

PC-203C
Commonwealth of Pennsylvania
Public Employee Retirement Commission
P.O. Box 1429
Harrisburg, PA 17105 - 1429

County: ALL

Class : 2 203C

Mun : PITTSBURGH

Muncd : 02-261-2

Plntyp: N1

1999

**ACT 205 ACTUARIAL VALUATION REPORT:
NONUNIFORMED PENSION PLAN
WITH DEFINED BENEFITS**

FILING DEADLINE: March 31, 2000

RECEIPT

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REVIEW

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Section I - Identification of Municipality

INSTRUCTIONS: Print or type requested information in the space provided.

Note: In Part A, home rule municipalities should check the box and enter the number of their previous municipal classification.

A. Type of Municipality Item No. 2 (1)
(Check appropriate box below and enter corresponding number.)

- | | |
|--|--|
| <input type="checkbox"/> County (1) | <input type="checkbox"/> Township (1st) (4) |
| <input checked="" type="checkbox"/> City (2) | <input type="checkbox"/> Township (2nd) (5) |
| <input type="checkbox"/> Borough (3) | <input type="checkbox"/> Authority (6) |
| <input type="checkbox"/> Town (3) | <input type="checkbox"/> COG/Regional Entity (7) |

B. Name of Municipality CITY OF PITTSBURGH (2)

C. Name of County ALLEGHENY (3)

Section II - Identification of Pension Plan and Specification of Valuation Date

INSTRUCTIONS: Print or type requested information in space provided.

A. Name of Pension Plan CITY OF PITTSBURGH MUNICIPAL PENSION FUND (4)

B. Date on which pension plan was established 05 / 28 / 1915 (5)
Mo. Da. Yr.

C. Valuation date for demographic, financial and actuarial data 01 / 01 / 1999 (6)
(Use 1/1/1999 unless otherwise specified in plan document prior to 12/31/1982.) Mo. Da. Yr.

Section III - General Information

INSTRUCTIONS: Respond to each question by entering "yes" or "no" in the space provided.

- A. Is Social Security coverage provided for the active members of the pension plan identified in Section II? YES (8)
- B. Do any active members of the pension plan identified in Section II participate in any other pension plan or plans that receive funding from the municipality? NO (9)
- C. Do any of the active members of the pension plan identified in Section II work on average less than 35 hours per week? NO (10)
- D. Does the pension plan identified in Section II include active members who are not employees of the municipality identified in Section I? YES (11)
- E. Do retired members of the pension plan identified in Section II receive any benefit, such as insurance coverage, that is provided wholly or partially by the municipality and not funded through the pension plan identified in Section II? NO (12)

Section IV - Demographic Data as of JANUARY 1, 1999 (Valuation Date)INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule A. Print or type information requested in Part A in the space provided. Enter zero, if applicable. Do not leave blanks or refer to the schedules or exhibits. Complete Schedule A. Then complete the certification in Part B below.**A. Summary of Demographic Data**

1. Number of active members on valuation date 2,293 (13)
2. Total annual payroll of active members on valuation date \$ 73,611,589 (14)
3. Number of members terminated with vested or deferred benefit on valuation date 0 (15)
4. As of valuation date, number of persons receiving:
- a. Retirement benefits 1,317 (16)
- b. Disability benefits 354 (17)
- c. Surviving spouse benefits 79 (18)
- d. Surviving child benefits 0 (19)
- e. Total (a + b + c + d) 1,750 (20)
5. As of valuation date, total annual benefits payable as:
- a. Retirement benefits \$ 10,924,880 (21)
- b. Disability benefits \$ 2,864,224 (22)
- c. Surviving spouse benefits \$ 354,755 (23)
- d. Surviving child benefits \$ 0 (24)
- e. Total (a + b + c + d) \$ 14,143,859 (25)

B. Certification of Demographic Data

I hereby certify that I have prepared and reviewed the demographic data entered in Part A of this section and in Schedule A; and I further certify that the information provided is to the best of my knowledge true and accurate.

(Signature)

ELLEN M. McLEAN

(Name)

(Date)

March 24, 2000

(Title)

DIRECTOR OF FINANCE

(Telephone)

414 465-4582

Section V - Financial Data as of JANUARY 1, 1999 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule B. Print or type the data requested in Part A, rounded to the nearest dollar, in the space provided. Enter zero, if applicable. Do not leave blanks or refer to exhibits. Complete Schedule B. Then complete the certification in Part B below.

Note: The asset values provided in Part A of this section and in Schedule B must include all the assets of the pension plan regardless of custodial arrangements involving administrative agencies.

A. Summary of Financial Data

1. MARKET VALUE OF ASSETS, *excluding the cash surrender values of individual insurance and annuity contracts*, on the above valuation date \$ 133,566,040 (26)
2. CASH SURRENDER VALUE of individual insurance and annuity contracts on the above valuation date or nearest anniversary date \$ 0 (27)
3. TOTAL FUND ASSETS (1 + 2) on the above valuation date \$ 133,566,040 (28)
4. INVESTMENT INCOME, *excluding individual insurance and annuity contract dividends*, for the year ended on the above valuation date \$ 11,576,572 (29)
5. REALIZED CAPITAL GAINS/LOSSES for the year ended on the above valuation date (+ or -) \$ 0 (30)
6. DIVIDENDS ON INSURANCE/ANNUITY CONTRACTS for the year ended on the above valuation date \$ 0 (31)
7. MEMBER CONTRIBUTIONS to plan for the year ended on the above valuation date (Include employee contributions treated as employer contributions pursuant to Section 414(h) of the Internal Revenue Code.) \$ 3,127,815 (32)
8. MUNICIPAL CONTRIBUTIONS to plan, *excluding Supplemental State Assistance monies allocated under Act 205 Recovery Program*, for the year ended on valuation date (8a + 8b) \$ 3,749,173 (33)
 - a. State Aid Portion \$ 2,120,325 b. Local Portion \$ 1,628,848
9. ACTUAL MUNICIPAL DEPOSIT for the year ended on the valuation date (Item 33 + 9a - 9b) \$ 3,749,173 (34)
 - a. Contributions Receivable at beginning of year \$ 0 b. Contributions Receivable at end of year \$ 0
10. TOTAL MONTHLY BENEFIT PAYMENTS for the year ended on the above valuation date \$ 16,984,022 (35)
11. ANNUAL INSURANCE OR ANNUITY PREMIUM PAYMENTS, *excluding single premium annuity purchases*, for the year ended on the above valuation date \$ 0 (36)
12. ADMINISTRATIVE EXPENSES paid from the assets of the pension plan for the year ended on the above valuation date \$ 644,155 (37)
13. MINIMUM MUNICIPAL OBLIGATION to the pension plan for the year ended on the valuation date (Enter amount reported in item 34 or item 41 on page 12.) \$ 3,749,173 (38)

B. Certification of Financial Data

I hereby certify that I have prepared and reviewed the financial data entered in Part A of this section and in Schedule B; and I further certify that the information provided is to the best of my knowledge true and accurate.

Ellen M. McLean
(Signature)

March 24, 2000
(Date)

ELLEN M. MCLEAN
(Name)

DIRECTOR OF FINANCE
(Title)

(412) 255-2582
(Telephone)

Section VI - Actuarial Data as of JANUARY 1, 1999 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule C. Complete Part A and Part B below in accordance with the instructions provided. Complete Schedule C. Then complete the certification in Part C below.

Note: The asset values provided in Part A of this section must include all the assets of the pension plan regardless of custodial arrangements involving administrative agencies.

A. Summary of Actuarial Data

INSTRUCTIONS: Print or type the data requested, rounded to the nearest dollar, in the space provided. Enter zero or negative values, if applicable. Do not leave blanks or refer to exhibits.

1. ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS as of valuation date \$ 208,353,284 (40)
2. ACTUARIAL PRESENT VALUE OF FUTURE NORMAL COST as of valuation date \$ 24,060,108 (41)
3. ACTUARIAL ACCRUED LIABILITY as of valuation date \$ 184,293,176 (42)
4. ACTUARIAL VALUE OF ASSETS, including aggregate insurance/annuity cash surrender value, as of valuation date \$ 133,566,040 (43)
5. UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -) \$ 50,727,136 (44)
6. NORMAL COST (employer & employee), *excluding administrative expenses*, payable as of valuation date for the plan year beginning on valuation date:
 - a. As a dollar amount \$ 3,283,595 (45)
 - b. As a percentage of total annual payroll 4.461 % (46)
7. AVERAGE ADMINISTRATIVE EXPENSES payable from the assets of the pension plan in the prior plan year and the plan year beginning on valuation date ¹ \$ 662,504 (47)
8. ANNUAL COVERED PAYROLL of active members as of valuation date \$ 73,611,589 (48)
9. AMORTIZATION CONTRIBUTIONS
 - a. For amortization of initial unfunded actuarial accrued liability established 1/1/85. ²
 - 1) Amortization period remaining (years) 39 (49)
 - 2) Amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date \$ 3,132,592 (50)
 - 3) Amortization contribution calculated as a level percentage of payroll for the plan year beginning on valuation date ³ \$ N/A (51)
 - b. For amortization of all increases or decreases in unfunded actuarial accrued liability occurring after 1/1/85 or the initial UAL's establishment. ²
 - 1) Aggregated amortization period (years) 20 (52)
 - 2) Aggregated amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date \$ -374,398 (53)
 - c. Modified Total Amortization Requirement ⁴ \$ N/A (54)
 - d. Total Amortization Requirement (Item 50 + 53 or Item 51 + 53 or Item 54, whichever is applicable) \$ 2,758,195 (55)
10. ACTUAL OR ESTIMATED MEMBER CONTRIBUTIONS to the pension plan for the year beginning on the valuation date \$ 3,127,815 (56)

Section VI - Actuarial Data (Cont'd)

INSTRUCTIONS: If insurance/annuity contracts are maintained pre-retirement to fund a portion of the benefits provided by the pension plan at retirement, enter the information requested in items 11-20 below. Otherwise, do not complete items 11-20.

Note: For item 20, include "side fund" amortization contribution for the initial UAL established 1/1/85 and the aggregated "side fund" amortization contribution for increases and decreases in the UAL occurring after 1/1/85. Attach a facsimile of Schedule C, Section II, to support the entry for item 20.

A. Summary of Actuarial Data (Cont'd)

- | | | |
|---|----------|------|
| 11. ACTUARIAL PRESENT VALUE OF INSURANCE/ANNUITY CONTRACT CASH
VALUES AT RETIREMENT as of valuation date | \$ | (57) |
| 12. ADJUSTED ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS
as of valuation date (1 - 11) | \$ | (58) |
| 13. ADJUSTED ACTUARIAL PRESENT VALUE OF FUTURE NORMAL COST
as of valuation date | \$ | (59) |
| 14. ADJUSTED ACTUARIAL ACCRUED LIABILITY
as of valuation date | \$ | (60) |
| 15. ACTUARIAL VALUE OF ASSETS, excluding aggregate insurance/annuity
cash surrender value, as of valuation date | \$ | (61) |
| 16. ADJUSTED UNFUNDED ACTUARIAL ACCRUED LIABILITY
as of valuation date (+ or -) | \$ | (62) |
| 17. ADJUSTED NORMAL COST, excluding administrative expenses, payable as of
valuation date for the plan year beginning on valuation date..... | \$ | (63) |
| 18. ANNUAL INSURANCE/ANNUITY PREMIUM PAYMENTS for the plan year
beginning on valuation date | \$ | (64) |
| 19. GROSS ADJUSTED NORMAL COST for the plan year beginning on valuation date (17 + 18): | | |
| a. As a dollar amount | \$ | (65) |
| b. As a percentage of payroll | % | (66) |
| 20. ADJUSTED AMORTIZATION CONTRIBUTION calculated as a level dollar amount
for the plan year beginning on valuation date | \$ | (67) |

¹ The average of the prior year's administrative expenses and the estimated administrative expenses for the current year. If the amount entered exceeds the prior year's expenses (Section V, Part A, Item 12) by more than 10%, attach an exhibit detailing the administrative expenses for the year beginning on the valuation date.

² Initial unfunded actuarial accrued liability may be established later than 1/1/1985 if coincidental with the establishment of the pension plan or with the initiation of a new amortization schedule authorized by Act 82 of 1998.

³ Enter N/A unless municipality has been certified to use level percentage of payroll amortization pursuant to Section 607 of Act 205.

⁴ If the municipality has formally elected to apply the limit on the amortization contribution under section 202(b)(4), enter the modified total amortization requirement calculated as the amount required to amortize the unfunded actuarial accrued liability over ten years. Otherwise, enter N/A.

Section VI - Actuarial Data - (Cont'd)

B. Additional Information

INSTRUCTIONS: Print or type the information requested in the space provided. Enter "N/A", if applicable. Do not leave blanks or refer to exhibits.

1. MAJOR ECONOMIC ACTUARIAL ASSUMPTIONS

- a. Interest or investment earnings rate 9.00 % (68)
 b. Salary projection 4.00 % (69)

2. ADMINISTRATIVE ARRANGEMENT (Enter corresponding number. ➡) 1 (70)

- | | | | |
|----------------------------|--|----------------------------|--|
| <input type="checkbox"/> 1 | - Self administered fund | <input type="checkbox"/> 4 | - Insured deposit administration contract |
| <input type="checkbox"/> 2 | - Bank or other trust fund | <input type="checkbox"/> 5 | - Immediate participation guarantee contract |
| <input type="checkbox"/> 3 | - Split-funded plan - Insurance plus side fund | <input type="checkbox"/> 6 | - Pennsylvania Municipal Retirement System |
| <input type="checkbox"/> 7 | - Other (Describe) _____ | | |

3. COST FOR ACTUARIAL SERVICES to be billed or charged for completing this reporting form and for preparing the associated actuarial valuation report \$ _____ (71)

C. Certification of Actuarial Data

I hereby certify that I have prepared and reviewed the actuarial data and information entered in Part A and Part B of this section and in Schedule C and that the data and information provided is to the best of my knowledge true and accurate.

I further certify that I have five years of actuarial experience with public pension plans and that I am (Initial appropriate box.)

☐ a member of the American Academy of Actuaries enrolled in 19 _____

☒ an enrolled actuary pursuant to the Employee Retirement Income Security Act of 1974, No. 99-3925

Kevin P. Counihan
 (Signature)

03-23-00
 (Date)

Kevin P. Counihan
 (Name)

(412) 394-9660 (72)
 (Telephone)

Mockenhaupt Associates
 (Name of Firm)

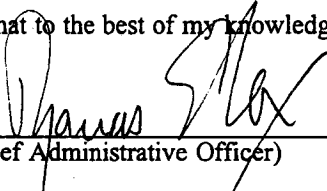
(73)

Section VII - Certification of Report by the Chief Administrative Officer of the Municipality

INSTRUCTIONS: Ensure that Schedule A, Schedule B and Schedule C are completed and attached to the reporting form. Review the information entered in each section of the reporting form and the information provided in the schedules. Then complete the certification below and return the original reporting form to the Commission at the address indicated on page one of the reporting form. ***Retain a copy of the completed reporting form for audit compliance purposes.***

Note: To be completed by the person officially designated as the Chief Administrative Officer of the municipality under Act 205 of 1984.

I hereby certify that to the best of my knowledge the information provided in this report is complete, true and accurate.


(Signature of Chief Administrative Officer)

3-24-00
(Date)

Thomas Cox Executive Secretary
(Name of Chief Administrative Officer) (Print or type)

(412) 255-2694
(Telephone)

SCHEDULE A - Demographic Data as of JANUARY 1, **1999** CITY OF PITTSBURGH ALLEGHENY
 Page 1 of 2 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Print or type the requested information in the space provided. For totals, enter zero if applicable. Refer to attachments or exhibits only to explain or support data entered on the schedule.

PART I - DEMOGRAPHIC DATA FOR RETIRED MEMBERS		
AGE	NUMBER	ANNUAL PENSION PAYABLE
Under 30		
30-34		
35-39	2	22,055
40-44	12	126,586
45-49	18	184,803
50-54	50	389,687
55-59	114	915,051
60-64	222	2,260,132
65-69	316	2,782,389
70-74	383	3,044,768
75-79	314	2,340,306
80-84	185	1,286,090
Over 84	134	791,994
TOTALS	1,750	14,143,859

PART II - DEMOGRAPHIC DATA FOR MEMBERS TERMINATED WITH VESTING		
AGE	NUMBER	ANNUAL PROJECTED PENSION
Under 25		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
Over 69		
TOTALS		

SCHEDULE A - Demographic Data as of JANUARY 1, **1999** CITY OF PITTSBURGH ALLEGHENY
 Page 2 of 2 (Valuation Date) (Municipality) (County)

Part III - Distribution of Active Members by Age and Service

AGE		YEARS OF SERVICE									
		1	2	3	4-5	6-10	11-15	16-20	21-25	26-30	30+
Under 20	No. of Members	1									
	Payroll (\$000)	0									
20-24	No. of Members	13	2								
	Payroll (\$000)	364	77								
25-29	No. of Members	48	8	10	8	8					
	Payroll (\$000)	1717	233	310	286	259					
30-34	No. of Members	32	12	17	31	58	8		1		
	Payroll (\$000)	932	387	566	899	1913	263		40		
35-39	No. of Members	24	7	14	31	86	78	38	1		
	Payroll (\$000)	686	206	317	899	2729	2693	1306	39		
40-44	No. of Members	27	14	17	39	108	100	145	78		
	Payroll (\$000)	838	353	436	1073	3392	3262	4960	2662		
45-49	No. of Members	27	6	13	20	82	93	109	146	27	1
	Payroll (\$000)	772	201	299	625	2350	2977	3782	5235	898	25
50-54	No. of Members	15	6	6	13	43	66	56	67	40	15
	Payroll (\$000)	434	130	148	536	1108	1834	1561	2340	1367	442
55-59	No. of Members	6	1	3	8	38	38	35	51	27	22
	Payroll (\$000)	129	23	87	153	1050	1083	917	1508	918	729
60-64	No. of Members	3		7	7	23	14	10	15	11	13
	Payroll (\$000)	73		130	266	640	382	311	453	353	452
65 & Over	No. of Members		1		1	11	5	8	5	8	7
	Payroll (\$000)		20		22	218	159	206	153	252	195
TOTAL MEMBERS		196	57	87	158	457	402	401	364	113	58
TOTAL ANNUAL PAYROLL		5945	1630	2292	4758	13658	12655	13041	12431	3788	1843

SCHEDULE B - Financial Data as of JANUARY 1, **1999** CITY OF PITTSBURGH ALLEGHENY
Page 1 of 3 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Print or type the requested information in the space provided. Round to the nearest dollar. Enter zero, if applicable. Refer to attachments or exhibits only to explain or support data entered on the schedule.

Section I - Statement of Net Assets Available for Benefits as of the Valuation Date

		Item No.
A. Assets:		
1. Cash	\$ 0	(1)
2. Accrued Interest and Dividends Receivable	\$ 0	(2)
3. Other Receivables (Specify)		
.....	\$ 0	(3)
.....	\$ 0	(4)
.....	\$ 0	(5)
4. Investments at Market Value (Specify)		
<u>SHARE OF AGGREGATE TRUST</u>	\$ 133,566,040	(6)
.....	\$ 0	(7)
.....	\$ 0	(8)
.....	\$ 0	(9)
.....	\$ 0	(10)
5. Insurance/Annuity Cash Surrender Value (Individual Policies)	\$ 0	(11)
6. Other Assets (Specify)		
.....	\$ 0	(12)
.....	\$ 0	(13)
.....	\$ 0	(14)
Total Assets	\$ 133,566,040	(15)
B. Current Liabilities:		
1. Accounts Payable and Accrued Administrative Expenses	\$ 0	(16)
2. Other Current Liabilities (Specify)		
.....	\$ 0	(17)
.....	\$ 0	(18)
.....	\$ 0	(19)
Total Current Liabilities	\$ 0	(20)
C. Net Assets Available for Benefits (Market Value) as of valuation date	\$ 133,566,040	(21)

Section II - Statement of Revenues, Expenses and Change in Fund Assets for the year ended on the Valuation Date

		Item No.
A. Net Assets at Beginning of Year (Market Value)	\$ <u>75,472,322</u>	(1)
 B. Revenues:		
Member Contributions	\$ <u>3,127,815</u>	(2)
Total Municipal Contributions	\$ <u>3,749,173</u>	(3)
a. State Aid Portion \$ <u>2,120,325</u> b. Local Portion \$ <u>1,628,848</u>		
Supplemental State Assistance Grant	\$ <u>0</u>	(4)
Interest Earnings(ALLOCATED INVESTMENT EARNINGS).....	\$ <u>11,576,572</u>	(5)
Dividend Income	\$ <u>0</u>	(6)
Realized Capital Gains	\$ <u>0</u>	(7)
Other Revenues or Credits (Specify)		
<u>PENSION BOND PROCEEDS</u>	\$ <u>57,041,911</u>	(8)
<u>PASS THROUGH CONTRIBUTIONS</u>	\$ <u>1,053,325</u>	(9)
Total Revenues	\$ <u>76,548,796</u>	(10)
 C. Expenses:		
Total Benefit Payments (Lump Sum)	\$ <u>0</u>	(11)
Total Benefit Payments (Monthly)	\$ <u>16,984,022</u>	(12)
Annuity Purchases (Lump Sum)	\$ <u>0</u>	(13)
Insurance Premiums	\$ <u>0</u>	(14)
Refund of Member Contributions	\$ <u>826,901</u>	(15)
Administrative Expenses	\$ <u>644,155</u>	(16)
Realized Capital Losses	\$ <u>0</u>	(17)
Other Expenses or Debits (Specify)		
.....	\$ <u>0</u>	(18)
.....	\$ <u>0</u>	(19)
Total Expenses	\$ <u>18,455,078</u>	(20)
 D. Net Change in Market Value of Assets (Unrealized Capital Gains or Losses)	\$ <u>0</u>	(21)
 E. Net Assets at End of Year (Market Value)	\$ <u>133,566,040</u>	(22)

Section III - Presentation of the Determination of the Minimum Municipal Obligation (MMO) for Year Ended on Valuation Date

INSTRUCTIONS: Enter data reflecting the minimum municipal obligation developed in the fall of 1997 for the plan year beginning in 1998.
[Section 302(C) of Act 205 of 1984.]

	Item No.
A. IDENTIFICATION OF THE ACTUARIAL VALUATION REPORT used to determine funding requirement (Enter valuation date used in 1997 or earlier year.)	01 / 01 / 1997 (23)
	Mo. Da. Yr.
B. DEVELOPMENT OF MINIMUM MUNICIPAL OBLIGATION under Section 302(c) of Act 205 of 1984. (Enter "N/A" if the asset value exceeded the present value of future benefits in the actuarial valuation report identified in Part A.)	
1. TOTAL ANNUAL PAYROLL projected for year ended on valuation date	\$ 64,489,456 (24)
2. TOTAL NORMAL COST, expressed as a percentage of total annual payroll, derived from actuarial valuation report identified in item 23	4.717 % (25)
3. TOTAL PROJECTED NORMAL COST for year ended on valuation date (Item 24 x Item 25)	\$ 3,041,968 (26)
4. TOTAL AMORTIZATION REQUIREMENT for year ended on valuation date	\$ 3,132,592 (27)
5. TOTAL ADMINISTRATIVE EXPENSES projected for year ended on valuation date	\$ 580,405 (28)
6. TOTAL FINANCIAL REQUIREMENTS (Item 26 + 27 + 28)	\$ 6,754,965 (29)
7. MEMBER CONTRIBUTIONS projected for year ended on valuation date	\$ 3,005,792 (30)
8. FUNDING ADJUSTMENT determined pursuant to Section 302(c)(2) of Act 205 of 1984 for year ended on valuation date ¹	\$ 0 (31)
9. MINIMUM MUNICIPAL OBLIGATION (MMO) for year ended on valuation date (Item 29 - 30 - 31)	\$ 3,749,173 (32)
10. DELINQUENT MMO PLUS INTEREST from plan year beginning in 1997	\$ 0 (33)
11. TOTAL MMO for year ended on valuation date (Item 32 + Item 33)	\$ 3,749,173 (34)
C. DEVELOPMENT OF PRE-AUTHORIZED ADJUSTMENT TO MINIMUM MUNICIPAL OBLIGATION under Section 605 or 607 of Act 205 of 1984. ²	
1. TOTAL MUNICIPAL CONTRIBUTION to the pension plan for the plan year beginning in 1997 (Not less than adjusted MMO for applicable year.)	\$ (35)
2. AMOUNT OF DIFFERENCE (Item 32 - Item 35) (Must be positive value.)	\$ (36)
3. ADJUSTMENT FACTOR APPLICABLE	% (37)
4. ADJUSTMENT AMOUNT (Item 36 x Item 37)	\$ (38)
5. ADJUSTED MMO for the year ended on valuation date (Item 35 + Item 38)	\$ (39)
6. DELINQUENT MMO PLUS INTEREST from plan year beginning in 1997	\$ (40)
7. TOTAL ADJUSTED MMO for year ended on valuation date (Item 39 + Item 40)	\$ (41)

¹ Funding adjustment is applicable where assets exceed actuarial accrued liability and is equal to 10% of the amount of the excess.

² Complete Part C only if municipality was certified under the Act 205 Distressed Municipal Pension System Recovery Program.

SCHEDULE C - Actuarial Data as of JANUARY 1, **1999** CITY OF PITTSBURGH ALLEGHENY
Page 1 of 4 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Complete all items using the entry age normal actuarial cost method. Enter zero, if applicable, and round to the nearest dollar.
Refer to attachments or exhibits only to explain or support data entered on the schedule.

Section I - Presentation of Actuarial Present Value of Future Benefits as of the Valuation Date

		Item No.
A. Actuarial Present Values for Active Members		
(Enter values for ancillary benefits only if valued using EAN.)		
1. Retirement Benefits	\$ 64,051,555	(1)
2. Disability Benefits	\$ 17,928,048	(2)
3. Survivor Benefits	\$ 0	(3)
4. Liability for the Refund of Member Contributions	\$ 1,413,563	(4)
5. Others (Specify) <u>DEATH & MEDICAL PREMIUM & VESTED BENEFITS</u>	\$ 20,009,226	(5)
Subtotal for Active Members	\$ 103,402,392	(6)
B. Actuarial Present Values for Non-Active Members and Benefit Recipients		
1. Deferred Vested Benefits	\$ 0	(7)
2. Retirement Benefits	\$ 79,266,898	(8)
3. Disability Benefits	\$ 20,673,282	(9)
4. Survivor Benefits	\$ 2,639,539	(10)
5. Others (Specify)	\$ 0	(11)
Subtotal for Non-Active Members and Benefit Recipients	\$ 102,579,719	(12)
C. Total Actuarial Present Value of Future Benefits (Without adjustments)	\$ 205,982,111	(13)
D. Total Adjustments for Ancillary Benefits Valued through Approximation Techniques ¹	\$ 2,371,173	(14)
E. Total Actuarial Present Value of Future Benefits (Item 13 + Item 14)	\$ 208,353,284	(15)

¹ A signed statement and accompanying documentation, as specified in Section 203.5 of the Act 205 regulations, must be attached if adjustments are made.

Section II - Unfunded Actuarial Accrued Liability and Amortization Contributions as of Valuation Date

Part A - Initial Unfunded Actuarial Accrued Liability.

Amount of Initial Liability	Date Established	Target Date	Original Amortization Period	Remaining Balance	Level Dollar Amortization Contribution ¹
\$ 53,226,758	1998	2037	40	\$ 54,438,248	\$ 3,132,592 (16)

Part B - Changes in Unfunded Actuarial Accrued Liability since the last actuarial valuation report prepared and submitted under Act 205.

Source	Amount of Liability	Date Established	Target Date	Amortization Period	Amortization Contribution
Benefit Plan Modification	N/A	N/A	N/A	N/A	N/A
Actuarial Assumption Modification	N/A	N/A	N/A	N/A	N/A
Actuarial Losses (+) or Gains (-)	531,346 ²	1999	2013	15	60,475
Post-Retirement Adjustments	N/A	N/A	N/A	N/A	N/A
Total	\$ 531,346	XXXXXX	XXXXXX	XXXXXX	\$ 60,475 (17)

Part C - Aggregation of Changes in Unfunded Actuarial Accrued Liability Since Initially Established in 1985.

Description	Remaining Balance of Aggregated Liability	Date of Aggregation	Aggregated Target Date	Agg. Amortization Period	Aggregated Amortization Contribution
Aggregation of all prior changes (exclude changes in Section B)	\$ -4,242,458	1998	2017	19	\$ -434,873 (18)
Aggregation of all changes (include changes in Section B)	\$ -3,711,112	Current Valuation Date	2018	20	\$ -374,398 (19)

¹ Level percentage of future payroll amortization contribution should be entered where the municipality has previously implemented that amortization approach pursuant to Section 607 of Act 205.

² Attach exhibit of the actuarial valuation report showing development of expected unfunded actuarial accrued liability.

Section III - Presentation of Actuarial Assumptions and Methods

A. Actuarial Assumptions

1. Interest Rate - 9.0 percent increase per annum.
2. Salary Projection - 4.0 percent increase per annum.
Merit Increase: 0.5 percent increase per annum.
Inflation: 3.5 percent increase per annum.
3. Disability Rates - See appendix.
4. Termination Rates - See appendix.
5. Mortality - Healthy: UP-1984 Table, with female ages set back five years.
Disabled: UP-1984 Table, with male ages set forward five years.
6. Retirement Age - Active members are assumed to retire one year earlier than two-thirds of the way between:
(a) age 60 with 8 years of service (or current age, if later), and
(b) age 65 with 8 years of service (or current age, if later).
7. Other (Specify) - Administrative Expenses: 0.9 percent of payroll.
8. Other (Specify) - Pre-Retirement Death Benefits: 2.5 percent of the pension, disability, and withdrawal liabilities.
9. Other (Specify) - _____

- B. Actuarial Cost Method (Specify) Entry age normal cost as specified by Act 205 of 1984.

Section IV - Presentation of Benefit Plan Provisions

A. Eligibility Requirements

Normal Retirement Later of age 60 or completion of 8 years of service.
Early Retirement Later of age 50 or completion of 8 years of service.
Vesting If hired before 1975, 100 percent after the completion of 15 years of service.
If hired after 1974, the attainment of age 40 and the completion of 8 years of service.

B. Retirement Benefit (Describe fully including Social Security offsets, service increments, etc. and include period over which final average salary is determined if benefit salary related.)

For members hired after 1975, a monthly benefit equal to 50 percent of average compensation (averaged over 36 months if hired before 1988; averaged over 48 months if hired after 1987), plus an additional 1.0 percent of average compensation (Cont.)

C. Survivor Benefit (Describe fully including indication of whether benefit is automatic or provided at the election of individual members.)

Pre-Retirement, Before Early Retirement Eligibility: Refund of contributions, plus interest. Pre-Retirement, After Early Retirement Eligibility: A monthly benefit equal to 50 percent of the pension the participant was entitled to receive or the (Cont.)

D. Disability Benefit (Describe fully including offset provisions, service requirements, extent of disability, etc.)

Service Related For total and permanent disablement, a monthly benefit equal to the participant's normal retirement benefit at date of disablement.

Non-service Related If total and permanent disablement occurs after the completion of 8 years of service, a monthly benefit equal to the participant's normal retirement benefit at date of disablement.

E. Post Retirement Adjustments (Describe fully including frequency of adjustment, basis for adjustment, minimum/maximum adjustments etc.)

None.

F. Other Benefit (Specify and describe.)

Vesting: If eligible, the accrued benefit at termination payable at the participant's normal retirement age.

G. Other Benefit (Specify and describe.)

None.

H. Member Contributions

Amount or Rate Members hired before 1988; 5 percent of compensation. Members hired (Cont.)
Interest Rate Credited to Member Contributions 0 %

Section IV - Presentation of Benefit Plan Provisions Continued

Retirement Benefit Cont.: for each completed year of service in excess of 20 years to a maximum of \$100 per month. Upon attainment of age 65, the benefit will be reduced by 50 percent of the social security benefit; the reduction shall not exceed 50 percent of the monthly benefit.

For members hired before 1975, with an average compensation (averaged over the final 36 months of employment) less than \$450, a monthly benefit equal to 60 percent of their average compensation (shall not be less than \$130), plus an additional 1.0 percent of average compensation for each completed year of service in excess of 20 years to a maximum of \$100.

For members hired before 1975, with an average compensation (averaged over the final 36 months of employment) greater than \$450, a monthly benefit equal to 55 percent of the first \$650 of average compensation and 30 percent of the excess compensation, plus an additional 1.0 percent of average compensation for each completed year of service in excess of 20 years of service to a maximum of \$100.

Survivor Benefit Cont.

Pre-Retirement, After Early Retirement Eligibility Cont.: date of death payable to the spouse until death or remarriage, at which time the participant's children will share the benefit until their 18th birthday.

After Retirement: The surviving beneficiary will receive an amount equal to the excess, if any, of member's contributions over the retirement benefit paid on the member's behalf.

Member Contributions Cont.

Amount or Rate Cont.: after 1987; 4 percent of compensation.

CITY OF PITTSBURGH MUNICIPAL PENSION FUND

Attachment to Schedule C, Section I, Part D ACT 205 Form for 1999

Statement Required by Section 203.5 of the ACT 205 regulations regarding the case of an approximation technique for the valuation of ancillary benefits.

Benefit Valued by an Approximation Technique	Loading of Actuarial Values and Normal Cost	Used in Prior Valuation?
Pre-Retirement Death Benefits	2.50%	<u>N</u>

An explicit valuation of the benefits noted in this attachment requires complex calculations which do not materially improve the accuracy of the resulting funding costs. The decision to adopt the loading method or to continue it from prior years has been made because of the greater simplicity and timeliness of the method for a situation in which the exact approach does not improve the reliability of the results.

The use of this administratively simpler procedure is less costly and more timely. The total expected cost of these benefits is small compared to the total cost of retirement benefits. The loading is selected and monitored periodically to be representative in the aggregate of what a more exact calculation would produce. In my judgment, no significant distortion will occur as a result of using the loading factor rather than an exact procedure under the entry age actuarial cost method.

Certified by

Date

Kevin P. Counihan
Kevin P. Counihan, F.S.A., E.A.
Enrolled Actuary No. 99-3925

03-23-00

CITY OF PITTSBURGH MUNICIPAL PENSION FUND
ATTACHMENT TO SCHEDULE C, SECTION III, ACT 205 FORM FOR 1999

Documentation required for certain actuarial assumptions by Section 203.3 of the ACT 205 regulations regarding the Range of Economic Actuarial Assumptions.

This actuarial report utilizes assumptions regarding salary projections and interest which taken together, fall outside of the range prescribed in paragraph (b)(3) of Section 203.3 of the regulations. The guidelines provide that the salary projection rate should be not more than 3 percent less than the actuarial assumption as to interest. For this Plan, the interest rate assumed is 9.0 percent per annum and the salary increase assumption is 4.00 percent per annum, a difference of 5.0 percent.

For 1999, we believe that using an interest rate and salary increase assumption within the guidelines would have been inappropriate, and that using our particular choice of actuarial assumptions was appropriate because of the reasons described below:

1. The 1997 experience investigation concluded that for the prior four years the average annual increase in salaries to continuing participants of 3.6 percent per annum. During the eight years ending 1996, the increases averaged 4.0 percent per annum. As of the valuation date, the outlook appeared to indicate that it was reasonable for increases to continue at this magnitude for at least the near term.
2. The average investment return for the period from January 1, 1985 through December 31, 1996 was 10.0 percent. Thus, on average, the fund exceeded the valuation rate of return over a 12-year period, even though that period included some years (such as 1994) in which the markets were down. Reducing the assumption to 7.0 percent (which could put the difference with the salary scale at 3 percent, and not require specific documentation) would have understated long-term expectations of interest earnings. The City's investment policies appear to support the reasonableness of the 9.0 percent assumption.

Because this difference is greater than both the regulation and the differences most commonly found in pension valuations the situation is being carefully and regularly monitored to assure the differential continues to be justified.

Certified By:

Kevin P. Counihan
F.S.A., E.A.

KPC:tlc:it/act205/pp11353

Attachment to Schedule C, Section III

Actuarial Basis of Valuation

Actuarial Assumptions: January 1, 1999

Economic

- Interest Rate 9.0 percent increase per annum
 - Salary Projection 4.0 percent increase per annum
- Merit Increase: 0.5 percent increase per annum
- Inflation: 3.5 percent increase per annum

Social Security Benefits

Actives: Offset based on 1998 Replacement Ratios remaining constant to retirement.

Retirees: Offset based on:

- ☐ actual benefit if 65 or older
- ☐ one third of original pension amount, if less than 65

Medicare Premiums

For 1999, \$45.50 per month. The premium for years thereafter is assumed to increase at a rate of 6.5 percent per annum.

Employee Characteristics

- Mortality
- Healthy: UP-1984 Table, with female ages set back five years
- Disabled: UP-1984 Table, with male ages set forward five years

Attachment to Schedule C, Section III - Continued

- Withdrawal

Sample rates:

Age	Rate
20	8.20%
25	7.98%
30	7.67%
35	7.18%
40	6.40%
45	5.24%
50	3.49%
55	1.28%
60	0.12%

- Disablement

Sample rates:

Age	Male	Female
30	0.09%	0.11%
40	0.21%	0.41%
50	0.65%	0.82%
60	1.93%	1.48%

- Retirement Age

Active members are assumed to retire one year earlier than two-thirds of the way between: (a) age 60 with 8 years of service (or current age, if later); and (b) age 65 with 8 years of service (or current age, if later)

- Exclusions

Non-participants

- Percentage Married

Active: Eighty percent of male participants and 65 percent of female participants

- Spouse Age

Female spouse assumed to be two years younger than male spouse.

Other

- Administrative Expenses

0.9 percent of payroll

- Preretirement Death Benefits

2.5 percent of the pension, disability and withdrawal liabilities.

- Pittsburgh Water and Sewer Authority Payroll

4.0 percent increase in 1997 salaries

Attachment to Schedule C, Section IV

Summary of Plan Provisions

Plan Year

- ☐ Twelve-month period beginning January 1 and ending December 31

Plan Established

- ☐ May 28, 1915

Principal Definitions

Employee

- ☐ Any full-time employee of the City of Pittsburgh, other than a firefighter or police officer, and full-time employees of the Pittsburgh Water and Sewer Authority

*Retirement Benefit
Commencement Date*

- ☐ Assumed to be the first day of the month coincident with or next following eligibility for and election to retire

Service Increment

- ☐ An additional monthly benefit of 1 percent of average compensation for each completed year of service in excess of 20 years to a maximum of \$100

Service

- ☐ Assumed to be completed years of service calculated from date of hire through date of retirement or severance

Normal Form of Payment

- ☐ Monthly pension benefit payable for life

Participation Requirements

Entry Date

- ☐ Following completion of 90-day probationary period

Compensation

Average Compensation

- ☐ Base wages, plus "acting" or "in-grade" pay
- ☐ Averaged over the 3-year period prior to retirement or severance

Members hired after December 31, 1987

- ☐ Averaged over the 4-year period prior to retirement or severance

Attachment to Schedule C, Section IV - Continued

Normal Retirement

Eligibility

☐ Later of age 60 *or* completion of 8 years of service

Monthly Benefit

☐ Equal to 50% of average compensation and service increment, if any

☐ Prorated for service less than 20 years

☐ Upon reaching age 65 reduced by 50% of social security benefit; the reduction shall not exceed 50% of the monthly benefit

Members hired prior to January 1, 1975

If pay is less than \$450:

☐ Equal to 60% of 3-year average pay

☐ Not less than \$130

☐ Plus service increment, if any

OR

If pay is greater than \$450:

☐ 55% of first \$650 of 3-year average pay *and* 30% of excess

☐ Not less than \$270

☐ Plus service increment, if any

Supplemental Medical

☐ Eligible retired members and spouses will receive additional monthly payment equal to medicare coverage premium

☐ Employees hired after December 31, 1987 not eligible

Early Retirement

Eligibility

☐ Later of age 50 *or*

☐ Completion of 8 years of service

Benefit Amount

☐ Normal retirement benefit based upon average compensation at actual retirement

☐ May be deferred to age 60 *or* paid immediately in reduced amount

☐ Reduction will be 1/2 percent per month for each month that payment commences prior to age 60

Members hired prior to January 1, 1975

☐ If 25 years service, reduction applied only on benefits attributed to earnings in excess of \$7,800

Attachment to Schedule C, Section IV - Continued

Disability

Eligibility

- ☐ Permanent disablement in line of duty *or*
- ☐ Permanent disablement (not in line of duty) after completing 8 years of service

Benefit Amount

- ☐ Normal retirement benefit at date of disablement
- ☐ Not prorated for service less than 20 years

Members Hired After December 31, 1987

- ☐ Normal retirement benefit if at least age 60 with 8 years of service

Members Hired After December 31, 1987(Cont'd.)

- ☐ Disabled before age 60 with at least 8 years of service calculated as of age 60 with service being greater of:
 - (a) Service at disablement or
 - (b) The lesser of 20 years and completed service (assuming work until age 60)
- ☐ Benefit is reduced so that the sum of the plan benefit and workers' compensation does not exceed member's regular salary at time of disablement

Benefit Commencement Date

- ☐ First day of calendar month following determination of disablement *and*
- ☐ Continuing for the duration of disability prior to normal retirement date and life thereafter

Vesting

Members hired prior to January 1, 1975

- ☐ Attainment of age 40 *and*
- ☐ Completion of 8 years of service

Vested Terminated Participants

- ☐ Completion of 15 years of service/no age requirement
- ☐ Normal retirement benefit if contributions continue to age 50
- ☐ Benefit deferred to age 60

Attachment to Schedule C, Section IV - Continued

Death Benefits Before Retirement

Death After Early Retirement Eligibility

- ☐ Surviving spouse entitled to 50% of pension that would have been payable if member retired at date of death

Death Before Early Retirement Eligibility

- ☐ Member's beneficiary receives amount equal to member's contributions

Death Benefits After Retirement

Members Hired Prior to 1988

- ☐ Member's beneficiary receives amount equal to the excess, if any, of member's contributions over retirement benefit paid on member's behalf
- ☐ Married employee may deduct up to \$100 per month from retirement benefit to provide a \$100 per month benefit payable to surviving spouse until death or remarriage

Spouse Predeceases Retiree

- ☐ Monthly benefit restored to full level for remainder of retiree's life
- ☐ At no time shall total benefit payment on behalf of member be less than the member's contributions to the fund

Members Hired After December 31, 1987

- ☐ Married member may elect a reduced pension
- ☐ Spouse will receive 50% of the reduced pension
- ☐ Member's pension not restored to full level if spouse predeceases retiree
- ☐ Total benefit payments on behalf of member will be no less than member's contribution to fund

Employee Contributions

Members hired prior to January 1, 1988

- ☐ 4% of compensation
- ☐ 5% of compensation

Exhibit I

Actuarial Data as of JANUARY 1, 1999. For: MUNICIPAL of CITY OF PITTSBURGH in ALLEGHENY
 Page 1 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

GENERAL INSTRUCTIONS: This exhibit is to be completed only if the municipality is reporting the issuance of bonds (or notes, if applicable) to fund unfunded actuarial accrued liabilities under section 404 of Act 205 of 1984. The bond issue proceeds contributed to the pension plan are amortization contributions allocated under section 202(b)(4) of Act 205. The data requested in this exhibit is modified to reflect the funded status of the pension plan that would exist had the bond issue proceeds not been contributed to the pension plan. Print or type the data requested, rounded to the nearest dollar, in the space provided. Enter zero or negative values, if applicable. Do not leave blanks or refer to exhibits.

NOTE: Earnings on bond issue proceeds contributed to the pension fund are to be calculated proportionately, based on the ratio of borrowed assets to total assets at market value as of the valuation date occurring on or immediately following the date on which the borrowed assets were contributed.

A. Summary of Modified Actuarial Data

1. ACTUARIAL ACCRUED LIABILITY as of valuation date \$ 184,293,176 (E)
 (Enter amount reported in item 42 on page 4 of the reporting form.)
2. TOTAL FUND ASSETS
 - a. Market Value of Assets ¹ \$ 29,756,419 (E2)
 - b. Actuarial Value of Assets reported in Item 2a above \$ 29,756,419 (E)
3. UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -) \$ 154,536,757 (E)
 (Item 1 minus Item 2b)
4. AMORTIZATION CONTRIBUTIONS
 - a. For amortization of initial unfunded actuarial accrued liability established 1/1/85. ²
 - 1) Amortization period remaining (years) 39 (E)
 - 2) Amortization contribution calculated as a level dollar amount for the
 plan year beginning on valuation date \$ 9,121,224 (E)
 - 3) Amortization contribution calculated as a level percentage of payroll for the
 plan year beginning on valuation date ³ \$ N/A (E)
 - b. For amortization of all increases or decreases in unfunded actuarial accrued
 liability occurring after 1/1/85 or the initial UAL's establishment. ²
 - 1) Aggregated amortization period (years) 19 (E)
 - 2) Aggregated amortization contribution calculated as a level dollar amount for the
 plan year beginning on valuation date \$ -404,097 (E)
 - c. Modified Total Amortization Requirement ⁴ \$ N/A (E)
 - d. Total Amortization Requirement (Item E6 + E9 or Item E7 + E9 or Item E10,
 whichever is applicable) \$ 8,717,127 (E)

¹The value must equal the Total Fund Assets that would have existed had the bond issue proceeds not been contributed to the pension fund, as developed in Schedule II of this exhibit.

²Initial unfunded actuarial accrued liability may be established later than 1/1/85 if coincidental with the establishment of the pension plan or with the initiation of a new amortization schedule authorized by Act 82 of 1998.

³Enter N/A unless municipality has been certified to use level percentage of payroll amortization pursuant to Section 607 of Act 205.

⁴If the municipality has formally elected to apply the limit on the amortization contribution under section 202(b)(4), enter the modified total amortization requirement calculated as the amount required to amortize the unfunded actuarial accrued liability over ten years. Otherwise, enter N/A.

Exhibit I

Actuarial Data as of JANUARY 1, 1999. For: MUNICIPAL of CITY OF PITTSBURGH in ALLEGHENY
 Page 2 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A modified aggregated amortization period must be developed for each contribution to the pension fund comprised of bond issue proceeds. The modified aggregated amortization period will not change once it is calculated and reported in this exhibit. The modified aggregated amortization period is not used for funding purposes.

B. Development of Modified Aggregated Amortization Period

	Contribution Comprised of Bond Issue Proceeds	Date of Contribution	Modified Aggregated Amortization Contribution Target Date ² (MO/DA/YR)	Modified Aggregated Amortization Period Initially Established ² (Years)	Modified Aggregated Amortization Period Remaining (Years)
1.	\$ 36,509,996	12/15/96	12/15/2035	40	38
2.	\$ 57,041,911	03/10/98	03/10/2037	40 ^{OK} _{DA}	40
3.	\$				
4.	\$				
5.	\$				
6.	\$				
7.	\$				
8.	\$				
9.	\$				
10.	\$				

¹ Contributions to the pension plan shall consist of original bond issue proceeds used to fund unfunded actuarial accrued liability and shall not include refinancing of an amount previously borrowed.

² Determined under section 404 of Act 205 using the unfunded accrued liability and total amortization requirement shown in Part A of this exhibit and the plan's assumed rate of investment earnings. In the event that the period calculated is indeterminate or is in excess of 30 years, the amortization period initially established shall not exceed 30 years.

① 1873,404
 2564,176
 4438,380

Amortization

Commission Use Only

	525,000	P
	4438,380	I ①
Total \$	4,963,380	I

4,152,505

Exhibit I

Actuarial Data as of JANUARY 1, 1999. For: MUNICIPAL of CITY OF PITTSBURGH in ALLEGHENY
 Page 3 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: Provide unfunded actuarial accrued liability and amortization contributions as of valuation date developed under section 404 of Act 205. Bond issue proceeds used to fund unfunded actuarial accrued liabilities are not reflected in the data provided. Submission of the exhibits prepared in compliance with section 202(b)(3) of Act 205 may be required.

Part C - Modified Unfunded Actuarial Accrued Liability and Amortization Contributions

Initial Unfunded Actuarial Accrued Liability					
Amount of Initial Liability	Date Established	Target Date	Original Amortization Period	Remaining Balance	Level Dollar Amortization Contribution
\$ 154,981,297	1998	2037	40	\$ 158,508,814	\$ 9,121,224 (E11)

Changes in Unfunded Actuarial Accrued Liability Since the Last Actuarial Valuation Report Prepared and Submitted Under Act 205.					
Source	Amount of Liability	Date Established	Target Date	Amortization Period	Amortization Contribution
Benefit Plan Modification	N/A	N/A	N/A	N/A	N/A
Actuarial Assumption Modification	N/A	N/A	N/A	N/A	N/A
Actuarial Losses (+) or Gains (-)	270,401	1999	2013	15	30,776
Post-Retirement Adjustments	N/A	N/A	N/A	N/A	N/A
Total	\$ 270,401	XXXXXX	XXXXXX	XXXXXX	\$ 30,776 (E12)

Aggregation of Changes in Unfunded Actuarial Accrued Liability Since Initially Established in 1985					
Description	Remaining Balance of Aggregated Liability	Date of Aggregation	Aggregated Target Date	Agg. Amortization Period	Aggregated Amortization Contribution
Aggregation of all prior changes (exclude changes in Section B)	\$ -4,242,458	1998	2017	19	-434,873 (E13)
Aggregation of all changes (include changes in Section B)	\$ -3,972,057 ¹	Current Valuation Date	2017	19	\$ -404,097 (E14)

¹ The sum of this item (aggregated balance of all changes in UAL) and the remaining balance of the initial liability must equal the amount in Exhibit I, Part A, Item E4.

Exhibit I

Actuarial Data as of JANUARY 1, 1999. For: MUNICIPAL of CITY OF PITTSBURGH in ALLEGHENY
 Page 4 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A separate Part D for debt service requirements is required for each instance where bond issue proceeds are contributed to the pension plan and for each instance where the remaining unpaid principal of such debt is refinanced. If more than one Part D is required, please submit color coded copies or request additional originals from the Commission's office.

NOTE: If the bond issue proceeds contributed to an individual pension plan were less than 100% of the total bond issue proceeds contributed, the total debt service requirements must be proportionately allocated among the individual pension plans based on the ratio of the bond issue proceeds contributed to each individual pension plan to the total bond issue proceeds contributed. In the event of refinancing, Part D is to reflect the revised debt service requirements.

D. Identification and Allocation of Total Debt Service Requirements for Debt Issued to Finance Pension Plan Contributions

Date of Original Borrowing	Total Principal Amount Borrowed and Contributed to Pension Plans	Amount of Total Principal Contributed to this Pension Plan	Percentage of Total Debt Service Allocated to this Pension Plan	Date of Refinancing
12/15/96	\$ 37,710,000.00 (A)	\$ 37,710,000.00 (B)	100 % (B÷A)	N/A

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1. 1997	\$	\$ 1,834,529.78	\$ -	\$ 37,710,000.00
2. 1998	525,000.00	2,564,976.25	-	37,710,000.00
3. 1999	560,000.00	2,533,905.00	-	37,185,000.00
4. 2000	590,000.00	2,499,965.00	-	36,625,000.00
5. 2001	630,000.00	2,463,050.00	-	36,035,000.00
6. 2002	670,000.00	2,423,065.00	-	34,405,000.00
7. 2003	715,000.00	2,379,772.50	-	34,735,000.00
8. 2004	760,000.00	2,332,930.00	-	34,020,000.00
9. 2005	810,000.00	2,282,285.00	-	33,260,000.00
10. 2006	865,000.00	2,227,631.25	-	32,450,000.00
11. 2007	925,000.00	2,169,008.75	-	31,585,000.00
12. 2008	985,000.00	2,106,210.00	-	30,660,000.00
13. 2009	1,055,000.00	2,038,890.00	-	29,675,000.00
14. 2010	1,125,000.00	1,966,950.00	-	28,620,000.00
15. 2011	1,200,000.00	1,890,225.00	-	27,495,000.00
16. 2012	1,285,000.00	1,808,220.00	-	26,295,000.00
17. 2013	1,375,000.00	1,717,690.00	-	25,010,000.00
18. 2014	1,475,000.00	1,617,940.00	-	23,635,000.00
19. 2015	1,580,000.00	1,511,015.00	-	22,160,000.00
20. 2016	1,695,000.00	1,396,390.00	-	20,580,000.00

(Continue on additional pages, if necessary.)

(CONTINUED FROM PAGE 4 OF 6)

	Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1.	2017	\$ 1,820,000.00	\$ 1,273,365.00	\$ -	\$ 18,885,000.00
2.	2018	1,950,000.00	1,141,415.00	-	17,065,000.00
3.	2019	2,095,000.00	998,792.50	-	15,115,000.00
4.	2020	2,250,000.00	844,545.00	-	13,020,000.00
5.	2021	2,415,000.00	678,937.50	-	10,770,000.00
6.	2022	2,590,000.00	501,260.00	-	8,355,000.00
7.	2023	2,780,000.00	310,625.00	-	5,765,000.00
8.	2024	2,985,000.00	105,967.50	-	2,985,000.00
9.					
10.					
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12.					
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18.					
19.					
20.					

(Continue on additional pages, if necessary.)

Exhibit I

Actuarial Data as of JANUARY 1, 1999. For: MUNICIPAL of CITY OF PITTSBURGH in ALLEGHENY
Page 4 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A separate Part D for debt service requirements is required for each instance where bond issue proceeds are contributed to the pension plan and for each instance where the remaining unpaid principal of such debt is refinanced. If more than one Part D is required, please submit color coded copies or request additional originals from the Commission's office.

NOTE: If the bond issue proceeds contributed to an individual pension plan were less than 100% of the total bond issue proceeds contributed, the total debt service requirements must be proportionately allocated among the individual pension plans based on the ratio of the bond issue proceeds contributed to each individual pension plan to the total bond issue proceeds contributed. In the event of refinancing, Part D is to reflect the revised debt service requirements.

D. Identification and Allocation of Total Debt Service Requirements for Debt Issued to Finance Pension Plan Contributions

Date of Original Borrowing	Total Principal Amount Borrowed and Contributed to Pension Plans	Amount of Total Principal Contributed to this Pension Plan	Percentage of Total Debt Service Allocated to this Pension Plan	Date of Refinancing
<u>03/10/98</u>	<u>\$ 255,865,000.00</u>	<u>\$ 57,569,624.42</u>	<u>22.3</u> %	<u>N/A</u>
	(A)	(B)	(B÷A)	

	Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1.	1998	\$ -	\$ 1,873,403.84	\$ -	\$ 57,569,624.42
2.	1999	225,000.00	3,740,451.43	-	57,569,624.42
3.	2000	225,000.00	3,727,795.18	-	57,344,624.42
4.	2001	225,000.00	3,715,071.43	-	57,119,624.42
5.	2002	225,000.00	3,702,111.43	-	56,894,624.42
6.	2003	225,000.00	3,689,050.18	-	56,669,624.42
7.	2004	225,000.00	3,675,853.93	-	56,444,624.42
8.	2005	563,624.99	3,652,273.94	-	56,219,624.42
9.	2006	521,999.99	3,619,574.69	-	55,655,999.43
10.	2007	553,499.99	3,586,902.44	-	55,133,999.44
11.	2008	577,124.99	3,552,346.23	-	54,580,499.45
12.	2009	623,249.99	3,512,858.03	-	54,003,374.46
13.	2010	677,249.99	3,469,880.22	-	53,380,124.47
14.	2011	726,749.99	3,426,005.22	-	52,702,874.48
15.	2012	1,775,249.98	3,347,373.91	-	51,976,124.49
16.	2013	2,471,624.98	3,212,979.43	-	50,200,874.51
17.	2014	2,630,249.97	3,049,022.22	-	47,729,249.53
18.	2015	2,860,874.97	2,870,560.66	-	45,098,999.56
19.	2016	3,050,999.97	2,678,424.72	-	42,238,124.59
20.	2017	4,105,124.96	2,445,850.66	-	39,187,124.62

(Continue on additional pages, if necessary.)

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	Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1.	2018	\$ 2,977,874.97	\$ 2,215,653.17	\$ -	\$ 35,081,999.66
2.	2019	4,506,749.95	1,970,149.48	-	32,104,124.69
3.	2020	4,814,999.95	1,662,531.73	-	27,597,374.74
4.	2021	5,143,499.95	1,333,901.23	-	22,782,374.79
5.	2022	5,495,624.94	982,810.12	-	17,638,874.84
6.	2023	5,871,374.95	607,699.11	-	12,143,249.90
7.	2024	6,271,874.95	206,971.86	-	6,271,874.95
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