future that interest on the Twelfth Series A Bonds, retroactive to the date of issuance thereof or prospectively, will not be excluded from gross income of the owners of the Twelfth Series A Bonds for federal income tax purposes if certain requirements of the Internal Revenue Code of 1986, as amended, are not met subsequent to the issuance of the Twelfth Series A Bonds. The City has covenanted in the bond authorization of the City relating to the Twelfth Series A Bonds to comply with these requirements.

(b) The Twelfth Series A Bonds constitute limited obligations of the City and are payable solely from the Project Revenues, as defined in the General Ordinance, and amounts in the sinking fund, including the sinking fund reserve created under the Act and the General Ordinance. The Twelfth Series A Bonds do not pledge the credit or taxing power of the City or create any debt or charge against property of the City other than the Project Revenues and amounts in such sinking fund, including the sinking fund reserve.

(c) We do not express any opinion as to the accuracy or completeness of the preliminary or final Official Statement of the City relating to the Twelfth Series A Bonds, including the appendices thereto.

Very truly yours,

Municipal Bond Insurance Policy

AMBAC Indemnity Corporation
c/o CT Corporation Systems
222 W. Washington Ave., Madison, Wisconsin
Administrative Office:
One State Street Plaza, New York, N.Y. 1000-

Issuer: CITY OF PHILADELPHIA, PENNSYLVANIA

Policy Number: 4413BE

Bonds: \$50,420,551.45 Gas Works Revenue Bonds,
Twelfth Series A, dated March 1, 1990
(except for the Capital Appreciation Bonds,
which are dated their date of delivery) consisting of:
\$12,515,000 in aggregate principal amount of Current Interest
Bonds maturing on May 15 in the years 1991 through 2000, both
inclusive; (as further described on the reverse hereof:)

Premium: \$456,773.13

AMBAC

AMBAC Indemnity Corporation (AMBAC) A Wisconsin Stock Insurance Company

in consideration of the payment of the premium and subject to the terms of this Policy, hereby agrees to pay to the United States Trust Company of New York, as trustee, or its successor (the "Insurance Trustee"), for the benefit of Bondholders, that portion of the principal of and interest on the above-described debt obligations (the "Bonds") which shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

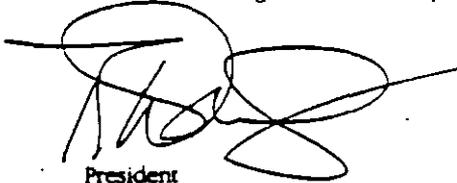
AMBAC will make such payments to the Insurance Trustee within 5 days following notification to AMBAC of Nonpayment. Upon a Bondholder's presentation and surrender to the Insurance Trustee of such unpaid Bonds or appurtenant coupons, uncanceled and in bearer form and free of any adverse claim, the Insurance Trustee will disburse to the Bondholder the face amount of principal and interest which is then Due for Payment but is unpaid. Upon such disbursement, AMBAC shall become the owner of the surrendered Bonds and coupons and shall be fully subrogated to all of the Bondholder's rights to payment.

In cases where the Bonds are issuable only in a form whereby principal is payable to registered Bondholders or their assigns, the Insurance Trustee shall disburse principal to a Bondholder as aforesaid only upon presentation and surrender to the Insurance Trustee of the unpaid Bond, uncanceled and free of any adverse claim, together with an instrument of assignment, in form satisfactory to the Insurance Trustee, duly executed by the Bondholder or such Bondholder's duly authorized representative, so as to permit ownership of such Bond to be registered in the name of AMBAC or its nominee. In cases where the Bonds are issuable only in a form whereby interest is payable to registered Bondholders or their assigns, the Insurance Trustee shall disburse interest to a Bondholder as aforesaid only upon presentation to the Insurance Trustee of proof that the claimant is the person entitled to the payment of interest on the Bond and delivery to the Insurance Trustee of an instrument of assignment, in form satisfactory to the Insurance Trustee, duly executed by the claimant Bondholder or such Bondholder's duly authorized representative, transferring to AMBAC all rights under such Bond to receive the interest in respect of which the insurance disbursement was made. AMBAC shall be subrogated to all of the Bondholders' rights to payment on registered Bonds to the extent of the insurance disbursements so made.

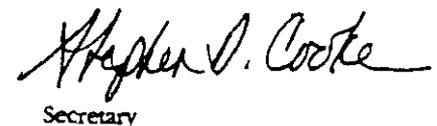
As used herein, the term "Bondholder" means any person other than the Issuer who, at the time of Nonpayment, is the owner of a Bond or of a coupon appertaining to a Bond. "Due for Payment", when referring to the principal of Bonds, is when the stated maturity date or a mandatory redemption date for the application of a required sinking fund installment has been reached and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by application of required sinking fund installments), acceleration or other advancement of maturity; and, when referring to interest on the Bonds, is when the stated date for payment of interest has been reached. "Nonpayment" means the failure of the Issuer to have provided sufficient funds to the paying agent for payment in full of all principal of and interest on the Bonds which are Due for Payment.

This Policy is noncancelable. The premium on this Policy is not refundable for any reason, including payment of the Bonds prior to maturity. This Policy does not insure against loss of any redemption, prepayment or acceleration premium which at any time may become due in respect of any Bond, nor against risk other than Nonpayment.

In witness whereof, AMBAC has caused this Policy to be affixed with a facsimile of its corporate seal and to be signed by its duly authorized officers in facsimile to become effective as its original seal and signatures and binding upon AMBAC by virtue of the counter-signature of its duly authorized representative.


President




Secretary


Authorized Representative

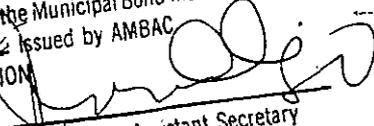
Effective Date: March 29, 1990

UNITED STATES TRUST COMPANY OF NEW YORK acknowledges that it has agreed to perform the duties of Insurance Trustee under this Policy



Bonds: \$8,395,551.45 in aggregate principal amount of Capital
Appreciation Bonds maturing on May 15 in the years
2001 through 2006, both inclusive; and \$29,510,000
in aggregate principal amount of Current Interest Bonds
maturing on May 15, 2012. The paying agent is The Philadelphia
National Bank, Philadelphia, Pennsylvania.

The undersigned hereby certifies that this document is a
true and correct copy of the Municipal Bond Insurance Policy,
Policy No. 44134 issued by AMBAC
INDEMNITY CORPORATION


Assistant Secretary

Date March 23 1972

AMBAC

AMBAC Indemnity Corporation
One State Street Plaza
New York, New York 10004
Telephone (212) 668-0340

March 29, 1990

City of Philadelphia
Philadelphia Gas Works
800 W. Montgomery Street
Philadelphia, PA 19122

Dilworth, Paxson, Kalish &
Kauffman
2600 The Fidelity Building
Philadelphia, PA 19109

The First Boston Corporation
Tower Forty Nine
12 East 49th Street
New York, NY 10017

Gentlemen:

This opinion has been requested of the undersigned, a Vice President and an Assistant General Counsel of AMBAC Indemnity Corporation, a Wisconsin stock insurance company ("AMBAC Indemnity"), in connection with the issuance by AMBAC Indemnity of a certain Municipal Bond Insurance Policy, effective as of the date hereof (the "Policy"), insuring \$50,420,551.45 in aggregate principal amount of the City of Philadelphia, Pennsylvania (the "Issuer"), Gas Works Revenue Bonds, Twelfth Series A, dated March 1, 1990 (except for Capital Appreciation Bonds which are dated their date of delivery) (the "Bonds").

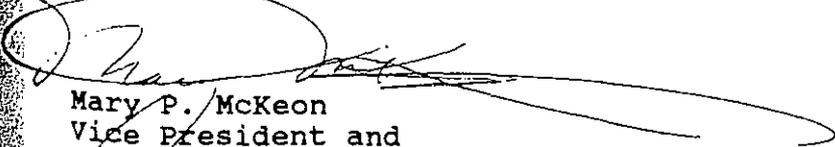
In connection with my opinion herein, I have examined the Policy, such statutes, documents and proceedings as I have considered necessary or appropriate in the circumstances to render the following opinion, including, without limiting the generality of the foregoing, certain statements contained in the Official Statement of the Issuer dated March 15, 1990, relating to the Bonds (the "Official Statement") under the headings "MUNICIPAL BOND INSURANCE", and "APPENDIX D - MUNICIPAL BOND INSURANCE POLICY".

Based upon the foregoing and having regard to legal considerations I deem relevant, I am of the opinion that:

1. AMBAC Indemnity is a stock insurance company duly organized and validly existing under the laws of the State of Wisconsin and duly qualified to conduct an insurance business in the Commonwealth of Pennsylvania.

2. AMBAC Indemnity has full corporate power and authority to execute and deliver the Policy and the Policy has been duly authorized, executed and delivered by AMBAC Indemnity and constitutes a legal, valid and binding obligation of AMBAC Indemnity enforceable in accordance with its terms except to the extent that the enforceability (but not the validity) of such obligation may be limited by any applicable bankruptcy, insolvency, liquidation, rehabilitation or other similar law or enactment now or hereafter enacted affecting the enforcement of creditors' rights.
3. The execution and delivery by AMBAC Indemnity of the Policy will not, and the consummation of the transactions contemplated thereby and the satisfaction of the terms thereof will not, conflict with or result in a breach of any of the terms, conditions or provisions of the Certificate of Incorporation or By-Laws of AMBAC Indemnity, or any restriction contained in any contract, agreement or instrument to which AMBAC Indemnity is a party or by which it is bound or constitute a default under any of the foregoing.
4. Proceedings legally required for the issuance of the Policy have been taken by AMBAC Indemnity and licenses, orders, consents or other authorizations or approvals of any governmental boards or bodies legally required for the enforceability of the Policy have been obtained; any proceedings not taken and any licenses, authorizations or approvals not obtained are not material to the enforceability of the Policy.
5. The statements contained in the Official Statement under the heading "MUNICIPAL BOND INSURANCE", insofar as such statements constitute summaries of the matters referred to therein, accurately reflect and fairly present the information purported to be shown and, insofar as such statements describe AMBAC Indemnity, fairly and accurately describe AMBAC Indemnity except that the final paragraph under said heading was not supplied by AMBAC Indemnity.
6. The form of Policy contained in the Official Statement under the heading "APPENDIX D - MUNICIPAL BOND INSURANCE POLICY" is a true and complete copy of the form of Policy.

Very truly yours,



Mary P. McKeon
Vice President and
Assistant General Counsel

MPM/mlt

SECTION 1. Pursuant to Section 11-404 of The Philadelphia Code, the Board of Surveyors of the Department of Streets is authorized and directed to revise the curb lines and grades on a portion of City Plan No. 307 by relocating the westerly curb line of Eleventh street two feet westwardly from Arch street to Race street.

Approved the fifth day of June, A.D. 1991.

W. WILSON GOODE,

Mayor of Philadelphia.

*Bill No. 1420

*AN ORDINANCE

Constituting the Thirteenth Supplemental Ordinance to the General Gas Works Revenue Bond Ordinance of 1975, as amended to date; authorizing the Mayor, the City Controller and the City Solicitor, or a majority of them, to sell, at a private negotiated sale, Gas Works Revenue Bonds of the City of Philadelphia, in one or more series, in the maximum aggregate principal amount of seventy-five million (\$75,000,000) dollars, provided that if the Bonds are sold at a discount the aggregate principal amount may be increased to reflect such discount so long as the aggregate gross proceeds to the City from the sale of the Bonds do not exceed seventy-five million (\$75,000,000) dollars; designating that the Bonds are being issued to pay the costs of certain projects and the application of the proceeds of

the Bonds for such purpose; determining the sufficiency of the project revenues; covenanting the separation of the Gas Works revenue accounts and proceeds of the Bonds from general accounts of the City; covenanting the payment of interest and principal on the Bonds; authorizing covenants and action in order that the Bonds shall not be arbitrage bonds; and specifying the applicability of sections of The First Class City Revenue Bond Act and the General Gas Works Revenue Bond Ordinance of 1975, as amended to date.

The Council of the City of Philadelphia hereby ordains:

SECTION 1. The Mayor, the City Controller and the City Solicitor (the "Bond Committee"), or a majority of them, are hereby authorized on behalf of the City to borrow, by the issuance and sale of Gas Works Revenue Bonds of the City (the "Bonds"), in one or more series, pursuant to The First Class City Revenue Bond Act of October 18, 1972, Act No. 234 (the "Act") and the General Gas Works Revenue Bond Ordinance of 1975, as amended to date (the "General Ordinance"), a sum or sums which in the aggregate shall not exceed the principal amount of the Bonds authorized to be issued hereunder, to be expended as provided in Section 2 of this Ordinance. The Bonds shall be sold at a private negotiated sale as said officers or a majority of them shall deem to be in the best interest of the City. The Bonds shall contain such terms and provisions as are determined by a majority of the Bond Committee to be in the best interest of the City and are not inconsistent with the provisions hereof, of the Act or of the General Ordinance.

The aggregate principal amount of the Bonds which are authorized to be issued hereunder shall not be more than seventy-five million (\$75,000,000) dollars; provided that if any of the Bonds are to be sold at discounts which are in lieu of periodic interest, the aggregate principal amount of Bonds which may be issued hereunder shall be increased to reflect such discounts, so long as the aggregate gross proceeds from the sale of the Bonds shall not exceed seventy-five million (\$75,000,000) dollars.

The Bonds shall not pledge the credit or taxing power, create any debt or charge against the tax or general revenues or create any lien against any property of the City other than the revenues pledged by the General Ordinance.

The Bond Committee, or a majority of them, is authorized on behalf of the City to enter into agreements (the "Agreements") with any bank, insurance company or other appropriate entity providing credit enhancement or payment or liquidity sources for the account of the City for the Bonds (the "Credit Enhancer"), including, without limitation, letters of credit, lines of credit and insurance. Such Agreements may provide for payment or acquisition of the Bonds by the Credit Enhancer if the City does not pay the Bonds when due and may provide for repayment with interest to the Credit Enhancer from the date of such payment or acquisition.

The Bond Committee, or a majority of them, is authorized to take any and all other actions as may be necessary or appropriate in connection with the consummation of the transactions contemplated herein.

SECTION 2. The Bonds shall be issued for the purpose of providing funds for any or all of the following purposes: (i) acquiring and constructing the capital improvements included in the capital program of the Gas Works as from time to time included in the capital budgets of the Gas Works, as approved by City Council, which may include, without limitation, (a) the acquisition of land or rights therein; (b) the acquisition, construction or improvement of buildings, structures and facilities together with their related furnishings, equipment, machinery and apparatus; (c) the acquisition, construction or replacement of pipes and pipe lines; and (d) the acquisition or replacement of property of a capital nature for use in the operation, maintenance and administration of the Gas Works system of the City; (ii) paying the costs of issuing the Bonds and any required deposits to the Sinking Fund Reserve; and (iii) paying any other Project Costs (as defined in the Act), which may include, without limitation, the repayment to any fund of the City or to accounts of the Gas Works of amounts advanced for Project Costs, and the funding or refunding of outstanding bond anticipation notes or other obligations of the City issued in respect of Project Costs.

The City covenants that the proceeds of the Bonds which remain available for the payment of the costs of the capital improvements, after payment of the financing costs, the required payment into the Sinking Fund Reserve and the repayment to the City and the Gas Works of amounts previously advanced for Project Costs or for the funding or refunding of bond anticipation notes or other obligations as described above, shall be deposited

and held in and disbursed from one or more unsegregated accounts of the Gas Works which shall be separate and apart from and not commingled with the consolidated cash account of the City or any other account of the City not held exclusively for Gas Works purposes. This covenant shall not be construed to require the establishment of any Gas Works account segregated from any other Gas Works accounts. All interest and income earned on the investment of such proceeds pending expenditure for the aforesaid purposes may be transferred to and deposited in the operating funds of the Gas Works and applied as Project Revenues in accordance with Section 4.02 of the General Ordinance.

Any excess moneys in the Sinking Fund Reserve in respect of the Bonds other than Sinking Fund Reserve Earnings shall be transferred to the accounts of the Gas Works described in this Section 2 and applied to any of the purposes described in this Section 2.

SECTION 3. Based on the report of the Director of Finance of the City filed with the Council pursuant to Section 8 of the Act, it is hereby determined that the pledged Project Revenues, as defined in the General Ordinance, will be sufficient to comply with the rate covenant contained in Section 4.03(b) of the General Ordinance and also to pay all costs, expenses and payments required to be paid therefrom in the order and priority stated in Section 4.02 of the General Ordinance.

SECTION 4. Subject to the provisions of Section 7.02 of the General Ordinance, the City covenants that, so long as any of the Bonds shall remain outstanding, all pledged

Project Revenues shall be deposited and held in and disbursed from one or more unsegregated accounts of the Gas Works which shall be separate from and not commingled with the consolidated cash account of the City or any other account of the City not held exclusively for Gas Works purposes. This covenant shall not be construed to require the establishment of any Gas Works account segregated from any other Gas Works accounts except as provided in Section 2 hereof or as otherwise required by the General Ordinance.

SECTION 5. The City covenants that, so long as any Bonds shall remain unpaid, it shall make payments or cause payments to be made out of its Gas Works Revenue Bond Sinking Fund created under the General Ordinance, at such times and in such amounts as shall be sufficient for the payment of the interest thereon and the principal thereof when due; provided, however, that whenever the City shall be required to deposit moneys with the Fiscal Agent for the mandatory redemption of any of the Bonds, such obligation may be satisfied in whole or in part by the delivery by the City to the Fiscal Agent of a principal amount of Bonds of the maturity required to be redeemed for cancellation prior to the date specified for such redemption.

SECTION 6. The Director of Finance is authorized to take such action on behalf of the City with respect to the investment of the proceeds of the Bonds, and the Director of Finance and any member of the Bond Committee are authorized to make such covenants as may be necessary or advisable in order that the Bonds shall not be "arbitrage

bonds" as defined in the Internal Revenue Code of 1986, as amended, and in order to otherwise effect or maintain the exclusion of interest on the Bonds from gross income for federal income tax purposes.

SECTION 7. In accordance with Section 6.04 of the General Ordinance, the City is authorized to accumulate from Project Revenues over a period of not more than six Fiscal Years from the date or dates of issuance and delivery of the Bonds, the amount required by the General Ordinance to be deposited in the Sinking Fund Reserve in respect thereof.

SECTION 8. This Ordinance is supplementary to the General Ordinance and all sections of the General Ordinance and the Act not inconsistent herewith are applicable to the Bonds. All definitions of terms contained in the Act or in the General Ordinance not inconsistent herewith shall apply to such terms in this Ordinance.

SECTION 9. This Ordinance shall take effect immediately.

Approved the sixth day of June, A.D. 1991.

W. WILSON GOODE,

Mayor of Philadelphia.

NEW ISSUE

RATINGS: (See "RATINGS", herein)

In the opinion of Bond Counsel, under existing statutes, regulations, rulings and court decisions, interest on the Thirteenth Series Bonds, including original issue discount, is not includable in the gross income of the holders thereof for federal income tax purposes and is not a specific preference item for purposes of computing the alternative minimum tax imposed on individuals and corporations. However, for the purpose of computing the alternative minimum tax on corporations, interest on the Thirteenth Series Bonds may be taken into account in determining adjusted current earnings. The opinion of Bond Counsel assumes compliance by the City with its covenants relating to certain requirements of the Internal Revenue Code of 1986, as amended. Under the laws of the Commonwealth of Pennsylvania, as presently enacted and construed, the Thirteenth Series Bonds are exempt from Pennsylvania personal property taxes and the interest on the Thirteenth Series Bonds and any gain from the sale thereof are exempt from Pennsylvania personal income tax and from Pennsylvania corporate net income tax. See "Federal Tax Exemption" and "Pennsylvania Tax Exemption" herein for a further discussion of tax consequences of ownership of the Thirteenth Series Bonds.

\$75,220,000

CITY OF PHILADELPHIA, PENNSYLVANIA
Gas Works Revenue Bonds, Thirteenth Series

Dated: June 15, 1991

Due: June 15, as shown below

The Thirteenth Series Bonds are issuable as fully registered bonds maturing in the aggregate principal amounts and bearing interest at the rates set forth below. The Thirteenth Series Bonds shall be issued in denominations of \$5,000 or any whole multiple thereof. The principal and redemption price of the Thirteenth Series Bonds are payable at the principal corporate trust office of CoreStates Bank, N.A., Philadelphia, Pennsylvania, Fiscal Agent and Sinking Fund Depository, at the times and in the amounts set forth therein. Interest is payable initially on December 15, 1991 and thereafter semiannually on each June 15 and December 15 by check mailed by the Fiscal Agent to the persons in whose names the Thirteenth Series Bonds are registered on the 15th day preceding each interest payment date. Registered owners of at least \$1,000,000 principal amount of the Thirteenth Series Bonds may elect to receive interest payments by wire transfer as hereinafter described. The Thirteenth Series Bonds are subject to redemption prior to maturity as described herein under the heading "DESCRIPTION OF THE THIRTEENTH SERIES BONDS".

THE THIRTEENTH SERIES BONDS DO NOT PLEDGE THE CREDIT OR TAXING POWER OF THE CITY OF PHILADELPHIA OR CREATE ANY DEBT OR CHARGE AGAINST THE TAX OR GENERAL REVENUES OF THE CITY OR CREATE A LIEN AGAINST ANY CITY PROPERTY, OTHER THAN CERTAIN REVENUES AND FUNDS OF THE PHILADELPHIA GAS WORKS REFERRED TO HEREIN.

\$10,215,000 Serial Bonds

<u>Due (June 15)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price or Yield</u>	<u>Due (June 15)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price or Yield</u>
1992	\$750,000	5.90%	100%	1997	\$1,030,000	7.10%	100%
1993	795,000	6.40	100	1998	1,105,000	7.20	100
1994	845,000	6.65	100	1999	1,185,000	7.30	100
1995	905,000	6.90	100	2000	1,270,000	7.40	100
1996	965,000	7.00	100	2001	1,365,000	7.50	100

\$20,975,000 7.70% Term Bonds Due June 15, 2011 @ 100%
\$44,030,000 7.70% Term Bonds Due June 15, 2021 @ 99.5% to Yield 7.74%

(Plus Accrued Interest)

Proceeds of the Thirteenth Series Bonds are being used to (i) finance a portion of the Philadelphia Gas Works' capital improvements program which includes additions and improvements to gas supply plants and the distribution system, (ii) make a deposit into the Sinking Fund Reserve Account, and (iii) pay costs of issuing the Thirteenth Series Bonds.

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to the making of an informed investment decision.

The Thirteenth Series Bonds are being offered when, as and if issued and accepted by the Underwriters, subject to prior sale, withdrawal, or modification of the offer without notice, and subject to the approval as to the legality of the issuance of the Thirteenth Series Bonds by Astor, Weiss & Newman, Bond Counsel, Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the Underwriters by Saul, Ewing, Remick & Saul and Genev E. Brinkley, Esquire, both of Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the City by the Office of the City Solicitor and Fineman & Bach, P.C. Certain legal matters will be passed upon for the Philadelphia Gas Works by Obermayer, Rebmann, Maxwell & Hippel, Philadelphia, Pennsylvania. It is anticipated that the Thirteenth Series Bonds will be available for delivery through the facilities of The Depository Trust Company in New York, New York on or about July 10, 1991.

The First Boston Corporation

Dillon, Read & Co. Inc.

Innova Securities, Inc.

Butcher & Singer
A Division of Wheat, First Securities, Inc.

Chemical Securities, Inc.

Kidder, Peabody & Co.
INCORPORATED

PaineWebber Incorporated

William E. Simon & Sons
MUNICIPAL SECURITIES, INC.

A.H. Williams & Co.
INCORPORATED

Dean Witter Reynolds Inc.

The date of this Official Statement is June 28, 1991

CITY OF PHILADELPHIA

**MAYOR
HONORABLE W. WILSON GOODE**

MAYOR'S CABINET

David W. BrennerDirector of Finance
Charisse R. LillieCity Solicitor
David H. PingreeManaging Director
Edward A. SchwartzDirector of Housing
Gerri H. WalkerCity Representative and Director of Commerce

**City Treasurer
Benjamin Blakney**

**City Controller
Jonathan A. Saidel**

**President of City Council
Honorable Joseph E. Coleman**

PHILADELPHIA GAS WORKS

Alfred P. Degen, Executive Vice President
Sydney M. Avent, Senior Vice President—Administration and General Counsel
Joseph G. Horan, Senior Vice President and Chief Operating Officer
Edward H. Morris, Jr., Senior Vice President and Chief Financial Officer
Harry A. Connelly, Vice President—Rates and Regulatory Affairs
Robert J. Dunnigan, Vice President—Administration
A. Jack Egan, Vice President—Support Services
Thomas J. Hanna, Vice President—Technical Services
Don C. Kenley, Vice President—Public Affairs
Terri M. Maloney, Vice President—Customer Activities
Richard J. Ney, Vice President—Marketing
Dennis E. Stinson, Vice President—Operations

**FINANCIAL ADVISOR
P.G. Corbin & Company, Inc.**

**FISCAL AGENT
CoreStates Bank, N.A.**

No dealer, broker, salesperson or other person has been authorized to give any information or to make any representations, other than those contained in this Official Statement and, if given or made, such other information or representations must not be relied upon. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Thirteenth Series Bonds by any person in any jurisdiction in which it is unlawful to make such offer, solicitation or sale. The information set forth herein has been obtained from sources which are believed to be reliable but is not guaranteed as to accuracy or completeness. The information and the opinions expressed herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the operations of the Philadelphia Gas Works or the City of Philadelphia, since the date hereof. The order and placement of materials in this Official Statement, including the Appendices hereto, are not to be deemed to be a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, must be considered in its entirety.

IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE PHILADELPHIA GAS WORKS, THE CITY OF PHILADELPHIA AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT.

IN CONNECTION WITH THE OFFERING OF THE THIRTEENTH SERIES BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF SUCH BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME WITHOUT PRIOR NOTICE.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS	5
DESCRIPTION OF THE THIRTEENTH SERIES BONDS	6
SECURITY	7
ADDITIONAL DEBT	10
REMEDIES OF BONDHOLDERS	11
PHILADELPHIA GAS WORKS	14
THE GAS COMMISSION	17
PGW BUDGET, RATES AND FINANCING PROGRAM	17
GAS SUPPLY AND REGULATION OF FEEDSTOCKS	24
SUMMARY STATEMENTS OF INCOME	25
MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY STATEMENTS OF INCOME	26
SELECTED OPERATING DATA	31
HISTORICAL REVENUES AND DEBT SERVICE COVERAGE	32
INSURANCE	33
LITIGATION	34
UNDERWRITING	34
RATINGS	34
FEDERAL TAX EXEMPTION	34
PENNSYLVANIA TAX EXEMPTION	35
CERTAIN LEGAL MATTERS	36
OTHER MATTERS	36
INDEPENDENT AUDITS	36
ENGINEERING REPORT	36
NO LITIGATION CERTIFICATE	36
NEGOTIABLE INSTRUMENTS	36
CERTAIN REFERENCES	37
APPENDICES:	
A. Audited Financial Statements of Philadelphia Gas Works For the Years Ended August 31, 1990 and 1989	
B. Engineering Report	
C. Summaries of Legislation Authorizing the Issuance of Gas Works Revenue Bonds	
D. Certain Financial Information Concerning the City of Philadelphia	
E. The City of Philadelphia - General Information	
F. Text of Proposed Opinion of Bond Counsel	

(THIS PAGE INTENTIONALLY LEFT BLANK)

OFFICIAL STATEMENT
of the
CITY OF PHILADELPHIA, PENNSYLVANIA
respecting its
\$75,220,000
Gas Works Revenue Bonds, Thirteenth Series

INTRODUCTION

General

This Official Statement, including the cover page, table of contents, tables and appendices, sets forth information with respect to the issuance by the City of Philadelphia, Pennsylvania (the "City") of its \$75,220,000 aggregate principal amount Gas Works Revenue Bonds, Thirteenth Series, dated June 15, 1991 (the "Thirteenth Series Bonds").

The City's fiscal year begins on July 1 and ends on June 30 of the following calendar year. The term "Fiscal Year" when followed by a year and used in connection with the City refers to the fiscal year of the City ending June 30 of that year. For example, "Fiscal Year 1991" refers to the fiscal year ending June 30, 1991. The fiscal year of the Philadelphia Gas Works ("PGW" or the "Gas Works") begins on September 1 and ends on August 31 of the following calendar year. The term "Fiscal Year" when followed by a year and used in connection with the Gas Works, refers to the fiscal year of the Gas Works ending August 31 of that year.

This introduction is a brief description of certain matters described in this Official Statement and is qualified by reference to the entire Official Statement. Persons considering a purchase of any of the Thirteenth Series Bonds should read this Official Statement, including the cover page, table of contents, tables and appendices, in its entirety. The information contained herein is subject to change.

The City of Philadelphia Gas Works

The Gas Works consists of all the real and personal property owned by the City and used for the acquisition, manufacture, storage, processing and distribution of gas within the City, and all property, books and records employed and maintained in connection with the operation, maintenance and administration thereof. See "PHILADELPHIA GAS WORKS".

PGW serves the entire 129 square mile area contained within the boundaries of the City and is the sole supplier of gas in the City. PGW has no distribution mains and serves no customers outside the City limits. As of April 30, 1991, PGW served approximately 533,000 customers.

The Philadelphia Home Rule Charter provides for a Gas Commission to be constituted and appointed and to exercise such power and perform such duties as may from time to time be provided in contracts between the City and the operator of PGW, or, in the absence of a contract, as may be provided by ordinance. For details of the Gas Commission's various responsibilities and oversight of the operations of PGW, see "THE GAS COMMISSION."

Since January 1, 1973, PGW has been managed by the Philadelphia Facilities Management Corporation ("PFMC"), a not-for-profit corporation, pursuant to an agreement between the City and PFMC dated December 29, 1972, as amended, authorized by ordinances of City Council (the "Management Agreement").

Rates, including the Gas Cost Rate, and charges of PGW are fixed by the Gas Commission and not by the Public Utility Commission of the Commonwealth. See "PGW BUDGET, RATES AND FINANCING PROGRAM". The Court of Common Pleas of Philadelphia County has ruled that deci-

sions of the Gas Commission regarding PGW rate increases are subject to court review. See "PGW BUDGET, RATES AND FINANCING PROGRAM" for a further discussion of PGW's budget process and recent rate proceedings.

The Financial Statements of PGW for the years ended August 31, 1990 and 1989 are presented in Appendix A hereto and summary statements of income for the seven month period ending March 31, 1991 are presented in "SUMMARY STATEMENTS OF INCOME" herein.

The offices of PGW are located at 800 W. Montgomery Avenue, Philadelphia, Pennsylvania 19122. The telephone number is 215/236-0500.

Financial Position of the City

Set forth below is a brief discussion of the financial position of the City. For further information regarding the City's financial situation see APPENDIX D - "Certain Financial Information Concerning the City of Philadelphia" herein.

The City experienced a series of general fund deficits for Fiscal Years 1988 through 1990 which have culminated in the City's financial difficulties in recent months. The City is projecting a cumulative general fund deficit of approximately \$219.4 million for Fiscal Year 1991. In addition, the general fund budget approved by City Council and signed by the Mayor on June 13, 1991 for Fiscal Year 1992 is balanced by the inclusion of: (i) revenues in the amount of approximately \$173.8 million which are of a contingent or speculative nature and which may not be realized, (ii) proceeds in the amount of approximately \$261.4 million of deficit reduction bonds which, if issued, would be issued by the Pennsylvania Intergovernmental Cooperation Authority (the "Authority") and (iii) \$65.4 million in expense reductions and other adjustments. For more information about the revenues referred to in "(i)" above, the deficit reduction bonds referred to in "(ii)" above, and the expense reductions and other adjustments referred to in "(iii)" above, see "Summaries of Financial Operations" in APPENDIX D herein. The City has no legal authority to issue deficit reduction bonds and there can be no assurances given that the Authority will issue deficit reduction bonds in the amounts set forth above. For more information about the Authority see "The Intergovernmental Cooperation Authority" in APPENDIX D, herein.

The City and the Philadelphia Housing Authority (hereinafter collectively, "Municipal and Housing Authority") are expected to account for an estimated 4.7% of PGW's total revenues in Fiscal Year 1991. The City's ability to pay for services it receives from PGW and PGW's ability to collect payment from the City may be impaired by the City's financial difficulties. See "REMEDIES OF BONDHOLDERS", herein.

The City has covenanted in the Thirteenth Supplemental Ordinance to deposit into, hold in and disburse from one or more unsegregated accounts of PGW, which shall be separate and apart from and not commingled with the consolidated cash account of the City or any other account of the City not held exclusively for PGW purposes, proceeds of the Thirteenth Series Bonds which are available for the payment of the costs of the capital improvements. The City further covenants in the Thirteenth Supplemental Ordinance that, so long as any of the Thirteenth Series Bonds shall remain outstanding, all pledged Project Revenues shall be deposited and held and disbursed from one or more unsegregated accounts of PGW which shall be separate from and not commingled with the consolidated cash account of the City or any other account of the City not held exclusively for PGW purposes. However, the effectiveness of the segregation of Thirteenth Series Bond proceeds and Project Revenues may be limited under certain circumstances, including a bankruptcy filing by the City. See "SECURITY" and "REMEDIES OF BONDHOLDERS" herein.

Authorization to Issue the Thirteenth Series Bonds

The Thirteenth Series Bonds are being issued pursuant to The First Class City Revenue Bond Act of the Commonwealth of Pennsylvania, Act No. 234, approved October 18, 1972, P.L. 955 (the "Act"), the General Gas Works Revenue Bond Ordinance of 1975, approved May 30, 1975 - Bill No. 1871, as amended from time to time (the "General Ordinance"), the Thirteenth Supplemental Gas Works Rev-

enue Bond Ordinance approved June 6, 1991 — Bill No. 1440 (the “Thirteenth Supplemental Ordinance”) and a determination of the Bond Committee of the City, or a majority of them, dated June , 1991 (the “Bond Authorization”). Bonds of all series issued or to be issued under the General Ordinance (herein referred to as the “Bonds” or as “Gas Works Revenue Bonds”) are issued on a parity basis and share equally and ratably in the pledge of revenues provided for in the General Ordinance. As of April 30, 1991, \$606,807,000 aggregate principal amount of Gas Works Revenue Bonds were outstanding under the General Ordinance and appropriate supplemental ordinances.

The Thirteenth Series Bonds

The Thirteenth Series Bonds will be issued pursuant to the Act, the General Ordinance and the Thirteenth Supplemental Ordinance. The Thirteenth Series Bonds will be dated June 15, 1991 and will bear interest from such date, payable commencing on December 15, 1991 and on each June 15 and December 15 thereafter. The Thirteenth Series Bonds will be issued as fully registered bonds in the aggregate principal amount set forth on the cover page hereof in denominations of \$5,000 or any whole multiple thereof. The principal and redemption price of the Thirteenth Series Bonds will be payable at the principal corporate trust office of CoreStates Bank, N.A., in Philadelphia, Pennsylvania (the “Fiscal Agent”). Interest on the Thirteenth Series Bonds will be paid by check mailed by the Fiscal Agent to the persons in whose names the Thirteenth Series Bonds are registered on the 15th day preceding each interest payment date; except in the case of any default by the City in payment of interest due which shall be payable to the persons in whose names the Thirteenth Series Bonds are registered on a special record date as determined by the Fiscal Agent. See “DESCRIPTION OF THE THIRTEENTH SERIES BONDS”. Registered Owners of at least \$1,000,000 principal amount of the Thirteenth Series Bonds may elect to receive interest payments by wire transfer.

The Thirteenth Series Bonds maturing on or after June 15, 2002 are subject to optional redemption at the direction of the City as a whole, or in part, at any time, on or after June 15, 2001. The Thirteenth Series Bonds are also subject to mandatory redemption as described herein. See “DESCRIPTION OF THE THIRTEENTH SERIES BONDS”.

Security for the Thirteenth Series Bonds

The Thirteenth Series Bonds are secured solely by moneys derived, directly or indirectly, from PGW’s Project Revenues as provided in the Act, the General Ordinance and the Thirteenth Supplemental Ordinance. Neither the general credit nor the taxing power of the City is pledged to any such payment.

The City has pledged and granted a security interest in all Project Revenues and the proceeds thereof for security and payment of all bonds issued under the General Ordinance, including the Thirteenth Series Bonds. In the Thirteenth Supplemental Ordinance, the City has covenanted that so long as any of the Thirteenth Series Bonds remain outstanding, all Project Revenues shall be deposited and held in, and disbursed from, one or more unsegregated accounts of PGW which shall be separate and not commingled with moneys or accounts of the City not held exclusively for PGW purposes. The security interest of Bondholders in Project Revenues may be materially adversely affected under certain circumstances, including a bankruptcy filing by the City. See “SECURITY” and “REMEDIES OF BONDHOLDERS” herein. Pursuant to the General Ordinance, all moneys deposited in PGW’s Sinking Fund (including the Sinking Fund Reserve), are subject to a security interest in favor of all holders of PGW’s revenue bonds until such moneys are properly disbursed. See “SECURITY — Pledge of Revenues and Funds” herein.

The General Ordinance requires PGW to comply with a rate covenant which requires the City to impose, charge and collect in each fiscal year, rates and charges which, together with all other Project Revenues to be received in such fiscal year, shall be sufficient to meet debt service coverage requirements as specified in the General Ordinance (the “Rate Covenant”). See “SECURITY — Rate Covenant and Rate Requirements” and APPENDIX C — “The General Ordinance — Rate Covenant” herein.

The General Ordinance permits the issuance of additional bonds which are on a parity with the Thirteenth Series Bonds. See “SECURITY — Additional Parity Bonds” herein.

The General Ordinance establishes a Sinking Fund Reserve which is established in the Sinking Fund as a separate account and is held for the benefit of owners of all Bonds issued under the General Ordinance. The City will deposit certain amounts from the proceeds of sale of the Thirteenth Series Bonds into the Sinking Fund Reserve. See "SECURITY - Sinking Fund Reserve" herein.

The outstanding Gas Works Revenue Bonds and all Gas Works Revenue Bonds which may be issued in the future under the Act and the General Ordinance are issued on a parity basis and are payable, directly or indirectly, solely from Project Revenues (as defined in the General Ordinance). The City expects that the capital improvements program of PGW will require the issuance of additional Bonds in subsequent fiscal years.

The City also has outstanding as of June 15, 1991, \$81,300,000 of tax-exempt notes (the "Gas Works Notes"). By July 15, 1991, \$75 million of Gas Works Notes will have matured. The Gas Works Notes are issued pursuant to The City of Philadelphia Municipal Utility Inventory and Receivables Financing Act of the Commonwealth of Pennsylvania (the "Inventory and Receivables Financing Act") and the General Inventory and Receivables Gas Works Revenue Note Ordinance of 1988, Bill No. 117, approved June 30, 1988 (the "Note Ordinance"). The Gas Works Notes are junior in priority of payment to the Gas Works Revenue Bonds. See "ADDITIONAL DEBT - Subordinated Short-Term Borrowings - Gas Works Notes". The City may have up to \$85,000,000 of Gas Works Notes outstanding during each fiscal year. The City expects to issue additional Gas Works Notes and anticipates that a total of up to \$83 million in Gas Works Notes may be outstanding by the end of August 1991. See "PGW BUDGET, RATES AND FINANCING PROGRAM - Tax-Exempt Commercial Paper."

The City had outstanding as of June 15, 1991, \$24,610,000 aggregate principal amount of lease obligations pursuant to a lease entered into in connection with the issuance of the Philadelphia Gas Works Lease Revenue Bonds, Series of 1989, by The Philadelphia Municipal Authority (see "ADDITIONAL DEBT - Subordinated Long-Term Borrowings - Lease Revenue Bonds"). These rental obligations are payable out of Project Revenues and are junior in priority of payment to the Gas Works Revenue Bonds and the Gas Works Notes.

The Project

The Thirteenth Series Bonds are being issued to fund a portion of PGW's capital improvements program, which includes additions and improvements to gas supply plants and the distribution system. See "PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS".

Engineering Report

The report of Stone & Webster Management Consultants, Inc. ("Stone & Webster"), an independent consulting firm, with respect to PGW and the Thirteenth Series Bonds is appended hereto as APPENDIX B (the "Engineering Report"). In its report, Stone & Webster has concluded that, on the basis of actual and estimated financial operations of the PGW system, including future rate increases not presently enacted, such system will yield sufficient Project Revenues over the amortization period of the Thirteenth Series Bonds to meet the requirements of the Rate Covenant in the General Ordinance. See "SECURITY". Stone & Webster is of the opinion that the repairs and replacements contemplated in the Capital Improvement Program as described in their report will enable PGW to continue to maintain its system in good operating condition. Stone & Webster has also concluded in its report that the supply of PGW's contracted gas supplies plus spot market purchases, anticipated additional contractual supplies and proposed supplemental gas capacities will continue to be adequate to meet PGW's forecast of demand for the period 1992-1996. The Engineering Report contains projections of results of financial operations of the PGW system taking into account anticipated capital improvement expenditures and assuming certain base rate increases for PGW's Fiscal Years 1992-1996. The Engineering Report should be read in its entirety for an understanding of the information, assumptions and rationale on which Stone & Webster's conclusions and findings are based.

Miscellaneous

Any quotation from and summaries and explanations of the constitution and laws of the Commonwealth and ordinances of the City contained herein do not purport to be complete and are qualified in their entirety by reference to the official compilations thereof, and all references to the Thirteenth Series Bonds are qualified in their entirety by reference to the definitive forms of the Thirteenth Series Bonds. All capitalized terms used herein, unless otherwise defined herein, shall have the meanings ascribed to them in the Act and the General Ordinance. See APPENDIX C. Copies of the Act, the General Ordinance and the Thirteenth Supplemental Ordinance are available from the Office of the Director of Finance, Room 1420, Municipal Services Building, Philadelphia, Pennsylvania 19102.

This Official Statement speaks only as of the date printed on the cover hereof. The information contained herein is subject to change. The Official Statement will be made available through one or more of the Nationally Recognized Municipal Securities Information Repositories.

PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS

The proceeds from the sale of the Thirteenth Series Bonds will be used to finance a portion of PGW's Capital Program, to reimburse PGW for capital expenditures made during Fiscal Year 1991 from operating revenues, to make the required deposit to the Sinking Fund Reserve and to pay the costs of issuance of the Thirteenth Series Bonds as set forth below.

Estimated Sources and Uses of Proceeds

The sources and uses of proceeds of the Thirteenth Series Bonds are estimated to be as follows:

Estimated Sources of Proceeds

Principal Amount	\$75,220,000.00
Less Original Issue Discount	(220,150.00)
Accrued Interest	397,378.65
	<u>\$75,397,228.65</u>

Estimated Use of Proceeds

Capital Improvement Program (1)	\$67,173,238.18
Accrued Interest Deposited to Sinking Fund	397,378.65
Sinking Fund Reserve Deposit (2)	6,475,930.00
Costs of Issuance (3)	1,350,681.82
	<u>\$75,397,228.65</u>

- (1) \$32,148,000 will be used by PGW as reimbursement for capital expenditures already made during Fiscal Year 1991 in anticipation of the issuance of the Thirteenth Series Bonds and \$35,025,238.18 will be used by PGW to pay future capital expenditures.
- (2) The deposit to the Sinking Fund Reserve from the proceeds of the Thirteenth Series Bonds is equal to the maximum annual debt service requirement on the Thirteenth Series Bonds. See "SECURITY - Sinking Fund Reserve".
- (3) Includes, among other things, fees and expenses of Counsel, the Fiscal Agent and the Underwriters' Discount.

DESCRIPTION OF THE THIRTEENTH SERIES BONDS

The Thirteenth Series Bonds are being issued pursuant to the Act, the General Ordinance and the Thirteenth Supplemental Ordinance. The General Ordinance is the governing ordinance under which all Gas Works Revenue Bonds are issued. The Thirteenth Supplemental Ordinance was enacted by City Council and approved by the Mayor on June 6, 1991.

The Thirteenth Series Bonds will be dated June 15, 1991 and will bear interest from such date, payable initially on December 15, 1991 and on each June 15 and December 15 thereafter. The Thirteenth Series Bonds will be issued as fully registered bonds in the aggregate principal amount set forth on the cover page hereof in denominations of \$5,000 or any whole multiple thereof. The principal of, and premium, if any, on the Thirteenth Series Bonds will be payable at the principal corporate trust office of the Fiscal Agent in Philadelphia, Pennsylvania. Interest on the Thirteenth Series Bonds, when due, will be paid by check, mailed by the Fiscal Agent to the persons in whose names the Thirteenth Series Bonds are registered on the 15th day preceding each interest payment date, except that if any such interest payment date is not a Business Day, then such interest check shall be mailed on the next succeeding Business Day. Business Day shall mean any day other than a Saturday, Sunday or a day on which the Fiscal Agent is authorized by law to remain closed. Registered owners of at least \$1,000,000 principal amount of the Thirteenth Series Bonds may elect to receive interest payments by wire transfer. In the event of any default by the City in the payment of interest due on any interest payment date, such defaulted interest shall be payable to the persons in whose names the Thirteenth Series Bonds are registered at the close of business on a special record date for the payment of such defaulted interest established by notice mailed by or on behalf of the City to the registered owners of the Thirteenth Series Bonds not less than ten (10) days preceding such special record date, such notice to be mailed to the persons in whose names the Thirteenth Series Bonds are registered at the close of business on the fifth (5th) day preceding the date of mailing.

Optional Redemption

The Thirteenth Series Bonds maturing on or before June 15, 2001 are not subject to redemption prior to maturity. The Thirteenth Series Bonds maturing on or after June 15, 2002 will be subject to redemption at the direction of the City in whole or in part on or after June 15, 2001 at the option of the City. In the case of any optional redemption of less than all of the Thirteenth Series Bonds, such Thirteenth Series Bonds shall be selected for redemption in such order of maturity as may be designated by the City, and within each maturity by lot at any time, in denominations of \$5,000 or whole multiples thereof, at the redemption prices, expressed as percentages of the principal amount of Thirteenth Series Bonds to be redeemed, set forth below, plus accrued interest to the redemption date:

<u>Redemption Period</u> <u>(both dates inclusive)</u>	<u>Redemption</u> <u>Price</u>
June 15, 2001 through June 14, 2002	102%
June 15, 2002 through June 14, 2003	101
June 15, 2003 and thereafter	100

Mandatory Redemption

The Thirteenth Series Bonds maturing on June 15, 2011 are subject to mandatory redemption prior to maturity, in part by lot, at the times and in the amounts set forth below at a price equal to 100% of the principal amount of such Thirteenth Series Bonds being redeemed, plus accrued interest to the date of redemption:

<u>(June 15)</u>	<u>Principal</u> <u>Amount</u>	<u>(June 15)</u>	<u>Principal</u> <u>Amount</u>
2002	\$1,470,000	2007	\$2,125,000
2003	1,580,000	2008	2,290,000
2004	1,705,000	2009	2,470,000
2005	1,835,000	2010	2,660,000
2006	1,975,000	2011*	2,865,000

*Stated maturity

The Thirteenth Series Bonds maturing on June 15, 2021 are subject to mandatory redemption prior to maturity, in part by lot, at the times and in the amounts set forth below at a price equal to 100% of the principal amount of such Thirteenth Series Bonds being redeemed, plus accrued interest to the date of redemption:

<u>(June 15)</u>	<u>Principal Amount</u>	<u>(June 15)</u>	<u>Principal Amount</u>
2012	\$3,085,000	2017	\$4,470,000
2013	3,320,000	2018	4,810,000
2014	3,575,000	2019	5,180,000
2015	3,850,000	2020	5,580,000
2016	4,150,000	2021*	6,010,000

*Stated maturity

The City may purchase Thirteenth Series Bonds in the open market and apply the principal amount of such purchases to the mandatory redemption requirements in accordance with the provisions of the Thirteenth Supplemental Ordinance. The principal amount of Thirteenth Series Bonds required to be redeemed by mandatory redemption in any year shall be subject to a credit at the election of the City for the principal amount of Thirteenth Series Bonds which have been provided for other than by mandatory redemption.

Notice of Redemption of Thirteenth Series Bonds

Notice of redemption of Thirteenth Series Bonds shall be made not less than thirty nor more than sixty days before the date fixed for redemption, by first class mail, postage prepaid, to the registered owners appearing on the bond register of the Thirteenth Series Bonds to be redeemed. Failure to mail such notice, or any defect therein, shall not affect the validity of the proceedings for redemption of Thirteenth Series Bonds for which such notice has been properly given. Notice having been so given and provision having been made for redemption from funds on deposit with the Fiscal Agent or Sinking Fund Depository, all interest on the Thirteenth Series Bonds called for redemption accruing after the date fixed for redemption shall cease, and the registered owners of the Thirteenth Series Bonds called for redemption shall have no security, benefit or lien under the General Ordinance or any rights thereunder, except to receive payment of the redemption price.

Transfer of Thirteenth Series Bonds

The Thirteenth Series Bonds are transferable and exchangeable by the registered owners thereof at the principal corporate trust office of the Fiscal Agent in Philadelphia, Pennsylvania in the manner and subject to the limitations contained in the General Ordinance. The City and the Fiscal Agent shall not be required to issue or to register the transfer of or exchange any Thirteenth Series Bonds (a) during the period fifteen business days next preceding any interest payment date for such Thirteenth Series Bonds, or (b) during the period twenty business days next preceding the first publication or mailing of any notice of redemption of such Thirteenth Series Bonds.

SECURITY

The Thirteenth Series Bonds are secured solely by moneys derived, directly or indirectly, from PGW's Project Revenues as provided in the Act, the General Ordinance and the Thirteenth Supplemental Ordinance. Such Project Revenues include principally the rents, rates and charges imposed on or charged by the City to the users of gas distributed by PGW. Reference is made to Appendix C for summaries of the Act, the General Ordinance and the Thirteenth Supplemental Ordinance, including definitions of certain terms used herein.

Pledge of Revenues and Funds

In the General Ordinance, the City has pledged and granted a security interest in all Project Revenues and all accounts, contract rights and general intangibles representing Project Revenues and, in each case, the proceeds of the foregoing, for the security and payment of all Bonds issued under the General Ordinance.

The General Ordinance subjects all moneys deposited in the Sinking Fund, including the Sinking Fund Reserve, to a security interest for the Bonds until such moneys are properly disbursed and provides that no bonds issued under the Act shall pledge the credit or taxing power of the City or create any debt or charge against the tax or general revenues of the City or create any lien against any property of the City other than Project Revenues and moneys deposited in the Sinking Fund.

Covenant Against Commingling with Other City Funds

The City has covenanted in the Thirteenth Supplemental Ordinance that so long as any of the Thirteenth Series Bonds remain outstanding, all Project Revenues shall be deposited and held in, and disbursed from, one or more unsegregated accounts of PGW which shall be separate from and not commingled with moneys or accounts of the City not held exclusively for PGW purposes. See "REMEDIES OF BONDHOLDERS".

Priority In Application of Project Revenues

The General Ordinance creates a lien on and pledge of all Project Revenues of PGW for the benefit of the holders of Gas Works Revenue Bonds and together with the Note Ordinance creates a priority in application of Project Revenues in each fiscal year as follows:

First, to Net Operating Expenses of PGW;

Second, to required payments into the Sinking Fund to pay the principal of and interest then due on all Bonds issued and outstanding under the General Ordinance and to accumulate funds in the Sinking Fund Reserve to the extent required by any Supplemental Ordinance or to restore any deficiency in the Sinking Fund Reserve;

Third, to the payment of general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from PGW*;

Fourth, to the payment of interest and sinking fund charges of other general obligation debt incurred for PGW*;

Fifth, to the payment of the principal of and interest on the Gas Works Notes and any amounts owed to the issuer of the credit facility established with respect to the Gas Works Notes; and

Sixth, to the payment of the City Charges, including the Base Payment (currently \$18,000,000), and the payment of rentals under the Lease (defined under the heading "ADDITIONAL DEBT - Subordinated Long-Term Borrowings - Lease Revenue Bonds") on a parity basis after the payments listed in items First through Fifth above.

City Charges include charges for services performed for PGW by various City departments including the expenses of the Gas Commission which also includes the cost of rate hearings. During PGW's Fiscal Years 1986-1990, City Charges exclusive of the \$18,000,000 Base Payment and of rate hearing charges have averaged approximately \$965,000 per year.

The General Ordinance provides that all interest and income earned on moneys held in the Sinking Fund Reserve may, to the extent not required to comply with the requirements of the General Ordinance relating to the Sinking Fund Reserve, be transferred to the operating funds of PGW to be applied as Project Revenues in accordance with the terms of the General Ordinance. To the extent that

* The last general obligation debt of the City related to PGW was paid in full in Fiscal Year 1987. No general obligation debt of the City described in items Third and Fourth above is currently outstanding.

in any fiscal year a balance remains in the Project Revenues, such balance, upon approval of the Gas Commission, may be paid to the City, provided that in a given fiscal year such balance does not exceed the amount of Sinking Fund Reserve Earnings transferred to the operating funds of PGW during the same fiscal year. The City requested and received a transfer of excess Project Revenues in the amount of \$6,500,000 in Fiscal Year 1986 but no additional transfers have been requested by or made to the City since then.

Rate Covenant and Rate Requirements

The General Ordinance includes the Rate Covenant which requires that, so long as Gas Works Revenue Bonds are outstanding, the City impose, charge and collect in each fiscal year such gas rates and charges as shall, together with all other Project Revenues to be received in such fiscal year, be sufficient to provide, after meeting any Sinking Fund Reserve requirements, the greater of (a) the sum of all Net Operating Expenses payable during such fiscal year plus 150% of the debt service requirements for such year on all outstanding Gas Works Revenue Bonds or (b) the sum of all Net Operating Expenses payable during such fiscal year plus the debt service requirements for such year on all outstanding Gas Works Revenue Bonds and all outstanding City general obligation bonds issued for improvements to PGW. For a further discussion of the Rate Covenant and other rate requirements applicable to PGW, see "PGW BUDGET, RATES AND FINANCING PROGRAM" and "HISTORICAL REVENUES AND DEBT SERVICE COVERAGE".

Additional Parity Bonds

The General Ordinance permits the issuance of additional Bonds which shall be parity bonds, provided, among other requirements, that an independent engineer determines that estimated Project Revenues will be sufficient to meet the Rate Covenant. See the material under the caption "The General Ordinance" in APPENDIX C for a discussion of the provisions relating to the issuance of additional Bonds. The Thirteenth Supplemental Ordinance authorizes the issuance of up to \$75,000,000 aggregate principal amount of Gas Works Revenue Bonds in one or more series, provided that such maximum principal amount may be increased to reflect sales of such Bonds at discounts which are in lieu of periodic interest, to fund capital improvements. See APPENDIX C. In accordance with the Thirteenth Supplemental Ordinance, the Thirteenth Series Bonds are being issued to fund capital improvements.

Sinking Fund

Pursuant to the Act, the General Ordinance establishes a Sinking Fund for the benefit and security of the holders of all Bonds to be held separate and apart from all other accounts of the City, and directs the Director of Finance to deposit therein from the Project Revenues in each fiscal year such amounts as will, together with interest and profits earned and to be earned on investments held therein, be sufficient to accumulate, on or before each interest and principal payment date of the Bonds, the amounts required to pay the principal of and interest on the Bonds then coming due and payable. It is the current practice of the City to make deposits in the Sinking Fund on or immediately prior to the date on which debt service payments are due. To the extent moneys are on deposit in the Sinking Fund which are not currently required for the payment of debt service, such moneys shall be invested at the direction and under the management of the Director of Finance. Interest and profit from any such investment shall be added to the Sinking Fund and credited in reduction of or to satisfy required deposits into the Sinking Fund.

Sinking Fund Reserve

The General Ordinance establishes a Sinking Fund Reserve as part of the Sinking Fund. The City is required to deposit in the Sinking Fund Reserve from the proceeds of sale of each series of Bonds issued under the General Ordinance an amount equal to the maximum amount required in any fiscal year to pay the principal of and interest on the Bonds of such series coming due and payable in that fiscal year unless the Supplemental Ordinance authorizing the series of Bonds authorizes the accumulation from Project Revenues of a reserve of such amount over a period of not more than six fiscal

years after the issuance and delivery of the Bonds. Although the Thirteenth Supplemental Ordinance has authorized an accumulation from Project Revenues, the Sinking Fund Reserve requirement will be funded from proceeds of the Thirteenth Series Bonds to the extent that the proceeds of the Thirteenth Series Bonds utilized to make such deposit is not greater than ten percent (10%) of the proceeds of such Bonds. The money and investments (valued at market) in the Sinking Fund Reserve must be held and maintained at all times in an amount equal to the maximum of the principal and interest requirements of all outstanding Bonds in any subsequent fiscal year. The City verifies the value of amounts in the Sinking Fund Reserve on a periodic basis. As of April 30, 1991, the value of the funds and investments on deposit in the Sinking Fund Reserve was required to be at least \$68,472,673 and the amount in the Sinking Fund Reserve met this requirement. If, at any time, the moneys in the Sinking Fund (other than the Sinking Fund Reserve) are insufficient to pay, as and when due, debt service on any Bond or Bonds, the Sinking Fund Depository is required to pay over to the Fiscal Agent from the Sinking Fund Reserve the amount of the deficiency. The Sinking Fund and Sinking Fund Reserve are managed by, and invested and reinvested under the direction of, the Director of Finance of the City. The General Ordinance provides that interest and income earned on moneys held in the Sinking Fund Reserve may be transferred and paid by the Director of Finance to the operating funds of PGW and applied as Project Revenues in the manner described under "SECURITY - Priority in Application of Project Revenues".

Required Deposit to Sinking Fund from Project Revenues

The City has covenanted in the General Ordinance that, if the City shall fail to make required deposits into the Sinking Fund, including the Sinking Fund Reserve, or if, for any reason, there shall be a deficiency in the Sinking Fund Reserve, it will immediately upon such failure or deficiency and without notice thereof from any Bondholder, fiscal agent, paying agent or sinking fund depository, and so long as such failure or deficiency shall continue, deposit in the Sinking Fund, including the Sinking Fund Reserve, on a daily basis, 50% of all Project Revenues or such greater percentage thereof as the Director of Finance shall determine. This obligation is generally specifically enforceable by the trustee for bondholders appointed in accordance with the Act or, if none is appointed, by any bondholder. However, the application of the Federal Bankruptcy laws could result in less than 50% of the Project Revenues being deposited in the Sinking Fund. See "REMEDIES OF BONDHOLDERS".

ADDITIONAL DEBT

Bond Anticipation Notes

The Act authorizes the City to issue revenue bond anticipation notes as well as Gas Works Revenue Bonds. Section 16 of the Act provides that:

The City may issue its revenue bond anticipation notes which shall be payable by exchange for, or out of the proceeds of the sale of, a designated series of revenue bonds referred to in the bond anticipation notes. The reference to the revenue bonds shall specify a maximum rate of interest to be borne by said bonds and may provide that said bonds shall be offered for sale but if no proposals shall be received, the sole remedy of the holders of the revenue bond anticipation notes shall be either to accept the bonds at the specified maximum interest rate, or to extend the maturity of the revenue bond anticipation notes for one or more specified additional periods of not less than six months each during which additional offers of the bonds may be made.

The Gas Commission has requested previously that PGW explore the possibility of issuing revenue bond anticipation notes pursuant to the foregoing statutory authorization. PGW does not currently intend to issue revenue bond anticipation notes during the remainder of Fiscal Year 1991 or Fiscal Year 1992.

Subordinated Short-Term Borrowings - Gas Works Notes

In addition to revenue bond anticipation notes issuable pursuant to the Act, the City is authorized by the Inventory and Receivables Financing Act and the Note Ordinance to issue Gas Works Notes from time to time in amounts, as approved by the Gas Commission, not to exceed \$100,000,000 aggre-

gate principal amount at any one time outstanding in order to finance inventory and accounts receivable. The Gas Commission has approved a maximum amount at any time outstanding for such notes of \$85,000,000. The City had outstanding as of June 15, 1991, \$81,300,000 aggregate principal amount of Gas Works Notes which are payable out of Project Revenues. For a further discussion of the issuance of tax-exempt notes, see "PGW BUDGET, RATES AND FINANCING PROGRAM - Tax-Exempt Commercial Paper" and APPENDIX A.

The Note Ordinance establishes a sinking fund for the benefit and security of the holders of the Gas Works Notes. The City covenants to deposit in the sinking fund for the Gas Works Notes from PGW's revenues (after payment of certain other expenses of PGW including the payment of debt service on Bonds outstanding under the General Ordinance) such amounts as will, together with interest and profits earned and to be earned on investments held therein, be sufficient to pay, on or before each payment date of the Gas Works Notes, the amount required, after taking into account any other available amounts, to pay the Gas Works Notes then becoming due and payable.

Subordinated Long-Term Borrowings - Lease Revenue Bonds

The Philadelphia Gas Works Lease Revenue Bonds, Series of 1989 (the "Lease Revenue Bonds") were issued in August, 1989 by The Philadelphia Municipal Authority (the "Authority"). The proceeds of the Lease Revenue Bonds were used by the Authority to acquire the headquarters and administrative office building of PGW (the "Facility") at 800 West Montgomery Avenue, Philadelphia, Pennsylvania, from the City. The amount received from the Authority has been used in PGW's ongoing capital program. The Authority and the City entered into a Lease dated as of August 1, 1989 (the "Lease") whereby the City leased the Facility back from the Authority and agreed to maintain the Facility and pay out of Project Revenues of PGW (after payment of certain other expenses of PGW including the payment of debt service on Bonds outstanding under the General Ordinance and Gas Works Notes under the Note Ordinance) rentals sufficient to pay all debt service on the Lease Revenue Bonds and other obligations of the Authority incurred in connection with the issuance of the Lease Revenue Bonds, the Lease and the transactions contemplated therein.

Rental payments by the City under the Lease are made solely from Project Revenues, to the extent such Project Revenues are available. The payment of rentals by the City under the Lease out of the Project Revenues is subject and subordinate to payment of the Gas Works Revenue Bonds and the Gas Works Notes issued by the City and certain other debt obligations relating to PGW. The City has covenanted in the Lease that it will not in any fiscal year of PGW, if and for so long as a default exists under the Lease, pay out of Project Revenues any portion of the Base Payment unless and until all rentals due under the Lease for such fiscal year shall have been paid.

REMEDIES OF BONDHOLDERS

Remedies under the Act and the General Ordinance available to Bondholders, including the holders of the Thirteenth Series Bonds, and to any trustee for Bondholders appointed by the holders of 25% in principal amount of any series of Bonds in default are described in the summaries contained in APPENDIX C hereof. In addition to the remedies described therein, Bondholders or a trustee therefor are entitled under the Pennsylvania Uniform Commercial Code to all remedies of secured parties in respect of the Project Revenues and the funds on deposit in the Sinking Fund, including the Sinking Fund Reserve.

Limitation on Remedies of Bondholders

The ultimate enforcement of Bondholders' rights upon any default by the City in the performance of its obligations under the Act, the Thirteenth Supplemental Ordinance, the General Ordinance, and the Thirteenth Series Bonds will depend upon the application of remedies provided in the Act, the Thirteenth Supplemental Ordinance, the General Ordinance and other applicable laws. Litigation may be necessary to obtain relief in accordance with these remedies. Such litigation may be protracted and costly. Remedies such as mandamus, specific performance or injunctive relief are equitable remedies, which are subject to the discretion of the court.

Enforcement of Bondholders' rights may be limited by and is subject to the provisions of the Federal Bankruptcy Code, as now or hereafter enacted, or to other laws or legal or equitable principles which may affect the enforcement of creditors' rights. Certain provisions of the Financially Distressed Municipalities Act, Act No. 1987-47 of the Commonwealth of Pennsylvania, approved July 10, 1987 (the "Distressed Municipalities Act"), which formerly applied to the City and provide, among other things, for the restructuring of debt of a financially distressed municipality and the method by which municipalities are permitted to apply for relief under the Federal Bankruptcy Code have been repealed by the Intergovernmental Cooperation Act for Cities of the First Class (Act No. 6, P.L.) (the "Intergovernmental Cooperation Act") insofar as applicable to the City. The provisions of the Distressed Municipalities Act relating to the City, which were not repealed, have been suspended with respect to the City by the Intergovernmental Cooperation Act. In addition, the Distressed Municipalities Act empowered the Department of Community Affairs of the Commonwealth to declare certain municipalities financially distressed upon the occurrence of certain events and the making of certain determinations by such Department. The Intergovernmental Cooperation Act prevents the City from filing a petition for relief under Chapter 9 of the Federal Bankruptcy Code as long as the Authority created thereunder has outstanding any bonds issued pursuant to the Intergovernmental Cooperation Act, or if no such bonds are outstanding, requires approval in writing by the Governor prior to a filing under Chapter 9 by the City. If the provisions of the Intergovernmental Cooperation Act relating to the authorization by the Governor for the City to file a petition under Chapter 9 of the Federal Bankruptcy Code were invoked, such provisions could limit the enforcement of Bondholders' rights and remedies. See "INTERGOVERNMENTAL COOPERATION AUTHORITY" in APPENDIX D.

The filing of a petition under Chapter 9 operates as an automatic stay of the commencement or continuation of any judicial or other proceeding against the debtor or its property. However, a petition filed under Chapter 9 does not operate as a stay of application of pledged special revenues to the payment of indebtedness secured by such revenues. Special revenues include receipts derived from the ownership or operation of systems that are used to provide utility services and the proceeds of borrowing to finance such systems and would include the pledged Project Revenues. The Federal Bankruptcy Code further provides that special revenues acquired by the debtor after commencement of a Chapter 9 case shall remain subject to any lien resulting from any security agreement entered into by the debtor before the commencement. However, the lien on special revenues derived from a system will be subject to the payment of the necessary operating expenses of that system. Therefore, Project Revenues acquired by the City after the filing of a Chapter 9 petition will remain subject to the lien of the General Ordinance and the Thirteenth Supplemental Ordinance in favor of Bondholders, but will be subject to the payment of PGW's necessary operating expenses as determined by the City. These required payments could be inconsistent with the requirement in the General Ordinance that, under certain circumstances, at least 50% of the Project Revenues be deposited in the Sinking Fund on a daily basis. If the pledged Project Revenues cannot support both the debt service requirements and operating expenses of PGW, it is possible that the bankruptcy court could alter the payments to Bondholders under Section 105 of the Federal Bankruptcy Code to "promote the public good". The Federal Bankruptcy Code also provides that a transfer of property of a debtor to or for the benefit of a bondholder, on account of such bond, may not be avoided as a preferential transfer.

Unless the debtor consents or the plan proposed under Chapter 9 provides, the bankruptcy court may not interfere with any of the property or revenues of a Chapter 9 debtor or with such debtor's use or enjoyment of any income-producing property. Accordingly, if the City decided to use the proceeds of the Thirteenth Series Bonds or the Project Revenues pledged for the benefit of the Bondholders for other than the benefit of the Philadelphia Gas Works, it is unclear whether a bankruptcy court would have the power to interfere with that decision. Even if a bankruptcy court had such power, the court, in the exercise of its equitable powers, could refuse to require the City to use the proceeds of the Thirteenth Series Bonds and the Project Revenues to pay Bondholders, could permit a subordination of the Gas Works Revenue Bonds liens to new bonds if the former were found more than "adequately protected" or could avail itself of a broad range of available equitable remedies. Section 105 of the Bankruptcy Code would permit a bankruptcy court to do all that is necessary with respect to the effective administration of the bankruptcy estate.

Under the Federal Bankruptcy Code, the debtor may file a plan for the adjustment of its debts which may include provisions modifying or altering the rights of creditors generally, or any class of them, secured or unsecured. The plan, when confirmed by the court, binds all creditors which had notice or knowledge of the plan and discharges all claims against the debtor provided for in the plan. No plan may be confirmed unless certain conditions are met, among which are that the plan is in the best interest of creditors, is feasible and has been accepted by each class of claims impaired thereunder. Each class of claims has accepted the plan if the votes of at least two-thirds in dollar amount and more than one-half in number of the allowed claims of the class that are voted are cast in favor of the plan. Even if the plan is not so accepted, it may be confirmed if the court finds that the plan is fair and equitable with respect to each class of non-accepting creditors impaired thereunder, does not discriminate unfairly and the court determined value of the Project Revenues as collateral was preserved. Thus, under the above-described "cramdown" provisions of the Federal Bankruptcy Code, a plan of adjustment could be imposed on the Bondholders that would give them less than their anticipated rate of interest on the Bonds or possibly even less than a full return of their principal and/or extend the time for payment of principal or interest on the Bonds.

The foregoing references to the Federal Bankruptcy Code, the Distressed Municipalities Act and the Intergovernmental Cooperation Act should not be construed as implying that the City expects to resort to the provisions of such statutes or that, if it did, any proposed restructuring would include a dilution of the sources of payment of and security for the Thirteenth Series Bonds.

PHILADELPHIA GAS WORKS

General

PGW consists of all the real and personal property owned by the City and used for the acquisition, manufacture, storage, processing and distribution of gas in the City, and all property, books and records employed and maintained in connection with the operation, maintenance and administration thereof. Included in such assets, in addition to an extensive distribution system, are facilities for the production of gas to supplement the natural gas supply from pipeline transmission companies and facilities for storage. Such facilities include a liquefied natural gas ("LNG") plant, a substitute natural gas ("SNG") plant and a liquid propane gas ("LPG") plant.

Of total gas revenues for the twelve month period ended August 31, 1990, 71% was derived from residential customers, 24% was derived from commercial and industrial customers and approximately 5% was derived from Municipal and Housing Authority sources.

Recent operating results for PGW and debt service coverages are shown below under the heading "HISTORICAL REVENUES AND DEBT SERVICE COVERAGE." For a further explanation of revenues and expenses, see "MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY STATEMENTS OF INCOME" and APPENDIX B. See also the table entitled "Debt Service Requirements" below for future debt service payments.

PGW Service Area

PGW, the nation's largest municipally-owned gas utility, purchases, sells and distributes gas within the limits of the City. The City's boundaries enclose a predominantly urbanized area of 129 square miles in southeastern Pennsylvania along the Delaware River. Within these boundaries PGW maintains a distribution system with approximately 6,000 miles of gas mains and service pipes serving slightly more than a half million customers. The mix of PGW's customers during the last five years is shown in the following table:

	Percent of Gas Sales Years Ended August 31				
	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Residential	66.1	67.4	65.6	67.2	66.8
Industrial and Commercial	28.9	27.7	29.5	28.1	28.5
Municipal and Housing Authority .	<u>5.0</u>	<u>4.9</u>	<u>4.9</u>	<u>4.7</u>	<u>4.7</u>
Total	100.0	100.0	100.0	100.0	100.0

For a discussion of PGW's sales, see "MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY STATEMENTS OF INCOME" and "PGW BUDGET, RATES AND FINANCING PROGRAM - Sales."

Management Agreement

PFMC has operated PGW pursuant to the Management Agreement since January 1, 1973. Under the Management Agreement, various aspects of PFMC's management of PGW are subject to review and approval by the Gas Commission and, where authorization of City Council is required, recommendation of the City's Director of Finance or the Gas Commission or, as appropriate, both. The Gas Commission has various responsibilities for the oversight of the operations of PGW; the Director of Finance oversees certain financial practices of PGW and the operations of its pension plan; and the City's Law Department is designated as the legal advisor to the Gas Commission and PGW. See "THE GAS COMMISSION" and "PGW BUDGET, RATES AND FINANCING PROGRAM" for a discussion of the Gas Commission and rate proceedings.

The term of the Management Agreement commenced on January 1, 1973 for a period of two years. In the absence of notice of cancellation the term is automatically extended for additional two year periods. The term is subject to cancellation by the City at any time, or upon the expiration of the two year period, upon ninety days notice. No cancellation will be effective unless and until approved by resolution or ordinance of City Council.

Management

PFMC is responsible for providing executive management of PGW under the Management Agreement. The Management Agreement states that PFMC shall provide a chief executive officer, chief operating officer and chief financial officer and other personnel as deemed appropriate by PFMC. All PFMC personnel are subject to the approval of the Gas Commission. PFMC's officers also serve as officers of PGW.

The position of *President and Chief Executive Officer* has been vacant since August 1, 1989. A national search to fill the vacancy is currently being conducted by a search committee formed by PFMC. A new President is expected to be named in the near future. Alfred P. Degen, PGW's Executive Vice President has served as Acting President since August 1, 1989.

The following brief resumes provide pertinent information on the major management qualifications of the PFMC and PGW senior managers:

Alfred P. Degen, Executive Vice President

Mr. Degen joined PGW in 1968 and has held management positions in the Finance, Customer Activities and Administrative areas of PGW, including the positions of Assistant Vice President-Customer Activities, Vice President-Administration and Senior Vice President and Chief Financial Officer. He is a member of the Managing Committee of the American Gas Association's Finance and Administrative Section, and the Society of Gas Lighting.

Sydney M. Avent, Esq., Senior Vice President Administration and General Counsel

Ms. Avent joined PGW in January 1984 as Staff Attorney and was named Senior Attorney in December 1984, Corporate Counsel in October 1985, Senior Vice President and General Counsel in January 1988 and Senior Vice President Administration and General Counsel in September 1990. Ms. Avent is a member of the American Gas Association Legal Forum; the past president of the Women Lawyers Division of the National Bar Association; a trustee of the Philadelphia Bar Foundation (1987-1990); and a member of the American and Philadelphia Bar Associations, and the Barristers Association of Philadelphia. She also is a member of the American Association of Blacks in Energy.

Joseph G. Horan, Senior Vice President and Acting Chief Operating Officer

Mr. Horan joined PGW in 1956 and has held management positions in the Operations, Customer Activities and the Corporate Planning and Development areas, including the positions of Vice President-Operations and Vice President-Customer Activities. He was named Senior Vice President-Corporate Planning and Development on March 1, 1986, Senior Vice President in January, 1988 and Senior Vice President and Acting Chief Operating Officer on September 11, 1990. He is a member of the American Gas Association and serves on the Managing Committee of the Operating Section, as well as a member of the government Relations Committee. He is also a member of the Executive Committee of the Associated Gas Distributors and the Society of Gas Operators.

Edward H. Morris, Jr., Senior Vice President and Chief Financial Officer

Mr. Morris joined PGW as Assistant Vice President of Finance in 1984, was named Vice President of Finance in 1986, appointed Vice President and Chief Financial Officer in 1988 and Senior Vice President and Chief Financial Officer in December, 1990. He has overall responsibility for PGW's Operating Budget, and the administration and overview of the Accounting and Budget, Treasury, and Claims and Insurance Departments. In addition, Mr. Morris directs the functions of the Customer Activities Area, through the Vice President of Customer Activities. He is a member of the American Gas Association, Board of Trustees of the American Gas Foundation, Financial Executives Institute, and the Government Finance Officers Association.

Employee Relations

At April 30, 1991, PGW employed 2,453 people. Presently, approximately 74% of PGW's employees are represented by the Gas Workers Employees Union Local 686, approximately 2% are represented by the United Plant Guard Workers of America, Local 506 and 24% are unaffiliated management.

On May 13, 1989, an agreement was reached with the Gas Worker's Employees' Union Local 686 bargaining committee and accepted by the membership on May 15, 1989, resulting in a four-year agreement.

Facilities

Production Facilities — The principal PGW natural gas facilities include eight city gate stations and two major gas production plants, Richmond and Passyunk. Located at these plants are two liquefied natural gas (LNG) plants, a gas control center, a propane/air plant, a decommissioned substitute natural gas (SNG) plant and two gas holders.

Natural gas is received through eight City gate stations from two pipeline transmission companies — Texas Eastern Transmission Corporation (TETCO) and Transcontinental Gas Pipe Line Corporation (TRANSCO). The facilities at each of the City gate stations perform two basic functions, metering the flow of gas and controlling the pressure delivered to PGW's distribution system.

The gas control dispatchers, located at the Richmond Plant, monitor and control gas flow and pressure from the eight city gate stations to the high pressure distribution system. The gas control dispatchers also provide direction to the production plant operators concerning startup, shutdown and gas flow output from the LNG and propane/air plants. Operations are facilitated through the use of a computer system which includes a backup unit and an auxiliary power supply.

The LNG storage and vaporization facility at the Passyunk plant receives its liquefied gas supply from the Richmond plant via cryogenic trailer trucks. The Passyunk LNG facility consists of one LNG storage tank of 3,066,000 gallons (i.e., the equivalent of 253,000 thousand cubic feet (mcf) of natural gas) and three LNG vaporizers, each having a capacity of 45,000 mcf per day.

The Richmond LNG plant has facilities for liquefaction in addition to storage and vaporization. During the nonheating season, PGW uses the Richmond LNG plant to liquefy and store natural gas from the pipeline. The plant has the capacity to liquefy and store approximately 25,000 mcf per day and the two storage tanks have a combined capacity of 48,970,000 gallons of LNG (4,046,000 mcf). Regasification of the liquid is accomplished with six vaporizers.

The Passyunk propane/air plant has the air compression and propane vaporization capacity to produce 60,000 dekatherms (Dth) of propane/air mix per day and has a liquid propane storage capacity of approximately 662,000 gallons. The propane/air plant is now temporarily being taken out of service as required use, even under design conditions, is not anticipated until the 1996 Fiscal Year.

The Passyunk plant SNG facility is inoperative. However, many components of the plant including a water demineralization unit, boilers, and air compressors are being retained and are utilized in the day-to-day operations of other portions of the Passyunk plant.

Both the Richmond and Passyunk plants have a low pressure gas holder. Holders are used for keeping daily pipeline purchases within contract limitations and for hourly peak shaving requirements. These holders have operating capacities of 3,000 mcf and 6,000 mcf for the Richmond and Passyunk plants, respectively.

Distribution Facilities — The principal gas distribution facilities consist of approximately 3,012 miles of main, 503,439 service pipes, 205 regulator stations, 522,018 active meters, miscellaneous valves, instruments and other appurtenances. There are five different operating pressure systems; each system is connected to the others by control regulators. The high pressure systems operate at approximately 100, 60 and 30 pounds per square inch of gas (psig); the intermediate pressure system operates at 5 psig; the low pressure system operates between 6 and 9 inches of water column (approximately .25 psig). The majority of customers are served from the low pressure system.

Approximately 62 percent of the gas mains are cast iron pipe, 32 percent steel pipe, 5 percent ductile iron pipe and less than 1 percent plastic pipe. Approximately 67 percent of the service laterals are steel and 33 percent plastic. That part of the system subject to corrosion is cathodically protected.

Other Facilities — PGW's executive and operating offices are located at 800 West Montgomery Avenue which is a 150,000 square foot office building completed in 1988. The old office building houses distribution and customer service-dispatch centers, service stations, and warehouses, as well as man-

agement information systems, a metal fabrication shop and a meter repair shop. Additional facilities include eight district offices and four operating stations for customer service and distribution crews. In addition, there is a warehousing facility and an automotive maintenance and repair facility. The automotive maintenance and repair facility is responsible for the upkeep of PGW's fleet of approximately 1,068 vehicles and equipment. PGW also maintains minor automotive repair facilities at three of its operating stations.

THE GAS COMMISSION

The Management Agreement provides for a five member Gas Commission consisting of the City Controller (or his representative), two members appointed by City Council and two members appointed by the Mayor, and vests in the Gas Commission the responsibility for overseeing the operation by PFMC of PGW. The current members of the Gas Commission are listed below:

Lucien E. Blackwell, Chairman – Mr. Blackwell is a former member of the City Council of Philadelphia representing the Third District. Mr. Blackwell is also the head of the Car Loaders Local of the International Longshoremen's Association. Mr. Blackwell was appointed to the Gas Commission by City Council.

Jonathan A. Saidel – Mr. Saidel is the City Controller of the City. Mr. Saidel's term of office as Controller and his position on the Commission expire on January 1, 1994.

Laurence Reaves – Mr. Reaves serves as a mayoral appointee on the Gas Commission with a term expiring January 1, 1992. Mr. Reaves is retired.

David Boonin – Mr. Boonin serves as a mayoral appointee to the Gas Commission with a term expiring January 1, 1992. Mr. Boonin is the Assistant to the Director of Finance for Utility and Regulatory Affairs for the City.

Ann J. Land – Mrs. Land currently represents the Fourth District in Philadelphia City Council. Her current term as a member of City Council expires January 1, 1992. Mrs. Land was appointed to the Gas Commission by City Council.

The Management Agreement grants to the Gas Commission certain specified powers and duties and all other powers not specifically granted to PFMC. The powers and duties granted to the Gas Commission include fixing of PGW rates and charges, approval of personnel provided by PFMC, review of gas supply contracts for approval by City Council, approval of changes in tests and standards of gas quality and pressure, approval of the annual operating budget, review of the capital budget and recommendations thereon to City Council, approval of certain loans, access to and review of all books, records and accounts of PGW, prescription of insurance requirements, promulgation of standards for procurement and disposal of material, supplies and services, and approval of all real property acquisitions for further approval of City Council.

PGW BUDGET, RATES AND FINANCING PROGRAM

The Project Revenues which PGW uses to pay debt service on the Bonds and to fund its operations are derived primarily from the sale of gas and related services to its customers. Rate and tariff charges for the sale of gas and services are proposed by PGW based on anticipated revenues and expenses, required debt service coverage and need for funds for capital expenditures, among other factors.

PGW Budget Process and Rate Charges

The Management Agreement in its current form requires PGW to prepare an annual operating budget and an operating forecast for four years comprising the ensuing year and the three years following the budget year. The operating budget and forecast are subject to the approval of the Gas Commission. PGW also prepares annually a proposed capital budget and a forecast for six years

comprising the budget year and the five years following the budget year. The capital budget and forecast are reviewed by the Director of Finance of the City and the Gas Commission and are forwarded to City Council for approval. These budgets and forecasts are estimates and are subject to future events and the passage of time.

Whenever a rate change is sought by PGW or other parties, the Gas Commission holds public hearings on the proposed change at which PGW and other interested parties are permitted to present evidence supporting their position with respect to the rates. Community Legal Services, Inc. was appointed by the Gas Commission in 1988 to serve as Public Advocate in rate hearings to represent residential customers. The Gas Commission issues orders based upon its findings. These orders may direct PGW to reduce expenses in certain areas or increase spending on certain items or to undertake specific projects. The Gas Commission considers a number of factors before determining whether to accept, modify or reject the rate increases proposed by PGW. The Gas Commission orders regarding rates may be appealed by PGW and other interested parties to the Court of Common Pleas of Philadelphia County with further right of appeal to the Commonwealth Court.

Rates and Charges

The rates fixed by the Gas Commission, to be charged by PGW for providing gas and related services, are subject to various statutory provisions. The General Ordinance and the Management Agreement, the complete text of which was authorized by ordinance, each contains a rate covenant. In addition, the Philadelphia Home Rule Charter contains provisions which authorize the Department of Public Property of the City pursuant to standards ordained by City Council to fix rates and impose charges in the amount necessary to yield the City at least an amount equal to PGW's operating expenses and debt service payments (including sinking fund requirements), but only in the event PGW is not managed and operated pursuant to a lease with an entity other than the City. See APPENDIX C for a further description of the General Ordinance.

The Management Agreement directs the Gas Commission, without further authorization of City Council, to fix rates and charges (other than charges to the City and the Philadelphia Board of Education, which are subject to approval of City Council) which, together with other Project Revenues, will in each fiscal year produce revenues sufficient, at a minimum:

(a) to pay all the operation and maintenance costs and expenses of PGW, including, but not limited to, depreciation, employee retirement costs and a management fee to PFMC not exceeding \$300,000 annually; to pay debt service (including sinking fund deposits) becoming due in such fiscal year on debt incurred for PGW and to meet applicable rate covenants;

(b) to make annual payments to the City in the aggregate principal amount of \$18 million;

(c) to provide appropriations for debt reduction and capital additions not otherwise provided which are determined by the Gas Commission to be reasonable and which are approved by City Council; and

(d) to provide reasonable additions to working capital as may be determined by PFMC and approved by the Gas Commission.

The Management Agreement provides that, for purposes of complying with such rate requirement, the amount of operating expenses which do not represent an actual outflow of funds (e.g., depreciation) may be included in determining whether revenues are sufficient to meet other costs, expenses and requirements.

The Management Agreement also requires the rate schedules to be nondiscriminatory and based on a suitable and reasonable classification of the services provided, taking into consideration the nature and purpose of the use, the quantity used, the time when used, the available supply of gas and other competing fuels, the maximum demand and State and Federal laws, regulations and guidelines. The Gas Commission has granted a 20% discount to persons 65 years of age and over for residential use.

Capital Improvement Program

The rates proposed by PGW and approved by the Gas Commission also take into account the needs of PGW's capital improvement program (the "Capital Improvement Program") which generally is funded by the sale of revenue bonds and internally generated funds ("IGF"). Net proceeds of revenue bond sales are placed into restricted segregated accounts for the Capital Improvement Program and are requisitioned for expenditures as required for the Capital Improvement Program or to reimburse PGW for expenditures made in advance of issuance of Gas Works Revenue Bonds. For use of the proceeds of the Thirteenth Series Bonds, see "PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS." PGW determines its capital improvement requirements from projected customer additions, pipeline gas availability, peak day gas requirements, enforced relocation due to highway and bridge construction and the need to maintain its plant and equipment in a safe, adequate and reliable manner. For further discussion of the Capital Improvement Program, see "1992 Capital Budget and Forecast" below and APPENDIX B - "Engineering Report".

The following table presents information regarding actual net capital expenditures for Fiscal Years 1986-1990 (together with Fiscal Year 1991 Estimates):

FISCAL YEAR
NET CAPITAL EXPENDITURES (1)
(Dollar Amounts in Thousands)

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991 Estimated</u>
Gas Supply	\$ 2,839	\$ 3,294	\$ 6,124	\$ 6,320	\$ 6,763	\$10,035
Distribution	29,654	35,621	41,846	39,419	39,164	38,070
Customer Service.....	3,856	4,546	4,426	3,004	4,155	4,463
Other	<u>10,838</u>	<u>14,645</u>	<u>20,141</u>	<u>8,380</u>	<u>8,116</u>	<u>8,237</u>
Total	<u>\$47,187</u>	<u>\$58,106</u>	<u>\$72,537</u>	<u>\$57,123</u>	<u>\$58,198</u>	<u>\$60,805</u>
Internally Generated Funds to Fund Capital Improvements .	<u>\$ 6,200</u>	<u>\$21,100</u>	<u>\$19,400</u>	<u>\$ 8,200</u>	<u>\$17,300</u>	<u>-0-</u>

(1) Net of reimbursements, contributions and salvage.

Internally Generated Funds

PGW provides for a portion of capital costs to be funded through the use of IGF. IGF consist of funds generated by PGW net revenues after payment of City Charges which are available in part because of the level of debt service coverage established by the Gas Commission and achieved by PGW's operations. See "Debt Service Coverage Ratio" below. A decline in net revenues reduces IGF and requires that the shortfall be funded from the sale of additional revenue bonds. In Fiscal Year 1990, PGW generated \$17.3 million of IGF, which funded approximately 30% of the capital expenditures for that year. In Fiscal Years 1986-1989, IGF funded from a low of 13% to a high of 36% of the capital expenditures in said fiscal years.

In Fiscal Year 1991 IGF are not expected to be available to fund capital expenditures. While approximately \$9 million of IGF was budgeted for Fiscal Year 1991, the extraordinarily warm weather during Fiscal Year 1991 described in "PGW BUDGET, RATES AND FINANCING PROGRAM - Fiscal Year 1991 Operating Budget and Rate Proceedings" and "MANAGEMENT DISCUSSION AND ANALYSIS OF THE SUMMARY STATEMENTS OF INCOME" herein appear to have created a revenue shortfall which has eliminated all amounts which would otherwise constitute IGF.

Tax-Exempt Commercial Paper

PGW's short term financing needs are managed by the use of its tax-exempt commercial paper program. See "ADDITIONAL DEBT - Subordinated Short-Term Borrowings - Gas Works Notes." The Gas Works Notes are not subject to the Rate Covenant and provide financing flexibility to enable PGW to meet its current operating needs. PGW is authorized to issue up to \$85 million of Gas Works Notes.

At June 15, 1991 the amount of Gas Works Notes outstanding was \$81.3 million. The City expects to issue additional Gas Works Notes and anticipates that a total of \$83 million of Gas Works Notes may be outstanding by the end of August, 1991.

Gas Cost Rate

PGW's greatest expense is the cost of natural gas and raw materials. These costs are recovered through the operation of the Gas Cost Rate ("GCR") as authorized by the Gas Commission. The base rate established from time to time by the Gas Commission in its rate proceedings includes a fuel component cost. The GCR is designed to permit PGW on a quarterly basis to adjust its charge to residential customers to approximate its actual cost of fuel materials. PGW calculates its anticipated annual cost for fuel and allocates that cost to its customers on a levelized basis for payment during the fiscal year. GCR collections are then matched against actual costs for the year to date and the GCR is adjusted quarterly if necessary to credit or charge consumers in the upcoming period for overpayment or underpayment for fuel costs to date. For Fiscal Year 1991 the base cost of fuel raw materials included in the rates was \$3.18 per thousand cubic feet (Mcf) and the current GCR effective as of September 1, 1990 is a negative 17.5 cents per Mcf reflecting a credit on customers bills. The Gas Commission authorized the GCR to remain at negative 17.5 cents per Mcf in its Rate Order of February 5, 1991. See "Fiscal Year 1991 Operating Budget and Rate Proceedings" below.

Previous Rate Proceedings

On May 29, 1986, PGW filed a request for a base rate increase with the Gas Commission designed to produce net additional base revenues in the fiscal year commencing September 1, 1986 of \$59 million. On March 3, 1987, the Gas Commission granted a base rate increase, which became effective May 7, 1987, designed to produce net additional base revenues for the period January 1, 1987, through August 31, 1987, the fiscal year end, of \$28.6 million. On September 16, 1987, the Gas Commission ordered that the base rate be annualized to produce the same level of base revenues for the fiscal year ending August 31, 1988.

On June 3, 1988, PGW filed a rate request for a base rate increase with the Gas Commission designed to produce additional base revenues in the fiscal year commencing September 1, 1988 of \$49 million. On October 13, 1988, the Gas Commission rejected this request and established base rates reflecting a \$2 million reduction in base revenues, effective as of September 1, 1988. In connection with its rate decision of October 13, 1988, the Gas Commission suggested certain expense reductions which it estimated would allow PGW to meet its financial obligations and achieve a debt service coverage level estimated at 1.79. In response to this rate decision, PGW developed an operational plan for Fiscal Year 1989, which included extensive reductions in operating expenses. Personnel levels were reduced by PGW through attrition and the implementation of an early retirement program and actual results for Fiscal Year 1989 showed a decrease for personnel costs of 11.9% compared to the original budget for 1989. All other operating expenses were reviewed and selective reductions were implemented. Other reductions in operating expenses (excluding weather related raw materials) for such items as advertising, promotion, company dues and subscriptions and purchased services produced a 1.7% decrease in operating expenses from the original budget numbers. Although PGW did not achieve the debt service coverage level of 1.79 estimated by the Gas Commission on October 13, 1988, the foregoing initiatives and other measures did produce debt service coverage for Fiscal Year 1989 of 1.59.

In August 1989, PGW proposed an operating budget for Fiscal Year 1990 that included a base rate increase in Fiscal Year 1990 designed to produce additional revenues in such fiscal year of \$15,000,000. After informal discussion with Gas Commission representatives, PGW determined that a combination of further manpower expenditure reductions and institution of charges for customer services would enable PGW to design an operating budget requiring no base rate increase that would nevertheless satisfy the debt service coverage requirements imposed by the Rate Covenant and meet the operating needs of PGW. The budget reflected extensive operating and administrative adjustments made during the preceding two fiscal years, during which no base rate increases were implemented. The Fiscal Year 1990 Operating Budget as approved by the Gas Commission projected a debt service coverage ratio of

1.73. Actual operating results for Fiscal Year 1990 produced a debt service coverage ratio of 1.51. For information about rate proceedings concerning Fiscal Year 1991, see "Fiscal Year 1991 Operating Budget and Rate Proceedings" below.

The Fiscal Year 1990 Management Audit

In November 1989, PGW received a management audit report of its operations performed at the request of the Gas Commission by Schumaker & Company, a management consulting firm based in Ann Arbor, Michigan. The management audit included 149 recommendations to improve PGW's operations and financial results, which were accepted by the Gas Commission. The Gas Commission in November 1989 voted to implement immediately ten of those recommendations and appointed a task force to oversee implementation of 64 additional recommendations. Action plans have been developed by PGW for implementation of the majority of the remaining recommendations. Periodic reports on implementation of the action plans are made to the Gas Commission. PGW is currently preparing a progress report which it expects to file with the Gas Commission along with its proposed operating budget for Fiscal Year 1992.

Implementation of some of the recommendations may produce cost savings over time. Some of the recommendations entail the incurrence of costs. Estimating the amount and timing of costs and savings is difficult because many of the recommendations involve long-term projects such as computerization and the development of more sophisticated programs with respect to accounting, budgeting and forecasting and the redesign and redeployment of departmental resources. Whether any savings will result from such improvements is uncertain. Individual departments have included in their budgets and forecasts, both the costs and the savings expected as a result of the incremental initiation of these action plans.

Fiscal Year 1991 Operating Budget and Rate Proceedings

In May, 1990 PGW submitted its proposed operating budget for Fiscal Year 1991 to the Gas Commission for consideration. The proposed budget anticipated a debt service coverage ratio of 1.81. Included in the operating forecast prepared in connection with the operating budget for Fiscal Year 1991 was a proposed base rate increase intended to generate additional net revenues for PGW of \$31,000,000 during Fiscal Year 1991 (representing an increase of 6.5% over the projected Fiscal Year 1990 revenues). PGW has been able to defer a base rate increase since 1987 in part by instituting management efficiencies and by reducing operating expenses. The budget submitted by PGW reflected management's view that nearly all savings achievable by instituting additional cuts in expenditures had been achieved, and provided that after provision for cost savings a base rate increase of \$31 million was necessary to generate sufficient revenues to meet the Rate Covenant and other obligations.

PGW filed its request for a rate increase for Fiscal Year 1991 with the Gas Commission on June 29, 1990. Along with the requested rate increase, PGW recommended that the annual adjustment to the GCR reflect a 48.5 cent per Mcf credit. The Gas Commission combined the two requests into a single proceeding and on February 5, 1991 issued its rate order. In its rate order, the Gas Commission denied the requested \$31 million base rate increase but with respect to the GCR, the Commission increased the credit for customers to 17.5 cents per Mcf, a greater credit than the 6.55 cents per Mcf established in the prior year, but significantly less than the 48.5 cents per Mcf which had been recommended by PGW. This decrease in the GCR credit from the proposed level would have had the effect (on a normal weather budgetary basis) of increasing PGW's budgeted gas revenues for Fiscal Year 1991 by \$16 million.

PGW's operating budget for Fiscal Year 1991 was also approved by the Gas Commission on February 5, 1991. The approved budget projected a debt service coverage ratio of 1.81. However, as a result of the extremely warm heating season experienced in Fiscal Year 1991 (the warmest in approximately 60 years), PGW estimated operating revenues (as of May 31, 1991) to be approximately \$53.6 million below the budgeted level and operating income to be approximately \$28.5 million below the budgeted level. In the absence of additional budgetary action by PGW and the Gas Commission, these weather related revenue short-falls could have resulted in the debt service coverage ratio falling below

the level required in the Rate Covenant contained in the General Ordinance. However, to ameliorate this problem PGW has implemented a number of measures, including a hiring freeze, restrictions on overtime and adjustments of its interest earning assumption with respect to its pension plan investments. In addition, the Gas Commission has monitored PGW's operating results throughout the heating season and on May 22, 1991 modified its February 5, 1991 rate order by further reducing the base cost of fuel raw materials included in the base rates by an additional \$.15 per Mcf from \$3.33 per Mcf to \$3.18 per Mcf effective retroactive to September 1, 1990. PGW expects this modification to add approximately \$8.0 million to operating revenues in Fiscal Year 1991 and overall expects to achieve a debt service coverage ratio of 1.51 for Fiscal Year 1991.

Fiscal Year 1992 Operating Budget and Rate Proceeding

PGW's proposed Fiscal Year 1992 Operating Budget has been approved by the PFMC. PGW expects to file the Operating Budget and a request for a rate increase designed to produce additional net revenues of \$34,000,000 for Fiscal Year 1992 with the Gas Commission before the close of Fiscal Year 1991. PGW believes this proposed base rate increase is necessary to produce additional revenues sufficient to meet the anticipated requirements of PGW's Capital Improvement Program, operating expenses and debt service coverage ratio.

PGW's five year operating forecast also presumes an additional \$17 million base rate increase becoming effective in Fiscal Year 1995. The operating forecast also takes into account anticipated savings from implementation of the remaining recommendations of the management audit. The Fiscal Year 1992 operating budget and the Fiscal Years 1993-1996 operating budget forecasts are merely estimates which are subject to significant changes over time. There is no assurance that any rate increases proposed by PGW will be approved by the Gas Commission or implemented so as to produce the projected base rate revenue increases in the fiscal years as forecasted. Further, there can be no assurance that PGW, upon review of actual results will seek rate increases in the amounts and at the times described in this paragraph.

Debt Service Coverage Ratio

The annual operating budget approved by the Gas Commission estimates the level of revenues required to reach the debt service coverage ("DSC") ratio authorized by the Gas Commission. As shown below, during each of the last six fiscal years and in the current fiscal year PGW's actual operating results regularly have produced, or are expected to produce, a DSC ratio appreciably lower than the coverage estimated in the approved Operating Budget:

Fiscal Year	DSC Ratio	
	Budget	Actual
1985	1.99	1.75
1986	1.91	1.60
1987	2.00	1.87
1988	1.85	1.60
1989	1.79	1.59
1990	1.73	1.51
1991	1.81	1.51*

* Estimated.

The difference between budgeted debt service coverage and actual coverage is attributable to a variety of factors, including (a) shortfalls in revenue, and (b) differences between PGW and the Gas Commission in the calculation of certain expense items such as reserve for bad debts. The major reasons for the shortfalls in revenue are weather conditions which result in differences between budgeted and actual degree days and levels of interruptible sales and associated profit margins which depend on fuel oil prices. In order to compensate for these changes over which PGW has no control, PGW recommends a DSC ratio of approximately 1.80 to provide a margin of comfort. Certain cost cutting programs, based on assumptions about PGW's operations made by the Gas Commission during rate proceedings, are sometimes difficult to implement as planned, due to timing restraints and imple-

mentation costs and actual results of the implementation of Gas Commission orders may not have the effect on revenues and expenses anticipated by the Gas Commission. See also "HISTORICAL REVENUES AND DEBT SERVICE COVERAGE" below.

Sales

PGW's proposed operating budget for Fiscal Year 1992 anticipates total operating revenues of \$548,663,000 and assumes implementation of the \$34,000,000 rate increase discussed above. The forecast of sales is based on an analysis of historical usage patterns and utilizes a normal (average) weather pattern containing 4,600 degree days. Factors considered include the actual growth or decline in number of customers, changes in rates of consumption by customers in each rate classification, the existing and anticipated price advantage of natural gas over alternative fuels, the availability of natural gas, and the likelihood of PGW's participation in new construction and rehabilitation projects. The operating budget also includes anticipated Load Balancing Service (LBS) sales which are interruptible sales to industrial and commercial users. LBS sales are based upon the availability of gas for sale at a competitive price after the demand for gas by all other classes of customers has been satisfied.

Total sales are expected to increase by 7.4 bcf in Fiscal Year 1992 or 10.7 percent from Fiscal Year 1991. Steam system conversions are partially responsible for this projected growth. Annual firm sales for Fiscal Year 1992 are budgeted at 62.8 bcf, an increase of 7.0 bcf over Fiscal Year 1991. Although interruptible sales are difficult to estimate, PGW's Fiscal Year 1992 budget includes interruptible sales and Gas Transport of 13.8 bcf in Fiscal Year 1992, representing an increase of 3.1 percent from Fiscal Year 1991.

PGW anticipates that there will not be a significant increase in customers in the near future. The residential customer base will remain relatively stable despite the lack of growth in the City's population. Commercial and light industrial customer growth is expected to be stronger resulting from new construction, rehabilitation, conversion to gas from other sources and the introduction of new gas technologies such as air conditioning and, possibly, cogeneration. Included in PGW's sales forecast are the conversion of primarily commercial customers from the Philadelphia center city steam loop. PGW's Marketing Department estimates that approximately 35% of the steam loop will be converted to gas by 1994. To enhance this effort, PGW has recently begun to market gas-fired chiller/heaters rather than straight boiler conversions to this group of customers which would provide even greater savings to these customers relative to their current energy costs. Increases in interruptible sales are difficult to predict since they are partly opportunistic and depend on many factors outside PGW's control including the price of oil and the number of experienced heating degree days. Total PGW interruptible sales have fluctuated between 10.4 and 12.6 bcf/yr since Fiscal Year 1984. For discussion of PGW's sales in prior years, see "MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY STATEMENTS OF INCOME."

1992 Capital Budget and Forecast

The PGW proposed Capital Budget for Fiscal Year 1992 and Forecast Years 1993 through 1997 was submitted to the Gas Commission on March 14, 1991. The Fiscal Year 1992 Capital Budget in the net amount of \$56.9 million, provides funds for the customary maintenance, construction and replacement items necessary to continue service to PGW's customers. Over 80% of the Fiscal Year 1992 Capital Budget and over 74% of the six-year forecast expenditures are for replacement of facilities to ensure continuing safe, reliable and adequate service. The balance of the projected expenditures are included to provide new and expanded gas service to present and future customers.

PGW's Distribution Department represents 65% of both the Fiscal Year 1992 Proposed Budget submission and the six-year total. Of these expenditures for mains, services and pressure and corrosion control facilities, approximately 82% represents replacement of existing facilities in the Fiscal Year 1992 Budget and Forecast Years.

The Gas Supply Department has presented a Fiscal Year 1992 Budget of \$8.7 million and a total for the six years of \$47.8 million. In light of City Council's recent approval of the 1991 Capital Budget, the proposed Gas Supply Department's capital budget for 1992 will be modified prior to submission to

City Council to delete approximately \$511,000 for items resubmitted in the 1992 proposal which were included in the 1991 Budget approved by City Council. In the six-year period, the Department is requesting 72% of the funds for replacements and 28% for additions.

The Customer Service Department's budget and forecast of \$38.7 million includes \$10.7 million for the continued funding of the soon to be initiated Automated Meter Reading Project. Additions represent 58% of its program forecast. Transportation and Other Departments have submitted a Fiscal Year 1992 Capital Budget of \$6.4 million and a six-year program of \$39.2 million. Replacements represent 82% of this total.

In accordance with the Management Agreement, PGW's Capital Budget must be submitted to the City Council with recommendations from the Director of Finance and the Gas Commission. The Gas Commission considered the Fiscal Year 1991 Capital Budget and recommended that the restoration of daily LNG vaporization capability proposed by PGW be deleted from the 1991 Capital Budget. The Director of Finance of the City has also reviewed the Fiscal Year 1991 Capital Budget and recommended that the approved budget leave intact PGW's proposed restoration of LNG capability to 450 MMcf. On June 6, 1991, City Council approved the 1991 Capital Budget in the amount of \$54,725,700. See APPENDIX B - "Engineering Report - Capital Improvement Program."

The Thirteenth Series Bonds are being issued by the City on behalf of PGW to pay for various capital expenditures. PGW's financial forecast for Fiscal Years 1991-1996 anticipates the issuance of the Thirteenth Series Gas Works Revenue Bonds in 1991, the Fourteenth Series Gas Works Revenue Bonds in 1992 and Fifteenth Series Gas Works Revenue Bonds in 1995, each in the aggregate principal amount of approximately \$75,000,000. PGW does not currently intend to issue bond anticipation notes during the remainder of Fiscal Year 1991 or Fiscal Year 1992.

PGW's proposed capital budget for Fiscal Year 1992 and its five-year forecast were filed with the Gas Commission on March 14, 1991. The City's Finance Director gave a favorable recommendation to the Gas Commission regarding PGW's proposed capital budget but did recommend that the Fiscal Year 1992 capital budget be reduced from \$56.9 million to a "more appropriate level not to exceed \$43 million".

The Gas Commission noted that PGW's proposed Fiscal Year 1992 budget of \$56.9 million includes \$35.2 million to be spent in Fiscal Year 1992. PGW also proposed carrying forward \$40.6 million of previously approved but not fully spent funds from prior years including \$20.4 million to be spent in Fiscal Year 1992, bringing the total spending for Fiscal Year 1992 to \$55.6 million. The Gas Commission recommended that City Council approve the \$55.6 million spending level and ordered PGW to change its accounting procedures to lapse funds associated with recurring or normal capital projects to which a firm commitment has not been made. The Gas Commission further recommended that PGW, in cooperation with the Public Advocate, Gas Commission, and Finance Director, develop a project list to allocate this capital authorization. To date City Council has not acted on the Gas Commission's recommendations regarding PGW's proposed capital budget for Fiscal Year 1992.

GAS SUPPLY AND REGULATION OF FEEDSTOCKS

PGW has contracts for natural gas with two major interstate pipeline companies which account for virtually all of PGW's gas supplies. In addition, it relies on pipeline storage gas deliveries under storage contracts with the same pipeline companies. It also owns and operates supplemental LNG and propane-air facilities to meet incremental demand in excess of pipeline and storage supplies. PGW's SNG facility is not presently in use for the production of gas. A preliminary decision has been made to discontinue maintenance on the unused portion of the plant. A decision on the most effective disposition/disposal of the unused portions of the plant will be made in the future. PGW's supplies of natural gas, LNG and propane-air are adequate to meet its projected demand under either normal or design (colder-than-normal) conditions through 1996. The price and supply of interstate natural gas and certain feedstocks for PGW gas manufacturing facilities are regulated by the Federal Energy Regulatory Commission. Pursuant to legislation included in the National Gas Policy Act, regulation of the price of interstate natural gas was phased out gradually and terminated on January 1, 1985.

SUMMARY STATEMENTS OF INCOME

The summary statements of income set forth below should be read in conjunction with the audited financial statements and notes included in Appendix A hereto.

	(Dollar Amounts in Thousands)					Seven Months Ended	
	Fiscal Years Ended August 31,					March 31, (2)	
	1986	1987	1988	1989	1990	1990	1991
Operating revenues	\$477,127	\$456,443	\$469,567	\$472,706	\$472,172	\$367,657	\$354,321
Operating expenses							
Natural gas	266,029	221,119	229,284	238,087	230,362	173,466	156,977
Other raw materials ...	1,003	1,814	549	(155)	1,037	1,012	512
Gas processing	18,726	18,899	24,062	24,565	24,353	14,858	12,631
Customer service	20,306	20,858	20,786	20,382	19,229	12,451	11,791
Distribution	13,411	14,350	16,562	16,244	20,588	12,886	10,516
Customer activities	47,309	51,449	51,186	46,652	51,144	34,257	35,392
Administrative and gen- eral	25,068	26,112	28,413	27,185	26,989	17,106	17,434
Pensions	17,571	16,763	17,016	21,497	17,748	11,350	11,208
Taxes	5,430	5,808	6,398	5,831	6,153	3,756	3,695
Depreciation	14,553	19,462	21,155	19,015	18,872	11,296	11,994
Total operating expenses .	<u>429,406</u>	<u>396,634</u>	<u>415,411</u>	<u>419,303</u>	<u>416,475</u>	<u>292,438</u>	<u>272,150</u>
Operating income	47,721	59,809	54,156	53,403	55,697	75,219	82,171
Other income	<u>15,643</u>	<u>12,295</u>	<u>15,940</u>	<u>12,858</u>	<u>11,880</u>	<u>7,554</u>	<u>7,861</u>
Income before interest exp.	63,364	72,104	70,096	66,261	67,577	82,773	90,032
Interest expense	<u>44,244</u>	<u>44,125</u>	<u>48,575</u>	<u>47,736</u>	<u>49,007</u>	<u>28,713</u>	<u>30,764</u>
Net income (1)	<u>\$ 19,120</u>	<u>\$ 27,979</u>	<u>\$ 21,521</u>	<u>\$ 18,525</u>	<u>\$ 18,570</u>	<u>\$ 54,060</u>	<u>\$ 59,268</u>

(1) Net income is before payment of the \$18,000,000 Base Payment portion of City Charges.

(2) Provided by PGW Management. Interim results are not necessarily indicative of year-end results as certain revenues and expenses are seasonal.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY STATEMENTS OF INCOME

General Considerations

During the five fiscal years ended August 31, 1990 (presented in the foregoing Summary Statements of Income), PGW experienced slightly fluctuating natural gas sales caused, in part, by varying winter weather conditions, conservation efforts on the part of PGW's customers and a reduction in the number of customers PGW serves. PGW's annual sales of natural gas varied from a high of 75.4 billion cubic feet (bcf) in 1988 to a low of 71.3 bcf in 1987.

Other major factors which influenced natural gas sales and overall financial results during this period include: (i) volatility of natural gas costs to PGW; and (ii) concurrent decreases in the cost of alternative fuels such as oil which resulted in reduced demand and profit margins for interruptible sales (see "Five Year Summary of Gas Sales" below).

Five Year Summary of Gas Sales

Total gas sales for PGW can be described as sales to firm or interruptible customers. Firm customers receive gas service under various schedules which anticipate no interruptions in delivery of natural gas. Firm service is sold to residential, commercial and industrial customers depending on the type of service required and represented 86% of total gas sales as of the end of Fiscal Year 1990. Interruptible service is offered to customers, under schedules or contracts which anticipate and permit interruptions on short notice, generally in peak-load periods. Interruptible service is sold to high volume commercial and industrial customers and represented 14% of total gas sales in Fiscal Year 1990. (See "SELECTED OPERATING DATA" below for a five year summary of gas sales).

Temperatures during the 1986 heating season were slightly warmer than normal.* Sales to firm customers, representing 84% of gas sold, totaled 60.4 bcf. Revenues from gas sales in Fiscal Year 1986 totaled \$471.5 million, 3.6% less than the prior year, as a result of a decline in the GCR. Firm revenues decreased by \$7.8 million as the impact of additional sales of 2.0 bcf were more than offset by the downward adjustment in the GCR. Gas sales to interruptible customers were 11.5 bcf, virtually unchanged from the previous year, while revenues declined by \$10.4 million from the 1985 level due to competitive oil prices which declined sharply over the year thereby reducing profit margins.

Fiscal Year 1987 resulted in total gas sales of 71.3 bcf, a decrease of .6 bcf from the previous year. Temperatures during the 1987 heating season were slightly warmer than the 1986 heating season and 2% warmer than a normal heating season. Sales to firm customers, representing 85% of gas sold, totaled 61.0 bcf in 1987. This higher level of firm sales was principally due to additional residential sales. The demand for gas service by interruptible customers declined by 1.1 bcf from the prior year, to a level of 10.3 bcf. Total revenues from gas sales in fiscal Year 1987 amounted to \$450.8 million, 4.4% less than the preceding year. Firm revenues declined by \$9.2 million as downward adjustments in the fuel component of the base rate and the GCR more than offset additional sales and the approved \$28.65 million rate increase. Interruptible revenues declined by \$11.5 million from the 1986 level due to competitive oil prices.

For the 1988 Fiscal Year, gas sales totaled 75.4 bcf, 4.1 bcf higher than the 1987 Fiscal Year. Slightly cooler than normal temperatures during the heating season produced 4,676 degree days, an increase of 76 degree days or 2% greater than normal and 178 degree days or 4% greater than experienced in the prior year. Sales to firm customers of 62.8 bcf were 1.9 bcf higher than experienced in 1987 due to increased heating demand. Interruptible gas sales increased 21% to 12.6 bcf. Associated interruptible revenues increased 18.5% as movement of alternate fuel prices reduced profit margins.

Gas sales in Fiscal Year 1989 totaled 72.5 bcf, a decrease of 2.9 bcf from the prior year. Temperatures during the 1989 heating season were slightly warmer than normal resulting in 4,579 degree days, a decline of 21 from normal and 97 degree days or 2% less than experienced in 1988. Sales to firm customers of 62.0 bcf were down .8 bcf from the previous year. Associated interruptible revenues decreased by 10.7% to \$36.1 million as competition from alternative fuels lowered demand for gas service.

* A "normal year" is 4,600 degree days.

In Fiscal Year 1990 gas sales totaled 71.7 bcf a decrease of .8 bcf from the previous year. Temperatures during the 1990 heating season were slightly warmer than during the 1989 heating season, totaling 169 degree days or 3.7% below the normal level. Sales to firm customers were 61.5 bcf, down .5 bcf from the 1989 level reducing revenues by \$3.7 million. This decrease is mainly attributable to the impact of the warmer temperatures on residential heating customers. Sales to interruptible customers declined moderately from 10.5 to 10.2 bcf reflecting both reduced customer demand and cold weather curtailments during the heating season. However, revenues for interruptible customers increased 8.5% to \$39.1 million on improved margins.

Natural Gas

Natural gas expenses decreased by \$23.0 million or 8% in Fiscal Year 1986 to \$266 million as the result of lower pipeline prices and purchases on the spot market. These savings were offset, in part, by deferred pipeline charges of \$11.5 million as approved by the Federal Energy Regulatory Commission, and increased sendout.

In Fiscal Year 1987, natural gas expenses were further decreased by \$44.9 million or 17% from the 1986 Fiscal Year level. This was again a result of lower pipeline prices and purchases on the spot market combined with reduced sendout. Also, the payment of deferred pipeline charges approved by the Federal Energy Regulatory Commission was \$11.3 million lower in Fiscal Year 1987.

In Fiscal Year 1988, natural gas increased \$8.2 million over the 1987 level due to the cost of meeting the increased sendout requirement and the initiation of deferred fuel accounting. The deferral of the application of \$6.7 million of refunds received from pipeline suppliers into the 1989 Fiscal Year coupled with the increased sendout more than offset savings resulting from lower natural gas prices and the economies of spot gas market purchases.

In Fiscal Year 1989, natural gas expenses rose by \$8.8 million or 4% from the previous year's level primarily due to higher pipeline supplier prices. The higher costs were offset, in part, by lower sendout requirements and the application of refunds deferred from the 1988 Fiscal Year.

Natural gas expense for Fiscal Year 1990 indicates a decrease of \$7.7 million or 3% from the 1989 Fiscal Year level. This decrease was attributable to lower pipeline prices and reduced sendout requirements stemming from warmer heating season needs.

Accounts Receivable

High accounts receivable balances and a large number of delinquent accounts have troubled PGW for several years. The Philadelphia Gas Commission (PGC), through its regulatory review and orders, seeks to obtain a balance between the concerns of PGW, the City and the customers with an increasing emphasis on the needs of the low-income customer. Consequently PGW has taken a proactive position in assisting customers in meeting energy costs. PGW has been active in various City communities in promoting its Conservation Works Program. It has also actively promoted customer financial assistance in meeting energy costs through programs funded from both governmental and private sources.

As the result of these activities the financial assistance programs provided a total of \$14.2 million in aid to customers in the 1990 Fiscal Year.

In addition, PGW maintains the following programs to assist customers in meeting past obligations:

- Forgiveness Repayment Agreements – (5%-2% Agreements) permit customers meeting income eligibility tests to enter into an agreement initially paying 5% of account arrearages and monthly current gas usage plus 2% monthly of the initial arrears. This program offers a potential for a maximum forgiveness of 50%.
- 20% Repayment Agreements – offered to customers whose household income is above 150% of the poverty level – provides for a 20% initial payment of past due amount with the remaining amount to be paid over a maximum of 24 months.

As of August, 1990, there were 37,835 delinquent customers who had "five and two" percent repayment agreements, of which 17,917 were currently active with a total receivable balance of \$14.3 million. There were 76,852 delinquent customers which had 20% repayment agreements, 29,945 of which were active with a total receivable balance of \$11.9 million. The total amount of active outstanding accounts under these two repayment plans was 30% of total Gas Accounts Receivable at August, 1990. Starting in 1985, PGW increased the reserve for uncollectible accounts to provide for account reinstatements under the two repayment plans.

In the summer of 1988, PGW petitioned the PGC to modify the Customer Service Regulations. Rather than litigate the issues, PGW and Community Legal Services (CLS), acting as the Public Advocate, entered into settlement negotiations. As a result of this action, a joint proposal was developed which was submitted to and approved by the PGC.

Included in the settlement agreement is a two year pilot program known as the Energy Assurance Program (EAP). This percentage of income plan is offered to customers whose household income is at or below 150% of the federal government poverty guidelines. Instead of paying the actual cost of the gas, the customers pay only a set percentage, based on the household's gross monthly income, toward their current usage. The percentage they are asked to pay depends on their level of income. Customers are also asked to pay \$4.00 a month toward their arrearages. The shortfall between current usage and the percentage of income payment will be written off monthly. After a three-month history of payment compliance is established, a proportional amount of the arrearages will be written off monthly. Through mid March, 1991, approximately 5,300 customers have met the program requirements and have been enrolled on the EAP Plan. On February 5, 1991 the PGC expanded this program to include an additional 10,000 customers.

The Conservation Works is the weatherization energy conservation segment of EAP. Savings in gas energy usage of up to 20% are anticipated.

The status of Accounts Receivable during the 1986 to 1990 period is reflected in the following table:

**ACCOUNTS RECEIVABLE, ACCUMULATED PROVISIONS FOR UNCOLLECTIBLE
ACCOUNTS, WRITE-OFFS OF ACCOUNTS RECEIVABLE, DELINQUENT
CUSTOMERS, AND REVENUE STATISTICS**

	(Dollar Amounts in Thousands)				
	Fiscal Years Ended August 31				
	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Billed gas revenues during the year	\$473,703	\$452,432	\$462,226	\$469,569	\$470,110
Accounts receivable at August 31 .	\$ 92,061	\$ 94,441	\$ 83,734	\$ 87,994	\$ 91,215
Accumulated provisions for uncol- lectible accounts at August 31 ..	\$ 39,358	\$ 41,639	\$ 40,851	\$ 39,181	\$ 41,053
Net accounts receivable at August 31	\$ 52,703	\$ 52,802	\$ 42,883	\$ 48,813	\$ 50,162
Accumulated provisions for uncol- lectible accounts as a percentage of accounts receivable (%)	42.8	44.1	48.8	44.5	45.0
Write-offs during the year*	\$ 13,159	\$ 20,496	\$ 20,874	\$ 20,920	\$ 22,137
Receivables as a percentage of billed gas revenues during the year (%)	19.43	20.87	18.11	18.74	19.40
Delinquent customers (annual av- erage).....	153,086	156,387	148,588	141,095	133,510
Delinquent customers at August 31	135,394	148,670	124,543	121,462	116,882

* Net write-off.

Write-off of Uncollectible Accounts

In Fiscal Years 1986, 1987, 1988, and 1989, in recognition of the substantial number of reactivated gas accounts resulting from the two repayment plans, the reserve was increased to \$39.4 million and \$41.6 million and decreased slightly to \$40.9 million and \$39.2 million respectively, while the amount written off, net of reactivations, was \$13.2 million in 1986, \$20.5 million in 1987 and \$20.9 million in both 1988 and 1989. In Fiscal Year 1990, net customer accounts receivable of \$22.1 million were written off while the reserve balance increased slightly to \$41.1 million.

The following table presents information regarding the aging of Gas Accounts Receivable of PGW at August 31, 1990 and August 31, 1989:

AGING ANALYSIS OF GAS ACCOUNTS RECEIVABLE

(Dollar Amounts in Thousands)						
August 31, 1990						
Customer Receivables	Current	30 Days	60 Days	90 Days & Over	Total Gas Accounts Receivable	Delinquent Accounts
Residential and small commercial.....	\$23,042	\$3,720	\$3,402	\$36,926	\$67,090	\$44,048
Industrial and large commercial.....	3,508	779	557	2,489	7,333	3,825
Final billing (a).....	<u>2,371</u>	<u>4,009</u>	<u>4,085</u>	<u>5,992</u>	<u>16,457</u>	<u>14,086</u>
Total.....	<u>\$28,921</u>	<u>\$8,508</u>	<u>\$8,044</u>	<u>\$45,407</u>	<u>\$90,880(b)</u>	<u>\$61,959(b)</u>

(Dollar Amounts in Thousands)						
August 31, 1989						
Customer Receivables	Current	30 Days	60 Days	90 Days & Over	Total Gas Accounts Receivable	Delinquent Accounts
Residential and small commercial.....	\$20,313	\$ 3,333	\$3,429	\$33,029	\$60,104	\$39,791
Industrial and large commercial.....	3,532	1,361	591	2,095	7,579	4,047
Final billing (a).....	<u>4,083</u>	<u>6,181</u>	<u>4,692</u>	<u>3,770</u>	<u>18,726</u>	<u>14,643</u>
Total.....	<u>\$27,928</u>	<u>\$10,875</u>	<u>\$8,712</u>	<u>\$38,894</u>	<u>\$86,409(b)</u>	<u>\$58,481(b)</u>

(a) Gas service on these accounts has been terminated. Amounts include voluntary and involuntary termination.

(b) This amount represents Gas Accounts Receivable and does not include other miscellaneous Accounts Receivable which would be included in the Accounts Receivable figures on the preceding chart.

Seven Months Fiscal Period Ended March 31, 1991 Compared to Seven Months Fiscal Period Ended March 31, 1990.

Gas sales for the seven months ended March 31, 1991 were 50.8 bcf, 1.3 bcf or 2.6% less than experienced in the similar period in 1990. Sales to non-heating customers increased by 2.2 bcf as a significant increase in sales to interruptible customers more than offset reduced sales to non-heating firm customers. Gas sales to heating customers of 37.9 bcf were 3.5 bcf or 8.5% less than the 1990 level. This reduction is due principally to the extremely warm heating season experienced in Fiscal Year 1991 which has reduced degree days to 3,547 down 417 from the 1990 level and 603 or 14.5% below the normal level.

Operating revenues for the 1991 period were \$13.3 million less than those of the prior year. Non-heating revenues were \$2.9 million less than 1990. This decrease was more than offset by increased interruptible customer demand and higher unit prices of sales which increased interruptible revenues by \$13.8 million. Revenues from heating customers declined from the 1990 level by \$24.2 million reflecting the impact of the warmer heating season.

Operating expenses for the seven months ended March 31, 1991 were \$272.2 million, down \$20.3 million or 6.9% from the 1990 expense level. Reduced sendout requirements due to the warm temperatures and lower prices from suppliers coupled to lower natural gas expenses \$16.5 million. Milder weather conditions also contributed to decreased operating and maintenance costs in almost all departmental areas. The appropriation for uncollectible gas accounts increased by \$1.1 million. Administrative and general expenses increased by \$.3 million reflecting increased appropriations for injuries and damages and the reduced allocation of these expenses to capital projects while depreciation increased due to the larger average plant balances. See "SUMMARY STATEMENT OF INCOME" herein.

Interim results are not necessarily indicative of year end results because certain revenues and expenses are seasonal.

Subsequent Financial Results

Total operating revenues for the month of April, 1991 were \$36.1 million, \$4.7 million less than the same period in 1990 due to reduced revenue producing degree days.

Total operating expenses were \$28.6 million for the month of April, 1991, \$.6 million less than those recorded in April, 1990. These reduced expenses are principally the result of reduced natural gas purchases, again due to reduction in degree days.

Interest expense was \$.6 million greater than in April, 1990 reflecting interest expense on the most recent bond issue and the reduced allocation of these costs to capital projects.

Net earnings of \$2.6 million from operations in April, 1991 were \$4.7 million less than experienced in April, 1990 and a \$.5 million improvement on the net earnings forecasted for the period.

Due to the decrease in revenue producing degree days, May, 1991 gas sales including unbilled sales, were 17% below the May, 1990 level reducing total operating revenues by \$3.3 million. Operating expenses were \$1.3 million below the prior year level as natural gas costs declined \$1.7 million due to reduced sendout requirements and the appropriation for uncollectible accounts was raised \$.3 million. Also, interest expense increased \$.7 million over the May, 1990 level reflecting principally the impact of recent bond sales.

The net loss for the month of May 1991 was \$2.7 million greater than experienced in May 1990. However, PGW anticipates that it will achieve the debt service coverage ratio required by the rate covenant.

Interim results are not necessarily indicative of year end results because certain revenues and expenses are seasonal.

SELECTED OPERATING DATA

The following data is based upon the records of PGW. For further information, see "APPENDIX A - Audited Financial Statements of Philadelphia Gas Works for the Years Ended August 31, 1990 and 1989."

SELECTED OPERATING DATA

(Dollar Amounts in Thousands)
Fiscal Years Ended August 31,

	1986	1987	1988	1989	1990
DEGREE DAYS	4,536	4,498	4,676	4,579	4,431
% of normal (4,600 degree days)	99	98	102	99	96
MAXIMUM 24-HOUR SENDOUT (mcf)	571,751	600,858	596,889	576,771	649,033
Peak-day avg. temperature (degrees)	20	14	14	17	12
GAS REVENUES & SALES BY CUSTOMER CLASSIFICATION					
Gas operating revenues (\$ 000 omitted)					
Residential:					
Heating	\$306,824	\$301,984	\$306,008	\$313,722	\$309,265
Non-heating	30,090	28,021	26,614	25,836	25,334
Industrial and Commercial:					
Firm	66,370	64,725	65,028	70,134	72,619
Interruptible	45,628	34,100	40,410	36,077	39,139
Other gas revenues (municipal, Phila. Housing Authority ("PHA"), sales for resale and unbilled revenues)	<u>22,630</u>	<u>21,988</u>	<u>26,212</u>	<u>21,211</u>	<u>19,744</u>
Total gas revenues	<u>\$471,542</u>	<u>\$450,818</u>	<u>\$464,272</u>	<u>\$466,980</u>	<u>\$466,101</u>
Other operating revenues	<u>5,585</u>	<u>5,625</u>	<u>5,295</u>	<u>5,726</u>	<u>6,071</u>
Total operating revenues	<u>\$477,127</u>	<u>\$456,443</u>	<u>\$469,567</u>	<u>\$472,706</u>	<u>\$472,172</u>
Other income	<u>15,643</u>	<u>12,295</u>	<u>15,940</u>	<u>12,858</u>	<u>11,880</u>
Total revenues and other income	<u><u>\$492,770</u></u>	<u><u>\$468,738</u></u>	<u><u>\$485,507</u></u>	<u><u>\$485,564</u></u>	<u><u>\$484,052</u></u>
SUMMARY OF CUSTOMERS AT END OF PERIOD					
Residential	499,608	496,836	497,227	497,596	494,253
Industrial and Commercial:					
Firm	18,840	19,015	19,513	20,242	24,630
Interruptible	164	193	259	302	321
Municipal and PHA	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
Total Customers	<u><u>518,614</u></u>	<u><u>516,046</u></u>	<u><u>517,001</u></u>	<u><u>518,142</u></u>	<u><u>519,206</u></u>
GAS SALES BY CLASSIFICATION (mmcf)					
Residential:					
Heating	43,525	44,268	45,838	45,376	44,612
Non-heating	3,956	3,790	3,667	3,354	3,285
Industrial and commercial:					
Firm	9,347	9,398	9,670	9,805	10,126
Interruptible	11,453	10,362	12,584	10,550	10,238
Other	<u>3,576</u>	<u>3,520</u>	<u>3,667</u>	<u>3,448</u>	<u>3,462</u>
Total gas sales	<u><u>71,857</u></u>	<u><u>71,338</u></u>	<u><u>75,426</u></u>	<u><u>72,533</u></u>	<u><u>71,723</u></u>
SUPPLY AND DISPOSITION OF GAS (mmcf)					
Natural gas purchased	75,383	73,944	78,178	73,769	73,782
Liquid petroleum	141	89	110	29	113
Liquefied natural gas	<u>2,596</u>	<u>1,760</u>	<u>2,620</u>	<u>1,626</u>	<u>3,108</u>
Total supply	<u><u>78,120</u></u>	<u><u>75,793</u></u>	<u><u>80,908</u></u>	<u><u>75,424</u></u>	<u><u>77,003</u></u>
Deduct:					
Additions to (withdrawals from) gas storage	967	75	2,502	(1,435)	1,426
PGW's use and other	<u>5,296</u>	<u>4,380</u>	<u>2,980</u>	<u>4,326</u>	<u>3,854</u>
Total gas sales	<u><u>71,857</u></u>	<u><u>71,338</u></u>	<u><u>75,426</u></u>	<u><u>72,533</u></u>	<u><u>71,723</u></u>
AVERAGE MONTHLY USAGE OF RESIDENTIAL CUSTOMERS (mcf)					
Heating	9.2	9.2	9.5	9.5	9.4
Non-heating	2.9	2.9	2.9	2.7	2.8
AVERAGE MONTHLY BILL OF RESIDENTIAL CUSTOMERS					
Heating	\$ 67.72	\$ 66.77	\$ 66.10	\$ 68.26	\$ 67.91
Non-heating	\$ 23.08	\$ 22.39	\$ 21.76	\$ 21.01	\$ 21.98

HISTORICAL REVENUES AND DEBT SERVICE COVERAGE

The financial operations for the years ended August 31, 1986 through 1990 and the revenues available for debt are shown in the following table:

	(Dollar Amounts in Thousands) Fiscal Years Ended August 31				
	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Operating revenues	\$477,127	\$456,443	\$469,567	\$472,706	\$472,172
Other income	<u>15,643</u>	<u>12,295</u>	<u>15,940</u>	<u>12,858</u>	<u>11,880</u>
Total revenues	492,770	468,738	485,507	485,564	484,052
Adjustments	<u>2,124</u>	<u>527</u>	<u>1,837</u>	<u>1,581</u>	<u>2,570</u>
Project revenues	<u>494,894</u>	<u>469,265</u>	<u>487,344</u>	<u>487,145</u>	<u>486,622</u>
Operating expenses	429,406	396,634	415,411	419,303	416,475
Less: depreciation	16,634	21,707	23,615	21,887	22,155
other adjustments	<u>276</u>	<u>(563)</u>	<u>(497)</u>	<u>1,662</u>	<u>489</u>
Net operating expenses	<u>412,496</u>	<u>375,490</u>	<u>392,293</u>	<u>395,754</u>	<u>393,831</u>
Net revenues	<u>82,398</u>	<u>93,775</u>	<u>95,051</u>	<u>91,391</u>	<u>92,791</u>
Debt service requirements:					
Revenue bonds	51,597	50,193	59,473	57,326	61,654
General obligation bonds issued for PGW*	2,549	1,729	—	—	—
Commercial paper notes	<u>4,018</u>	<u>3,645</u>	<u>5,204</u>	<u>4,668</u>	<u>4,361</u>
Total Debt Service	<u>58,164</u>	<u>55,567</u>	<u>64,677</u>	<u>61,994</u>	<u>66,015</u>
Net project revenues available for other purposes	<u>\$ 24,234</u>	<u>\$ 38,208</u>	<u>\$ 30,374</u>	<u>\$ 29,397</u>	<u>\$ 26,776</u>
Debt service coverage:					
Revenue bonds	1.60x	1.87x	1.60x	1.59x	1.51X
Revenue bonds and general obligation bonds	1.52x	1.81x	1.60x	1.59x	1.51X

*General obligation bonds matured in 1987 Fiscal Year.

Future Debt Service.

The following table presents year-by-year debt service requirements of the Thirteenth Series Bonds, the previously issued Gas Works Revenue Bonds (First through Eleventh Series A, B and C and the Twelfth Series A and B) excluding the refunded portions thereof. The table excludes the debt service on the Gas Works Notes and the Lease Revenue Bonds.

DEBT SERVICE REQUIREMENTS GAS WORKS REVENUE BONDS

<u>Fiscal Year Ending (Aug. 31)</u>	<u>Existing Debt Service Gas Works Revenue Bonds</u>	<u>Debt Service on the Thirteenth Series Bonds</u>	<u>Total</u>
1991	\$67,803,946		\$67,803,946
1992	68,472,673	\$6,472,253	74,944,926
1993	68,437,103	6,473,003	74,910,106
1994	68,426,706	6,472,123	74,898,829
1995	68,401,654	6,475,930	74,877,584
1996	65,697,154	6,473,485	72,170,639
1997	61,566,039	6,470,935	68,036,974
1998	56,858,854	6,472,805	63,331,659
1999	50,165,931	6,473,245	56,639,176
2000	45,709,536	6,471,740	52,181,276
2001	45,716,271	6,472,760	52,189,031
2002	34,321,651	6,475,385	40,797,036
2003	34,320,076	6,472,195	40,792,271
2004	34,308,096	6,475,535	40,783,631
2005	34,051,728	6,474,250	40,525,978
2006	34,036,081	6,472,955	40,509,036
2007	34,018,232	6,470,880	40,489,112
2008	33,991,956	6,472,255	40,464,211
2009	33,974,281	6,475,925	40,450,206
2010	33,942,519	6,475,735	40,418,254
2011	34,316,115	6,475,915	40,792,030
2012	34,319,944	6,475,310	40,795,254
2013	34,339,563	6,472,765	40,812,328
2014	23,010,032	6,472,125	29,482,157
2015	22,993,763	6,471,850	29,465,613
2016	14,712,469	6,475,400	21,187,869
2017	14,708,994	6,475,850	21,184,844
2018	6,033,450	6,471,660	12,505,110
2019	6,033,700	6,471,290	12,504,990
2020	6,034,800	6,472,430	12,507,230
2021		6,472,770	6,472,770

INSURANCE

PGW is principally insured through insurance carriers. PGW's property is insured against the risk of loss or damage, without aggregate limits, in the amount of \$250 million per occurrence with a \$100,000 deductible; subject, however, to an annual aggregate limit of \$100 million for earthquake and an annual aggregate limit of \$50 million for flood, generally, and to lower flood limits as to the Richmond Plant. In addition, PGW maintains boiler and machinery, blanket crime, and other forms of property insurance. With respect to incidents arising on or after October 1, 1986, PGW has maintained policies of liability insurance insuring against the risk of damage or injury to the public for \$25 million in excess of \$500,000 for any one incident, generally without aggregate limits, and for incidents exceeding the foregoing coverage, there is aggregate coverage of \$175 million. PGW also maintains \$25

million of workers' compensation insurance in excess of \$500,000 per incident for on-duty injuries to employees. A reserve is also maintained to cover current estimated losses which are excluded from coverage under the deductible provisions of the liability insurance policies. Charges against the reserve are made as claims are settled.

LITIGATION

A gas explosion in Fiscal Year 1979 resulted in personal injury, deaths and substantial property damage. Claims related to this incident have been made against PGW. Certain of the claims are for punitive damages, which may be outside the scope of PGW liability insurance coverage, which has a \$500,000 deductible. PGW is not presently aware of any facts which would give rise to awards for punitive damages. PGW anticipates that these claims will be settled for an amount less than \$500,000.

PGW is a defendant in two additional cases arising from explosions in which damage claims exceed the \$500,000 deductible. PGW's liability would be limited in each case to its \$500,000 deductible.

Three explosions occurred in 1988, as a result of which claims for property damage and personal injury for two occurrences are expected to exceed \$500,000; claims for property damage and personal injury for the other remaining occurrence is expected to be less than \$500,000. PGW's potential liability in each occurrence is limited to its \$500,000 deductible.

One explosion in 1989 and one in 1990 are each expected to generate claims exceeding PGW's insurance deductible limit of \$500,000. Two other explosions in 1990 are expected to generate claims below the \$500,000 deductible limit.

UNDERWRITING

The Underwriters have jointly and severally agreed, subject to certain terms and conditions, to purchase the Thirteenth Series Bonds from the City at a purchase price of \$74,057,268.18 (including underwriter's discount of \$942,581.82 and an original issue discount of \$220,150.00) plus accrued interest. The Underwriters' obligations are subject to certain conditions precedent, and they will be obligated to purchase all of the Thirteenth Series Bonds if any are purchased. The Thirteenth Series Bonds may be offered and sold to certain dealers and others at prices lower than the offering price stated on the cover page hereof, and such public offering price may be changed, from time to time, by the Underwriters without prior notice.

RATINGS

The long-term indebtedness of the Gas Works is currently rated Baa1 by Moody's Investors Service, BBB by Standard and Poor's Corporation and A by Fitch. The Gas Works received written notice of a downgrade from A- to BBB from Standard & Poor's Corporation on September 17, 1990. The Gas Works received written notice of a downgrade from A to Baa1 from Moody's Investors Service on May 17, 1991.

Any explanation concerning the significance of such ratings must be obtained from the rating agencies. Certain information and materials concerning the Thirteenth Series Bonds were furnished to the rating agencies by PGW, the City and others. If, in their judgment, circumstances so warrant, the rating agencies may lower or withdraw their respective ratings. There is no assurance that the ratings stated above will continue for any period of time or that they will not be revised or withdrawn. Should a downward change or withdrawal of either rating occur, it could have an adverse effect on the liquidity and the market price of the Thirteenth Series Bonds in the secondary market.

FEDERAL TAX EXEMPTION

General

In the opinion of Bond Counsel, under existing statutes, regulations, rulings and court decisions, interest on the Thirteenth Series Bonds, including original issue discount on the Thirteenth Series Bonds maturing on June 15, 2021 (the "OID Bonds"), is not includable in the gross income of the

holders thereof for federal income tax purposes and is not a specific preference item for purposes of computing the alternative minimum tax imposed on individuals and corporations. However, interest on the Thirteenth Series Bonds paid or accrued during any period any Thirteenth Series Bond is held by a corporation may be subject to alternative minimum tax and the environmental tax imposed under the Internal Revenue Code of 1986, as amended ("Code"), due to the adjustment for adjusted current earnings provided for in the Code. In addition, interest on the Thirteenth Series Bonds received or accrued in any taxable year by certain foreign corporations may be included in computing the "dividend equivalent amount" of such corporations subject to the branch profits tax imposed on such corporations under Section 884 of the Code. Further, interest on the Thirteenth Series Bonds may be subject to federal income taxation under Section 1375 of the Code for S corporations which have Subchapter C earnings and profits at the close of the taxable year if greater than 25% of the gross receipts of such S corporations is passive investment income.

Ownership of the Thirteenth Series Bonds may result in collateral federal income tax consequences to certain taxpayers, including, without limitation, property and casualty insurance companies, individual recipients of Social Security or Railroad Retirement benefits, and taxpayers, including banks, thrift institutions and other financial institutions subject to Section 265 of the Code, who may be deemed to have incurred or continued indebtedness to purchase or to carry the Thirteenth Series Bonds. Bond Counsel express no opinion as to any of such consequences, and prospective purchasers of the Thirteenth Series Bonds who may be subject to such collateral consequences should consult their own tax advisors.

In rendering their opinion, Bond Counsel has assumed continuing compliance by the City with certain covenants that are intended to comply with the provisions of the Code relating to actions to be taken by the City in respect of the Thirteenth Series Bonds after the issuance thereof to the extent necessary to effect or maintain the federal tax-exempt status of the interest on the Thirteenth Series Bonds. These covenants relate to, *inter alia*, the use of and investment of proceeds of the Thirteenth Series Bonds and the rebate to the United States Treasury of specified arbitrage earnings, if any. Failure of the City to comply with such covenants could result in the interest on the Thirteenth Series Bonds becoming subject to federal income tax from the date of issue.

Tax Accounting Treatment of Original Issue Discount

For federal tax purposes, interest on Thirteenth Series Bonds includes original issue discount on the OID Bonds. Original issue discount is, generally, equal to the excess of the stated principal amount due at maturity of an OID Bond over the initial offering price to the public (not including bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters or wholesalers) at which price a substantial amount of OID Bonds of the same maturity were sold.

Original issue discount is accrued over the term to maturity of each OID Bond on the basis of a constant yield to maturity compounded at the end of each period of six (30-day) months (or shorter period from the date of purchase) ending on a day in each calendar year corresponding to the maturity date of such OID Bond or the date six (30-day) months before or after that date, with straight-line interpolations between compounding dates. The original issue discount is added to the holder's adjusted basis of such OID Bond to determine taxable gain or loss upon disposition (including sale or payment at maturity or redemption).

Owners of OID Bonds should consult their own tax advisors with respect to the computation of original issue discount on such accruals of interest during the period in which such OID Bonds are held.

PENNSYLVANIA TAX EXEMPTION

Under the laws of the Commonwealth of Pennsylvania, as presently enacted and construed, the Thirteenth Series Bonds are exempt from personal property taxes in Pennsylvania and the interest on the Thirteenth Series Bonds and any gain from the sale thereof are exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax.

CERTAIN LEGAL MATTERS

All legal matters incident to the authorization, issuance and sale of the Thirteenth Series Bonds are subject to the approval of the legality of the issuance of the Thirteenth Series Bonds by Astor, Weiss & Newman of Philadelphia, Pennsylvania, Bond Counsel. The proposed form of such opinion is included herein as Appendix F. Certain legal matters will be passed upon for the Underwriters by Saul, Ewing, Remick & Saul and Genece E. Brinkley, Esquire, both of Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the City by the Office of the City Solicitor and Fineman & Bach, P.C. Certain legal matters will be passed on for PGW by Obermayer, Rebmann, Maxwell & Hippel, of Philadelphia, Pennsylvania.

OTHER MATTERS

Genece E. Brinkley, Esquire, Co-Counsel for the Underwriters is also under contract with the Gas Commission to act as a hearing examiner for customer disputes and certain other matters as directed by the Gas Commission. Deloitte & Touche, may also provide expert testimony on behalf of PGW in future rate proceeding.

INDEPENDENT AUDITS

The financial statements of PGW for the years ended August 31, 1990 and 1989 have been audited by Deloitte & Touche, independent certified public accountants, as set forth in their report in APPENDIX A. Such audited financial statements of PGW have been included in this Official Statement in reliance upon the report of Deloitte & Touche.

ENGINEERING REPORT

The Engineering Report prepared by Stone & Webster Management Consultants, Inc., APPENDIX B, has been included in reliance upon the expertise of that company as an independent consulting firm having broad experience in the design and analysis of the operation of gas works or gas distribution systems of the magnitude and scope of PGW and having skill in assessing assumptions used in the preparation of forecast financial statements of gas works systems.

NO LITIGATION CERTIFICATE

There is no controversy or litigation of any nature now pending or threatened restraining or enjoining the issuance, sale, execution or delivery of the Thirteenth Series Bonds, or in any way contesting or affecting the validity of the Thirteenth Series Bonds or any proceedings of the City taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or security provided for the payment of the Thirteenth Series Bonds or the existence or powers of the City.

Upon delivery of the Thirteenth Series Bonds, the Office of the City Solicitor shall furnish a certificate, in form satisfactory to Bond Counsel, to the effect, among other things, that, except for litigation which in the opinion of the Office of the City Solicitor is without merit, and except as disclosed in the Official Statement, no litigation or other legal proceedings are pending, or, to the best of its knowledge, threatened to restrain or enjoin the issuance or delivery of the Thirteenth Series Bonds or the collection or pledge of any moneys provided for the payment of the Thirteenth Series Bonds or contesting or affecting the validity of the Thirteenth Series Bonds or contesting the powers of the City or its authority for the issuance of such Bonds.

NEGOTIABLE INSTRUMENTS

The Act provides that bonds issued thereunder shall have all the qualities and incidents of securities under the Uniform Commercial Code of the Commonwealth of Pennsylvania and shall be negotiable instruments.

CERTAIN REFERENCES

All summaries of the provisions of the Thirteenth Series Bonds and the security therefor, the Act, the General Ordinance and the Thirteenth Supplemental Ordinance set forth herein and in APPENDIX C hereof, and all summaries and references to other materials not purported to be quoted in full are only brief outlines of certain provisions thereof and do not constitute complete statements of such documents or provisions. Reference is made hereby to the complete documents relating to such matters for the complete terms and provisions thereof. So far as statements are made in this Official Statement involving matters of opinion, whether or not expressly so stated, they are made merely as such and not as representations of fact.

The Official Statement has been duly executed and delivered by the following officers on behalf of the City of Philadelphia.

CITY OF PHILADELPHIA

By:

Mayor

City Solicitor

City Controller

Approved:

Director of Finance

APPENDIX A
Audited Financial Statements of
Philadelphia Gas Works for the Years Ended
August 31, 1990 and 1989

(THIS PAGE INTENTIONALLY LEFT BLANK)

**Deloitte &
Touche**



PHILADELPHIA GAS WORKS

Financial Statements for the Years
Ended August 31, 1990 and 1989,
Required Pension Supplementary
Information and Independent
Auditors' Report

(THIS PAGE INTENTIONALLY LEFT BLANK)



INDEPENDENT AUDITORS' REPORT

To the Controller of the
City of Philadelphia and the
Chairman and Members of the
Philadelphia Gas Commission
Philadelphia, Pennsylvania

We have audited the accompanying balance sheets of the Philadelphia Gas Works (the "Company") as of August 31, 1990 and 1989 and the related statements of income, changes in City equity and changes in financial position for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Philadelphia Gas Works as of August 31, 1990 and 1989, and the results of its operations and changes in its financial position for the years then ended in conformity with generally accepted accounting principles.

The supplementary information of pension funding progress on page 24 is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and, accordingly, express no opinion on it.

Deloitte & Touche

Deloitte & Touche
November 2, 1990

(THIS PAGE INTENTIONALLY LEFT BLANK)

(thousands of dollars)				(thousands of dollars)			
ASSETS	Notes	1990	1989	EQUITY AND LIABILITIES	Notes	1990	1989
Utility plant, at original cost:	1			City equity	2	\$201,951	\$201,381
In service		5864,865	5816,951				
Under construction		<u>28,105</u>	<u>23,297</u>				
Total		892,970	840,248	Long-term debt:	8		
Less accumulated depreciation		<u>255,165</u>	<u>238,472</u>	Revenue bonds		567,473	513,933
Utility plant, net		<u>637,805</u>	<u>601,776</u>	Subordinate lease obligation		<u>23,437</u>	<u>24,170</u>
				Total long-term debt		<u>590,910</u>	<u>538,103</u>
Sinking fund, revenue bonds	3,8	<u>73,541</u>	<u>70,229</u>	Current liabilities:			
Capital improvement funds	3,8	<u>28,947</u>	<u>4,646</u>	Notes payable	6	21,000	82,000
Current assets:	3			Current portion of long-term debt:	8		
Cash		598	57	Revenue bonds		26,640	21,414
Temporary investments		<u>24,000</u>	<u>87,740</u>	Subordinate lease obligation		363	361
Total Cash and Temporary Investments		<u>24,598</u>	<u>87,797</u>	Accounts payable		22,999	24,620
Accounts receivable:				Customer deposits		3,940	3,685
Customers		91,215	87,994	Other current liabilities and deferred credits	1,7,12	32,462	18,366
Others	2	14,698	4,132	Accrued accounts:			
Accrued gas revenues	1	6,300	6,450	Interest, taxes and wages		10,898	13,836
Accumulated provision for uncollectible accounts		<u>(41,053)</u>	<u>(39,181)</u>	Distribution to the City	2	<u>3,000</u>	<u>3,000</u>
Accounts receivable, net		71,160	59,395				
Materials and supplies	1	41,080	42,346	Total current liabilities		<u>121,302</u>	<u>167,282</u>
Other current assets and deferred debits	12	<u>8,276</u>	<u>7,534</u>	Employees' deferred compensation plan	5	<u>5,420</u>	<u>3,942</u>
Total current assets		<u>145,114</u>	<u>197,072</u>	Other liabilities and deferred credits	12	<u>6,914</u>	<u>11,216</u>
Unamortized bond issuance costs	1	<u>6,296</u>	<u>5,687</u>	Commitments and contingencies	12	-	-
Unamortized losses on reacquired debt	1,8	<u>22,324</u>	<u>20,538</u>	Total equity and liabilities		<u>\$926,497</u>	<u>\$921,924</u>
Employees' deferred compensation plan	5	<u>5,420</u>	<u>3,942</u>				
Other assets and deferred debits	4,12	<u>7,050</u>	<u>18,034</u>				
Total assets		<u>\$926,497</u>	<u>\$921,924</u>				

See accompanying notes to financial statements.

PHILADELPHIA GAS WORKS

STATEMENTS OF INCOME
for the years ended August 31, 1990 and 1989

		(thousands of dollars)	
	Notes	1990	1989
Operating revenues:	1,6,7,8		
Non-heating		\$ 90,245	\$ 87,607
Heating		376,006	379,673
Unbilled gas adjustment		<u>(150)</u>	<u>(300)</u>
Total gas revenues		466,101	466,980
Other operating revenues		<u>6,071</u>	<u>5,726</u>
Total operating revenues		<u>472,172</u>	<u>472,706</u>
Operating expenses:			
Natural gas	1,12	230,362	238,087
Other raw material		1,037	(155)
Gas processing		24,353	24,565
Customer service		19,229	20,382
Distribution		20,588	16,244
Collection		7,051	7,132
Meter reading		6,053	5,954
Appropriation for uncollectible reserve		24,137	19,297
Customer relations		8,448	8,306
Customer accounting		2,816	2,984
Marketing		2,639	2,979
Administrative and general		26,989	27,185
Pensions	1,10	17,748	21,497
Taxes		<u>6,153</u>	<u>5,831</u>
Total operating expenses except depreciation		<u>397,603</u>	<u>400,288</u>
Depreciation	1	22,155	21,887
Less depreciation distributed through clearing accounts	1	<u>3,283</u>	<u>2,872</u>
Total		<u>18,872</u>	<u>19,015</u>
Total operating expenses		<u>416,475</u>	<u>419,303</u>
Operating income		55,697	53,403
Interest and other income	1	<u>11,880</u>	<u>12,858</u>
Income before interest		<u>67,577</u>	<u>66,261</u>
Interest:			
Long-term debt		41,527	40,815
Other		8,536	8,104
Allowance for funds used during construction	1	<u>(1,056)</u>	<u>(1,183)</u>
Total interest		<u>49,007</u>	<u>47,736</u>
Net income		18,570	18,525
Distribution to City of Philadelphia	2	<u>18,000</u>	<u>18,000</u>
Transferred to City equity		<u>\$====570</u>	<u>\$====525</u>

See accompanying notes to financial statements.

PHILADELPHIA GAS WORKS

STATEMENT OF CHANGES IN CITY EQUITY
for the years ended August 31, 1990 and 1989

	(thousands of dollars)	
	<u>1990</u>	<u>1989</u>
Balance, beginning	\$201,381	\$200,856
Transferred from statement of income	<u>570</u>	<u>525</u>
Balance, ending	<u>\$201,951</u>	<u>\$201,381</u>

See accompanying notes to financial statements.

PHILADELPHIA GAS WORKS

STATEMENTS OF CHANGES IN FINANCIAL POSITION
for the years ended August 31, 1990 and 1989

	(thousands of dollars)	
	<u>1990</u>	<u>1989</u>
Sources of working capital:		
Operations:		
Net income	\$ 18,570	\$ 18,525
Items not requiring (providing)		
working capital:		
Depreciation and amortization	27,622	27,814
Appropriation to reserve for injuries		
and damages	875	545
Allowance for funds used during		
construction	<u>(1,499)</u>	<u>(1,380)</u>
Working capital provided by operations	45,568	45,504
Proceeds from sale of equipment	123	175
Proceeds from issuance of long-term debt	127,110	157,520
Cost of long-term debt issuances and		
losses on reacquired debt	(6,170)	(16,033)
Capital improvement fund (increases) decreases	(24,301)	27,584
Contributions in aid of construction	<u>1,299</u>	<u>2,233</u>
Total sources of working capital	<u>143,629</u>	<u>216,983</u>
Applications of working capital:		
Construction expenditures	56,349	55,826
Cost of removal of plant in service	1,758	2,242
Reduction of long-term debt	74,303	136,692
Payment of injuries and damages claims	941	1,534
Distribution to City of Philadelphia	18,000	18,000
Sinking fund deposits (net)	3,312	3,081
Payment of waste removal costs	-	1,915
Capital/reimbursable expenditures (net)	<u>(5,056)</u>	<u>(301)</u>
Total applications of working capital	<u>149,607</u>	<u>218,989</u>
(Decrease) in working capital	<u>== (5,978) ==</u>	<u>== (2,006) ==</u>
Summary of net changes in working capital:		
Increase (decrease) in current assets:		
Cash and temporary investments	(63,199)	47,742
Accounts receivable, net	11,765	7,833
Materials and supplies	(1,266)	(5,073)
Other current assets and deferred debits	<u>742</u>	<u>3,756</u>
Increase (decrease) in current assets	<u>(51,958)</u>	<u>54,258</u>
Increase (decrease) in current liabilities:		
Notes payable	(61,000)	47,625
Current portion of long-term debt	5,228	1,897
Accounts payable	(1,621)	286
Customer deposits	255	354
Other current liabilities and deferred		
credits	14,096	6,784
Accrued interest, taxes and wages	<u>(2,938)</u>	<u>(682)</u>
Increase (decrease) in current liabilities	<u>(45,980)</u>	<u>56,264</u>
(Decrease) in working capital	<u>\$ (5,978)</u>	<u>\$ (2,006)</u>

See accompanying notes to financial statements.

PHILADELPHIA GAS WORKS

NOTES TO FINANCIAL STATEMENTS

For the Years Ended August 31, 1990 and 1989

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The accounting methods employed by the Philadelphia Gas Works (the "Company") are prescribed by the City of Philadelphia (the "City") and, in all material respects, are in accordance with generally accepted accounting principles. The principal accounting policies within this framework are described as follows:

Regulation

The Company is subject to the rules and regulations of the Philadelphia Gas Commission (the "PGC") and generally maintains its accounts in accordance with the prescribed Uniform System of Accounts.

On June 3, 1988 the Company filed with the PGC its fiscal year 1989 operating budget and a request to increase annual base revenues \$49,000,000. On October 13, 1988, the PGC rejected the Company's June 3, 1988 request for a \$49,000,000 base rate increase and established rates reflecting a \$2,000,000 decrease in base rates.

On June 29, 1990 the Company filed with the PGC its fiscal year 1991 Operating Budget and a request to increase annual base revenues \$31,000,000. Hearings before the PGC are scheduled for this matter in November, 1990.

Utility Plant

Utility plant is stated at original cost. Utility plant in service includes a Synthetic Natural Gas Plant (SNG) that is being maintained primarily in a reserve status. At August 31, 1990 and 1989, the net book value of the SNG plant was \$47,268,000 and \$50,113,000, respectively.

Allowance for Funds Used During Construction

Allowance for funds used during construction (AFUDC) is an estimate of the cost of funds used for construction purposes. The AFUDC as calculated on borrowed funds reduces interest expense and that derived from internally generated funds is reported as other income. The AFUDC rate applied to construction work in progress was 7.20% in 1990 and 7.65% in 1989.

Property Additions, Retirements, Sales, and Maintenance

The cost of additions, replacements and betterments are capitalized and included in the utility plant accounts. The cost of property sold or retired is eliminated from the utility plant accounts and charged to accumulated depreciation. Gains and losses on sales of utility plant are included in other income. Normal repairs, maintenance, and the cost of minor property items are charged to operating expenses as incurred.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued):

Depreciation

Depreciation is provided on a straight-line method using rates applied to each asset category. A depreciation study undertaken in 1987 established rates depreciating utility plant over its revised remaining useful life and included a net salvage component.

As part of its rate decision of October 13, 1988, the PGC disallowed the accrual of the net salvage component in depreciation. Consequently, beginning with the year ended August 31, 1989, depreciation rates were modified to remove this component and the cost of removal net of salvage is now being recognized as an expense as incurred. The effect of this change was a decrease in depreciation expense of approximately \$3.9 million for the year ended August 31, 1989.

Accrued Gas Revenues

Estimated revenues from gas distributed and unbilled are accrued and included in income.

Customers

The Company's service territory encompasses the City of Philadelphia. Of the Company's approximately 520,000 customers, over 95 percent are residential.

Gas Cost Rate (GCR)

The GCR is designed to provide a mechanism to recover, on an annualized and level basis, the estimated difference between actual purchased gas and raw material cost and the amount of cost included in base rates. This difference results in an underbilling or overbilling of costs at the end of a fiscal period. Overbillings are liabilities at the end of the fiscal year in which they occur while underbillings are deferred debits until billed. The GCR is adjusted in the subsequent fiscal year to reflect the underbillings or overbillings. Changes in the GCR offset the amounts of gas revenues and natural gas operating expenses but do not affect operating income or net income. (Also, see Note 7).

In August 1988, the PGC authorized changing the GCR from a negative \$.4419/Mcf to a negative \$.0655/Mcf. This rate was approved on August 15, 1988 with an effective date of September 1, 1988. On October 3, 1989 the PGC authorized continuance of the GCR at a negative \$.0655/Mcf for the fiscal year ended August 31, 1990.

On August 1, 1990, the Company filed its annual request to reset the GCR with the PGC requesting a negative \$.1828/Mcf for the fiscal year commencing September 1, 1990. On August 29, 1990 the PGC authorized the Company to continue using its current GCR, a negative \$.0655/Mcf, into fiscal year 1991 pending the PGC's consideration of the Company's proposed 1991 fiscal year GCR.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued):

Materials and Supplies

Materials and supplies, consisting primarily of fuel stock, gases stored to meet peak demand requirements and spare parts, are stated at the lower of average cost or market.

Bond Issuance Costs and Debt Discount

Discount and expenses arising from the issuance of revenue bonds are amortized using the interest method over the term of the particular bond issue.

Losses on Recquired Debt

Losses on reacquired debt are deferred and amortized to interest expense over the life of the refunding bond issue as permitted by the PGC.

Pensions

The Company has a noncontributory pension plan (the "Pension Plan") covering substantially all employees and providing for retirement payments at age sixty-five or earlier under various options. In accordance with Resolutions of the PGC, Ordinances of City Council, and as prescribed by the City's Director of Finance, the Pension Plan is being funded with contributions by the Company to the Sinking Fund Commission of the City.

In December 1988, the Company, on the basis of an ordinance approved by City Council, offered an Early Retirement Incentive Program to employees aged 55 or older with a minimum 15 years of credited service. The incentives offered to induce participation included no actuarial early retirement penalties and a 2-year increase in credited service. The increased pension benefit offered was available as either an increase in the monthly benefit or a lump-sum distribution of the present value of the actuarially determined benefit increase. (Also, see Note 10).

Reserve for Injuries and Damages

The Company is principally insured through insurance carriers; however, the Company is required to cover settlement of claims which are excluded under the provisions of such insurance policies. A reserve has been established, in accordance with PGC regulations, in an amount which estimates settlements to be paid by the Company in the next fiscal year. Estimated losses from claims for occurrences not covered by insurance which will not be paid in the next fiscal year have not been provided for. Such expenses will be recovered through future rates. Charges against the reserve are made as claims are settled. (Also, see Note 11).

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued):

Presentation

Certain 1989 amounts have been reclassified to conform with the 1990 presentation.

2. OWNERSHIP AND MANAGEMENT:

The Company is owned by the City. As of January 1, 1973, under terms of a two-year agreement automatically extended for successive two-year periods unless cancelled upon 90 days notice by the City, the Company is being managed by the Philadelphia Facilities Management Corporation (PFMC). The agreement, as amended, provides for reimbursement to PFMC of actual costs incurred in managing the Company, not to exceed \$300,000 annually. The agreement requires the Company to make annual payments of \$18,000,000 to the City.

The Company engages in various other transactions with the City. The Company provides gas service to the City. Operating revenues include \$7,284,000 in 1990 and \$6,114,000 in 1989 relating to sales to the City. Water and sewer services and licenses are purchased from the City. Such purchases totaled \$280,000 in 1990 and \$374,000 in 1989.

The Company has established an account receivable of \$2,000,000 based on its request for excess interest earnings on deposit in the revenue bond sinking fund reserve account. Investments therein are reported within the Company's accounts but are managed by the City.

Certain activities of the PGC are paid for by the Company. Such payments totaled \$745,000 in 1990 and \$961,000 in 1989.

Company employees are subject to payroll wage taxes imposed by the City. Such wage taxes paid to the City totaled \$4,474,000 in 1990 and \$4,341,000 in 1989.

3. CASH AND INVESTMENTS:

A. Cash

Bank balances at August 31, 1990 and 1989 were \$4,758,000 and \$4,502,000, respectively. Book cash balances at August 31, 1990 and 1989 were \$598,000 and \$57,000, respectively. All of the deposited funds are in depositories insured by a federal agency in addition to being collateralized in accordance with City and State statutes. Federal depository insurance on these balances at August 31, 1990 and 1989 was \$424,000 and \$527,000, respectively. The composition of the Company's deposits throughout the year ended August 31, 1990 was not significantly different from that at the balance sheet date.

3. CASH AND INVESTMENTS (Continued):

B. Investments

Statutes authorize the Company to invest in obligations of the U.S. Treasury, U.S. Agencies and Instrumentalities, and repurchase agreements. For the year ended August 31, 1990, the Company operated in all material respects within the provisions of such Statutes.

The Company's investments are categorized below to give an indication of the level of credit risk assumed at year-end. Category 1 includes investments that are insured or registered or for which the securities are held by the Company or its agent in the Company's name. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the Company's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the counterparty or by its trust department or agent, but not in the Company's name. There were no Category 2 investments at August 31, 1990 and 1989. Category 3 investments were repurchase agreements entered into on August 30 and 31 of each year which matured within the following 10 days.

REPURCHASE AGREEMENTS

	<u>Category</u>			<u>Carrying Amount</u>	<u>Market Value</u>
	<u>1</u>	<u>2</u>	<u>3</u>		
August 31, 1990	\$20,000,000	\$ -	\$ 4,000,000	\$24,000,000	\$24,000,000
August 31, 1989	\$69,440,000	\$ -	\$18,300,000	\$87,740,000	\$87,740,000

The Company's Sinking Fund deposits for the years ended August 31, 1990 and 1989, and \$21,150,000 of the year end August 31, 1990 Capital Improvement Fund deposits are maintained by the City and are considered Category 1 investments. For the years ended August 31, 1990 and 1989, \$7,797,000 and \$4,646,000, respectively of the Capital Improvement Fund deposits were maintained in the Trust Department of a bank and not in the Company's name and are classified as Category 3 investments. The amount of the Company's investments in the various categories of credit risk during the year ended August 31, 1990 was not significantly different from the categorization at the balance sheet date.

4. DEFERRED WASTE REMOVAL COSTS:

In compliance with a rate order issued by the PGC in March, 1987, the Company deferred recognition of the expense involved in removing residual waste material from its gas production plants. Such costs are being amortized to expense over a three year period. The unamortized remaining amount included in other assets and deferred debits as of August 31, 1990 and 1989 was \$638,000 and \$2,331,000, respectively.

5. EMPLOYEES' DEFERRED COMPENSATION PLAN:

The Company has an employees' deferred compensation plan (the "Plan") created in accordance with Internal Revenue Code Section 457. The Plan, available to all employees, permits the participants to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency.

All amounts of compensation deferred under the Plan, all property and rights purchased with those amounts, and all income attributable to those amounts, property, or rights are (until paid or made available to the employee or other beneficiary) solely the property and rights of the Company (without being restricted to the provisions of benefits under the Plan), subject only to the claims of the Company's general creditors. Participants' rights under the Plan are equal to those of general creditors of the Company in an amount equal to the fair market value of the deferred account for each participant. The Company believes that it is unlikely that it will use the assets to satisfy the claims of general creditors in the future.

The Plan provides that in the absence of gross negligence, fraud or willful misconduct, neither the Company nor the Plan Administrator shall be accountable or liable for any investment loss.

At August 31, 1990 and 1989 the market value of the Plan's assets was \$5,420,000 and \$3,942,000, respectively.

6. NOTES PAYABLE:

Pursuant to the provisions of certain Ordinances and Resolutions of the City, the Company may sell short-term notes in a principal amount which, together with interest, may not exceed \$85,000,000 outstanding at any one time. These notes are intended to provide additional working capital. They are supported by an irrevocable letter of credit and a subordinated security interest in the Company's revenues.

The notes outstanding at August 31, 1990 and 1989 have an average weighted interest rate of approximately 5.8% and 6.4%, respectively, and an average term to maturity of 31 days and 174 days, respectively. Principal amounts outstanding at August 31, 1990 and 1989 were \$21,000,000 and \$82,000,000, respectively.

7. OTHER CURRENT LIABILITIES AND DEFERRED CREDITS:

During the years ended August 31, 1990 and 1989, the Company's billed gas costs under the GCR Tariff exceeded its actual gas costs by \$7,677,000 and \$3,817,000, respectively. Accordingly, the Company deferred this excess which is included in other current liabilities and deferred credits. The GCR Tariff mechanism amortizes the liability through a reduction in rates during the subsequent fiscal year.

8. LONG-TERM DEBT:

Revenue Bonds

The following summary of revenue bond debt consists primarily of term and serial bonds issued by the City under agreements whereby the Company must reimburse the City for the principal and interest payments required by the bond ordinances:

	<u>August 31, 1990</u>			<u>August 31, 1989</u>		
	<u>Current</u>	<u>Long-Term</u>		<u>Current</u>	<u>Long-Term</u>	
	<u>Portion</u>	<u>Portion</u>	<u>Total</u>	<u>Portion</u>	<u>Portion</u>	<u>Total</u>
	<u>(Thousands of Dollars)</u>					
Revenue Bonds.....	\$ 28,035	\$584,270	\$612,305	\$ 22,430	\$525,045	\$547,475
Unamortized Debt Discount.	<u>(1,395)</u>	<u>(16,797)</u>	<u>(18,192)</u>	<u>(1,016)</u>	<u>(11,112)</u>	<u>(12,128)</u>
Total	<u>\$ 26,640</u>	<u>\$567,473</u>	<u>\$594,113</u>	<u>\$ 21,414</u>	<u>\$513,933</u>	<u>\$535,347</u>

Principal maturities and scheduled interest payments related to outstanding revenue bond issues during the next five fiscal years are as follows:

<u>Year Ending</u>	<u>Principal</u>	<u>Interest</u>
<u>August 31</u>	<u>(Thousands of Dollars)</u>	
1991	\$ 28,035	\$ 39,794
1992	29,830	38,643
1993	31,740	36,697
1994	33,850	34,577
1995	36,145	32,257

8. LONG-TERM DEBT (Continued):

Revenue Bonds (Continued)

Under the authority of the General Gas Works Revenue Bond Ordinance of 1975, the City has issued twelve series of Gas Works Revenue Bonds consisting of serial and term bonds. Proceeds of all series of Revenue Bonds were applied to reduce capital improvement loans from the City which had been previously approved by the voters, but for which bonds had not been issued, to fund future capital improvements, or to refund bonds previously issued. The serial bonds are not subject to redemption prior to maturity while the term bonds are subject to redemption at the option of the City after a designated date, either in whole or in part at varying redemption prices. In addition, the term bonds are subject to mandatory redemption after a designated date prior to maturity at a redemption price of 100% of principal amount and accrued interest. Funds deposited in a sinking fund may be used for this purpose.

Under the terms of the General Ordinance, the City is required to maintain rates to allow the Company to satisfy a debt coverage ratio.

Also provided by the General Ordinance is the establishment of a Sinking Fund into which deposits are made sufficient to meet all principal and interest requirements of the bonds as they become due. The General Ordinance also provides that sinking fund reserves be maintained as part of the Sinking Fund, which reserves have heretofore initially been funded from the proceeds of each series of bonds in an amount equal to the maximum annual debt service requirement on the Bonds of each such series in any fiscal year. Monies in the Sinking Fund Reserve are to be applied to the payment of debt service if for any reason other monies in the Sinking Fund should be insufficient.

Capital Improvement funds are revenue bond proceeds to be utilized for construction expenditures.

The revenue bonds are, and will be, equally and ratably collateralized by a security interest in all of the Company's project revenues and monies in the Sinking Fund and Sinking Fund Reserve.

8. LONG-TERM DEBT (Continued):

The following is a summary of the principal amount of outstanding revenue bonds:

Series	Year of Issue	Original Amount	August 31, 1990		August 31, 1989		Interest Rates	Year of Final Maturity	
			Current Portion	Long-Term Portion	Current Portion	Long-Term Portion			
(Thousands of Dollars)									
3rd:	Term.....	1976	\$ 33,865	\$ 2,980	\$ 23,115	\$ 2,775	\$ 26,095	7.375%	1997
4th:	Term.....	1978	46,855	3,900	35,880	3,655	39,780	6.8-6.875%	1998
5th:	Term.....	1979	33,320	2,615	28,250	2,455	30,865	6.5-6.8%	1999
6th:	Serial...	1980	24,510	-	-	3,895	-	8.0-8.25%	1990
7th:	Term.....	1982	10,675	-	10,675	-	10,675	6.00%	2013
8th:	Serial...	1985	19,455	1,155	15,240	1,085	16,395	6.00-6.60%	2000
	Term.....	1985	70,830	-	5,145	-	45,830	8.70-8.75%	2015
			<u>90,285</u>	<u>1,155</u>	<u>20,385</u>	<u>1,085</u>	<u>62,225</u>		
9th:	Serial...	1985	37,750	1,635	7,910	1,530	9,545	6.10-9.10%	2001
	Term.....	1985	70,780	-	-	-	-	9.00-9.125%	2012
			<u>108,530</u>	<u>1,635</u>	<u>7,910</u>	<u>1,530</u>	<u>9,545</u>		
10th:	Serial...	1986	88,090	5,605	80,120	1,320	85,725	5.25-7.20%	2001
11th:	Serial...	1987	62,520	6,025	41,670	5,715	47,695	5.00-7.40%	2000
	Term.....	1987	79,920	-	79,920	-	79,920	7.70-7.875%	2017
			<u>142,440</u>	<u>6,025</u>	<u>121,590</u>	<u>5,715</u>	<u>127,615</u>		
11th "C":	Serial...	1989	46,183	2,345	43,838	-	46,183	6.10-7.15%	2004
	Term.....	1989	86,337	-	86,337	-	86,337	6.75-7.25%	2015
			<u>132,520</u>	<u>2,345</u>	<u>130,175</u>	<u>-</u>	<u>132,520</u>		
	Accreted Interest			2,277	-	-			
				<u>132,452</u>		<u>132,520</u>			
12th "A":	Serial...	1990	20,911	940	19,971			5.90-7.10%	2006
	Term.....	1990	29,510	-	29,510			6.00%	2012
			<u>50,421</u>	<u>940</u>	<u>49,481</u>				
	Accreted Interest			247					
				<u>49,728</u>					
12th "B":	Serial...	1990	12,670	835	11,835			5.90-7.00%	2001
	Term.....	1990	62,330	-	62,330			7.00-7.10%	2020
			<u>75,000</u>	<u>835</u>	<u>74,165</u>				
TOTAL			\$ 28,035	\$584,270	\$ 22,430	\$525,045			

8. LONG-TERM DEBT (Continued):

A portion of certain revenue bonds were issued as zero coupon securities. Interest on these securities is accrued and compounded on the payment dates of the current interest bonds within the issue. The accrued interest to the date of compounding is reflected in the preceding schedule as accreted interest and is reported as long-term debt.

On February 14, 1989 the Company issued Series C of the Eleventh Series Revenue Bonds in the amount of \$132,520,000, for the purpose of providing funds, at more favorable interest rates, for the partial advanced refunding of \$25,000,000 and \$88,795,000 respectively of the Eighth and Ninth Series Revenue Bond issues. As a result, \$64,325,000 of the Eighth Series issued May 15, 1985 and maturing through 2012, remained outstanding following the refunding and \$12,505,000 of the Ninth Series issued August 1, 1985 and maturing through 1995, remained outstanding following the refunding. The difference between the reacquisition price and the net carrying amount of the reacquired debt resulted in a loss of \$13,863,000 which is being amortized over the life of the Eleventh Series C Revenue Bonds. This advanced refunding reduced the Company's future debt service costs by \$11,104,000 and, resulted in a net economic gain of \$7,617,000.

In March, 1990 the Company issued Series A of the Twelfth Series Revenue Bonds in the amount of \$50,421,000 for the purpose of providing funds, at more favorable interest rates, for the partial advanced refunding of \$40,685,000 of the Eighth Series Revenue Bond issue. As a result of this refunding, and the Eleventh Series C Revenue Bond refunding of Eighth Series debt (referenced above), \$22,625,000 of the Eighth Series issued May 15, 1985 and maturing through 2002 remained outstanding following the refunding. The difference between the reacquisition price and the net carrying amount of the reacquired debt resulted in a net loss of \$3,846,000 which is being amortized over the life of the Twelfth Series A Revenue Bonds. This advanced refunding reduced the Company's future debt service costs by \$2,279,000 and resulted in a net economic gain of \$2,051,000.

On June 29, 1990 the Company issued Series B of the Twelfth Series Revenue Bonds in the amount of \$75,000,000. These bonds, maturing through 2020, were issued for the purpose of providing funding for capital improvements with the proceeds being deposited in the capital improvement fund. At August 31, 1990, \$28,650,000 remained on deposit in the capital improvement fund to provide funding for future capital improvements.

8. LONG-TERM DEBT (Continued):

Subordinate Lease Obligation

On August 1, 1989 the Company refinanced the net book value, which approximated the fair market value, of its Headquarters and office complex at 800 W. Montgomery Avenue. This was accomplished through the sale of the facility to the Philadelphia Municipal Authority (PMA) and its leaseback to the Company under a lease which expires June 1, 2014. As part of the indenture, the Company has guaranteed lease payments in an amount equal to the scheduled debt service on the bonds issued by PMA to finance the facility purchase. This lease obligation is subordinate to the Gas Works Revenue Bonds, other general obligation debt and Gas Works Notes. Proceeds from the refinancing of the building were utilized in the Company's capital program. The total amount financed was \$25,000,000.

The following is a summary of the subordinate lease obligation:

	<u>August 31, 1990</u>		<u>August 31, 1989</u>	
	<u>Current</u>	<u>Long-Term</u>	<u>Current</u>	<u>Long-Term</u>
	<u>Portion</u>	<u>Portion</u>	<u>Portion</u>	<u>Portion</u>
	<u>(Thousands of Dollars)</u>			
Subordinate Lease Obligation	\$ 415	\$24,195	\$ 390	\$24,610
Unamortized Debt Discount	<u>(52)</u>	<u>(758)</u>	<u>(29)</u>	<u>(440)</u>
Total	<u>\$ 363</u>	<u>\$23,437</u>	<u>\$ 361</u>	<u>\$24,170</u>

Future minimum rentals, including interest, on the lease are as follows:

	<u>Thousands of Dollars</u>
1991	\$ 2,245
1992	2,243
1993	2,244
1994	2,242
1995	2,243
Thereafter	<u>42,655</u>
Total	<u>\$53,872</u>

9. DEFEASED DEBT:

Defeased debt of the Company (bonds issued by the Company now payable as to principal and interest thereon from the proceeds of irrevocably pledged assets) at August 31, 1990 and 1989 was as follows:

	Revenue Bond Issue and Scheduled Final Maturity	Interest rate	Thousands of Dollars	
			1990	1989
6th	May 15, 2001	9.125 - 9.625%	\$ -	\$75,490
7th	March 15, 2013	8.75 - 10.875%	88,310	89,380
8th	May 15, 2015	8.70 - 8.75%	65,685	25,000
9th	March 15, 2012	8.70 - 9.125%	88,795	88,795

The assets pledged are primarily noncallable-U.S. Government securities and the interest to be earned thereon. The investments had a carrying value of \$255,152,363 at August 31, 1990 bearing interest on face value at 0% to 10.27%. The investments had a carrying value of \$298,705,820 at August 31, 1989 bearing interest on face value at 0% to 11.375%. The investments are held by the Trustee and maturities and interest payments are scheduled to coincide with trustee cash requirements for debt service.

The defeased Sixth series bonds were retired on May 15, 1990. The defeased bonds described above and the investments pledged for their redemption are not recognized on the Company's balance sheets in accordance with the terms of the Indenture of Defeasance.

10. ACCOUNTING FOR PENSION COSTS:

A. Plan Description

The Company sponsors a public employee retirement system (PERS), a single employer defined benefit plan to provide pension benefits for all its employees.

At September 1, 1988, the date of the last actuarial valuation, adjusted for the impact of the Early Retirement Incentive Program (see Note 1), the Pension Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them:	<u>1,930</u>
Current employees:	
Vested	1,149
Non-vested	<u>1,288</u>
Total Current	<u>2,437</u>
Total Membership	<u><u>4,367</u></u>

10. ACCOUNTING FOR PENSION COSTS (Continued):

A. Plan Description (Continued)

The Pension Plan provides retirement benefits as well as death and disability benefits. Retirement benefits vest after 10 years of credited service. Employees who retire at or after age 65 are entitled to receive an annual retirement benefit, payable monthly, in an amount equal to the greater of:

- (i) 1.25% of the first \$6,600 of Final Average Earnings plus 1.75% of the excess of Final Average Earnings over \$6,600, times Credited Service, with a maximum of 60% of the highest annual earnings during the last 10 years of Credited Service, applicable to all participants.
- (ii) 2% of total earnings received during the period of Credited Service plus 22.5% of the first \$100 of such amount, applicable only to participants who were employees on or prior to March 24, 1967.

Final-average earnings are the employee's average pay, over the highest 5 of the last 10 years of credited service. Employees with 15 years of credited service may retire at or after age 55 and receive a reduced retirement benefit.

Covered employees are not required to contribute to the Pension Plan. The Company is required by statute to contribute the amounts necessary to finance the Pension Plan. Benefit and contribution provisions are established by City ordinance and may be amended only as allowed by City ordinance.

B. Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting

Pension Plan financial statements are prepared using the accrual basis of accounting. Employer contributions are recognized as revenues in the period in which employee services are performed.

Method Used to Value Investments

Pension Plan investments are reported at cost. Investment income is recognized as earned. Gains and losses on sales and exchanges are recognized on the transaction date.

10. ACCOUNTING FOR PENSION COSTS (Continued):

C. Funding Status and Progress

The amount shown below as "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the Pension Plan's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among PERS.

Significant actuarial assumptions used include: (a) a rate of return on the investment of present and future assets of 7 percent per year compounded annually, (b) projected salary increases of 5 percent per year compounded annually, and (c) 62 as the assumed retirement age.

At September 1, 1989, the Company updated the September 1, 1988 actuarial valuation. The significant actuarial assumptions used remained the same. At September 1, 1989, the unfunded pension benefit obligation was \$101,352,000, as follows:

Pension benefit obligation:

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$196,532,000
Current employees:	
Accumulated employee contributions including allocated investment income	None
Vested	50,780,000
Non-vested	<u>61,954,000</u>
Total pension benefit obligation	\$309,266,000
Net assets available for benefits, at cost (Market Value \$225,406,000)	<u>207,914,000</u>
Unfunded pension benefit obligation	<u><u>\$101,352,000</u></u>

10. ACCOUNTING FOR PENSION COSTS (Continued):

D. Contributions Required and Contributions Made

The Pension Plan funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Level percentages of payroll employer contribution rates are determined using the Projected Unit Credit actuarial funding method. Amortization of the unfunded pension benefit obligation over a 40 year period commenced in 1967.

Contributions totaling \$17,748,000 or 19.1% of the covered payroll were made in 1990. These contributions consisted of: (a) \$7,115,000 normal cost and (b) \$10,633,000 amortization of the unfunded pension benefit obligation. Fiscal 1990 contributions represented contributions in accordance with the actuarial recommended contribution through the actuarial study performed in September, 1988.

Historically, payments to beneficiaries are made by the Company and not from the assets of the Pension Plan. In 1990, payments to beneficiaries exceeded the Company's actuarially computed pension contribution and a withdrawal of \$1,650,000 from the pension assets was necessary to meet beneficiary payment obligations.

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension obligation discussed above.

E. Post Retirement Benefit Information

In addition to providing pension benefits, the Company also provides health care and life insurance benefits to Pension Plan beneficiaries and their dependents. The Company recognizes the cost of providing health care benefits for the 1,805 and 1,930 beneficiaries and their dependents for the 1990 and 1989 fiscal years, respectively, and the cost of providing such benefits for approximately 2,450 active employees and their dependents by charging the annual insurance premiums to expense. Total premiums incurred for health care amounted to \$15,438,000 in 1990 and \$12,863,000 in 1989 of which approximately 32% represents payments on behalf of retired employees and their dependents. Total premiums for group life insurance were \$596,000 in 1990 and \$1,434,000 in 1989 of which approximately 24% is attributable to retired employees.

10. ACCOUNTING FOR PENSION COSTS (Continued):

F. Trend Information

Trend information gives an indication of the progress made in accumulating sufficient assets to pay benefits when due. Certain historical trend information for the Company's PERS is presented below for the last three years.

	<u>For the Years Ended</u>		
	<u>August 31,</u>		
	<u>1989</u>	<u>1988</u>	<u>1987</u>
Net assets available for benefits (at cost) as a percentage of the pension benefit obligation	67.2%	66.1%	68.0%
Unfunded pension benefit obligation as a percentage of the annual covered payroll	108.8%	103.0%	97.7%
Company contributions to the PERS as a percentage of the annual covered payroll:	19.1%	17.6%	18.6%

Contributions were made in accordance with actuarially determined contribution requirements.

G. Ten-Year Historical Trend Information (unaudited)

Additional historical trend information designed to provide information about the progress made by the Company in accumulating sufficient assets to pay pension benefits as they become due is presented on page 24 ("Analysis of Pension Funding Progress").

11. RISK MANAGEMENT:

The Company is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Company is principally insured through insurance carriers. The Company's property is insured against the risk of loss or damage, without aggregate limits, in the amount of \$250 million per occurrence with a \$100,000 deductible; subject, however, to an annual aggregate limit of \$100 million for earthquake and an annual aggregate limit of \$50 million for flood, generally, and to lower flood limits as to the Richmond Plant. In addition, the Company maintains boiler and machinery, blanket crime, and other forms of property insurance. With respect to incidents arising on or after October 1, 1986, the Company has maintained policies of liability insurance insuring against the risk of damage or injury to the public for \$25 million in excess of \$500,000 for any one incident, generally without aggregate

11. RISK MANAGEMENT (Continued):

limits and for incidents exceeding the foregoing coverage, there is aggregate coverage of \$175 million. The Company also maintains \$25 million of workers' compensation insurance in excess of \$500,000 per incident for on-duty injuries to employees. During the last three fiscal years, no claim settlements have exceeded the level of insurance coverage. None of these losses have been settled with the purchase of annuity contracts. Director's and officer's liability insurance coverage was cancelled in January, 1989 as the management agreement between the City and PFMC transfers this risk and responsibility to the City.

A reserve is maintained, in accordance with PGC regulations, in an amount which estimates settlements to be paid by the Company in the next fiscal year. Estimated losses from claims for occurrences not covered by insurance which will not be paid in the next fiscal year have not been provided for. Such expenses will be recovered through future rates. Charges against the reserve are made as claims are settled.

Claims and settlement activity is as follows:

Year Ended August 31,	Thousands of Dollars				
	Beginning of Year <u>Claims</u>	Current Year Claims and Estimate <u>Adjustments</u>	Claims <u>Settled</u>	End of Year <u>Claims</u>	Reserve <u>Amount</u>
1989	\$ 5,156	\$ 3,371	\$ (2,808)	\$ 5,719	\$ 4,576
1990	5,719	3,457	(2,740)	6,436	3,416

Also, the Company has entered into several one year contracts to provide health care for both active and retired employees which contracts are experience rated and premiums adjusted annually; and has acquired approximately \$150 million of group life insurance coverage for both the active and retired employees, which is retrospectively rated on a monthly basis. (See also note 10E).

12. COMMITMENTS AND CONTINGENCIES:

Commitments for major construction and maintenance contracts were approximately \$2,828,000 and \$3,405,000 as of August 31, 1990 and 1989, respectively.

The Company is committed under various noncancellable operating lease agreements to pay minimum annual rentals as follows:

<u>Year Ended</u> <u>August 31,</u>	<u>Thousands of Dollars</u>
1991	\$ 686
1992	283
1993	70
1994	<u>35</u>
Total	<u>\$1,074</u>

Rent expense for the years ended August 31, 1990 and 1989 amounted to \$1,470,000 and \$1,964,000, respectively.

In the 1988 fiscal year, the Company began paying as part of its normal monthly bills pipeline take-or-pay costs billed by its interstate pipeline suppliers under Federal Energy Regulatory Control (FERC) approved tariffs. Through August 31, 1990, the amount of these costs paid by the Company was approximately \$14,645,000 which includes approximately \$6,399,000 and \$6,412,000 for the years ended August 31, 1990 and 1989. At August 31, 1990 the Company estimates a total remaining liability of approximately \$23 million under the multi-year cost recovery period established by FERC. Approximately \$6.5 million of the liability relates to charges which the Company must pay regardless of future purchases and has been recorded as both a deferred debit and a deferred credit on the Balance Sheet. The remaining \$16.5 million will be assessed based on future purchases of gas. Costs incurred by the Company since May, 1988 have been recovered through the normal GCR.

REQUIRED PENSION SUPPLEMENTARY INFORMATION
 ANALYSIS OF PENSION FUNDING PROGRESS (Unaudited)

Ten-year historical trend information designed to provide information about the Pension Plan's progress made in accumulating sufficient assets to pay benefits when due is presented below:

ANALYSIS OF PENSION FUNDING PROGRESS
 (Thousands of Dollars)
 (unaudited)

Year	(1)	(2)	(3)	(4)	(5)	(6)	(6)	
	Net Assets Available for Benefits	Pension Benefit Obligation	Percentage Funded (1)/(2)	Unfunded Pension Benefit Obligation (2) - (1)				Annual Covered Payroll
1980	\$ 57,857	\$139,132	41.6%	\$ 81,275	\$11,851	\$57,087	20.8%	142.4%
1981	72,371	163,654	44.2	91,283	13,840	61,137	22.6	149.3
1982	91,115	190,323	47.9	99,208	15,181	67,474	22.5	147.0
1983	111,012	N/A	-	N/A	16,276	70,418	23.1	-
1984	129,803	N/A	-	N/A	16,710	75,330	22.2	-
1985	145,845	232,714	62.7	86,869	16,936	80,017	21.2	108.6
1986	169,936	262,394	64.8	92,458	17,571	85,537	20.5	108.1
1987	187,417	275,514	68.0	88,097	16,763	90,139	18.6	97.7
1988	194,818	294,539	66.1	99,721	17,016	96,825	17.6	103.0
1989	207,914	309,266	67.2	101,352	17,748	93,137	19.1	108.8

N/A - Information not available for these periods.

Isolated analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the pension plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the pension plan. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the Pension Plan's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the pension plan.

(THIS PAGE INTENTIONALLY LEFT BLANK)

APPENDIX B
Engineering Report

(THIS PAGE INTENTIONALLY LEFT BLANK)

INDEPENDENT CONSULTANT'S REPORT
PHILADELPHIA GAS WORKS
GAS WORKS REVENUE BONDS, THIRTEENTH SERIES
MAY 1991



STONE & WEBSTER
MANAGEMENT CONSULTANTS, INC.

(THIS PAGE INTENTIONALLY LEFT BLANK)



STONE & WEBSTER MANAGEMENT CONSULTANTS, INC.

ONE PENN PLAZA
212-290-7000

• 250 WEST 34TH STREET • NEW YORK, NEW YORK 10119
TELEX: 229038SWMGMT
FAX: 212-290-7094

May 31, 1991

Honorable David W. Brenner
Director of Finance
City of Philadelphia
1420 Municipal Services Building
Philadelphia, Pennsylvania 19102

Subject: Independent Consultant's Report
City of Philadelphia, Pennsylvania
Gas Works Revenue Bonds, Thirteenth Series

Dear Mr. Brenner:

The attached report contains the findings and conclusions of Stone & Webster Management Consultants, Inc., (Stone & Webster) with respect to the issuance of up to \$75,000,000 of Gas Works Revenue Bonds, Thirteenth Series (the Bonds). These Bonds are being issued in order to fund a portion of the City of Philadelphia Gas Works' (PGW) capital improvement program, and establish sinking fund reserves. Stone & Webster has broad experience in the technical and financial analysis of the operation of a gas distribution system of the magnitude and scope of the Philadelphia Gas Works and has a favorable reputation for competence in such field.

SCOPE OF WORK

Stone & Webster has prepared a detailed report including historic and forecast schedules. The basis for the report is our review of PGW's operations, facilities, and its customer, sales, and financial forecasts. This report provides Stone & Webster's independent assessment of PGW's organization and management, service area, customer base, and sales forecast covering a five-year period from the 1991 through the 1995 fiscal years. The report also provides an assessment of the condition of the physical plant including PGW's existing production, storage and distribution facilities, among others, based upon on-site inspections of facilities. It reviews and evaluates existing and planned natural gas supply contracts with respect to volumes of gas to be delivered and evaluates the adequacy of present inventory, current and future gas supplies, and supplemental gas production capabilities. Furthermore, an evaluation and description of PGW's capital improvement program for fiscal years 1992 through 1997 is addressed with the objective of judging the reasonableness of the major replacements, improvements and benefits which will be made to the gas system.

The report is intended to provide an overview of PGW's long-term capital program and an assessment of the regulatory and rate setting environment under which the imposition and collection of rates and charges will occur. This financial assessment, based on PGW's 1991 through 1996 financial forecast, is structured to permit the reader to make an estimate of PGW's ability to meet the current and future costs of operation and maintenance, as well as its ability to meet debt service coverage tests and other bond covenants set forth in the legislation which govern debt financing.

FINDINGS AND CONCLUSIONS

Detailed findings and conclusions are contained in the attached report; however, subject to such findings and conclusions, the following points summarize Stone & Webster's key opinions relevant to issuance of the Bonds:

- PGW is a competently managed and operated gas distribution utility. PGW and its facilities are organized, operated and maintained equal to or in excess of regulatory requirements and generally accepted industry practices. Based upon visual observation and limited review of maintenance records, practices and procedures, we believe PGW's in-service facilities are in "good operating condition."
- Based on our investigation and evaluation it is our opinion that over the financial forecast period, 1991 through 1996, on the basis of actual and estimated future annual financial operations of PGW's facilities and certain assumptions with respect thereto over the amortization period of the Thirteenth Series Bonds, current and future project revenues as defined in section 2 of The First Class City Revenue Bond Act (The "Act") will be adequate to meet all expenses of operation and maintenance, repair and replacement, reserve fund deposits, debt service on the bonds issued under the General Ordinance and the surplus requirements of the rate covenants contained in section 4.03(b) of the Ordinance of City Council approved May 30, 1975, Bill Number 1971, as amended (The "General Ordinance") provided that adequate revenues, as discussed in the Financial Considerations section of this report, are provided.
- The Bonds are being issued with the intent of funding the capital improvement program and establishing sinking fund reserves.
- Achievement of the forecasted results, 1991 through 1996, is premised on net revenue increases of \$34.0 million during the next fiscal year (1992), and \$17.0 million in 1995. These could either be through rate increases, expense reductions, efficiencies, increased sales, etc.
- If approved by City Council, the capital improvements proposed during the forecast period, 1991 through 1996, will, along with continued good operation and maintenance practices, enable PGW to maintain its system in good operating condition. Our review of present management practices indicates that the good condition is likely to continue, provided the company is authorized the necessary funds. (Detailed destructive testing and engineering inspections were not performed.)

- Contracted PGW gas supplies plus spot market purchases plus anticipated additional contracted supplies plus supplemental gas capacities are adequate to meet PGW's forecast of demand on a day of maximum demand (a peak day), or an hour of maximum demand (a peak hour), and during a year of maximum demand (a design year).
- PGW's customer count has risen slightly in recent years (0.6% from 1987 through 1990) but is forecasted by PGW to begin to decline. The continuing decline in Philadelphia population (decline of 6.1% between 1980 and 1990) and loss of jobs (decline of 4.0% between 1980 and 1990), if they continue, will eventually limit customer growth.
- Total PGW sales volumes over the forecast period are expected to increase by 0.6 percent per year after weather normalization. Due to an abnormally warm fiscal 1991 (13% warmer than normal), the sales growth will average 2.5% per year above this base year without weather normalization.
- PGW has been without a President and Chief Executive Officer since August 1, 1989 when the former President and Chief Executive Officer, Mr. Robert J. Patrylo resigned. The Philadelphia Facilities Management Corporation organized a Search Committee chaired by Ms. Jacqueline F. Allen, Esq., a board member. The Committee conducted a national search from which 150 responses were received. The Committee interviewed about 20 of the respondents including two internal candidates. The board anticipates a new President will be named in the near future. Mr. Alfred P. Degen, PGW Executive Vice President, has served as Acting President since August 1, 1989.

The accompanying forecasts are based on assumptions of future events and should not be construed as a statement of fact. These assumptions have been provided by or have been reviewed with and approved by PGW and are based on present circumstances and information currently available. During this assignment, we analyzed such information as was considered appropriate for use in evaluating the assumptions pertaining to the financial statement forecasts and, in this connection, it is our opinion that these assumptions are reasonable. The assumptions may be affected by future events and, therefore, the actual results that will be achieved may vary from the forecast.

Sincerely,
STONE & WEBSTER MANAGEMENT CONSULTANTS, INC.

Richard F. Morrow

Richard F. Morrow
Vice President
(Responsible Officer)

Edward A. McGee

Edward A. McGee
Assistant Vice President
(Project Manager)

B-3

[THIS PAGE INTENTIONALLY LEFT BLANK]

INDEPENDENT CONSULTANT'S
REPORT ON THE PHILADELPHIA GAS WORKS

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
GENERAL	5
The Philadelphia Gas Works	5
Organization and Administration	8
Service Area	10
Sales Forecast	13
FACILITIES	16
Production Facilities	16
Distribution Facilities	18
Other Facilities	19
Condition of Facilities	19
GAS SUPPLY	22
Supply Sources	22
Supply/Demand Balance	24
CAPITAL IMPROVEMENT PROGRAM	26
Budget Process	26
Gas Supply Plant	28
Distribution Plant	29
Customer Service	30
Transportation	30
Other Departments	31
Recent Developments	31
Conclusion	32
FINANCIAL CONSIDERATIONS	33
Regulatory Environment	33
Energy Assistance Program	36
Rate Schedules and Developments	39
Statement of Income	42
Revenue Bond Financing	45

LIST OF FIGURES(a)

Figure 1	Philadelphia Gas Works Organization Chart
Figure 2	Map of the Philadelphia Gas Works Service Area
Figure 3	Steam Loop Conversions
Figure 4	1991 Peak Day Capacity by Source
Figure 5A	Demand vs. Maximum Supply for Peak Day
Figure 5B	Demand vs. Maximum Supply for Peak Hour
Figure 6	Capital Improvement Program by Year
Figure 7	Capital Improvement Program by Category

LIST OF TABLES(a)

Table 1	Historical Number of Customers
Table 2	Historical Sales
Table 3	Sales Forecast
Table 4	Customer Forecast
Table 5	Growth in Share of Residential Market
Table 6	Residential Usage With Market Share Unchanged From 1990 Levels
Table 7	Current Interstate Pipeline Gas Contracts
Table 8	Supply/Demand Balance (normal winter)
Table 9	Supply/Demand Balance (design winter)
Table 10	Design Day and Design Hour Capacity
Table 11A	Projected Capital Improvement Program
Table 11B	Major Capital Budget Items
Table 12	Typical Residential Monthly Bill Comparison
Table 13	Typical Commercial Monthly Bill Comparison
Table 14	Typical Industrial Monthly Bill Comparison
Table 15	Coverage of Debt Service From Operations
Table 16	Sources and Uses of Cash for Capital Improvement Expenditures
Table 17	Accounts Receivable - Historical
Table 18	Accounts Receivable - Forecast

LIST OF EXHIBITS(a)

Exhibit I	Selected Operating Statistics
Exhibit II	Forecast Statement of Income
Exhibit III	Forecast Other Operation and Maintenance Expenses
Exhibit IV	Proposed Capital Expenditure Summary
Exhibit V	Analysis of Internally Generated Funds
Exhibit VI	Analysis of Cash and Annual Cash Balances

APPENDIX

Appendix A Note on Sales/Supply/Demand Units

Note

(a) Figures, Tables and Exhibits are based on data supplied by PGW.

INTRODUCTION

The Philadelphia Gas Works (PGW), a city owned gas distribution utility in the City of Philadelphia (City), retained Stone & Webster Management Consultants, Inc. (Stone & Webster) to prepare this report in connection with the issuance of up to \$75,000,000 Gas Works Revenue Bonds, Thirteenth Series (the Bonds). Stone & Webster was asked to investigate, evaluate and state conclusions regarding:

- The adequacy of PGW gas supplies;
- The adequacy of current and future PGW revenues to meet operation and maintenance expenses, reserve fund deposits, debt service on the Bonds, lease payments on the Administration building and the requirements of the General Ordinance rate covenants; and,
- The appropriateness of the capital improvements (being financed with the proceeds of the Thirteenth Series Bonds as well as internally generated funds) to maintain the PGW system in good operating condition.

The findings and conclusions regarding these issues are contained in this report. Historical and forecast statistics and related figures are displayed in Figures 1-7, Tables 1-18, and Exhibits I-VI which are an integral part of this report. This report also contains Stone & Webster's independent assessment of PGW's organization and management.

In April and May 1991, a review and evaluation, based upon on-site inspections, was made of production, storage, distribution and general plant facilities. The adequacy of gas supply resources to meet forecast requirements was determined. The capital improvements program was evaluated as to the appropriateness of quantities and estimates of material and labor prices, and justification of improvements and benefits to the gas system. Finally, Stone & Webster prepared an assessment of the regulatory and rate setting environment which

was factored into a series of pro-forma financial forecasts for purposes of analysis. This analysis permitted us to estimate PGW's ability to meet the current and future costs of operations, maintenance and debt service coverage requirements and other bond covenants set forth in the statutes which govern debt financing.

Major factors and key assumptions relative to the forecast and discussed in more detail in the report are:

- Base Rates - The Philadelphia Gas Commission has taken an active role in the three most recent proposals for rate changes. On March 3, 1987, the Commission approved a base rate increase for PGW retroactive from January 1, 1987 which provided the Company with approximately \$28.65 million annually in additional revenues. On October 13, 1988, after two months of hearings, the Commission denied a requested base rate increase of \$49 million and PGW was ordered to reduce its rates by \$2 million for fiscal year 1989. On February 5, 1991 the Gas Commission issued an Order which rejected PGW's request for a \$31 million rate increase. However, in connection with the related GCR review (see below), GCR revenues were increased by approximately \$16 million in a normal weather year. In addition, on May 22, 1991, the Commission ordered the further lowering of the fuel component included in base rates increasing the 1991 non-fuel revenues by approximately \$8 million.

PGW anticipates that it will file a request for a base rate increase before the end of the fiscal year 1991 intended to provide additional net revenues of \$34 million during fiscal year 1992. Additional net revenues of \$17 million are anticipated to be achieved during 1995 through a subsequent base rate increase.

- Gas Cost Rates - The Commission granted a Gas Cost Rate (GCR) increase which was authorized on August 15, 1988 and which became effective on September 1, 1988. The \$20 million increase represents the increased expenses to

PGW for the purchase of natural gas from its suppliers which is passed on to its ratepayers in the form of a gas cost adjustment, rather than through the base rates.

In connection with the last rate case, the Commission authorized a change to the structure of the fuel adjustment clause which has the net effect of increasing base non-fuel revenues by approximately \$16 million in a normal weather year. More recently a further change was made to this fuel adjustment clause, thereby increasing base non-fuel revenues an additional \$8 million. The current GCR, as of December 1, 1990, is a negative 17.50 cents per Mcf, reflecting a credit on customer bills.

Based on our financial analyses, approval of both of the previously mentioned base rate increases for fiscal year 1992 and fiscal year 1995 and any future GCR proposals or their equivalent net revenue from other sources will be required in order for PGW to meet the enclosed financial forecasts and the terms of its bond covenants.

- Steam Loop Conversion - As of the end of December, 1990, more than 150 customers of the Philadelphia center city steam loop had converted to natural gas. PGW continues to aggressively compete for these conversions and estimates that 35 percent of the steam loop load will be converted to natural gas by 1997. This represents annual sales volumes of 2.0 Bcf by the year 1997. Discussions are also ongoing between PGW and the owner of the steam company regarding the use of gas for generation of the steam. This would, in effect, yield revenues to PGW from non-converting customers.
- During 1989 the Commission authorized a Management Audit of PGW. The audit report, dated November, 1989 contained 149 specific recommendations for improving service and operations as well as reducing costs. PGW is in the process

of implementing many of these recommendations and has factored the expected savings into its projections.

- PGW is continuing with its plans to convert all customers to an automatic meter reading system. This requires the conversion of about 50,000 customers per year for eleven years. Acceleration of the schedule to as few as five years is also being studied. Treatment of this project in PGW's forecast has been conservative since performance tests are not complete - while the required capital expenditures have been estimated on the high side; the savings have been estimated on the low side.

- A recently announced proposal to close the Philadelphia Naval Base and its shipyard, if it were to occur, could decrease PGW's revenues by as much as \$1.5 million (0.3% of billed revenues). This has not been factored into the forecast *since it is still just a proposal.*

GENERAL

THE PHILADELPHIA GAS WORKS

The Philadelphia Gas Works consists of real and personal property, whether tangible or intangible, owned by the City of Philadelphia, plus the organization and personnel necessary for the acquisition, delivery and sale of gas within the City.

In March 1835 a City Ordinance was passed authorizing private ownership and operation of a public utility under trustee management. This Ordinance also contained an option clause permitting the City to take ownership of PGW by issuing City bonds to the private stockholders. This option initiating City ownership of PGW was exercised March 1, 1841, and has since been continuously in effect. Manufactured gas production commenced February 8, 1836 and service was inaugurated February 10, 1836 to 46 gas lamps along Second Street. PGW thus has completed 155 years of service to the citizens of Philadelphia.

During its 155 years of existence, the operation and management of PGW has evolved to its present configuration through a variety of arrangements. Initially it was managed by the private owners. In 1841, a Board of Trustees assumed management of PGW in accordance with an enabling City Ordinance. This arrangement continued through April 1887 when management and operation of PGW was assumed by the City under the Director of Public Works. Serious financial and operating problems led to replacement of this arrangement on November 12, 1897. At that time, the City, unable to sell PGW, contracted with the United Gas Improvement Company (UGI), now UGI Corporation, for the operation and management of PGW under authority granted by the City Charter. Operation and management by UGI continued through December 31, 1972.

On January 1, 1973 the Philadelphia Facilities Management Corporation (PFMC), a not-for-profit Pennsylvania corporation, was organized for the specific purpose of operating PGW. PFMC currently manages PGW in accordance with the original Agreement with the City dated December 29, 1972 as subsequently amended (Agreement). The functioning of PGW under the current Agreement is as follows:

<u>Organization</u>	<u>Function</u>
City of Philadelphia	Owens PGW property and establishes legislation for PGW functioning.
The Gas Commission	Established under the Philadelphia Home Rule Charter, operates under the terms of the Agreement and is responsible for overseeing operation of PGW by the PFMC.
PFMC	Provides executive management and operates PGW facilities.
PGW	Manages construction, operation and maintenance of the gas system on a day-to-day basis.

The Agreement states that for the operation of PGW the PFMC shall provide:

- A Chief Executive Officer,
- A Chief Operating Officer,
- A Chief Financial Officer, and
- Other personnel as deemed appropriate by PFMC.

All PFMC personnel are subject to the approval of the Philadelphia Gas Commission (Commission). The Commission consists of five members: the City Controller (or his designee), two Mayoral appointees, and two City Council appointees. The Commission has the general responsibility to oversee operation of PGW by PFMC and retains all powers not specifically granted to PFMC. In addition the Agreement specifies certain functions of the Commission, mainly:

- Approval of PFMC personnel,
- Review and make recommendations regarding gas supply contracts for City Council approval,
- Approval of PGW's annual operating budget,
- Review and make recommendations regarding PGW capital budgets for City Council approval,
- Approval of short-term loans,
- Power to establish procurement standards and to fix and regulate rates and charges for supplying gas to customers other than the City and the Board of Education, which will annually produce revenues sufficient to:
 - a) pay all operating and maintenance expenses of PGW and the interest and amortization expense of its debt and,
 - b) pay \$18,000,000 to the City each year and,
 - c) provide such other funds as may be approved by the Gas Commission or City Council.

- Review and approval of all PGW real estate acquisitions, sales, or leases for submittal to City Council for approval by ordinance.

ORGANIZATION AND ADMINISTRATION

The current PGW organization, a typical line organization, is shown in Figure 1. In preparing this study interviews were conducted with the Chairman of PFMC and all of PGW's officers: its acting President and Executive Vice President, each of the three Senior Vice Presidents, and the nine Vice Presidents. The interviews were supplemented by review of PGW policies, practices, procedures and field observation of numerous employees at various facilities performing their functions. Based on these interviews, reviews and observations, it is our opinion that PGW is suitably organized, managed, and operated by qualified personnel.

Total PGW employment as of March 29, 1991 was 2,460. The Gas Works Employees' Union of Philadelphia, Local #686, Service Employees' International Unit (an AFL-CIO affiliated union) represents 1,817 employees. The United Plant Guards Workers of America, Local # 506, represents 40 employees. These figures represent about a 10% decrease from manpower levels prior to 1989 in accordance with the Gas Commission's order of October, 1988, directed at reduction of expenses.

In April, 1989 the Gas Workers Employees' Union went out on strike over a number of issues, including salary issues, in the proposed contract. This strike, settled in May, 1989 with a four-year agreement was the second strike in the history of PGW. The first strike occurred in 1971.

The following brief resumes provide pertinent information on the major management qualifications of the PFMC/PGW Senior Officers:

Alfred P. Degen, Executive Vice President and Acting President

Mr. Degen joined PGW in 1968 and has held management positions in the Finance, Customer Activities, and Administrative areas of PGW, including the positions of Assistant Vice President-Customer Activities, Vice President-Administration and Senior Vice President and Chief Financial Officer. He is a member of the Managing Committee of American Gas Association's Finance and Administrative Section, and the Society of Gas Lighting.

Sydney M. Avent, Esq., Senior Vice President Administration and General Counsel

Ms. Avent joined PGW in January 1984 as Staff Attorney, was named Senior Attorney in December 1984, Corporate Counsel in October 1985, Senior Vice President and General Counsel in January 1988 and Senior Vice President Administration and General Counsel in September 1990. Ms. Avent is a member of the American Gas Association Legal Forum; the past president of the Women Lawyers Division of the National Bar Association; a trustee of the Philadelphia Bar Foundation (1987-1990); and a member of the American and Philadelphia Bar Associations, and the Barristers Association of Philadelphia. She also is a member of the American Association of Blacks in Energy.

Joseph G. Horan, Senior Vice President and Acting Chief Operating Officer

Mr. Horan joined PGW in 1956 and has held management positions in the Operations, Customer Activities, and the Corporate Planning and Development areas, including the positions of Vice President-Operations and Vice President-Customer Activities. He was named Senior Vice President-Corporate Planning and Development on March 1, 1986, Senior Vice President in January, 1988 and Senior Vice President and Acting Chief Operating Officer on September 11, 1990. He is a member of the American Gas Association, and serves on the Managing Committee of the Operating Section, as well as a member of the Government Relations Committee. He is also a member of the Executive Committee of the Associated Gas Distributors and the Society of Gas Operators.

Edward H. Morris, Jr., Senior Vice President and Chief Financial Officer

Mr. Morris joined PGW as Assistant Vice President of Finance in 1984, was named Vice President of Finance in 1986, appointed Vice President and Chief Financial Officer in 1988 and Senior Vice President and Chief Financial Officer in December 1990. He has overall responsibility for PGW's Operating Budget, and the administration and overview of the Accounting and Budget, Treasury, and Claims and Insurance Departments. In addition, Mr. Morris directs the functions of the Customer Activities Department, through the Vice President of Customer Activities. He is a member of the American Gas Association, Board of Trustees of the American Gas Foundation, Financial Executives Institute, and the Government Finance Officers Association.

In January 1991 Joseph Watlington, Jr., was reelected Chairman of the Board of PFMC and James N. Wade was re-elected Vice-Chairman. Other members of the PFMC Board include: Jacqueline F. Allen, Esq., Philip S. Asbury, Esq., Chris van de Velde, Elizabeth H. Gemmill, Esq., and Eric Schnurer, Esq.

SERVICE AREA

Philadelphia Gas Works is the largest municipally-owned gas utility in the nation. PGW purchases, sells, and distributes natural and supplemental gas within the limits of the City of Philadelphia (see Figure 2). The City's borders envelop a predominately urbanized area of 129 square miles in southeastern Pennsylvania along the Delaware River. Within these boundaries PGW maintains a distribution system with approximately 6,000 miles of gas mains and service pipes serving approximately 530,000 customers.

The City is the largest incorporated area in the Delaware Valley region. The 1990 U.S. census, as reported by the Delaware Valley Regional Planning Commission (DVRPC) in April, 1991 counted 1,585,577 inhabitants in the City, a decrease of 6.1% since 1980, and 5,182,705 in the region's nine counties, an increase of 3.2%. The region is comprised of

Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania, and Burlington, Camden, Gloucester, and Mercer counties in New Jersey. The five Pennsylvania counties in the region contain 31% of the state's total population.

Philadelphia's economic orientation has been shifting steadily towards service-related activities. In 1975 the City counted 166,700 manufacturing jobs, (18.9 percent of total nonfarm employment) while in 1990 there were an estimated 97,800 manufacturing jobs (11.3 percent of nonfarm employment). By the year 2000, manufacturing is expected to employ only about 9.8 percent of nonfarm workers.

The main service industries in the City of Philadelphia are insurance, law, finance, health, and education. The relatively low costs of living and office space compared to cities of similar size, along with a prime location at the heart of the Washington-New York-Boston corridor, and the presence of major research universities assures Philadelphia a continuing capacity to attract and retain a dynamic private sector.

Over the past two years, job losses in Philadelphia have more than offset the employment gains that were attained since the 1981-82 recession. This is partly due to the current economic recession. While service jobs increased by 52,000 during the 1980-90 period, manufacturing jobs decreased by 53,000 and other jobs (wholesale/retail trade, finance, insurance, real estate, communications, public utilities, government and construction) all dropped. The net result was a 31,600 net job loss (4.0%) in the City for the decade. At the same time, however, total jobs in the counties surrounding Philadelphia increased by 29 percent.

Due to the recent announcement of the proposed near-to-total shutdown of the Philadelphia Naval Base ten to twenty thousand jobs (including support industries) could be lost in the Philadelphia area. The proposed closing of the Naval Base is scheduled to occur over a five to six year period. The outcome of the Naval Base closing would directly affect PGW since the Naval Base and its shipyard together are PGW's largest commercial/industrial customer.

Indirectly PGW would also be impacted negatively through the job loss of residents employed at the Naval Base or at related service industries. If the closing were to occur, PGW could lose up to 2,500 MMcf of sales volume per year (3.3% of forecasted sales). The revenue impact would be much lower since most of PGW's sales to the shipyard are at a low-margin tariff (LBS-XL Direct). Revenues could be impacted by about \$1.5 million (0.3% of billed revenues). The impact on firm customers would be an increase of about \$3 per year.

On the positive side, the revitalization of Philadelphia's central neighborhoods has included the construction of new office buildings, hotels, and the renovation of existing structures. Many of the City's older sections continue to be rejuvenated through the restoration of existing buildings for residential use.

The possible impact of this revitalization on PGW is not clear. While PGW will indisputably benefit from the growth in commercial market and office space in the City, the residential outlook is mixed. The return of urban professionals and so-called "empty nesters" to the City, attracted by a shorter commute and the advantages of urban life, will be counter-balanced by continuing out-migration by other City residents and the concentration of residential growth outside the City limits. A recent survey by WEFA (Wharton Economic Forecasting Associates) published as the cover story in the April 1 edition of U.S. News & World Report cited the Philadelphia area, including the City, as the top U.S. metropolitan housing market. (Philadelphia was ranked as the number one housing market out of the 95 largest metropolitan areas in the U.S. in terms of expected home appreciation potential for 1991.)

Despite the last decade's population decline in the City, PGW has maintained a relatively constant level of residential customers during the preceding four fiscal years (see Table 1).

Table 2 shows the historical pattern of PGW's sales. In fiscal year 1990, PGW sold nearly 61.5 billion cubic feet (Bcf) to firm customers. The firm unit volumes sold per degree day

have remained fairly constant during the past four years. Firm sales volumes have varied due to changes in the number of heating degree days and the number of firm customers. Total PGW interruptible sales have varied up and down between 10.2 Bcf and 12.5 Bcf over the past four years, with 1990 sales at 10.2 Bcf.

SALES FORECAST

PGW's anticipated sales for fiscal 1991-1995 are shown in Table 3. The 1991 sales forecast is the sum of actual sales experienced during the recently concluded winter and sales forecast for the balance of the fiscal year. The 1991 degree days forecast of 3,997 is 13.1% warmer than normal, and severely negatively affects sales, revenues and ultimately bond coverage ratios. Fiscal 1991 will be by far the warmest year in the last six years and one of the warmest in recorded weather history. The sales impact is approximately 4 Bcf (4,000 MMcf). After 1991, excluding Load Balancing Service (LBS) sales, the forecast for 1992 - 1995 is based on an analysis of historical usage patterns and utilizes a normal (average) weather pattern containing 4,600 degree days. Factors considered include the actual growth or decline in number of customers, changes in rates of consumption by customers in each rate classification, the existing and anticipated price advantage of natural gas over alternative fuels, the availability of natural gas, and the likelihood of PGW's participation in new construction and rehabilitation projects. The forecast for LBS sales is based upon the availability of gas for sale at a competitive price after the demand for gas by all other classes of customers has been satisfied.

Total sales are forecast to increase by 7.3 Bcf or 10.4 percent from fiscal years 1991 through 1995, an average annual growth rate of 2.5 percent. However most of this increase is due to warm weather conditions experienced in 1991, and not anticipated to recur during the 1992 - 1995 period, which yields a lower than normal base for growth. A more accurate assessment of sales growth can be obtained over the period 1992 through 1995 since all years are weather normalized. Sales growth over this period is 0.6% per year. New air

conditioning markets and additional steam system conversions are primarily responsible for this projected growth. In addition to this sales growth, there is a possibility that PGW may transport gas for two cogeneration facilities; for the University of Pennsylvania and for Philadelphia Thermal (operator of the Steam Loop). Should the facilities be built, they would start operations no earlier than fiscal 1993, and would constitute an additional load not shown in the forecast.

Annual firm sales for fiscal 1991 are forecasted at 56.7 Bcf and, under normal weather conditions, are expected to increase to 63.2 Bcf by the end of the forecast period. Overall, the composite growth rate for firm sales is 2.8 percent per year. Weather normalized growth will approximate 0.2% per year.

Interruptible sales are expected to reach 14.1 Bcf in fiscal 1995, representing an average annual growth rate of 1.4 percent over the forecast period.

Table 4 presents PGW's customer forecast. The total number of customers is expected to decrease by 2,204 or 0.4 percent over the forecast period 1991-1995. The number of residential customers will remain fairly constant, declining 0.3 percent for a net decrease of 1,493 customers by 1995. Combined commercial and industrial customers are expected to decline by 782 customers, or 3.1%, while interruptible customers increase by 71 or 20.3%. The numbers of PHA and municipal accounts are projected to be flat.

This forecast includes load growth resulting from new construction, rehabilitation and conversion over the forecast period. Table 5 restates the forecast to illustrate that it envisions a modest increase in market share relative to the City's declining population. In 1991 residential gas customers will account for 71.5 percent of the City's households; it is expected that they will account for 71.9 percent by 1995.

Table 6 illustrates a sensitivity analysis estimating total residential sales under the assumption that PGW's forecasted percent of population served in fiscal 1991 (i.e. market

share) remains constant through the forecast period. At that level, residential sales over the five-year forecast period would be 0.6 Bcf lower than PGW's forecast. Total firm sales would be reduced by 1.0 percent in 1995. This decreased sales level would have a minor impact on PGW's financial position.

PGW's forecast of sales to its firm commercial and industrial markets projects an increase from 9.8 Bcf to 10.5 Bcf over the forecast period without weather normalization. (After normalization it becomes a slight decrease). Included in PGW's forecast is the sale of natural gas to commercial customers presently purchasing steam from the Philadelphia center city steam loop. PGW's marketing department estimates that over 35 percent of the steam loop's load will be converted to gas by 1997 (see Figure 3). This will represent an annual sales volume of 2.0 Bcf by the end of the forecast period. PGW is able to demonstrate a savings to many of these customers relative to the current cost of steam through the use of natural gas. The steam loop has already lost one-third of its customers since 1974 and PGW is aggressively competing for future conversions. For fiscal 1991 the number of steam loop conversions is expected to be low (4 accounts), however the gas usage converted will be significant (191,000 Mcf/year) due primarily to the conversion of one large account.

In general, it is our opinion that PGW's sales forecast is a reasonable projection of sales in light of existing economic conditions within its service territory.

FACILITIES

PRODUCTION FACILITIES

The principal PGW peaking or supplemental facilities include eight city gate stations and two major gas production plants, Richmond and Passyunk. Located at the plants are two liquefied natural gas (LNG) facilities - a gas control center, a recently mothballed propane/air plant, a decommissioned substitute natural gas (SNG) plant and two gas holders.

a) City Gate Stations

Natural gas is received through eight city gate stations from two pipeline transmission companies - Texas Eastern Transmission Corporation (TETCO) and Transcontinental Gas Pipe Line Corporation (TRANSCO). The facilities at each of the city gate stations perform two basic functions - to meter the flow of gas and to control the pressure delivered to PGW's distribution system.

b) Gas Control Center

The gas control dispatchers, located at the Richmond Plant, monitor and control gas flow and pressure from the eight city gate stations to the high pressure distribution system. The gas control dispatchers also provide direction to the production plant operators concerning startup, shutdown and gas flow output from the supplemental facilities. Operations are facilitated through the use of a computer system which includes a backup unit and an auxiliary power supply.

c) Liquefied Natural Gas Facilities

There are two LNG facilities - one at the Passyunk Plant and one at the Richmond Plant.

The LNG storage and vaporization facility at the Passyunk Plant receives its liquefied gas supply from the Richmond Plant via cryogenic trailer trucks. The Passyunk LNG facility consists of one LNG storage tank of 3,066,000 gallons (i.e., the equivalent of 253,300 Mcf of natural gas) and three LNG vaporizers, each having a capacity of 45,000 Mcf per day.

The Richmond LNG plant has one of the largest facilities in the U.S. for liquefaction in addition to storage and vaporization. During the non-heating season, PGW uses the Richmond LNG Plant to liquefy and store natural gas from the pipeline. The plant has the capacity to liquefy and store approximately 23,500 Mcf per day and the two storage tanks have a combined capacity of 48,970,000 gallons of LNG (4,045,800 Mcf). Regasification of the liquid is accomplished with six 100,000 Mcf per day (nameplate capacity) vaporizers. Due to design changes, the originally installed vaporization capacity was reduced to about half its nameplate capacity. See the Capital Improvement section of this report for details of ongoing and proposed expenditures to return the capacity to original levels.

d) Propane/Air Facilities

The Passyunk propane/air plant has the air compression and propane vaporization capacity to produce 60,000 Dth of propane/air mix per day (45,000 Dth per day planning basis) and has a liquid propane storage capacity of approximately 662,250 gallons. This facility is being mothballed this year since its use is not anticipated in the current gas supply forecast before 1996, and then only in design weather conditions.

e) Substitute Natural Gas Facilities

The Passyunk Plant SNG facility is inoperative. However, many components of the plant including a water demineralization unit, boilers, and air compressors are being utilized in the day-to-day operations of other portions of the Passyunk plant.

f) Gas Holder Storage Facilities

Both Richmond and Passyunk plants each have a low pressure gas holder. These holders have operating capacities of 3,000 Mcf and 6,000 Mcf for Richmond and Passyunk plants, respectively. The holders were installed in the manufactured gas era and are in good working order. Holders are used for keeping daily pipeline purchases within contract limitations and for hourly peak shaving requirements.

DISTRIBUTION FACILITIES

The principal gas distribution facilities consist of approximately 3,012 miles of main, 503,439 services, 205 regulator stations, 522,018 active meters, miscellaneous valves, instruments and other appurtenances. There are five different operating pressure systems, each system is connected to the other by control regulators. The high pressure systems operate at approximately 100, 60, and 35 psig; the intermediate pressure system operates at 5 psig; the low pressure system operates between 6 and 9 inches of water column (approximately .25 psig). The majority of customers are served from the low pressure system.

Approximately 62 percent of the gas mains are cast iron pipe, 32 percent steel pipe, 5 percent ductile iron pipe and less than 1 percent are plastic pipe. Approximately 67 percent of the services are steel and 33 percent plastic. The part of the steel system subject to corrosion is cathodically protected.

OTHER FACILITIES

PGW has its executive and operating offices located at 800 W. Montgomery which is a relatively new 150,000 square foot office building. The former general office building houses distribution and customer service dispatch centers, service stations, and warehouses, as well as management information systems, a meter repair shop, and a metal fabrication shop. Additional facilities include eight district offices and four operating stations for customer service and distribution crews. In addition, there are a warehousing facility and an automotive maintenance and repair facility. The automotive maintenance and repair facility is responsible for the upkeep of PGW's fleet of over 1,000 vehicles and equipment. PGW also maintains minor automotive repair facilities at three of its operating stations.

CONDITION OF FACILITIES

In April and May, 1991 Stone & Webster conducted site inspections of certain PGW facilities as deemed appropriate. In the course of these inspections the following facilities were visited:

- 800 W. Montgomery
 - General Offices
 - Network Analysis Work Stations

- 1800 N. 9th Street (former general office building)
 - Meter Repair Shop
 - Meter Warehouse
 - Distribution and Customer Service Dispatch Center
 - Distribution and Customer Service Work Stations

- 1849 N. 9th Street
 - Transportation facilities

- City Gate Stations
 - Ashmead (TRANSCO)
 - 034 (TETCO)
 - Ivy Hill (TRANSCO)
 - Richmond (TRANSCO)

- Hunting Park
 - Warehouse

- Passyunk Plant
 - SNG Plant (deactivated)
 - LNG Facilities
 - Propane/Air Facilities (mothballed)
 - Gas Holder Facilities
 - Training Center

- Richmond Plant
 - LNG Plant
 - Gas Control Center
 - Gas Holder

- Work Sites
 - Hartell St. & Barnes St.: 12" x 16" cast iron cutout to tie in new 16" coated and wrapped steel main laid by outside contractor.

 - Algon Ave. & Hoffnagle St.: 2" plastic main extension off existing 6" steel main, and two new 1¼" plastic services.

■ Large Volume Meters

- Temple University Physical Plant (Montgomery Ave. & 10th St.)
- Germantown Hospital Boiler House (633 East Penn St.)

■ District Regulators

- Townsend St. & McNulty St. 3-yr scheduled overhaul.
- Ditman St. & Pennypack St. overhaul.

In addition to the site inspections, Stone & Webster interviewed the Senior Vice President and Acting Chief Operating Officer, the Senior Vice President and Chief Financial Officer, the Senior Vice President and General Counsel, Vice Presidents of Operations, Marketing, Customer Activities, Administration, Support Services, Technical Services, Rates and Federal Regulatory Affairs, Public Affairs, and Government and Community Relations, and the managers and superintendents of Distribution, Accounting and Budget, Transportation, and Gas Supply Departments. On this or on previous inspections we reviewed construction, maintenance and operating practices, system design criteria, inventory levels, material and construction standards, safety, regulatory compliance and maps and records.

PGW maintains maps and other records of the distribution system in good order, and has comprehensive written construction, operating and maintenance standards and procedures. Its personnel are well trained in the operation and maintenance of the gas distribution system. Their highest operating priority is response to emergencies and the maintenance of a safe gas distribution system. Security measures were judged to be excellent at the major facilities visited such as the two production facilities, the city gate stations and the headquarters building.

Based on the inspections and interviews conducted, it is our opinion that PGW operates and maintains its system prudently and in accordance with current regulatory and generally accepted industry practices.

GAS SUPPLY

SUPPLY SOURCES

PGW has natural gas contracts with two major interstate pipeline companies - Texas Eastern Transmission Corporation (TETCO) and Transcontinental Gas Pipe Line Corporation (TRANSCO). Collectively these pipeline companies deliver virtually all of PGW's supplies over the forecast period. In order to utilize these contracts in an economic manner, PGW has contracted for a variety of storage services and owns and operates two LNG plants which also serve a storage role. These natural gas options permit the matching of supplies to winter-period peak demands.

A year ago, PGW converted two former TETCO contracts (DCQ and GSD) to two new agreements (CD-1 and CD-2), respectively. The new agreements allow a portion of the gas to be transported under a firm and more economical arrangement. (In recent years, since the Federal Energy Regulatory Commission permitted pipeline services to be unbundled, transported gas has in general been substantially less expensive than non-transported pipeline sales gas.)

PGW also signed a new supply agreement with TRANSCO a year ago permitting the conversion of all of its year-round entitlements to more economical firm transport contracts. Nearly half (80,000 Dth) was converted to PFT firm transportation service which is supplied through long term arrangements for the purchase of lower priced gas. The remaining 85,212 Dth was converted to LTFT firm transportation on an annual renewal basis and is supplied through three separate gas purchase contracts with varying terms. PGW will have an option to either extend the term of the conversion this year, or convert back to the more traditional pipeline system supply. A third flowing gas contract on TRANSCO, PS-6, takes the place

of the former PS-3 contract. However it is now a transport service instead of a sales service and it is available for 90 days instead of 30 days.

The complete mix of contracts utilized by PGW is described in Table 7, There are seven existing contracts on the TRANSCO system and seven existing contracts on the TETCO system.

On the TETCO system PGW employs four storage contracts (SS-I, SS-II, SS-III, and Equitrans). The SS-II and SS-III remain unchanged from last year. The Equitrans contract has changed only in name, being the former Keystone storage. The new SS-I storage service was converted from the former WS winter service with equivalent capacity and deliverability.

On the TRANSCO system, PGW's four storage contracts (GSS, S-2, WSS, and LGA) remain unchanged from last year. The LGA contract however has been leased to an outside company.

PGW also owns supplemental LNG and propane/air facilities to meet contingent winter demand in excess of pipeline and storage supplies. LNG is produced from pipeline gas during the summer and stored in PGW's two large facilities and one satellite tank within the City. The Richmond plant has a total nameplate vaporization capacity of 600,000 Mcf per day. However, it was determined two years ago that the current capacity was approximately 50% of this amount due to design modifications. Capital improvements have been undertaken to restore the plant's vaporization capacity. Current capacity is 450,000 Mcf per day. The Passyunk plant's installed vaporization capacity is 135,000 Mcf per day.

Propane/air (LPG) can be produced from PGW's Passyunk plant at the rate of 60,000 Dth per day. In normal practice this output has not been required, although about 75,000 Mcf was produced and sold each year to keep the plant's facilities ready for design weather conditions. This facility is being put on inactive status since the current gas supply forecast

does not require its use until the last year (1996) of the forecast period and then only under design weather conditions.

Figure 4 pictorially depicts the sources of peak day gas supply available to PGW.

SUPPLY/DEMAND BALANCE

Table 8 restates PGW's forecast of supply and demand under normal weather conditions (4,600 HDD) for fiscal years 1992-1996. Over this period it is expected that daily flowing pipeline deliveries (including storage deliveries) will account for substantially all of PGW's requirements.

Table 9 restates PGW's forecast of supply and demand under design weather (5,280 degree days) conditions for fiscal years 1992 - 1996. Daily flowing pipeline supplies account for approximately 82 percent of total demand and storage gas (underground or pipeline) accounts for approximately 14 percent of demand throughout the forecast period. Remaining demand (approx. 4%) is met with LNG (and LPG in 1996).

As shown in Table 7, the pipeline contracts provide PGW with up to 107 million Dth annually. This amount is greater than any year's projected firm demand (under either normal or design weather conditions) during the forecast period. To the extent practicable and most prudent, PGW intends to reduce its total cost of gas supplies through the direct purchase of natural gas from producers (i.e., off-system gas) or through the purchase of pipeline gas having a price equivalent to a spot market price. In recent years purchases of these supplies have increased significantly accounting for over 40% of PGW's gas purchases in 1989, 73% in 1990, and an estimated 82% in 1991.

Table 10 restates PGW's forecast of supply and demand under peak day and peak hour conditions. Sendout requirements are based upon the assumptions of a winter week day with an average daily temperature of zero degrees Fahrenheit (F) (65 Heating Degree Days)

and an hourly peak temperature of minus five degrees F (70 HDD). Under these conditions interruptible sales are planned to be suspended in accordance with provisions in the contracts for such rates. Under peak day conditions, projected firm demand could be met throughout the forecast period by pipeline deliveries and the use of PGW's LNG capacity. In only the last forecast year (1996) is propane/air required on any forecast peak day. Figures 5 A and B compare peak day and peak hour demand to PGW's maximum sendout capability for each of the forecast years. Figure 5B shows a small sendout safety factor exists for a peak hour's demand.

The maximum daily sendout during the 1989-1990 winter was 649.0 MMcf (671 MDth) on December 22. The average daily temperature on that date was 12 degrees Fahrenheit. Demand was satisfied with 453.7 MMcf (469.0 MDth) of pipeline gas, and 195.3 MMcf (202.0 MDth) of LNG. No propane was available due to widespread curtailments throughout the U.S. Two days later, on December 24, PGW faced an unplanned pipeline curtailment. Even though demand was lower than on the peak day, amounting to 567.3 MMcf (587 MDth), dispatching was more difficult. Only 345.9 MMcf (358 MDth) of pipeline gas was available and propane was still unobtainable. PGW met the difference of 221.4 MMcf (229 MDth) entirely from its LNG supplies. During the last winter (1990-1991) the peak sendout occurred on January 22, 1991 when an average temperature of 17°F was recorded. Sendout totaled 608.2 MMcf (627.2 MDth) and was derived 67% from pipeline gas, 33% from LNG, and less than 1% from LPG.

In summary, based upon our review of PGW's gas supply acquisition policies, proposed budget, and the analyses described herein, it is our opinion that supplies of natural gas and LNG normally available to PGW are more than adequate to meet PGW's forecast of peak hour, peak day and peak year demand through the 1996 fiscal year.

CAPITAL IMPROVEMENT PROGRAM

BUDGET PROCESS

PGW's capital budget and five-year forecast are the result of a process in which a list of budgeting and operating assumptions is developed and circulated to all departments. Individual departments use these assumptions as well as certain agreed upon economic parameters to prepare the capital requirement estimates that form the basis for departmental budgets. These budget requirements and forecasts are based on meeting PGW's design hour and design day forecasts that are prepared by the Energy Planning and Forecasting Department. The major operating departments determine their capital requirements by identifying the capital improvements necessary to safely and reliably meet the system-wide conditions calculated for a design day of zero degrees F average temperature and a minus five degrees F design hour.

All capital projects and requests are assigned a priority: the highest priority (priority 1) is reserved for expenditures required to maintain the integrity of PGW's system, the next priority (2) indicates expenditures required to improve system efficiency, and the last priority (3) is used for other expenditures which may be of a more discretionary nature. In addition to being assigned priorities, capital projects are also classified according to the following categories of needs:

- Prudent Replacement - replacement of existing facilities that are nearing the end of their useful life.
- Economic Replacement - replacement of existing facilities with alternatives that are more cost effective.

- Load Growth - provision of facilities necessary to supply customers having additional load requirements.
- Improved Efficiency - reduction of future operating costs.
- Enforced Relocation - mandated by City, State or other outside construction activities.
- Other - any other projects that do not fit into the previously defined categories.

Proposed capital expenditures for both the fiscal 1992 capital budget and the five-year capital forecast (fiscal 1993 through fiscal 1997) total \$371.1 million net. These expenditures are summarized in Table 11A and Exhibit IV and shown graphically in Figures 6 and 7.

The proposed fiscal 1992 capital budget totals \$56.9 million net with distribution system expenditures accounting for 64.6 percent, gas supply for 15.3 percent, customer service 8.8 percent, transportation 5.8 percent, and other expenditures 5.5 percent. This budget is \$4.8 million (7.8%) less than last year's budget (fiscal 1991). The fiscal 1992 gross budget of \$59.6 million is comprised of \$48.5 million (81.3%) of replacements and \$11.1 million (18.7%) of additions.

Broken out by priority, 77% of the proposed fiscal 1992 gross capital budget is categorized as priority 1, (essential for safe and reliable service), 20% as priority 2 (will reduce future operating costs) and 3% priority 3 (discretionary). Broken out by needs categories, the fiscal 1992 gross budget is allocated primarily to prudent replacements (\$33.6 million or 56.5%), enforced relocations (\$10.4 million or 17.4%), and load growth (\$8.8 million or 14.7%). The remaining \$6.8 million (11.5%) is either for economic replacement, improved efficiency, or other needs.

Table 11B lists the twelve largest items in the fiscal 1992 capital budget. These are all of the items budgeted at over one million dollars each. Together these twelve major projects account for \$43.7 million or 73.2% of the total budget. These same twelve project categories (eleven of which are annual recurring items) also accounted for \$43.7 million of last year's budget. This indicates that in general both the largest projects and the majority of PGW's budget are accounted for by annually recurring activities.

GAS SUPPLY PLANT

Proposed investments for additions and replacements to PGW's gas supply plant total \$47.8 million for the six year budget and forecast period. There are no major new gas supply projects planned in this time period; all of these expenditures are for upgrading and modernizing facilities including necessary replacements. The majority of these expenditures will be for supplemental gas facilities at the Richmond and Passyunk facilities. The Richmond LNG facility was originally built 23 years ago with a sendout capacity of 500 MMcf per day and by 1980 was upgraded to 600 MMcf per day with the addition of a new heater and a new vaporizer. Design changes required to safely and reliably operate the plant have caused a significant degradation in the sendout capacity. In December 1989 an extreme cold weather spell required the use of all of the vaporizers and confirmed the degradation in capacity to approximately 300 MMcf per day. Since then new equipment has partially restored capacity to 450 MMcf per day. A portion of the budget and forecast expenditures is to support the continuing work to restore the Richmond LNG plant's sendout capacity.

The largest expenditures scheduled for the Richmond Plant include: \$5.0 million for increasing the carbon dioxide removal capacity of the pretreatment section, \$3.6 million for incremental replacement of heaters, \$3.6 million for incremental replacement of LNG plant instrumentation, \$3.6 million for incremental replacement of refrigerant and process piping, \$1.4 million for LNG vapor bypass facilities and \$1.2 million in each of two years for air

pollution control equipment on the LNG compressors. Other large capital expenditures for gas plant during the six year period include \$3.1 million to replace high pressure boilers and \$1.5 million for the demolition of an obsolete boiler room, compressor buildings, and associated equipment at the Passyunk Plant. Other proposed expenditures are less than \$1 million each.

DISTRIBUTION PLANT

The proposed expenditures for capital improvements to PGW's distribution system in the fiscal 1992 to 1997 budget and forecast period total \$255.9 million before credits of \$15.5 million for salvage and reimbursement to yield a net total of \$240.4 million. Main and service replacements amounting to \$207.0 million and additions of \$48.9 million account for 80.9 percent and 19.1 percent respectively of the total gross capital expenditures. The fiscal 1992 budget calls for net capital improvements to distribution system of \$36.8 million after allowances for salvage and reimbursement of \$2.3 million.

The largest capital expenditures for the distribution system are scheduled for the replacement of small diameter (1.25 inches or less) services which account for \$91.5 million of the six year total including \$13.7 million for the fiscal 1992 proposed capital budget. These expenditures are scheduled for the renewal of approximately 9,100 services annually based on customer complaints and leaks as well as replacements in conjunction with main replacements. Planned new service additions will account for \$3.8 million of the fiscal 1992 budget and \$24.7 million over the entire period.

Prudent main replacements for intermediate and low pressure mains of small diameter (8 inches or less) amount to \$6.8 million of the fiscal 1992 budget and \$45.7 million over the six year period. These amounts are based on the need to replace 40,000 feet of cast iron main annually for maintenance history reasons. A similar amount of footage is expected to be replaced in conjunction with City and State work programs. Main replacements due to

anticipated city and state construction activities involve \$9.4 million of proposed expenditures for the fiscal 1992 budget and \$54.7 million for the total six year period.

CUSTOMER SERVICE

PGW's planned customer service related investments total \$43.7 million net after consideration of \$1.1 million for contributions and salvage over the six year period. The proposed 1992 budget expenditures amount to \$5.0 million on a net total basis. Meter replacements, additions and installations will total \$31.4 million for the six year period including \$4.7 million for the proposed 1992 budget.

Implementation of the Automatic Meter Reading (AMR) program, slowed from its original schedule over the past three years, will be accelerated. PGW has filed a comprehensive installation plan and is currently conducting a cost/benefit analysis to evaluate the merits of installation on different time schedules. A performance test is planned for later this year. The fiscal 1992 budget does not contain any funds requested for the AMR program because current expenditures involve previously approved budget items that are only now being implemented as the result of slowing the implementation program. The budget forecast includes \$10.7 million for the AMR program with the first of these expenditures to occur in 1995.

TRANSPORTATION

Capital expenditures for transportation by PGW total \$20.8 million less \$1.5 million expected for vehicle and equipment salvage during the six year budget and forecast period. Vehicle replacements will account for 69.0 percent of the total; mobile equipment replacements 12.6 percent, and the remaining 18.4 percent of the expenditures is planned for miscellaneous equipment.

OTHER DEPARTMENTS

The balance of PGW's budgeted and forecasted capital expenditures amount to \$19.8 million over the six year period including \$3.1 million proposed for fiscal 1992. The departmental expenditures are \$10.5 million for building services, \$4.9 million for information systems, \$4.0 million for customer activities, and \$0.4 million for materials management. Building services expenditures include funding for building alterations, furniture, office machines and equipment, tools and machinery, paving and structural repairs to PGW buildings and parking lots, an N.G.V. (natural gas vehicle) service station, air conditioning systems, and electrical systems. The largest customer activities budget item is a PBX system scheduled for 1996. The largest information systems expenditures involve \$2.0 million forecast for 1996 for a new central processing unit and \$0.8 million split between 1994 and 1996 for replacement tape drives.

RECENT DEVELOPMENTS

PGW's proposed capital budget for 1992 and its five-year forecast were filed with the Commission on March 14, 1991. The City's Finance Director gave a favorable recommendation to the Commission regarding PGW's proposed capital budget but did recommend that the fiscal year 1992 capital budget be reduced from \$56.9 million to a "more appropriate level not to exceed \$43 million".

The Commission noted that PGW's proposed 1992 budget of \$56.9 million (net) includes \$35.2 million to be spent in fiscal year 1992. PGW also proposed carrying forward \$40.6 million of previously approved but not fully spent funds from prior years including \$20.4 million to be spent in fiscal year 1992. This totals \$55.6 million for 1992 spending. The Commission recommended that the City Council approve the \$55.6 million, and ordered PGW to change its accounting procedures to lapse funds associated with recurring or normal capital projects to which a firm commitment has not been made.

The Commission recommended that the City Council order PGW to reprogram its previously authorized but unspent funds such that a maximum capital authorization is in place. The Commission further recommended that PGW, in cooperation with the Public Advocate, Gas Commission, and Finance Director, develop a project list to allocate this capital authorization maximum of \$61 million. To date the City Council has not acted on the Gas Commission's recommendations regarding PGW's proposed capital budget for 1992.

CONCLUSION

Based on discussions with PGW's management and our review and evaluation of PGW's proposed fiscal 1992 capital budget and forecast capital expenditures for fiscal 1993 through 1997, it is our opinion that the budget is consistent with PGW's corporate objectives and is appropriate for maintaining a safe natural gas distribution system for Philadelphia. PGW's objectives for the proposed capital budget are to provide and maintain the necessary facilities to ensure PGW has the capability to deliver safe, reliable service that is cost effective for existing and future customers. (See also following sections on Regulatory Environment and Rate Schedules and Developments.)

FINANCIAL CONSIDERATIONS

REGULATORY ENVIRONMENT

The Philadelphia Home Rule Charter contains provisions for the establishment of the Philadelphia Gas Commission (Commission) to regulate the activities of PGW. Under the Management Agreement the Commission's powers and duties include: establishing PGW's rates and related charges, approval of certain management personnel selections by PFMC, approval of operating budgets, review of the capital budget and gas supply contracts prior to approval by City Council, review of PGW's books, records and accounts, setting standards for the procurement and disposal of material, supplies and services, and approval of any changes in gas quality standards. The Commission's five members include: the City Controller, two Mayoral appointees, and two City Council appointees, or their respective designees. Municipal ownership of PGW means that all rate regulation authority is held by the Commission and not by the Pennsylvania Public Utility Commission.

Requests for rate and tariff changes are initiated by PGW based on anticipated revenues, expenses, capital expenditures and debt service coverage. The Commission holds public hearings on proposed rate changes at which PGW and other interested parties are permitted to present evidence supporting their positions regarding the proposed rate change. Community Legal Services, Inc. was first appointed in 1988 to be the Public Advocate in rate hearings to represent residential customers. The Commission issues orders based on its findings from the evidence and information available. Subsequent to the issuance of orders, an appeals process is available that includes a petition for reconsideration and rights of appeal through the courts. The Commission, through its regulatory review and orders, seeks to obtain a balance between the concerns of PGW, the City and the customers with an increasing emphasis on needs of the low-income customer. PGW makes a considerable

effort to work with the Commission to keep them informed on all of the important matters that affect the company.

Over the past five years PGW has filed three base rate increase requests and gone through a Commission-authorized management audit.

- In May 1986 PGW filed a request for a base rate increase designed to produce \$59 million beginning with the 1987 fiscal year. In March 1987 an increase was approved which provided the company with additional revenues of \$28.65 million, retroactive to January 1, 1987.

- In June 1988 a rate increase request was filed for an additional \$49 million in revenues for the fiscal year beginning September 1, 1988. In October 1988, after two months of hearings, the Commission denied the requested rate increase and ordered the company to reduce its rates to reflect a reduction in revenues of \$2 million beginning in fiscal year 1989. The Order directed PGW to reduce expenses in certain areas in order to meet its financial obligations.

- In November 1989 the results of a Commission-authorized audit of PGW's management and operations became available. The results of the audit included 149 recommendations for improving PGW's operations. The Commission ordered PGW to implement 10 of the recommendations immediately and a task force was formed to review possible implementation of 64 additional recommendations.

- In May 1990 PGW proposed an operating budget for fiscal year 1991, which included a proposed base rate increase intended to generate \$31 million in additional net revenues during fiscal year 1991. The rate increase application was filed on June 29, 1990. On February 5, 1991 the Commission issued its Order which effectively denied the request and ordered the company to maintain its existing level of base rates. (However, refer also to GCR discussion below.)

In addition to its base rates, PGW has a gas cost recovery (GCR) adjustment designed to permit the company to adjust its charge to firm customers, on a quarterly basis, to recover its actual cost of purchased gas. The projected cost of purchased gas is calculated and recovered from customers on a levelized basis in part from a component included in the base rates and in part from the GCR adjustment. GCR collections, which may be positive or negative, together with the cost of gas included in the base rates are then matched against actual costs for the year. Any differences are then charged or credited to purchased gas costs in the next annual forecast period. The GCR may be changed quarterly if necessary. Effective September 1, 1990, the cost of gas included in the base rates was changed to \$3.33/Mcf. (On May 22, 1991, the Commission issued an additional order lowering the cost of gas in the base rates to \$3.18/Mcf.) The most recent GCR, effective December 1, 1990, is a credit of \$.1750/Mcf to the base rates for all quantities of gas.

The Commission performs an annual review of the GCR procedure. Although it is usually conducted as a separate proceeding, the Commission incorporated its most recent review within the scope of the last rate case. This review, which was more technically comprehensive than in previous years, included an investigation into fuel planning and gas purchasing practices of the company. After extensive examination, the Commission and the Public Advocate concluded that PGW's gas procurement has fulfilled applicable regulatory requirements by utilizing least-cost gas supplies and maintaining overall system reliability.

Also, in connection with the GCR review, the Commission issued an order in the rate case which authorized an adjustment to the structure of the fuel adjustment clause (GCR) which has the net effect of increasing base non-fuel revenues by approximately \$16 million in a normal weather year.

PGW is planning for a rate increase to meet its expected costs for the 1991-92 fiscal year and another later in the forecast. In light of what has happened to date regarding implementation of both the cost-saving measures stemming from the management audit and the Commission's cost-cutting directives, the regulatory outlook may be more positive for

future rate increases since identified expense reductions are largely complete. At the same time however worsening financial problems in the City exert mounting pressure to limit rate increases.

ENERGY ASSISTANCE PROGRAMS

High accounts receivable balances and a large number of delinquent accounts have occurred at PGW for several years. PGW has taken a proactive position in assisting customers in meeting energy costs. The company works closely with community and legislative groups at the city, state and federal level to increase funding for energy assistance programs. As a result of its activities these financial assistance programs provided a total of \$14.2 million in aid for the 1990 fiscal year.

The Federal Government's Low Income Home Energy Assistance Program (LIHEAP) provides a payment to households which are at or below 150 percent of the federal poverty level in order to help ensure continued utility service. Philadelphia's gas consumers make application through PGW's eight (8) neighborhood offices, Department of Public Welfare and many community sites with the funds going directly to PGW for crediting to the customer's account. For the last full program, which ran from October 16, 1989 through April 27, 1990, 43,523 PGW customers received \$9.2 million of LIHEAP funds for an average of \$211.38 per customer. PGW customers also received assistance from the LIHEAP Crisis program with 14,250 customers receiving \$4 million for an average of \$280.70. The current LIHEAP program, which began October 15, 1990 and ended April 29, 1991, has, as of April 15, 1991, provided an average grant of \$192.00 to each of 40,405 customers. Through April 7, 1991, 8,269 customers received \$2.3 million for an average of \$176.00 in assistance from the current LIHEAP Crisis program.

A "five-and-two" budget repayment program was established to assist customers in paying current bills and eliminating past arrears. Five percent of the balance is required as a down

payment with two percent per month paid on arrearages, in addition to full payment of current bills on an equal monthly budget plan. In return, PGW will forgive up to 50 percent of the arrearages on a schedule which provides for a graduated forgiveness based on percent of the arrears paid. As of August 1990, there were 37,035 delinquent customers who had a "five-and-two" percent repayment agreement, of which 17,917 were active with a total receivable balance of \$14.3 million. This program, like LIHEAP, is subject to 150 percent of the Federal income poverty test.

PGW has established a Vendor Payment Program for a group of customers known as Scattered Site Tenants of the Philadelphia Housing Authority (PHA). These customers occupy dwellings, usually single family homes, owned by the PHA and whose rental is subsidized by the Federal government. Under an agreement with the PHA and the Scattered Site Tenants, the Federal government's Department of Housing and Urban Development provides a utility allowance to PHA, on behalf of the tenant, which is then assigned to PGW. About 40 percent of the 5,600 Scattered Site Tenants are currently participating in the Vendor Payment Program.

PGW is also participating in the Utility Emergency Services Fund (UESF) which is a private fuel fund set up with the assistance of the City of Philadelphia Water Department, Philadelphia Electric Company and Philadelphia Gas Works. Under this program, customers at or below 150 percent of the poverty level may make application for an energy assistance grant (LIHEAP) which together with their own payment, a grant from UESF, and a matching contribution from PGW, the customers will be able to zero-out any arrears they may have. The maximum allowance that a customer may receive is \$500; \$250 from UESF and a matching grant of \$250 from PGW. For the last fiscal year, approximately 2,591 PGW customers received a total of \$1 million.

In February 1989 PGW implemented a program called "Dollar Plus" wherein PGW's customers were asked to add \$1.00 or more to their gas bill payments as a donation to the

Utility Emergency Services Fund. For fiscal 1990 there were 59,343 Dollar Plus payments with contributions totaling \$60,605.41 an average donation of \$1.02.

For customers whose income is above the poverty level, PGW has a 20 Percent Down Payment Plan. Under this plan the customer pays a 20 percent down payment on any arrearages and the balance is paid over a period as long as 24 months. In addition, consumption is budgeted for the next year and payment is made in twelve equal monthly installments. As of August 1990, there were 76,852 delinquent customers participating in the 20 percent repayment agreement, 29,945 of which were active with a total receivable balance of \$11.9 million.

Lastly, in March 1990 PGW reached a negotiated settlement with the Commission regarding proposed changes to the existing customer service regulations which included a two-year pilot program to keep customers on line by having them pay at least a portion of the amount due as long as it covers some portion of the costs. Known as the Energy Assurance Plan (EAP) the customers in the program must be at or below the 150 percent poverty level and are asked to pay a percentage of income (5, 7 or 8 percent depending on income level) plus \$4 per month toward any arrears up to a set maximum amount. After a three month history of payment compliance is established, a proportional amount of the arrearages will be written off monthly based on the difference between current usage and the percentage of payment amount. As of March 1991 approximately 5,300 customers have met the program requirements and have been enrolled in the EAP plan. In February 1991, the Commission ordered PGW to open the EAP to an additional 10,000 participants.

PGW has also been active in promoting its Conservation Works Program which is the weatherization energy conservation segment of EAP. As a result of this program, the company anticipates savings in gas usage of up to 20 percent.

PGW offers a senior citizen discount program to customers age 65 or older. The discount is 20 percent of the total gas bill. As of March 1991 there were about 103,000 customers

taking advantage of the senior citizen discount. There are no income requirements for this program.

The company has many techniques which it utilizes to inform the community about the energy assistance programs that are available to them. It works with the Emergency Fuel Group, which is a coalition of approximately 300 community organizations around the city and the region, to get word out about energy assistance programs. Its other activities include monthly consumer roundtables, speakers bureau in different Philadelphia communities and individual telephone calls (in fiscal year 1990 PGW made approximately 60,000 calls to inform customers about programs available.)

PGW is actively involved in other community programs including Parents Against Drugs, the Career Exploration for Youth (CEY) program in schools, and the Project Philadelphia Regional Minorities in Energy (PRIME) program which highlights math and science opportunities to minority students. Work Force 2000, which works hand-in-hand with the PRIME program, is part of an effort on a national level with the American Gas Association and approximately 300 member companies, including PGW, to ensure a qualified workforce in the year 2000.

The company's active support and participation in programs such as these are anticipated to enhance its image in the community and help to reduce the amount of uncollectible accounts and thereby benefit all ratepayers.

RATE SCHEDULES AND DEVELOPMENTS

In order to be responsive to its Management Agreement with the City to offer non-discriminatory rates based on suitable and reasonable classifications as well as to meet the needs of its consumers and remain competitive with alternate energy sources, PGW offers a range of rate schedules.

The company's tariffs can be categorized as either firm or interruptible. Firm service provides gas under rate schedules for which the company does not anticipate any interruptions. Interruptible service is offered to large volume customers under contracts that permit service interruptions, usually on short notice during peak load conditions or when specified low temperatures are reached. During fiscal year 1990, 85.7 percent of PGW's gas sales were provided as firm service to residential, commercial and industrial customers. Interruptible sales accounted for 14.3 percent of total sales. Most firm customers are served under the General Service (GS) rate which has a flat rate for all consumption and a separate monthly charge for each customer group. Municipal and Philadelphia Housing Authority sales are served under separate firm rate schedules (MS and PHA) and represented 4.7 percent of PGW's total sales for fiscal year 1990. Sales for resale accounted for 0.1 percent.

Interruptible customers are served under various rate schedules including Load Balancing Service (LBS) and Boiler and Power Plant Service (BPS). BPS is a flex rate which is set in relationship to the posted price of No. 2 (home-heating) fuel oil. Customers on this rate are generally only interrupted when temperatures reach 18-degrees-Fahrenheit. LBS is a flex rate which is set in reference to the posted price of No. 6 (industrial) fuel oil.

The company also offers a Gas Transportation Service (GTS) rate. It provides for transportation of customer-owned gas under flexible rates with a cap equal to the margin of the customer's equivalent sales rate. The GTS rate was designed to provide a revenue-neutral approach for PGW for existing interruptible customers that are seeking either interruptible or firm transportation services for their gas supplies.

PGW continues to offer an Economic Development Discount (EDD) rate that first became effective in 1984. This rate provides for a 15 percent discount to certain large volume customers with significant investments in gas-burning equipment that can increase consumption by more than 1,500 Mcf per month above a base level. The EDD rate discount can be in effect for up to three years.

In conjunction with the most recent Commission rate case order, several rate structure revisions were approved. One significant change was to create a new Load Balancing Service-Extra-Large-Volume (LBS-XL) rate which would be comprised of the largest customers in the existing Load Balancing Service-Large Volume (LBS-L) rate. Both rates would have essentially the same terms, i.e., the ability to set the rate within a range of 10 percent above to 20 percent below the posted tank car price for No. 6 oil. However, as a flex rate, two rates will afford PGW the ability to maximize its margin by targeting a different competitive level for each group of customers. The Commission also approved a new interruptible Cogeneration Service (CG) rate. For cogeneration customers with annual usage of less than 1 million Mcf, the rate is set at a fixed margin over the commodity cost of purchased gas. For larger cogeneration customers the margin over the cost of gas would be negotiable.

Also, a new special provision for gas air-conditioning has been incorporated in rates GS, MS, PHA and BPS for separately metered usage during the months of May through September. This provision, which is applicable to new installations with a minimum cooling capacity of 15 tons, offers a lower rate and would provide a benefit to PGW by increasing its system load factor, thereby lowering overall costs to all firm customers.

Lastly, the Commission approved a modification to Rule 10 of the Company's Rules and Regulations. This rule previously allowed up to 100 feet of combination supply main and service supply pipe free of charge to residential customers. The new rule prescribes the effective length of the combination based on a relationship of an amount up to five times the anticipated annual base rate revenue, less the fuel cost component included in the base rates. Under the new rule the customer would pay for any costs in excess of this allowance.

Within the environment of a declining large-industrial sales base, the company has fought hard to maintain its margins and remain competitive with alternate energy sources by employing both traditional as well as the innovative rate forms described above.

To illustrate how PGW's rates compare with those of other gas companies, Stone & Webster calculated typical bills for PGW's residential, commercial and industrial customers and compared these bills with those of other gas companies using identical gas quantities and customer classes (refer to Tables 12, 13 and 14). These tables indicate that PGW's rates are comparable to those of other large urban utilities having a similar high proportion of residential sales.

STATEMENT OF INCOME

We have reviewed Philadelphia Gas Works' forecast of revenues, operating expenses, and annual amounts of internally generated funds and bond funds needed to satisfy its capital improvement program, its debt service, payments to the City of Philadelphia, and working capital requirements. Recognizing current regulatory and economic conditions under which the Company operates, we believe that the Company has developed a reasonable financial plan for fiscal years 1992-1996 and, consequently, we concur with it.

The forecast contemplates two base rate increases over the five-year period as follows:

1992 - \$34,000,000

1995 - \$17,000,000

These base rate increases are net of all cost savings and efficiencies deemed realizable by PGW in the forecast years.

As part of our review of PGW's forecast, we have examined the sensitivity of the plan to changes in net revenues. This is meant as a guide for the reader to estimate the impact of important variables. Net revenue could be impacted by any number of variables including:

- size of rate increases

- timing of rate increases
- sales revenues (weather related)
- actual interest rates
- operating cost savings
- actual receivables

Therefore decreased net revenue resulting from any of the above sources could be offset in whole or in part through additional net revenue resulting from the effect of any of the other above factors.

Regulation - PGW's bond covenant in the General Ordinance requires the debt service coverage ratio to be at least 1.50. In the Company's rate proceeding before the Commission in 1988 all parties agreed that there should be some cushion above the 1.50 level to allow the Company to retain its bond rating. The Company proposed a debt coverage of 2.11, the Public Advocate said a range of 1.7 to 1.9 will achieve this result, and the Philadelphia Gas Commission adopted a ratio of 1.80 as the target, but the coverage ratio for fiscal 1990 actually dropped to 1.51 times. The Company, as it should, has prepared its financial plan under the 1.80 coverage scenario.

1. The Company's financial plan in three of the five forecasted years falls slightly below the targeted 1.8 times debt service coverage, which the Commission previously adopted to provide the minimum cushion necessary for the Company to maintain its bond rating. Therefore, in our first sensitivity test Stone & Webster measured the impact of holding each year's coverage at exactly 1.8. This scenario showed rate increases differing from the Company's plan by approximately 10% over the five year period, while other differences were insignificant.
2. Our second scenario addressed regulation to provide for annual debt service coverage of 1.7. Although the Company's financial plan is still viable under this lower coverage test, its construction fund would be reduced and any additional

setback would necessitate additional or accelerated financing for capital programs due primarily to PGW's reduced ability to fund capital programs with internally generated funds. A reduction of coverage would also put upward pressure on interest rates and again put downward pressure on the Company's bond rating which was recently revised from A to Baa1 by Moody's.

Financial - On May 17, 1991, Moody's Investors Service, Inc., lowered its rating on the Gas Works Revenue Bonds from A to Baa1. Moody's opinion was "The rating revision to Baa1 from A reflects a long term trend of tightened financial operations, reductions in operating flexibility and debt service coverage, and increases in the enterprise's already high debt ratio. While the rate setting commission has indicated its intent to maintain rates at a level sufficient to provide adequate margins in normal operating circumstances, the margins are no longer wide enough to allow the enterprise to address contingencies. In addition, the enterprise no longer has the flexibility to correct its highly leveraged position by providing for a portion of its substantial capital needs from internally generated funds, as had previously been its practice. Despite concerns over these long-term trends, the enterprise's capable management and strong legal covenants assure adequate bondholder security."

The goal of the Company's financial plan is to strengthen and revise upward its current Baa1 rating, maximize internally generated funds and minimize outside financing requirements, reduce operating expenses, reduce working capital requirements, and obtain the highest return on temporary investments and escrow funds. Just as PGW's financial forecast utilizes current regulation in setting rates, it also projects new debt costs using the current cost of similarly rated financings. Our third scenario therefore addressed a significant rise in debt costs, in case actual debt costs prove to be higher in a future bond market.

3. We increased the interest rate by 200 basis points on all projected revenue bond issues. This change increased the cost assigned to those bonds by \$15.5 million

over five years. Debt service coverage averaged 1.68, down from an average of 1.74 in the Company's financial plan.

After analyzing the results of these major scenarios and several minor ones we believe that the Company's financial plan is attainable contingent upon adequate rate relief.

The debt service coverages in the base PGW forecast are detailed on Exhibit V and are summarized in Table 15. Each \$1.0 million of net revenue not achieved would result in a decrease in the coverage ratio by 0.015.

REVENUE BOND FINANCING

We have been informed by PGW that the proceeds from the sale of the Fourteenth and Fifteenth Series Bond issues will be used to:

- Finance PGW's current and future capital programs.
- Establish sinking fund reserves.

It is understood that the bonds will be secured solely by the revenues of PGW received from all Gas System users.

The \$75 million Thirteenth Series Bonds, and the projected \$75 million each of Fourteenth, and Fifteenth Series Bonds to be issued in 1992 and 1995 will be used as shown on Table 16. The application of proceeds from these issues can be summarized as follows:

The \$75 million Thirteenth Series Bonds, and the projected \$75 million each of Fourteenth, and Fifteenth Series Bonds to be issued in 1992 and 1995 will be used as shown on Table 16. The application of proceeds from these issues can be summarized as follows:

	<u>Amount</u> (\$000's)
Total Revenue Bonds Issued for Capital Improvements	\$225,000
Capital Improvement Fund Balance (8/31/90)	28,657
Less Deposits for Sinking Fund Reserve and Issue Expenses	<u>28,995</u>
 Balance Available to PGW as applied 8/31/96	 <u>\$224,662</u>
 Capital Improvement Fund Drawdown	 \$195,505
Capital Improvement Fund Balance (8/31/96)	<u>29,157</u>
 Balance Accounted for (8/31/96)	 <u>\$224,662</u>

The rate covenant in the General Ordinance requires that the City, at a minimum, impose, charge and collect in each Fiscal Year, gas rates and charges equal to the greater of:

A. The sum of:

- (i) All Net Operating Expenses payable during such Fiscal Year;
- (ii) 150% of the amount needed to satisfy sinking fund requirements of principal and interest which will become due and payable during such Fiscal Year for all Bonds issued and outstanding hereunder; and

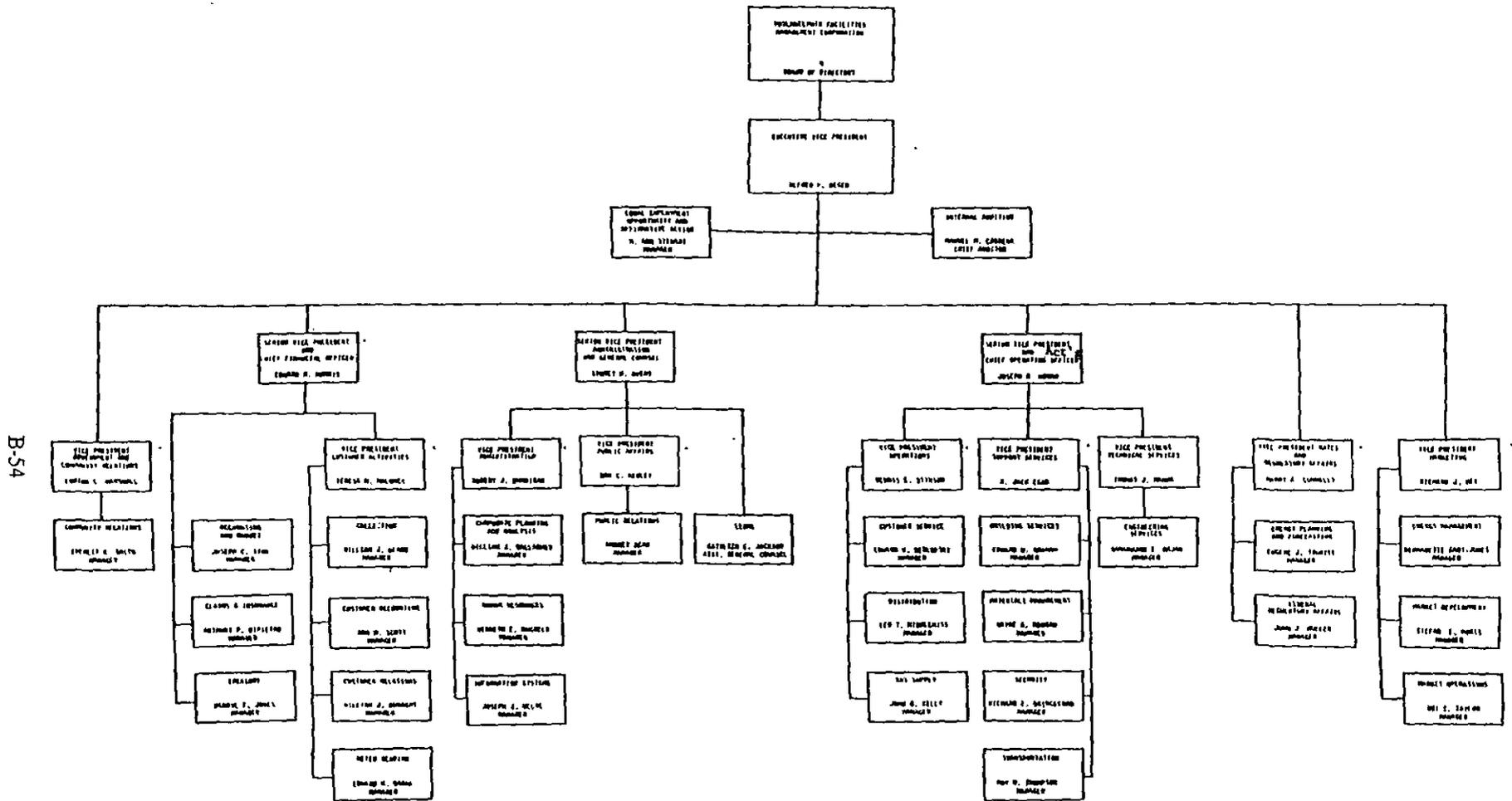
- (iii) The amount, if any, required to be paid into the Sinking Fund Reserve during such Fiscal Year; or

B. The sum of:

- (i) All Net Operating Expenses payable during such Fiscal Year; and
- (ii) All Sinking Fund deposits required during such Fiscal Year with respect to all outstanding Bonds and general obligation bonds issued for improvements to the Gas Works and all amounts, if any, required during such Fiscal Year to be paid into the Sinking Fund Reserve.

The Gas Commission is authorized and directed by the ordinance to impose, charge and collect, or cause to be collected, all rents, rates and charges which shall be sufficient in each Fiscal Year to comply with the foregoing Rate Covenant.

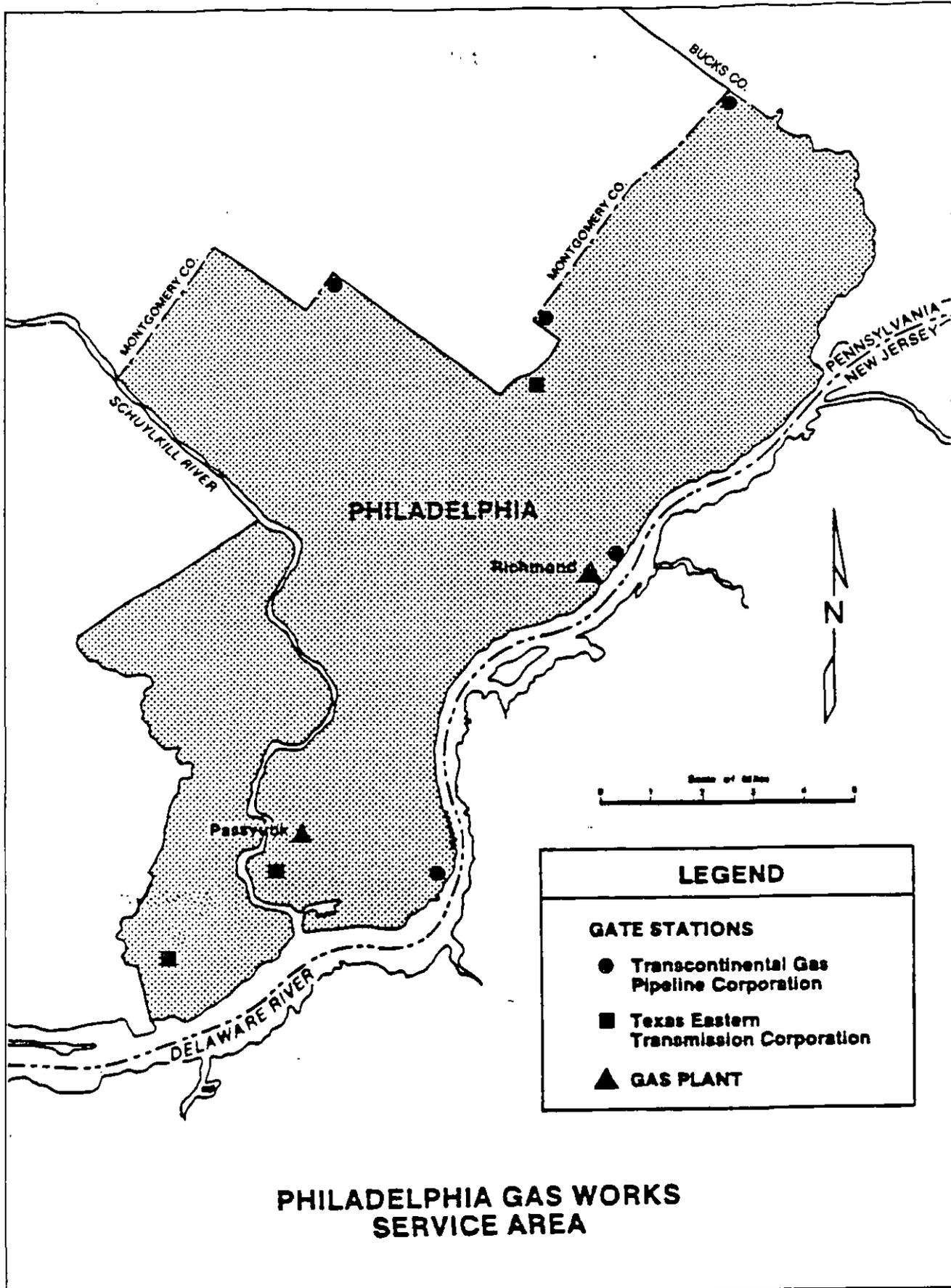
PHILADELPHIA GAS WORKS ORGANIZATION



B-54

Figure 1

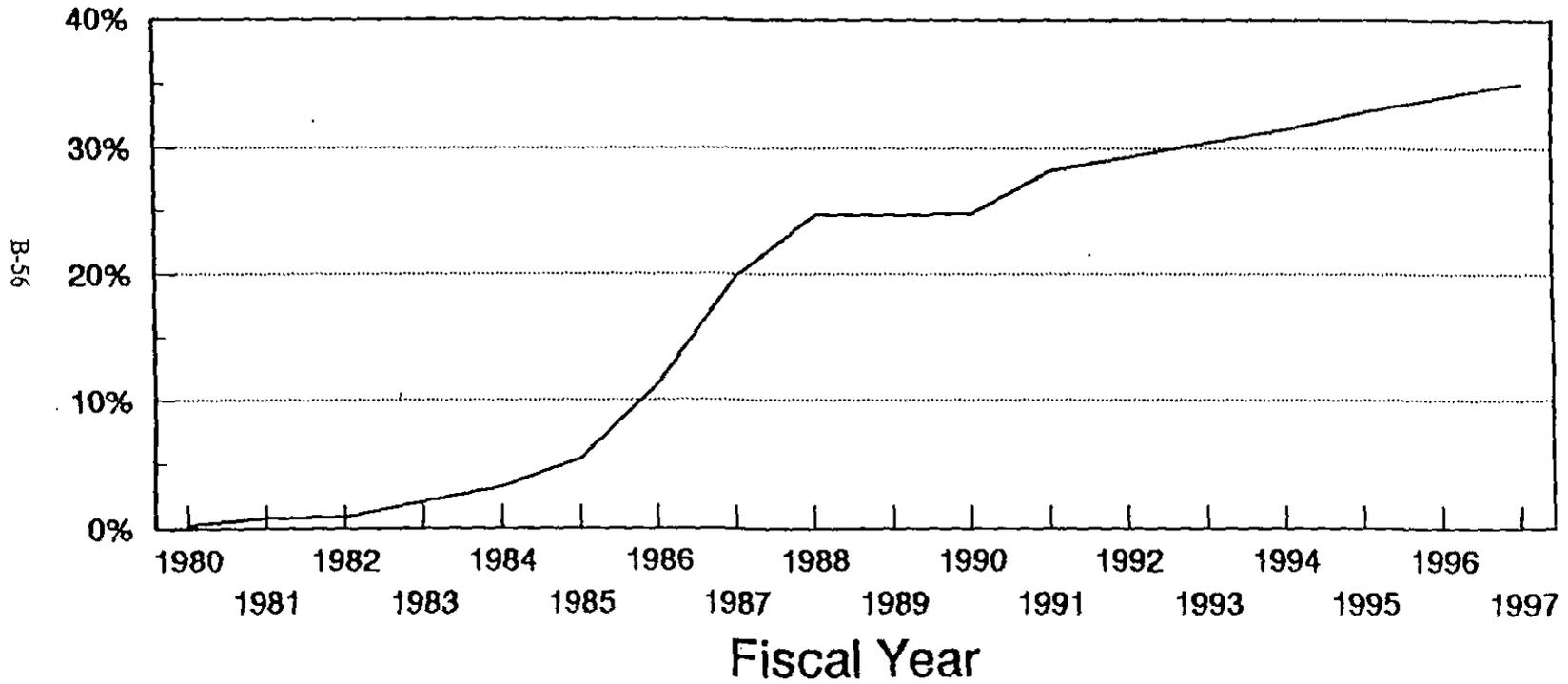
Figure 2



STEAM LOOP CONVERSIONS

Actual and Projected

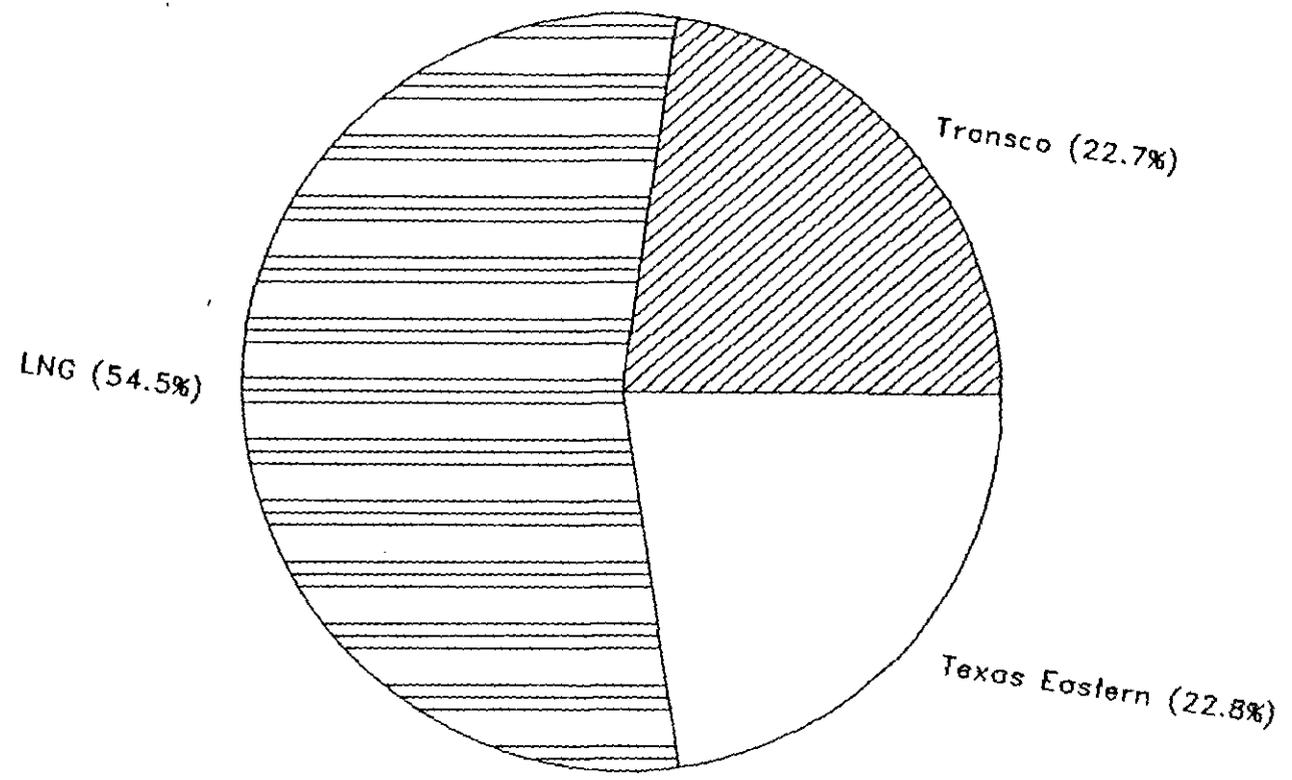
Cumulative Percent Converted



Actual: 1980-89
Projected: 1991-97

Figure 3

1992 PEAK DAY AVAILABILITY
BY SOURCE



B-57

Figure 4

PEAK DAY DEMAND VS. AVAILABILITY

(BASED ON 65 HDD)

B-58
BILLION CUBIC FEET (1030 BTU/CF)

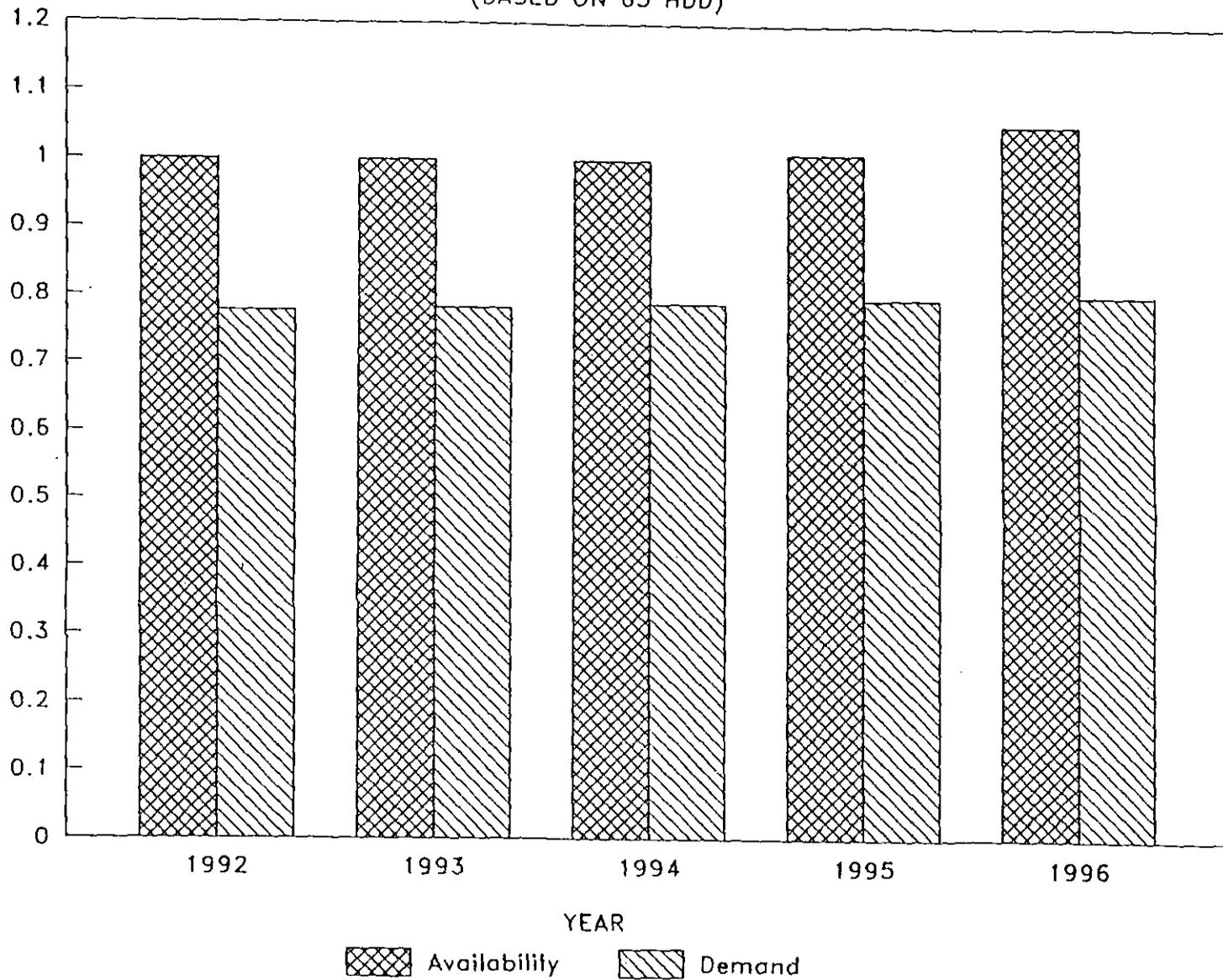


Figure 5A

PEAK HOUR DEMAND VS. AVAILABILITY

(BASED ON 70 HDD)

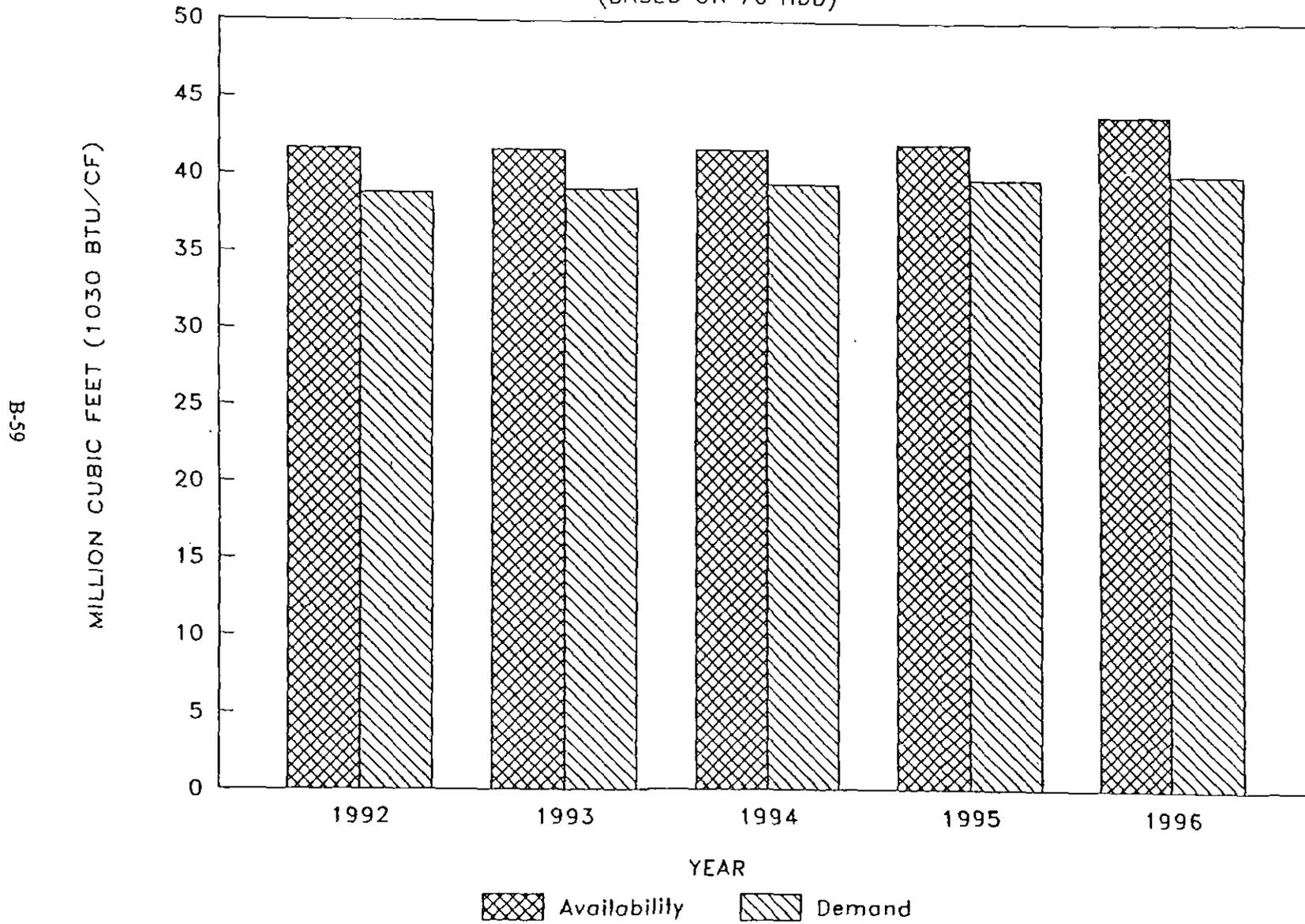


Figure 5B

PGW PROPOSED CAP. IMPROVEMENT PROGRAM

1992 - 1997

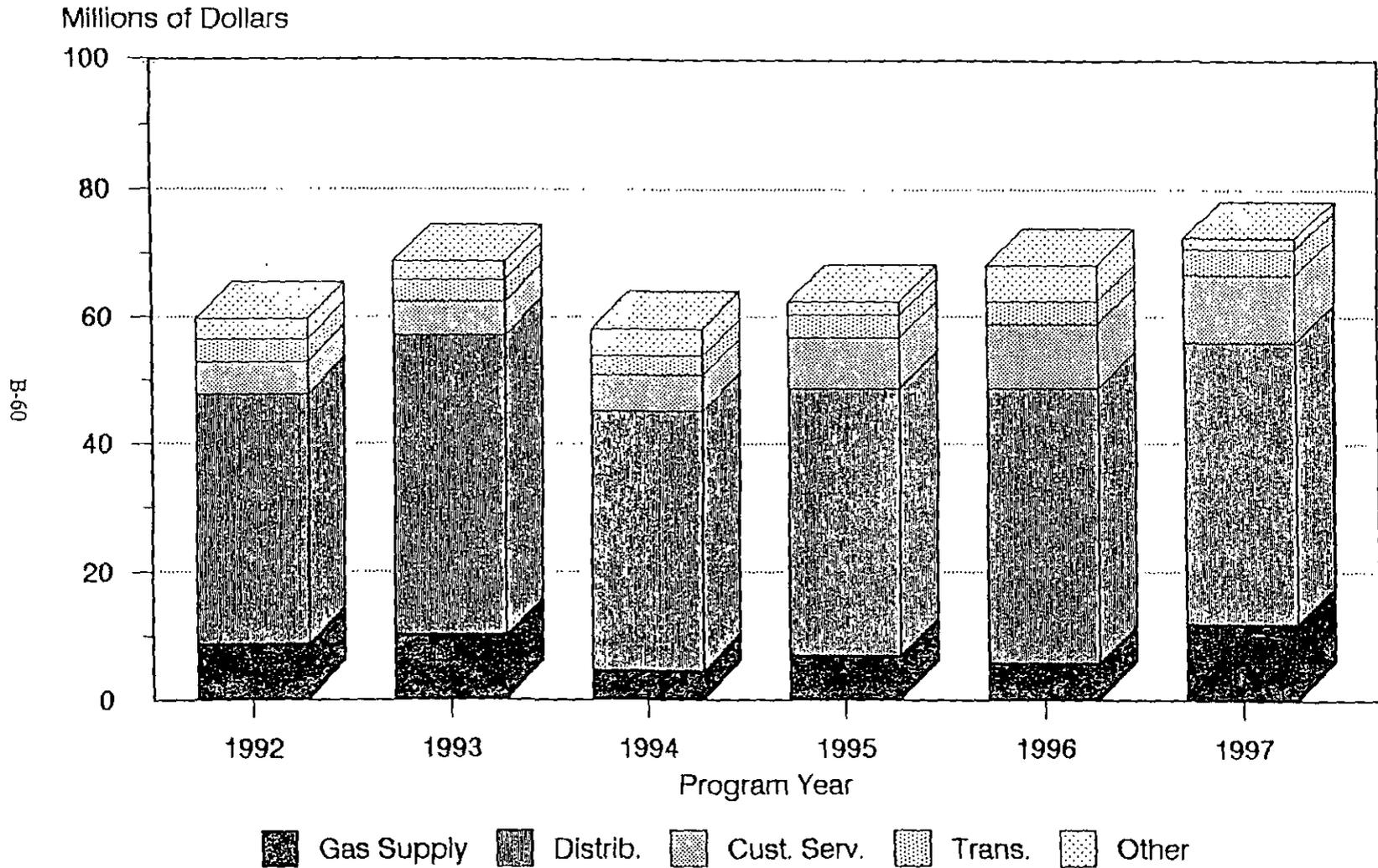
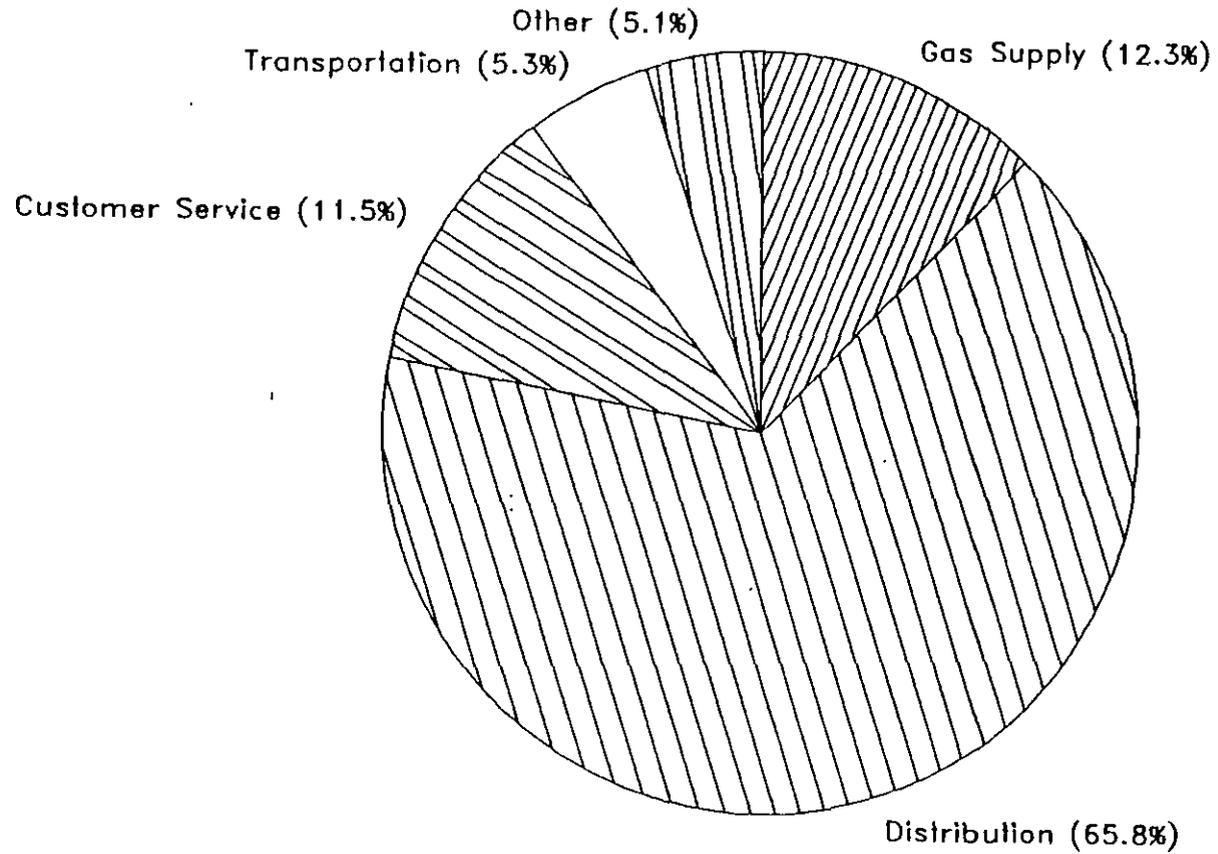


Figure 6

P.G.W. PROPOSED CAPITAL BUDGET

1992 - 1997



B-61

1992 - 1997

Figure 7

TABLE 1

HISTORICAL NUMBER OF CUSTOMERS

	On August 31,				On June 30,	
	1990	1989	1988	1987	1980	1975
Residential	494,253	497,596	497,228	496,836	516,683	518,929
Commercial & Industrial						
Firm	24,614	20,246	19,507	19,015	20,328	21,997
Interruptible	337	299	264	193	81	288
Municipal & Housing Authority	2	2	2	2	2	2
Total	519,206	518,143	517,001	516,046	537,094	541,216

TABLE 2

HISTORICAL SALES

(MMcf)

	Fiscal Years Ended August 31				Fiscal Years Ended June 30,	
	1990	1989	1988	1987	1980	1975
	----- (MMcf) -----					
Firm						

Residential	47,898	48,730	49,505	48,058	51,520	50,197
Commercial	7,792	7,449	7,127	6,919	6,510	6,103
Industrial	2,334	2,356	2,543	2,480	3,809	4,318
Municipal	1,394	1,442	1,461	1,442	1,641	1,880
Housing Authority	1,971	2,007	2,137	2,077	2,818	2,604
Sales for Resale	96	-	181	-	-	-

Total Firm	61,485	61,984	62,954	60,976	66,298	65,102

Interruptible						

Industrial	-	-	-	-	8,211	8,529
Boiler & Power Service	3,251	3,054	2,796	1,910	1,874	1,756
Load Balancing Service	6,987	7,496	9,676	8,452	10,945	-

Total Interruptible	10,238	10,550	12,472	10,362	21,030	10,285

Total Sales	71,723	72,534	75,426	71,338	87,328	75,387

Degree Days (a)	4,431	4,579	4,676	4,498	4,728	4,583

Notes:

(a) PGW's normal heating season (September 15 - May 15) contains 4,600 Degree Days.

TABLE 3

SALES FORECAST (a)

Fiscal Years 1991-1995

	1991	1992	1993	1994	1995
	-----	-----	-----	-----	-----
	----- (MMcf) -----				
Firm					

Residential	43,875	48,751	48,895	49,050	49,217
Limited Service	11	12	12	12	12
Commercial	7,747	8,487	8,457	8,439	8,430
Industrial	2,043	2,142	2,125	2,108	2,089
Municipal	1,180	1,449	1,448	1,448	1,448
Housing Authority	1,802	1,967	1,966	1,966	1,966
	-----	-----	-----	-----	-----
Sub-Total	56,658	62,808	62,903	63,023	63,162
Interruptible					

BPS-Direct	228	253	252	252	252
LBS - L Direct	5,516	741	740	740	740
LBS - XL Direct	913	4,900	4,890	4,890	4,890
BPS - Indirect	3,009	2,937	3,128	3,319	3,524
LBS - L Indirect	2,481	1,842	1,842	1,842	1,842
LBS - S Indirect	747	903	947	980	1,024
LBS - XL Indirect	223	934	932	932	932
CO - GEN Indirect	164	372	371	371	371
BPS - A/C	13	98	233	367	539
SALES FOR RESALE	49	0	0	0	0
	-----	-----	-----	-----	-----
Sub-Total	13,343	12,980	13,335	13,693	14,114
Total	70,001	75,788	76,238	76,716	77,276
	=====	=====	=====	=====	=====
Degree Days	3,997	4,600	4,600	4,600	4,600

Note:

=====

(a) Totals may vary due to rounding.

TABLE 4

CUSTOMER FORECAST

Fiscal Years 1991-1995

	1991	1992	1993	1994	1995
----- (Average Number of Billings) -----					
Residential	503,457	503,074	502,933	502,399	501,964
Philadelphia Housing Authority	5,844	5,844	5,844	5,844	5,844
Commercial	24,040	23,873	23,703	23,562	23,452
Industrial	1,449	1,376	1,339	1,299	1,255
Municipal	699	699	699	699	699
Interruptible	350	352	373	395	421
Total	535,839	535,218	534,891	534,198	533,635

TABLE 5

GROWTH IN SHARE OF RESIDENTIAL MARKET
Fiscal Years 1991 - 1995

	<u>Population(a)</u>	<u>Households(b)</u>	<u>Forecast of(c) Residential Customers</u>	<u>Residential Customers as % of Households</u>
1991	1,584,405	704,180	503,457	71.50%
1992	1,581,237	702,772	503,074	71.58%
1993	1,578,074	701,366	502,933	71.71%
1994	1,574,918	699,964	502,399	71.77%
1995	1,571,768	698,564	501,964	71.86%

Notes:

- a) Represents a 0.2% decline each year in population for Philadelphia County based on 1990 U.S. census actuals.
- b) Assumes 2.25 persons/occupied housing unit from the 1980 census for Philadelphia County.
- c) PGW forecast (Table 4).

TABLE 6

RESIDENTIAL USAGE WITH MARKET SHARE
 UNCHANGED FROM 1991 LEVELS (NO GROWTH)
COMPARED WITH PGW'S FORECAST OF GROWTH

	(a)	(a)(d)	(b)	(c)(d)	(d)
	Forecast of Residential Customers	Sales Forecast (MMCF)	Residential Customers at 1991 Level	Sales at 1990 Level (MMCF)	Variance in Load (MMCF)
1991	503,457	43,875	503,457	43,875	0
1992	503,074	48,751	502,481	48,694	(57)
1993	502,933	48,895	501,476	48,753	(142)
1994	502,399	49,050	500,474	48,862	(188)
1995	501,964	49,217	499,473	48,973	(244)
TOTAL					(631)

Notes:

- (a) PGW Forecast.
- (b) Assumes 71.50% of households (see 1991 market share in Table 5) are residential customers.
- (c) Assumes same use per customer as PGW forecast.
- (d) Values may vary due to rounding.

TABLE 7

CURRENT INTERSTATE PIPELINE GAS CONTRACTS

		Contract Quantity		Expiration Date
		Annual	Daily	
		----- (Dth)-----		-----
Flowing Gas Contracts:				

Texas Eastern	CD-2	31,069,980	115,074	11/01/99
	CD-1	14,817,175	40,595	11/01/99
	Kepeco (a)	271,342	743	10/31/91
Transco (b)	PFT (c)	29,200,000	80,000	10/31/04
	LTFT	31,102,380	85,212	03/31/91 (d)
	PS-6	177,030	1,967	10/31/75 (d)
		-----	-----	
Sub-total		106,637,907	323,591	
Storage Contracts:				

Texas Eastern	SS-I	2,647,080	44,118	04/16/01
	SS-II	1,197,000	7,947	04/15/00
	SS-III	2,610,000	26,100	03/31/06
	Equitrans	515,000	4,926	04/01/02
Transco (b)	GSS	4,320,359	61,567	03/31/92
	S-2	466,554	5,193	04/15/74 (d)
	WSS	3,335,909	(e)	03/31/98
	LGA (f)	52,475	10,495	10/31/91
		-----	-----	
Sub-total		15,091,902	149,851	
TOTAL		121,729,809	473,442	

NOTES:

- (a) Partial Supply for Equitrans Storage Project.
(b) Transco Contract Billing Level Adjusted to Available Level at 1035 BTUs per Mcf.
(c) Firm Transport.
(d) Extended on a Year-to-year Basis.
(e) Included in Flowing Gas Contract Quantities.
(f) Volume not included in totals - Volume Leased to outside company for Peaking Service.

TABLE 8

SUPPLY/DEMAND BALANCE(b)

Fiscal Years 1992 - 1996
 (Normal Year = 4,600 HDD)

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
	- - - - - (000 Dth) - - - - -				
Demand(a)					
Firm	66,669	66,770	66,897	67,044	67,264
Boiler and Power Service	3,473	3,818	4,162	4,561	4,999
Load Balancing Service	9,685	9,716	9,751	9,797	9,874
Cogeneration	<u>394</u>	<u>393</u>	<u>393</u>	<u>393</u>	<u>394</u>
Total Sales	80,221	80,697	81,203	81,795	82,531
Plant Use	996	1,015	1,014	1,029	1,024
Storage Injection	13,083	14,965	15,014	15,065	15,070
Liquefaction	<u>3,258</u>	<u>3,487</u>	<u>3,486</u>	<u>3,487</u>	<u>3,488</u>
Total Sendout	<u>97,558</u>	<u>100,164</u>	<u>100,717</u>	<u>101,376</u>	<u>102,113</u>
Supplies					
Texas Eastern	27,711	29,929	30,171	30,377	30,717
Transco	51,406	51,767	52,028	52,468	52,827
Storage Withdrawal	14,954	14,982	15,031	15,042	15,087
LNG	3,487	3,486	3,487	3,489	3,482
LPG	0	0	0	0	0
Off-System	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Supplies	<u>97,558</u>	<u>100,164</u>	<u>100,717</u>	<u>101,376</u>	<u>102,113</u>

Note:

- (a) Includes unaccounted for.
 (b) Totals may vary due to rounding.

TABLE 9

SUPPLY/DEMAND BALANCE(b)

Fiscal Years 1992 - 1996
 (Design Year = 5,280 HDD)

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
	- - - - - (000 Dth) - - - - -				
Demand(a)					
Firm	73,738	73,869	74,019	74,191	74,439
Boiler and Power Service	3,790	4,157	4,522	4,816	5,244
Load Balancing Service	5,980	5,965	5,938	5,951	5,981
Cogeneration	<u>282</u>	<u>282</u>	<u>282</u>	<u>281</u>	<u>279</u>
Total Sales	83,790	84,273	84,761	85,239	85,943
Plant Use	999	1,040	1,041	1,056	1,057
Storage Injection	13,010	14,979	14,965	15,072	15,056
Liquefaction	<u>3,047</u>	<u>3,487</u>	<u>3,486</u>	<u>3,487</u>	<u>3,488</u>
Total Demand	<u>100,846</u>	<u>103,779</u>	<u>104,253</u>	<u>104,854</u>	<u>105,544</u>
Supplies					
Texas Eastern	30,733	32,852	32,957	33,081	33,214
Transco	51,382	51,962	52,103	52,425	52,684
Storage Withdrawal	14,421	14,517	14,694	14,870	15,005
LNG	4,310	4,448	4,499	4,478	4,484
LPG	0	0	0	0	157
Off-System	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Supplies	<u>100,846</u>	<u>103,779</u>	<u>104,253</u>	<u>104,854</u>	<u>105,544</u>

Note:

- (a) Includes unaccounted for.
 (b) Totals may vary due to rounding.

TABLE 10

Peak Day and Peak Hour Capacity

Fiscal Years 1992-1996

(Design Peak Day Weather - 65 HDD)
(Design Peak Hour Weather - 70 HDD)

	1992	1993	1994	1995	1996
	-----	-----	-----	-----	-----
	----- (MMcf @ 1,030 Btu/cf) -----				
Source of Supply (a)					
Transco					
LTFT	82.7	82.7	82.7	82.7	82.7
PS-6	1.9	1.9	1.9	1.9	1.9
PFT	77.7	77.7	77.7	77.7	77.7
S-2	5.0	5.0	5.0	5.0	5.0
LGA	0.0	0.0	0.0	10.2	10.2
GSS	59.8	59.8	59.8	59.8	59.8
	-----	-----	-----	-----	-----
Total Transco	227.1	227.1	227.1	237.3	237.3
Texas Eastern					
CD-2	111.7	111.7	111.7	111.7	111.7
CD-1	39.4	39.4	39.4	39.4	39.4
SS-I	42.8	42.8	42.8	42.8	42.8
SS-II	6.6	6.6	6.6	6.6	6.6
SS-III	21.8	21.8	21.8	21.8	21.8
Equitrans	5.2	5.2	5.2	5.2	5.2
	-----	-----	-----	-----	-----
Total Texas Eastern	227.5	227.5	227.5	227.5	227.5
Sub-Total	454.6	454.6	454.6	464.8	464.8
Supplemental Gas					
LNG	545.2	545.2	545.2	545.2	545.2
LPG	0	0	0	0	43.6
	-----	-----	-----	-----	-----
Total Supplemental	545.2	545.2	545.2	545.2	588.8
Total Daily Supply	<u>999.8</u>	<u>999.8</u>	<u>999.8</u>	<u>1010.0</u>	<u>1053.6</u>
Average Hourly Supply	41.7	41.7	41.7	42.1	43.9
Firm Peak Day Demand	776.9	782.7	788.9	795.1	801.4
Firm Peak Hour Demand	38.8	39.1	39.4	39.8	40.1

Note:

(a) Daily available volumes after adjustment for
Contract Limitations & Fuel Requirements.

TABLE 11A

PROPOSED CAPITAL IMPROVEMENT PROGRAM

(\$000)

Category	1992	1993	1994	1995	1996	1997	Total	
							\$	%
Gas Supply	\$8,706	\$10,062	\$4,519	\$6,931	\$5,749	\$11,849	\$47,816	12.3%
Distribution	39,094	47,071	40,708	41,832	43,000	44,174	255,879	65.8%
Customer Service	5,178	5,333	5,597	7,999	10,140	10,586	44,833	11.5%
Transportation	3,526	3,385	2,982	3,528	3,457	3,933	20,811	5.3%
Other	3,130	2,838	4,301	2,137	5,626	1,777	19,809	5.1%
	\$59,634	\$68,689	\$58,107	\$62,427	\$67,972	\$72,319	\$389,148	100.0%
Less:								
Reimbursements(a)	(2,301)	(2,396)	(2,494)	(2,597)	(2,704)	(2,814)	(15,306)	-3.9%
Contribution (b)	(142)	(147)	(153)	(159)	(165)	(172)	(938)	-0.2%
Salvage(c)	(261)	(306)	(263)	(283)	(277)	(390)	(1,780)	-0.5%
	\$56,930	\$65,840	\$55,197	\$59,388	\$64,826	\$68,943	\$371,124	-4.6%

Notes:

- (a) Funds available from governmental agencies.
 (b) Customer contributions in aid of construction
 (c) Funds received from sale of scrap metals, used vehicles, equipment, etc.

TABLE 11B

MAJOR CAPITAL BUDGET ITEMS
FISCAL 1992 BUDGET (\$MM)

(COMPARISON OF 1992 ITEMS OVER \$1MM)

CODE	DESCRIPTION	PRIORITY	DEPT.	1992-1991					
				1992 AMOUNT	% OF BUDGET	1991 AMOUNT	% OF BUDGET	AMOUNT DIFFERENCE	PERCENT DIFFERENCE
1 D24 R-1	RENEWAL OF < 1 1/4" SERVICES	1	DIST	\$13.7	22.9%	\$13.2	20.4%	\$0.5	3.4%
1 D21 R-2	PRUDENT MAIN REPLACEMENTS	1	DIST	\$6.8	11.4%	\$6.4	9.9%	\$0.4	6.6%
1 D21 R-1	ENFORCED RELOCATIONS, PRESSURE	1	DIST	\$5.5	9.1%	\$5.4	8.3%	\$0.1	1.2%
1 D22 R-1	ENFORCED RELOCATIONS	1	DIST	\$3.0	5.0%	\$3.2	4.9%	(\$0.2)	-5.1%
2 D24 A-1	INSTAL OF NEW 1-1 1/4" SERVICES	2	DIST	\$2.4	4.1%	\$3.7	5.7%	(\$1.2)	-50.7%
2 D24 A-2	INSTAL OF NEW 2"+ SERVICES	2	DIST	\$1.3	2.2%	\$1.1	1.8%	\$0.2	15.1%
2 D99 D-99	REMOVAL & ABANDONMENTS	2	DIST	\$1.2	2.0%	\$1.5	2.3%	(\$0.3)	-23.8%
2 D21 A-1	LOCAL MAINS - NEW HOUSES	2	DIST	\$1.2	2.0%	\$1.6	2.4%	(\$0.4)	-34.0%
	SUBTOTAL DIST.			\$35.1	58.9%	\$36.0	55.7%	(\$0.9)	-2.6%
1 C30 R-1	REPL OF WORN METERS	1	CSD	\$2.7	4.5%	\$3.0	4.6%	(\$0.3)	-10.5%
2 C30 A-1	NEW CUSTOMER METERS	2	CSD	\$2.0	3.4%	\$1.9	2.9%	\$0.2	8.0%
	SUBTOTAL CSD			\$4.7	7.9%	\$4.8	7.5%	(\$0.1)	-2.6%
1 GS-2	REPLACE UV FIRE-RICHMOND	1	GS	\$1.0	1.7%	\$0.6	0.9%	\$0.5	44.5%
1-T T-R-1	REPLACEMENT OF MOTOR VEH'S	1	TRAN	\$2.8	4.7%	\$2.3	3.5%	\$0.5	19.2%
	TOTAL MAJOR PROJECTS			\$43.7	73.2%	\$43.7	67.6%	(\$0.0)	-0.1%
	TOTAL ALL PROJECTS			\$59.6	100.0%	\$64.7	100.0%	(\$5.0)	-8.4%

TABLE 12

TYPICAL RESIDENTIAL MONTHLY BILL COMPARISON⁽¹⁾
 (BASED ON 100 THERMS AS OF DECEMBER 31, 1990)

<u>Bill Rank</u>	<u>Company</u>	<u>Typical Monthly Bill (\$)</u>
1.	Bay State Gas Company, MA	118.56
2.	Brooklyn Union Gas Company	90.98
3.	Boston Gas Company	82.57
4.	Consolidated Edison of New York, Inc.	77.86
5.	Washington Gas Light Company, DC	75.51
6.	Elizabethtown Gas Company, NJ	73.60
7.	New Jersey Natural	72.72
8.	Philadelphia Electric Company	70.38
9.	National Fuel Gas, NY	69.71
10.	PHILADELPHIA GAS WORKS	69.00
11.	UGI Corporation, PA	68.41
12.	South Jersey Gas, NJ	66.17
13.	Public Service Electric & Gas, NJ	63.94
14.	Peoples Natural Gas Company, PA	63.12
15.	Niagara Mohawk Power Corp., NY	61.09
16.	Long Island Lighting Company, NY	60.17
17.	Rochester Gas & Electric, NY	59.00
18.	Columbia Gas of Pennsylvania	58.64
19.	Baltimore Gas & Electric Company	57.93

Note:

(1) Comparison of utilities in the region surrounding Philadelphia Gas Works having annual revenues from gas sales in excess of \$200 million.

Source: American Gas Association.

TABLE 13

TYPICAL COMMERCIAL MONTHLY BILL COMPARISON⁽¹⁾
 (BASED ON 300 THERMS AS OF DECEMBER 31, 1990)

Bill Rank	Company	Typical Monthly Bill (\$)
1.	Boston Gas Company	285.00
2.	Brooklyn Union Gas Company	285.00
3.	Bay State Gas Company, MA	229.00
4.	PHILADELPHIA GAS WORKS	219.00
5.	Elizabethtown Gas Company, NJ	217.00
6.	UGI Corporation, PA	217.00
7.	New Jersey Natural	213.00
8.	Philadelphia Electric Company	206.00
9.	National Fuel Gas, NY	201.00
10.	Consolidated Edison of New York, Inc.	196.00
11.	Peoples Natural Gas Company, PA	194.00
12.	Public Service Electric & Gas, NJ	189.00
13.	South Jersey Gas, NJ	184.00
14.	Long Island Lighting Company, NY	183.00
15.	Niagara Mohawk Power Corp., NY	182.00
16.	Rochester Gas & Electric, NY	170.00
17.	Columbia Gas of Pennsylvania	163.00
18.	Baltimore Gas & Electric Company	158.00
19.	Washington Gas Light Company, DC	140.00

Note:

- (1) Comparison of utilities in the region surrounding Philadelphia Gas Works having annual revenues from gas sales in excess of \$200 million.

Source: American Gas Association.

TABLE 14

TYPICAL INDUSTRIAL MONTHLY BILL COMPARISON⁽¹⁾
 (BASED ON 1,000 THERMS AS OF DECEMBER 31, 1990)

<u>Bill Rank</u>	<u>Company</u>	<u>Typical Monthly Bill (\$)</u>
1.	Niagara Mohawk Power Corp., NY	3,803.00 ⁽²⁾
2.	Peoples Natural Gas Company, PA	961.00
3.	Brooklyn Union Gas Company	875.00
4.	Boston Gas Company	822.00
5.	Washington Gas Light Company, DC	701.00
6.	UGI Corporation, PA	682.00
7.	PHILADELPHIA GAS WORKS	680.00
8.	New Jersey Natural	672.00
9.	Bay State Gas Company, MA	669.00
10.	Elizabethtown Gas Company, NJ	643.00
11.	National Fuel Gas, NY	625.00
12.	Public Service Electric & Gas, NJ	615.00
13.	Consolidated Edison of New York, Inc.	599.00
14.	Long Island Lighting Company, NY	596.00
15.	South Jersey Gas, NJ	567.00
16.	Rochester Gas & Electric, NY	554.00
17.	Columbia Gas of Pennsylvania	526.00
18.	Baltimore Gas & Electric Company	496.00
	Philadelphia Electric Company	-(3)

Notes:

- (1) Comparison of utilities in the region surrounding Philadelphia Gas Works having annual revenues from gas sales in excess of \$200 million.
Source: American Gas Association.
- (2) Minimum bill provision results in high monthly bill for 1,000 therm consumption level.
- (3) Utility not reporting for the period.

Table 15

Coverage of Debt Service From Operations

Fiscal Year -----	Revenue Bonds -----
1990 Actual	1.51 x
1991 Projected	1.51 x
1992 Projected	1.80 x
1993 Projected	1.73 x
1994 Projected	1.66 x
1995 Projected	1.80 x
1996 Projected	1.73 x

TABLE 16

SOURCES AND USES OF CASH FOR CAPITAL IMPROVEMENT EXPENDITURES

Fiscal Years 1987 Through 1996
(\$000)

	ACTUAL				PROJECTED					
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Sources:										
Bond Proceeds @ Par	\$100,000	-	-	\$75,000	\$75,000	\$75,000	-	-	\$75,000	-
Proceeds from Sale/Leaseback	-	-	25,000	-	-	-	-	-	-	-
PGW Internal Funds	21,106	19,437	8,159	17,250	0	22,011	36,032	29,969	38,042	36,951
Total Sources	\$121,106	\$19,437	\$33,159	\$92,250	\$75,000	\$97,011	\$36,032	\$29,969	\$113,042	\$36,951
Uses:										
Changes in Capital Improvement Fund	\$52,286	(\$53,100)	(\$27,318)	\$24,011	\$4,530	\$29,935	(\$25,700)	(\$29,100)	\$46,635	(\$25,800)
Discount & Issuance Expense	1,989	-	1,107	4,006	2,625	2,625	-	-	2,625	-
Deposit to Sinking Fund	8,725	-	2,247	6,033	7,040	7,040	-	-	7,040	-
Capital Expenditures	58,106	72,537	57,123	58,198	60,805	57,411	61,732	59,069	56,742	62,751
Total Uses	\$121,106	\$19,437	\$33,159	\$92,250	\$75,000	\$97,011	\$36,032	\$29,969	\$113,042	\$36,951
Capital Improvement Fund:										
Deposit	\$89,286	\$0	\$21,646	\$64,959	\$65,335	\$65,335	\$0	\$0	\$65,335	\$0
Drawdown	37,000	53,100	48,964	40,948	60,805	35,400	25,700	29,100	18,700	25,800
Changes in Fund	52,286	(\$53,100)	(27,318)	24,011	4,530	29,935	(25,700)	(29,100)	46,635	(25,800)
Balance End of Period	\$85,064	\$31,964	\$4,646	\$28,657	\$33,187	\$63,122	\$37,422	\$8,322	\$54,957	\$29,157

B-78

TABLE 17

ACCOUNTS RECEIVABLE, RESERVE FOR UNCOLLECTIBLES, WRITE-OFF
EXPENSES, DELINQUENT CUSTOMERS, AND REVENUE STATISTICS

(\$000)

Twelve Months at August 31

	1986	1987	1988	1989	1990
	----	----	----	----	----
Billed Gas Revenues	\$473,703	\$452,432	\$462,226	\$469,569	\$470,110
Accounts Receivable	92,061	94,441	83,734	87,994	91,215
Reserve for Uncollectible Accounts	39,358	41,639	40,851	39,181	41,053
Reserve as a Percentage of Accounts Receivable	42.8%	44.1%	48.8%	44.5%	45.0%
Write-off Expenses	13,159	20,496	20,874	20,920	22,137
Receivables as a Percentage of Sales Revenue	19.4%	20.9%	18.1%	18.7%	19.4%
Delinquent Customers (Annual Average)	153,086	156,387	148,588	141,095	133,610

TABLE 18

FORECAST OF CUSTOMER
ACCOUNTS RECEIVABLE, RESERVE FOR UNCOLLECTIBLE ACCOUNTS
AND WRITE-OFF EXPENSES

(\$000)

	FISCAL YEARS					
	1991	1992	1993	1994	1995	1996
	----	----	----	----	----	----
Billed Gas Revenues (a)	\$442,115	\$545,092	\$553,430	\$568,978	\$602,979	\$620,556
Accounts Receivable	89,217	111,113	109,998	110,484	115,122	116,904
Reserve for Uncollectible Accounts	40,975	49,448	48,573	48,232	49,572	49,921
Reserve as a Percentage of Accounts Receivable	45.9%	44.5%	44.2%	43.7%	43.1%	42.7%
Write-off Expenses	25,062	28,592	31,592	32,092	32,492	32,592
Receivables as a Percentage of Sales Revenue	20.2%	20.4%	19.9%	19.4%	19.1%	18.8%

Notes:

- (a) 1992 Fiscal Year includes an increase in base rates of \$34.0 million.
The 1995 Fiscal Year includes an increase in base rates of an additional \$17.0 million.

EXHIBIT I

PHILADELPHIA GAS WORKS
SELECTED OPERATING STATISTICS

Fiscal Data -----	Years Ended June 30				Years Ended August 31					
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Number of Customers	532,298	528,189	518,393	518,869	518,997	518,614	516,046	517,001	518,143	519,206
Miles of Distribution Mains	2,983	2,986	2,981	2,983	2,986	2,989	2,993	3,018	3,031	3,014
Utility Plant (\$000) (1)	498,694	527,301	557,241	586,752	624,835	667,339	720,506	787,601	840,248	892,970
Total Gas Sales (MMcf)	87,115	83,690	72,537	78,269	69,851	71,857	71,338	75,426	72,534	71,723
Operating Revenues (\$000):										
Heating	288,603	356,673	363,737	394,586	373,937	367,716	363,057	372,007	379,673	376,006
Non-heating	130,509	130,837	130,220	130,842	115,482	103,476	87,461	93,115	87,607	90,245
Total Operating Revenues	425,877	495,296	502,305	532,163	495,286	477,127	456,443	469,567	472,706	472,172
Other Income	14,297	11,531	13,381	16,729	15,906	15,643	12,295	15,940	12,858	11,880
Operating Expenses (\$000):										
Natural Gas	246,723	272,004	298,237	305,835	289,383	266,029	221,119	229,284	238,087	230,362
Gas Processing	59,263	37,783	22,700	16,886	17,104	19,729	20,713	24,611	24,410	25,390
Customer Service	16,945	17,905	17,525	18,182	19,455	20,306	20,858	20,786	20,382	19,229
Distribution	9,182	10,497	11,212	12,335	13,048	13,411	14,350	16,562	16,244	20,588
Collection & Meter Reading (2)	21,911	38,191	36,888	36,680	34,673	32,132	36,215	35,010	32,383	37,241
Administrative and General	13,231	18,134	18,783	18,692	19,523	25,068	26,112	28,413	27,185	26,989
Other Operating Expenses (3)	39,366	43,535	47,785	49,649	51,405	52,731	57,267	60,745	60,612	56,676
Total Operating Expenses	406,621	438,049	453,130	458,259	444,591	429,406	396,634	415,411	419,303	416,475
Interest Expense	29,564	35,065	38,699	39,843	40,766	44,244	44,125	48,575	47,736	49,007
Net Income	3,989	33,713	23,857	50,790	17,347(4)	19,120	27,979	21,521	18,525	18,570

- 1) Gross Plant at original cost.
- 2) Includes appropriation to Reserve for Uncollectible Accounts.
- 3) Includes Customer Relations, Customer Accounting, Marketing, Pensions, Taxes and Net Depreciation and Amortization.
- 4) Includes extraordinary loss of \$8,488,000 due to early extinguishment of debt.

EXHIBIT II

PHILADELPHIA GAS WORKS
 FORECAST STATEMENT OF INCOME

 Fiscal Years 1990 through 1996
 (\$000)

	FORECAST						
	ACTUAL 1990	1991	1992	1993	1994	1995	1996
Operating Revenues							
Sales (Current Rates & Changes to GCR)	\$466,101	\$454,069	\$507,765	\$519,330	\$535,028	\$552,429	\$569,706
Projected Rate Increase - Prior			34,000	34,000	34,000	34,000	51,000
- Current						17,000	
Other Operating Revenues	6,071	6,152	6,898	6,764	6,848	7,233	7,386
Total Operating Revenues	472,172	460,221	548,663	560,094	575,876	610,662	628,092
Operating Expenses							
Natural Gas	230,362	209,447	236,904	244,369	253,546	265,497	278,064
Other Raw Material	1,037	388	15	18	20	22	25
Gas Processing	24,353	21,693	23,744	24,053	25,060	26,183	27,365
Other Operating & Maintenance (Exhibit III)	141,851	142,847	168,525	167,015	176,166	185,098	191,213
Operating Expenses Excl. Depreciation	397,603	374,375	429,188	435,455	454,792	476,800	496,667
Depreciation	18,872	22,102	22,118	23,485	24,871	25,677	27,087
Total Operating Expenses	416,475	396,477	451,306	458,940	479,663	502,477	523,754
Operating Income	55,697	63,744	97,357	101,154	96,213	108,185	104,338
Other Income	11,880	12,124	12,490	14,280	12,588	11,961	14,375
Income Before Interest	67,577	75,868	109,847	115,434	108,801	120,146	118,713
Interest Expense							
Long-term Debt Interest:							
Revenue Bonds	39,680	43,362	48,105	51,600	49,558	48,341	51,197
PMA Bonds	1,847	1,821	1,794	1,763	1,731	1,696	1,657
Bond Discount & Expenses	1,749	1,997	2,034	2,043	1,942	1,853	1,849
Total Long-term Interest	43,276	47,180	51,933	55,406	53,231	51,890	54,703
Other Interest:							
Short-term Debt	4,366	4,551	3,620	3,620	3,620	3,620	3,620
Loss from Extinguishment of Debt	2,036	2,006	1,918	1,824	1,725	1,619	1,500
Interest on Customer Deposits	385	350	325	325	325	325	325
Miscellaneous		59	11				
Total Other Interest	6,787	6,966	5,874	5,769	5,670	5,564	5,445
UDC	(1,056)	(1,448)	(882)	(636)	(719)	(462)	(636)
Total Interest Expense	49,007	52,698	56,925	60,539	58,182	56,992	59,512
Income	18,570	23,170	52,922	54,895	50,619	63,154	59,201
sent to City of Philadelphia	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Income Transferred to Retained Earnings	\$570	\$5,170	\$34,922	\$36,895	\$32,619	\$45,154	\$41,201

EXHIBIT III

PHILADELPHIA GAS WORKS
FORECAST OTHER OPERATION AND MAINTENANCE EXPENSES

Fiscal Years 1990 through 1996
(\$000)

	ACTUAL 1990	FORECAST						TOTAL FORECAST	
		1991	1992	1993	1994	1995	1996	\$	%
Other Operation and Maintenance Expenses									
Administrative & General	\$26,989	\$29,875	\$36,391	\$37,084	\$40,711	\$43,254	\$46,502	\$233,817	22.7%
Appropriation to Reserve for Uncollectible Accounts	24,137	24,696	37,406	30,552	31,741	33,844	32,932	191,171	18.5%
Customer Service	19,229	19,083	19,656	20,625	21,502	22,315	23,401	126,582	12.3%
Distribution	20,588	18,032	19,404	20,567	21,668	22,740	23,803	126,214	12.2%
Pensions	17,748	16,202	16,884	17,471	17,974	18,398	18,141	105,070	10.2%
Customer Relations	8,448	8,718	9,351	9,781	10,306	10,838	11,282	60,276	5.8%
Collection	7,051	6,997	7,473	7,892	8,306	8,703	9,119	48,490	4.7%
Taxes	6,153	6,349	6,853	7,319	7,794	8,108	8,454	44,877	4.4%
Meter Reading	6,053	6,365	6,685	7,013	7,206	7,371	7,461	42,101	4.1%
Marketing	2,639	3,627	5,269	5,498	5,616	6,002	6,445	32,457	3.1%
Customer Accounting	2,816	2,903	3,153	3,213	3,342	3,525	3,673	19,809	1.9%
Total Other Operation and Maintenance Expenses	\$141,851	\$142,847	\$168,525	\$167,015	\$176,166	\$185,098	\$191,213	\$1,030,864	100.0%

EXHIBIT IV

PHILADELPHIA GAS WORKS
CAPITAL EXPENDITURE SUMMARY

Fiscal Years 1990 through 1996
(\$000)

	Actual 1990	Est/Act 1991	FORECAST				
			1992	1993	1994	1995	1996
Additions and Replacements							
Supply Plant	\$6,337	\$7,563	\$6,203	\$4,008	\$8,098	\$6,486	\$5,792
Distribution Plant	38,019	37,982	32,722	43,068	38,703	35,801	39,332
Customer Service	4,067	4,600	7,711	9,946	5,446	7,776	9,896
Other	7,940	8,258	11,026	4,597	6,595	6,490	7,408
Sub-total	56,363	58,403	57,662	61,619	58,842	56,553	62,428
Less: Contributions in Aid of Construction	1,299	1,236	2,887	2,987	3,011	2,741	2,854
Net Additions and Replacements	55,064	57,167	54,775	58,632	55,831	53,812	59,574
Allowance for Funds Used During Construction							
Supply Plant	315	217	172	244	233	168	186
Distribution, Customer Service and other Plant	1,184	1,231	1,258	1,284	1,226	1,235	1,362
Sub-total	1,499	1,448	1,430	1,528	1,459	1,403	1,548
Removal Costs (Net)							
Removal Cost	1,758	2,255	1,471	1,874	2,053	1,815	1,909
Salvage	(123)	(65)	(265)	(302)	(274)	(288)	(280)
Sub-total	1,635	2,190	1,206	1,572	1,779	1,527	1,629
TOTAL	<u>\$58,198</u>	<u>\$60,805</u>	<u>\$57,411</u>	<u>\$61,732</u>	<u>\$59,069</u>	<u>\$56,742</u>	<u>\$62,751</u>

B-84

EXHIBIT V

PHILADELPHIA GAS WORKS
ANALYSIS OF INTERNALLY GENERATED FUNDS
AVAILABLE TO COVER DEBT SERVICE

Fiscal Years 1990 through 1996
(\$000)

	ACTUAL 1990	FORECAST					1996
		1991	1992	1993	1994	1995	
Funds Provided:							
Operating Revenues (Exhibit II)	\$472,172	\$460,221	\$548,663	\$560,094	\$575,876	\$610,662	\$628,092
Other Income	13,394	12,752	12,329	14,109	12,406	11,768	14,170
AFLUC	1,056	1,448	882	636	719	462	636
Total Funds Provided	486,622	474,421	561,874	574,839	589,001	622,892	642,898
Funds Applied to Operations:							
Operation Expenses Excluding Depreciation (Exhibit II)	397,603	374,375	429,188	435,455	454,792	476,800	496,667
Less: Expenses Not Requiring Expenditure of Funds	5,397	4,545	4,201	4,064	4,638	4,573	5,032
Total Funds Applied	392,206	369,830	424,987	431,391	450,154	472,227	491,635
Internally Generated Funds Available for Debt Service	94,416	104,591	136,887	143,448	138,847	150,665	151,263
Less: PMA Bond Debt Service	1,625	2,245	2,243	2,264	2,242	2,243	2,246
Internally Generated Funds Available to Cover Revenue Bond Debt Service	92,791	102,346	134,644	141,204	136,605	148,422	149,017
Funds Applied to Debt Service:							
Revenue Bonds - Proposed			6,375	13,415	14,078	14,075	20,448
- Existing	61,654	67,798	68,475	68,436	68,427	68,403	65,698
Total Revenue Bonds	61,654	67,798	74,850	81,851	82,505	82,478	86,146
Temporary Financing	4,361	4,612	3,620	3,620	3,620	3,620	3,620
Total Funds Applied to Debt Service	66,015	72,410	78,470	85,471	86,125	86,098	89,766
Internally Generated Funds Available for City Fee	26,776	29,936	56,174	55,733	50,480	62,324	59,251
Payment to City - City Fee	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Internally Generated Funds Available	\$8,776	\$11,936	\$38,174	\$37,733	\$32,480	\$44,324	\$41,251
Debt Service Coverage Revenue Bonds	1.51	1.51	1.80	1.73	1.66	1.80	1.73

EXHIBIT VI

PHILADELPHIA GAS WORKS

ANALYSIS OF CASH AND ANNUAL CASH BALANCES

Fiscal Years 1990 through 1996
(\$000)

	ACTUAL 1990	FORECAST					
		1991	1992	1993	1994	1995	1996
Beginning Cash Balance	\$87,797	\$24,598	\$3,604	\$11,342	\$11,126	\$10,706	\$10,846
Sources of Funds:							
Internally Generated							
Net Income (Exhibit II)	18,570	23,170	52,922	54,895	50,619	63,154	59,201
Items in Net Income Not Requiring Funds	22,155	25,463	25,441	26,994	28,587	29,663	31,134
Interest Expenses Included in Net Income (Exhibit II)	49,007	52,698	56,925	60,539	58,182	56,992	59,512
Total Internal Funds	89,732	101,331	135,288	142,428	137,388	149,809	149,847
Externally Generated:							
Revenue Bond Proceeds	64,959	65,335	65,335			65,335	
Capital Improvement Fund Drawdown	40,948	60,805	35,400	25,700	29,100	18,700	25,800
Temporary Borrowings							
Total External Funds	105,907	126,140	100,735	25,700	29,100	84,035	25,800
Total Sources of Funds	283,436	252,069	239,627	179,470	177,614	244,550	186,493
Uses of Funds:							
Debt Service Coverage (Exhibit V)	66,015	72,410	78,470	85,471	86,125	86,098	89,766
MA Bond Debt Service (Exhibit V)	1,625	2,245	2,243	2,244	2,242	2,243	2,246
Working Capital Increases	(10,959)	18,170	6,826	897	1,472	5,286	2,385
Construction Requirements (Exhibit IV)	58,198	60,805	57,411	61,732	59,069	56,742	62,751
Payment to City of Phila. - Fee (Exhibit II)	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Deposit of Capital Improvement Fund (Table 16)	64,959	65,335	65,335	0	0	65,335	0
Payment of Temporary Borrowings	61,000	11,500					
Total Uses of Funds	258,838	248,465	228,285	168,344	166,908	233,704	175,148
Ending Cash Balance	\$24,598	\$3,604	\$11,342	\$11,126	\$10,706	\$10,846	\$11,345

APPENDIX

A NOTE ON SALES/SUPPLY/DEMAND UNITS

Sales/supply/demand in this report are reported in volume or energy units. PGW purchases gas in energy units but, usually sells them in volume units because that is what gas meters measure. There is a fundamental relationship between them used for reporting purposes - one cubic foot of gas (volume) equals approximately 1,030 Btu (energy). More complex measures evolve from this relationship as follows:

Energy Units

- Btu - British thermal unit - the amount of energy required to raise the temperature of one pound of water by one degree Fahrenheit
- Therm - 100,000 Btu
- Dekatherm - 10 Therms (1,000,000 Btu)

Volume Units

- Scf - Standard cubic foot - the amount of gas contained in one cubic foot at 60°F and standard pressure of 14.73 pounds per square inch absolute (normal atmospheric pressure)
- Mcf - Thousand cubic feet, 1,000 Scf
- MMcf - Million cubic feet, 1,000 Mcf (1,000,000 Scf)
- Bcf - Billion cubic feet, 1,000 MMcf (1,000,000,000 Scf)

For the reader's ease in reading/understanding the report the following approximations may be useful:

- One Dekatherm equals one Mcf,
- One thousand Dekatherms equals one MMcf.

APPENDIX C
Summaries of Legislation
Authorizing the Issuance
of Gas Works Revenue Bonds