

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**VERIFIED PETITION OF WESTFIELD GAS, LLC,)
D/B/A CITIZENS GAS OF WESTFIELD FOR (1))
AUTHORITY TO INCREASE RATES AND CHARGES)
FOR GAS UTILITY SERVICE AND APPROVAL OF A)
NEW SCHEDULE OF RATES AND CHARGES; (2))
APPROVAL OF CERTAIN REVISIONS TO ITS)
TERMS AND CONDITIONS APPLICABLE TO GAS) CAUSE NO. 45761
UTILITY SERVICE; AND (3) APPROVAL PURSUANT)
TO INDIANA CODE SECTION 8-1-2.5-6 OF AN)
ALTERNATIVE REGULATORY PLAN UNDER)
WHICH IT WOULD CONTINUE ITS ENERGY)
EFFICIENCY PROGRAM PORTFOLIO AND)
ENERGY EFFICIENCY RIDER)**

**VERIFIED DIRECT TESTIMONY
of
CAMELA JOHNSON**

On Behalf of

Westfield Gas, LLC

Petitioner's Exhibit No. 4

1 **INTRODUCTION AND BACKGROUND**

2 **Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A1. My name is Camela Johnson. My business address is 2020 North Meridian Street,
4 Indianapolis, Indiana.

5 **Q2. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A2. I am employed by the Board of Directors for Utilities of the Department of Public Utilities
7 of the City of Indianapolis (the "Board of Directors" or "Board"), which does business as
8 Citizens Energy Group ("Citizens"), as its Senior Accounting Manager, Shared Services
9 and Financial Planning. Citizens also owns the stock of Citizens By-Products Coal
10 Company d/b/a Citizens Resources, which itself owns a number of energy and utility
11 related businesses. Citizens Westfield Utilities, LLC ("CWU"), which is a subsidiary of
12 Citizens Resources, owns the sole membership interest in Westfield Gas, LLC d/b/a
13 Citizens Gas of Westfield ("Westfield Gas" or "Petitioner"), which is the Petitioner in this
14 proceeding.

15 **Q3. PLEASE DESCRIBE THE DUTIES AND RESPONSIBILITIES OF YOUR
16 PRESENT POSITION.**

17 A3. The duties of my present position, effective May 2022, include managing the financial
18 planning function of Citizens and the accounting activities for the Shared Services business
19 unit.

20 **Q4. HOW LONG HAVE YOU BEEN EMPLOYED BY CITIZENS ENERGY GROUP?**

21 A4. I have been employed by Citizens since January 2013.

22 **Q5. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

1 A5. I graduated from Indiana University's Kelley School of Business – Indianapolis in 1991
2 with a Bachelor of Science degree in Accounting. I am a certified public accountant.

3 **Q6. PLEASE DESCRIBE YOUR PRIOR BUSINESS EXPERIENCE?**

4 A6. From 1991 to 2006, I worked for Cinergy Corp. (now part of Duke Energy) in positions of
5 increasing responsibility in various accounting and financial functions. My responsibilities
6 included preparing journal entries, regulatory reports, financial reports, and budgets, as
7 well as developing training modules for the company's financial employees.

8 From 2006 to 2009, I was a stay-at-home mother for my newly adopted children.

9 From 2009 to early 2013, I was employed by Zempleo, Inc., which assigned me as
10 a full-time contractor to Duke Energy in their Smart Grid Support department. My
11 responsibilities included tracking inventory for meters and communication nodes,
12 preparing journal entries, reviewing monthly allocation calculations, reviewing capital
13 projects, and answering data requests from the Public Utility Commission of Ohio for
14 annual rider filings.

15 From 2013 to date, I have been employed by Citizens in positions of increasing
16 responsibility. From January 2013 to May 2013, I served as Senior Accountant in Property
17 Records where I was responsible for preparing asset documentation and journal entries.

18 From May 2013 to February 2015, I served as the Financial Accounting Supervisor
19 in Property Records. My duties included supervising the property records functions and
20 coordinating the preparation of annual reports to the Indiana Utility Regulatory
21 Commission.

1 From February 2015 to January 2019, I served as the Financial Accounting
2 Manager in Property Records. In addition to managing the property records functions, I
3 prepared budgets, provided data for financial footnotes, reviewed monthly depreciation
4 calculations, and reviewed annual property tax returns. I also assisted with workpaper
5 documentation and data request answers for rate case proceedings.

6 From February 2019 to April 2022, I served as the Manager of Financial Planning
7 and Regulatory Accounting. My duties included coordinating the financial planning
8 process for Citizens and providing accounting support for regulatory matters. Additionally,
9 I provided oversight for the property records functions, which included the review of
10 internal accounting policies, monthly depreciation calculations, and annual property tax
11 returns.

12 From May 2022 to date, I have served as the Senior Accounting Manager, Shared
13 Services and Financial Planning. In that role, I am responsible for managing the accounting
14 processes for the Shared Services business unit and maintaining the allocation
15 methodology. I also continue to manage Citizens' financial planning process.

16 **Q7. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

17 A7. No.

18 **Q8. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

19 A8. The purpose of my testimony is to sponsor pro forma adjustments for my areas of expertise
20 based on my work experience through the end of the test year, namely adjustments related
21 to property taxes, depreciation, and amortization expense, including cloud computing
22 amortization recorded in Other Operating Expenses. I submit information regarding pro

1 forma changes to depreciation rates. In addition, I provide support for original cost net
2 plant in service and original cost rate base as of December 31, 2021.

3 **Q9. WHAT HAVE YOU DONE TO PREPARE YOURSELF TO TESTIFY IN THIS**
4 **PROCEEDING?**

5 A9. In the managerial position I held until May 2022, my responsibilities included the
6 interpretation of accounting standards and review of accounting activity related to plant in
7 service and other assets, applicable depreciation and amortization, and property taxes. In
8 the normal course of performing those duties, I met with certain members of Citizens'
9 accounting staff who are responsible for making entries to the asset subsystem, and certain
10 subject matter experts in operations and engineering, in order to complete my review. I
11 have read the Verified Petition and direct testimony and attachments related to Petitioner's
12 revenue requirements in this proceeding. I have also familiarized myself with certain parts
13 of the Indiana Code pertaining to my testimony, and I have relied upon the advice of
14 counsel in interpreting said sections of the Code.

15 **PRO FORMA ADJUSTMENTS**

16 **Overview**

17 **Q10. PLEASE PROVIDE A HIGH-LEVEL ASSESSMENT OF PETITIONER'S PRO**
18 **FORMA ADJUSTMENTS WHICH YOU ARE SPONSORING.**

19 A10. In summary, the test year amount incurred for property taxes, depreciation, amortization
20 expense, and cloud computing amortization expense of \$899 thousand is higher than going-
21 level costs for these same expenses of \$657 thousand. Outlined below is a summary and
22 explanation of the key drivers for these specific pro forma adjustments:

Test Year Amounts for Sponsored Expenses	899,459
Pro Forma Adjustments:	
Property Taxes	3,582
Depreciation	(137,132)
Amortization	(109,930)
Cloud Computing Amortization in Operating Expenses	901
Pro Forma Amounts for Sponsored Expenses	656,880

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Property taxes show an increase primarily due to increased assessment values.

Depreciation expense is decreasing primarily due to the proposed implementation of depreciation rate changes.

The decrease in amortization expense represents the removal of test year expenses related to the amortization of the acquisition adjustment.

Cloud computing amortization expense shows an increase due to normalizing the costs to represent a full year of the expense.

Q11. IS PETITIONER PROPOSING ANY OTHER PRO FORMA ADJUSTMENTS?

A11. Yes. Petitioner's witnesses, Sabine Karner and Debi Bardhan-Akala, will address additional pro forma adjustments in their separate testimonies for this Cause.

Q12. WHAT STEPS WERE TAKEN BY YOU TO DETERMINE PRO FORMA ADJUSTMENTS TO THE TEST YEAR?

A12. I reviewed property tax returns submitted to the Department of Local Government Finance and current year property tax bills compared to test year expenses. I also read Commission Orders from certain prior Citizens business unit rate cases regarding depreciation rates and allowable expenses. Finally, I reviewed transaction level detail for the cloud computing amortization account to determine whether the expense was reflective of normal and ongoing expenditure levels.

1 **Q13. BRIEFLY EXPLAIN YOUR WORKPAPER FORMAT AND ORDER.**

2 A13. A list of my workpapers is included in Attachment CAJ-1. I used the following numbering
3 scheme for workpapers related to accounting adjustments:

- 4 155: Schedule of utility plant in service and accumulated depreciation by subaccount
- 5 156: Annual summary of plant additions and retirements by subaccount
- 6 450: Pro Forma Adjustments to Property Taxes
- 7 470: Pro Forma Adjustments to Depreciation
- 8 471: Pro Forma Adjustments to Amortization (including Cloud Computing)
- 9 520: Description of utility's methodology for capitalizing construction overhead
- 10 522: Policies and procedures for capitalization of AFUDC
- 11 523: Capitalization policy

12 Where workpapers required additional supporting calculations, I have numbered these
13 supporting workpapers the same as the workpaper in question and added the suffix -Sn,
14 where n denotes the next sequential number (e.g., 450-S1 is a supporting workpaper for
15 workpaper 450).

16 **Q14. DID YOU INCLUDE A SUMMARY OF ALL PRO FORMA ADJUSTMENTS YOU**
17 **SPONSOR IN YOUR TESTIMONY?**

18 A14. Yes. Attachment CAJ-2 presents a summary of pro forma adjustments I calculated to
19 certain operating expenses of Petitioner during the test year. As is noted above, Petitioner's
20 witnesses, Ms. Karner and Ms. Bardhan-Akala, present additional pro forma adjustments
21 they are sponsoring in their own separate summary documents.

22 **Property Taxes**

23 **Q15. PLEASE DESCRIBE YOUR PRO FORMA ADJUSTMENT TO PROPERTY**
24 **TAXES.**

1 A15. I have used the Petitioner's pay-2022 property tax bills to arrive at the pro forma amount
2 for property taxes. The resulting adjustment to the test year accrual amount is an increase
3 of \$3,522 for the Petitioner (see workpaper 450).

4 **Q16. DID YOU MAKE AN ADJUSTMENT FOR PETITIONER'S PORTION OF**
5 **SHARED SERVICES PROPERTY TAXES?**

6 A16. Yes. I used the pay-2022 property tax bills for Shared Services' distributable assessments
7 and real property assessments to compare to test year expenses. Using the same percentage
8 allocation to Petitioner from the test year, I calculated the pro forma allocation amount.
9 The adjustment to the test year accrual amount for Petitioner's portion of Shared Services
10 property taxes is an increase of \$60 (see workpaper 450).

11 **Depreciation Expense**

12 **Q17. PLEASE DISCUSS YOUR PRO FORMA ADJUSTMENT TO DEPRECIATION**
13 **EXPENSE FOR PLANT IN SERVICE.**

14 A17. I established the annual amount of depreciation expense on depreciable utility plant in
15 service as of December 31, 2021, and applied pro forma depreciation rates. I also included
16 Petitioner's share of Shared Services depreciation on plant in service as of December 31,
17 2021. The net adjustment results in a pro forma decrease of \$137,132. My calculations are
18 presented in workpaper 470.

19 **Q18. YOU MENTION PETITIONER'S USE OF PRO FORMA DEPRECIATION**
20 **RATES. PLEASE ELABORATE.**

21 A18. Petitioner currently uses group depreciation rates that were approved in Cause No. 44731
22 dated April 26, 2017, and that are based on a depreciation study dated 2009. In Cause No.

1 45039, Petitioner presented updated depreciation accrual rates from a depreciation study
 2 prepared by consulting firm Gannett Fleming dated 2016. The Commission Order in Cause
 3 No. 45039 dated December 27, 2018, approved the new depreciation accrual rates for
 4 Petitioner but stipulated that the new rates shall not take effect prior to the approval of new
 5 basic rates and charges in Petitioner's next general rate case. The table below provides a
 6 comparison of Petitioner's depreciation rates currently in use and those approved in Cause
 7 No. 45039 as used for pro forma purposes:

Asset Type	Description	Test Year Depr. Rate	Pro Forma Depr. Rate
<u>Distribution</u>			
006-374-0	Land & Land Rights		
006-375-0	Structures & Improvements	1.45%	2.34%
006-376-0	Mains	2.94%	1.96%
006-378-0	Measuring & Regulating Equip.-General	3.31%	2.14%
006-379-0	Measuring & Regulating Equip.-GCCS	3.30%	3.27%
006-380-0	Services	3.98%	2.77%
006-381-0	Meters	3.74%	2.70%
006-382-0	Meter Installations	3.40%	1.74%
006-383-0	House Regulators	3.95%	2.14%
006-385-0	Ind. Meas. & Reg. Station Equip.	3.55%	1.04%
<u>Transmission</u>			
065-366-0	Structures & Improvements	1.87%	1.87%
065-367-0	Mains	2.12%	2.12%
065-369-0	Measuring & Regulating Equipment	2.56%	2.56%

8
 9 Attachment CAJ-3 provides a copy of the depreciation study report dated 2016 that was
 10 filed in Cause No. 45039.

11 At the time of the study in 2016, Petitioner did not have any Transmission assets
 12 placed in service. In consultation with the depreciation study expert, it was determined
 13 that the Marion County transmission assets of Citizens Gas are the most comparable to
 14 Petitioner's transmission assets. The pro forma depreciation accrual rates presented in the
 15 above table for Petitioner's transmission assets are the same depreciation rates currently

1 in effect for Citizens Gas, as established in the 2016 study and implemented on the date
2 of the Order for Cause No. 45039.

3 **Q19. WHAT DEPRECIATION RATES ARE USED BY SHARED SERVICES?**

4 A19. Shared Services is using group depreciation rates that were established in the 2016 study
5 mentioned above, as implemented on the date of the Order for Cause No. 45039.

6 **Amortization Expense**

7 **Q20. PLEASE DESCRIBE YOUR PRO FORMA ADJUSTMENTS ON WORKPAPER**
8 **471 FOR AMORTIZATION EXPENSES.**

9 A20. There are two types of amortization expense included in my pro forma adjustments: (1)
10 amortization of the acquisition adjustment and (2) cloud computing amortization expense
11 which is recorded in Other Operating Expenses. I have removed the test year expense for
12 amortization of the acquisition adjustment for which Petitioner is not seeking recovery,
13 resulting in a pro forma reduction of \$109,930. I also made a pro forma adjustment for
14 Shared Services' cloud computing amortization expense to include a full year of
15 amortization expense. The pro forma adjustment for Petitioner's share of cloud computing
16 amortization expense yielded an increase of \$901.

17 **Q21. PLEASE DEFINE CLOUD COMPUTING AMORTIZATION.**

18 A21. Cloud computing amortization refers to the amortization of implementation costs incurred
19 for service contracts of cloud computing arrangements, also called hosting arrangements.
20 The amortization of implementation costs is recorded according to a new accounting
21 standard issued by the Financial Accounting Standards Board for cloud computing

1 arrangements. The new accounting standard went into effect for Petitioner as of October 1,
2 2020.

3 **Q22. PLEASE EXPLAIN THE ACCOUNTING FOR CLOUD COMPUTING**
4 **AMORTIZATION EXPENSE.**

5 A22. The new accounting guidance requires that companies record implementation costs
6 incurred for service contracts of cloud computing arrangements as deferred costs on the
7 balance sheet. These deferred costs are not recorded to property, plant, and equipment
8 because they are not considered to be an intangible asset like traditional on-premise
9 software licenses. Rather, the deferred costs are recorded as an Other Deferred Charge.

10 The deferred implementation costs are amortized to expense over the term of the
11 associated hosting arrangement. Although the expense is the result of using a straight-line
12 amortization method, it is required to be classified on the same income statement line as
13 the associated hosting fees. As such, the amortization expense is recorded to operation
14 and maintenance expense (i.e., account 921810).

15 **Q23. IF THE NEW ACCOUNTING GUIDANCE FOR CLOUD COMPUTING**
16 **AMORTIZATION EXPENSE WENT INTO EFFECT FOR PETITIONER ON**
17 **OCTOBER 1, 2020, WHY DOES THE TEST YEAR ENDING ON DECEMBER 31,**
18 **2021, NOT ALREADY INCLUDE A YEAR'S WORTH OF AMORTIZATION**
19 **EXPENSE?**

20 A23. Shared Services completed the implementation of its first cloud computing arrangement
21 service contract in September 2021 using the rules of the new accounting standard. As

1 such, the amortization expense in the test year began in September 2021 and twelve months
2 of amortization is not fully included in the test year.

3 **ORIGINAL COST RATE BASE**

4 **Q24. WHAT IS PETITIONER'S ORIGINAL COST NET PLANT IN SERVICE AS OF**
5 **DECEMBER 31, 2021?**

6 A24. Petitioner's original cost plant in service balance as of December 31, 2021, is \$18,793,675.
7 Petitioner's original cost accumulated depreciation balance is \$(5,984,833), which
8 calculates to an original cost net plant in service balance of \$12,808,842 as of December
9 31, 2021. See Attachment CAJ-4 and workpaper 155 for details.

10 **Q25. WHAT IS PETITIONER'S PORTION OF SHARED SERVICES NET PLANT IN**
11 **SERVICE AS OF DECEMBER 31, 2021?**

12 A25. Petitioner's portion of Shared Services net plant in service as of December 31, 2021,
13 calculates as \$667,519. Attachment CAJ-4 and workpaper 155 provide further details.

14 **Q26. WHAT IS PETITIONER'S ORIGINAL COST RATE BASE AS OF DECEMBER**
15 **31, 2021?**

16 A26. Petitioner's original cost rate base as of December 31, 2021, calculates as \$13,877,485,
17 which includes Petitioner's net plant in service, Petitioner's portion of Shared Services net
18 plant in service, and the 13-month average of materials and supplies amount of \$401,124.
19 See Attachment CAJ-4 for a summary of the original cost rate base calculation. Petitioner's
20 witnesses, Scott Miller and Craig Jackson, use the original cost rate base amount for their
21 purposes in their own separate testimonies.

22 **CONCLUSION**

1 **Q27. DO YOU BELIEVE THAT THE PRO FORMA ADJUSTMENTS YOU**
2 **PRESENTED ARE JUST AND REASONABLE?**

3 A27. Yes. I have made adjustments to obtain representative going-level costs and believe I have
4 done so reasonably and in accordance with acceptable standards, laws, and prior
5 Commission rulings.

6 **Q28. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

7 A28. Yes, at this time.

VERIFICATION

The undersigned affirms under the penalties for perjury that the foregoing testimony is true to the best of her knowledge, information and belief.

Camela Johnson
Camela Johnson

Westfield Gas, LLC

Attachment CAJ-1

Workpapers submitted by Petitioner's Witness Camela A. Johnson

Topic	Workpaper	MSFR	Description
Financial & Accounting Data	155	170 IAC 1-5-10 (2)	Schedule of utility plant in service and accumulated depreciation by subaccount
Financial & Accounting Data	156	170 IAC 1-5-10 (4)	Annual summary of plant additions and retirements by subaccount
Pro Forma Workpapers	450	170 IAC 1-5-8 (2)	Determination of Pro Forma Property Tax Expense
Pro Forma Workpapers	450-S1	170 IAC 1-5-8 (2)	Determination of distributable property tax
Pro Forma Workpapers	450-S2	170 IAC 1-5-8 (2)	Determination of allocated distributable property tax
Pro Forma Workpapers	450-S3	170 IAC 1-5-8 (2)	Determination of allocated real property tax
Pro Forma Workpapers	470	170 IAC 1-5-8 (2)	Determination of Depreciation Expense
Pro Forma Workpapers	470-S1	170 IAC 1-5-8 (2)	Depreciation on Utility Plant in Service
Pro Forma Workpapers	471	170 IAC 1-5-8 (2)	Determination of Amortization Expense
Pro Forma Workpapers	471-S1	170 IAC 1-5-8 (2)	Amortization of Cloud Computing Costs
Misc. Informational	520	170 IAC 1-5-8 (27)	Description of utility's methodology for capitalizing construction overhead
Misc. Informational	522	170 IAC 1-5-10 (7)	Policies and procedures for capitalization of AFUDC
Misc. Informational	523	n/a	Capitalization policy

Westfield Gas, LLC

Attachment CAJ-2

Summary of Pro Forma Adjustments Sponsored by Petitioner's Witness Camela A. Johnson

A			B	C		D	E	F
				Adjustments made				
Line	Account	Description	Test Year balance	Test Year amount	Pro Forma amount	Pro Forma balance	Pro Forma balance	Pro Forma Adjustment
							Col B - C + D	Col E - B
1	403010	Depreciation	643,774.09	643,774.09	506,641.82	506,641.82		(137,132.27)
2	406010	Amortization Acquisition Adjustment	109,930.32	109,930.32	-	-		(109,930.32)
3	408180	Tax Expense - Property	145,304.17	145,304.17	148,886.62	148,886.62		3,582.45
4	921810	Software - Cloud Amortization Expense	450.40	450.40	1,351.20	1,351.20		900.80
Total			899,458.98	899,458.98	656,879.64	656,879.64		(242,579.34)



2016 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION
ACCRUALS RELATED TO GAS, THERMAL, WATER,
WASTEWATER AND SHARED SERVICES ASSETS
OWNED BY THE CITIZENS ENERGY GROUP
FAMILY OF UTILITIES
AS OF DECEMBER 31, 2016

Prepared by:



Gannett Fleming

*Excellence Delivered **As Promised***

CITIZENS ENERGY GROUP
Indianapolis, Indiana

2016 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION
ACCRUALS RELATED TO GAS, THERMAL, WATER,
WASTEWATER AND SHARED SERVICES ASSETS OWNED BY
THE CITIZENS ENERGY GROUP FAMILY UTILITIES
AS OF DECEMBER 31, 2016

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Camp Hill, Pennsylvania



*Excellence Delivered **As Promised***

December 7, 2017

Citizens Energy Group
2020 North Meridian Street
Indianapolis, IN 46202

Attention: Ms. Sabine E. Karner
Vice President and Controller

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the gas, thermal, water, wastewater and shared services assets owned by the Citizens Energy Group family of utilities as of December 31, 2016. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual and accrued depreciation, the statistical support for the service life and net salvage estimates and the detailed tabulations of annual and accrued depreciation.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS
Sr. Vice President

JJS:mle

061730

Gannett Fleming Valuation and Rate Consultants, LLC

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Shared Services

CITIZENS ENERGY GROUP

DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to Citizens Energy Group's ("CEG") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the gas, thermal, water, wastewater and shared services assets owned by the CEG family of utilities as of December 31, 2016. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight-line method using the equal life group ("ELG") procedure and were applied on a remaining life basis. The calculations were based on attained ages and estimated average service life, and forecasted net salvage characteristics for each depreciable group of assets.

CEG's accounting policy has not changed since the last depreciation study was prepared. However, there have been changes in plans of assets, as well as the acquisition of new facilities such as water and wastewater assets. The new investment mix has created a change in the overall composite remaining lives. Additionally, the acquired water and wastewater assets had a very different recovery pattern previously so lives and rates have changed.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to gas, thermal, water, wastewater and shared services in service as of December 31, 2016 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.

The study results set forth an annual depreciation expense of \$94.9 million when applied to depreciable plant balances as of December 31, 2016. The results are summarized at the functional level as follows:

SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

<u>FUNCTION</u>	<u>ORIGINAL COST AS OF DECEMBER 31, 2016</u>	<u>PROPOSED RATE</u>	<u>PROPOSED EXPENSE</u>
Gas Operations			
Pressure Regulating	\$ 2,523,980.45	2.60	\$ 65,500
Underground Storage Plant	25,552,869.16	1.02	260,057
Transmission Plant – U.G.S.	13,869,916.19	1.61	222,768
Transmission Plant – Marion County	47,115,492.39	2.13	1,001,645
Distribution Plant	593,236,981.91	1.91	11,350,012
General Plant	<u>17,861,619.35</u>	4.65	<u>830,879</u>
Total Gas Operations	\$700,160,859.45	1.96	\$13,730,861
Steam			
Production Plant	\$ 61,650,106.80	4.66	\$ 2,873,771
Distribution Plant	26,742,885.03	2.04	545,193
General Plant	<u>2,404,253.95</u>	3.26	<u>78,332</u>
Total Steam	\$ 90,797,245.78	3.85	\$ 3,497,296
Chilled Water			
Production Plant	\$ 49,736,579.07	2.05	\$ 1,021,949
Distribution Plant	36,388,491.96	2.99	1,087,825
General Plant	<u>1,104,970.32</u>	4.03	<u>44,527</u>
Total Chilled Water	\$ 87,230,041.35	2.47	\$ 2,154,301
Citizens Gas of Westfield	\$ 10,767,398.94	2.18	\$ 235,103
Citizens Water			
Source of Supply and Pumping Plant	\$ 175,991,851.26	2.20	\$ 3,876,773
Treatment Plant	365,536,611.43	1.81	6,611,447
Distribution Plant	1,045,488,608.74	0.65	6,754,660
General Plant	<u>12,517,831.20</u>	12.35	<u>1,545,376</u>
Total Citizens Water	\$1,599,534,902.63	1.17	\$18,788,256

SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS. (cont)

<u>FUNCTION</u>	<u>ORIGINAL COST AS OF DECEMBER 31, 2016</u>	<u>PROPOSED RATE</u>	<u>PROPOSED EXPENSE</u>
Westfield Water			
Source of Supply and Pumping Plant	\$ 8,943,359.98	2.20	\$ 196,576
Treatment Plant	11,733,056.89	2.02	236,649
Distribution Plant	44,222,800.77	1.31	577,946
General Plant	<u>1,226,371.31</u>	19.24	<u>235,936</u>
Total Westfield Water	\$ 66,125,588.95	1.89	\$ 1,247,107
Citizens Wastewater			
Collection Plant	\$1,324,064,598.69	1.26	\$ 16,641,814
Pumping Plant	147,381,237.81	2.16	3,186,387
Treatment Plant	1,154,070,042.31	2.02	23,363,626
General Plant	<u>8,979,714.09</u>	25.01	<u>2,245,799</u>
Total Citizens Wastewater	\$2,634,495,592.90	1.72	\$ 45,437,626
Westfield Wastewater			
Collection Plant	\$ 70,800,981.23	2.14	\$ 1,512,244
Pumping Plant	5,404,266.28	3.14	169,800
Treatment Plant	24,017,770.88	2.19	526,120
General Plant	<u>1,753,780.71</u>	16.40	<u>287,637</u>
Total Westfield Wastewater	\$ 101,976,799.10	2.45	\$ 2,495,801
Shared Services	\$ 87,459,170.01	8.40	\$ 7,343,696
Total Depreciable Plant	<u>\$5,378,547,599.11</u>	1.77	<u>\$94,930,047</u>

PART I. INTRODUCTION

CITIZENS ENERGY GROUP DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Citizens Energy Group ("CEG"), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of gas, thermal, water, wastewater and shared services assets owned by the CEG family of utilities as of December 31, 2016. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to gas, thermal, water, wastewater and shared services in service as of December 31, 2016.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2016, a review of CEG's practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the gas, steam, water and wastewater industries, including knowledge of service lives and net salvage estimates used for other gas, steam, water and wastewater companies.

PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life and net salvage studies. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Net Salvage Considerations, presents the judgment utilized for the net salvage study. Part V, Calculation of Annual and Accrued Depreciation,

describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VII, Service Life Statistics presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

BASIS OF THE STUDY

Depreciation

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing electric utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight-line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line method using the equal life group procedure and the remaining life basis. For certain

General Plant accounts, the annual depreciation is based on amortization accounting. Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, equal life group procedure is a commonly used depreciation calculation procedure that has been accepted in Indiana. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-8 of the report.

Service Life and Net Salvage Estimates

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the gas, steam, water and wastewater utility industries, and comparisons of the service life and net salvage estimates from our studies of other gas, steam, water and wastewater utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for gas, steam, water and wastewater plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated future yielded estimated survivor curves from which the average service lives were derived.

**PART II. ESTIMATION OF
SURVIVOR CURVES**

PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

SURVIVOR CURVES

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

Iowa Type Curves

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves,

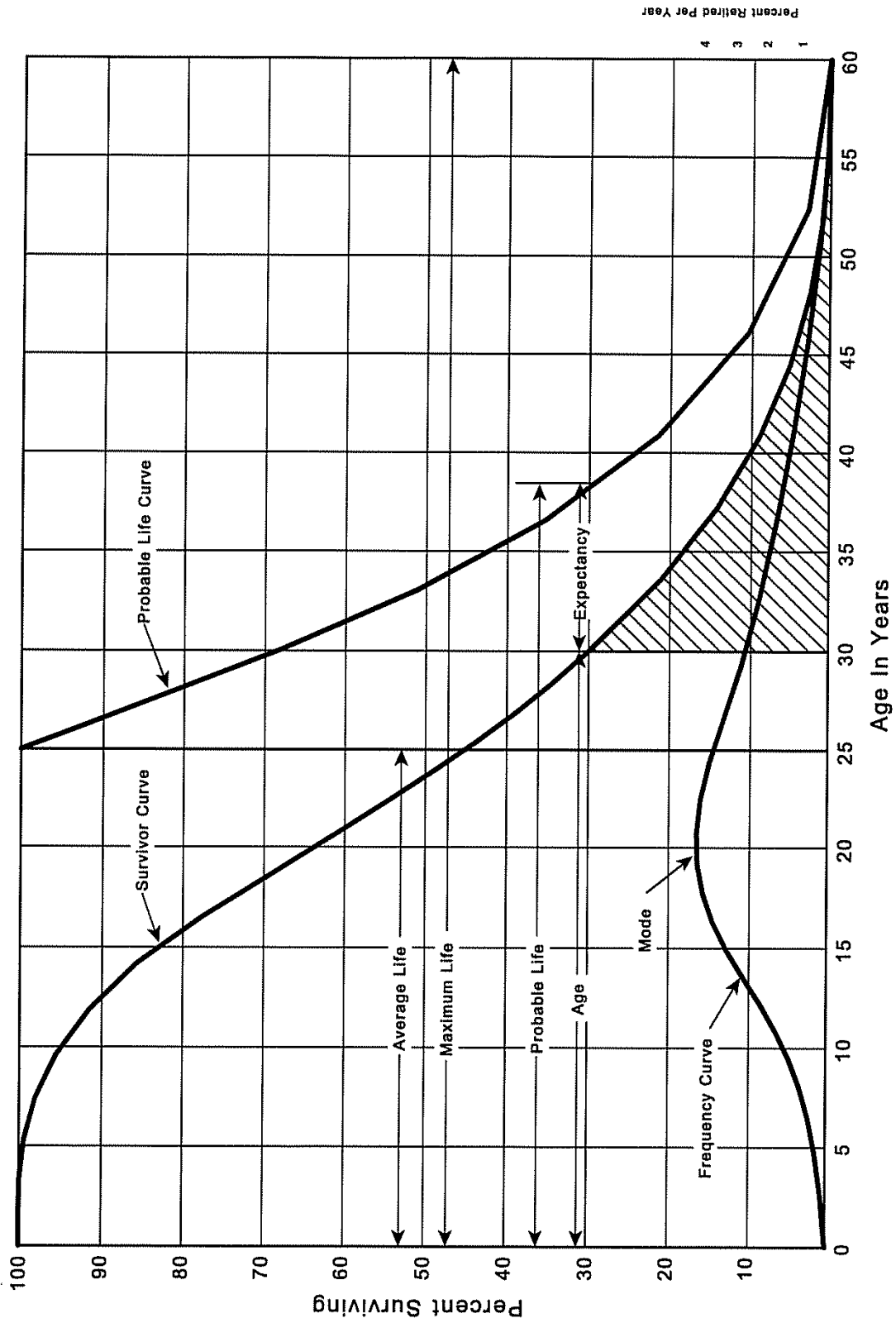


Figure 1. A Typical Survivor Curve and Derived Curves

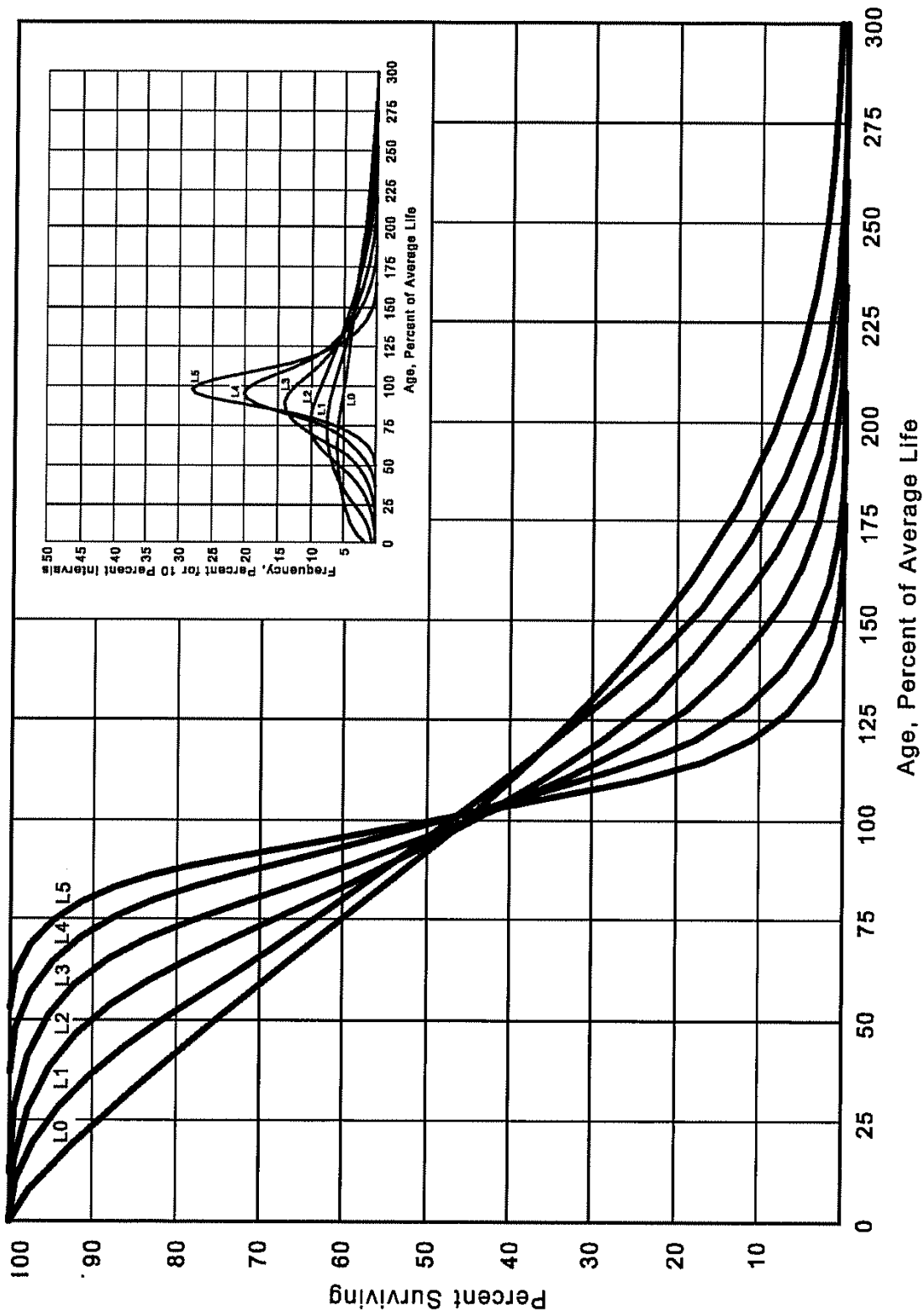


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

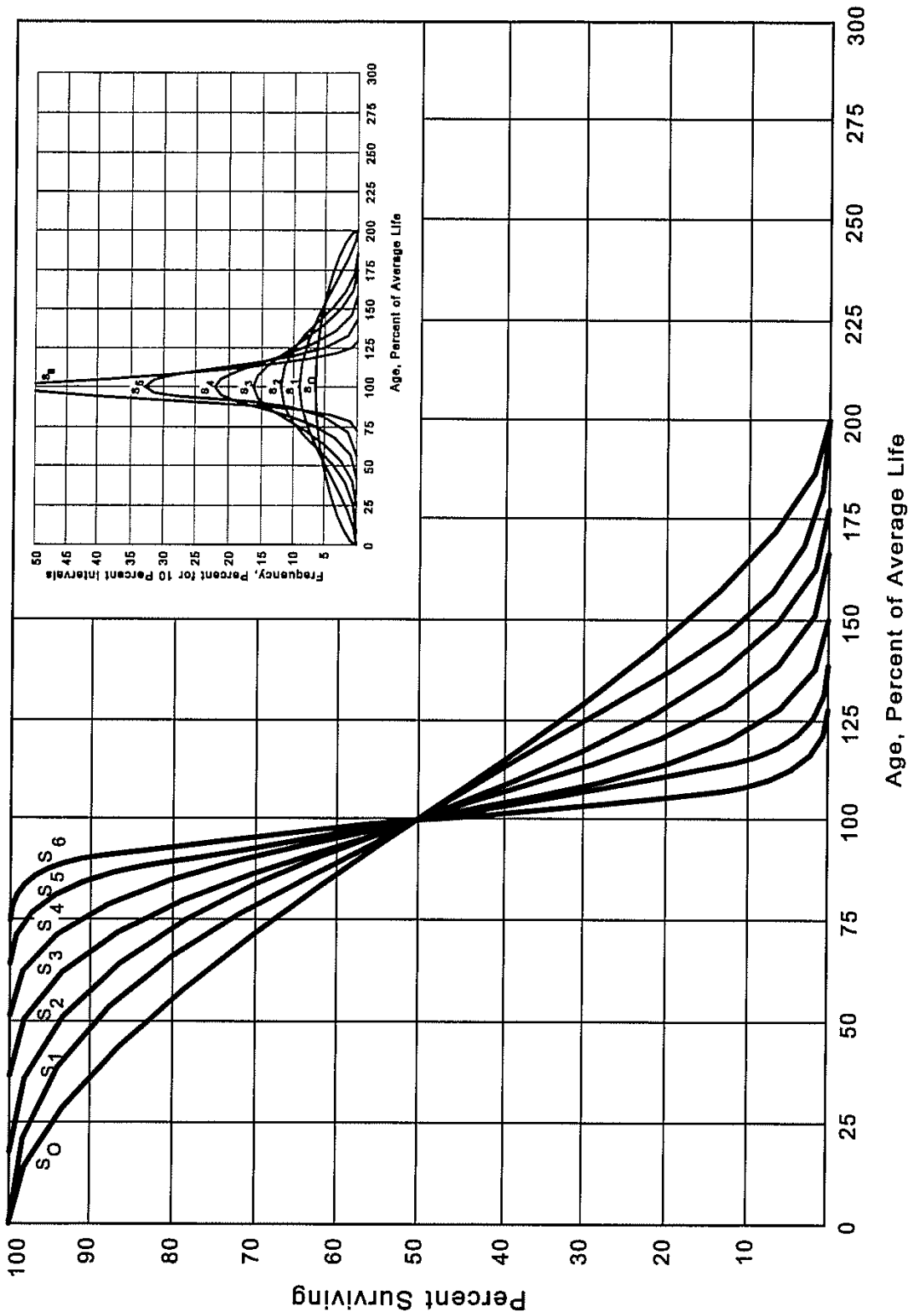


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

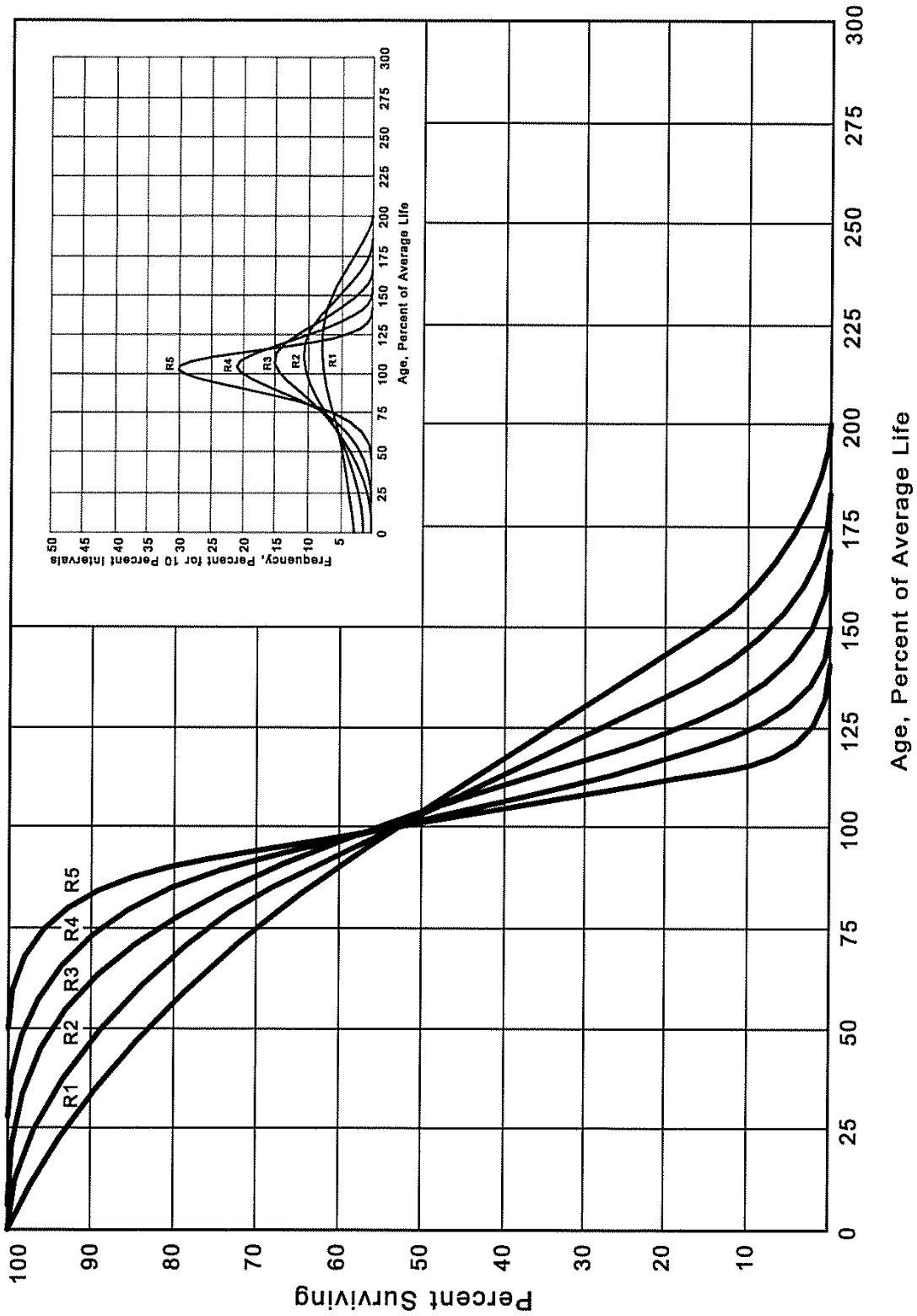


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

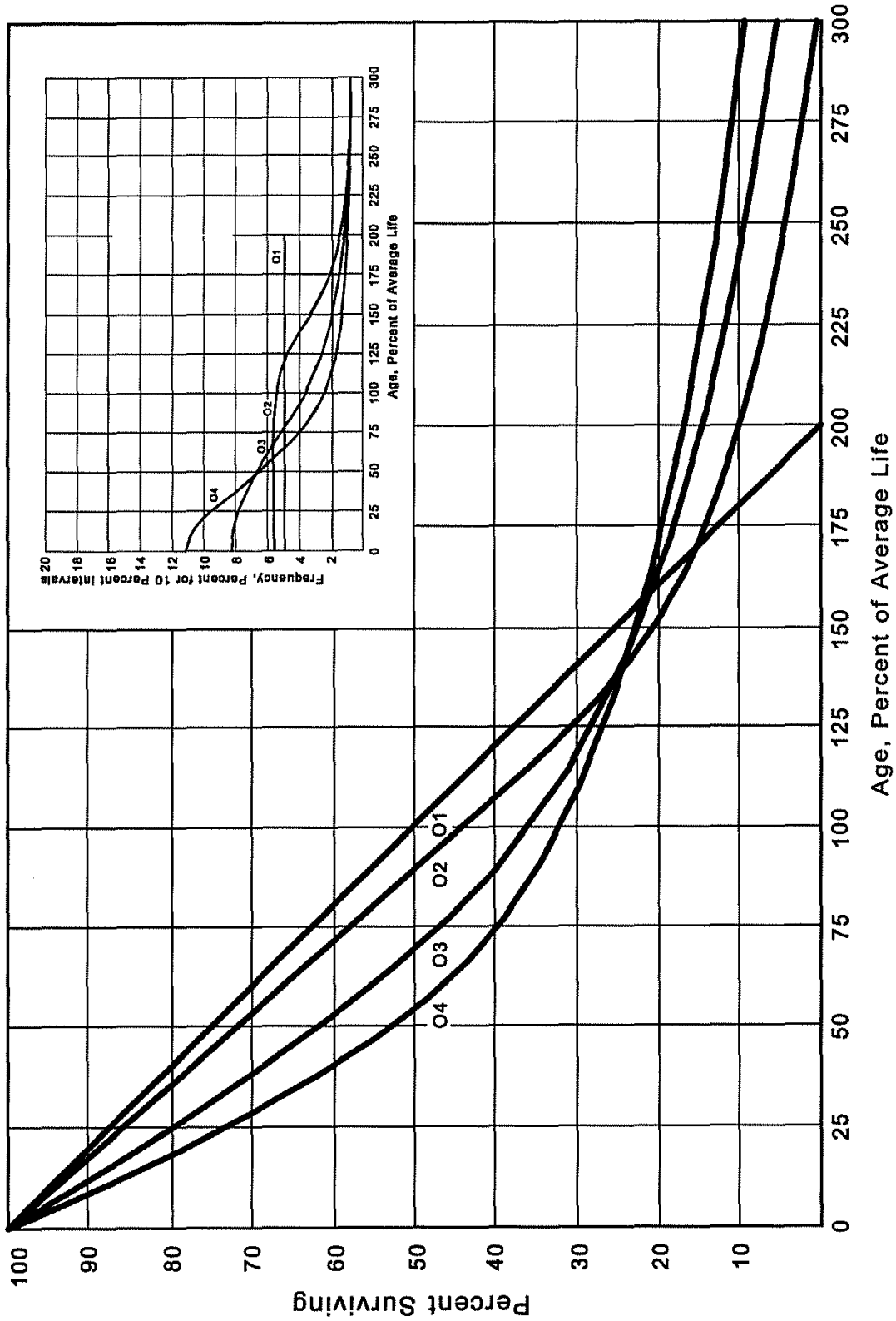


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125. These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."¹ In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements,"² "Engineering Valuation and Depreciation,"³ and "Depreciation Systems."⁴

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual

¹Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

²Winfrey, Robley, Supra Note 1.

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

⁴Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2007-2016 during which there were placements during the years 2002-2016. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2002 were retired in 2007. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2007 retirements of 2002 installations and ending with the 2016 retirements of the 2011 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2007-2016
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Retirements, Thousands of Dollars													Total During Age Interval (12)	Age Interval (13)
	Experience Band 2007-2016														
	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)	2012 (7)	2013 (8)	2014 (9)	2015 (10)	2016 (11)	Placement Band 2002-2016				
2002	10	11	12	13	14	16	23	24	25	26	26	26	26	13½-14½	
2003	11	12	13	15	16	18	20	21	22	19	19	19	19	12½-13½	
2004	11	12	13	14	16	17	19	21	22	18	18	18	18	11½-12½	
2005	8	9	10	11	11	13	14	15	16	17	17	17	17	10½-11½	
2006	9	10	11	12	13	14	16	17	19	20	20	20	20	9½-10½	
2007	4	9	10	11	12	13	14	15	16	20	20	20	20	8½-9½	
2008		5	11	12	13	14	15	16	18	20	20	20	20	7½-8½	
2009			6	12	13	15	16	17	19	19	19	19	19	6½-7½	
2010				6	13	15	16	17	19	19	19	19	19	5½-6½	
2011					7	14	16	17	19	20	20	20	20	4½-5½	
2012						8	18	20	22	23	23	23	23	3½-4½	
2013							9	20	22	25	25	25	25	2½-3½	
2014								11	23	25	25	25	25	1½-2½	
2015									11	24	24	24	24	½-1½	
2016										13	13	13	13	0-½	
Total	53	68	86	106	128	157	196	231	273	308	308	1,606			

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2007-2016
SUMMARIZED BY AGE INTERVAL

Experience Band 2007-2016 Placement Band 2002-2016

Year Placed (1)	Acquisitions, Transfers and Sales, Thousands of Dollars											Total During Age Interval (12)	Age Interval (13)
	During Year												
(1)	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)	2012 (7)	2013 (8)	2014 (9)	2015 (10)	2016 (11)	(11)	(12)	(13)
2002	-	-	-	-	-	-	60 ^a	-	-	-	-	-	13½-14½
2003	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2004	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2005	-	-	-	-	-	-	-	(5) ^b	-	-	-	60	10½-11½
2006	-	-	-	-	-	-	-	6 ^a	-	-	-	-	9½-10½
2007	-	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2008	-	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2009	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2010	-	-	-	-	-	-	-	(12) ^b	-	-	-	-	5½-6½
2011	-	-	-	-	-	-	-	-	22 ^a	-	-	-	4½-5½
2012	-	-	-	-	-	-	-	(19) ^b	-	-	-	10	3½-4½
2013	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2014	-	-	-	-	-	-	-	-	-	(102) ^c	(102) ^c	(121)	1½-2½
2015	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2016	-	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(102)	(50)	

^a Transfer Affecting Exposures at Beginning of Year

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2007 through 2016 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2012 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT
JANUARY 1 OF EACH YEAR 2007-2016
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Exposures, Thousands of Dollars											Total at Beginning of Age Interval (12)	Age Interval (13)
	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)	2012 (7)	2013 (8)	2014 (9)	2015 (10)	2016 (11)			
2002	255	245	234	222	209	195	239	216	192	167	167	13½-14½	
2003	279	268	256	243	228	212	194	174	153	131	323	12½-13½	
2004	307	296	284	271	257	241	224	205	184	162	531	11½-12½	
2005	338	330	321	311	300	289	276	262	242	226	823	10½-11½	
2006	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½	
2007	420 ^a	416	407	397	386	374	361	347	332	316	1,503	8½-9½	
2008		460 ^a	455	444	432	419	405	390	374	356	1,952	7½-8½	
2009			510 ^a	504	492	479	464	448	431	412	2,463	6½-7½	
2010				580 ^a	574	561	546	530	501	482	3,057	5½-6½	
2011					660 ^a	653	639	623	628	609	3,789	4½-5½	
2012						750 ^a	742	724	685	663	4,332	3½-4½	
2013							850 ^a	841	821	799	4,955	2½-3½	
2014								960 ^a	949	926	5,719	1½-2½	
2015									1,080 ^a	1,069	6,579	½-1½	
2016										1,220 ^a	7,490	0-½	
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780		

^aAdditions during the year

For the entire experience band 2007-2016, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

Original Life Table

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2007-2016

Placement Band 2002-2016

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
Total	<u>44,780</u>	<u>1,606</u>			35.66

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

Smoothing the Original Survivor Curve

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Table 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

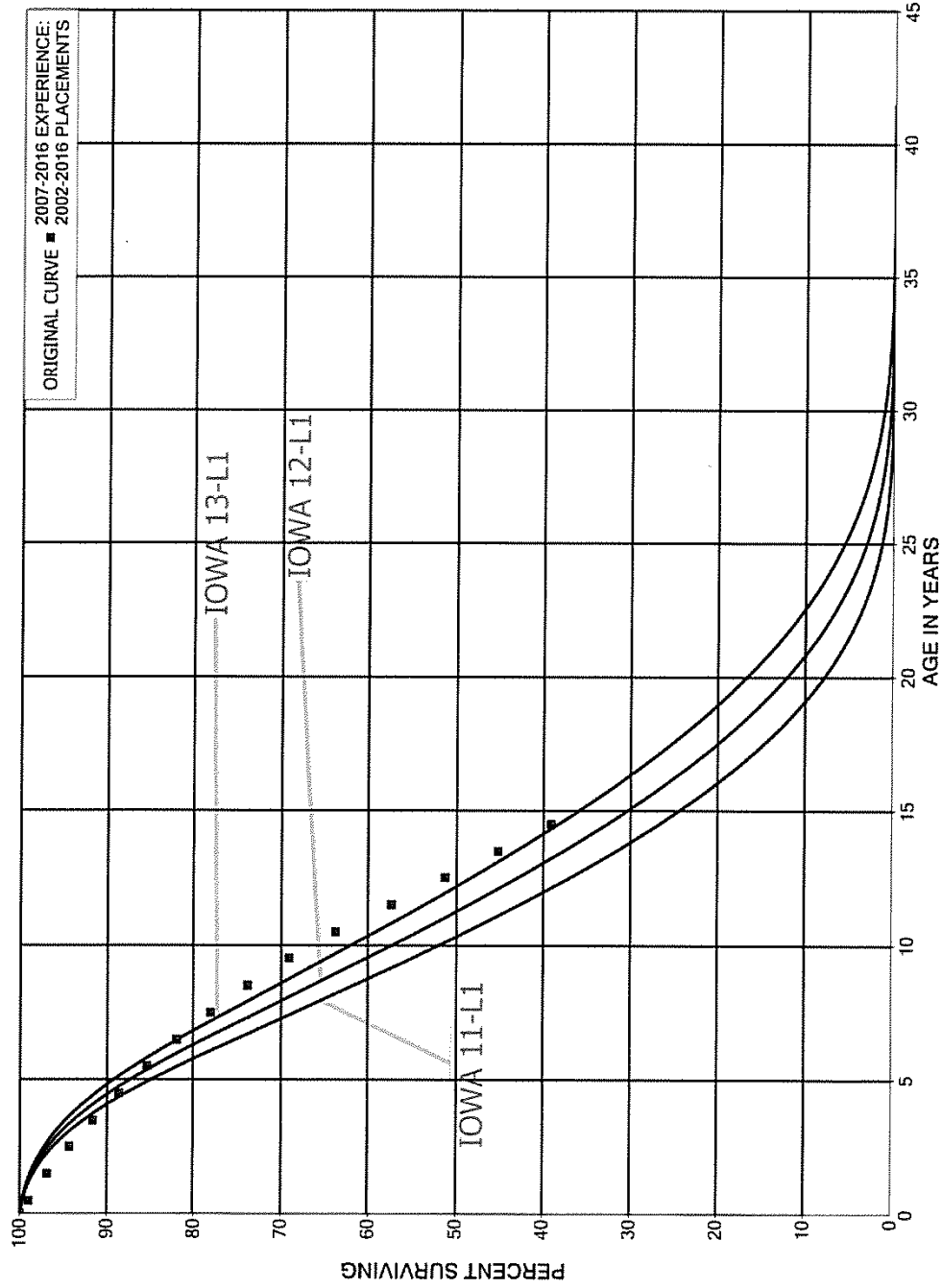


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

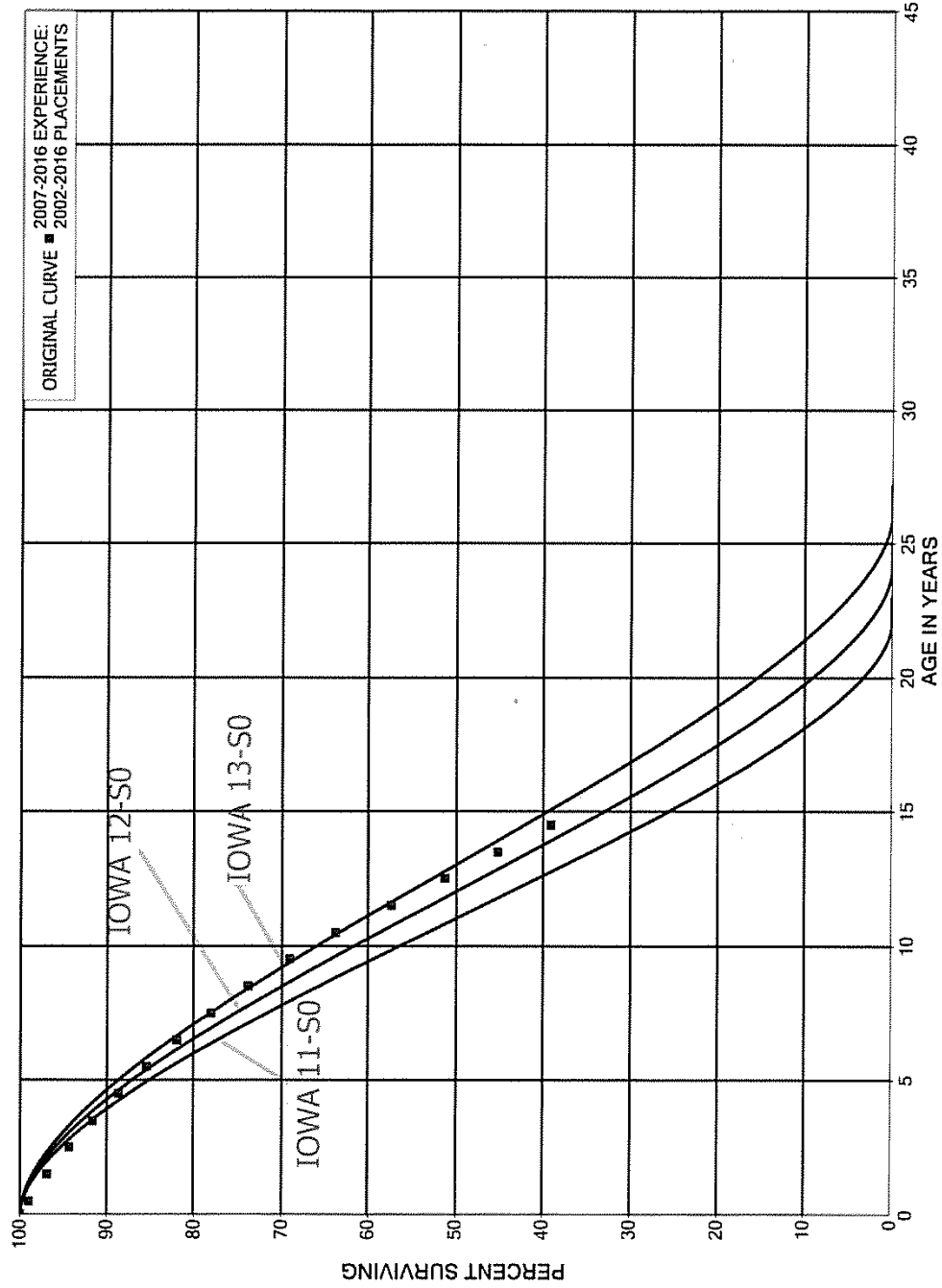


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

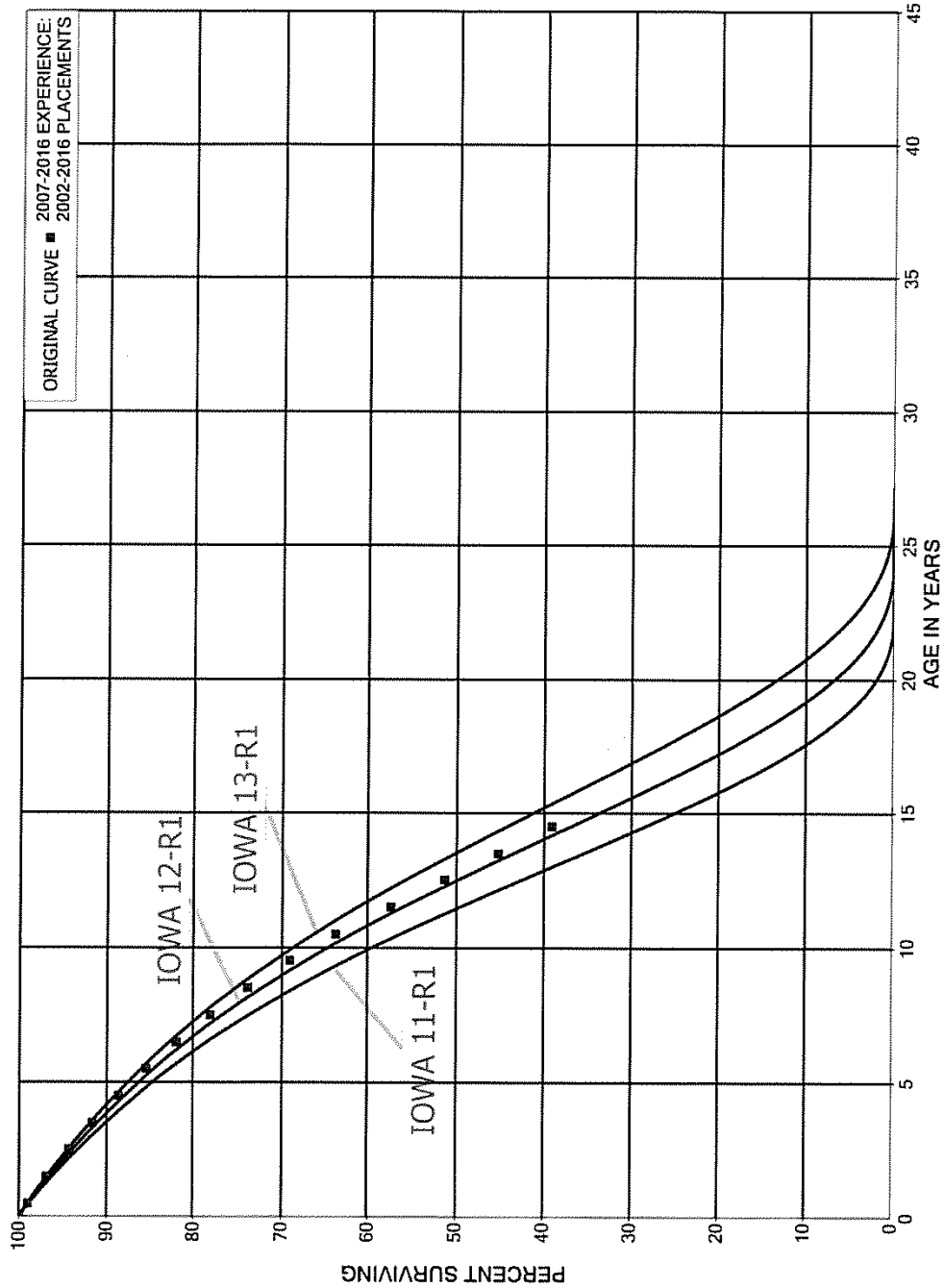
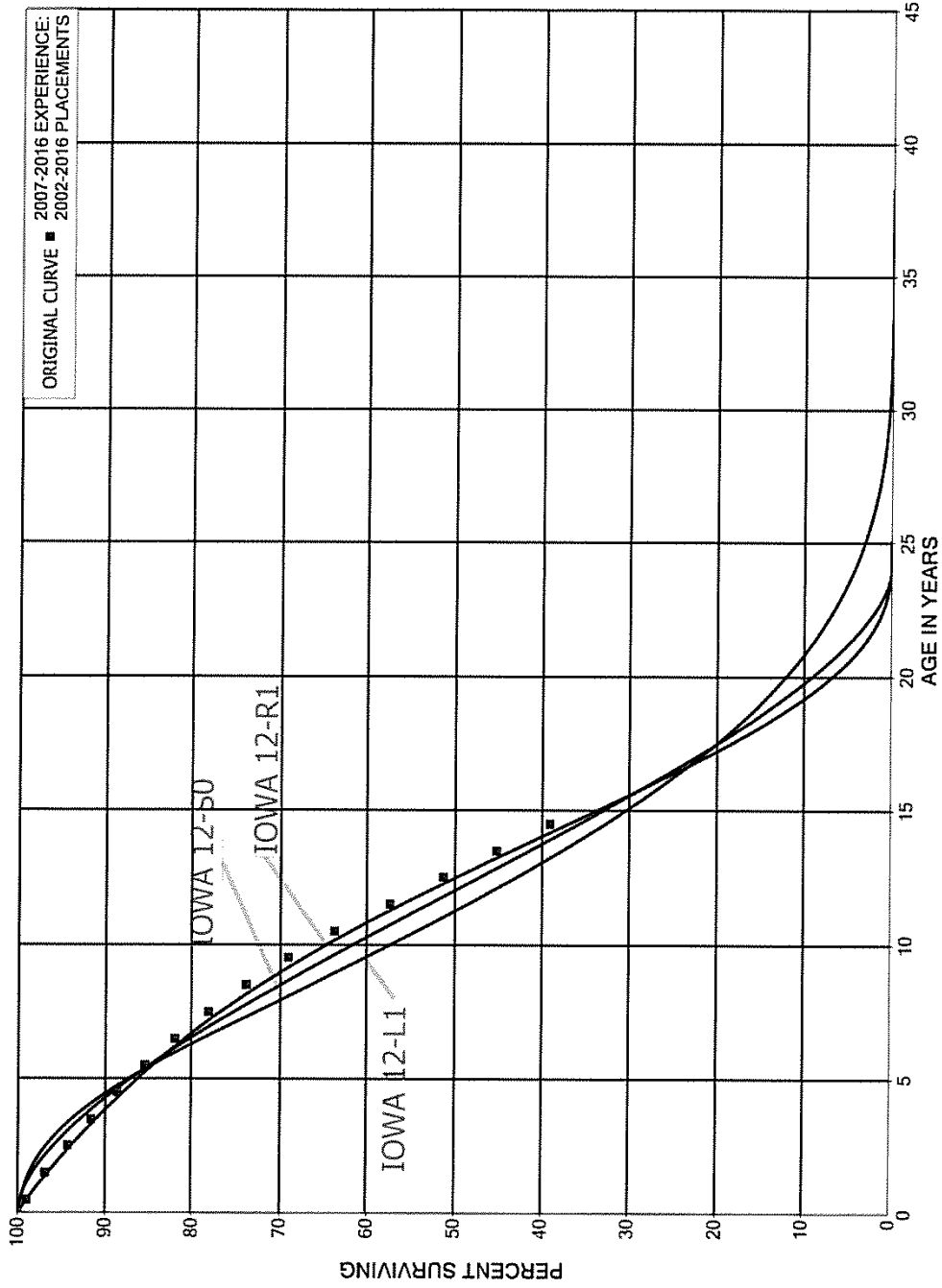


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATIONS

PART III. SERVICE LIFE CONSIDERATIONS

FIELD TRIPS

In order to be familiar with the operation of the CEG utilities and observe representative portions of the plant, field trips were conducted for the study. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the last two field trips.

August 23-24, 2016

- Illinois Street Chilled Water Plant
- Eskenazi Plant
- Johnstown Underground Storage Plant
- Johnstown Storage Plant
- Hamlin #4 Well
- Worthington Storage Field
- LNG North Plant
- Raymond Street Regulation Station
- T-27 Station
- Smith Valley Gate Station
- Langsdale Station
- Perry K Steam Plant

August 10, 2016

- Westfield Wastewater Treatment Plant
- Towne Road Lift Station
- 156th Street Lift Station
- 161st Street Tank
- 161st Street Booster Station
- 146th Street Tank
- Moontown Booster Station
- Cherry Tree Water Plant
- River Road Water Plant

August 8-9, 2016

- South Well Field Plant
- Harding Street Treatment Plant

Bunker Hill Tank
Stop 11 Booster Station
Southport Wastewater Plant
Belmont Wastewater Plant
Madison Booster and Tank
Fall Creek Treatment Plant
White River Treatment Plant
Riverside Pump Station

July 13-14, 2010

Perry K Plant
West Street Chilled Water Plant
Ice Plant
Illinois Street Plant
LNG South Plant
Citizens Energy Group Office
LNG North Plant
Smith Valley City Gate Station
Southport Station #13
Langsdale Facility

SERVICE LIFE ANALYSIS

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other gas, steam, water and wastewater companies.

For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 48 percent of depreciable plant. Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

GAS OPERATIONS

PRESSURE REGULATING

305.30 Structures and Improvements
319.00 Pressure Regulating Equipment

UNDERGROUND STORAGE

351.00 Structures and Improvements
353.00 Lines
355.00 Measuring and Regulating Equipment
356.00 Purification Equipment
357.00 Other Equipment

TRANSMISSION – U.G.S.

369.10 Measuring and Regulating Equipment

TRANSMISSION – MARION COUNTY

369.00 Measuring and Regulating Equipment

DISTRIBUTION

376.10 Mains – Valves, Valve Pits, Etc.
376.20 Mains – Steel Installed Prior to 1955
376.21 Mains – Steel and Plastic Installed Subsequent to 1954
376.70 Mains – Cast Iron and Wrought Iron
380.00 Services
381.00 Meters
382.00 Meter Installations
383.00 House Regulators
384.00 House Regulator Installations
386.00 Other Property – Customer Premises
387.00 Other Equipment

GENERAL

390.00 Structures and Improvements
392.10 Transportation Equipment
396.10 Power Operated Equipment

STEAM

PRODUCTION

311.00 Structures and Improvements
312.00 Boiler Plant Equipment
314.00 Turbogenerator Units
315.00 Accessory Electric Equipment
316.00 Miscellaneous Power Plant Equipment

DISTRIBUTION
366.00 Mains
369.00 Services

GENERAL
392.00 Transportation Equipment
396.00 Power Operated Equipment

CHILLED WATER

PRODUCTION
312.00 Boiler Plant Equipment

CITIZENS GAS WESTFIELD

DISTRIBUTION
376.00 Mains
381.00 Meters
382.00 Meter Installations

CITIZENS WATER

DISTRIBUTION
331.40 Mains
333.40 Services
334.40 Meters
335.40 Hydrants

GENERAL
341.50 Transportation Equipment
345.50 Power Operated Equipment

CITIZENS WASTEWATER

DISTRIBUTION
371.30 Pumping Equipment
380.40 Treatment and Disposal Equipment

SHARED SERVICES

390.00 Structures and Improvements

Two of the largest Gas Accounts, 376.21 and 380.00, are used to illustrate the manner in which the study was conducted for the accounts in the preceding list. Aged

plant accounting data have been compiled for the years 1955 through 2016 for Account 376.21 and for the years 1954 to 2016 for Account 380.00. These data have been coded according to account or property group, type of transaction, years in which the transaction took place and year in which the utility plant was placed in service. The retirements, other plant transactions and plant additions were analyzed by the retirement rate method.

The survivor curve estimate for Gas Account 376.21, Mains – Steel and Plastic Installed Subsequent to 1954, is the 75-R2.5 and is based on the statistical indication for the periods 1955 through 2016 and 1982 through 2016. The 75-R2.5 is a reasonable fit of the significant portion of the original survivor curve as set forth on page VII-70, a longer average service life than the prior estimate, 70-R2, and consistent with management outlook for a continuation of the historical experience, and at the upper end of the typical service life range of 60 to 75 years for mains.

The survivor curve estimate for Gas Account 380.00, Services, is the 49-R2 and is based on the statistical indication for the periods 1954 through 2016 and 1972 through 2016. The 49-R2 is a reasonable fit of the significant portion of the original survivor curve as set forth on page VII-80; consistent with management outlook for a continuation of historical experience, and within the typical service life range of 35-50 years for services.

Life Span Estimates

The life span technique was used for CEG's steam accounts. The life span procedure is appropriate for these accounts since many of the assets within the plant will be retired concurrently. A probable retirement date was estimated for the Perry K plant. The life span for the plant was the result of considering experienced life spans of similar units, the age of the surviving unit, general operating characteristics of the unit, major

refurbishing, and discussions with management personnel concerning the probable long-term outlook for the unit.

The depreciable life span estimate for the steam unit is 75 years. The typical range of life spans for such units has been 50 to 65 years. The life span represents the expected depreciable life of the facility under its current configuration. Future capital expenditures can extend a facility's depreciable life, however, such changes to depreciable life would not be prudent until the capital expenditures are actually put into plant in service.

The life span and probable retirement date used for the steam production plant is as follows:

<u>Depreciable Group</u>	<u>Major Year in Service</u>	<u>Depreciable Life Date</u>	<u>Depreciable Life Span</u>
Steam Production Plant Perry K	1943, 1953	2038	85, 75

The survivor curve estimates for the remaining accounts were based on judgment incorporating the statistical analyses and previous studies for this and other utilities.

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other gas, steam, water and wastewater companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

PART IV. NET SALVAGE CONSIDERATIONS

PART IV. NET SALVAGE CONSIDERATIONS

SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1960 through 2016. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 1960 through 2016 contributed significantly toward the net salvage estimates for 34 plant accounts, representing 36 percent of the depreciable plant, as follows:

GAS OPERATIONS

PRESSURE REGULATING

305.30	Structures and Improvements
319.00	Pressure Regulating Equipment

UNDERGROUND STORAGE

350.20	Leaseholds
--------	------------

352.00 Wells
353.00 Lines

TRANSMISSION – U.G.S.

366.10 Structures and Improvements
370.00 Communication Equipment

TRANSMISSION – MARION COUNTY

366.00 Structures and Improvements

DISTRIBUTION

376.10 Mains – Valves, Valve Pits, Etc.
376.20 Mains – Steel Installed Prior to 1955
376.21 Mains – Steel and Plastic Installed Subsequent to 1954
376.70 Mains – Cast Iron and Wrought Iron
380.00 Services
381.00 Meters
382.00 Meter Installations
383.00 House Regulators
384.00 House Regulator Installations
386.00 Other Property – Customer Premises

GENERAL

390.00 Structures and Improvements
392.10 Transportation Equipment
396.10 Power Operated Equipment

STEAM

PRODUCTION

311.00 Structures and Improvements
312.00 Boiler Plant Equipment
314.00 Turbogenerator Units
316.00 Miscellaneous Power Plant Equipment

CITIZENS GAS WESTFIELD

DISTRIBUTION

376.00 Mains
380.00 Services
381.00 Meters

CITIZENS WATER

GENERAL

341.50	Transportation Equipment
345.50	Power Operated Equipment

CITIZENS WESTFIELD

GENERAL

391.70	Transportation Equipment
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CITIZENS WASTEWATER

DISTRIBUTION

354.40	Structures and Improvements
380.40	Treatment and Disposal Equipment

SHARED SERVICES

390.00	Structures and Improvements
--------	-----------------------------

The combined analyses of Account 376.10 through 376.70, Mains, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Net salvage data for the period 1960 through 2016 were analyzed for this account. The data include cost of removal, gross salvage and net salvage amounts and each of these amounts is expressed as a percent of the original cost of regular retirements. Three-year moving averages for the 1960-1962 through 2014-2016 periods were computed to smooth the annual amounts.

Cost of removal has fluctuated during the majority of the fifty-seven year period. The primary cause of the high levels of cost of removal was the required effort needed to replace the mains due to location and length of main to be retired. Cost of removal for the overall period was 34 percent, however, the most recent five-year period has averaged 11 percent.

Gross salvage has been minimal throughout the period with basically no salvage recorded since 1977. The expectation is for 0 percent gross salvage going forward to reflect recent trends and removal practices.

The net salvage percent based on the overall period 1960 through 2016 is 33 percent negative net salvage and based on the most recent five-year period is 11 percent. The range of estimates made by other gas companies for Mains is negative 15 to negative 50 percent. The net salvage estimate for gas mains is negative 30 percent, is within the typical range of other estimates, and is supported by the statistical analyses.

The net salvage percents for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other gas, steam, water and wastewater utilities.

Generally, the net salvage estimates for the general plant accounts were zero percent, consistent with amortization accounting.

**PART V. CALCULATION OF ANNUAL AND
ACCRUED DEPRECIATION**

PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

After the survivor curve and salvage are estimated, the annual depreciation accrual rate can be calculated. In the average service life procedure, the annual accrual rate is computed by the following equation:

$$\text{Annual Accrual Rate, Percent} = \frac{(100\% - \text{Net Salvage, Percent})}{\text{Average Service Life}}$$

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which will not be allocated to expense through future depreciation accruals, if current forecasts of life characteristics are used as a basis for straight line depreciation accounting.

The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and the estimated survivor curve. The accrued depreciation ratios are calculated as follows:

$$\text{Ratio} = \left(1 - \frac{\text{Average Remaining Life Expectancy}}{\text{Average Service Life}}\right) (1 - \text{Net Salvage, Percent}).$$

The application of these procedures is described for a single unit of property and a group of property units. Salvage is omitted from the depreciation for ease of application.

Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10} \right) = \$400.$$

Group Depreciation Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group.

Average Service Life Procedure

In the average service life procedure, the rate of annual depreciation is based on the average service life of the group, and this rate is applied to the surviving balances of the group's cost. The accrued depreciation is based on the average service life of the group and the average remaining life of each vintage within the group derived from the area under the survivor curve between the attained age of the vintage and the maximum age.

A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the

portion of cost not recouped prior to average life is balanced by the excess cost recouped subsequent to average life. The recovery of cost is complete at the end of the life cycle, but the distribution of capital cost to annual expense does not match the consumption of service value of plant.

Equal Life Group Procedure

In the equal life group procedure, also known as the unit summation procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life unit.

This procedure eliminates the need to base annual depreciation expense on average lives, inasmuch as each group has a single life. The full cost of short-lived items is accrued during their lives, leaving no deferral of accruals required to be added to the annual cost associated with long-lived items. The depreciation expense for the property group is the summation of the depreciation expense based on the service life of each equal life group.

The table on the following page presents an illustration of the calculation of equal life group depreciation using the Iowa 10-L2.5 survivor curve, net salvage of 0 percent and a December 31, 2016 calculation date.

DETAILED COMPUTATION OF ANNUAL AND ACCRUED FACTORS USING THE EQUAL LIFE GROUP PROCEDURE

INPUT PARAMETERS:
CALCULATION DATE.. 12-31-2016
SURVIVOR CURVE... 10-L2.5

AGE INTERVAL			RETIREMENTS		GROUP	SUMMATION		AVERAGE	ACCRUED
BEG	END	LIFE	DURING	ANNUAL	YEAR	OF ANNUAL	PERCENT	ANNUAL	ACCRUED
(1)	(2)	(3)	INTERVAL	ACCRUAL	INST	ACCRUALS	SURVIVING	FACTOR	FACTOR
			(4)	(5)=(4)/(3)	(6)	(7)	(8)	(9)	(10)
0.000	1.000	0.500	0.05547	0.05547000000	2016	11.97110572523	99.985092	0.1197	0.0599
1.000	2.000	1.500	0.37986	0.25324000000	2015	11.78901572523	99.754600	0.1182	0.1773
2.000	3.000	2.500	1.03309	0.41323600000	2014	11.45577772523	99.048125	0.1157	0.2893
3.000	4.000	3.500	1.98796	0.56798857143	2013	10.96516543951	97.537600	0.1124	0.3934
4.000	5.000	4.500	3.59099	0.79799777778	2012	10.28217226491	94.748125	0.1085	0.4883
5.000	6.000	5.500	5.95921	1.08349272727	2011	9.34142701238	89.973025	0.1038	0.5709
6.000	7.000	6.500	8.74568	1.34548923077	2010	8.12693603336	82.620580	0.0984	0.6396
7.000	8.000	7.500	11.07393	1.47652400000	2009	6.71592941798	72.710775	0.0924	0.6930
8.000	9.000	8.500	11.94865	1.40572352941	2008	5.27480565327	61.199485	0.0862	0.7327
9.000	10.000	9.500	11.17963	1.17680315789	2007	3.98354230962	49.635345	0.0803	0.7629
10.000	11.000	10.500	9.46724	0.90164190476	2006	2.94431977830	39.311910	0.0749	0.7865
11.000	12.000	11.500	7.66323	0.6663782609	2005	2.16031491287	30.746675	0.0703	0.8085
12.000	13.000	12.500	6.19891	0.49591280000	2004	1.57917459983	23.815605	0.0663	0.8288
13.000	14.000	13.500	5.08620	0.37675555556	2003	1.14284042205	18.173050	0.0629	0.8492
14.000	15.000	14.500	4.18121	0.28835931034	2002	0.81028298910	13.539345	0.0598	0.8671
15.000	16.000	15.500	3.37519	0.21775419355	2001	0.55722623715	9.761145	0.0571	0.8851
16.000	17.000	16.500	2.63062	0.15943151515	2000	0.36863338280	6.758240	0.0545	0.8993
17.000	18.000	17.500	1.95714	0.11183657143	1999	0.23299933951	4.464360	0.0522	0.9135
18.000	19.000	18.500	1.37770	0.07447027027	1998	0.13984591866	2.796940	0.0500	0.9250
19.000	20.000	19.500	0.91035	0.04668461538	1997	0.07926847584	1.652915	0.0480	0.9360
20.000	21.000	20.500	0.56084	0.02735804878	1996	0.04224714376	0.917320	0.0461	0.9451
21.000	22.000	21.500	0.32136	0.01494697674	1995	0.02109463100	0.476220	0.0443	0.9525
22.000	23.000	22.500	0.17231	0.00765822222	1994	0.00979203152	0.229385	0.0427	0.9608
23.000	24.000	23.500	0.08679	0.00369319149	1993	0.00411632466	0.099835	0.0412	0.9682
24.000	25.000	24.500	0.03893	0.00158897959	1992	0.00147523912	0.036975	0.0399	0.9776
25.000	26.000	25.500	0.01385	0.00054313725	1991	0.00040918070	0.010585	0.0387	0.9869
26.000	27.000	26.500	0.00330	0.00012452830	1990	0.00007534793	0.002010	0.0375	0.9938
27.000	28.000	27.500	0.00035	0.00001272727	1989	0.00000672014	0.000185	0.0363	0.9983
28.000	28.100	28.050	0.00001	0.00000035651	1988	0.00000001783	0.000001	0.0178	1.0000
TOTAL		100.00000							

NOTE: In the application of the annual and accrued factors, zero percent net salvage is used in the above computations and the adjustment is made when the factors are applied to the surviving costs.

In the table, each equal life group is defined by the age interval shown in columns 1 and 2. These are the ages at which the first and last retirement of each group occurs, and the group's equal life, shown in column 3, is the midpoint of the interval. For purposes of the calculation, the computer is programmed to divide each vintage into equal life groups arranged so that the midpoint of each one-year age interval coincides with the calculation date, e.g., December 31 in this case. This enables the calculation of annual accruals for a twelve-month period centered on the date of calculation.

The retirement during the age interval, shown in column 4, is the size of each equal life group, and is derived from the Iowa 10-L2.5 survivor curve. It is the difference between the percents surviving at the beginning and end of the age interval.

Each equal life group's annual accrual, shown in column 5, equals the group's size (column 4) divided by its life (column 3) and multiplied by the quantity one minus the net salvage percent with the exception of 2016 installations. For 2016 installations, the group annual accrual is equal to the retirements during the interval multiplied by one minus the net salvage percent.

Columns 6 through 10 show the derivation of the annual factor and accrued factor for each vintage based on the information developed in the first five columns. The year installed is shown in column 6. For all vintages other than 2016, the summation of annual accruals for each year installed, shown in column 7, is calculated by adding one-half of the group annual accrual (column 5) for that vintage's current age interval plus the group annual accruals for all succeeding age intervals. For example, the figure 11.78901572523 for 2015 equals one-half of 0.25324000000 plus all of the succeeding figures in column 5. Only one-half of the annual accrual for the vintage's current age interval group is included in the summation because the equal life group for that interval has reached the year during which it is expected to be retired.

The summation of annual accruals (column 7) for installations during 2016 are calculated on the basis of an in-service date at the midpoint of the year, i.e., June 30. Inasmuch as the overall calculation is centered on December 31, 2016, the first figure in column 7, for vintage 2016, equals all of the group annual accrual for the first equal life group plus the accruals for all of the subsequent equal life groups.

The average percent surviving, derived from the Iowa 10-L2.5 survivor curve, is shown in column 8 for each age interval. The annual factor, shown in column 9, is the

result of dividing the summation of annual accruals (column 7) by the average percent surviving (column 8).

The accrued factor, shown in column 10, equals the annual factor multiplied by the age of the group at December 31, 2016.

REMAINING LIFE ANNUAL ACCRUAL RATES

The annual depreciation accrual rates are calculated as of December 31, 2016, and based on the straight line remaining life method using the equal life group procedure. For the purpose of calculating the composite remaining life accrual rates as of December 31, 2016, the book reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account as of December 31, 2016. The remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the composite remaining life for the surviving original cost of that vintage. The composite remaining life is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left(\frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}}$$

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated future survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accruals}}$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc. Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

The composite remaining life calculations were made using computer software that utilizes detailed ELG calculations of whole life future accruals and annual accruals in order to derive the vintage composite remaining lives. The annual accrual rate for each account is equal to the sum of the remaining life annual accruals divided by the total original cost. The composite remaining life is calculated by dividing the sum of the future book accruals by the sum of the remaining life annual accruals.

CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable utility plant in service. The accounts and their amortization periods are as follows:

<u>ACCT</u>	<u>TITLE</u>	<u>AMORTIZATION PERIOD, YEARS</u>
<u>Gas Operations and Shared Services</u>		
391.4	Office Furniture	25
391.5	Office Machines	15
391.6	Computer Equipment	5
391.7	Software	5
393.1	Stores Equipment	30
394.1	Tools, Shop and Garage Equipment	20
397.1	Communication Equipment	15
398.1	Miscellaneous Equipment	20
<u>Thermal</u>		
391.1	Office Furniture	25
391.2	Office Machines	15
391.3	Computer Equipment	5
391.4	Software	5
393.0	Stores Equipment	30
394.0	Tools, Shop and Garage Equipment	20
395.0	Laboratory Equipment	15
397.0	Communication Equipment	15
398.0	Miscellaneous Equipment	20
<u>Citizens and Westfield Water</u>		
340.51	Office Furniture	25
340.53	Computer Equipment	5
340.54	Software	5
343.50	Tools, Shop and Garage Equipment	20
344.50	Laboratory Equipment	15
346.50	Communication Equipment	15
347.50	Miscellaneous Equipment	20
348.50	Other Tangible Plant	20
<u>Citizens and Westfield Wastewater</u>		
390.71	Office Furniture	25
390.72	Office Machines	15
390.73	Computer Equipment	5
390.74	Software	5
393.70	Tools, Shop and Garage Equipment	20
394.70	Laboratory Equipment	15
396.70	Communication Equipment	15
397.70	Miscellaneous Equipment	20
398.70	Other Equipment	20

For the purpose of calculating annual amortization amounts as of December 31, 2016, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.

PART VI. RESULTS OF STUDY

PART VI. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the equal life group procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the utility plant in service as of December 31, 2016. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2016, is reasonable for a period of three to five years.

DESCRIPTION OF DETAILED TABULATIONS

Summaries of the results of the study as applied to the original cost of utility plant as of December 31, 2016 for Gas Operations, Thermal, Citizens Gas of Westfield, Citizens Water, Citizens Wastewater and Shared Services are presented in Tables 1 through 6, respectively, on pages VI-5 through VI-14 of this report. Each summary schedule sets forth the estimated survivor curves and net salvage percent, original cost, book depreciation reserve, future accruals, calculated annual depreciation rate and amount, and the composite remaining life for each depreciable group.

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other utilities. The results of the statistical analysis of service life are presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2016 are presented in account sequence starting on page IX-2 of the supporting documents. The tables indicate the estimated survivor curve and net salvage percent for the account and set forth, for each installation year, the original cost, the

calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.

CITIZENS ENERGY GROUP
GAS OPERATIONS

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)	COMPOSITE REMAINING LIFE (10)
	DEPRECIABLE PLANT								
305.3	PRESSURE REGULATING								
319.0	STRUCTURES AND IMPROVEMENTS	65-R2.5	0	530,573.87	361,143	169,431	5,584	1.05	30.3
	PRESSURE REGULATING EQUIPMENT	27-L2	0	1,993,406.58	1,178,929	814,478	59,916	3.01	13.6
	TOTAL PRESSURE REGULATING			2,523,980.45	1,540,072	983,909	65,500	2.60	
	UNDERGROUND STORAGE PLANT								
350.2	LEASEHOLDS	40-S0	0	583,864.85	547,894	35,971	1,622	0.28	22.2
351.0	STRUCTURES AND IMPROVEMENTS	50-R2	0	785,779.24	575,411	210,368	7,715	0.98	27.3
352.0	WELLS	55-R2	(5)	11,558,236.60	10,584,976	1,551,172	68,810	0.60	22.5
352.3	NON-RECOVERABLE GAS	40-R2	0	4,073,028.49	3,690,220	382,808	34,709	0.85	11.0
353.0	LINES	38-S2.5	0	3,157,718.28	2,672,244	485,474	34,029	1.08	14.3
355.0	MEASURING AND REGULATING EQUIPMENT	25-L2.5	(6)	839,372.42	329,338	551,983	38,519	4.59	14.3
356.0	PURIFICATION EQUIPMENT	55-R2.5	(5)	4,504,423.83	2,399,200	2,330,445	73,523	1.63	31.7
357.0	OTHER EQUIPMENT	40-R2.5	0	50,445.45	22,674	27,771	1,130	2.24	24.6
	TOTAL UNDERGROUND STORAGE PLANT			25,552,869.16	20,821,977	5,575,992	260,057	1.02	
	TRANSMISSION PLANT - U.G.S.								
365.2	RIGHTS OF WAY	60-S4	0	278,516.78	192,153	86,364	3,147	1.13	27.4
366.1	STRUCTURES AND IMPROVEMENTS	50-R2.5	(5)	788,150.36	508,800	318,758	12,392	1.57	25.7
367.1	MAINS	55-S0.5	(10)	8,937,584.98	5,782,033	4,049,310	136,271	1.52	29.7
368.0	COMPRESSOR STATION EQUIPMENT	45-S2.5	(5)	2,097,727.37	1,757,038	445,576	22,745	1.08	19.6
369.1	MEASURING AND REGULATING EQUIPMENT	35-S1.5	(6)	1,438,707.57	679,172	831,471	41,770	2.90	19.9
370.0	COMMUNICATION EQUIPMENT	25-S2	0	329,229.13	287,088	62,141	6,443	1.96	9.6
	TOTAL TRANSMISSION - U.G.S.			13,869,916.19	9,186,284	5,793,620	222,788	1.61	
	TRANSMISSION PLANT - MARION COUNTY								
365.4	RIGHTS OF WAY	60-S4	0	772,529.08	466,728	305,801	11,592	1.50	26.4
366.0	STRUCTURES AND IMPROVEMENTS	50-R2.5	(5)	231,059.11	118,075	124,537	4,326	1.87	28.8
367.0	MAINS	55-S0.5	(10)	44,168,438.00	17,470,664	31,114,618	935,923	2.12	33.2
369.0	MEASURING AND REGULATING EQUIPMENT	35-S1.5	(5)	1,943,466.20	969,724	1,070,916	49,804	2.56	21.5
	TOTAL TRANSMISSION PLANT - MARION COUNTY			47,115,492.39	19,025,191	32,615,872	1,001,645	2.13	
	DISTRIBUTION PLANT								
	MAINS								
376.1	VALVES, VALVE PITS, ETC.	55-R2	(30)	8,327,142.23	4,378,578	6,446,707	177,457	2.13	36.3
376.2	STEEL INSTALLED PRIOR TO 1955	33-L1.5	(30)	258,340.37	335,842	0	0	-	-
376.21	STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954	75-R2.5	(30)	291,795,385.96	158,606,188	220,727,814	4,421,821	1.52	49.9
376.7	CAST IRON AND WROUGHT IRON	43-L1	(30)	1,128,297.36	1,466,787	0	0	-	-
	TOTAL MAINS			301,509,165.92	164,787,395	227,174,521	4,599,278	1.63	

CITIZENS ENERGY GROUP
GAS OPERATIONS

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)	COMPOSITE REMAINING LIFE (10)
380.0	SERVICES	49-R2	(45)	248,358,721.19	196,719,085	163,401,061	5,784,897	2.33	28.2
381.0	METERS	35-R1	0	31,719,431.27	16,585,914	15,133,517	757,348	2.39	20.0
382.0	METER INSTALLATIONS	35-R1	0	5,804,410.23	4,111,611	1,692,799	92,559	1.59	18.3
383.0	HOUSE REGULATORS	35-R1	0	4,623,134.29	3,410,577	1,212,557	66,119	1.43	18.3
384.0	HOUSE REGULATOR INSTALLATIONS	35-R1	0	700,221.04	497,827	202,394	10,195	1.46	19.9
386.0	OTHER PROPERTY - CUSTOMER PREMISES	20-S4	0	356,362.47	207,655	148,707	29,914	8.39	5.0
387.0	OTHER EQUIPMENT	15-L1	0	165,535.50	81,226	84,310	9,702	5.86	8.7
	TOTAL DISTRIBUTION PLANT			593,236,981.91	386,401,290	409,049,866	11,350,012	1.91	
390.0	GENERAL PLANT								
	STRUCTURES AND IMPROVEMENTS	36-S0	(5)	88,253.86	7,643	85,024	3,863	4.38	22.0
391.4	OFFICE FURNITURE AND EQUIPMENT								
391.5	OFFICE FURNITURE	25-SQ	0	306,689.89	306,670	0	0	-	-
391.6	OFFICE MACHINES	15-SQ	0	10,612.05	10,612	0	0	-	-
391.7	COMPUTER EQUIPMENT	5-SQ	0	629,505.51	629,506	0	0	-	-
	SOFTWARE			3,505,873.64	3,225,922	279,952	79,986	2.28	3.5
	TOTAL OFFICE FURNITURE AND EQUIPMENT			4,452,661.09	4,172,710	279,952	79,986	1.80	
392.1	TRANSPORTATION EQUIPMENT	10-L2.5	15	7,866,006.70	3,578,717	3,107,389	641,236	8.15	4.8
393.1	STORES EQUIPMENT	30-SQ	0	28,892.66	19,964	8,929	865	2.99	10.3
394.1	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	2,052,543.28	1,742,723	309,820	17,813	0.87	17.4
396.1	POWER OPERATED EQUIPMENT	14-L1.5	20	2,156,962.74	1,437,201	289,969	32,598	1.51	8.9
397.1	COMMUNICATION EQUIPMENT	15-SQ	0	584,482.85	488,988	115,525	21,840	3.74	5.3
398.1	MISCELLANEOUS EQUIPMENT	20-SQ	0	629,816.17	373,244	256,572	32,678	5.19	7.9
	TOTAL GENERAL PLANT			17,861,619.35	11,801,160	4,453,180	830,879	4.65	
	TOTAL DEPRECIABLE PLANT			700,160,859.45	448,775,974	458,472,439	13,730,861	1.96	
304.3	NONDEPRECIABLE PLANT								
350.0	PRESSURE REGULATING - LAND			147,577.50					
360.1	UNDERGROUND STORAGE - LAND			20,499.57					
365.1	PEAK SHAVING LNG - LAND			0.00					
365.1	TRANSMISSION - U.G.S. - LAND			30,988.81					
365.3	TRANSMISSION - MARION COUNTY - LAND			45,878.00					
	TOTAL NONDEPRECIABLE PLANT			244,953.88					
	TOTAL GAS OPERATIONS			700,405,813.33	448,775,974	458,472,439	13,730,861		

* Rates for new assets as of January 1, 2017 are as follows:

Account	Rate
391.4	4.00
391.5	6.67
391.6	20.00

CITIZENS ENERGY GROUP
THERMAL

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)	COMPOSITE REMAINING LIFE (10)	
	STEAM									
	DEPRECIABLE PLANT									
	PRODUCTION PLANT									
311.0	STRUCTURES AND IMPROVEMENTS	50-S1	*	10,857,472.33	2,812,516	8,044,956	415,621	3.83	19.4	
312.0	BOILER PLANT EQUIPMENT	46-S0	*	44,298,688.28	5,637,285	38,661,403	2,214,625	5.00	17.5	
314.0	TURBOGENERATOR UNITS	60-S2	*	2,412,276.80	1,140,398	1,271,879	61,807	2.56	20.6	
315.0	ACCESSORY ELECTRIC EQUIPMENT	60-R1.5	*	3,134,758.56	699,315	2,435,442	129,382	4.13	18.8	
316.0	MISCELLANEOUS POWER PLANT EQUIPMENT	35-R1.5	*	946,912.83	113,124	833,789	52,336	5.53	15.9	
	TOTAL PRODUCTION PLANT			61,650,106.80	10,402,638	51,247,469	2,873,771	4.66		
	DISTRIBUTION PLANT									
360.0	LAND RIGHTS	65-R4	0	1,792.46	814	978	45	2.51	21.7	
366.0	MAINS	65-R2	(5)	22,347,600.63	5,306,548	18,158,433	431,206	1.93	42.1	
369.0	SERVICES	45-R2.5	(15)	3,837,815.00	1,243,184	3,170,293	101,076	2.63	31.4	
370.0	METERS	45-R3	0	555,676.94	266,657	289,020	12,866	2.32	22.5	
	TOTAL DISTRIBUTION PLANT			26,742,885.03	6,817,213	21,618,724	545,193	2.04		
	GENERAL PLANT									
	OFFICE FURNITURE AND EQUIPMENT									
391.1	OFFICE FURNITURE	25-SQ	0	82,540.19	82,540	0	0	-	**	
391.2	OFFICE EQUIPMENT	15-SQ	0	6,370.00	6,370	0	0	-	**	
391.3	COMPUTER EQUIPMENT	5-SQ	0	29,670.11	29,670	0	0	-	**	
391.4	SOFTWARE	5-SQ	0	148,946.12	148,946	0	0	-	**	
	TOTAL OFFICE FURNITURE AND EQUIPMENT			267,526.42	267,526	0	0	-		
	TRANSPORTATION EQUIPMENT									
392.0	STORES EQUIPMENT	19-S2	15	972,353.65	589,401	237,100	17,315	1.78	13.7	
393.0	TOOLS, SHOP AND GARAGE EQUIPMENT	30-SQ	0	77,420.86	8,922	67,589	2,637	3.41	25.6	
394.0	LABORATORY EQUIPMENT	20-SQ	0	304,495.07	218,257	86,238	6,991	2.95	9.6	
395.0	POWER OPERATED EQUIPMENT	15-SQ	0	106,275.57	61,748	44,528	3,808	3.58	11.7	
396.0	COMMUNICATION EQUIPMENT	11-S2.5	20	355,207.81	124,321	159,845	31,898	8.98	5.0	
397.0	MISCELLANEOUS EQUIPMENT	15-SQ	0	15,096.56	10,131	4,966	2,334	15.46	2.1	
398.0	TOTAL GENERAL PLANT	20-SQ	0	305,878.01	141,175	164,703	11,349	3.71	14.5	
	TOTAL DEPRECIABLE PLANT			2,404,253.95	1,422,381	764,979	76,332	3.26		
	TOTAL DEPRECIABLE PLANT			90,797,245.78	18,642,232	73,631,172	3,497,296	3.85		
	NONDEPRECIABLE PLANT									
310.0	LAND			47,846.87						
	TOTAL NONDEPRECIABLE PLANT			47,846.87						
	TOTAL STEAM DIVISION			90,845,092.65	18,642,232	73,631,172	3,497,296			

CITIZENS ENERGY GROUP
THERMAL

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRAUALS (7)	ANNUAL ACCRAUAL AMOUNT (8)	ANNUAL ACCRAUAL RATE (9)	COMPOSITE REMAINING LIFE (10)
	CHILLED WATER								
	DEPRECIABLE PLANT								
311.0	PRODUCTION PLANT								
312.0	STRUCTURES AND IMPROVEMENTS	60-R3	0	13,966,489.67	2,578,137	11,388,363	249,503	1.79	45.6
316.0	BOILER PLANT EQUIPMENT	50-R3	0	34,788,154.18	7,882,657	26,905,497	739,527	2.13	36.4
	MISCELLANEOUS POWER PLANT EQUIPMENT	35-S1.5	0	981,925.22	134,700	847,225	32,919	3.35	25.7
	TOTAL PRODUCTION PLANT			49,736,573.07	10,595,494	39,141,085	1,021,949	2.05	
	DISTRIBUTION PLANT								
366.0	MAINS	60-R2.5	(60)	26,313,266.96	10,333,391	31,767,836	768,453	2.92	41.3
369.0	SERVICES	45-R2.5	(45)	9,214,946.22	4,047,548	9,314,124	293,827	3.19	31.7
370.0	METERS	40-S1	0	860,276.78	195,445	664,834	25,545	2.97	26.0
	TOTAL DISTRIBUTION PLANT			36,388,491.96	14,576,384	41,746,794	1,087,825	2.99	
	GENERAL PLANT								
	OFFICE FURNITURE AND EQUIPMENT								
391.1	OFFICE FURNITURE	25-SQ	0	15,945.94	15,946	0	0	-	**
391.3	COMPUTER EQUIPMENT	5-SQ	0	38,149.45	38,149	0	0	-	**
391.4	SOFTWARE	5-SQ	0	124,575.02	124,575	0	0	-	**
	TOTAL OFFICE FURNITURE AND EQUIPMENT			178,670.41	178,670	0	0	-	
392.0	TRANSPORTATION EQUIPMENT	18-L3	15	269,724.85	123,850	105,416	8,812	3.27	12.0
394.0	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	243,928.93	119,272	124,657	9,346	3.83	13.3
397.0	COMMUNICATION EQUIPMENT	15-SQ	0	412,646.13	92,505	320,141	26,369	6.39	12.1
	TOTAL GENERAL PLANT			1,104,970.32	514,297	550,214	44,527	4.03	
	TOTAL DEPRECIABLE PLANT			87,230,041.35	25,866,175	81,438,093	2,154,301	2.47	
	NONDEPRECIABLE PLANT								
310.0	LAND			915,614.27					
	TOTAL NONDEPRECIABLE PLANT			915,614.27					
	TOTAL CHILLED WATER DIVISION			88,145,655.62	25,866,175	81,438,093	2,154,301		
	TOTAL THERMAL PLANT			178,990,748.27	44,328,407	155,069,265	5,651,597		

* Life span technique is used. Curve shown is interim survivor curve.

** Rates for new assets as of January 1, 2017 are as follows:

Account	Division	Rate
391.1	Steam	4.00
391.2	Steam	6.67
391.3	Steam	20.00
391.4	Steam	20.00
391.1	Chilled Water	4.00
391.3	Chilled Water	20.00
391.4	Chilled Water	20.00

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

TABLE 3. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)	COMPOSITE REMAINING LIFE (10)
	DEPRECIABLE PLANT								
	DISTRIBUTION PLANT								
375.0	STRUCTURES AND IMPROVEMENTS	50-R3	0	28,305.16	1,181	27,124	662	2.34	41.0
376.0	MAINS	65-S1.5	(20)	7,610,508.46	2,297,926	6,894,684	149,195	1.96	45.8
378.0	MEASURING AND REGULATING EQUIPMENT - GENERAL	40-R2.5	(10)	10,753.65	6,946	4,883	230	2.14	21.2
379.0	MEASURING AND REGULATING EQUIPMENT - GCCS	40-R2.5	(10)	92,123.66	11,884	89,452	3,008	3.27	29.7
380.0	SERVICES	50-R2	(40)	2,255,572.67	1,142,439	2,015,363	62,410	2.77	32.3
381.0	METERS	35-S0	0	633,982.70	295,774	338,219	17,113	2.70	19.8
382.0	METER INSTALLATIONS	35-S2.5	0	16,927.01	11,960	4,937	285	1.74	16.7
383.0	HOUSE REGULATORS	40-S2.5	0	86,663.12	49,126	37,537	1,853	2.14	20.3
385.0	INDUSTRIAL MEASURING AND REGULATING EQUIPMENT	35-S2	0	32,552.51	27,498	5,055	337	1.04	15.0
	TOTAL DISTRIBUTION PLANT			<u>10,767,398.94</u>	<u>3,844,764</u>	<u>9,357,254</u>	<u>235,103</u>	<u>2.18</u>	
	TOTAL DEPRECIABLE PLANT			<u>10,767,398.94</u>	<u>3,844,764</u>	<u>9,357,254</u>	<u>235,103</u>	<u>2.18</u>	
	NONDEPRECIABLE PLANT								
374.0	LAND AND LAND RIGHTS			46,066.00					
	TOTAL NONDEPRECIABLE PLANT			<u>46,066.00</u>					
	TOTAL CITIZENS GAS OF WESTFIELD			<u>10,813,464.94</u>	<u>3,844,764</u>	<u>9,357,254</u>	<u>235,103</u>		

CITIZENS ENERGY GROUP
WATER

TABLE 4. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ACCOUNT	DESCRIPTION	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2016	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	WATER PLANT								
	CITIZENS WATER								
	DEPRECIABLE PLANT								
	SOURCE OF SUPPLY AND PUMPING PLANT								
304.2	STRUCTURES AND IMPROVEMENTS	50-R3	(5)	25,467,134.40	11,459,460	15,281,031	589,350	2.31	25.9
305.2	COLLECTING AND IMPOUNDED RESERVOIRS	75-R2.5	0	55,429,788.23	30,968,730	22,461,059	686,631	1.29	32.7
306.2	LAKE, RIVER AND OTHER INTAKES	60-S1.5	0	2,946,466.97	389,029	2,557,438	56,781	1.93	45.0
307.2	WELLS AND SPRINGS	65-R3	(5)	33,626,191.84	4,539,914	30,977,597	771,067	2.28	40.2
311.2	PUMPING EQUIPMENT	40-S1.5	(10)	55,862,133.33	22,614,182	39,867,165	1,596,332	2.85	24.4
339.2	OTHER MISCELLANEOUS EQUIPMENT	30-R3	0	4,430,135.49	330,553	4,099,582	177,612	4.01	23.1
	TOTAL SOURCE OF SUPPLY AND PUMPING PLANT			175,991,851.26	70,301,868	114,243,862	3,876,773	2.20	2.20
	TREATMENT PLANT								
304.3	STRUCTURES AND IMPROVEMENTS	65-R2.5	(10)	192,720,165.28	113,860,382	98,131,800	2,735,762	1.42	35.9
320.3	WATER TREATMENT EQUIPMENT	40-R2.5	(5)	172,816,446.15	81,233,082	100,224,188	3,875,685	2.24	25.9
	TOTAL TREATMENT PLANT			365,536,611.43	195,093,464	198,355,988	6,611,447	1.81	1.81
	DISTRIBUTION PLANT								
330.4	DISTRIBUTION RESERVOIRS AND STANDPIPES	55-R4	(10)	15,191,206.02	6,647,400	10,662,927	276,702	1.82	38.4
331.4	TRANSMISSION AND DISTRIBUTION MAINS	125-R3	(15)	814,152,967.05	515,290,020	420,985,092	4,472,595	0.55	94.1
333.4	SERVICES	70-R4	(50)	103,194,095.25	86,616,336	66,172,813	1,191,749	1.15	55.5
334.4	METERS AND METER INSTALLATIONS	43-S0	0	67,606,374.13	60,424,887	7,381,487	282,207	0.42	28.2
335.4	HYDRANTS	65-R2.5	(10)	42,226,327.76	24,305,666	22,145,295	464,447	1.10	47.7
339.4	OTHER MISCELLANEOUS EQUIPMENT	40-R3	0	2,917,634.53	1,045,923	1,871,712	66,960	2.30	28.0
	TOTAL DISTRIBUTION PLANT			1,045,488,608.74	696,333,032	528,617,326	6,754,660	0.65	0.65
	GENERAL PLANT								
	OFFICE FURNITURE AND EQUIPMENT								
340.51	OFFICE FURNITURE	25-SQ	0	131,350.69	9,415	121,936	5,751	4.38	21.2
340.53	COMPUTER EQUIPMENT	5-SQ	0	645,746.93	29,717	616,030	277,373	42.85	2.2
340.54	SOFTWARE	5-SQ	0	1,894,046.61	70,986	1,823,063	523,296	27.63	3.5
	TOTAL OFFICE FURNITURE AND EQUIPMENT			2,671,146.23	110,118	2,561,029	806,420	30.19	
341.5	TRANSPORTATION EQUIPMENT	12-S3	20	6,848,470.47	2,241,980	3,236,796	586,597	8.57	5.5
343.5	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	80,153.94	3,913	76,241	4,323	5.39	17.6
344.5	LABORATORY EQUIPMENT	15-SQ	0	406,979.82	26,652	380,328	33,087	8.13	11.5
345.5	POWER OPERATED EQUIPMENT	12-L1.5	20	2,511,980.74	1,384,507	624,358	114,949	4.58	5.4
	TOTAL GENERAL PLANT			12,517,831.20	3,767,170	6,678,752	1,545,376	12.35	
	TOTAL DEPRECIABLE PLANT			1,599,534,902.63	965,495,534	848,095,926	18,788,256	1.17	
	NONDEPRECIABLE PLANT								
303.2	LAND AND LAND RIGHTS - PUMPING			22,247,515.30					
303.3	LAND AND LAND RIGHTS - TREATMENT			9,171,858.05					
303.4	LAND AND LAND RIGHTS - DISTRIBUTION			1,066,386.65					
	TOTAL NONDEPRECIABLE PLANT			32,485,760.00					
	TOTAL CITIZENS WATER			1,632,020,662.63	965,495,534	848,095,926	18,788,256		

CITIZENS ENERGY GROUP
WATER

TABLE 4. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)	COMPOSITE REMAINING LIFE (10)
	WESTFIELD WATER								
	DEPRECIABLE PLANT								
304.2	SOURCE OF SUPPLY AND PUMPING PLANT	50-R3	(5)	405,037.25	200,693	224,596	7,319	1.81	30.7
307.2	STRUCTURES AND IMPROVEMENTS	55-R3	(5)	2,560,270.39	1,249,827	1,459,457	34,458	1.34	42.4
309.2	WELLS AND SPRINGS	50-R2.5	(15)	5,021,845.00	2,237,970	3,537,152	131,198	2.61	27.0
311.2	SUPPLY MAINS	40-S1.5	(10)	923,141.16	389,392	626,063	23,292	2.52	26.9
339.2	PUMPING EQUIPMENT	30-R3	0	13,056.18	5,450	7,577	309	2.36	24.5
	OTHER MISCELLANEOUS EQUIPMENT								
	TOTAL SOURCE OF SUPPLY AND PUMPING PLANT			8,943,359.98	4,083,372	5,854,845	196,576	2.20	
	TREATMENT PLANT								
304.3	STRUCTURES AND IMPROVEMENTS	65-R2.5	(10)	8,197,052.81	2,580,170	6,436,588	146,326	1.79	44.0
320.3	WATER TREATMENT EQUIPMENT	40-R2.5	(5)	3,536,004.08	1,095,600	2,617,204	90,323	2.55	29.0
	TOTAL TREATMENT PLANT			11,733,056.89	3,675,770	9,053,792	236,649	2.02	
	DISTRIBUTION PLANT								
330.4	DISTRIBUTION RESERVOIRS AND STANDPIPES	55-R4	(10)	2,607,538.86	1,021,601	1,846,682	58,091	2.23	31.8
331.4	TRANSMISSION AND DISTRIBUTION MAINS	12-R3	(15)	34,083,616.49	5,863,163	33,509,969	331,768	0.97	100.4
333.4	SERVICES	70-R4	(60)	920,686.17	17,716	1,363,316	21,471	2.33	63.5
334.4	METERS AND METER INSTALLATIONS	43-S0	0	3,967,870.36	1,289,544	2,728,328	108,993	2.73	23.0
335.4	HYDRANTS	65-R2.5	(10)	2,617,374.59	145,624	2,735,268	56,869	2.17	48.1
339.4	OTHER MISCELLANEOUS EQUIPMENT	40-R3	0	25,718.30	771	24,947	754	2.93	33.1
	TOTAL DISTRIBUTION PLANT			44,222,800.77	8,308,619	42,006,558	577,946	1.31	
	GENERAL PLANT								
340.53	OFFICE FURNITURE AND EQUIPMENT	5-SQ	0	135,150.46	63,360	71,790	28,716	21.25	2.5
340.54	COMPUTER EQUIPMENT	5-SQ	0	657,999.63	32,261	625,739	200,222	30.43	3.1
	SOFTWARE			793,150.09	95,621	697,529	228,938	28.86	
	TOTAL OFFICE FURNITURE AND EQUIPMENT								
341.5	TRANSPORTATION EQUIPMENT	12-S3	20	210,045.12	143,280	24,756	2,678	1.27	9.2
343.5	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	18,474.00	18,474	0	0	-	-
344.5	LABORATORY EQUIPMENT	15-SQ	0	28,510.50	21,303	7,208	567	1.99	12.7
345.5	POWER OPERATED EQUIPMENT	12-L1.5	20	48,780.94	32,612	6,413	1,471	3.02	4.4
346.5	COMMUNICATION EQUIPMENT	15-SQ	0	20,562.59	20,563	0	0	-	-
347.5	MISCELLANEOUS EQUIPMENT	20-SQ	0	101,364.28	58,540	42,824	2,211	2.18	19.4
348.5	OTHER TANGIBLE PLANT		0	5,483.79	4,757	727	71	1.29	10.2
	TOTAL GENERAL PLANT			1,226,371.31	395,150	779,457	235,936	19.24	
	TOTAL DEPRECIABLE PLANT			66,125,588.95	16,462,911	57,694,652	1,247,107	1.89	
	NONDEPRECIABLE PLANT								
303.2	LAND AND LAND RIGHTS - PUMPING			1,461,607.15					
303.3	LAND AND LAND RIGHTS - TREATMENT			119,397.60					
303.4	LAND AND LAND RIGHTS - DISTRIBUTION			501,644.48					
	TOTAL NONDEPRECIABLE PLANT			2,082,649.23					
	TOTAL WESTFIELD WATER			68,208,238.18	16,462,911	57,694,652	1,247,107		
	TOTAL WATER PLANT			1,700,228,900.81	981,958,445	905,790,578	20,035,363		

Note: Rates for new Accounts as of January 1, 2017 are as follows:

Account	Division	Rate
347.5	Citizens Water	5.00
339.3	Westfield Water	3.55
343.5	Westfield Water	5.00
346.5	Westfield Water	6.67

* Rates for new assets as of January 1, 2017 are as follows:

CITIZENS ENERGY GROUP
WASTEWATER

TABLE 5. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

(1) ACCOUNT	(2) DESCRIPTION	(3) SURVIVOR CURVE	(4) NET SALVAGE PERCENT	(5) ORIGINAL COST AS OF DECEMBER 31, 2016	(6) BOOK DEPRECIATION RESERVE	(7) FUTURE ACCRUALS	(8) ANNUAL ACCRUAL AMOUNT	(9) ANNUAL ACCRUAL RATE	(10) COMPOSITE REMAINING LIFE
	WASTEWATER PLANT								
	CITIZENS WASTEWATER								
	DEPRECIABLE PLANT								
	COLLECTION PLANT								
360.2	COLLECTING SEWERS - FORCE	60-R2.5	(10)	14,501,738.68	2,979,933	12,971,980	315,265	2.17	41.1
361.2	COLLECTING SEWERS - GRAVITY	60-S1.5	(10)	1,121,230,973.05	784,447,134	448,806,936	13,398,100	1.19	33.5
362.2	SPECIAL COLLECTING STRUCTURES	45-S2.5	0	155,215,960.67	89,131,310	66,084,651	2,117,498	1.36	31.2
362.22	SPECIAL COLLECTING STRUCTURES - DROP SHAFTS	45-S2.5	0	33,115,926.29	1,953,838	31,162,088	810,951	2.45	38.4
	TOTAL COLLECTION PLANT			1,324,064,598.69	878,512,215	559,125,655	16,641,814	1.26	
	PUMPING PLANT								
354.3	STRUCTURES AND IMPROVEMENTS	55-R2.5	(5)	66,801,633.32	35,484,760	34,761,955	1,180,727	1.76	29.4
371.3	PUMPING EQUIPMENT	40-R2	(10)	80,479,604.49	41,956,121	46,571,444	2,005,660	2.49	23.2
	TOTAL PUMPING PLANT			147,381,237.81	77,440,881	81,333,399	3,186,387	2.16	
	TREATMENT PLANT								
354.4	STRUCTURES AND IMPROVEMENTS	65-R2.5	(10)	480,880,985.54	180,067,800	349,011,284	8,245,158	1.71	42.3
380.4	TREATMENT AND DISPOSAL EQUIPMENT	35-S1	(5)	673,089,056.77	405,619,729	301,123,781	15,118,468	2.25	19.9
	TOTAL TREATMENT PLANT			1,154,070,042.31	585,687,529	650,135,065	23,363,626	2.02	
	GENERAL PLANT								
	OFFICE FURNITURE AND EQUIPMENT								
390.71	OFFICE FURNITURE	25-SQ	0	150,921.17	10,391	140,530	6,372	4.22	22.1
390.73	COMPUTER EQUIPMENT	5-SQ	0	3,377,669.86	62,817	3,314,853	1,244,845	36.86	2.7
390.74	SOFTWARE	5-SQ	0	713,636.23	76,401	637,235	456,630	63.99	1.4
	TOTAL OFFICE FURNITURE AND EQUIPMENT			4,242,227.26	149,609	4,092,618	1,707,847	40.26	
391.7	TRANSPORTATION EQUIPMENT	10-L3	20	4,639,911.19	309,177	3,402,752	528,625	11.39	6.4
395.7	POWER OPERATED EQUIPMENT	12-L1.5	20	97,575.64	2,236	75,825	9,327	9.56	8.1
	TOTAL GENERAL PLANT			8,979,714.09	461,022	7,871,195	2,245,799	25.01	
	TOTAL DEPRECIABLE PLANT			2,634,495,592.90	1,542,101,647	1,298,165,314	45,637,626	1.72	
	NONDEPRECIABLE PLANT								
353.2	LAND AND LAND RIGHTS - COLLECTION			52,482.15					
353.3	LAND AND LAND RIGHTS - PUMPING			12,202.39					
353.4	LAND AND LAND RIGHTS - TREATMENT			2,442,687.47					
	TOTAL NONDEPRECIABLE PLANT			2,507,372.01					
	TOTAL CITIZENS WASTEWATER			2,637,002,964.91	1,542,101,647	1,298,165,314	45,637,626		
	WESTFIELD WASTEWATER								
	DEPRECIABLE PLANT								
	COLLECTION PLANT								
354.2	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R2.5	(5)	647.14	642	37	1	0.15	37.0
360.2	COLLECTING SEWERS - FORCE	60-R2.5	(10)	7,057,903.18	2,424,243	5,339,450	139,136	1.97	38.4
361.2	COLLECTING SEWERS - GRAVITY	60-S1.5	(10)	62,411,131.65	11,460,046	57,191,369	1,324,880	2.12	43.2
363.2	SERVICES	55-R2.5	(20)	20,072.88	5,122	16,505	663	2.44	27.1
364.2	FLOW MEASURING DEVICES	30-S1.5	0	1,303,276.38	552,432	750,844	47,534	3.65	15.8
	TOTAL COLLECTION PLANT			70,880,981.23	14,453,285	63,300,235	1,512,244	2.14	

CITIZENS ENERGY GROUP
WASTEWATER

TABLE 5. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ACCOUNT	DESCRIPTION	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2016	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
354.3	PUMPING PLANT	55-R2.5	(5)	1,795,755.10	389,681	1,515,863	39,432	2.20	38.4
371.3	PUMPING EQUIPMENT	40-R2	(10)	3,608,510.18	767,689	3,201,672	130,368	3.61	24.6
	TOTAL PUMPING PLANT			5,404,265.28	1,137,370	4,717,535	169,800	3.14	
354.4	TREATMENT PLANT	65-R2.5	(10)	16,819,636.68	5,312,680	13,188,920	304,400	1.81	43.3
380.4	STRUCTURES AND IMPROVEMENTS - TREATMENT	35-S1	(5)	7,198,134.20	3,351,334	4,206,707	221,720	3.08	19.0
	TOTAL TREATMENT PLANT			24,017,770.88	8,664,014	17,395,627	526,120	2.19	
	GENERAL PLANT								
380.71	OFFICE FURNITURE AND EQUIPMENT		0	26,665.96	26,666	0	0	-	-
380.72	OFFICE FURNITURE		0	24,322.23	24,322	0	0	-	-
380.73	OFFICE MACHINES		0	229,387.10	89,590	139,797	34,458	15.02	4.1
380.74	COMPUTER EQUIPMENT		0	747,354.16	125,168	622,186	234,767	31.41	2.7
	SOFTWARE			1,027,728.45	265,746	761,983	269,225	26.20	
	TOTAL OFFICE FURNITURE AND EQUIPMENT								
391.7	TRANSPORTATION EQUIPMENT	10-L3	20	230,063.64	126,354	57,697	9,713	4.22	5.9
393.7	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	61,373.47	60,140	1,233	75	0.12	16.4
394.7	LABORATORY EQUIPMENT	15-SQ	0	38,004.17	36,697	1,307	138	0.36	9.5
395.7	POWER OPERATED EQUIPMENT	12L1.5	20	165,926.78	132,741	0	0	-	-
396.7	COMMUNICATION EQUIPMENT	15-SQ	0	21,150.96	21,151	0	0	-	-
397.7	MISCELLANEOUS EQUIPMENT	20-SQ	0	63,618.72	63,619	0	0	-	-
398.7	OTHER EQUIPMENT	20-SQ	0	145,913.52	57,754	88,160	8,486	5.82	10.4
	TOTAL GENERAL PLANT			1,753,760.71	764,202	910,360	287,537	16.40	
	TOTAL DEPRECIABLE PLANT			101,976,799.10	25,018,871	86,323,777	2,495,801	2.45	
353.2	NONDEPRECIABLE PLANT								
353.3	LAND AND LAND RIGHTS - COLLECTION			1,003,472.94					
353.4	LAND AND LAND RIGHTS - PUMPING			84,576.61					
	LAND AND LAND RIGHTS - TREATMENT			210,266.00					
	TOTAL NONDEPRECIABLE PLANT			1,295,321.55					
	TOTAL WESTFIELD WASTEWATER			103,272,120.65	25,018,871	86,323,777	2,495,801		
	TOTAL WASTEWATER PLANT			2,740,275,085.56	1,567,120,516	1,384,489,091	47,933,427		

Note: Rates for new Accounts as of January 1, 2017 are as follows:

Account	Division	Rate
354.2	Citizens Wastewater	3.16
364.2	Citizens Wastewater	4.02
387.7	Citizens Wastewater	5.00

* Rates for new assets as of January 1, 2017 are as follows:

Account	Division	Rate
390.71	Westfield Wastewater	4.00
390.72	Westfield Wastewater	6.67
395.7	Westfield Wastewater	9.56
396.7	Westfield Wastewater	6.67
397.7	Westfield Wastewater	5.00

CITIZENS ENERGY GROUP
SHARED SERVICES

TABLE 6. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2016

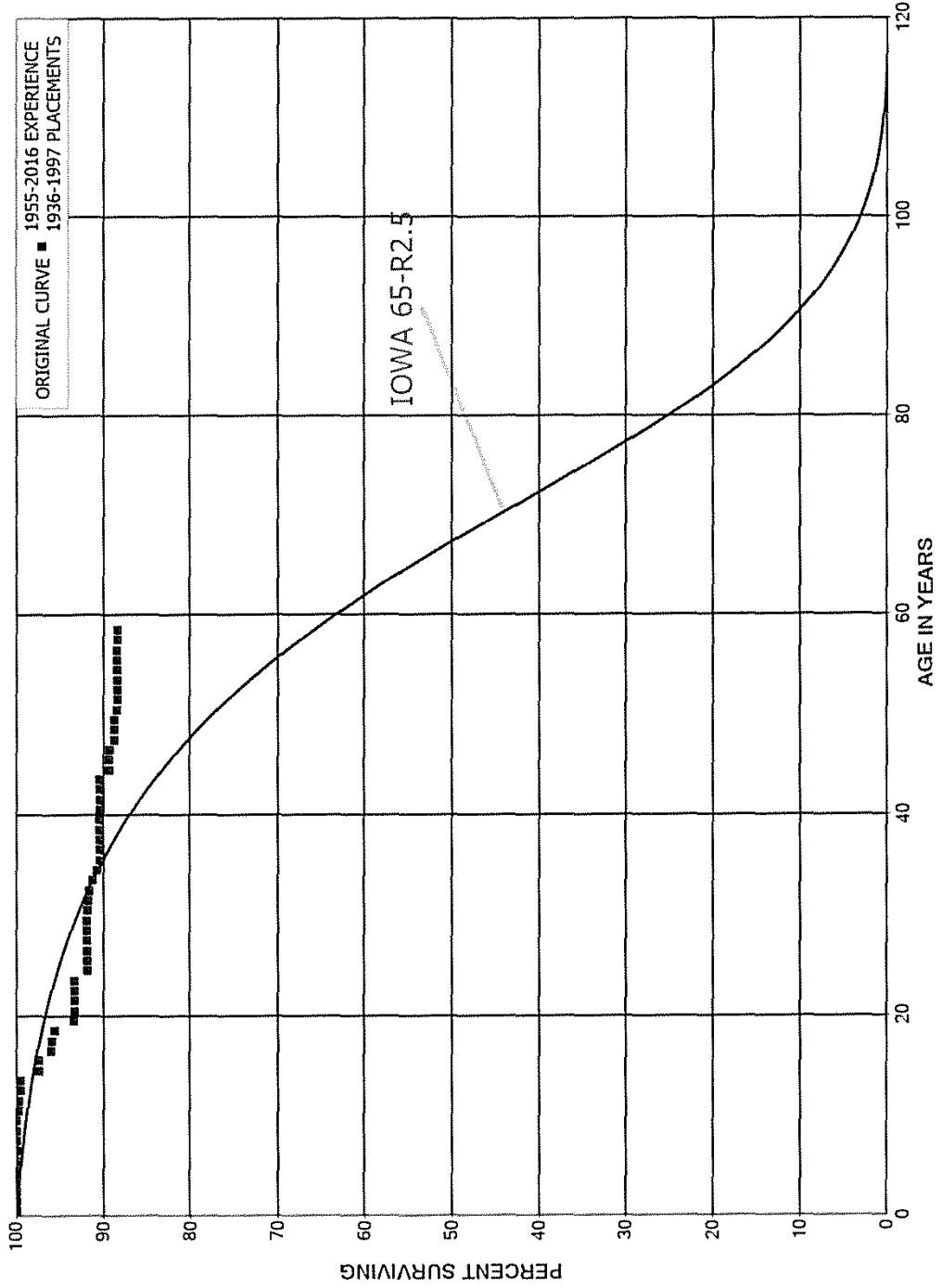
ACCOUNT (1)	DESCRIPTION (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2016 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)	COMPOSITE REMAINING LIFE (10)
	SHARED SERVICES								
390.0	DEPRECIABLE PLANT STRUCTURES AND IMPROVEMENTS	25-S1.5	(5)	45,195,068.90	25,437,863	22,016,959	1,231,876	2.73	17.9
391.4	OFFICE FURNITURE AND EQUIPMENT	25-SQ	0	3,176,033.58	1,253,591	1,922,443	85,471	2.69	22.5
391.5	OFFICE FURNITURE	15-SQ	0	1,428,878.13	322,812	1,106,066	92,814	6.50	11.9
391.6	OFFICE MACHINES	5-SQ	0	6,148,489.40	3,350,535	2,797,964	1,304,706	21.22	2.1
391.7	COMPUTER EQUIPMENT	5-SQ	0	27,031,683.69	15,684,700	11,346,984	4,338,543	16.05	2.6
	SOFTWARE			37,785,094.80	20,611,638	17,173,457	5,821,534	15.41	
	TOTAL OFFICE FURNITURE AND EQUIPMENT								
382.1	TRANSPORTATION EQUIPMENT	10-L3	15	75,107.56	13,343	50,498	7,878	10.49	6.4
384.1	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	19,605.88	2,346	17,260	966	5.03	17.5
397.1	COMMUNICATION EQUIPMENT	15-SQ	0	3,958,857.50	852,095	3,106,762	259,786	6.56	12.0
398.1	OTHER EQUIPMENT	20-SQ	0	425,435.37	93,675	331,760	21,636	5.09	15.3
	TOTAL DEPRECIABLE PLANT			87,469,170.01	47,010,960	42,696,696	7,343,696	8.40	
	NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED								
389.0	LAND			1,581,974.28					
	TOTAL NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED			1,581,974.28					
	TOTAL CORPORATE SERVICES			89,041,144.29	47,010,960	42,696,696	7,343,696		

*

PART VII. SERVICE LIFE STATISTICS

GAS OPERATIONS

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 305.3 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 305.3 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1936-1997			EXPERIENCE BAND 1955-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	972,996		0.0000	1.0000	100.00
0.5	975,516	505	0.0005	0.9995	100.00
1.5	993,432		0.0000	1.0000	99.95
2.5	993,432		0.0000	1.0000	99.95
3.5	1,061,729		0.0000	1.0000	99.95
4.5	1,086,068		0.0000	1.0000	99.95
5.5	1,094,532		0.0000	1.0000	99.95
6.5	1,319,992		0.0000	1.0000	99.95
7.5	1,319,992		0.0000	1.0000	99.95
8.5	1,532,113		0.0000	1.0000	99.95
9.5	1,531,348	3,735	0.0024	0.9976	99.95
10.5	1,486,438		0.0000	1.0000	99.70
11.5	1,487,942	2,203	0.0015	0.9985	99.70
12.5	1,485,739	942	0.0006	0.9994	99.56
13.5	1,472,775	31,482	0.0214	0.9786	99.49
14.5	1,397,498		0.0000	1.0000	97.37
15.5	1,330,549	18,465	0.0139	0.9861	97.37
16.5	1,446,559	716	0.0005	0.9995	96.02
17.5	1,429,681	4,978	0.0035	0.9965	95.97
18.5	1,042,615	24,893	0.0239	0.9761	95.63
19.5	1,014,412	706	0.0007	0.9993	93.35
20.5	1,013,706		0.0000	1.0000	93.29
21.5	843,718		0.0000	1.0000	93.29
22.5	843,718		0.0000	1.0000	93.29
23.5	843,718	13,033	0.0154	0.9846	93.29
24.5	830,685		0.0000	1.0000	91.84
25.5	827,120		0.0000	1.0000	91.84
26.5	815,419		0.0000	1.0000	91.84
27.5	804,271		0.0000	1.0000	91.84
28.5	836,280		0.0000	1.0000	91.84
29.5	762,352		0.0000	1.0000	91.84
30.5	503,130	507	0.0010	0.9990	91.84
31.5	452,459	578	0.0013	0.9987	91.75
32.5	451,881	2,311	0.0051	0.9949	91.64
33.5	429,308	2,102	0.0049	0.9951	91.17
34.5	361,514	1,132	0.0031	0.9969	90.72
35.5	360,382		0.0000	1.0000	90.44
36.5	281,835		0.0000	1.0000	90.44
37.5	281,835		0.0000	1.0000	90.44
38.5	281,835		0.0000	1.0000	90.44

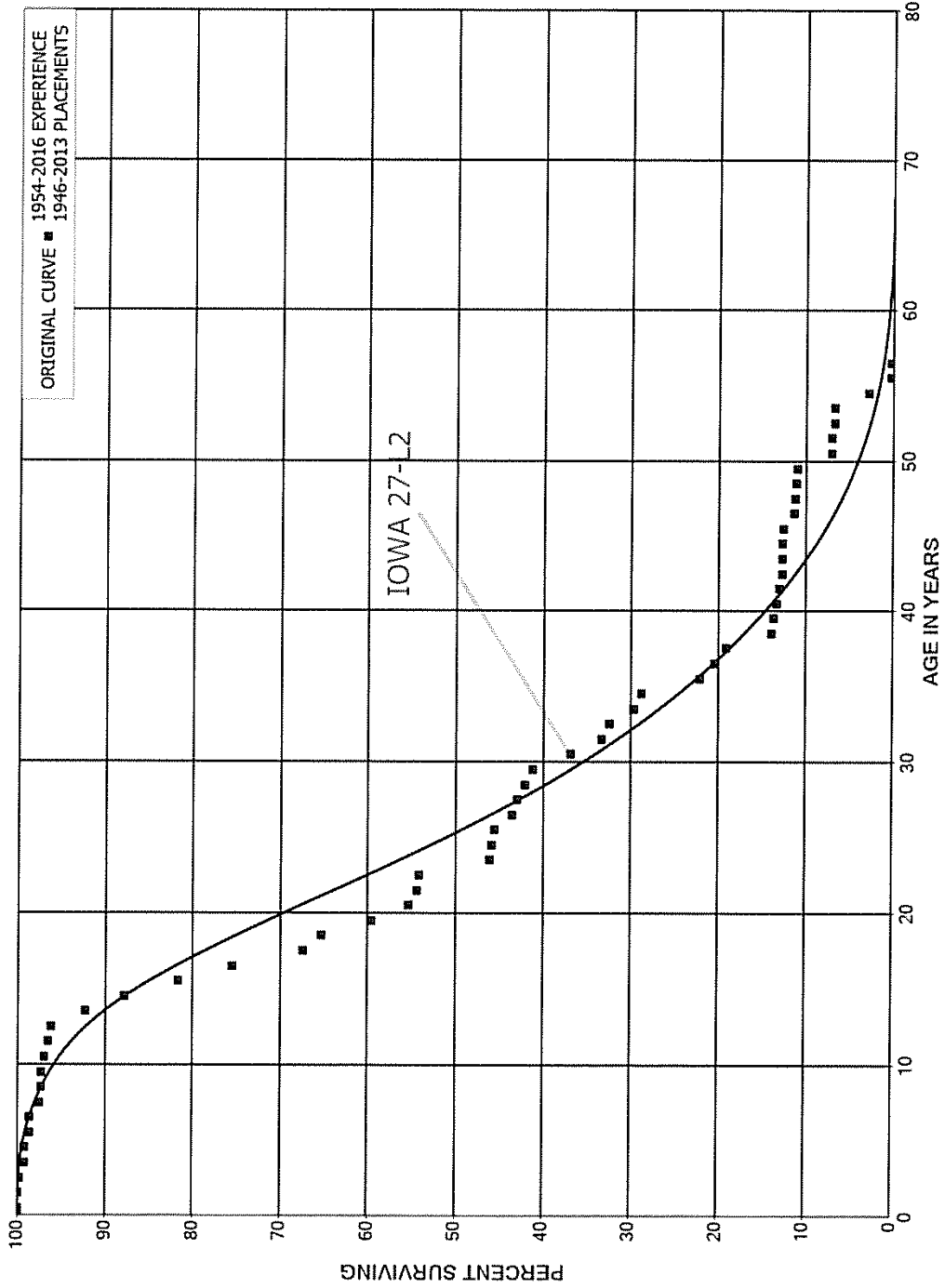
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 305.3 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1936-1997			EXPERIENCE BAND 1955-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	281,835		0.0000	1.0000	90.44
40.5	281,835		0.0000	1.0000	90.44
41.5	279,525		0.0000	1.0000	90.44
42.5	279,525		0.0000	1.0000	90.44
43.5	276,008	3,359	0.0122	0.9878	90.44
44.5	257,384		0.0000	1.0000	89.34
45.5	251,143		0.0000	1.0000	89.34
46.5	221,434	1,504	0.0068	0.9932	89.34
47.5	205,720		0.0000	1.0000	88.73
48.5	191,132		0.0000	1.0000	88.73
49.5	163,882	662	0.0040	0.9960	88.73
50.5	152,898		0.0000	1.0000	88.37
51.5	138,210		0.0000	1.0000	88.37
52.5	117,678		0.0000	1.0000	88.37
53.5	117,678		0.0000	1.0000	88.37
54.5	48,826		0.0000	1.0000	88.37
55.5	48,826		0.0000	1.0000	88.37
56.5	35,276		0.0000	1.0000	88.37
57.5	35,276		0.0000	1.0000	88.37
58.5	32,803		0.0000	1.0000	88.37
59.5	32,803		0.0000	1.0000	88.37
60.5	32,803		0.0000	1.0000	88.37
61.5	32,803		0.0000	1.0000	88.37
62.5	32,803		0.0000	1.0000	88.37
63.5	32,803		0.0000	1.0000	88.37
64.5	32,803		0.0000	1.0000	88.37
65.5	32,803		0.0000	1.0000	88.37
66.5	8,464		0.0000	1.0000	88.37
67.5					88.37

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 319.0 PRESSURE REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 319.0 PRESSURE REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1946-2013			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,843,297		0.0000	1.0000	100.00
0.5	5,269,832	2,374	0.0005	0.9995	100.00
1.5	5,311,732	11,470	0.0022	0.9978	99.95
2.5	5,727,067	31,871	0.0056	0.9944	99.74
3.5	5,154,749	2,837	0.0006	0.9994	99.18
4.5	5,150,091	25,525	0.0050	0.9950	99.13
5.5	5,124,272	3,380	0.0007	0.9993	98.64
6.5	5,123,878	54,019	0.0105	0.9895	98.57
7.5	5,066,257	15,251	0.0030	0.9970	97.53
8.5	5,051,006	95	0.0000	1.0000	97.24
9.5	5,050,911	17,690	0.0035	0.9965	97.24
10.5	5,032,521	19,283	0.0038	0.9962	96.90
11.5	5,013,238	15,607	0.0031	0.9969	96.53
12.5	4,997,632	206,369	0.0413	0.9587	96.23
13.5	4,791,833	229,565	0.0479	0.9521	92.25
14.5	4,562,269	319,580	0.0700	0.9300	87.83
15.5	3,474,674	263,581	0.0759	0.9241	81.68
16.5	3,211,093	341,793	0.1064	0.8936	75.48
17.5	2,869,300	90,209	0.0314	0.9686	67.45
18.5	2,773,930	241,314	0.0870	0.9130	65.33
19.5	2,510,697	178,337	0.0710	0.9290	59.65
20.5	2,315,213	42,891	0.0185	0.9815	55.41
21.5	2,267,238	10,042	0.0044	0.9956	54.38
22.5	2,256,147	334,889	0.1484	0.8516	54.14
23.5	1,921,258	12,729	0.0066	0.9934	46.11
24.5	1,908,528	12,877	0.0067	0.9933	45.80
25.5	1,895,651	83,593	0.0441	0.9559	45.49
26.5	1,812,058	21,161	0.0117	0.9883	43.48
27.5	1,525,970	31,746	0.0208	0.9792	42.98
28.5	1,472,574	31,639	0.0215	0.9785	42.08
29.5	1,440,935	151,360	0.1050	0.8950	41.18
30.5	1,165,714	112,324	0.0964	0.9036	36.85
31.5	1,019,396	29,132	0.0286	0.9714	33.30
32.5	990,264	83,488	0.0843	0.9157	32.35
33.5	906,775	27,424	0.0302	0.9698	29.62
34.5	824,453	191,504	0.2323	0.7677	28.73
35.5	632,949	46,899	0.0741	0.9259	22.05
36.5	563,289	36,039	0.0640	0.9360	20.42
37.5	527,251	144,729	0.2745	0.7255	19.11
38.5	382,521	7,377	0.0193	0.9807	13.87

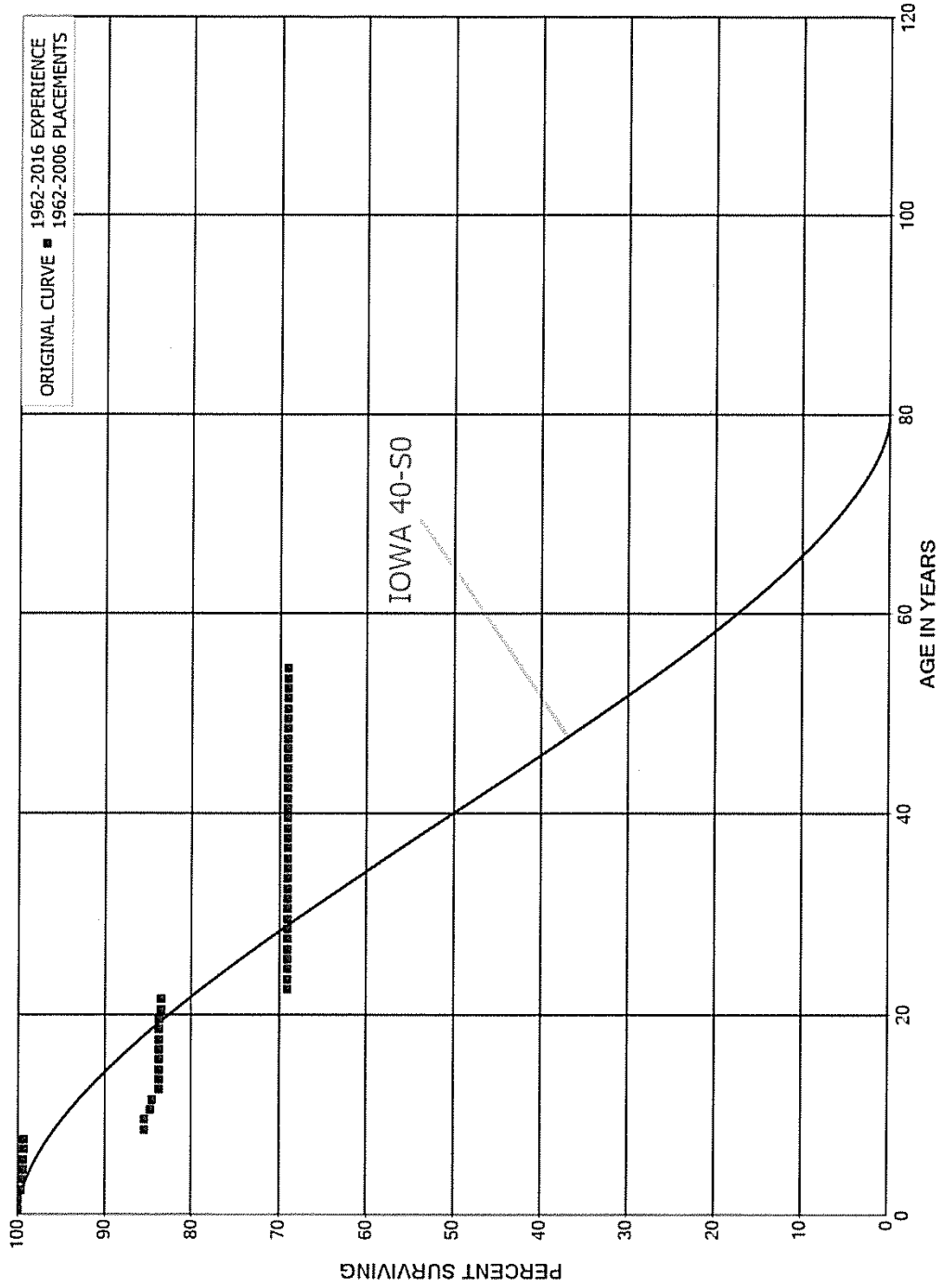
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 319.0 PRESSURE REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1946-2013			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	375,145	9,965	0.0266	0.9734	13.60	
40.5	365,180	7,555	0.0207	0.9793	13.24	
41.5	357,625	10,890	0.0304	0.9696	12.96	
42.5	346,735		0.0000	1.0000	12.57	
43.5	333,960		0.0000	1.0000	12.57	
44.5	330,166	2,295	0.0070	0.9930	12.57	
45.5	327,656	30,591	0.0934	0.9066	12.48	
46.5	280,609	2,473	0.0088	0.9912	11.32	
47.5	257,165	4,503	0.0175	0.9825	11.22	
48.5	187,974	478	0.0025	0.9975	11.02	
49.5	171,441	61,902	0.3611	0.6389	10.99	
50.5	106,286		0.0000	1.0000	7.02	
51.5	102,806	4,979	0.0484	0.9516	7.02	
52.5	92,275		0.0000	1.0000	6.68	
53.5	90,315	51,478	0.5700	0.4300	6.68	
54.5	37,004	33,612	0.9083	0.0917	2.87	
55.5	3,393		0.0000	1.0000	0.26	
56.5	3,064		0.0000	1.0000	0.26	
57.5	3,064		0.0000	1.0000	0.26	
58.5	3,064	439	0.1432	0.8568	0.26	
59.5	2,625		0.0000	1.0000	0.23	
60.5	2,625	1,054	0.4015	0.5985	0.23	
61.5	1,571		0.0000	1.0000	0.14	
62.5	1,571	1,571	1.0000		0.14	
63.5						

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 350.2 LEASEHOLDS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 350.2 LEASEHOLDS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2006			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	859,123		0.0000	1.0000	100.00
0.5	859,123		0.0000	1.0000	100.00
1.5	831,837	3,192	0.0038	0.9962	100.00
2.5	828,645	268	0.0003	0.9997	99.62
3.5	828,378	1,354	0.0016	0.9984	99.58
4.5	827,024		0.0000	1.0000	99.42
5.5	827,024	1,283	0.0016	0.9984	99.42
6.5	825,741		0.0000	1.0000	99.27
7.5	825,741	115,083	0.1394	0.8606	99.27
8.5	710,658	275	0.0004	0.9996	85.43
9.5	710,383	6,018	0.0085	0.9915	85.40
10.5	649,343	1,258	0.0019	0.9981	84.68
11.5	647,585	6,270	0.0097	0.9903	84.51
12.5	640,894	11	0.0000	1.0000	83.69
13.5	640,615		0.0000	1.0000	83.69
14.5	640,615		0.0000	1.0000	83.69
15.5	640,615		0.0000	1.0000	83.69
16.5	640,615		0.0000	1.0000	83.69
17.5	640,615		0.0000	1.0000	83.69
18.5	640,615	10	0.0000	1.0000	83.69
19.5	641,026	1,166	0.0018	0.9982	83.69
20.5	640,128		0.0000	1.0000	83.54
21.5	640,128	111,286	0.1738	0.8262	83.54
22.5	528,842		0.0000	1.0000	69.02
23.5	528,842		0.0000	1.0000	69.02
24.5	528,297		0.0000	1.0000	69.02
25.5	528,297		0.0000	1.0000	69.02
26.5	528,297		0.0000	1.0000	69.02
27.5	528,297		0.0000	1.0000	69.02
28.5	528,077		0.0000	1.0000	69.02
29.5	525,784		0.0000	1.0000	69.02
30.5	525,784		0.0000	1.0000	69.02
31.5	525,784		0.0000	1.0000	69.02
32.5	525,784		0.0000	1.0000	69.02
33.5	525,784		0.0000	1.0000	69.02
34.5	525,784		0.0000	1.0000	69.02
35.5	525,784		0.0000	1.0000	69.02
36.5	525,784		0.0000	1.0000	69.02
37.5	525,784		0.0000	1.0000	69.02
38.5	525,784		0.0000	1.0000	69.02

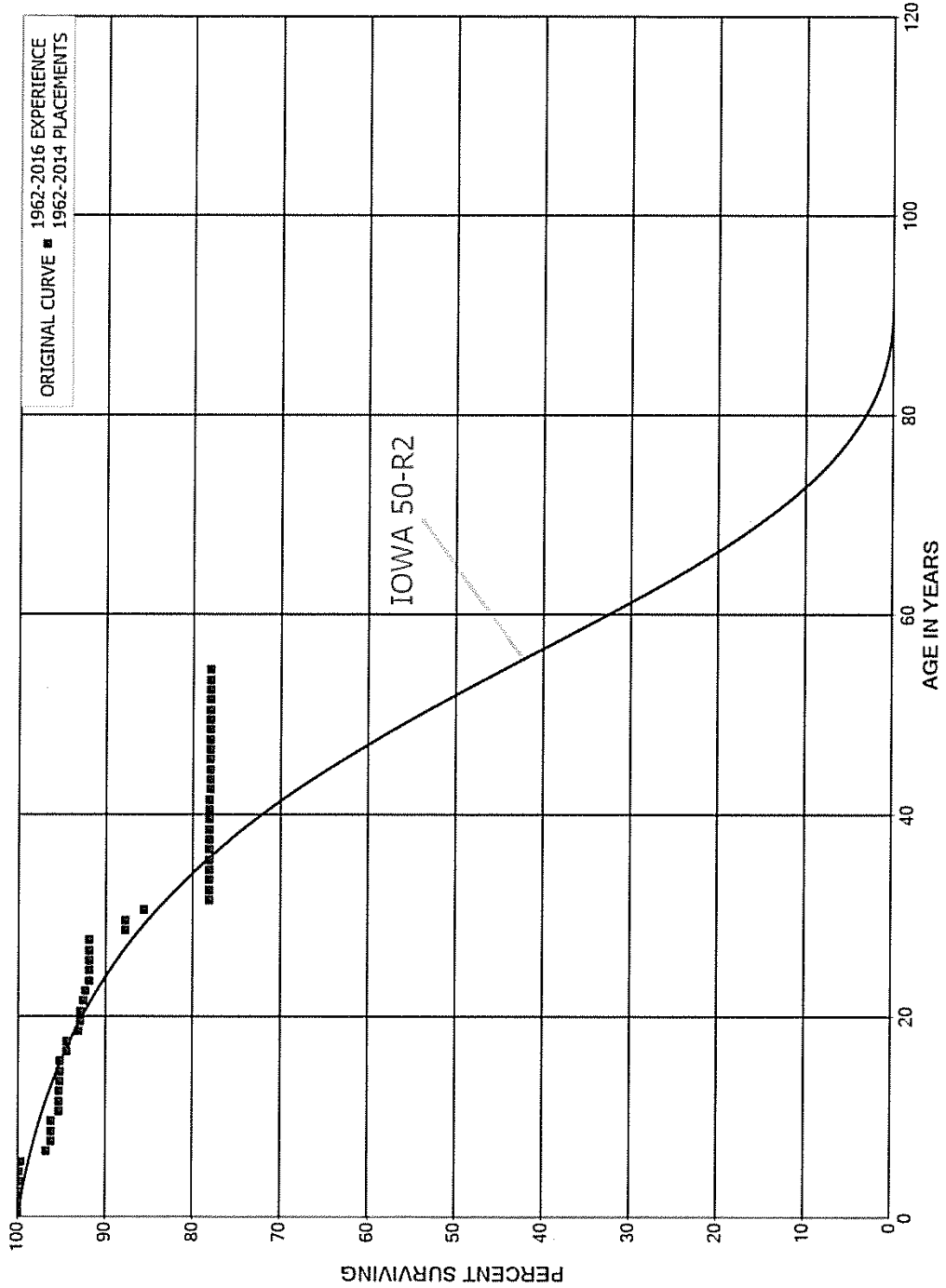
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 350.2 LEASEHOLDS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2006			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	525,776		0.0000	1.0000	69.02
40.5	522,396		0.0000	1.0000	69.02
41.5	522,396		0.0000	1.0000	69.02
42.5	505,943		0.0000	1.0000	69.02
43.5	495,421		0.0000	1.0000	69.02
44.5	492,635		0.0000	1.0000	69.02
45.5	492,618		0.0000	1.0000	69.02
46.5	492,600		0.0000	1.0000	69.02
47.5	491,852		0.0000	1.0000	69.02
48.5	489,879		0.0000	1.0000	69.02
49.5	489,879		0.0000	1.0000	69.02
50.5	484,246		0.0000	1.0000	69.02
51.5	466,952		0.0000	1.0000	69.02
52.5	318,101		0.0000	1.0000	69.02
53.5	316,152		0.0000	1.0000	69.02
54.5					69.02

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 351.0 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 351.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2014			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	935,618		0.0000	1.0000	100.00
0.5	970,956		0.0000	1.0000	100.00
1.5	969,667	343	0.0004	0.9996	100.00
2.5	931,316	950	0.0010	0.9990	99.96
3.5	930,974		0.0000	1.0000	99.86
4.5	930,974	2,379	0.0026	0.9974	99.86
5.5	888,577	25,898	0.0291	0.9709	99.61
6.5	798,972	4,007	0.0050	0.9950	96.70
7.5	789,613		0.0000	1.0000	96.22
8.5	776,733	469	0.0006	0.9994	96.22
9.5	769,140	6,937	0.0090	0.9910	96.16
10.5	762,204		0.0000	1.0000	95.29
11.5	762,204		0.0000	1.0000	95.29
12.5	762,204	1,370	0.0018	0.9982	95.29
13.5	760,834		0.0000	1.0000	95.12
14.5	760,834		0.0000	1.0000	95.12
15.5	760,834	5,754	0.0076	0.9924	95.12
16.5	755,079	500	0.0007	0.9993	94.40
17.5	754,579	9,833	0.0130	0.9870	94.34
18.5	738,011	1,782	0.0024	0.9976	93.11
19.5	736,229	393	0.0005	0.9995	92.89
20.5	735,836	2,897	0.0039	0.9961	92.84
21.5	732,939	1,422	0.0019	0.9981	92.47
22.5	718,842	3,318	0.0046	0.9954	92.29
23.5	703,122	451	0.0006	0.9994	91.87
24.5	701,170		0.0000	1.0000	91.81
25.5	685,572		0.0000	1.0000	91.81
26.5	641,561		0.0000	1.0000	91.81
27.5	621,726	27,824	0.0448	0.9552	91.81
28.5	560,770		0.0000	1.0000	87.70
29.5	543,720	12,647	0.0233	0.9767	87.70
30.5	508,759	44,611	0.0877	0.9123	85.66
31.5	464,148		0.0000	1.0000	78.15
32.5	464,148		0.0000	1.0000	78.15
33.5	464,148		0.0000	1.0000	78.15
34.5	464,148		0.0000	1.0000	78.15
35.5	443,467		0.0000	1.0000	78.15
36.5	430,071		0.0000	1.0000	78.15
37.5	362,187		0.0000	1.0000	78.15
38.5	359,346		0.0000	1.0000	78.15

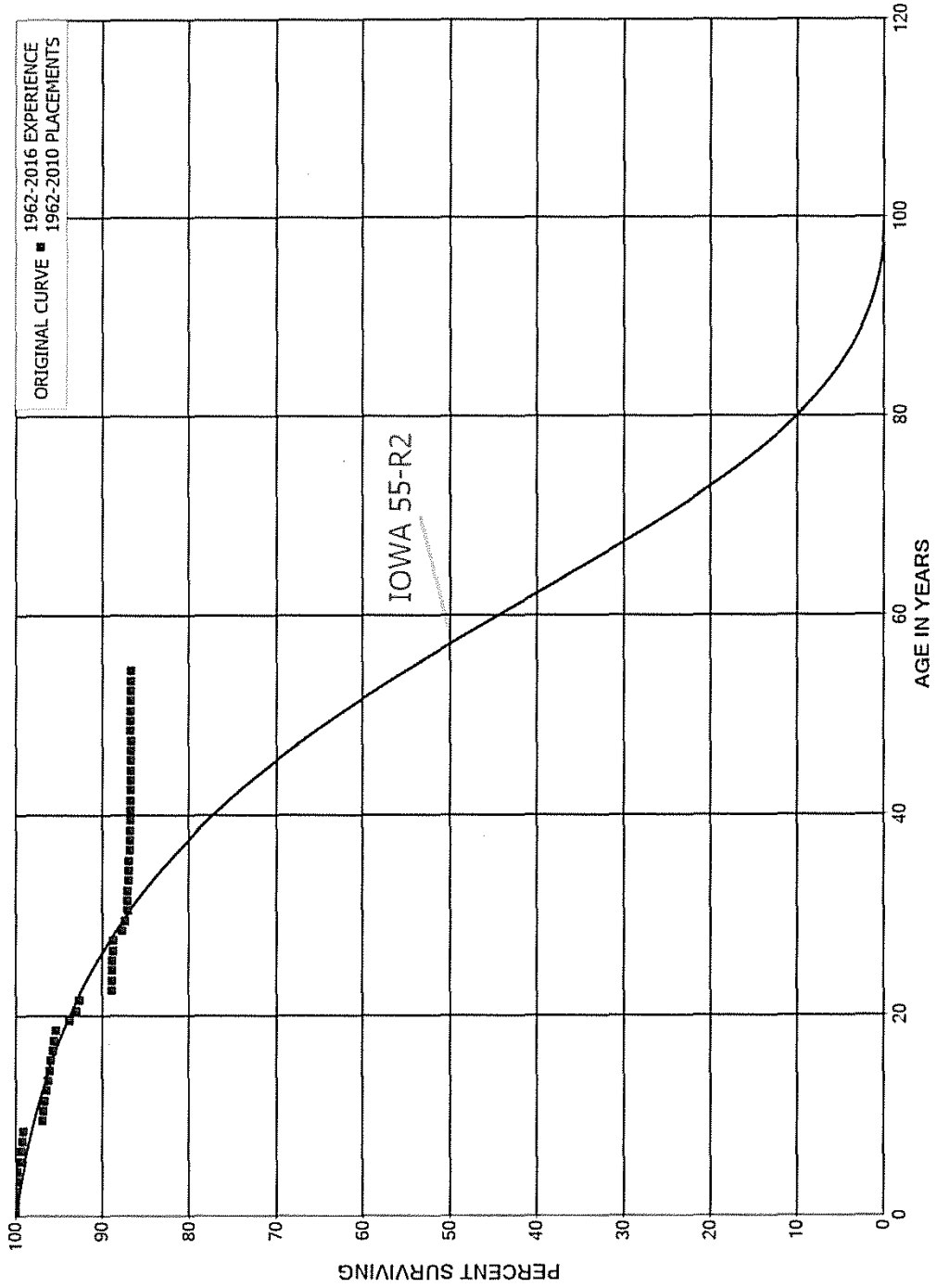
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 351.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2014			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	357,285		0.0000	1.0000	78.15
40.5	356,055		0.0000	1.0000	78.15
41.5	351,227	325	0.0009	0.9991	78.15
42.5	339,726		0.0000	1.0000	78.08
43.5	319,789		0.0000	1.0000	78.08
44.5	283,056		0.0000	1.0000	78.08
45.5	282,040		0.0000	1.0000	78.08
46.5	267,010		0.0000	1.0000	78.08
47.5	267,010		0.0000	1.0000	78.08
48.5	264,578		0.0000	1.0000	78.08
49.5	217,090		0.0000	1.0000	78.08
50.5	158,163		0.0000	1.0000	78.08
51.5	124,378		0.0000	1.0000	78.08
52.5	100,605		0.0000	1.0000	78.08
53.5	58,211		0.0000	1.0000	78.08
54.5					78.08

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 352.0 WELLS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 352.0 WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2010			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,117,921		0.0000	1.0000	100.00
0.5	14,213,182		0.0000	1.0000	100.00
1.5	13,685,679	7,459	0.0005	0.9995	100.00
2.5	13,568,243	3,236	0.0002	0.9998	99.95
3.5	13,488,977	9,862	0.0007	0.9993	99.92
4.5	13,479,115	65,664	0.0049	0.9951	99.85
5.5	13,409,169	10,129	0.0008	0.9992	99.36
6.5	13,317,053	17,574	0.0013	0.9987	99.29
7.5	13,299,479	10,234	0.0008	0.9992	99.16
8.5	13,289,245	306,790	0.0231	0.9769	99.08
9.5	12,982,454	6,966	0.0005	0.9995	96.79
10.5	12,923,053	14,625	0.0011	0.9989	96.74
11.5	12,901,830	34,201	0.0027	0.9973	96.63
12.5	12,756,511	27,089	0.0021	0.9979	96.37
13.5	12,729,422	23,395	0.0018	0.9982	96.17
14.5	12,706,027	15,043	0.0012	0.9988	95.99
15.5	12,690,984	31,293	0.0025	0.9975	95.88
16.5	12,644,501	23,920	0.0019	0.9981	95.64
17.5	12,620,581	23,182	0.0018	0.9982	95.46
18.5	12,596,863	204,690	0.0162	0.9838	95.29
19.5	12,392,173	108,387	0.0087	0.9913	93.74
20.5	12,283,786	38,882	0.0032	0.9968	92.92
21.5	12,244,904	496,906	0.0406	0.9594	92.62
22.5	11,553,022	5,173	0.0004	0.9996	88.87
23.5	11,128,399	1,826	0.0002	0.9998	88.83
24.5	11,106,718		0.0000	1.0000	88.81
25.5	10,703,298	4,795	0.0004	0.9996	88.81
26.5	10,698,503		0.0000	1.0000	88.77
27.5	10,698,503	128,162	0.0120	0.9880	88.77
28.5	10,552,931	32,700	0.0031	0.9969	87.71
29.5	10,239,800	42,747	0.0042	0.9958	87.44
30.5	10,126,257		0.0000	1.0000	87.07
31.5	10,082,918	5,152	0.0005	0.9995	87.07
32.5	10,057,545	10,418	0.0010	0.9990	87.03
33.5	9,784,750	717	0.0001	0.9999	86.94
34.5	9,601,855	2,925	0.0003	0.9997	86.93
35.5	9,598,930	11,549	0.0012	0.9988	86.90
36.5	9,312,484	1,100	0.0001	0.9999	86.80
37.5	8,945,822	780	0.0001	0.9999	86.79
38.5	8,935,369	2,145	0.0002	0.9998	86.78

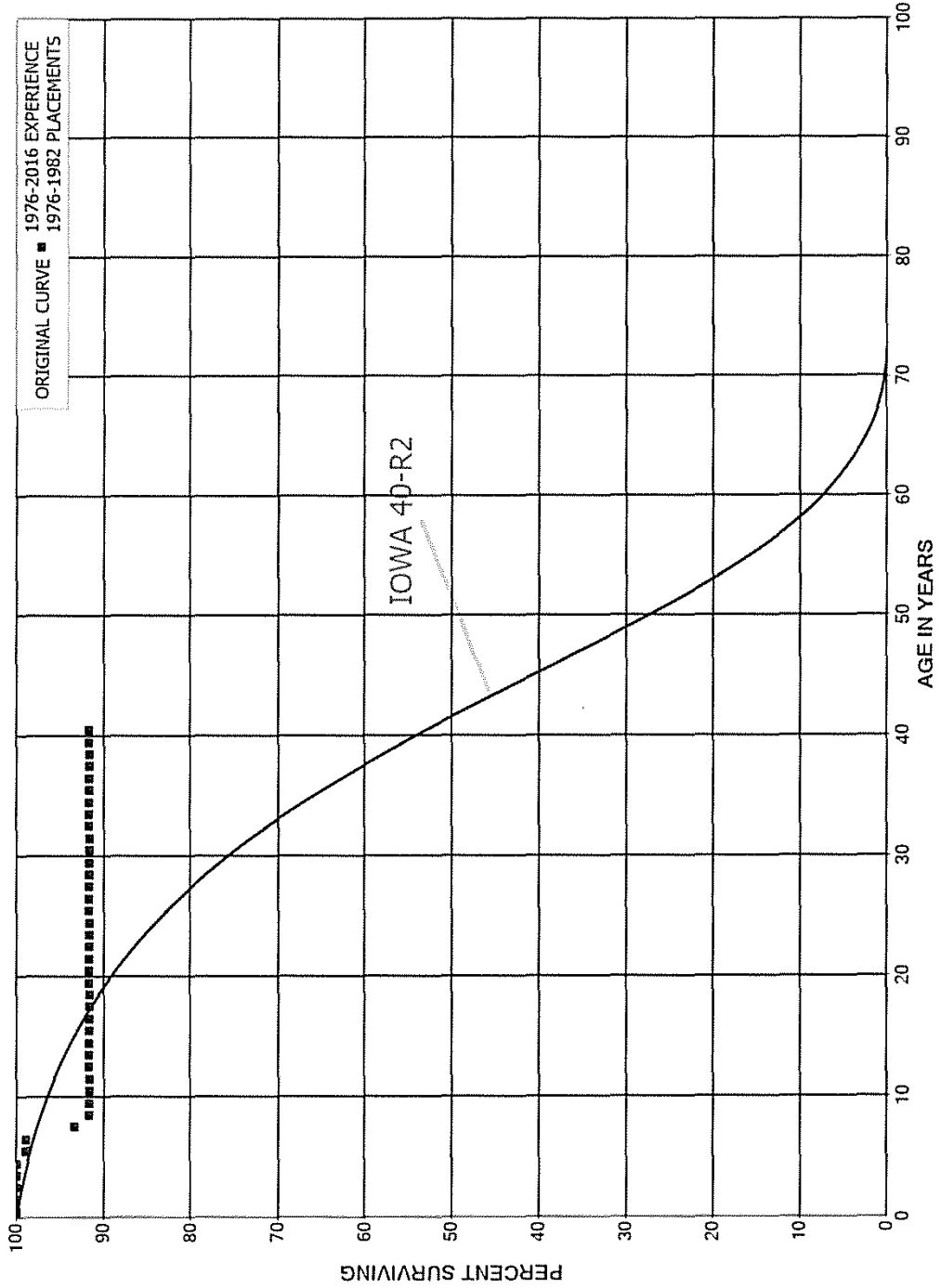
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 352.0 WELLS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2010			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,611,553	2,270	0.0003	0.9997	86.76
40.5	8,564,273	3,364	0.0004	0.9996	86.74
41.5	8,264,536		0.0000	1.0000	86.70
42.5	8,033,006	1,840	0.0002	0.9998	86.70
43.5	7,081,053	731	0.0001	0.9999	86.68
44.5	6,166,748		0.0000	1.0000	86.68
45.5	6,060,988		0.0000	1.0000	86.68
46.5	6,058,778		0.0000	1.0000	86.68
47.5	5,636,500		0.0000	1.0000	86.68
48.5	5,636,110		0.0000	1.0000	86.68
49.5	5,636,110		0.0000	1.0000	86.68
50.5	4,891,454		0.0000	1.0000	86.68
51.5	3,637,575		0.0000	1.0000	86.68
52.5	2,318,190		0.0000	1.0000	86.68
53.5	1,743,059		0.0000	1.0000	86.68
54.5					86.68

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 352.3 NON-RECOVERABLE GAS
ORIGINAL AND SMOOTH SURVIVOR CURVES



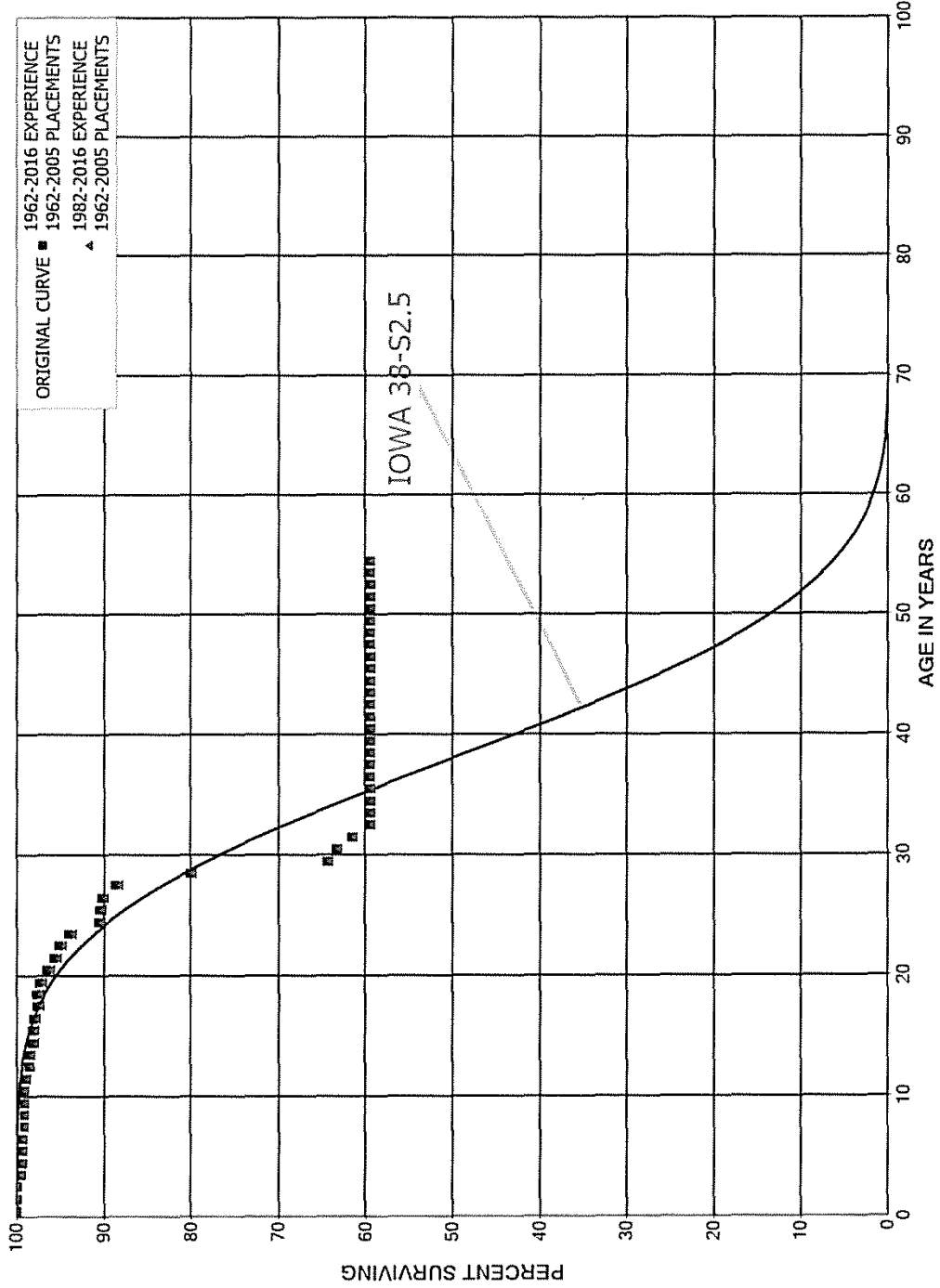
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 352.3 NON-RECOVERABLE GAS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-1982		EXPERIENCE BAND 1976-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,446,381		0.0000	1.0000	100.00
0.5	4,446,381		0.0000	1.0000	100.00
1.5	4,446,381		0.0000	1.0000	100.00
2.5	4,446,381	249	0.0001	0.9999	100.00
3.5	4,446,132		0.0000	1.0000	99.99
4.5	4,446,132	53,610	0.0121	0.9879	99.99
5.5	4,392,522		0.0000	1.0000	98.79
6.5	4,392,522	245,004	0.0558	0.9442	98.79
7.5	4,147,518	74,490	0.0180	0.9820	93.28
8.5	4,073,028		0.0000	1.0000	91.60
9.5	4,073,028		0.0000	1.0000	91.60
10.5	4,073,028		0.0000	1.0000	91.60
11.5	4,073,028		0.0000	1.0000	91.60
12.5	4,073,028		0.0000	1.0000	91.60
13.5	4,073,028		0.0000	1.0000	91.60
14.5	4,073,028		0.0000	1.0000	91.60
15.5	4,073,028		0.0000	1.0000	91.60
16.5	4,073,028		0.0000	1.0000	91.60
17.5	4,073,028		0.0000	1.0000	91.60
18.5	4,073,028		0.0000	1.0000	91.60
19.5	4,073,028		0.0000	1.0000	91.60
20.5	4,073,028		0.0000	1.0000	91.60
21.5	4,073,028		0.0000	1.0000	91.60
22.5	4,073,028		0.0000	1.0000	91.60
23.5	4,073,028		0.0000	1.0000	91.60
24.5	4,073,028		0.0000	1.0000	91.60
25.5	4,073,028		0.0000	1.0000	91.60
26.5	4,073,028		0.0000	1.0000	91.60
27.5	4,073,028		0.0000	1.0000	91.60
28.5	4,073,028		0.0000	1.0000	91.60
29.5	4,073,028		0.0000	1.0000	91.60
30.5	4,073,028		0.0000	1.0000	91.60
31.5	4,073,028		0.0000	1.0000	91.60
32.5	4,073,028		0.0000	1.0000	91.60
33.5	4,073,028		0.0000	1.0000	91.60
34.5	2,737,863		0.0000	1.0000	91.60
35.5	2,737,863		0.0000	1.0000	91.60
36.5	2,718,463		0.0000	1.0000	91.60
37.5	2,718,463		0.0000	1.0000	91.60
38.5	2,639,028		0.0000	1.0000	91.60
39.5	2,540,441		0.0000	1.0000	91.60
40.5					91.60

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 353.0 LINES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 353.0 LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2005			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,994,039		0.0000	1.0000	100.00
0.5	4,166,333	5,302	0.0013	0.9987	100.00
1.5	4,133,240	3,793	0.0009	0.9991	99.87
2.5	4,119,553	16,543	0.0040	0.9960	99.78
3.5	3,959,060	3,588	0.0009	0.9991	99.38
4.5	3,955,472	1,340	0.0003	0.9997	99.29
5.5	3,906,210		0.0000	1.0000	99.26
6.5	3,901,895	7,279	0.0019	0.9981	99.26
7.5	3,894,616		0.0000	1.0000	99.07
8.5	3,894,616	120	0.0000	1.0000	99.07
9.5	3,894,496		0.0000	1.0000	99.07
10.5	3,894,496	4,593	0.0012	0.9988	99.07
11.5	3,791,117	12,139	0.0032	0.9968	98.95
12.5	3,778,978	5,297	0.0014	0.9986	98.63
13.5	3,773,681	13,913	0.0037	0.9963	98.50
14.5	3,759,768		0.0000	1.0000	98.13
15.5	3,759,768	3,500	0.0009	0.9991	98.13
16.5	3,756,268	12,113	0.0032	0.9968	98.04
17.5	3,744,155		0.0000	1.0000	97.73
18.5	3,744,155	11,718	0.0031	0.9969	97.73
19.5	3,732,437	37,138	0.0100	0.9900	97.42
20.5	3,491,130	28,240	0.0081	0.9919	96.45
21.5	3,462,890	19,417	0.0056	0.9944	95.67
22.5	3,088,099	34,409	0.0111	0.9889	95.13
23.5	3,053,689	110,529	0.0362	0.9638	94.07
24.5	2,597,713	3,993	0.0015	0.9985	90.67
25.5	2,213,523	4,688	0.0021	0.9979	90.53
26.5	1,659,040	29,915	0.0180	0.9820	90.34
27.5	1,629,125	157,077	0.0964	0.9036	88.71
28.5	968,193	189,563	0.1958	0.8042	80.16
29.5	778,630	12,576	0.0162	0.9838	64.46
30.5	766,054	21,899	0.0286	0.9714	63.42
31.5	727,042	24,060	0.0331	0.9669	61.61
32.5	702,982		0.0000	1.0000	59.57
33.5	693,354		0.0000	1.0000	59.57
34.5	693,354		0.0000	1.0000	59.57
35.5	693,354		0.0000	1.0000	59.57
36.5	693,354		0.0000	1.0000	59.57
37.5	693,354		0.0000	1.0000	59.57
38.5	693,354		0.0000	1.0000	59.57

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 353.0 LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2005			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	693,354		0.0000	1.0000	59.57
40.5	693,354		0.0000	1.0000	59.57
41.5	693,354		0.0000	1.0000	59.57
42.5	653,090		0.0000	1.0000	59.57
43.5	514,989		0.0000	1.0000	59.57
44.5	433,098		0.0000	1.0000	59.57
45.5	432,401		0.0000	1.0000	59.57
46.5	397,025		0.0000	1.0000	59.57
47.5	394,768		0.0000	1.0000	59.57
48.5	394,768		0.0000	1.0000	59.57
49.5	394,768		0.0000	1.0000	59.57
50.5	327,077		0.0000	1.0000	59.57
51.5	239,619		0.0000	1.0000	59.57
52.5	180,394		0.0000	1.0000	59.57
53.5	166,261		0.0000	1.0000	59.57
54.5					59.57

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 353.0 LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2005

EXPERIENCE BAND 1982-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,496,540		0.0000	1.0000	100.00
0.5	2,501,133	5,302	0.0021	0.9979	100.00
1.5	2,502,098		0.0000	1.0000	99.79
2.5	2,502,098	12,568	0.0050	0.9950	99.79
3.5	2,489,530	3,588	0.0014	0.9986	99.29
4.5	2,501,699	1,340	0.0005	0.9995	99.14
5.5	2,507,413		0.0000	1.0000	99.09
6.5	2,518,365	7,279	0.0029	0.9971	99.09
7.5	2,627,680		0.0000	1.0000	98.80
8.5	2,823,370		0.0000	1.0000	98.80
9.5	2,905,262		0.0000	1.0000	98.80
10.5	2,907,018	4,593	0.0016	0.9984	98.80
11.5	2,851,549	12,139	0.0043	0.9957	98.65
12.5	2,860,560	5,297	0.0019	0.9981	98.23
13.5	2,857,793	13,913	0.0049	0.9951	98.05
14.5	2,843,880		0.0000	1.0000	97.57
15.5	2,940,156	3,500	0.0012	0.9988	97.57
16.5	3,081,002	12,113	0.0039	0.9961	97.45
17.5	3,277,110		0.0000	1.0000	97.07
18.5	3,405,531	11,088	0.0033	0.9967	97.07
19.5	3,732,437	37,138	0.0100	0.9900	96.75
20.5	3,491,130	28,240	0.0081	0.9919	95.79
21.5	3,462,890	19,417	0.0056	0.9944	95.02
22.5	3,088,099	34,409	0.0111	0.9889	94.48
23.5	3,053,689	110,529	0.0362	0.9638	93.43
24.5	2,597,713	3,993	0.0015	0.9985	90.05
25.5	2,213,523	4,688	0.0021	0.9979	89.91
26.5	1,659,040	29,915	0.0180	0.9820	89.72
27.5	1,629,125	157,077	0.0964	0.9036	88.10
28.5	968,193	189,563	0.1958	0.8042	79.61
29.5	778,630	12,576	0.0162	0.9838	64.02
30.5	766,054	21,899	0.0286	0.9714	62.99
31.5	727,042	24,060	0.0331	0.9669	61.19
32.5	702,982		0.0000	1.0000	59.16
33.5	693,354		0.0000	1.0000	59.16
34.5	693,354		0.0000	1.0000	59.16
35.5	693,354		0.0000	1.0000	59.16
36.5	693,354		0.0000	1.0000	59.16
37.5	693,354		0.0000	1.0000	59.16
38.5	693,354		0.0000	1.0000	59.16

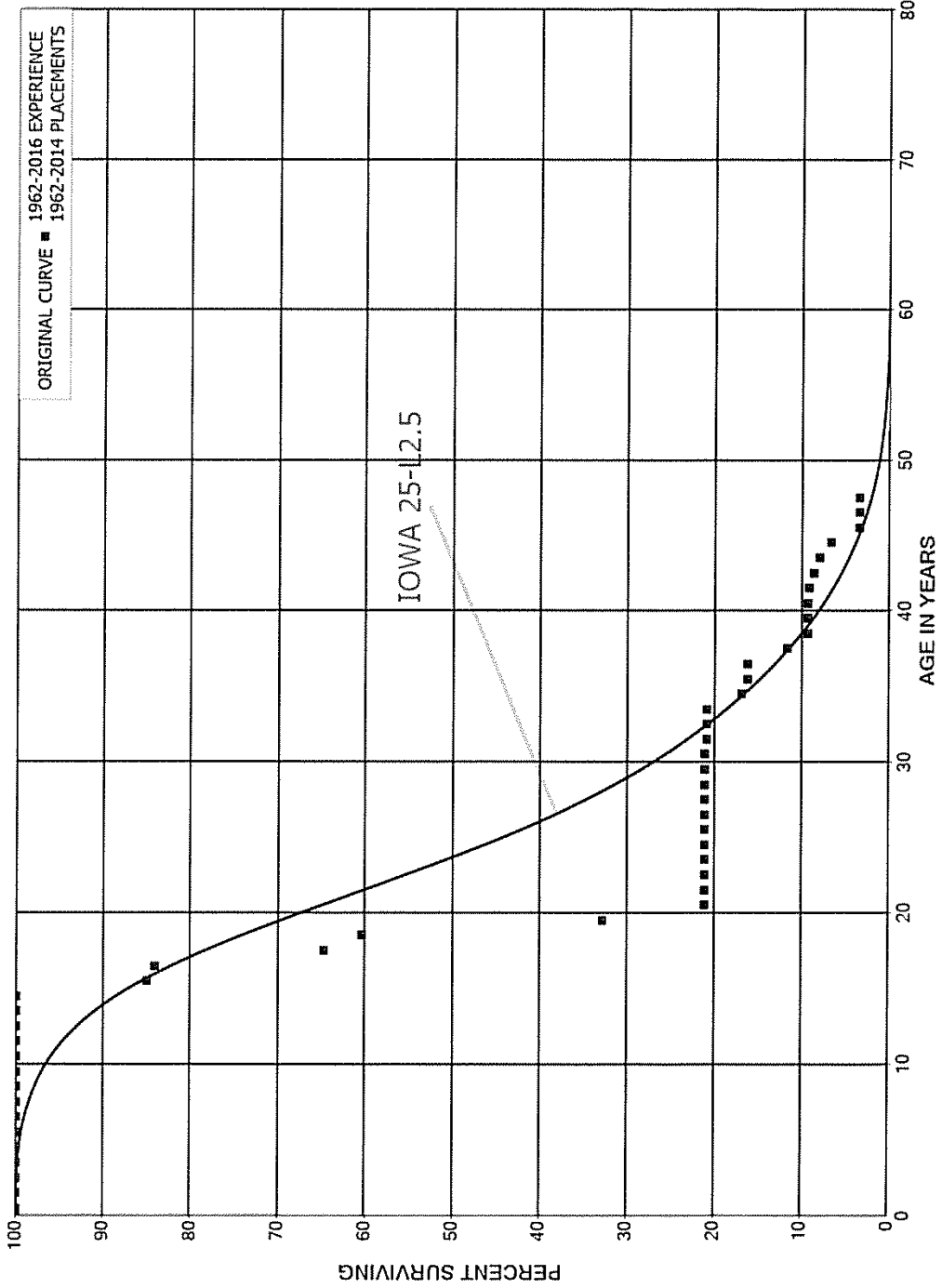
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 353.0 LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2005			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	693,354		0.0000	1.0000	59.16
40.5	693,354		0.0000	1.0000	59.16
41.5	693,354		0.0000	1.0000	59.16
42.5	653,090		0.0000	1.0000	59.16
43.5	514,989		0.0000	1.0000	59.16
44.5	433,098		0.0000	1.0000	59.16
45.5	432,401		0.0000	1.0000	59.16
46.5	397,025		0.0000	1.0000	59.16
47.5	394,768		0.0000	1.0000	59.16
48.5	394,768		0.0000	1.0000	59.16
49.5	394,768		0.0000	1.0000	59.16
50.5	327,077		0.0000	1.0000	59.16
51.5	239,619		0.0000	1.0000	59.16
52.5	180,394		0.0000	1.0000	59.16
53.5	166,261		0.0000	1.0000	59.16
54.5					59.16

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 355.0 MEASURING AND REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 355.0 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2014		EXPERIENCE BAND 1962-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,704,979		0.0000	1.0000	100.00
0.5	1,726,616		0.0000	1.0000	100.00
1.5	1,598,239		0.0000	1.0000	100.00
2.5	1,430,355		0.0000	1.0000	100.00
3.5	1,352,729		0.0000	1.0000	100.00
4.5	1,115,042		0.0000	1.0000	100.00
5.5	1,062,130		0.0000	1.0000	100.00
6.5	1,062,130		0.0000	1.0000	100.00
7.5	1,062,130		0.0000	1.0000	100.00
8.5	1,030,657		0.0000	1.0000	100.00
9.5	1,030,657		0.0000	1.0000	100.00
10.5	1,030,657		0.0000	1.0000	100.00
11.5	888,842		0.0000	1.0000	100.00
12.5	720,256		0.0000	1.0000	100.00
13.5	720,256		0.0000	1.0000	100.00
14.5	702,085	105,713	0.1506	0.8494	100.00
15.5	596,372	6,045	0.0101	0.9899	84.94
16.5	590,327	135,717	0.2299	0.7701	84.08
17.5	454,610	30,849	0.0679	0.9321	64.75
18.5	423,761	193,857	0.4575	0.5425	60.36
19.5	229,904	81,810	0.3558	0.6442	32.75
20.5	148,094		0.0000	1.0000	21.09
21.5	148,094		0.0000	1.0000	21.09
22.5	148,094		0.0000	1.0000	21.09
23.5	148,094		0.0000	1.0000	21.09
24.5	148,094		0.0000	1.0000	21.09
25.5	141,274		0.0000	1.0000	21.09
26.5	135,060		0.0000	1.0000	21.09
27.5	106,350		0.0000	1.0000	21.09
28.5	106,350		0.0000	1.0000	21.09
29.5	106,350		0.0000	1.0000	21.09
30.5	106,350	1,031	0.0097	0.9903	21.09
31.5	105,319		0.0000	1.0000	20.89
32.5	105,319		0.0000	1.0000	20.89
33.5	105,319	20,422	0.1939	0.8061	20.89
34.5	84,897	3,286	0.0387	0.9613	16.84
35.5	81,612		0.0000	1.0000	16.19
36.5	81,612	23,308	0.2856	0.7144	16.19
37.5	58,304	11,716	0.2009	0.7991	11.56
38.5	46,588		0.0000	1.0000	9.24

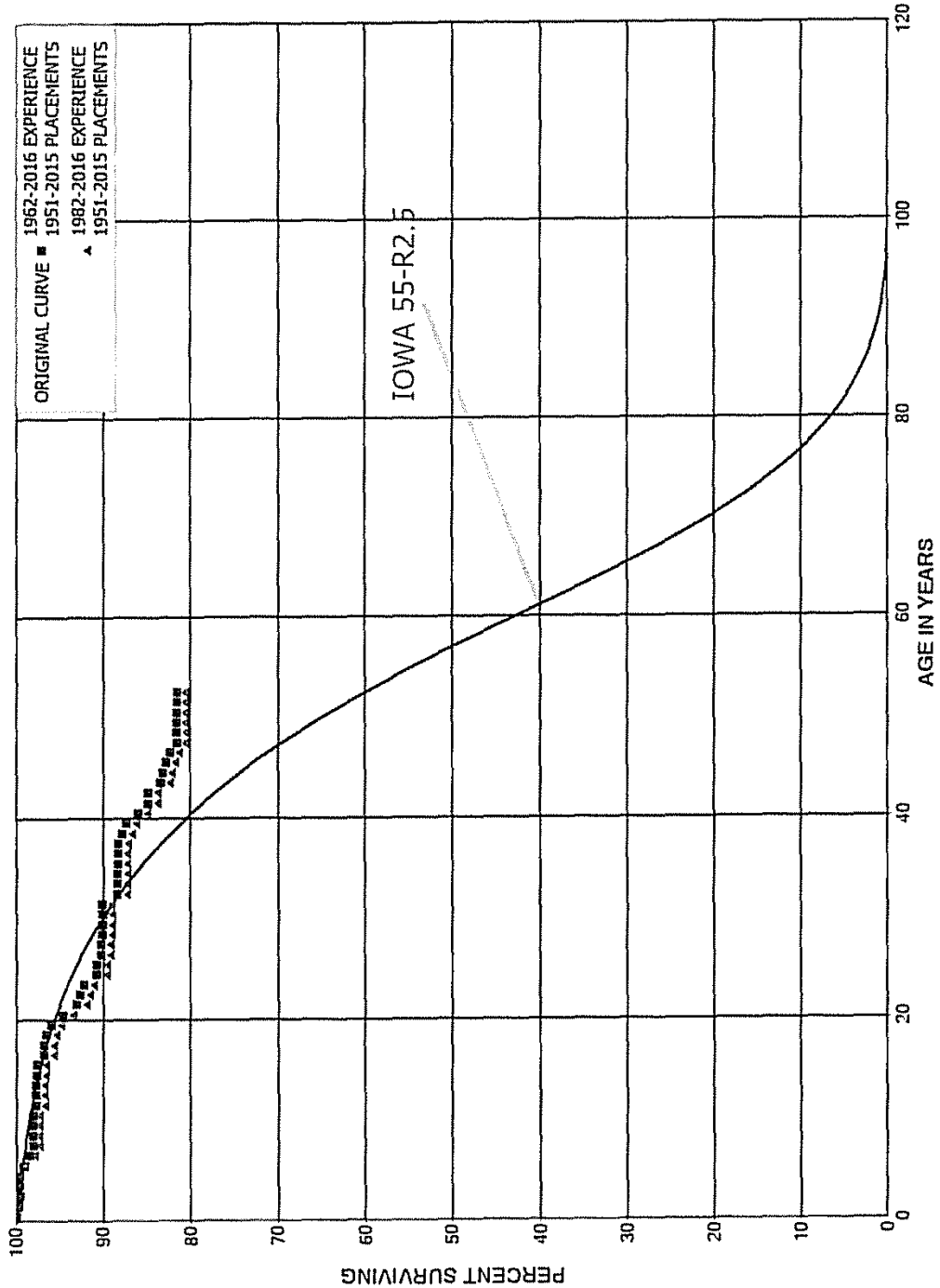
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 355.0 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2014			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	46,588		0.0000	1.0000	9.24
40.5	46,588	384	0.0082	0.9918	9.24
41.5	46,204	2,587	0.0560	0.9440	9.16
42.5	43,617	3,482	0.0798	0.9202	8.65
43.5	36,221	6,119	0.1689	0.8311	7.96
44.5	28,636	14,053	0.4907	0.5093	6.62
45.5	14,583		0.0000	1.0000	3.37
46.5	2,450		0.0000	1.0000	3.37
47.5	2,450		0.0000	1.0000	3.37
48.5	2,450		0.0000	1.0000	3.37
49.5	340		0.0000	1.0000	3.37
50.5					3.37

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 356.0 PURIFICATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 356.0 PURIFICATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2015			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,811,233		0.0000	1.0000	100.00
0.5	4,894,037	15,618	0.0032	0.9968	100.00
1.5	4,852,265	1,103	0.0002	0.9998	99.68
2.5	4,615,728	400	0.0001	0.9999	99.66
3.5	4,027,423	2,003	0.0005	0.9995	99.65
4.5	3,959,473	17,342	0.0044	0.9956	99.60
5.5	3,884,260	27,145	0.0070	0.9930	99.16
6.5	3,716,498	13,595	0.0037	0.9963	98.47
7.5	3,702,903		0.0000	1.0000	98.11
8.5	3,555,523		0.0000	1.0000	98.11
9.5	3,436,640		0.0000	1.0000	98.11
10.5	3,378,611	14,728	0.0044	0.9956	98.11
11.5	3,336,472		0.0000	1.0000	97.68
12.5	3,309,520		0.0000	1.0000	97.68
13.5	3,293,576	1,533	0.0005	0.9995	97.68
14.5	3,301,296		0.0000	1.0000	97.64
15.5	3,294,530	28,862	0.0088	0.9912	97.64
16.5	3,251,129	2,000	0.0006	0.9994	96.78
17.5	3,147,264	8,153	0.0026	0.9974	96.72
18.5	3,139,111	16,020	0.0051	0.9949	96.47
19.5	3,123,091	44,044	0.0141	0.9859	95.98
20.5	3,079,047	50,440	0.0164	0.9836	94.63
21.5	2,963,555	14,647	0.0049	0.9951	93.08
22.5	2,904,466	14,950	0.0051	0.9949	92.62
23.5	2,846,423	44,777	0.0157	0.9843	92.14
24.5	2,646,922		0.0000	1.0000	90.69
25.5	2,581,118	13,743	0.0053	0.9947	90.69
26.5	2,469,755		0.0000	1.0000	90.21
27.5	2,295,672	2,270	0.0010	0.9990	90.21
28.5	2,176,309		0.0000	1.0000	90.12
29.5	1,875,800		0.0000	1.0000	90.12
30.5	1,656,428	113	0.0001	0.9999	90.12
31.5	1,588,288	31,003	0.0195	0.9805	90.11
32.5	1,557,285		0.0000	1.0000	88.35
33.5	1,556,774		0.0000	1.0000	88.35
34.5	1,536,233	233	0.0002	0.9998	88.35
35.5	1,530,397		0.0000	1.0000	88.34
36.5	1,487,046	1,603	0.0011	0.9989	88.34
37.5	1,342,413	6,109	0.0046	0.9954	88.24
38.5	1,335,277	7,045	0.0053	0.9947	87.84

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 356.0 PURIFICATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2015			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,320,360	20,830	0.0158	0.9842	87.38
40.5	1,283,728	17,612	0.0137	0.9863	86.00
41.5	1,266,116	117	0.0001	0.9999	84.82
42.5	1,261,020	19,193	0.0152	0.9848	84.81
43.5	1,190,054	3,899	0.0033	0.9967	83.52
44.5	1,099,871	5,291	0.0048	0.9952	83.25
45.5	1,083,768	6,365	0.0059	0.9941	82.85
46.5	1,077,404	9,375	0.0087	0.9913	82.36
47.5	1,068,029		0.0000	1.0000	81.64
48.5	1,059,936		0.0000	1.0000	81.64
49.5	889,308		0.0000	1.0000	81.64
50.5	602,005		0.0000	1.0000	81.64
51.5	418,036		0.0000	1.0000	81.64
52.5	254,584		0.0000	1.0000	81.64
53.5	158,823		0.0000	1.0000	81.64
54.5	17,816		0.0000	1.0000	81.64
55.5	17,816		0.0000	1.0000	81.64
56.5	17,816		0.0000	1.0000	81.64
57.5	17,816		0.0000	1.0000	81.64
58.5	17,816		0.0000	1.0000	81.64
59.5	17,816		0.0000	1.0000	81.64
60.5	17,816		0.0000	1.0000	81.64
61.5	17,816		0.0000	1.0000	81.64
62.5	17,816		0.0000	1.0000	81.64
63.5	17,816		0.0000	1.0000	81.64
64.5	17,816		0.0000	1.0000	81.64
65.5					81.64

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 356.0 PURIFICATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2015			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,189,874		0.0000	1.0000	100.00
0.5	3,244,861	11,732	0.0036	0.9964	100.00
1.5	3,212,572		0.0000	1.0000	99.64
2.5	3,056,884		0.0000	1.0000	99.64
3.5	2,541,943	2,003	0.0008	0.9992	99.64
4.5	2,481,865	17,342	0.0070	0.9930	99.56
5.5	2,422,455	26,945	0.0111	0.9889	98.86
6.5	2,254,893	13,595	0.0060	0.9940	97.76
7.5	2,246,277		0.0000	1.0000	97.18
8.5	2,150,670		0.0000	1.0000	97.18
9.5	2,114,509		0.0000	1.0000	97.18
10.5	2,058,728	14,728	0.0072	0.9928	97.18
11.5	2,016,823		0.0000	1.0000	96.48
12.5	1,989,870		0.0000	1.0000	96.48
13.5	1,982,020	1,533	0.0008	0.9992	96.48
14.5	2,187,841		0.0000	1.0000	96.41
15.5	2,515,794	26,862	0.0107	0.9893	96.41
16.5	2,696,678		0.0000	1.0000	95.38
17.5	2,789,780	6,984	0.0025	0.9975	95.38
18.5	2,915,712	16,020	0.0055	0.9945	95.14
19.5	3,105,275	44,044	0.0142	0.9858	94.61
20.5	3,061,231	50,440	0.0165	0.9835	93.27
21.5	2,945,739	14,647	0.0050	0.9950	91.74
22.5	2,886,650	14,950	0.0052	0.9948	91.28
23.5	2,828,606	44,777	0.0158	0.9842	90.81
24.5	2,629,105		0.0000	1.0000	89.37
25.5	2,563,301	13,743	0.0054	0.9946	89.37
26.5	2,451,939		0.0000	1.0000	88.89
27.5	2,277,855	2,270	0.0010	0.9990	88.89
28.5	2,158,493		0.0000	1.0000	88.80
29.5	1,857,984		0.0000	1.0000	88.80
30.5	1,656,428	113	0.0001	0.9999	88.80
31.5	1,588,288	31,003	0.0195	0.9805	88.80
32.5	1,557,285		0.0000	1.0000	87.06
33.5	1,556,774		0.0000	1.0000	87.06
34.5	1,536,233	233	0.0002	0.9998	87.06
35.5	1,530,397		0.0000	1.0000	87.05
36.5	1,487,046	1,603	0.0011	0.9989	87.05
37.5	1,342,413	6,109	0.0046	0.9954	86.96
38.5	1,335,277	7,045	0.0053	0.9947	86.56

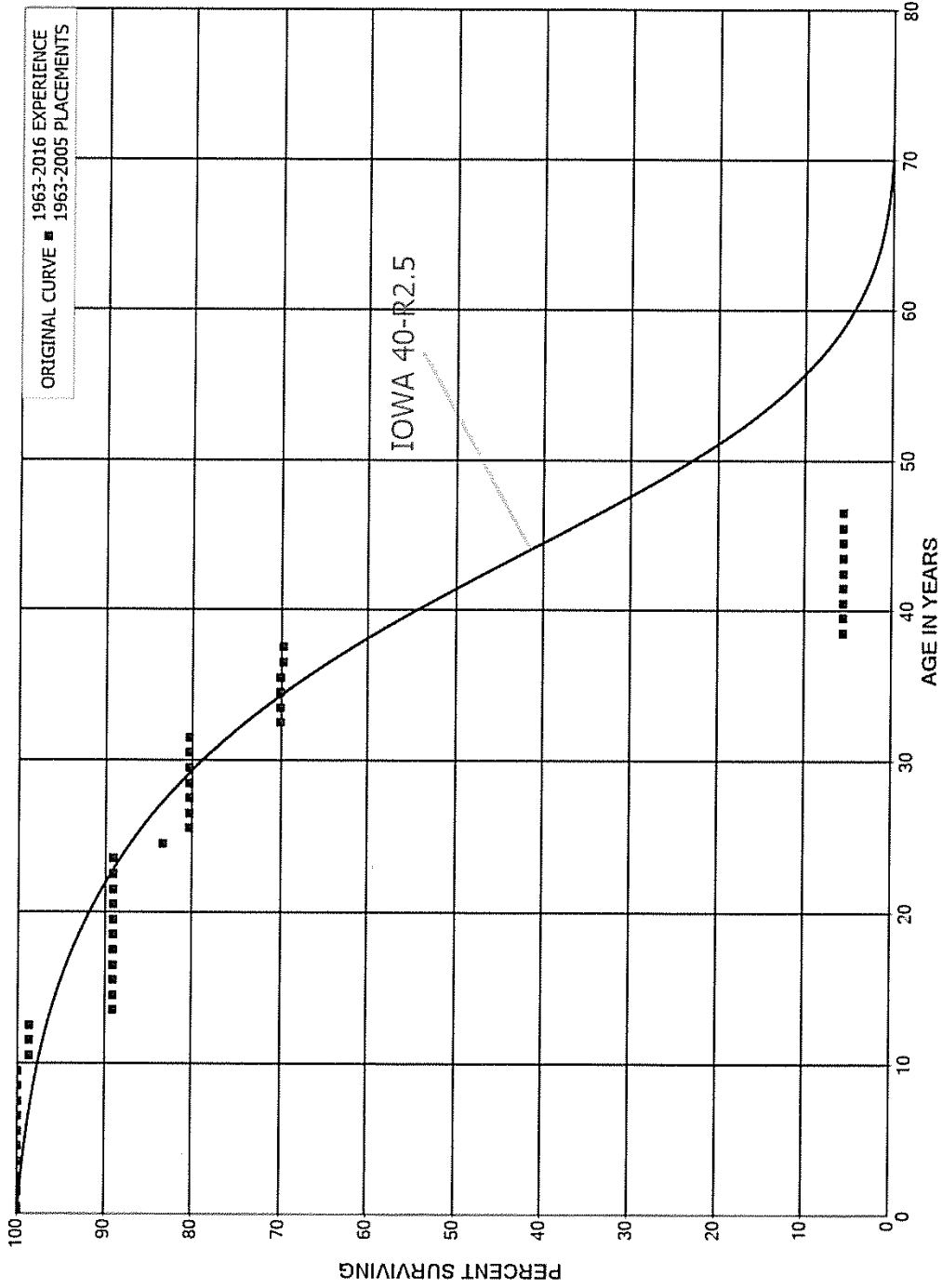
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 356.0 PURIFICATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2015			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,320,360	20,830	0.0158	0.9842	86.10
40.5	1,283,728	17,612	0.0137	0.9863	84.74
41.5	1,266,116	117	0.0001	0.9999	83.58
42.5	1,261,020	19,193	0.0152	0.9848	83.57
43.5	1,190,054	3,899	0.0033	0.9967	82.30
44.5	1,099,871	5,291	0.0048	0.9952	82.03
45.5	1,083,768	6,365	0.0059	0.9941	81.64
46.5	1,077,404	9,375	0.0087	0.9913	81.16
47.5	1,068,029		0.0000	1.0000	80.45
48.5	1,059,936		0.0000	1.0000	80.45
49.5	889,308		0.0000	1.0000	80.45
50.5	602,005		0.0000	1.0000	80.45
51.5	418,036		0.0000	1.0000	80.45
52.5	254,584		0.0000	1.0000	80.45
53.5	158,823		0.0000	1.0000	80.45
54.5	17,816		0.0000	1.0000	80.45
55.5	17,816		0.0000	1.0000	80.45
56.5	17,816		0.0000	1.0000	80.45
57.5	17,816		0.0000	1.0000	80.45
58.5	17,816		0.0000	1.0000	80.45
59.5	17,816		0.0000	1.0000	80.45
60.5	17,816		0.0000	1.0000	80.45
61.5	17,816		0.0000	1.0000	80.45
62.5	17,816		0.0000	1.0000	80.45
63.5	17,816		0.0000	1.0000	80.45
64.5	17,816		0.0000	1.0000	80.45
65.5					80.45

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 357.0 OTHER EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 357.0 OTHER EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1963-2005			EXPERIENCE BAND 1963-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	37,862		0.0000	1.0000	100.00
0.5	37,862		0.0000	1.0000	100.00
1.5	37,862		0.0000	1.0000	100.00
2.5	37,862		0.0000	1.0000	100.00
3.5	37,862		0.0000	1.0000	100.00
4.5	37,862		0.0000	1.0000	100.00
5.5	72,861		0.0000	1.0000	100.00
6.5	72,861		0.0000	1.0000	100.00
7.5	72,861		0.0000	1.0000	100.00
8.5	72,861		0.0000	1.0000	100.00
9.5	72,861	1,000	0.0137	0.9863	100.00
10.5	71,861		0.0000	1.0000	98.63
11.5	57,689		0.0000	1.0000	98.63
12.5	22,690	2,197	0.0968	0.9032	98.63
13.5	20,493		0.0000	1.0000	89.08
14.5	20,493		0.0000	1.0000	89.08
15.5	20,493		0.0000	1.0000	89.08
16.5	20,493		0.0000	1.0000	89.08
17.5	20,493		0.0000	1.0000	89.08
18.5	20,493		0.0000	1.0000	89.08
19.5	20,493		0.0000	1.0000	89.08
20.5	20,493		0.0000	1.0000	89.08
21.5	20,493		0.0000	1.0000	89.08
22.5	20,493		0.0000	1.0000	89.08
23.5	20,493	1,300	0.0634	0.9366	89.08
24.5	19,193	700	0.0365	0.9635	83.43
25.5	18,493		0.0000	1.0000	80.38
26.5	18,493		0.0000	1.0000	80.38
27.5	18,493		0.0000	1.0000	80.38
28.5	18,493		0.0000	1.0000	80.38
29.5	18,493		0.0000	1.0000	80.38
30.5	18,493		0.0000	1.0000	80.38
31.5	18,493	2,362	0.1277	0.8723	80.38
32.5	16,131		0.0000	1.0000	70.12
33.5	16,131		0.0000	1.0000	70.12
34.5	16,131		0.0000	1.0000	70.12
35.5	16,131	100	0.0062	0.9938	70.12
36.5	16,031		0.0000	1.0000	69.68
37.5	16,031	14,757	0.9205	0.0795	69.68
38.5	1,274		0.0000	1.0000	5.54

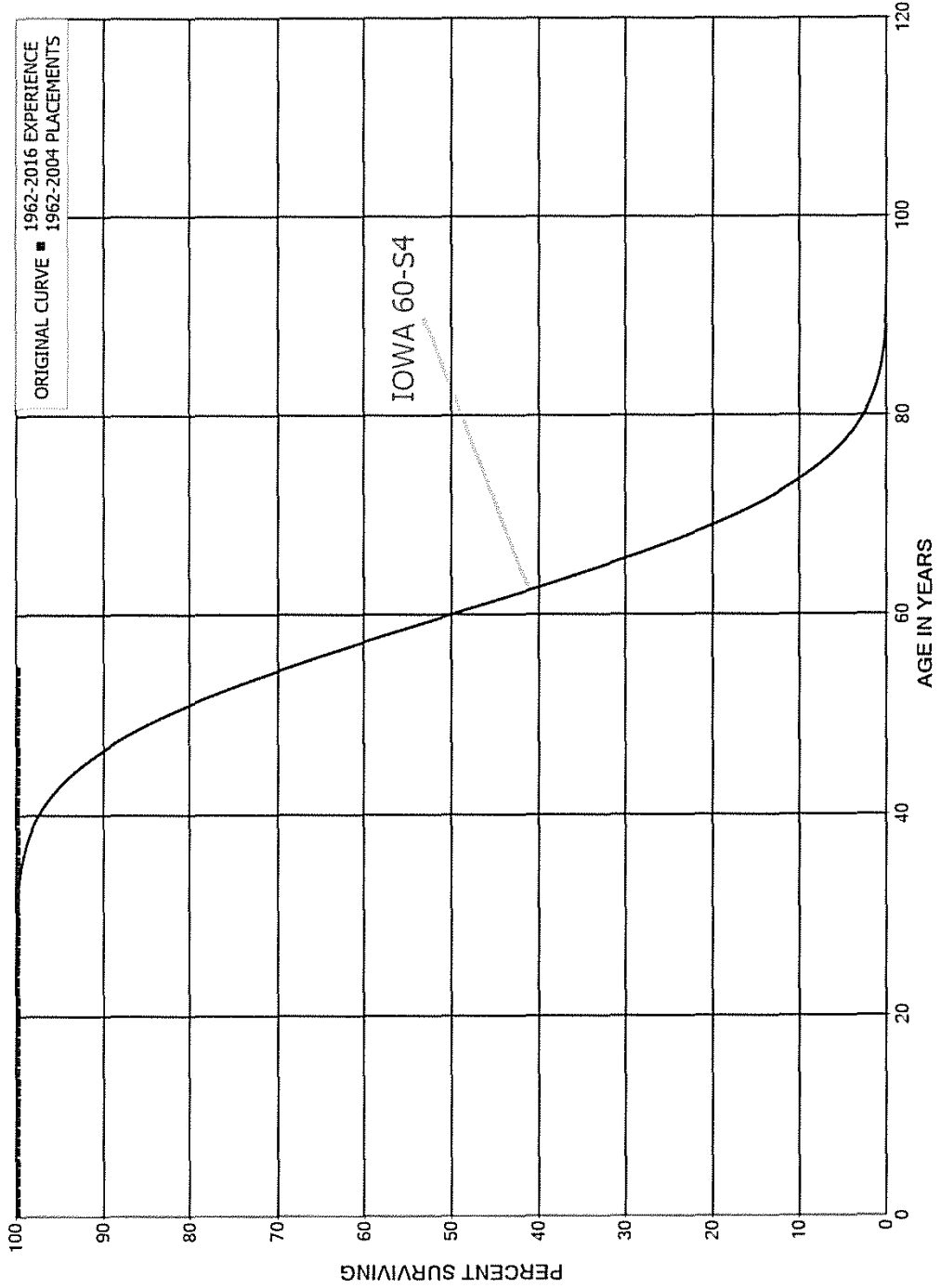
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 357.0 OTHER EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1963-2005			EXPERIENCE BAND 1963-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,274		0.0000	1.0000	5.54
40.5	1,274		0.0000	1.0000	5.54
41.5	1,274		0.0000	1.0000	5.54
42.5	1,274		0.0000	1.0000	5.54
43.5	1,274		0.0000	1.0000	5.54
44.5	1,274		0.0000	1.0000	5.54
45.5	1,274		0.0000	1.0000	5.54
46.5					5.54

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 365.2 RIGHTS OF WAY
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 365.2 RIGHTS OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2004		EXPERIENCE BAND 1962-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	278,517		0.0000	1.0000	100.00
0.5	278,737		0.0000	1.0000	100.00
1.5	278,737		0.0000	1.0000	100.00
2.5	278,517		0.0000	1.0000	100.00
3.5	278,517		0.0000	1.0000	100.00
4.5	278,517		0.0000	1.0000	100.00
5.5	278,517		0.0000	1.0000	100.00
6.5	278,517		0.0000	1.0000	100.00
7.5	278,517		0.0000	1.0000	100.00
8.5	278,517		0.0000	1.0000	100.00
9.5	278,517		0.0000	1.0000	100.00
10.5	278,517		0.0000	1.0000	100.00
11.5	278,517		0.0000	1.0000	100.00
12.5	203,245		0.0000	1.0000	100.00
13.5	203,245		0.0000	1.0000	100.00
14.5	203,245		0.0000	1.0000	100.00
15.5	203,245		0.0000	1.0000	100.00
16.5	203,245		0.0000	1.0000	100.00
17.5	203,245		0.0000	1.0000	100.00
18.5	203,245		0.0000	1.0000	100.00
19.5	203,245		0.0000	1.0000	100.00
20.5	203,245		0.0000	1.0000	100.00
21.5	203,245		0.0000	1.0000	100.00
22.5	203,245		0.0000	1.0000	100.00
23.5	203,245		0.0000	1.0000	100.00
24.5	203,245		0.0000	1.0000	100.00
25.5	203,245		0.0000	1.0000	100.00
26.5	203,245		0.0000	1.0000	100.00
27.5	203,245		0.0000	1.0000	100.00
28.5	203,245		0.0000	1.0000	100.00
29.5	178,623		0.0000	1.0000	100.00
30.5	178,623		0.0000	1.0000	100.00
31.5	178,623		0.0000	1.0000	100.00
32.5	178,623		0.0000	1.0000	100.00
33.5	178,623		0.0000	1.0000	100.00
34.5	178,623		0.0000	1.0000	100.00
35.5	178,623		0.0000	1.0000	100.00
36.5	178,623		0.0000	1.0000	100.00
37.5	178,623		0.0000	1.0000	100.00
38.5	178,623		0.0000	1.0000	100.00

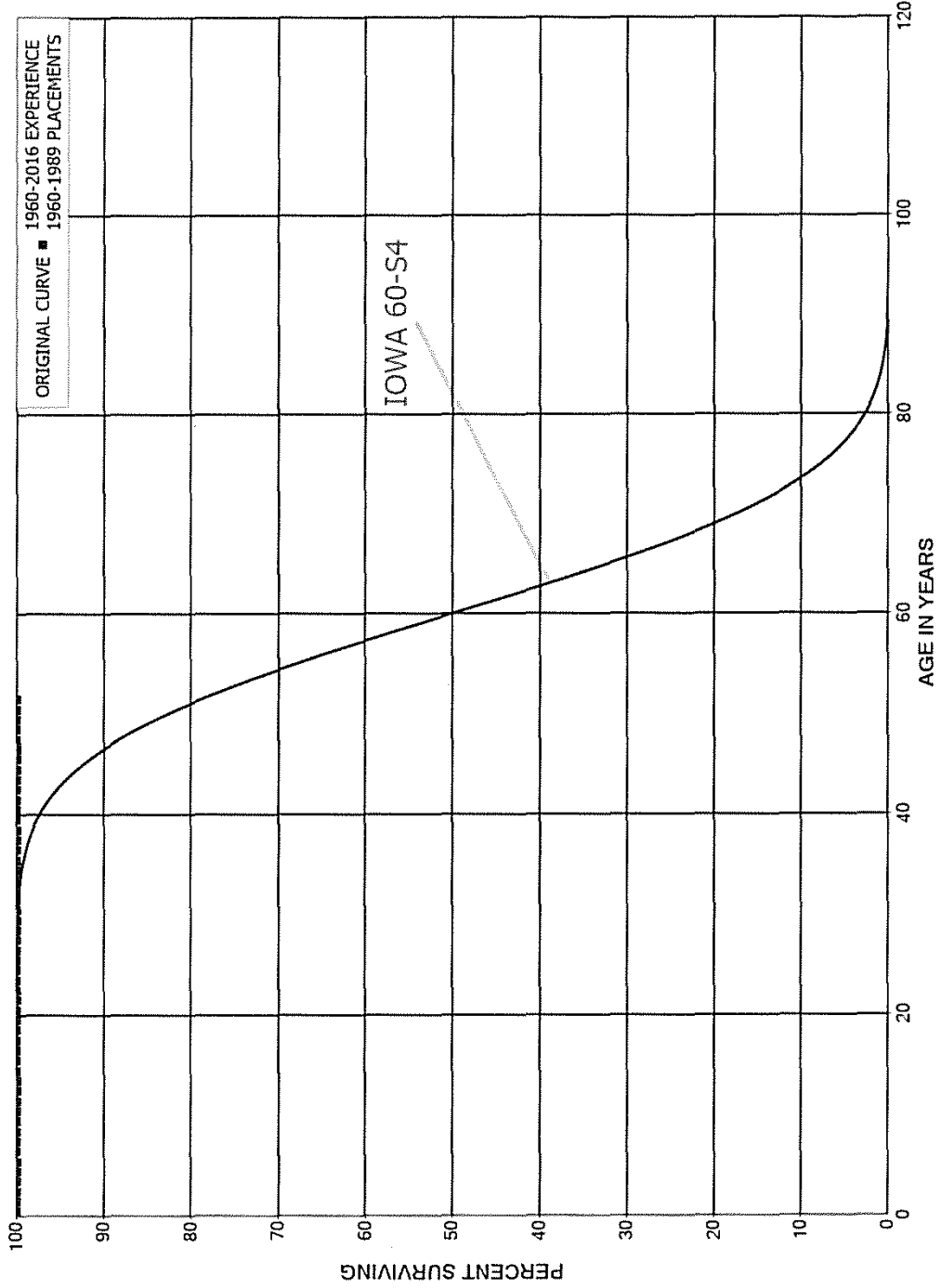
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 365.2 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2004			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	171,354		0.0000	1.0000	100.00
40.5	171,354		0.0000	1.0000	100.00
41.5	171,354		0.0000	1.0000	100.00
42.5	171,354		0.0000	1.0000	100.00
43.5	171,335		0.0000	1.0000	100.00
44.5	145,887		0.0000	1.0000	100.00
45.5	145,887		0.0000	1.0000	100.00
46.5	145,887		0.0000	1.0000	100.00
47.5	145,887		0.0000	1.0000	100.00
48.5	145,887		0.0000	1.0000	100.00
49.5	145,887		0.0000	1.0000	100.00
50.5	138,716		0.0000	1.0000	100.00
51.5	138,716		0.0000	1.0000	100.00
52.5	138,716		0.0000	1.0000	100.00
53.5	138,716		0.0000	1.0000	100.00
54.5					100.00

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 365.4 RIGHTS OF WAY
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 365.4 RIGHTS OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-1989			EXPERIENCE BAND 1960-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	771,866		0.0000	1.0000	100.00
0.5	772,529		0.0000	1.0000	100.00
1.5	772,529		0.0000	1.0000	100.00
2.5	772,529		0.0000	1.0000	100.00
3.5	772,529		0.0000	1.0000	100.00
4.5	772,529		0.0000	1.0000	100.00
5.5	772,529		0.0000	1.0000	100.00
6.5	772,529		0.0000	1.0000	100.00
7.5	772,529		0.0000	1.0000	100.00
8.5	772,529		0.0000	1.0000	100.00
9.5	772,529		0.0000	1.0000	100.00
10.5	772,529		0.0000	1.0000	100.00
11.5	772,529		0.0000	1.0000	100.00
12.5	772,529		0.0000	1.0000	100.00
13.5	772,529		0.0000	1.0000	100.00
14.5	772,529		0.0000	1.0000	100.00
15.5	772,529		0.0000	1.0000	100.00
16.5	772,529		0.0000	1.0000	100.00
17.5	772,529		0.0000	1.0000	100.00
18.5	772,529		0.0000	1.0000	100.00
19.5	772,529		0.0000	1.0000	100.00
20.5	772,529		0.0000	1.0000	100.00
21.5	772,529		0.0000	1.0000	100.00
22.5	772,529		0.0000	1.0000	100.00
23.5	772,529		0.0000	1.0000	100.00
24.5	772,529		0.0000	1.0000	100.00
25.5	772,529		0.0000	1.0000	100.00
26.5	772,529		0.0000	1.0000	100.00
27.5	359,741		0.0000	1.0000	100.00
28.5	359,741		0.0000	1.0000	100.00
29.5	359,741		0.0000	1.0000	100.00
30.5	359,741		0.0000	1.0000	100.00
31.5	359,741		0.0000	1.0000	100.00
32.5	359,741		0.0000	1.0000	100.00
33.5	359,741		0.0000	1.0000	100.00
34.5	127,112		0.0000	1.0000	100.00
35.5	126,612		0.0000	1.0000	100.00
36.5	126,612		0.0000	1.0000	100.00
37.5	126,612		0.0000	1.0000	100.00
38.5	126,612		0.0000	1.0000	100.00

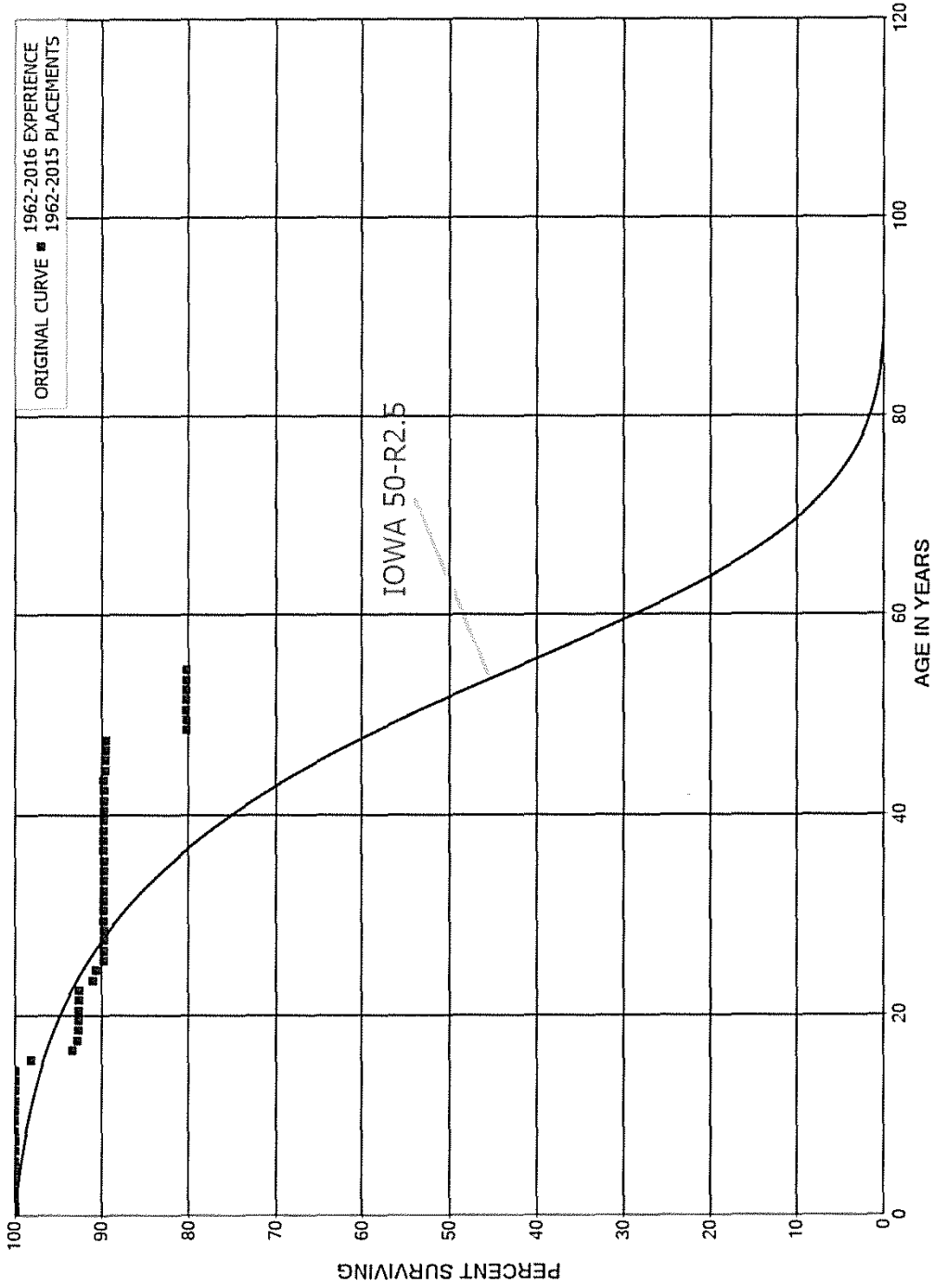
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 365.4 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-1989			EXPERIENCE BAND 1960-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	126,612		0.0000	1.0000	100.00
40.5	126,612		0.0000	1.0000	100.00
41.5	126,612		0.0000	1.0000	100.00
42.5	126,612		0.0000	1.0000	100.00
43.5	126,612		0.0000	1.0000	100.00
44.5	125,949		0.0000	1.0000	100.00
45.5	125,949		0.0000	1.0000	100.00
46.5	125,949		0.0000	1.0000	100.00
47.5	125,088		0.0000	1.0000	100.00
48.5	122,174		0.0000	1.0000	100.00
49.5	10,539		0.0000	1.0000	100.00
50.5	4,793		0.0000	1.0000	100.00
51.5	4,793		0.0000	1.0000	100.00
52.5	4,793		0.0000	1.0000	100.00
53.5	4,793		0.0000	1.0000	100.00
54.5	4,793		0.0000	1.0000	100.00
55.5	4,793		0.0000	1.0000	100.00
56.5					100.00

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNTS 366.0 AND 366.1 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 366.0 AND 366.1 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-2015			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,137,913		0.0000	1.0000	100.00
0.5	1,144,118		0.0000	1.0000	100.00
1.5	1,088,649		0.0000	1.0000	100.00
2.5	1,057,977		0.0000	1.0000	100.00
3.5	1,046,106		0.0000	1.0000	100.00
4.5	1,046,106		0.0000	1.0000	100.00
5.5	1,049,460		0.0000	1.0000	100.00
6.5	982,317	229	0.0002	0.9998	100.00
7.5	982,088		0.0000	1.0000	99.98
8.5	982,088		0.0000	1.0000	99.98
9.5	946,215		0.0000	1.0000	99.98
10.5	946,215		0.0000	1.0000	99.98
11.5	946,215	700	0.0007	0.9993	99.98
12.5	945,515		0.0000	1.0000	99.90
13.5	945,515		0.0000	1.0000	99.90
14.5	945,515	16,885	0.0179	0.9821	99.90
15.5	928,631	45,637	0.0491	0.9509	98.12
16.5	882,994	5,140	0.0058	0.9942	93.30
17.5	877,854	1,185	0.0013	0.9987	92.75
18.5	876,669		0.0000	1.0000	92.63
19.5	868,498		0.0000	1.0000	92.63
20.5	868,498	300	0.0003	0.9997	92.63
21.5	856,520	924	0.0011	0.9989	92.60
22.5	718,630	12,094	0.0168	0.9832	92.50
23.5	495,659	1,742	0.0035	0.9965	90.94
24.5	479,978	4,831	0.0101	0.9899	90.62
25.5	475,147		0.0000	1.0000	89.71
26.5	452,563		0.0000	1.0000	89.71
27.5	309,220		0.0000	1.0000	89.71
28.5	295,611		0.0000	1.0000	89.71
29.5	237,050	81	0.0003	0.9997	89.71
30.5	231,651		0.0000	1.0000	89.68
31.5	231,651		0.0000	1.0000	89.68
32.5	231,651		0.0000	1.0000	89.68
33.5	231,651		0.0000	1.0000	89.68
34.5	224,302		0.0000	1.0000	89.68
35.5	224,302		0.0000	1.0000	89.68
36.5	224,302		0.0000	1.0000	89.68
37.5	219,551		0.0000	1.0000	89.68
38.5	211,539		0.0000	1.0000	89.68

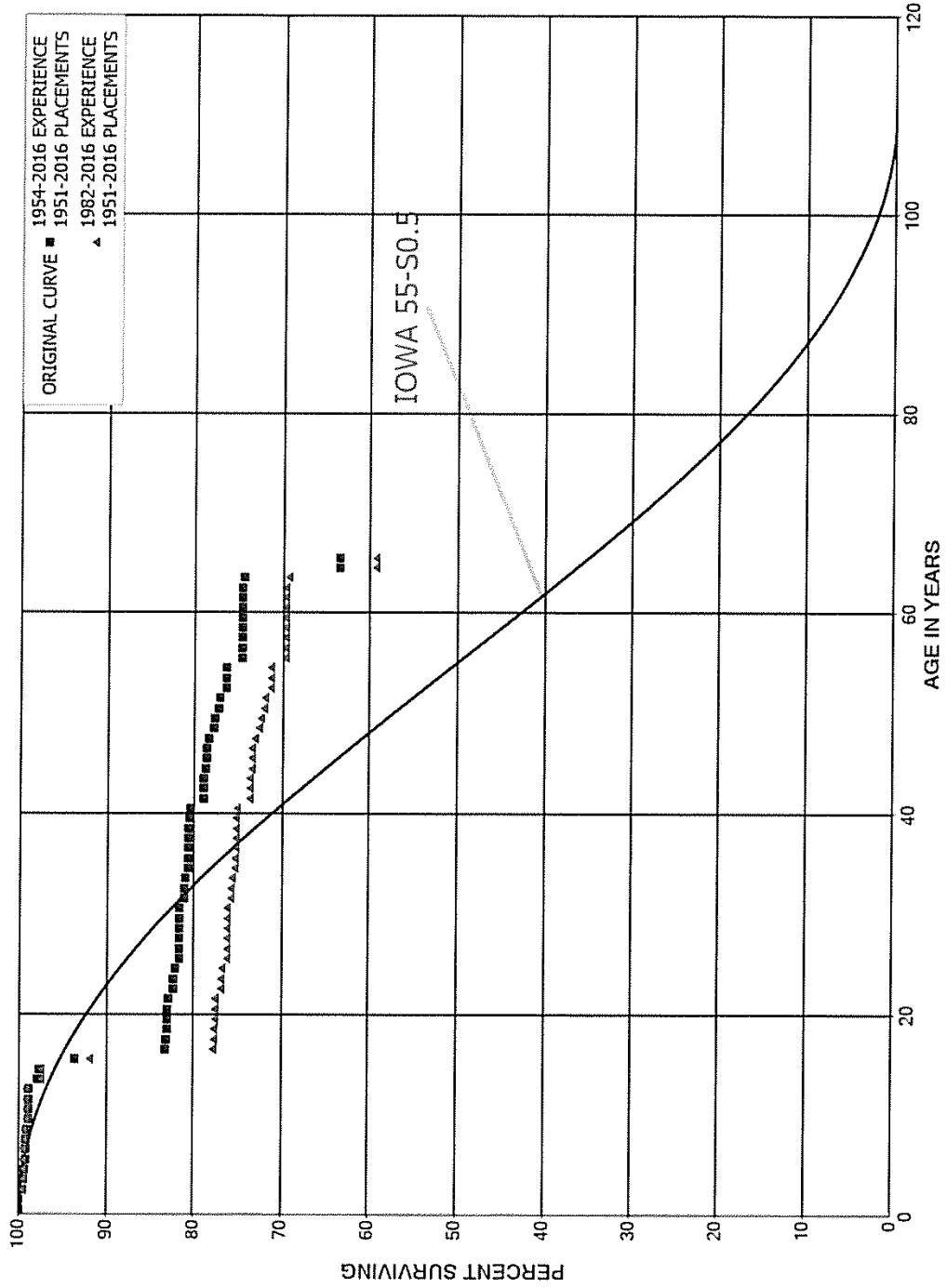
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 366.0 AND 366.1 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-2015			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	183,307		0.0000	1.0000	89.68
40.5	180,460		0.0000	1.0000	89.68
41.5	176,335		0.0000	1.0000	89.68
42.5	173,028		0.0000	1.0000	89.68
43.5	121,150	219	0.0018	0.9982	89.68
44.5	120,931		0.0000	1.0000	89.52
45.5	120,138		0.0000	1.0000	89.52
46.5	114,973		0.0000	1.0000	89.52
47.5	106,370	11,017	0.1036	0.8964	89.52
48.5	86,042		0.0000	1.0000	80.24
49.5	86,042		0.0000	1.0000	80.24
50.5	86,042		0.0000	1.0000	80.24
51.5	86,042		0.0000	1.0000	80.24
52.5	86,042		0.0000	1.0000	80.24
53.5	70,195		0.0000	1.0000	80.24
54.5					80.24

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNTS 367.0 AND 367.1 MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 367.0 AND 367.1 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	58,851,161		0.0000	1.0000	100.00
0.5	57,958,508	33,043	0.0006	0.9994	100.00
1.5	53,477,909	227,291	0.0043	0.9957	99.94
2.5	53,035,595	82,301	0.0016	0.9984	99.52
3.5	52,067,017	31,580	0.0006	0.9994	99.36
4.5	44,172,035	40,883	0.0009	0.9991	99.30
5.5	36,807,614	11,869	0.0003	0.9997	99.21
6.5	36,508,606	8,203	0.0002	0.9998	99.18
7.5	33,290,373	30,672	0.0009	0.9991	99.16
8.5	33,028,138	60,719	0.0018	0.9982	99.07
9.5	32,963,894	1,654	0.0001	0.9999	98.88
10.5	32,750,433		0.0000	1.0000	98.88
11.5	32,750,433	4,007	0.0001	0.9999	98.88
12.5	32,744,795	359,265	0.0110	0.9890	98.87
13.5	32,385,530	65,621	0.0020	0.9980	97.78
14.5	32,319,909	1,298,742	0.0402	0.9598	97.58
15.5	30,919,022	3,417,412	0.1105	0.8895	93.66
16.5	26,088,355	50,780	0.0019	0.9981	83.31
17.5	25,766,476	16,514	0.0006	0.9994	83.15
18.5	25,312,570	8,750	0.0003	0.9997	83.09
19.5	25,303,820	16,280	0.0006	0.9994	83.07
20.5	24,768,240	977	0.0000	1.0000	83.01
21.5	22,860,263	167,456	0.0073	0.9927	83.01
22.5	22,608,113		0.0000	1.0000	82.40
23.5	20,759,219	44,764	0.0022	0.9978	82.40
24.5	20,355,800	121,078	0.0059	0.9941	82.22
25.5	19,720,518	6,673	0.0003	0.9997	81.73
26.5	19,004,696	2,177	0.0001	0.9999	81.71
27.5	14,578,508		0.0000	1.0000	81.70
28.5	13,623,100		0.0000	1.0000	81.70
29.5	13,215,961	3,709	0.0003	0.9997	81.70
30.5	12,917,708	82,435	0.0064	0.9936	81.67
31.5	12,763,749		0.0000	1.0000	81.15
32.5	12,701,397	16,251	0.0013	0.9987	81.15
33.5	12,659,979	46,541	0.0037	0.9963	81.05
34.5	12,232,443	385	0.0000	1.0000	80.75
35.5	11,849,376	10,692	0.0009	0.9991	80.75
36.5	11,817,765		0.0000	1.0000	80.68
37.5	11,817,765		0.0000	1.0000	80.68
38.5	11,775,384	9,761	0.0008	0.9992	80.68

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 367.0 AND 367.1 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	11,748,140	22,244	0.0019	0.9981	80.61
40.5	11,725,895	216,732	0.0185	0.9815	80.46
41.5	11,500,065		0.0000	1.0000	78.97
42.5	11,487,822	6,830	0.0006	0.9994	78.97
43.5	11,480,804	23,660	0.0021	0.9979	78.92
44.5	10,658,249	13,676	0.0013	0.9987	78.76
45.5	10,575,344		0.0000	1.0000	78.66
46.5	10,524,028	34,841	0.0033	0.9967	78.66
47.5	10,301,919	71,303	0.0069	0.9931	78.40
48.5	9,827,936	22,453	0.0023	0.9977	77.86
49.5	8,437,567	46,603	0.0055	0.9945	77.68
50.5	7,908,307	7,729	0.0010	0.9990	77.25
51.5	7,511,115	73,956	0.0098	0.9902	77.17
52.5	7,058,378		0.0000	1.0000	76.41
53.5	6,744,450		0.0000	1.0000	76.41
54.5	2,873,456	66,330	0.0231	0.9769	76.41
55.5	2,748,931		0.0000	1.0000	74.65
56.5	1,193,177		0.0000	1.0000	74.65
57.5	1,193,177		0.0000	1.0000	74.65
58.5	1,192,756		0.0000	1.0000	74.65
59.5	1,189,900		0.0000	1.0000	74.65
60.5	1,129,484		0.0000	1.0000	74.65
61.5	1,129,368		0.0000	1.0000	74.65
62.5	1,129,368	4,684	0.0041	0.9959	74.65
63.5	1,124,684	163,950	0.1458	0.8542	74.34
64.5	921,753		0.0000	1.0000	63.50
65.5					63.50

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 367.0 AND 367.1 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2016			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	47,156,444		0.0000	1.0000	100.00
0.5	46,652,199	9,281	0.0002	0.9998	100.00
1.5	41,807,033	226,736	0.0054	0.9946	99.98
2.5	40,355,741	51,107	0.0013	0.9987	99.44
3.5	39,460,738	7,564	0.0002	0.9998	99.31
4.5	31,630,454		0.0000	1.0000	99.29
5.5	24,328,240	11,869	0.0005	0.9995	99.29
6.5	24,038,802	6,773	0.0003	0.9997	99.24
7.5	20,902,892	872	0.0000	1.0000	99.22
8.5	20,671,564	60,495	0.0029	0.9971	99.21
9.5	21,406,482		0.0000	1.0000	98.92
10.5	21,263,903		0.0000	1.0000	98.92
11.5	21,326,511	4,007	0.0002	0.9998	98.92
12.5	21,516,269	359,265	0.0167	0.9833	98.90
13.5	21,594,848		0.0000	1.0000	97.25
14.5	23,034,068	1,298,742	0.0564	0.9436	97.25
15.5	22,148,438	3,417,412	0.1543	0.8457	91.77
16.5	17,755,402	14,151	0.0008	0.9992	77.61
17.5	17,856,662	16,514	0.0009	0.9991	77.55
18.5	17,794,350	8,750	0.0005	0.9995	77.48
19.5	21,989,773	16,280	0.0007	0.9993	77.44
20.5	21,515,380	977	0.0000	1.0000	77.38
21.5	21,374,785	167,456	0.0078	0.9922	77.38
22.5	21,122,636		0.0000	1.0000	76.77
23.5	19,274,214	44,764	0.0023	0.9977	76.77
24.5	18,873,650	121,078	0.0064	0.9936	76.59
25.5	18,298,785	6,673	0.0004	0.9996	76.10
26.5	17,583,078	325	0.0000	1.0000	76.07
27.5	13,158,743		0.0000	1.0000	76.07
28.5	12,203,334		0.0000	1.0000	76.07
29.5	12,130,259	3,709	0.0003	0.9997	76.07
30.5	12,917,708	82,435	0.0064	0.9936	76.05
31.5	12,763,749		0.0000	1.0000	75.56
32.5	12,701,397	16,251	0.0013	0.9987	75.56
33.5	12,659,979	46,541	0.0037	0.9963	75.47
34.5	12,232,443	385	0.0000	1.0000	75.19
35.5	11,849,376	10,692	0.0009	0.9991	75.19
36.5	11,817,765		0.0000	1.0000	75.12
37.5	11,817,765		0.0000	1.0000	75.12
38.5	11,775,384	9,761	0.0008	0.9992	75.12

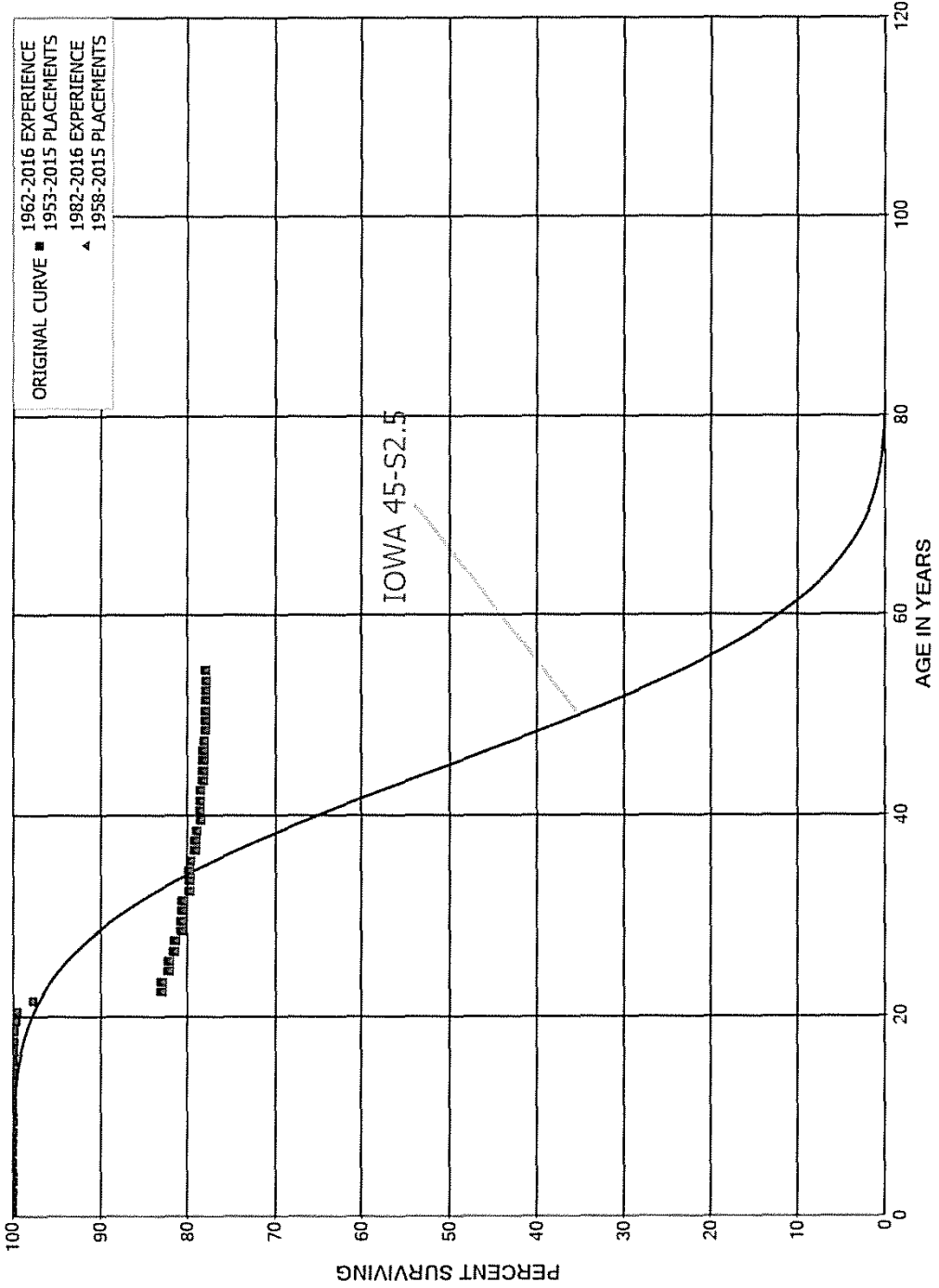
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 367.0 AND 367.1 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2016			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	11,748,140	22,244	0.0019	0.9981	75.06
40.5	11,725,895	216,732	0.0185	0.9815	74.91
41.5	11,500,065		0.0000	1.0000	73.53
42.5	11,487,822	6,830	0.0006	0.9994	73.53
43.5	11,480,804	23,660	0.0021	0.9979	73.49
44.5	10,658,249	13,676	0.0013	0.9987	73.33
45.5	10,575,344		0.0000	1.0000	73.24
46.5	10,524,028	34,841	0.0033	0.9967	73.24
47.5	10,301,919	71,303	0.0069	0.9931	73.00
48.5	9,827,936	22,453	0.0023	0.9977	72.49
49.5	8,437,567	46,603	0.0055	0.9945	72.33
50.5	7,908,307	7,729	0.0010	0.9990	71.93
51.5	7,511,115	73,956	0.0098	0.9902	71.86
52.5	7,058,378		0.0000	1.0000	71.15
53.5	6,744,450		0.0000	1.0000	71.15
54.5	2,873,456	66,330	0.0231	0.9769	71.15
55.5	2,748,931		0.0000	1.0000	69.51
56.5	1,193,177		0.0000	1.0000	69.51
57.5	1,193,177		0.0000	1.0000	69.51
58.5	1,192,756		0.0000	1.0000	69.51
59.5	1,189,900		0.0000	1.0000	69.51
60.5	1,129,484		0.0000	1.0000	69.51
61.5	1,129,368		0.0000	1.0000	69.51
62.5	1,129,368	4,684	0.0041	0.9959	69.51
63.5	1,124,684	163,950	0.1458	0.8542	69.22
64.5	921,753		0.0000	1.0000	59.13
65.5					59.13

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 368.0 COMPRESSOR STATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 368.0 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1953-2015		EXPERIENCE BAND 1962-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,499,773		0.0000	1.0000	100.00
0.5	2,500,198		0.0000	1.0000	100.00
1.5	2,480,780		0.0000	1.0000	100.00
2.5	2,486,791		0.0000	1.0000	100.00
3.5	2,470,999	600	0.0002	0.9998	100.00
4.5	2,470,399		0.0000	1.0000	99.98
5.5	2,470,399		0.0000	1.0000	99.98
6.5	2,365,346		0.0000	1.0000	99.98
7.5	2,365,346		0.0000	1.0000	99.98
8.5	2,365,346		0.0000	1.0000	99.98
9.5	2,365,346		0.0000	1.0000	99.98
10.5	2,421,864		0.0000	1.0000	99.98
11.5	2,407,175		0.0000	1.0000	99.98
12.5	2,390,290	400	0.0002	0.9998	99.98
13.5	2,360,611		0.0000	1.0000	99.96
14.5	2,331,705		0.0000	1.0000	99.96
15.5	2,277,606	1,712	0.0008	0.9992	99.96
16.5	2,243,132	1,965	0.0009	0.9991	99.88
17.5	2,236,073		0.0000	1.0000	99.80
18.5	2,184,783	4,516	0.0021	0.9979	99.80
19.5	2,138,296	1,896	0.0009	0.9991	99.59
20.5	2,136,400	37,340	0.0175	0.9825	99.50
21.5	2,099,061	315,881	0.1505	0.8495	97.76
22.5	1,777,643		0.0000	1.0000	83.05
23.5	1,775,228	16,793	0.0095	0.9905	83.05
24.5	1,758,435		0.0000	1.0000	82.27
25.5	1,758,435	11,327	0.0064	0.9936	82.27
26.5	1,715,120	3,221	0.0019	0.9981	81.74
27.5	1,672,667	16,294	0.0097	0.9903	81.58
28.5	1,656,372		0.0000	1.0000	80.79
29.5	1,656,372	1,049	0.0006	0.9994	80.79
30.5	1,567,357		0.0000	1.0000	80.74
31.5	1,567,357	15,399	0.0098	0.9902	80.74
32.5	1,393,359		0.0000	1.0000	79.94
33.5	1,393,359	893	0.0006	0.9994	79.94
34.5	1,392,466	2,000	0.0014	0.9986	79.89
35.5	1,382,504	9,200	0.0067	0.9933	79.78
36.5	1,373,304		0.0000	1.0000	79.25
37.5	1,373,304	2,914	0.0021	0.9979	79.25
38.5	1,370,390	7,341	0.0054	0.9946	79.08

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 368.0 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1953-2015			EXPERIENCE BAND 1962-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,118,498		0.0000	1.0000	78.65
40.5	1,118,498		0.0000	1.0000	78.65
41.5	1,118,498		0.0000	1.0000	78.65
42.5	1,118,498	3,885	0.0035	0.9965	78.65
43.5	937,927		0.0000	1.0000	78.38
44.5	937,927		0.0000	1.0000	78.38
45.5	937,927		0.0000	1.0000	78.38
46.5	937,927	735	0.0008	0.9992	78.38
47.5	809,223	2,128	0.0026	0.9974	78.32
48.5	807,094		0.0000	1.0000	78.11
49.5	807,094		0.0000	1.0000	78.11
50.5	806,533		0.0000	1.0000	78.11
51.5	800,515		0.0000	1.0000	78.11
52.5	779,852		0.0000	1.0000	78.11
53.5	613,687		0.0000	1.0000	78.11
54.5	56,117		0.0000	1.0000	78.11
55.5	56,117		0.0000	1.0000	78.11
56.5	56,117		0.0000	1.0000	78.11
57.5	56,117		0.0000	1.0000	78.11
58.5					78.11

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 368.0 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1958-2015			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	825,677		0.0000	1.0000	100.00
0.5	833,639		0.0000	1.0000	100.00
1.5	814,221		0.0000	1.0000	100.00
2.5	825,548		0.0000	1.0000	100.00
3.5	809,756		0.0000	1.0000	100.00
4.5	1,064,545		0.0000	1.0000	100.00
5.5	1,066,048		0.0000	1.0000	100.00
6.5	963,940		0.0000	1.0000	100.00
7.5	976,809		0.0000	1.0000	100.00
8.5	1,380,790		0.0000	1.0000	100.00
9.5	1,385,884		0.0000	1.0000	100.00
10.5	1,386,777		0.0000	1.0000	100.00
11.5	1,372,088		0.0000	1.0000	100.00
12.5	1,483,172		0.0000	1.0000	100.00
13.5	1,453,893		0.0000	1.0000	100.00
14.5	1,424,987		0.0000	1.0000	100.00
15.5	1,375,422	1,712	0.0012	0.9988	100.00
16.5	1,346,966	1,965	0.0015	0.9985	99.88
17.5	1,360,570		0.0000	1.0000	99.73
18.5	1,481,401	1,503	0.0010	0.9990	99.73
19.5	2,082,179	1,896	0.0009	0.9991	99.63
20.5	2,080,283	37,340	0.0179	0.9821	99.54
21.5	2,042,943	315,881	0.1546	0.8454	97.75
22.5	1,721,526		0.0000	1.0000	82.64
23.5	1,775,228	16,793	0.0095	0.9905	82.64
24.5	1,758,435		0.0000	1.0000	81.86
25.5	1,758,435	11,327	0.0064	0.9936	81.86
26.5	1,715,120	3,221	0.0019	0.9981	81.33
27.5	1,672,667	16,294	0.0097	0.9903	81.18
28.5	1,656,372		0.0000	1.0000	80.38
29.5	1,656,372	1,049	0.0006	0.9994	80.38
30.5	1,567,357		0.0000	1.0000	80.33
31.5	1,567,357	15,399	0.0098	0.9902	80.33
32.5	1,393,359		0.0000	1.0000	79.54
33.5	1,393,359	893	0.0006	0.9994	79.54
34.5	1,392,466	2,000	0.0014	0.9986	79.49
35.5	1,382,504	9,200	0.0067	0.9933	79.38
36.5	1,373,304		0.0000	1.0000	78.85
37.5	1,373,304	2,914	0.0021	0.9979	78.85
38.5	1,370,390	7,341	0.0054	0.9946	78.68

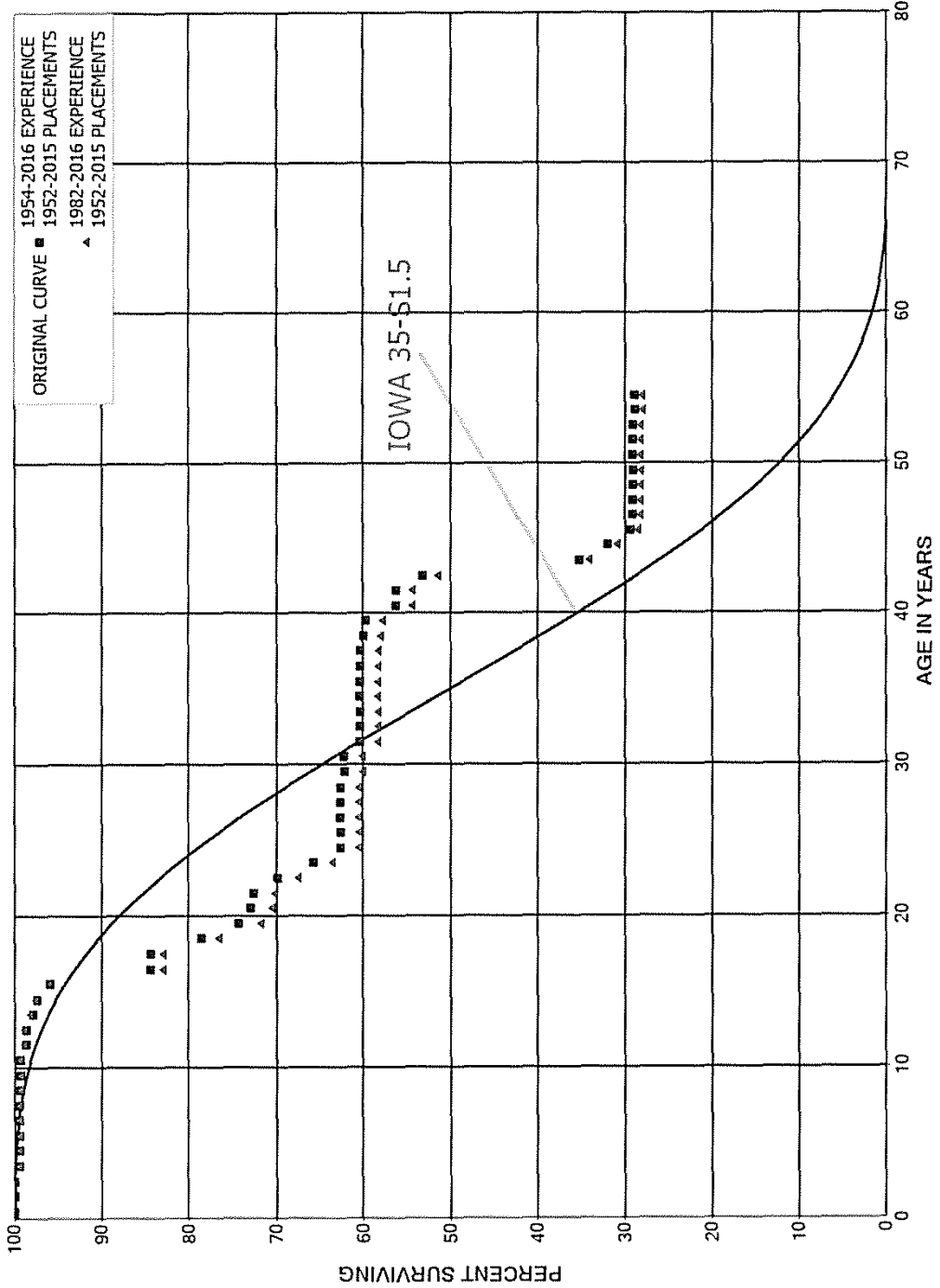
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 368.0 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1958-2015			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,118,498		0.0000	1.0000	78.26
40.5	1,118,498		0.0000	1.0000	78.26
41.5	1,118,498		0.0000	1.0000	78.26
42.5	1,118,498	3,885	0.0035	0.9965	78.26
43.5	937,927		0.0000	1.0000	77.99
44.5	937,927		0.0000	1.0000	77.99
45.5	937,927		0.0000	1.0000	77.99
46.5	937,927	735	0.0008	0.9992	77.99
47.5	809,223	2,128	0.0026	0.9974	77.93
48.5	807,094		0.0000	1.0000	77.72
49.5	807,094		0.0000	1.0000	77.72
50.5	806,533		0.0000	1.0000	77.72
51.5	800,515		0.0000	1.0000	77.72
52.5	779,852		0.0000	1.0000	77.72
53.5	613,687		0.0000	1.0000	77.72
54.5	56,117		0.0000	1.0000	77.72
55.5	56,117		0.0000	1.0000	77.72
56.5	56,117		0.0000	1.0000	77.72
57.5	56,117		0.0000	1.0000	77.72
58.5					77.72

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNTS 369.0 AND 369.1 MEASURING AND REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 369.0 AND 369.1 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1952-2015			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,536,103		0.0000	1.0000	100.00
0.5	4,692,267		0.0000	1.0000	100.00
1.5	4,154,818		0.0000	1.0000	100.00
2.5	4,052,771	24,214	0.0060	0.9940	100.00
3.5	3,451,189		0.0000	1.0000	99.40
4.5	3,451,189		0.0000	1.0000	99.40
5.5	3,140,017		0.0000	1.0000	99.40
6.5	3,142,887		0.0000	1.0000	99.40
7.5	3,140,017	3,302	0.0011	0.9989	99.40
8.5	3,136,715	1,507	0.0005	0.9995	99.30
9.5	2,917,839		0.0000	1.0000	99.25
10.5	2,917,839	18,680	0.0064	0.9936	99.25
11.5	2,846,648		0.0000	1.0000	98.61
12.5	2,824,691	23,864	0.0084	0.9916	98.61
13.5	2,800,827	15,104	0.0054	0.9946	97.78
14.5	2,785,723	39,461	0.0142	0.9858	97.25
15.5	2,728,831	327,030	0.1198	0.8802	95.88
16.5	2,401,801	1,180	0.0005	0.9995	84.39
17.5	2,400,621	164,719	0.0686	0.9314	84.35
18.5	2,235,902	122,459	0.0548	0.9452	78.56
19.5	2,107,422	37,244	0.0177	0.9823	74.26
20.5	2,070,178	9,399	0.0045	0.9955	72.94
21.5	2,048,797	79,850	0.0390	0.9610	72.61
22.5	1,845,539	106,121	0.0575	0.9425	69.78
23.5	1,601,328	77,143	0.0482	0.9518	65.77
24.5	1,468,257		0.0000	1.0000	62.60
25.5	1,458,818		0.0000	1.0000	62.60
26.5	1,402,702		0.0000	1.0000	62.60
27.5	971,756		0.0000	1.0000	62.60
28.5	890,841	6,022	0.0068	0.9932	62.60
29.5	807,657		0.0000	1.0000	62.18
30.5	786,491	23,168	0.0295	0.9705	62.18
31.5	560,817		0.0000	1.0000	60.35
32.5	560,817		0.0000	1.0000	60.35
33.5	532,394		0.0000	1.0000	60.35
34.5	328,569		0.0000	1.0000	60.35
35.5	328,569		0.0000	1.0000	60.35
36.5	325,640		0.0000	1.0000	60.35
37.5	325,640	2,170	0.0067	0.9933	60.35
38.5	323,470	1,396	0.0043	0.9957	59.94

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 369.0 AND 369.1 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1952-2015			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	322,074	18,274	0.0567	0.9433	59.69
40.5	303,799		0.0000	1.0000	56.30
41.5	303,799	16,607	0.0547	0.9453	56.30
42.5	287,193	97,577	0.3398	0.6602	53.22
43.5	189,616	17,415	0.0918	0.9082	35.14
44.5	172,201	13,600	0.0790	0.9210	31.91
45.5	155,329	1,622	0.0104	0.9896	29.39
46.5	153,707		0.0000	1.0000	29.08
47.5	146,563		0.0000	1.0000	29.08
48.5	137,211		0.0000	1.0000	29.08
49.5	121,995		0.0000	1.0000	29.08
50.5	121,995		0.0000	1.0000	29.08
51.5	121,995		0.0000	1.0000	29.08
52.5	121,995	1,115	0.0091	0.9909	29.08
53.5	115,255		0.0000	1.0000	28.82
54.5					28.82

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 369.0 AND 369.1 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1952-2015			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,105,613		0.0000	1.0000	100.00
0.5	4,261,777		0.0000	1.0000	100.00
1.5	3,718,197		0.0000	1.0000	100.00
2.5	3,616,150	24,214	0.0067	0.9933	100.00
3.5	3,014,568		0.0000	1.0000	99.33
4.5	3,017,870		0.0000	1.0000	99.33
5.5	2,714,227		0.0000	1.0000	99.33
6.5	2,714,227		0.0000	1.0000	99.33
7.5	2,737,395	3,302	0.0012	0.9988	99.33
8.5	2,734,093	1,507	0.0006	0.9994	99.21
9.5	2,516,109		0.0000	1.0000	99.16
10.5	2,535,664	10,526	0.0042	0.9958	99.16
11.5	2,472,628		0.0000	1.0000	98.74
12.5	2,461,175	18,016	0.0073	0.9927	98.74
13.5	2,452,952	15,104	0.0062	0.9938	98.02
14.5	2,466,250	39,461	0.0160	0.9840	97.42
15.5	2,410,754	327,030	0.1357	0.8643	95.86
16.5	2,092,163	1,180	0.0006	0.9994	82.86
17.5	2,090,983	162,268	0.0776	0.9224	82.81
18.5	1,967,721	122,459	0.0622	0.9378	76.38
19.5	2,105,666	37,244	0.0177	0.9823	71.63
20.5	2,069,063	9,399	0.0045	0.9955	70.36
21.5	2,047,682	79,850	0.0390	0.9610	70.04
22.5	1,844,425	106,121	0.0575	0.9425	67.31
23.5	1,600,213	77,143	0.0482	0.9518	63.44
24.5	1,467,142		0.0000	1.0000	60.38
25.5	1,457,703		0.0000	1.0000	60.38
26.5	1,401,588		0.0000	1.0000	60.38
27.5	970,641		0.0000	1.0000	60.38
28.5	889,727	6,022	0.0068	0.9932	60.38
29.5	807,657		0.0000	1.0000	59.97
30.5	786,491	23,168	0.0295	0.9705	59.97
31.5	560,817		0.0000	1.0000	58.20
32.5	560,817		0.0000	1.0000	58.20
33.5	532,394		0.0000	1.0000	58.20
34.5	328,569		0.0000	1.0000	58.20
35.5	328,569		0.0000	1.0000	58.20
36.5	325,640		0.0000	1.0000	58.20
37.5	325,640	2,170	0.0067	0.9933	58.20
38.5	323,470	1,396	0.0043	0.9957	57.82

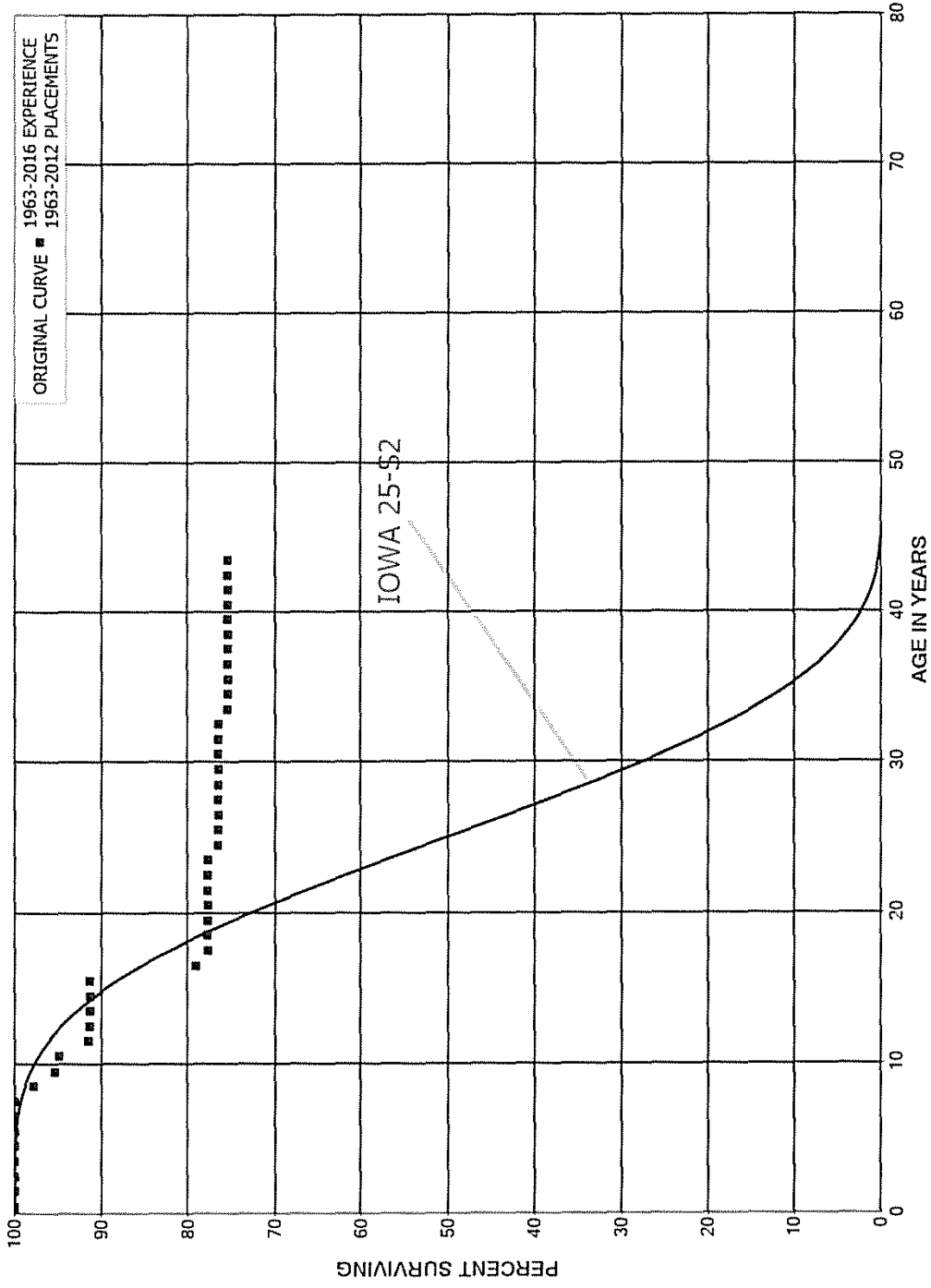
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNTS 369.0 AND 369.1 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1952-2015			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	322,074	18,274	0.0567	0.9433	57.57
40.5	303,799		0.0000	1.0000	54.30
41.5	303,799	16,607	0.0547	0.9453	54.30
42.5	287,193	97,577	0.3398	0.6602	51.33
43.5	189,616	17,415	0.0918	0.9082	33.89
44.5	172,201	13,600	0.0790	0.9210	30.78
45.5	155,329	1,622	0.0104	0.9896	28.35
46.5	153,707		0.0000	1.0000	28.05
47.5	146,563		0.0000	1.0000	28.05
48.5	137,211		0.0000	1.0000	28.05
49.5	121,995		0.0000	1.0000	28.05
50.5	121,995		0.0000	1.0000	28.05
51.5	121,995		0.0000	1.0000	28.05
52.5	121,995	1,115	0.0091	0.9909	28.05
53.5	115,255		0.0000	1.0000	27.80
54.5					27.80

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 370.0 COMMUNICATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 370.0 COMMUNICATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1963-2012			EXPERIENCE BAND 1963-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	411,274		0.0000	1.0000	100.00
0.5	411,274		0.0000	1.0000	100.00
1.5	411,274		0.0000	1.0000	100.00
2.5	411,274		0.0000	1.0000	100.00
3.5	411,274		0.0000	1.0000	100.00
4.5	398,344	269	0.0007	0.9993	100.00
5.5	398,076		0.0000	1.0000	99.93
6.5	398,076	85	0.0002	0.9998	99.93
7.5	397,991	8,320	0.0209	0.9791	99.91
8.5	389,671	9,992	0.0256	0.9744	97.82
9.5	379,680	2,076	0.0055	0.9945	95.31
10.5	377,604	13,139	0.0348	0.9652	94.79
11.5	364,465	1,002	0.0027	0.9973	91.50
12.5	324,863		0.0000	1.0000	91.24
13.5	324,863		0.0000	1.0000	91.24
14.5	324,863		0.0000	1.0000	91.24
15.5	324,863	43,239	0.1331	0.8669	91.24
16.5	189,172	3,200	0.0169	0.9831	79.10
17.5	185,972		0.0000	1.0000	77.76
18.5	183,004		0.0000	1.0000	77.76
19.5	183,004		0.0000	1.0000	77.76
20.5	183,004		0.0000	1.0000	77.76
21.5	183,004		0.0000	1.0000	77.76
22.5	183,004		0.0000	1.0000	77.76
23.5	183,004	3,073	0.0168	0.9832	77.76
24.5	179,931		0.0000	1.0000	76.46
25.5	179,931		0.0000	1.0000	76.46
26.5	178,847		0.0000	1.0000	76.46
27.5	130,508		0.0000	1.0000	76.46
28.5	130,508		0.0000	1.0000	76.46
29.5	123,435		0.0000	1.0000	76.46
30.5	55,783		0.0000	1.0000	76.46
31.5	55,783		0.0000	1.0000	76.46
32.5	42,989	598	0.0139	0.9861	76.46
33.5	42,391		0.0000	1.0000	75.39
34.5	38,391		0.0000	1.0000	75.39
35.5	38,391		0.0000	1.0000	75.39
36.5	38,391		0.0000	1.0000	75.39
37.5	38,391		0.0000	1.0000	75.39
38.5	34,938		0.0000	1.0000	75.39

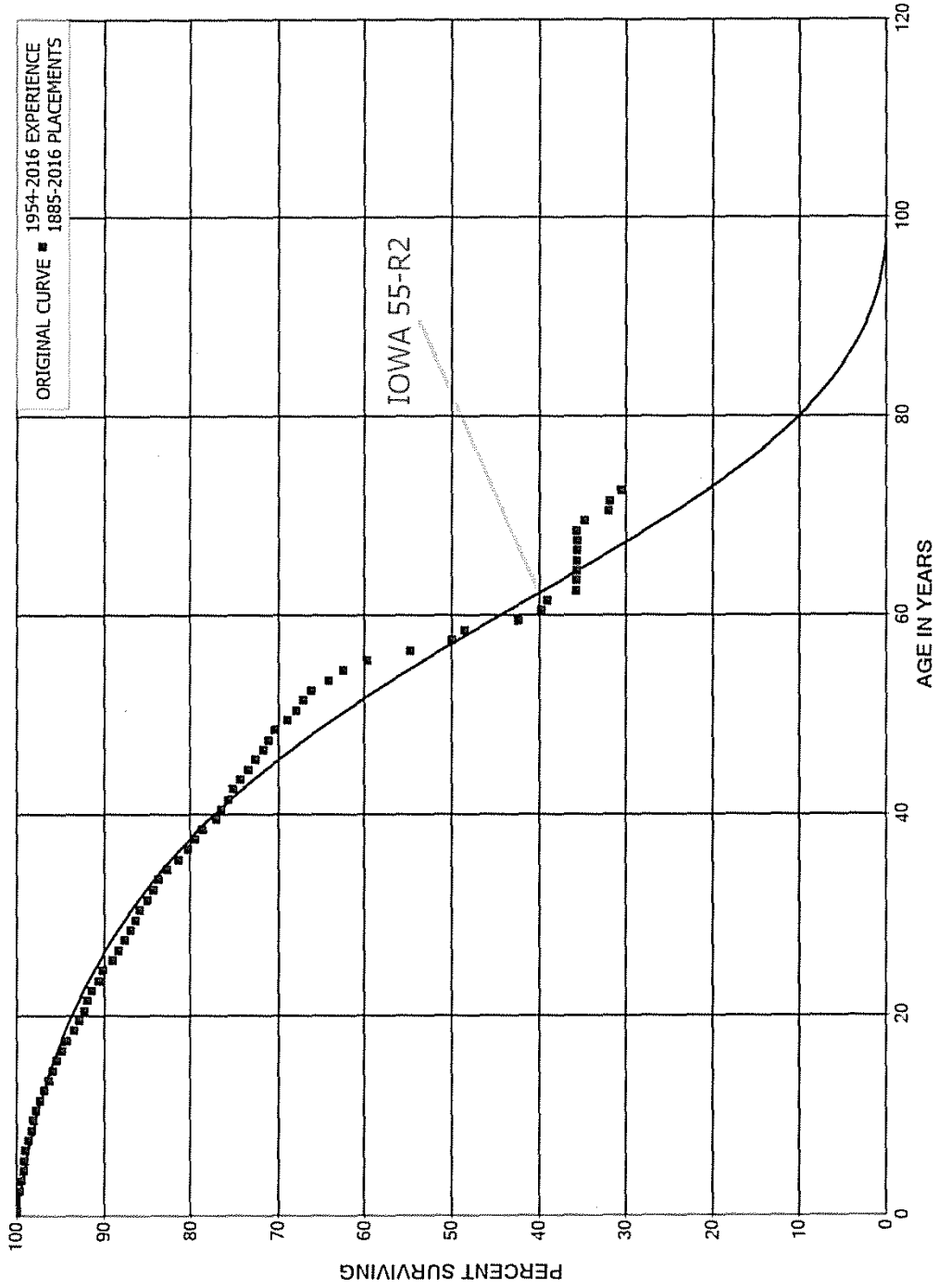
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 370.0 COMMUNICATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1963-2012			EXPERIENCE BAND 1963-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	32,675		0.0000	1.0000	75.39
40.5	32,675		0.0000	1.0000	75.39
41.5	32,675		0.0000	1.0000	75.39
42.5	32,675		0.0000	1.0000	75.39
43.5	32,675		0.0000	1.0000	75.39
44.5	2,945		0.0000	1.0000	75.39
45.5	2,945		0.0000	1.0000	75.39
46.5	2,945		0.0000	1.0000	75.39
47.5					75.39

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 376.1 VALVES, VALVE PITS, ETC.
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.1 VALVES, VALVE PITS, ETC.

ORIGINAL LIFE TABLE

PLACEMENT BAND 1885-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	8,872,087	297	0.0000	1.0000	100.00
0.5	8,887,283	7,655	0.0009	0.9991	100.00
1.5	8,567,687	28,940	0.0034	0.9966	99.91
2.5	8,291,773	15,956	0.0019	0.9981	99.57
3.5	7,864,151	12,014	0.0015	0.9985	99.38
4.5	6,979,180	9,449	0.0014	0.9986	99.23
5.5	6,806,056	13,361	0.0020	0.9980	99.10
6.5	6,417,278	15,376	0.0024	0.9976	98.90
7.5	5,860,764	20,790	0.0035	0.9965	98.66
8.5	5,452,001	12,075	0.0022	0.9978	98.31
9.5	5,149,705	21,061	0.0041	0.9959	98.10
10.5	3,998,388	18,952	0.0047	0.9953	97.69
11.5	3,828,583	15,712	0.0041	0.9959	97.23
12.5	3,592,320	20,467	0.0057	0.9943	96.83
13.5	3,438,414	16,179	0.0047	0.9953	96.28
14.5	3,316,851	14,563	0.0044	0.9956	95.83
15.5	3,181,999	18,106	0.0057	0.9943	95.41
16.5	3,013,461	17,529	0.0058	0.9942	94.86
17.5	2,906,923	28,412	0.0098	0.9902	94.31
18.5	2,778,925	17,946	0.0065	0.9935	93.39
19.5	2,555,730	12,623	0.0049	0.9951	92.79
20.5	2,476,453	10,421	0.0042	0.9958	92.33
21.5	2,345,784	14,943	0.0064	0.9936	91.94
22.5	2,168,613	17,444	0.0080	0.9920	91.36
23.5	2,062,623	10,969	0.0053	0.9947	90.62
24.5	1,975,395	24,064	0.0122	0.9878	90.14
25.5	1,856,082	15,518	0.0084	0.9916	89.04
26.5	1,723,152	12,778	0.0074	0.9926	88.30
27.5	1,595,823	11,951	0.0075	0.9925	87.64
28.5	1,467,587	10,667	0.0073	0.9927	86.98
29.5	1,369,176	8,394	0.0061	0.9939	86.35
30.5	1,253,346	12,912	0.0103	0.9897	85.82
31.5	1,168,443	8,948	0.0077	0.9923	84.94
32.5	1,124,761	7,034	0.0063	0.9937	84.29
33.5	1,097,398	12,995	0.0118	0.9882	83.76
34.5	1,028,130	17,617	0.0171	0.9829	82.77
35.5	934,727	12,715	0.0136	0.9864	81.35
36.5	856,313	7,629	0.0089	0.9911	80.24
37.5	823,823	9,488	0.0115	0.9885	79.53
38.5	801,905	15,264	0.0190	0.9810	78.61

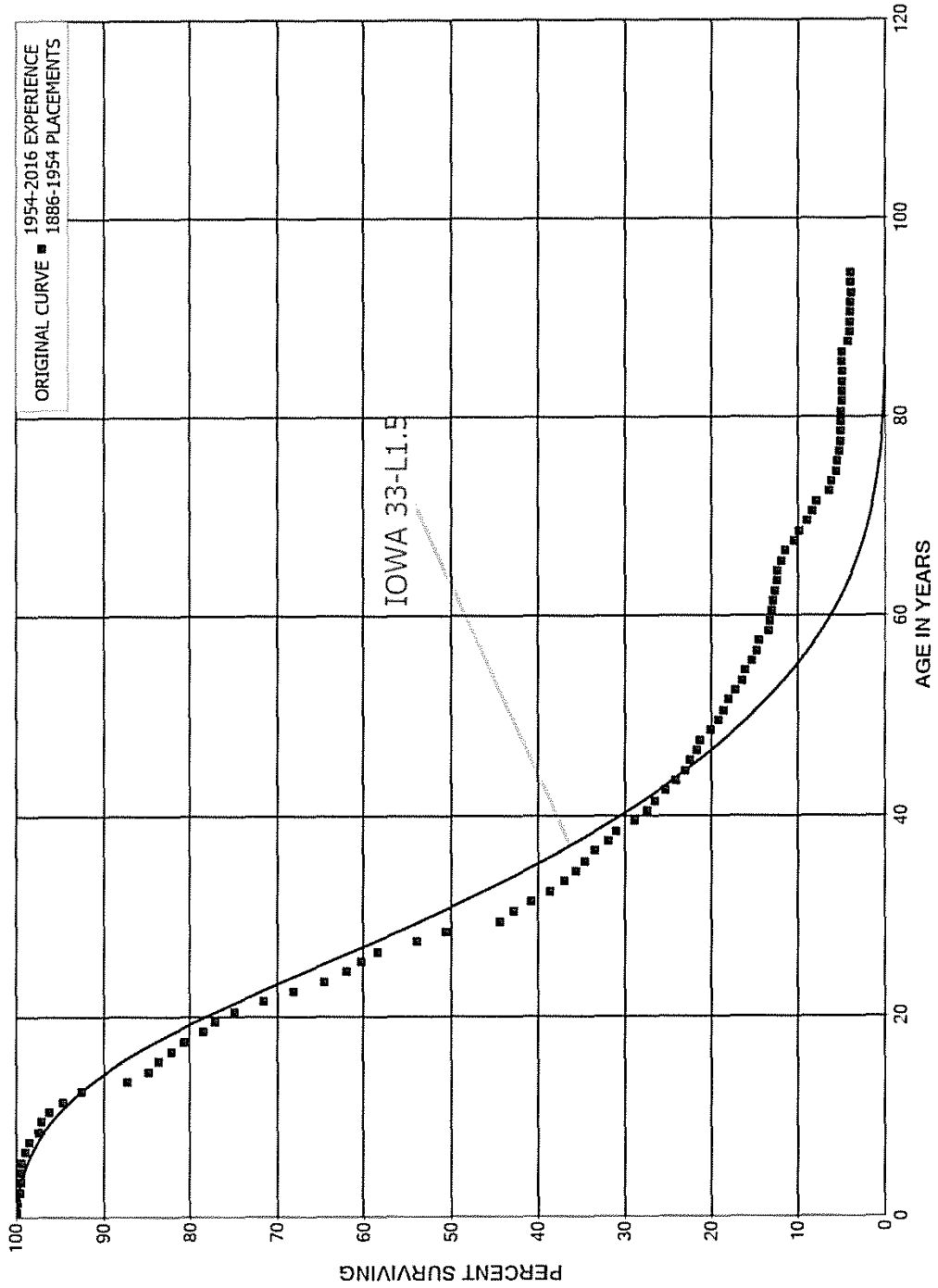
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.1 VALVES, VALVE PITS, ETC.

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1885-2016			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	776,476	5,731	0.0074	0.9926	77.12	
40.5	757,488	8,279	0.0109	0.9891	76.55	
41.5	735,015	5,036	0.0069	0.9931	75.71	
42.5	710,264	9,006	0.0127	0.9873	75.19	
43.5	675,854	7,329	0.0108	0.9892	74.24	
44.5	624,096	6,578	0.0105	0.9895	73.43	
45.5	596,811	7,940	0.0133	0.9867	72.66	
46.5	557,224	4,899	0.0088	0.9912	71.69	
47.5	507,133	4,648	0.0092	0.9908	71.06	
48.5	456,618	9,661	0.0212	0.9788	70.41	
49.5	401,691	5,795	0.0144	0.9856	68.92	
50.5	362,771	4,832	0.0133	0.9867	67.93	
51.5	323,647	4,356	0.0135	0.9865	67.02	
52.5	282,116	8,322	0.0295	0.9705	66.12	
53.5	256,066	6,584	0.0257	0.9743	64.17	
54.5	192,660	8,641	0.0448	0.9552	62.52	
55.5	169,614	14,058	0.0829	0.9171	59.72	
56.5	148,188	12,987	0.0876	0.9124	54.77	
57.5	120,127	3,456	0.0288	0.9712	49.97	
58.5	108,687	13,842	0.1274	0.8726	48.53	
59.5	72,160	4,439	0.0615	0.9385	42.35	
60.5	57,306	1,037	0.0181	0.9819	39.74	
61.5	45,770	3,862	0.0844	0.9156	39.03	
62.5	30,903		0.0000	1.0000	35.73	
63.5	27,290	49	0.0018	0.9982	35.73	
64.5	27,240		0.0000	1.0000	35.67	
65.5	25,283	25	0.0010	0.9990	35.67	
66.5	23,600		0.0000	1.0000	35.63	
67.5	21,824	17	0.0008	0.9992	35.63	
68.5	5,380	126	0.0234	0.9766	35.61	
69.5	5,254	425	0.0810	0.9190	34.77	
70.5	4,777	13	0.0028	0.9972	31.96	
71.5	4,763	210	0.0440	0.9560	31.87	
72.5	4,554	29	0.0063	0.9937	30.47	
73.5	4,525		0.0000	1.0000	30.27	
74.5	4,291		0.0000	1.0000	30.27	
75.5	1,235		0.0000	1.0000	30.27	
76.5	366		0.0000	1.0000	30.27	
77.5	366		0.0000	1.0000	30.27	
78.5	202		0.0000	1.0000	30.27	
79.5					30.27	

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 376.2 STEEL INSTALLED PRIOR TO 1955
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.2 STEEL INSTALLED PRIOR TO 1955

ORIGINAL LIFE TABLE

PLACEMENT BAND 1886-1954			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	454,008		0.0000	1.0000	100.00
0.5	802,385	1,607	0.0020	0.9980	100.00
1.5	970,258	2,720	0.0028	0.9972	99.80
2.5	1,137,143	877	0.0008	0.9992	99.52
3.5	1,221,551	409	0.0003	0.9997	99.44
4.5	1,280,269	61	0.0000	1.0000	99.41
5.5	1,368,540	6,592	0.0048	0.9952	99.41
6.5	1,459,538	5,945	0.0041	0.9959	98.93
7.5	1,496,648	16,445	0.0110	0.9890	98.52
8.5	1,486,455	5,323	0.0036	0.9964	97.44
9.5	1,483,216	13,247	0.0089	0.9911	97.09
10.5	1,496,265	25,785	0.0172	0.9828	96.22
11.5	1,485,335	32,964	0.0222	0.9778	94.57
12.5	1,543,521	85,698	0.0555	0.9445	92.47
13.5	1,589,824	45,491	0.0286	0.9714	87.33
14.5	1,642,036	23,376	0.0142	0.9858	84.84
15.5	1,663,312	29,362	0.0177	0.9823	83.63
16.5	1,795,427	32,364	0.0180	0.9820	82.15
17.5	1,820,870	47,885	0.0263	0.9737	80.67
18.5	1,818,217	31,546	0.0173	0.9827	78.55
19.5	1,788,297	51,544	0.0288	0.9712	77.19
20.5	1,737,375	77,547	0.0446	0.9554	74.96
21.5	1,659,835	83,510	0.0503	0.9497	71.62
22.5	1,577,649	82,234	0.0521	0.9479	68.01
23.5	1,497,818	57,688	0.0385	0.9615	64.47
24.5	1,444,510	38,659	0.0268	0.9732	61.98
25.5	1,407,614	45,754	0.0325	0.9675	60.33
26.5	1,367,870	104,354	0.0763	0.9237	58.36
27.5	1,270,964	78,845	0.0620	0.9380	53.91
28.5	1,217,294	148,028	0.1216	0.8784	50.57
29.5	1,135,097	42,980	0.0379	0.9621	44.42
30.5	1,123,233	53,410	0.0476	0.9524	42.74
31.5	1,092,728	57,390	0.0525	0.9475	40.70
32.5	1,078,327	46,444	0.0431	0.9569	38.57
33.5	1,093,573	37,723	0.0345	0.9655	36.91
34.5	1,105,231	31,723	0.0287	0.9713	35.63
35.5	1,085,559	37,699	0.0347	0.9653	34.61
36.5	1,064,334	51,181	0.0481	0.9519	33.41
37.5	1,014,784	27,991	0.0276	0.9724	31.80
38.5	988,207	65,012	0.0658	0.9342	30.92

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.2 STEEL INSTALLED PRIOR TO 1955

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1886-1954			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	923,995	46,224	0.0500	0.9500	28.89	
40.5	879,657	30,571	0.0348	0.9652	27.44	
41.5	849,087	39,760	0.0468	0.9532	26.49	
42.5	809,352	38,708	0.0478	0.9522	25.25	
43.5	770,644	35,664	0.0463	0.9537	24.04	
44.5	734,986	16,761	0.0228	0.9772	22.93	
45.5	718,224	26,446	0.0368	0.9632	22.41	
46.5	692,037	10,839	0.0157	0.9843	21.58	
47.5	681,198	37,874	0.0556	0.9444	21.24	
48.5	643,324	29,398	0.0457	0.9543	20.06	
49.5	613,926	22,211	0.0362	0.9638	19.15	
50.5	591,740	17,149	0.0290	0.9710	18.45	
51.5	574,668	22,411	0.0390	0.9610	17.92	
52.5	552,258	27,082	0.0490	0.9510	17.22	
53.5	525,176	8,451	0.0161	0.9839	16.38	
54.5	516,725	26,600	0.0515	0.9485	16.11	
55.5	490,139	17,673	0.0361	0.9639	15.28	
56.5	472,466	10,892	0.0231	0.9769	14.73	
57.5	461,574	36,748	0.0796	0.9204	14.39	
58.5	424,826	2,190	0.0052	0.9948	13.25	
59.5	423,116	6,646	0.0157	0.9843	13.18	
60.5	416,470	4,852	0.0116	0.9884	12.97	
61.5	411,619	5,407	0.0131	0.9869	12.82	
62.5	266,122	4,296	0.0161	0.9839	12.65	
63.5	259,267	3,259	0.0126	0.9874	12.45	
64.5	256,007	9,697	0.0379	0.9621	12.29	
65.5	237,598	9,689	0.0408	0.9592	11.82	
66.5	213,732	18,656	0.0873	0.9127	11.34	
67.5	188,399	9,006	0.0478	0.9522	10.35	
68.5	178,017	17,454	0.0980	0.9020	9.86	
69.5	160,390	9,807	0.0611	0.9389	8.89	
70.5	150,109	8,359	0.0557	0.9443	8.35	
71.5	140,352	26,791	0.1909	0.8091	7.88	
72.5	113,295	3,927	0.0347	0.9653	6.38	
73.5	101,724	9,586	0.0942	0.9058	6.16	
74.5	85,959	1,833	0.0213	0.9787	5.58	
75.5	68,729	1,985	0.0289	0.9711	5.46	
76.5	66,332	1,294	0.0195	0.9805	5.30	
77.5	65,037	1,434	0.0221	0.9779	5.20	
78.5	63,599	799	0.0126	0.9874	5.08	

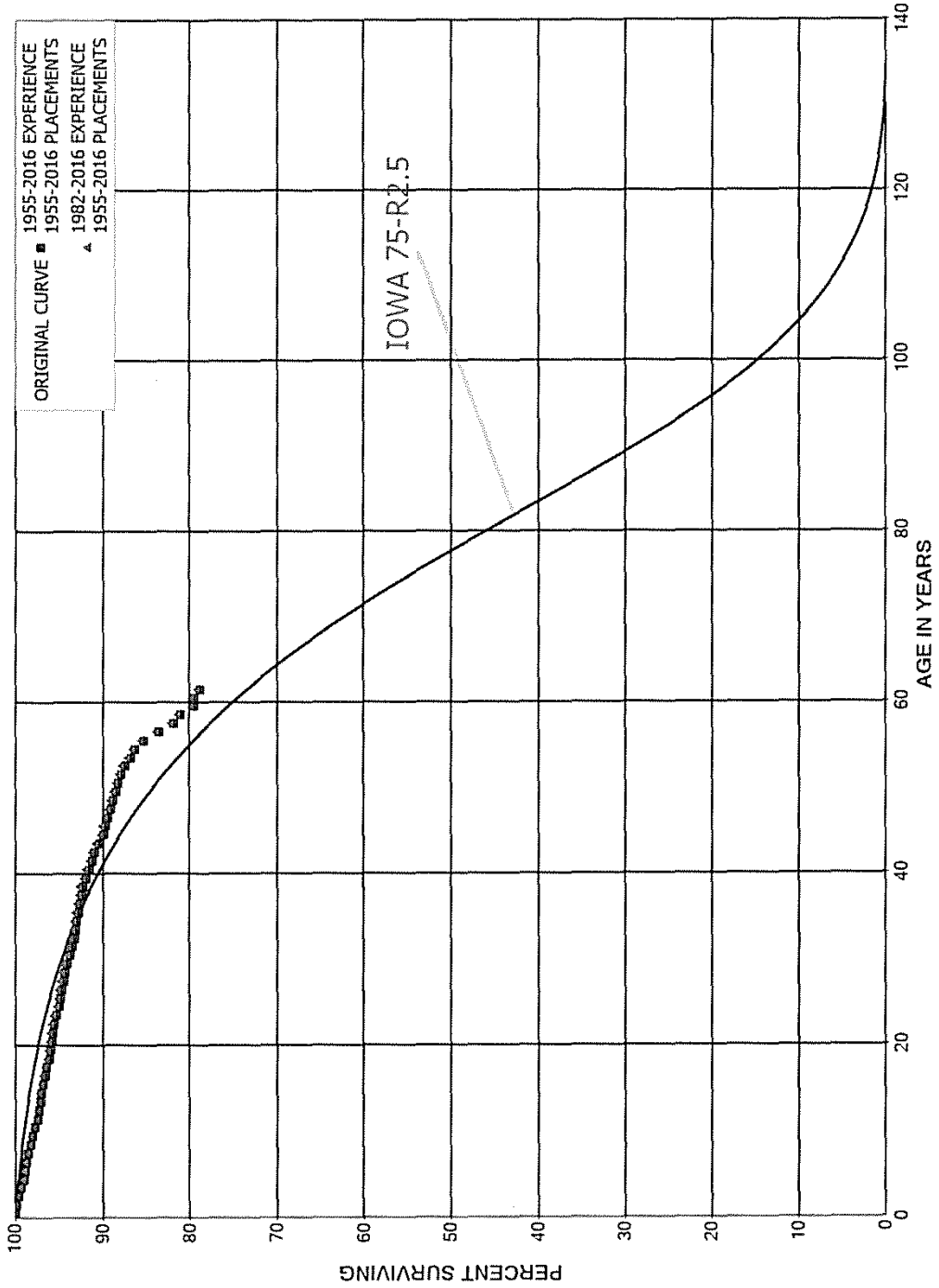
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.2 STEEL INSTALLED PRIOR TO 1955

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1886-1954			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	62,759	27	0.0004	0.9996	5.02
80.5	62,393	100	0.0016	0.9984	5.02
81.5	62,293	119	0.0019	0.9981	5.01
82.5	62,174		0.0000	1.0000	5.00
83.5	62,174	3	0.0000	1.0000	5.00
84.5	62,171	186	0.0030	0.9970	5.00
85.5	61,985	19	0.0003	0.9997	4.98
86.5	61,058	8,325	0.1364	0.8636	4.98
87.5	52,312	2,870	0.0549	0.9451	4.30
88.5	49,442	616	0.0125	0.9875	4.07
89.5	48,098		0.0000	1.0000	4.02
90.5	48,098		0.0000	1.0000	4.02
91.5	40,463	155	0.0038	0.9962	4.02
92.5	40,308		0.0000	1.0000	4.00
93.5	36,389		0.0000	1.0000	4.00
94.5	28,984		0.0000	1.0000	4.00
95.5	20,104		0.0000	1.0000	4.00
96.5	4,178		0.0000	1.0000	4.00
97.5	4,178		0.0000	1.0000	4.00
98.5	4,178		0.0000	1.0000	4.00
99.5	563		0.0000	1.0000	4.00
100.5	277		0.0000	1.0000	4.00
101.5	277		0.0000	1.0000	4.00
102.5	270		0.0000	1.0000	4.00
103.5					4.00

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 376.21 STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954
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CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.21 STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 1955-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	305,701,564	7,574	0.0000	1.0000	100.00
0.5	306,543,640	561,346	0.0018	0.9982	100.00
1.5	294,146,671	995,391	0.0034	0.9966	99.81
2.5	285,400,820	490,916	0.0017	0.9983	99.48
3.5	277,980,862	863,068	0.0031	0.9969	99.31
4.5	268,992,858	363,507	0.0014	0.9986	99.00
5.5	261,344,704	304,231	0.0012	0.9988	98.86
6.5	255,570,359	657,125	0.0026	0.9974	98.75
7.5	242,882,099	879,435	0.0036	0.9964	98.49
8.5	232,346,070	333,626	0.0014	0.9986	98.14
9.5	223,068,457	573,857	0.0026	0.9974	98.00
10.5	209,387,867	691,079	0.0033	0.9967	97.74
11.5	200,109,815	365,222	0.0018	0.9982	97.42
12.5	189,603,575	245,366	0.0013	0.9987	97.24
13.5	181,537,571	375,894	0.0021	0.9979	97.12
14.5	174,137,479	429,451	0.0025	0.9975	96.92
15.5	166,205,445	257,594	0.0015	0.9985	96.68
16.5	159,099,680	227,025	0.0014	0.9986	96.53
17.5	153,768,336	433,761	0.0028	0.9972	96.39
18.5	147,976,874	245,657	0.0017	0.9983	96.12
19.5	141,255,164	321,930	0.0023	0.9977	95.96
20.5	135,253,866	196,697	0.0015	0.9985	95.74
21.5	128,336,113	192,380	0.0015	0.9985	95.60
22.5	120,144,275	246,257	0.0020	0.9980	95.46
23.5	114,905,929	337,861	0.0029	0.9971	95.26
24.5	109,700,122	147,410	0.0013	0.9987	94.98
25.5	103,170,539	224,126	0.0022	0.9978	94.85
26.5	95,869,982	223,010	0.0023	0.9977	94.65
27.5	90,170,506	125,937	0.0014	0.9986	94.43
28.5	84,900,476	170,251	0.0020	0.9980	94.30
29.5	79,604,861	335,988	0.0042	0.9958	94.11
30.5	72,624,546	140,515	0.0019	0.9981	93.71
31.5	68,849,958	220,854	0.0032	0.9968	93.53
32.5	64,586,896	111,186	0.0017	0.9983	93.23
33.5	61,497,534	92,564	0.0015	0.9985	93.07
34.5	56,752,604	94,913	0.0017	0.9983	92.93
35.5	51,359,882	103,525	0.0020	0.9980	92.77
36.5	46,522,138	115,758	0.0025	0.9975	92.59
37.5	43,396,321	68,458	0.0016	0.9984	92.36
38.5	41,241,787	156,159	0.0038	0.9962	92.21

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.21 STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 1955-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	38,678,466	138,117	0.0036	0.9964	91.86
40.5	36,301,679	137,221	0.0038	0.9962	91.53
41.5	34,112,667	103,543	0.0030	0.9970	91.19
42.5	31,199,411	159,732	0.0051	0.9949	90.91
43.5	29,432,978	191,656	0.0065	0.9935	90.44
44.5	25,936,253	58,706	0.0023	0.9977	89.86
45.5	23,106,943	65,475	0.0028	0.9972	89.65
46.5	20,321,420	71,300	0.0035	0.9965	89.40
47.5	17,392,199	45,519	0.0026	0.9974	89.08
48.5	15,173,073	55,782	0.0037	0.9963	88.85
49.5	12,405,555	54,470	0.0044	0.9956	88.52
50.5	10,778,430	40,378	0.0037	0.9963	88.14
51.5	9,174,883	39,195	0.0043	0.9957	87.81
52.5	6,512,294	48,953	0.0075	0.9925	87.43
53.5	5,304,302	31,017	0.0058	0.9942	86.77
54.5	2,817,222	32,058	0.0114	0.9886	86.27
55.5	2,204,455	45,319	0.0206	0.9794	85.28
56.5	1,793,480	37,220	0.0208	0.9792	83.53
57.5	1,404,972	11,741	0.0084	0.9916	81.80
58.5	1,131,629	21,970	0.0194	0.9806	81.11
59.5	660,460		0.0000	1.0000	79.54
60.5	297,485	2,762	0.0093	0.9907	79.54
61.5					78.80

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.21 STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	242,252,481		0.0000	1.0000	100.00
0.5	248,989,553	476,780	0.0019	0.9981	100.00
1.5	241,972,181	858,251	0.0035	0.9965	99.81
2.5	236,686,486	414,228	0.0018	0.9982	99.45
3.5	231,780,519	743,690	0.0032	0.9968	99.28
4.5	225,403,834	261,101	0.0012	0.9988	98.96
5.5	220,327,285	193,765	0.0009	0.9991	98.85
6.5	217,025,585	541,588	0.0025	0.9975	98.76
7.5	207,427,298	763,412	0.0037	0.9963	98.51
8.5	198,841,272	273,550	0.0014	0.9986	98.15
9.5	193,110,599	489,681	0.0025	0.9975	98.02
10.5	182,360,452	619,966	0.0034	0.9966	97.77
11.5	176,235,033	267,727	0.0015	0.9985	97.44
12.5	169,025,826	148,649	0.0009	0.9991	97.29
13.5	163,718,617	283,927	0.0017	0.9983	97.20
14.5	159,431,335	367,307	0.0023	0.9977	97.03
15.5	153,388,573	217,157	0.0014	0.9986	96.81
16.5	148,232,239	176,367	0.0012	0.9988	96.67
17.5	145,791,687	402,842	0.0028	0.9972	96.56
18.5	141,415,669	221,523	0.0016	0.9984	96.29
19.5	137,452,827	279,304	0.0020	0.9980	96.14
20.5	132,258,228	175,621	0.0013	0.9987	95.94
21.5	125,837,097	156,700	0.0012	0.9988	95.82
22.5	118,093,000	237,700	0.0020	0.9980	95.70
23.5	113,213,538	330,641	0.0029	0.9971	95.51
24.5	108,568,171	138,990	0.0013	0.9987	95.23
25.5	102,592,435	208,786	0.0020	0.9980	95.10
26.5	95,869,982	223,010	0.0023	0.9977	94.91
27.5	90,170,506	125,937	0.0014	0.9986	94.69
28.5	84,900,476	170,251	0.0020	0.9980	94.56
29.5	79,604,861	335,988	0.0042	0.9958	94.37
30.5	72,624,546	140,515	0.0019	0.9981	93.97
31.5	68,849,958	220,854	0.0032	0.9968	93.79
32.5	64,586,896	111,186	0.0017	0.9983	93.49
33.5	61,497,534	92,564	0.0015	0.9985	93.33
34.5	56,752,604	94,913	0.0017	0.9983	93.19
35.5	51,359,882	103,525	0.0020	0.9980	93.03
36.5	46,522,138	115,758	0.0025	0.9975	92.84
37.5	43,396,321	68,458	0.0016	0.9984	92.61
38.5	41,241,787	156,159	0.0038	0.9962	92.47

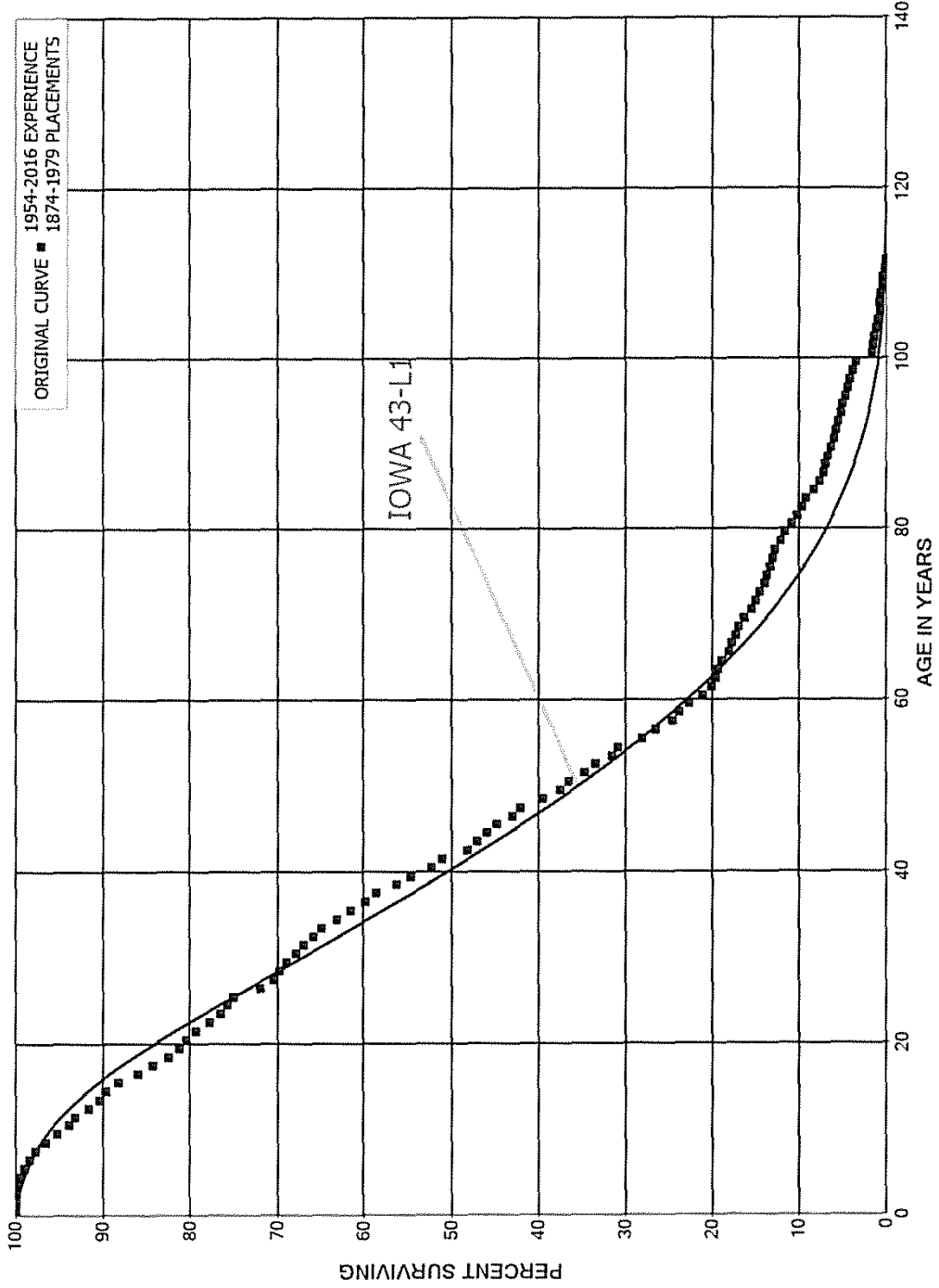
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.21 STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 1982-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	38,678,466	138,117	0.0036	0.9964	92.12
40.5	36,301,679	137,221	0.0038	0.9962	91.79
41.5	34,112,667	103,543	0.0030	0.9970	91.44
42.5	31,199,411	159,732	0.0051	0.9949	91.16
43.5	29,432,978	191,656	0.0065	0.9935	90.70
44.5	25,936,253	58,706	0.0023	0.9977	90.10
45.5	23,106,943	65,475	0.0028	0.9972	89.90
46.5	20,321,420	71,300	0.0035	0.9965	89.65
47.5	17,392,199	45,519	0.0026	0.9974	89.33
48.5	15,173,073	55,782	0.0037	0.9963	89.10
49.5	12,405,555	54,470	0.0044	0.9956	88.77
50.5	10,778,430	40,378	0.0037	0.9963	88.38
51.5	9,174,883	39,195	0.0043	0.9957	88.05
52.5	6,512,294	48,953	0.0075	0.9925	87.67
53.5	5,304,302	31,017	0.0058	0.9942	87.01
54.5	2,817,222	32,058	0.0114	0.9886	86.51
55.5	2,204,455	45,319	0.0206	0.9794	85.52
56.5	1,793,480	37,220	0.0208	0.9792	83.76
57.5	1,404,972	11,741	0.0084	0.9916	82.02
58.5	1,131,629	21,970	0.0194	0.9806	81.34
59.5	660,460		0.0000	1.0000	79.76
60.5	297,485	2,762	0.0093	0.9907	79.76
61.5					79.02

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 376.7 CAST IRON AND WROUGHT IRON
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.7 CAST IRON AND WROUGHT IRON

ORIGINAL LIFE TABLE

PLACEMENT BAND 1874-1979			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,640,328		0.0000	1.0000	100.00
0.5	5,117,827	5,217	0.0010	0.9990	100.00
1.5	5,412,043	4,328	0.0008	0.9992	99.90
2.5	6,177,022	5,018	0.0008	0.9992	99.82
3.5	6,613,204	14,363	0.0022	0.9978	99.74
4.5	6,683,920	38,269	0.0057	0.9943	99.52
5.5	7,408,535	44,684	0.0060	0.9940	98.95
6.5	7,467,365	48,655	0.0065	0.9935	98.35
7.5	7,486,055	92,280	0.0123	0.9877	97.71
8.5	7,460,256	101,023	0.0135	0.9865	96.51
9.5	7,372,200	106,460	0.0144	0.9856	95.20
10.5	7,291,426	54,397	0.0075	0.9925	93.83
11.5	7,286,675	122,330	0.0168	0.9832	93.13
12.5	7,251,392	93,173	0.0128	0.9872	91.56
13.5	7,212,119	57,373	0.0080	0.9920	90.39
14.5	7,185,621	117,367	0.0163	0.9837	89.67
15.5	7,103,919	181,382	0.0255	0.9745	88.20
16.5	6,956,068	138,753	0.0199	0.9801	85.95
17.5	6,845,647	139,750	0.0204	0.9796	84.24
18.5	6,759,266	99,488	0.0147	0.9853	82.52
19.5	6,670,953	78,675	0.0118	0.9882	81.30
20.5	6,595,854	86,161	0.0131	0.9869	80.34
21.5	6,515,085	126,516	0.0194	0.9806	79.29
22.5	6,404,187	101,944	0.0159	0.9841	77.75
23.5	6,429,542	64,293	0.0100	0.9900	76.52
24.5	6,735,582	65,642	0.0097	0.9903	75.75
25.5	6,945,169	284,464	0.0410	0.9590	75.01
26.5	6,850,266	146,488	0.0214	0.9786	71.94
27.5	6,909,002	66,657	0.0096	0.9904	70.40
28.5	7,051,211	83,688	0.0119	0.9881	69.72
29.5	7,082,457	104,641	0.0148	0.9852	68.90
30.5	7,040,185	99,439	0.0141	0.9859	67.88
31.5	6,977,926	110,612	0.0159	0.9841	66.92
32.5	6,870,958	104,925	0.0153	0.9847	65.86
33.5	6,815,515	190,539	0.0280	0.9720	64.85
34.5	6,653,417	159,589	0.0240	0.9760	63.04
35.5	6,495,105	180,043	0.0277	0.9723	61.53
36.5	6,332,303	129,553	0.0205	0.9795	59.82
37.5	6,291,322	245,869	0.0391	0.9609	58.60
38.5	6,100,348	183,801	0.0301	0.9699	56.31

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.7 CAST IRON AND WROUGHT IRON

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1874-1979			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	5,967,541	258,504	0.0433	0.9567	54.61
40.5	5,793,833	129,115	0.0223	0.9777	52.25
41.5	5,790,661	328,265	0.0567	0.9433	51.08
42.5	5,485,522	124,137	0.0226	0.9774	48.19
43.5	5,649,438	143,505	0.0254	0.9746	47.10
44.5	5,511,098	140,251	0.0254	0.9746	45.90
45.5	5,410,821	212,465	0.0393	0.9607	44.73
46.5	5,236,306	116,158	0.0222	0.9778	42.97
47.5	5,160,911	314,406	0.0609	0.9391	42.02
48.5	4,879,394	238,092	0.0488	0.9512	39.46
49.5	4,668,260	133,440	0.0286	0.9714	37.54
50.5	4,549,309	227,311	0.0500	0.9500	36.46
51.5	4,350,991	150,393	0.0346	0.9654	34.64
52.5	4,216,786	242,449	0.0575	0.9425	33.44
53.5	3,978,811	85,133	0.0214	0.9786	31.52
54.5	3,894,632	344,644	0.0885	0.9115	30.85
55.5	3,511,982	202,526	0.0577	0.9423	28.12
56.5	3,301,457	249,125	0.0755	0.9245	26.50
57.5	3,047,485	101,815	0.0334	0.9666	24.50
58.5	2,960,235	127,058	0.0429	0.9571	23.68
59.5	2,825,187	202,277	0.0716	0.9284	22.66
60.5	2,645,660	120,513	0.0456	0.9544	21.04
61.5	2,529,519	62,286	0.0246	0.9754	20.08
62.5	2,470,734	43,786	0.0177	0.9823	19.59
63.5	2,433,909	53,231	0.0219	0.9781	19.24
64.5	2,359,125	97,943	0.0415	0.9585	18.82
65.5	2,161,250	43,139	0.0200	0.9800	18.04
66.5	2,596,750	56,687	0.0218	0.9782	17.68
67.5	2,624,036	53,759	0.0205	0.9795	17.29
68.5	1,956,245	71,876	0.0367	0.9633	16.94
69.5	1,886,609	106,325	0.0564	0.9436	16.31
70.5	1,780,951	57,281	0.0322	0.9678	15.39
71.5	1,724,602	45,151	0.0262	0.9738	14.90
72.5	1,687,590	59,520	0.0353	0.9647	14.51
73.5	1,630,227	35,522	0.0218	0.9782	14.00
74.5	1,595,516	49,747	0.0312	0.9688	13.69
75.5	1,547,952	30,116	0.0195	0.9805	13.27
76.5	1,517,803	32,988	0.0217	0.9783	13.01
77.5	1,610,158	84,655	0.0526	0.9474	12.73
78.5	1,526,187	56,374	0.0369	0.9631	12.06

CITIZENS ENERGY GROUP
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ACCOUNT 376.7 CAST IRON AND WROUGHT IRON

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1874-1979

EXPERIENCE BAND 1954-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,527,196	102,423	0.0671	0.9329	11.61
80.5	1,424,774	93,517	0.0656	0.9344	10.83
81.5	1,331,256	65,897	0.0495	0.9505	10.12
82.5	1,265,360	60,477	0.0478	0.9522	9.62
83.5	1,204,883	116,893	0.0970	0.9030	9.16
84.5	1,087,990	79,853	0.0734	0.9266	8.27
85.5	1,008,137	62,870	0.0624	0.9376	7.66
86.5	945,267	38,980	0.0412	0.9588	7.19
87.5	906,287	37,131	0.0410	0.9590	6.89
88.5	869,156	43,554	0.0501	0.9499	6.61
89.5	825,602	36,633	0.0444	0.9556	6.28
90.5	783,685	29,245	0.0373	0.9627	6.00
91.5	754,440	30,433	0.0403	0.9597	5.77
92.5	724,007	48,354	0.0668	0.9332	5.54
93.5	675,654	36,671	0.0543	0.9457	5.17
94.5	638,983	29,584	0.0463	0.9537	4.89
95.5	609,399	35,703	0.0586	0.9414	4.66
96.5	573,696	23,659	0.0412	0.9588	4.39
97.5	550,037	50,831	0.0924	0.9076	4.21
98.5	499,206	39,881	0.0799	0.9201	3.82
99.5	459,325	243,098	0.5293	0.4707	3.52
100.5	216,227	21,808	0.1009	0.8991	1.65
101.5	194,419	15,022	0.0773	0.9227	1.49
102.5	179,397	22,052	0.1229	0.8771	1.37
103.5	157,345	27,311	0.1736	0.8264	1.20
104.5	130,033	31,377	0.2413	0.7587	1.00
105.5	98,657	8,300	0.0841	0.9159	0.76
106.5	90,357	13,161	0.1457	0.8543	0.69
107.5	77,195	19,079	0.2471	0.7529	0.59
108.5	58,117	13,211	0.2273	0.7727	0.44
109.5	44,906	21,149	0.4710	0.5290	0.34
110.5	23,756	9,220	0.3881	0.6119	0.18
111.5	14,536	233	0.0160	0.9840	0.11
112.5	14,303	3,091	0.2161	0.7839	0.11
113.5	11,212	1,481	0.1321	0.8679	0.09
114.5	9,731	3,520	0.3617	0.6383	0.07
115.5	6,211	1,498	0.2412	0.7588	0.05
116.5	4,713		0.0000	1.0000	0.04
117.5	4,713	92	0.0196	0.9804	0.04
118.5	4,621	1,297	0.2807	0.7193	0.04

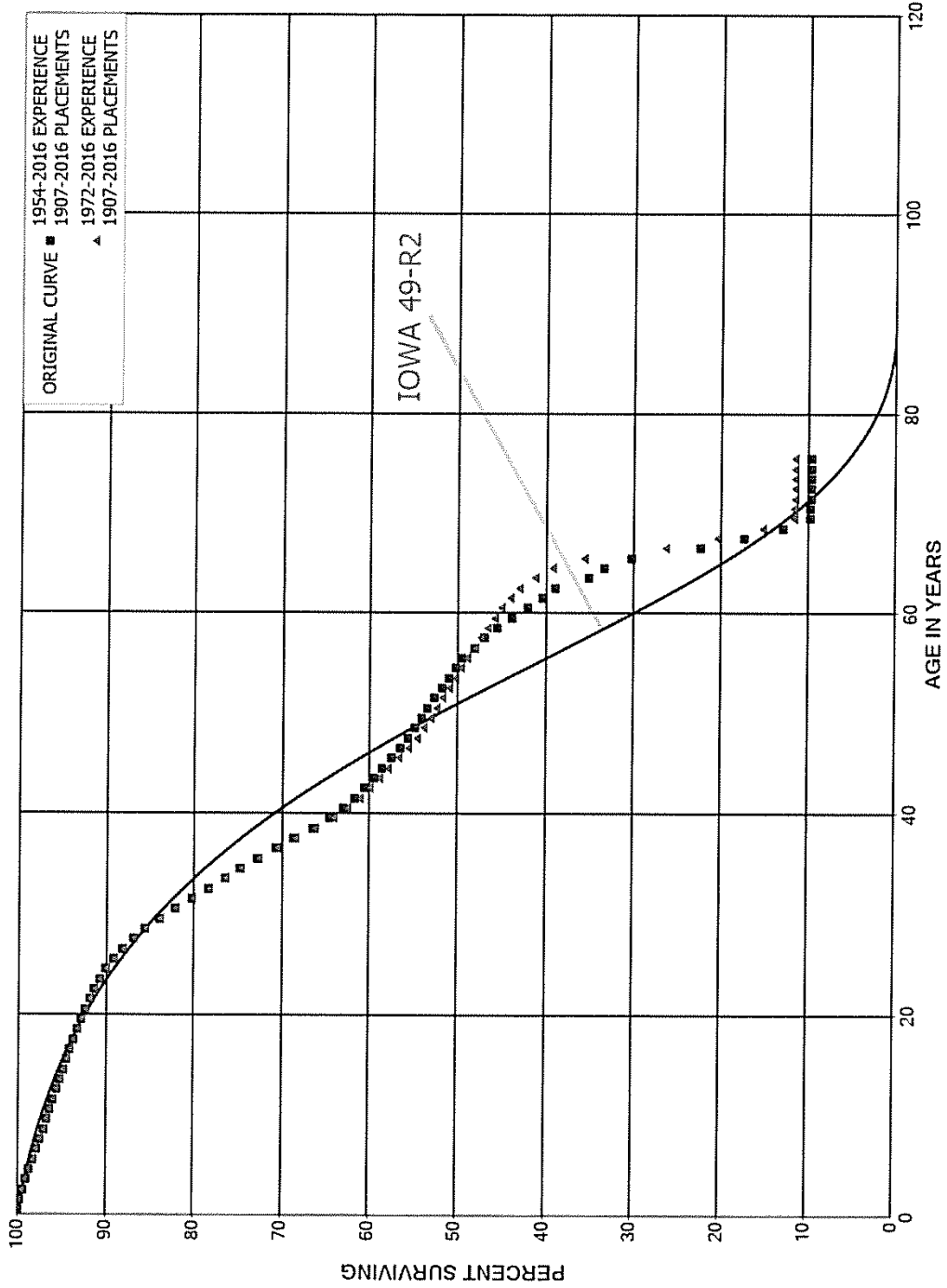
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 376.7 CAST IRON AND WROUGHT IRON

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1874-1979			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	3,324		0.0000	1.0000	0.03	
120.5	3,324	2,588	0.7786	0.2214	0.03	
121.5	736	736	1.0000		0.01	
122.5						

CITIZENS ENERGY GROUP
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CITIZENS ENERGY GROUP
GAS OPERATIONS

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ORIGINAL LIFE TABLE

PLACEMENT BAND 1907-2016

EXPERIENCE BAND 1954-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	281,209,903	3,667	0.0000	1.0000	100.00
0.5	280,955,598	735,883	0.0026	0.9974	100.00
1.5	274,769,851	807,518	0.0029	0.9971	99.74
2.5	268,512,040	877,173	0.0033	0.9967	99.44
3.5	261,956,155	997,598	0.0038	0.9962	99.12
4.5	256,799,657	1,137,309	0.0044	0.9956	98.74
5.5	251,318,287	1,090,172	0.0043	0.9957	98.30
6.5	246,230,338	994,376	0.0040	0.9960	97.88
7.5	240,157,148	916,785	0.0038	0.9962	97.48
8.5	235,089,830	916,467	0.0039	0.9961	97.11
9.5	229,180,194	840,336	0.0037	0.9963	96.73
10.5	220,669,727	828,681	0.0038	0.9962	96.38
11.5	215,405,197	882,527	0.0041	0.9959	96.02
12.5	209,747,246	817,041	0.0039	0.9961	95.62
13.5	203,980,373	846,918	0.0042	0.9958	95.25
14.5	198,262,018	737,954	0.0037	0.9963	94.85
15.5	191,365,824	764,377	0.0040	0.9960	94.50
16.5	183,537,821	761,096	0.0041	0.9959	94.12
17.5	175,571,620	878,212	0.0050	0.9950	93.73
18.5	165,497,381	746,375	0.0045	0.9955	93.26
19.5	154,252,249	768,153	0.0050	0.9950	92.84
20.5	143,827,174	815,376	0.0057	0.9943	92.38
21.5	133,518,008	745,751	0.0056	0.9944	91.86
22.5	121,836,884	754,724	0.0062	0.9938	91.34
23.5	110,859,066	883,903	0.0080	0.9920	90.78
24.5	101,442,188	975,035	0.0096	0.9904	90.05
25.5	90,736,942	1,013,454	0.0112	0.9888	89.19
26.5	80,150,627	1,121,031	0.0140	0.9860	88.19
27.5	71,351,961	1,092,585	0.0153	0.9847	86.96
28.5	62,063,717	1,204,150	0.0194	0.9806	85.63
29.5	53,041,293	1,133,043	0.0214	0.9786	83.97
30.5	45,112,009	1,042,173	0.0231	0.9769	82.17
31.5	38,996,189	898,895	0.0231	0.9769	80.27
32.5	34,244,082	822,684	0.0240	0.9760	78.42
33.5	30,300,531	676,959	0.0223	0.9777	76.54
34.5	25,500,455	671,792	0.0263	0.9737	74.83
35.5	19,977,013	581,152	0.0291	0.9709	72.86
36.5	14,945,187	427,105	0.0286	0.9714	70.74
37.5	11,805,899	370,987	0.0314	0.9686	68.72
38.5	10,936,967	316,374	0.0289	0.9711	66.56

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 380.0 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	10,194,855	244,809	0.0240	0.9760	64.63
40.5	9,821,109	209,432	0.0213	0.9787	63.08
41.5	9,426,688	165,620	0.0176	0.9824	61.74
42.5	8,790,132	158,698	0.0181	0.9819	60.65
43.5	7,959,881	126,380	0.0159	0.9841	59.56
44.5	6,773,553	125,278	0.0185	0.9815	58.61
45.5	5,805,649	103,455	0.0178	0.9822	57.53
46.5	4,888,606	75,671	0.0155	0.9845	56.50
47.5	3,707,464	52,995	0.0143	0.9857	55.63
48.5	2,868,535	37,959	0.0132	0.9868	54.83
49.5	2,752,141	37,996	0.0138	0.9862	54.11
50.5	2,583,802	37,842	0.0146	0.9854	53.36
51.5	2,481,671	40,968	0.0165	0.9835	52.58
52.5	2,404,728	33,816	0.0141	0.9859	51.71
53.5	2,260,989	33,743	0.0149	0.9851	50.98
54.5	2,124,492	28,317	0.0133	0.9867	50.22
55.5	1,979,358	58,413	0.0295	0.9705	49.55
56.5	1,829,189	44,479	0.0243	0.9757	48.09
57.5	1,747,246	51,436	0.0294	0.9706	46.92
58.5	1,569,007	60,393	0.0385	0.9615	45.54
59.5	1,430,749	56,547	0.0395	0.9605	43.79
60.5	1,246,321	49,432	0.0397	0.9603	42.06
61.5	1,110,009	40,413	0.0364	0.9636	40.39
62.5	958,309	94,428	0.0985	0.9015	38.92
63.5	762,331	38,001	0.0498	0.9502	35.08
64.5	649,970	60,529	0.0931	0.9069	33.33
65.5	543,604	142,579	0.2623	0.7377	30.23
66.5	381,901	86,438	0.2263	0.7737	22.30
67.5	268,190	69,477	0.2591	0.7409	17.25
68.5	162,356	39,106	0.2409	0.7591	12.78
69.5	99,819	163	0.0016	0.9984	9.70
70.5	91,511	184	0.0020	0.9980	9.69
71.5	86,058	34	0.0004	0.9996	9.67
72.5	80,476	34	0.0004	0.9996	9.67
73.5	76,102	34	0.0004	0.9996	9.66
74.5	59,473	68	0.0011	0.9989	9.66
75.5	42,007	34	0.0008	0.9992	9.65
76.5	30,539	11	0.0004	0.9996	9.64
77.5	20,036	23	0.0011	0.9989	9.63
78.5	9,628	34	0.0035	0.9965	9.62

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 380.0 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	4,420		0.0000	1.0000	9.59
80.5	2,679		0.0000	1.0000	9.59
81.5	2,348		0.0000	1.0000	9.59
82.5	2,348		0.0000	1.0000	9.59
83.5	2,348		0.0000	1.0000	9.59
84.5	2,348		0.0000	1.0000	9.59
85.5	2,171		0.0000	1.0000	9.59
86.5	2,058		0.0000	1.0000	9.59
87.5	2,058		0.0000	1.0000	9.59
88.5	2,058		0.0000	1.0000	9.59
89.5	2,058		0.0000	1.0000	9.59
90.5	1,726		0.0000	1.0000	9.59
91.5	1,549		0.0000	1.0000	9.59
92.5	1,549		0.0000	1.0000	9.59
93.5	1,300		0.0000	1.0000	9.59
94.5	1,104		0.0000	1.0000	9.59
95.5	1,104		0.0000	1.0000	9.59
96.5	916		0.0000	1.0000	9.59
97.5	740		0.0000	1.0000	9.59
98.5	740		0.0000	1.0000	9.59
99.5	676		0.0000	1.0000	9.59
100.5	96		0.0000	1.0000	9.59
101.5	96		0.0000	1.0000	9.59
102.5	96		0.0000	1.0000	9.59
103.5					9.59

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 380.0 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1972-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	264,091,574	3,667	0.0000	1.0000	100.00
0.5	265,276,483	730,021	0.0028	0.9972	100.00
1.5	260,354,956	806,128	0.0031	0.9969	99.72
2.5	255,529,257	874,579	0.0034	0.9966	99.41
3.5	250,139,225	996,243	0.0040	0.9960	99.07
4.5	245,961,226	1,133,188	0.0046	0.9954	98.68
5.5	241,338,565	1,086,043	0.0045	0.9955	98.23
6.5	237,080,746	991,957	0.0042	0.9958	97.78
7.5	231,733,574	913,118	0.0039	0.9961	97.37
8.5	227,628,252	914,655	0.0040	0.9960	96.99
9.5	222,719,668	839,230	0.0038	0.9962	96.60
10.5	215,077,963	826,487	0.0038	0.9962	96.24
11.5	210,443,222	882,095	0.0042	0.9958	95.87
12.5	205,464,902	800,184	0.0039	0.9961	95.46
13.5	200,256,581	845,082	0.0042	0.9958	95.09
14.5	195,061,580	735,882	0.0038	0.9962	94.69
15.5	188,797,281	759,913	0.0040	0.9960	94.33
16.5	181,557,858	760,731	0.0042	0.9958	93.95
17.5	174,094,762	877,992	0.0050	0.9950	93.56
18.5	164,380,828	744,931	0.0045	0.9955	93.09
19.5	153,328,370	768,153	0.0050	0.9950	92.67
20.5	143,047,699	815,376	0.0057	0.9943	92.20
21.5	132,839,770	745,476	0.0056	0.9944	91.68
22.5	121,242,664	754,724	0.0062	0.9938	91.16
23.5	110,332,912	883,816	0.0080	0.9920	90.60
24.5	100,957,892	974,612	0.0097	0.9903	89.87
25.5	90,269,076	1,013,156	0.0112	0.9888	89.00
26.5	79,670,279	1,120,471	0.0141	0.9859	88.00
27.5	70,858,381	1,092,255	0.0154	0.9846	86.77
28.5	61,527,991	1,203,929	0.0196	0.9804	85.43
29.5	52,493,344	1,132,574	0.0216	0.9784	83.76
30.5	44,560,248	1,042,142	0.0234	0.9766	81.95
31.5	38,443,376	898,866	0.0234	0.9766	80.03
32.5	33,694,367	822,684	0.0244	0.9756	78.16
33.5	29,750,842	676,774	0.0227	0.9773	76.25
34.5	24,953,577	671,053	0.0269	0.9731	74.52
35.5	19,436,218	581,098	0.0299	0.9701	72.51
36.5	14,407,463	426,998	0.0296	0.9704	70.35
37.5	11,255,539	370,987	0.0330	0.9670	68.26
38.5	10,378,151	316,374	0.0305	0.9695	66.01

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 380.0 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1972-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,628,855	244,613	0.0254	0.9746	64.00
40.5	9,249,351	208,853	0.0226	0.9774	62.37
41.5	8,860,646	165,575	0.0187	0.9813	60.97
42.5	8,258,444	158,698	0.0192	0.9808	59.83
43.5	7,452,711	126,195	0.0169	0.9831	58.68
44.5	6,297,096	125,278	0.0199	0.9801	57.68
45.5	5,041,404	103,447	0.0205	0.9795	56.54
46.5	4,167,295	70,188	0.0168	0.9832	55.38
47.5	3,041,251	46,902	0.0154	0.9846	54.44
48.5	2,268,300	31,511	0.0139	0.9861	53.60
49.5	2,201,331	30,343	0.0138	0.9862	52.86
50.5	2,071,848	26,552	0.0128	0.9872	52.13
51.5	2,009,458	30,514	0.0152	0.9848	51.46
52.5	1,964,918	23,993	0.0122	0.9878	50.68
53.5	1,842,231	23,228	0.0126	0.9874	50.06
54.5	1,725,896	25,947	0.0150	0.9850	49.43
55.5	1,601,499	26,406	0.0165	0.9835	48.69
56.5	1,496,938	23,522	0.0157	0.9843	47.88
57.5	1,449,957	24,051	0.0166	0.9834	47.13
58.5	1,320,775	22,272	0.0169	0.9831	46.35
59.5	1,245,886	21,266	0.0171	0.9829	45.57
60.5	1,109,542	23,716	0.0214	0.9786	44.79
61.5	1,008,717	22,173	0.0220	0.9780	43.83
62.5	880,055	37,045	0.0421	0.9579	42.87
63.5	762,331	38,001	0.0498	0.9502	41.07
64.5	649,970	60,529	0.0931	0.9069	39.02
65.5	543,604	142,579	0.2623	0.7377	35.38
66.5	381,901	86,438	0.2263	0.7737	26.10
67.5	268,190	69,477	0.2591	0.7409	20.20
68.5	162,356	39,106	0.2409	0.7591	14.96
69.5	99,819	163	0.0016	0.9984	11.36
70.5	91,511	184	0.0020	0.9980	11.34
71.5	86,058	34	0.0004	0.9996	11.32
72.5	80,476	34	0.0004	0.9996	11.31
73.5	76,102	34	0.0004	0.9996	11.31
74.5	59,473	68	0.0011	0.9989	11.30
75.5	42,007	34	0.0008	0.9992	11.29
76.5	30,539	11	0.0004	0.9996	11.28
77.5	20,036	23	0.0011	0.9989	11.28
78.5	9,628	34	0.0035	0.9965	11.27

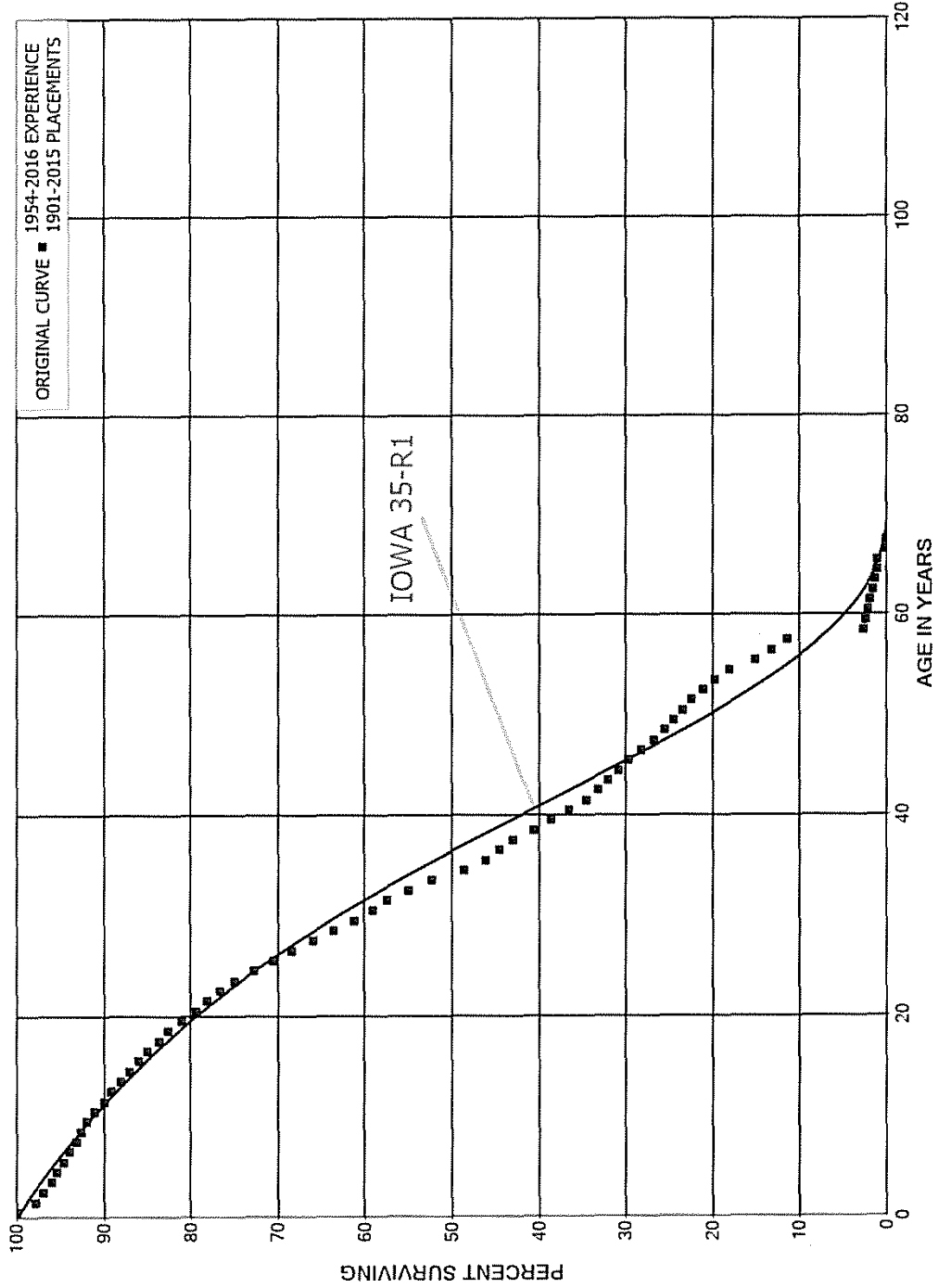
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 380.0 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1972-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	4,420		0.0000	1.0000	11.23
80.5	2,679		0.0000	1.0000	11.23
81.5	2,348		0.0000	1.0000	11.23
82.5	2,348		0.0000	1.0000	11.23
83.5	2,348		0.0000	1.0000	11.23
84.5	2,348		0.0000	1.0000	11.23
85.5	2,171		0.0000	1.0000	11.23
86.5	2,058		0.0000	1.0000	11.23
87.5	2,058		0.0000	1.0000	11.23
88.5	2,058		0.0000	1.0000	11.23
89.5	2,058		0.0000	1.0000	11.23
90.5	1,726		0.0000	1.0000	11.23
91.5	1,549		0.0000	1.0000	11.23
92.5	1,549		0.0000	1.0000	11.23
93.5	1,300		0.0000	1.0000	11.23
94.5	1,104		0.0000	1.0000	11.23
95.5	1,104		0.0000	1.0000	11.23
96.5	916		0.0000	1.0000	11.23
97.5	740		0.0000	1.0000	11.23
98.5	740		0.0000	1.0000	11.23
99.5	676		0.0000	1.0000	11.23
100.5	96		0.0000	1.0000	11.23
101.5	96		0.0000	1.0000	11.23
102.5	96		0.0000	1.0000	11.23
103.5					11.23

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 381.0 THROUGH 384.0 METERS AND HOUSE REGULATORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 381.0 THROUGH 384.0 METERS AND HOUSE REGULATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1901-2015			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	62,230,658	18,997	0.0003	0.9997	100.00
0.5	62,360,424	1,301,314	0.0209	0.9791	99.97
1.5	59,815,664	603,587	0.0101	0.9899	97.88
2.5	57,937,458	584,242	0.0101	0.9899	96.90
3.5	55,900,653	329,859	0.0059	0.9941	95.92
4.5	54,262,854	409,400	0.0075	0.9925	95.35
5.5	53,313,614	378,116	0.0071	0.9929	94.63
6.5	51,787,738	425,072	0.0082	0.9918	93.96
7.5	51,030,098	340,301	0.0067	0.9933	93.19
8.5	50,139,913	332,968	0.0066	0.9934	92.57
9.5	48,106,299	486,769	0.0101	0.9899	91.95
10.5	45,612,937	518,866	0.0114	0.9886	91.02
11.5	42,782,126	398,336	0.0093	0.9907	89.99
12.5	40,364,802	510,463	0.0126	0.9874	89.15
13.5	38,597,341	433,741	0.0112	0.9888	88.02
14.5	37,437,448	464,441	0.0124	0.9876	87.03
15.5	35,553,056	416,072	0.0117	0.9883	85.95
16.5	34,306,975	538,035	0.0157	0.9843	84.95
17.5	32,094,612	387,927	0.0121	0.9879	83.62
18.5	30,629,272	582,795	0.0190	0.9810	82.61
19.5	28,660,035	582,874	0.0203	0.9797	81.03
20.5	26,727,641	413,651	0.0155	0.9845	79.39
21.5	25,161,462	486,148	0.0193	0.9807	78.16
22.5	23,539,636	528,477	0.0225	0.9775	76.65
23.5	22,174,681	640,997	0.0289	0.9711	74.93
24.5	21,006,605	645,570	0.0307	0.9693	72.76
25.5	19,733,017	588,094	0.0298	0.9702	70.52
26.5	18,284,182	674,549	0.0369	0.9631	68.42
27.5	16,954,598	579,154	0.0342	0.9658	65.90
28.5	15,612,769	614,029	0.0393	0.9607	63.65
29.5	14,523,787	481,763	0.0332	0.9668	61.14
30.5	13,357,491	383,903	0.0287	0.9713	59.12
31.5	12,672,688	535,482	0.0423	0.9577	57.42
32.5	11,956,136	591,565	0.0495	0.9505	54.99
33.5	11,164,240	791,691	0.0709	0.9291	52.27
34.5	9,916,684	494,947	0.0499	0.9501	48.56
35.5	8,367,076	297,753	0.0356	0.9644	46.14
36.5	7,610,452	265,680	0.0349	0.9651	44.50
37.5	6,696,018	361,218	0.0539	0.9461	42.94
38.5	6,337,758	308,549	0.0487	0.9513	40.63

CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 381.0 THROUGH 384.0 METERS AND HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2015			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	5,955,790	329,359	0.0553	0.9447	38.65
40.5	5,325,590	288,417	0.0542	0.9458	36.51
41.5	5,013,598	195,124	0.0389	0.9611	34.53
42.5	4,535,643	161,498	0.0356	0.9644	33.19
43.5	4,291,567	167,815	0.0391	0.9609	32.01
44.5	3,887,280	144,162	0.0371	0.9629	30.76
45.5	3,367,175	167,128	0.0496	0.9504	29.62
46.5	2,879,607	142,097	0.0493	0.9507	28.15
47.5	1,996,321	93,091	0.0466	0.9534	26.76
48.5	1,616,297	66,637	0.0412	0.9588	25.51
49.5	1,186,794	49,945	0.0421	0.9579	24.46
50.5	903,287	41,178	0.0456	0.9544	23.43
51.5	637,302	36,539	0.0573	0.9427	22.36
52.5	381,362	24,828	0.0651	0.9349	21.08
53.5	186,402	15,869	0.0851	0.9149	19.71
54.5	59,856	9,712	0.1623	0.8377	18.03
55.5	41,332	5,131	0.1242	0.8758	15.10
56.5	26,163	3,938	0.1505	0.8495	13.23
57.5	16,335	12,582	0.7703	0.2297	11.24
58.5	3,567	242	0.0677	0.9323	2.58
59.5	3,178	331	0.1040	0.8960	2.41
60.5	2,739	298	0.1087	0.8913	2.16
61.5	2,387	386	0.1617	0.8383	1.92
62.5	1,816	267	0.1469	0.8531	1.61
63.5	1,549	374	0.2414	0.7586	1.37
64.5	1,175		0.0000	1.0000	1.04
65.5	1,175	1,125	0.9574	0.0426	1.04
66.5	50		0.0000	1.0000	0.04
67.5	10		0.0000	1.0000	0.04
68.5	10		0.0000	1.0000	0.04
69.5	10		0.0000	1.0000	0.04
70.5	10		0.0000	1.0000	0.04
71.5	10		0.0000	1.0000	0.04
72.5	10		0.0000	1.0000	0.04
73.5	10		0.0000	1.0000	0.04
74.5	10		0.0000	1.0000	0.04
75.5	10		0.0000	1.0000	0.04
76.5	10		0.0000	1.0000	0.04
77.5	10		0.0000	1.0000	0.04
78.5	10		0.0000	1.0000	0.04

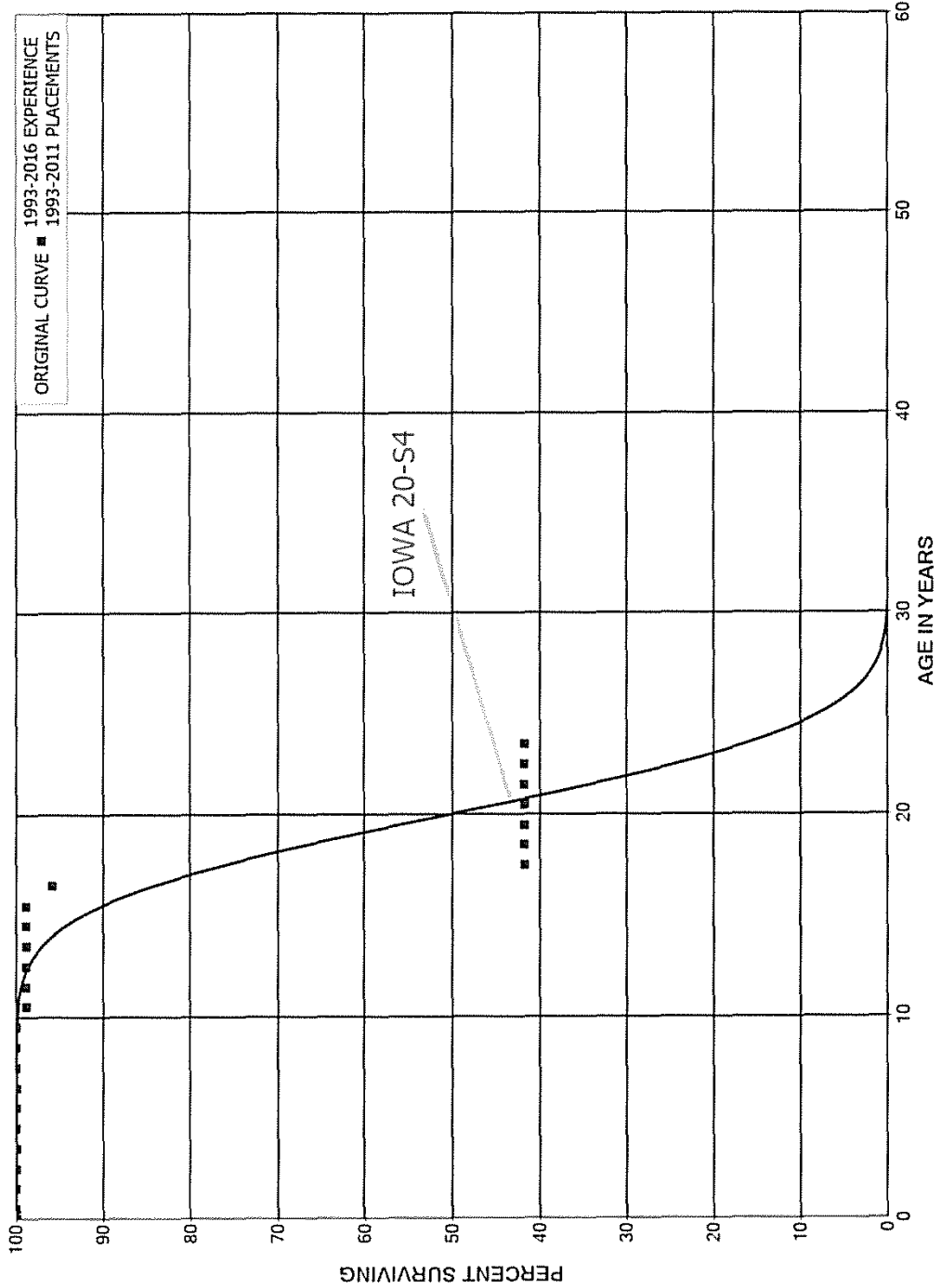
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 381.0 THROUGH 384.0 METERS AND HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2015			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	10		0.0000	1.0000	0.04
80.5	10		0.0000	1.0000	0.04
81.5	10		0.0000	1.0000	0.04
82.5	10		0.0000	1.0000	0.04
83.5	10		0.0000	1.0000	0.04
84.5	10		0.0000	1.0000	0.04
85.5	10		0.0000	1.0000	0.04
86.5	10		0.0000	1.0000	0.04
87.5	10		0.0000	1.0000	0.04
88.5	10		0.0000	1.0000	0.04
89.5	10		0.0000	1.0000	0.04
90.5	10		0.0000	1.0000	0.04
91.5	10		0.0000	1.0000	0.04
92.5	10		0.0000	1.0000	0.04
93.5	10		0.0000	1.0000	0.04
94.5	10		0.0000	1.0000	0.04
95.5	10		0.0000	1.0000	0.04
96.5	10		0.0000	1.0000	0.04
97.5	10		0.0000	1.0000	0.04
98.5	10		0.0000	1.0000	0.04
99.5	10		0.0000	1.0000	0.04
100.5	10		0.0000	1.0000	0.04
101.5	10		0.0000	1.0000	0.04
102.5	10		0.0000	1.0000	0.04
103.5	10		0.0000	1.0000	0.04
104.5	10		0.0000	1.0000	0.04
105.5	10		0.0000	1.0000	0.04
106.5					0.04

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 386.0 OTHER PROPERTY - CUSTOMER PREMISES
ORIGINAL AND SMOOTH SURVIVOR CURVES



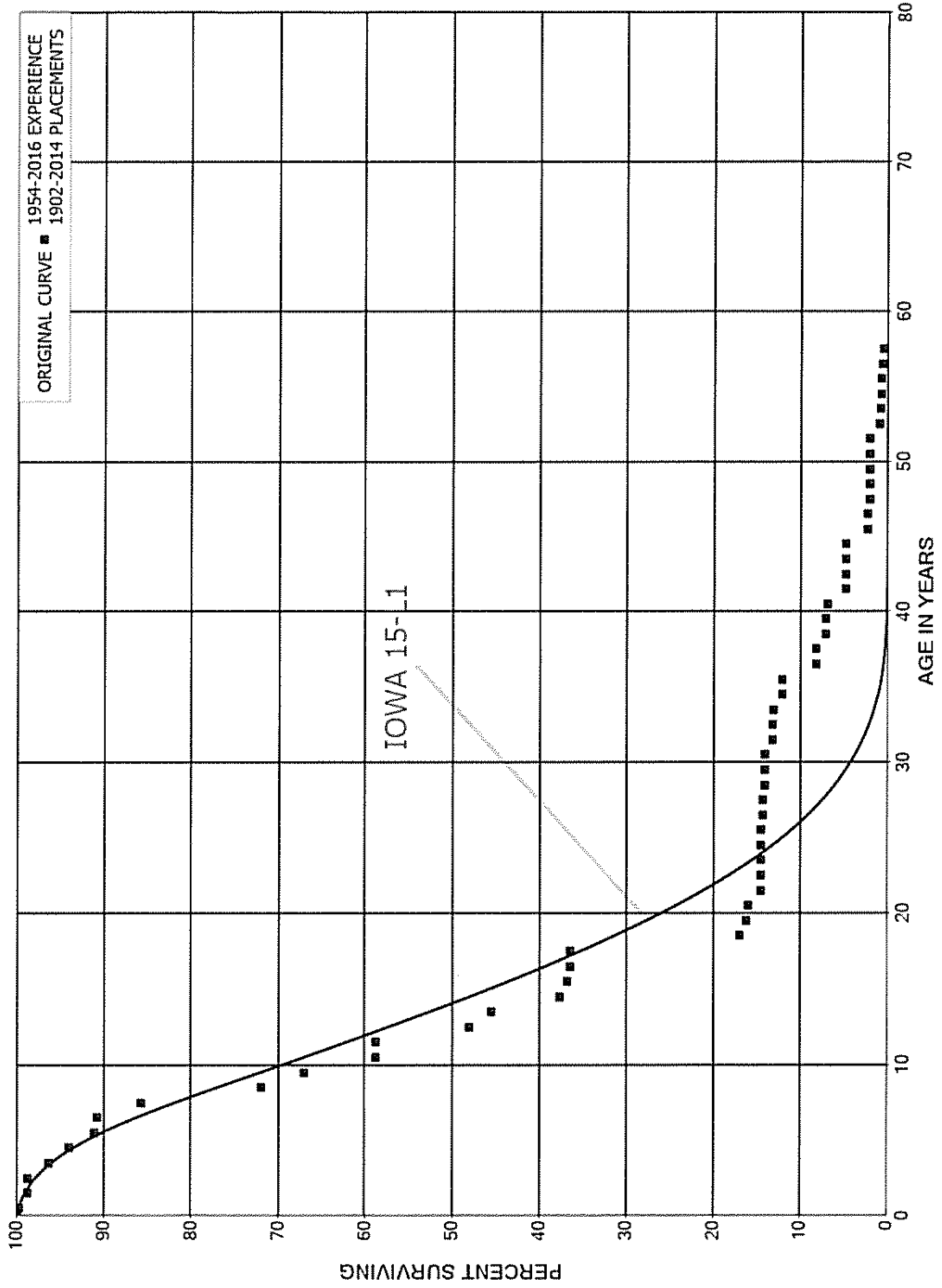
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 386.0 OTHER PROPERTY - CUSTOMER PREMISES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1993-2011			EXPERIENCE BAND 1993-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	644,688		0.0000	1.0000	100.00
0.5	644,688		0.0000	1.0000	100.00
1.5	644,688		0.0000	1.0000	100.00
2.5	644,688		0.0000	1.0000	100.00
3.5	644,688		0.0000	1.0000	100.00
4.5	644,688		0.0000	1.0000	100.00
5.5	495,177		0.0000	1.0000	100.00
6.5	495,177		0.0000	1.0000	100.00
7.5	495,177		0.0000	1.0000	100.00
8.5	495,177		0.0000	1.0000	100.00
9.5	495,177	5,962	0.0120	0.9880	100.00
10.5	489,215		0.0000	1.0000	98.80
11.5	489,215		0.0000	1.0000	98.80
12.5	489,215		0.0000	1.0000	98.80
13.5	489,215		0.0000	1.0000	98.80
14.5	489,215		0.0000	1.0000	98.80
15.5	489,215	14,917	0.0305	0.9695	98.80
16.5	474,299	267,447	0.5639	0.4361	95.78
17.5	206,851		0.0000	1.0000	41.77
18.5	206,851		0.0000	1.0000	41.77
19.5	206,851		0.0000	1.0000	41.77
20.5	204,378		0.0000	1.0000	41.77
21.5	204,378		0.0000	1.0000	41.77
22.5	166,752		0.0000	1.0000	41.77
23.5					41.77

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 387.0 OTHER EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 387.0 OTHER EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1902-2014			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	409,251	1,133	0.0028	0.9972	100.00	
0.5	411,447	4,051	0.0098	0.9902	99.72	
1.5	418,471		0.0000	1.0000	98.74	
2.5	283,743	7,141	0.0252	0.9748	98.74	
3.5	256,760	6,245	0.0243	0.9757	96.26	
4.5	276,541	8,497	0.0307	0.9693	93.92	
5.5	284,925	1,107	0.0039	0.9961	91.03	
6.5	312,987	16,930	0.0541	0.9459	90.68	
7.5	296,057	47,595	0.1608	0.8392	85.77	
8.5	249,149	16,881	0.0678	0.9322	71.98	
9.5	236,769	29,676	0.1253	0.8747	67.11	
10.5	213,299	0	0.0000	1.0000	58.69	
11.5	216,779	39,253	0.1811	0.8189	58.69	
12.5	177,526	9,404	0.0530	0.9470	48.07	
13.5	169,500	29,243	0.1725	0.8275	45.52	
14.5	140,257	3,480	0.0248	0.9752	37.67	
15.5	136,777	1,254	0.0092	0.9908	36.73	
16.5	135,880	55	0.0004	0.9996	36.40	
17.5	135,074	72,141	0.5341	0.4659	36.38	
18.5	63,562	2,880	0.0453	0.9547	16.95	
19.5	63,354	986	0.0156	0.9844	16.18	
20.5	62,369	5,581	0.0895	0.9105	15.93	
21.5	57,857		0.0000	1.0000	14.51	
22.5	58,593		0.0000	1.0000	14.51	
23.5	58,593		0.0000	1.0000	14.51	
24.5	58,920		0.0000	1.0000	14.51	
25.5	58,920	736	0.0125	0.9875	14.51	
26.5	58,184		0.0000	1.0000	14.32	
27.5	92,569	1,377	0.0149	0.9851	14.32	
28.5	91,192		0.0000	1.0000	14.11	
29.5	100,952		0.0000	1.0000	14.11	
30.5	100,952	6,482	0.0642	0.9358	14.11	
31.5	82,307		0.0000	1.0000	13.20	
32.5	125,746	1,389	0.0110	0.9890	13.20	
33.5	124,357	9,638	0.0775	0.9225	13.06	
34.5	114,719		0.0000	1.0000	12.05	
35.5	114,719	36,491	0.3181	0.6819	12.05	
36.5	81,497		0.0000	1.0000	8.21	
37.5	97,891	13,224	0.1351	0.8649	8.21	
38.5	84,667		0.0000	1.0000	7.11	

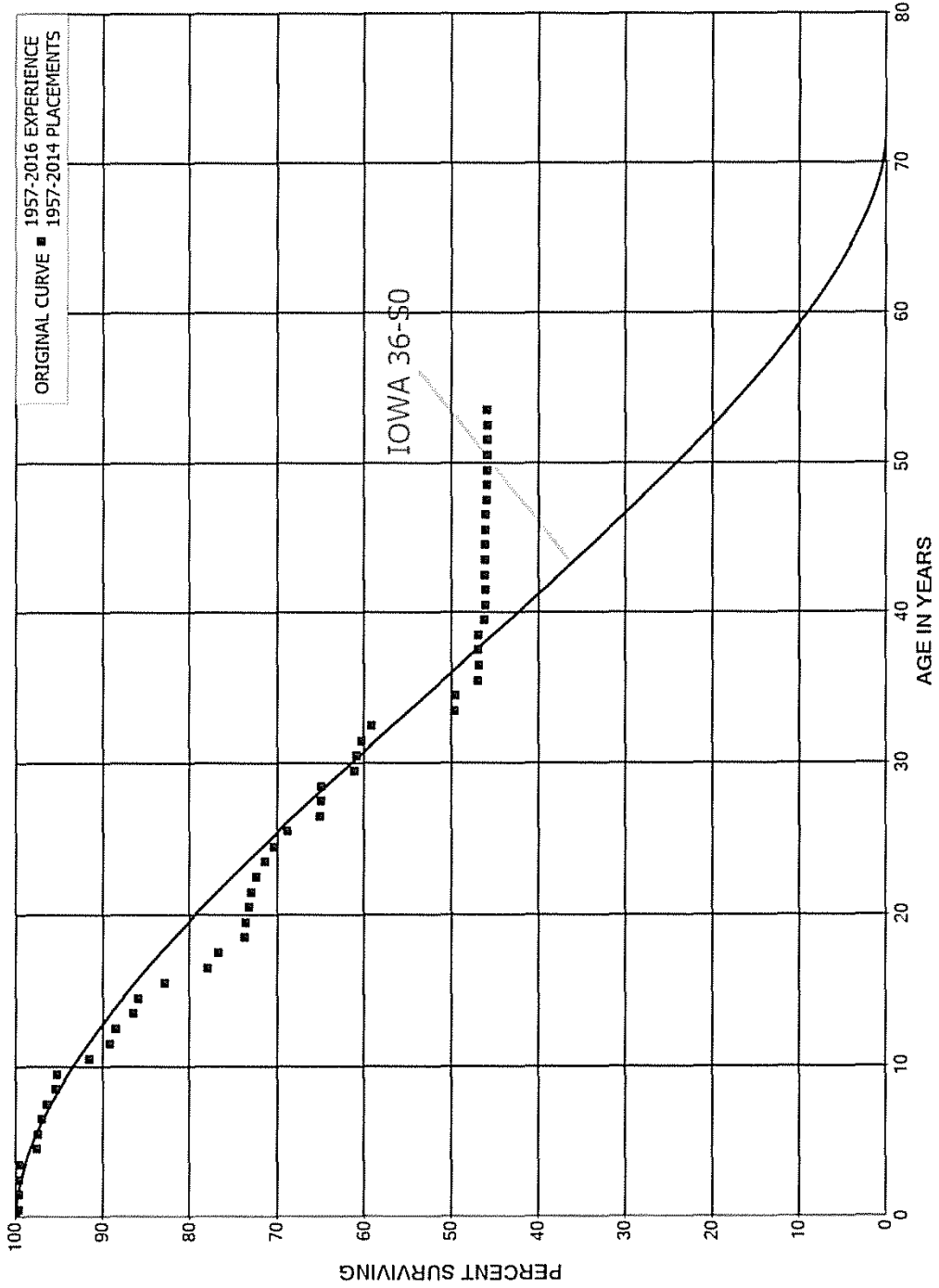
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 387.0 OTHER EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2014			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	84,667	3,270	0.0386	0.9614	7.11
40.5	48,621	14,689	0.3021	0.6979	6.83
41.5	33,932		0.0000	1.0000	4.77
42.5	33,932		0.0000	1.0000	4.77
43.5	35,376	672	0.0190	0.9810	4.77
44.5	34,704	17,658	0.5088	0.4912	4.68
45.5	17,046		0.0000	1.0000	2.30
46.5	17,046	1,444	0.0847	0.9153	2.30
47.5	23,523		0.0000	1.0000	2.10
48.5	23,523	890	0.0379	0.9621	2.10
49.5	26,838		0.0000	1.0000	2.02
50.5	26,042		0.0000	1.0000	2.02
51.5	26,643	14,462	0.5428	0.4572	2.02
52.5	12,976	1,873	0.1443	0.8557	0.92
53.5	11,103	1,502	0.1353	0.8647	0.79
54.5	9,601		0.0000	1.0000	0.68
55.5	9,601	601	0.0626	0.9374	0.68
56.5	9,000	2,319	0.2576	0.7424	0.64
57.5	6,682		0.0000	1.0000	0.48
58.5	6,682		0.0000	1.0000	0.48
59.5	6,682		0.0000	1.0000	0.48
60.5	6,682	1,854	0.2774	0.7226	0.48
61.5	4,828		0.0000	1.0000	0.34
62.5	4,828		0.0000	1.0000	0.34
63.5	4,828		0.0000	1.0000	0.34
64.5	4,828		0.0000	1.0000	0.34
65.5	4,828	2,510	0.5198	0.4802	0.34
66.5	3,767		0.0000	1.0000	0.17
67.5	3,767	1,449	0.3847	0.6153	0.17
68.5	2,318		0.0000	1.0000	0.10
69.5	2,318		0.0000	1.0000	0.10
70.5	2,318		0.0000	1.0000	0.10
71.5	2,318		0.0000	1.0000	0.10
72.5	2,318		0.0000	1.0000	0.10
73.5	2,318		0.0000	1.0000	0.10
74.5	2,318		0.0000	1.0000	0.10
75.5	2,318		0.0000	1.0000	0.10
76.5	2,318		0.0000	1.0000	0.10
77.5	2,318		0.0000	1.0000	0.10
78.5	2,318	2,318	1.0000		0.10
79.5					

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CITIZENS ENERGY GROUP
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ACCOUNT 390.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1957-2014			EXPERIENCE BAND 1957-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	21,023,143	78,737	0.0037	0.9963	100.00
0.5	20,927,506	2,400	0.0001	0.9999	99.63
1.5	20,094,999	5,124	0.0003	0.9997	99.61
2.5	16,866,206	17,452	0.0010	0.9990	99.59
3.5	13,253,831	262,735	0.0198	0.9802	99.49
4.5	12,891,068	10,174	0.0008	0.9992	97.51
5.5	12,229,707	53,583	0.0044	0.9956	97.44
6.5	12,167,563	83,300	0.0068	0.9932	97.01
7.5	12,084,263	118,659	0.0098	0.9902	96.35
8.5	11,743,506	32,658	0.0028	0.9972	95.40
9.5	11,311,311	434,897	0.0384	0.9616	95.13
10.5	10,866,319	278,685	0.0256	0.9744	91.48
11.5	10,465,091	68,267	0.0065	0.9935	89.13
12.5	9,751,112	228,918	0.0235	0.9765	88.55
13.5	9,434,449	60,109	0.0064	0.9936	86.47
14.5	9,211,281	325,029	0.0353	0.9647	85.92
15.5	8,559,502	507,819	0.0593	0.9407	82.89
16.5	7,159,467	115,892	0.0162	0.9838	77.97
17.5	7,032,734	272,341	0.0387	0.9613	76.71
18.5	6,722,125	14,482	0.0022	0.9978	73.74
19.5	6,493,887	36,243	0.0056	0.9944	73.58
20.5	1,806,105	6,198	0.0034	0.9966	73.17
21.5	1,786,082	13,880	0.0078	0.9922	72.92
22.5	1,768,791	22,611	0.0128	0.9872	72.35
23.5	1,746,180	26,080	0.0149	0.9851	71.43
24.5	1,720,100	36,853	0.0214	0.9786	70.36
25.5	1,683,247	91,454	0.0543	0.9457	68.85
26.5	1,591,793	4,163	0.0026	0.9974	65.11
27.5	1,587,630	424	0.0003	0.9997	64.94
28.5	1,569,853	89,316	0.0569	0.9431	64.92
29.5	1,480,537	5,385	0.0036	0.9964	61.23
30.5	1,475,152	18,508	0.0125	0.9875	61.01
31.5	1,456,644	26,660	0.0183	0.9817	60.24
32.5	1,429,984	230,338	0.1611	0.8389	59.14
33.5	1,197,679	3,299	0.0028	0.9972	49.61
34.5	1,193,614	62,095	0.0520	0.9480	49.48
35.5	1,131,519	463	0.0004	0.9996	46.90
36.5	1,131,056	494	0.0004	0.9996	46.88
37.5	1,130,561		0.0000	1.0000	46.86
38.5	1,128,361	16,283	0.0144	0.9856	46.86

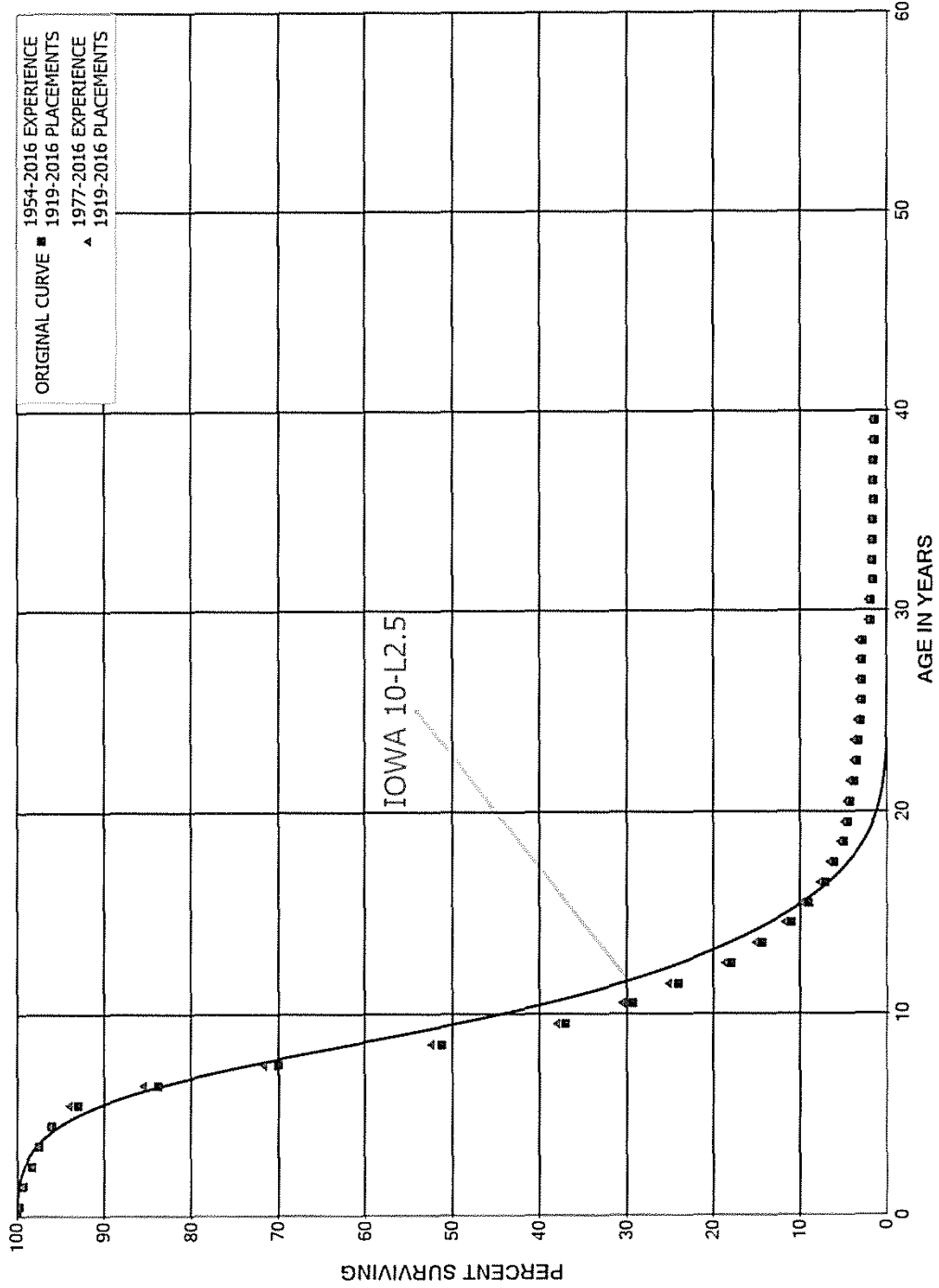
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 390.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1957-2014			EXPERIENCE BAND 1957-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,112,078	1,699	0.0015	0.9985	46.19	
40.5	1,109,668		0.0000	1.0000	46.12	
41.5	1,109,668	847	0.0008	0.9992	46.12	
42.5	1,108,821		0.0000	1.0000	46.08	
43.5	1,108,821		0.0000	1.0000	46.08	
44.5	1,108,821		0.0000	1.0000	46.08	
45.5	1,108,821		0.0000	1.0000	46.08	
46.5	1,108,821	4,567	0.0041	0.9959	46.08	
47.5	1,104,254	609	0.0006	0.9994	45.89	
48.5	1,103,645	477	0.0004	0.9996	45.86	
49.5	1,101,998		0.0000	1.0000	45.85	
50.5	1,098,534		0.0000	1.0000	45.85	
51.5	1,098,534		0.0000	1.0000	45.85	
52.5	1,098,534		0.0000	1.0000	45.85	
53.5					45.85	

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ACCOUNT 392.1 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1919-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	32,583,644	86,503	0.0027	0.9973	100.00
0.5	31,785,123	128,877	0.0041	0.9959	99.73
1.5	30,965,867	340,494	0.0110	0.9890	99.33
2.5	29,952,611	245,812	0.0082	0.9918	98.24
3.5	28,931,808	450,014	0.0156	0.9844	97.43
4.5	27,929,826	872,420	0.0312	0.9688	95.92
5.5	26,461,849	2,574,354	0.0973	0.9027	92.92
6.5	23,416,848	3,893,599	0.1663	0.8337	83.88
7.5	18,717,398	5,030,318	0.2688	0.7312	69.93
8.5	12,752,817	3,541,266	0.2777	0.7223	51.14
9.5	8,595,967	1,772,897	0.2062	0.7938	36.94
10.5	6,601,156	1,215,490	0.1841	0.8159	29.32
11.5	5,101,223	1,294,335	0.2537	0.7463	23.92
12.5	3,678,092	724,071	0.1969	0.8031	17.85
13.5	2,692,776	645,529	0.2397	0.7603	14.34
14.5	2,028,096	367,903	0.1814	0.8186	10.90
15.5	1,601,207	335,918	0.2098	0.7902	8.92
16.5	1,244,155	176,111	0.1416	0.8584	7.05
17.5	1,068,154	202,840	0.1899	0.8101	6.05
18.5	664,109	53,100	0.0800	0.9200	4.90
19.5	565,929	40,472	0.0715	0.9285	4.51
20.5	525,457	51,483	0.0980	0.9020	4.19
21.5	452,832	50,129	0.1107	0.8893	3.78
22.5	402,704	4,251	0.0106	0.9894	3.36
23.5	300,563	31,599	0.1051	0.8949	3.32
24.5	241,022	13,785	0.0572	0.9428	2.98
25.5	227,237	343	0.0015	0.9985	2.80
26.5	226,893		0.0000	1.0000	2.80
27.5	226,893	2,275	0.0100	0.9900	2.80
28.5	120,335	40,515	0.3367	0.6633	2.77
29.5	80,987		0.0000	1.0000	1.84
30.5	80,987	10,232	0.1263	0.8737	1.84
31.5	70,755		0.0000	1.0000	1.61
32.5	70,755		0.0000	1.0000	1.61
33.5	63,977	1,234	0.0193	0.9807	1.61
34.5	56,196	3,439	0.0612	0.9388	1.58
35.5	52,757	110	0.0021	0.9979	1.48
36.5	49,968		0.0000	1.0000	1.48
37.5	49,968	1,166	0.0233	0.9767	1.48
38.5	48,802		0.0000	1.0000	1.44

CITIZENS ENERGY GROUP
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ACCOUNT 392.1 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1919-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	48,802		0.0000	1.0000	1.44
40.5	48,802		0.0000	1.0000	1.44
41.5	48,802		0.0000	1.0000	1.44
42.5	48,802		0.0000	1.0000	1.44
43.5	48,802		0.0000	1.0000	1.44
44.5	48,802		0.0000	1.0000	1.44
45.5	48,802		0.0000	1.0000	1.44
46.5	48,802		0.0000	1.0000	1.44
47.5	48,802		0.0000	1.0000	1.44
48.5	48,802	47,802	0.9795	0.0205	1.44
49.5	1,000		0.0000	1.0000	0.03
50.5	1,000		0.0000	1.0000	0.03
51.5	1,000		0.0000	1.0000	0.03
52.5	1,000		0.0000	1.0000	0.03
53.5	1,000		0.0000	1.0000	0.03
54.5	1,000		0.0000	1.0000	0.03
55.5	1,000		0.0000	1.0000	0.03
56.5	1,000		0.0000	1.0000	0.03
57.5	1,000		0.0000	1.0000	0.03
58.5	1,000		0.0000	1.0000	0.03
59.5					0.03

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GAS OPERATIONS

ACCOUNT 392.1 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1919-2016			EXPERIENCE BAND 1977-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	28,826,242	84,559	0.0029	0.9971	100.00
0.5	28,276,334	122,224	0.0043	0.9957	99.71
1.5	27,535,216	321,934	0.0117	0.9883	99.28
2.5	26,644,737	189,062	0.0071	0.9929	98.11
3.5	25,801,220	352,676	0.0137	0.9863	97.42
4.5	25,109,030	584,707	0.0233	0.9767	96.09
5.5	24,095,982	2,170,132	0.0901	0.9099	93.85
6.5	21,642,059	3,528,702	0.1630	0.8370	85.40
7.5	17,439,574	4,671,133	0.2678	0.7322	71.47
8.5	11,914,725	3,308,273	0.2777	0.7223	52.33
9.5	8,072,444	1,578,559	0.1955	0.8045	37.80
10.5	6,291,742	1,122,966	0.1785	0.8215	30.41
11.5	4,889,928	1,262,037	0.2581	0.7419	24.98
12.5	3,492,519	683,065	0.1956	0.8044	18.53
13.5	2,546,552	566,507	0.2225	0.7775	14.91
14.5	1,958,241	341,822	0.1746	0.8254	11.59
15.5	1,557,433	322,956	0.2074	0.7926	9.57
16.5	1,213,342	171,077	0.1410	0.8590	7.58
17.5	1,042,266	198,142	0.1901	0.8099	6.52
18.5	643,178	51,705	0.0804	0.9196	5.28
19.5	547,556	35,225	0.0643	0.9357	4.85
20.5	512,891	43,118	0.0841	0.9159	4.54
21.5	448,632	50,129	0.1117	0.8883	4.16
22.5	398,503	2,426	0.0061	0.9939	3.69
23.5	299,561	30,708	0.1025	0.8975	3.67
24.5	240,911	13,785	0.0572	0.9428	3.29
25.5	227,127	343	0.0015	0.9985	3.11
26.5	226,783		0.0000	1.0000	3.10
27.5	226,783	2,275	0.0100	0.9900	3.10
28.5	120,225	40,515	0.3370	0.6630	3.07
29.5	79,711		0.0000	1.0000	2.04
30.5	79,711	10,232	0.1284	0.8716	2.04
31.5	69,479		0.0000	1.0000	1.77
32.5	69,479		0.0000	1.0000	1.77
33.5	62,700	1,234	0.0197	0.9803	1.77
34.5	54,920	3,439	0.0626	0.9374	1.74
35.5	51,480		0.0000	1.0000	1.63
36.5	48,802		0.0000	1.0000	1.63
37.5	48,802		0.0000	1.0000	1.63
38.5	48,802		0.0000	1.0000	1.63

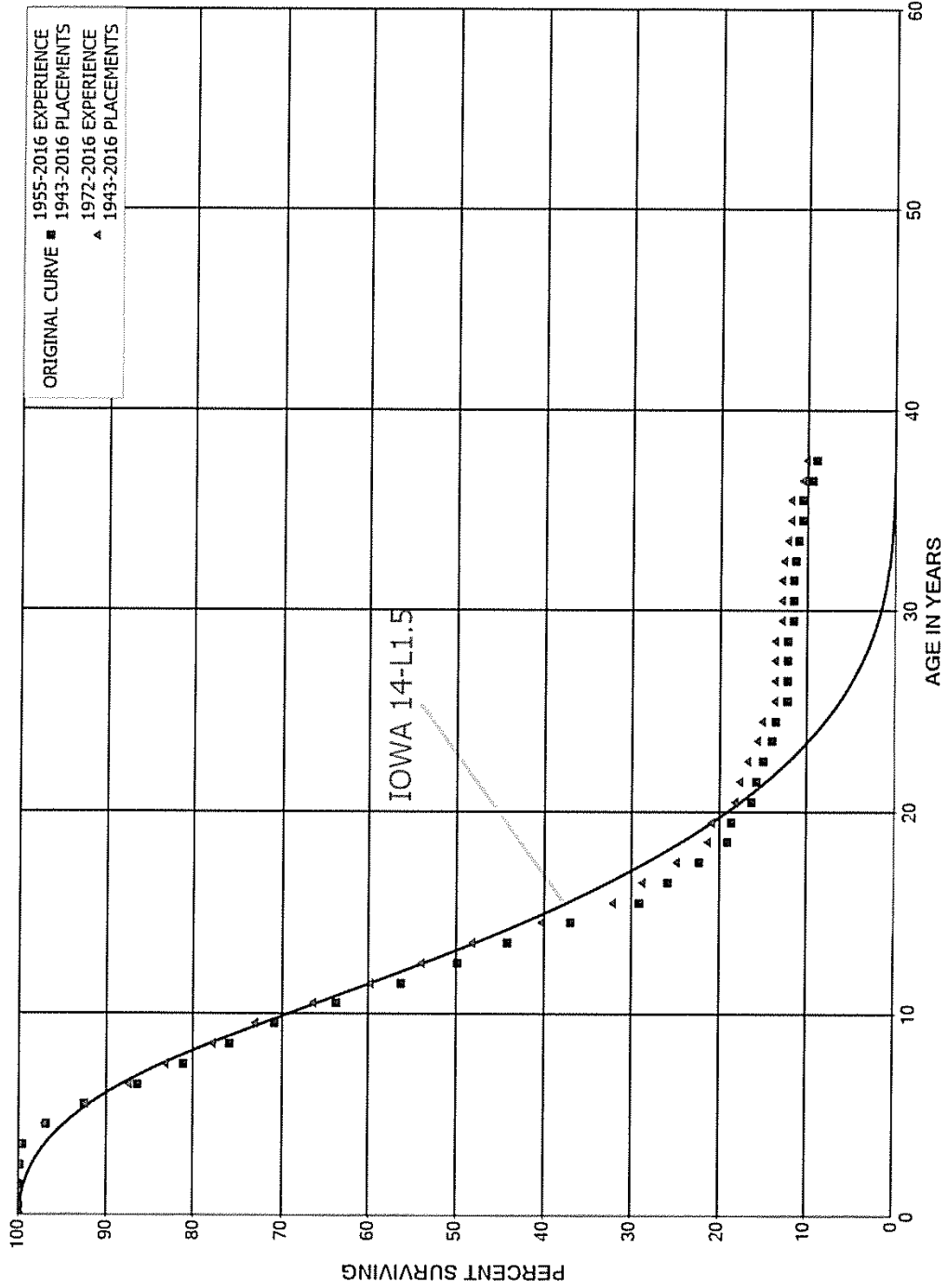
CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 392.1 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1919-2016			EXPERIENCE BAND 1977-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	48,802		0.0000	1.0000	1.63
40.5	48,802		0.0000	1.0000	1.63
41.5	48,802		0.0000	1.0000	1.63
42.5	48,802		0.0000	1.0000	1.63
43.5	48,802		0.0000	1.0000	1.63
44.5	48,802		0.0000	1.0000	1.63
45.5	48,802		0.0000	1.0000	1.63
46.5	48,802		0.0000	1.0000	1.63
47.5	48,802		0.0000	1.0000	1.63
48.5	48,802	47,802	0.9795	0.0205	1.63
49.5	1,000		0.0000	1.0000	0.03
50.5	1,000		0.0000	1.0000	0.03
51.5	1,000		0.0000	1.0000	0.03
52.5	1,000		0.0000	1.0000	0.03
53.5	1,000		0.0000	1.0000	0.03
54.5	1,000		0.0000	1.0000	0.03
55.5	1,000		0.0000	1.0000	0.03
56.5	1,000		0.0000	1.0000	0.03
57.5	1,000		0.0000	1.0000	0.03
58.5	1,000		0.0000	1.0000	0.03
59.5					0.03

CITIZENS ENERGY GROUP
GAS OPERATIONS
ACCOUNT 396.1 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
GAS OPERATIONS

ACCOUNT 396.1 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2016			EXPERIENCE BAND 1955-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	6,578,241		0.0000	1.0000	100.00
0.5	6,437,710	2,441	0.0004	0.9996	100.00
1.5	6,364,758	11,128	0.0017	0.9983	99.96
2.5	6,141,205	16,869	0.0027	0.9973	99.79
3.5	6,063,748	165,785	0.0273	0.9727	99.51
4.5	5,731,361	256,336	0.0447	0.9553	96.79
5.5	5,435,673	358,241	0.0659	0.9341	92.46
6.5	5,077,432	302,219	0.0595	0.9405	86.37
7.5	4,786,568	307,879	0.0643	0.9357	81.23
8.5	4,470,490	301,358	0.0674	0.9326	76.00
9.5	4,010,537	405,846	0.1012	0.8988	70.88
10.5	3,502,521	410,712	0.1173	0.8827	63.71
11.5	3,035,211	343,215	0.1131	0.8869	56.24
12.5	2,463,778	279,916	0.1136	0.8864	49.88
13.5	1,992,895	326,828	0.1640	0.8360	44.21
14.5	1,658,034	355,731	0.2145	0.7855	36.96
15.5	1,294,553	141,422	0.1092	0.8908	29.03
16.5	1,059,973	145,839	0.1376	0.8624	25.86
17.5	895,764	130,400	0.1456	0.8544	22.30
18.5	763,390	16,644	0.0218	0.9782	19.05
19.5	746,746	92,677	0.1241	0.8759	18.64
20.5	654,068	25,008	0.0382	0.9618	16.33
21.5	562,385	26,070	0.0464	0.9536	15.70
22.5	528,464	36,510	0.0691	0.9309	14.97
23.5	491,954	16,091	0.0327	0.9673	13.94
24.5	475,863	47,660	0.1002	0.8998	13.48
25.5	307,426		0.0000	1.0000	12.13
26.5	261,926		0.0000	1.0000	12.13
27.5	261,926		0.0000	1.0000	12.13
28.5	258,643	14,064	0.0544	0.9456	12.13
29.5	212,864		0.0000	1.0000	11.47
30.5	201,405		0.0000	1.0000	11.47
31.5	201,405	3,587	0.0178	0.9822	11.47
32.5	197,818	6,630	0.0335	0.9665	11.27
33.5	175,927	5,803	0.0330	0.9670	10.89
34.5	170,124		0.0000	1.0000	10.53
35.5	170,124	18,578	0.1092	0.8908	10.53
36.5	127,740	5,810	0.0455	0.9545	9.38
37.5	121,930		0.0000	1.0000	8.96
38.5	15,961		0.0000	1.0000	8.96
39.5					8.96

CITIZENS ENERGY GROUP
GAS OPERATIONS

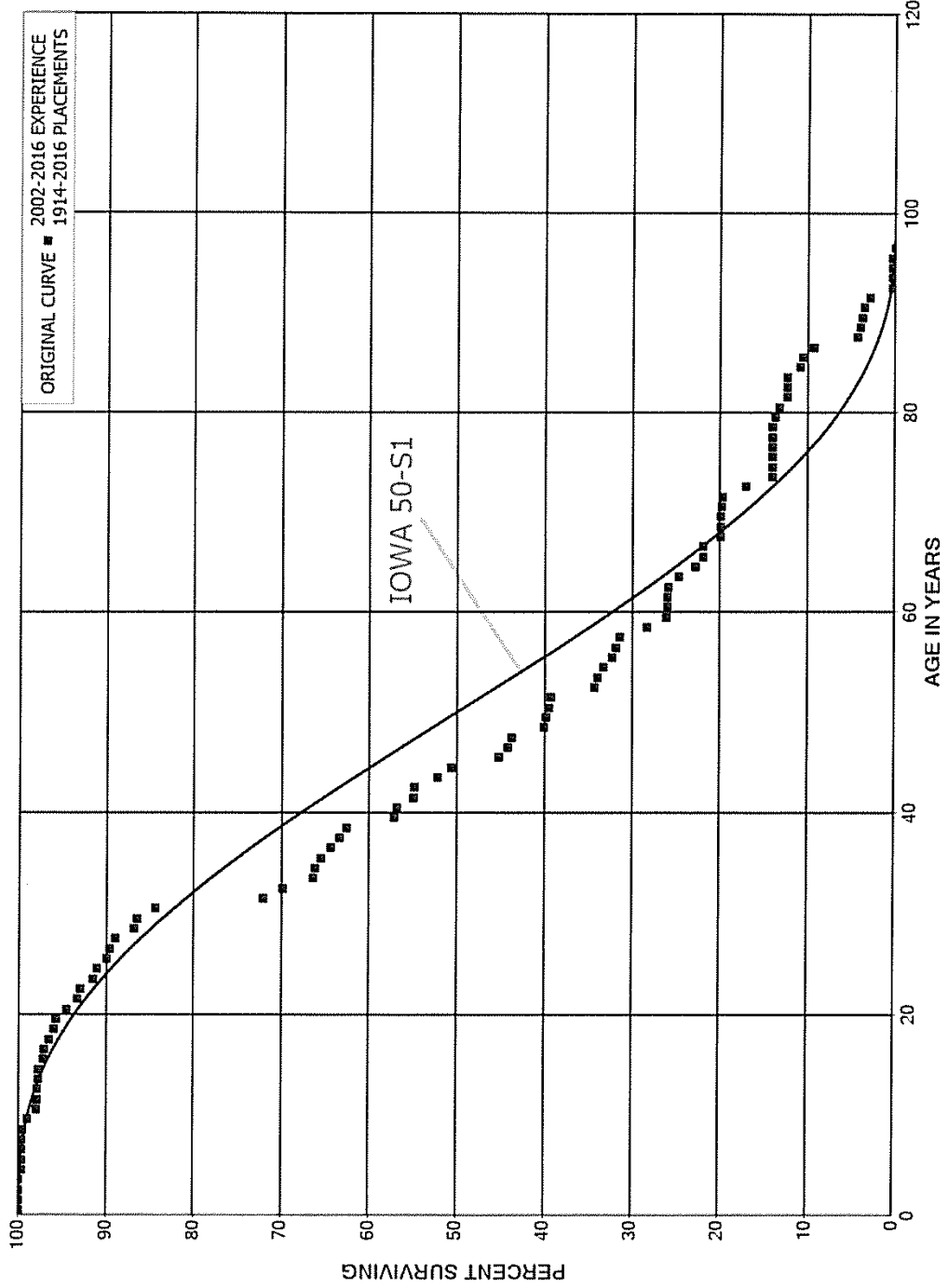
ACCOUNT 396.1 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2016			EXPERIENCE BAND 1972-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,924,025		0.0000	1.0000	100.00
0.5	4,856,566	2,377	0.0005	0.9995	100.00
1.5	4,908,149	6,073	0.0012	0.9988	99.95
2.5	4,764,834	7,093	0.0015	0.9985	99.83
3.5	4,878,337	132,396	0.0271	0.9729	99.68
4.5	4,786,163	231,501	0.0484	0.9516	96.97
5.5	4,750,699	258,313	0.0544	0.9456	92.28
6.5	4,565,747	217,672	0.0477	0.9523	87.27
7.5	4,406,628	286,830	0.0651	0.9349	83.10
8.5	4,108,755	253,418	0.0617	0.9383	77.70
9.5	3,717,042	339,946	0.0915	0.9085	72.90
10.5	3,295,502	326,523	0.0991	0.9009	66.24
11.5	2,911,314	285,355	0.0980	0.9020	59.67
12.5	2,397,741	258,820	0.1079	0.8921	53.82
13.5	1,947,954	318,608	0.1636	0.8364	48.01
14.5	1,621,312	333,523	0.2057	0.7943	40.16
15.5	1,280,039	131,741	0.1029	0.8971	31.90
16.5	1,055,140	142,596	0.1351	0.8649	28.62
17.5	894,175	130,400	0.1458	0.8542	24.75
18.5	761,801	16,644	0.0218	0.9782	21.14
19.5	745,156	92,219	0.1238	0.8762	20.68
20.5	652,937	23,876	0.0366	0.9634	18.12
21.5	562,385	26,070	0.0464	0.9536	17.46
22.5	528,464	36,510	0.0691	0.9309	16.65
23.5	491,954	16,091	0.0327	0.9673	15.50
24.5	475,863	47,660	0.1002	0.8998	14.99
25.5	307,426		0.0000	1.0000	13.49
26.5	261,926		0.0000	1.0000	13.49
27.5	261,926		0.0000	1.0000	13.49
28.5	258,643	14,064	0.0544	0.9456	13.49
29.5	212,864		0.0000	1.0000	12.76
30.5	201,405		0.0000	1.0000	12.76
31.5	201,405	3,587	0.0178	0.9822	12.76
32.5	197,818	6,630	0.0335	0.9665	12.53
33.5	175,927	5,803	0.0330	0.9670	12.11
34.5	170,124		0.0000	1.0000	11.71
35.5	170,124	18,578	0.1092	0.8908	11.71
36.5	127,740	5,810	0.0455	0.9545	10.43
37.5	121,930		0.0000	1.0000	9.96
38.5	15,961		0.0000	1.0000	9.96
39.5					9.96

THERMAL - STEAM

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ACCOUNT 311.0 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 311.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1914-2016			EXPERIENCE BAND 2002-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,181,244		0.0000	1.0000	100.00
0.5	9,736,156		0.0000	1.0000	100.00
1.5	9,413,935		0.0000	1.0000	100.00
2.5	9,356,638		0.0000	1.0000	100.00
3.5	5,984,523	22,591	0.0038	0.9962	100.00
4.5	5,630,419		0.0000	1.0000	99.62
5.5	5,317,491		0.0000	1.0000	99.62
6.5	4,720,137		0.0000	1.0000	99.62
7.5	4,431,007	2,997	0.0007	0.9993	99.62
8.5	4,094,094	23,699	0.0058	0.9942	99.56
9.5	3,037,095	33,221	0.0109	0.9891	98.98
10.5	2,293,895	1,018	0.0004	0.9996	97.90
11.5	2,177,670	217	0.0001	0.9999	97.85
12.5	1,255,264	1,558	0.0012	0.9988	97.84
13.5	825,720	202	0.0002	0.9998	97.72
14.5	618,678	3,565	0.0058	0.9942	97.70
15.5	603,443	586	0.0010	0.9990	97.13
16.5	640,196	3,271	0.0051	0.9949	97.04
17.5	634,316	4,042	0.0064	0.9936	96.54
18.5	584,193	929	0.0016	0.9984	95.93
19.5	592,271	7,855	0.0133	0.9867	95.78
20.5	571,860	7,234	0.0126	0.9874	94.51
21.5	572,969	2,306	0.0040	0.9960	93.31
22.5	526,692	8,091	0.0154	0.9846	92.94
23.5	464,424	2,311	0.0050	0.9950	91.51
24.5	392,252	4,656	0.0119	0.9881	91.05
25.5	380,481	1,513	0.0040	0.9960	89.97
26.5	323,530	2,275	0.0070	0.9930	89.61
27.5	267,530	6,563	0.0245	0.9755	88.98
28.5	242,478	676	0.0028	0.9972	86.80
29.5	242,363	6,059	0.0250	0.9750	86.56
30.5	226,009	33,112	0.1465	0.8535	84.40
31.5	121,873	3,747	0.0307	0.9693	72.03
32.5	111,199	5,425	0.0488	0.9512	69.82
33.5	103,901	380	0.0037	0.9963	66.41
34.5	89,465	934	0.0104	0.9896	66.17
35.5	75,284	1,262	0.0168	0.9832	65.48
36.5	65,734	1,034	0.0157	0.9843	64.38
37.5	66,034	730	0.0111	0.9889	63.37
38.5	58,560	5,107	0.0872	0.9128	62.67

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ACCOUNT 311.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1914-2016			EXPERIENCE BAND 2002-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	50,226	363	0.0072	0.9928	57.20	
40.5	48,872	1,588	0.0325	0.9675	56.79	
41.5	34,500	34	0.0010	0.9990	54.94	
42.5	16,328	795	0.0487	0.9513	54.89	
43.5	12,735	403	0.0317	0.9683	52.21	
44.5	8,278	887	0.1072	0.8928	50.56	
45.5	7,832	177	0.0226	0.9774	45.14	
46.5	9,572	97	0.0102	0.9898	44.12	
47.5	11,102	905	0.0815	0.9185	43.68	
48.5	64,002	371	0.0058	0.9942	40.12	
49.5	63,839	611	0.0096	0.9904	39.88	
50.5	64,504	305	0.0047	0.9953	39.50	
51.5	64,631	8,269	0.1279	0.8721	39.31	
52.5	55,529	564	0.0102	0.9898	34.28	
53.5	57,644	1,053	0.0183	0.9817	33.94	
54.5	188,135	6,119	0.0325	0.9675	33.32	
55.5	283,515	3,762	0.0133	0.9867	32.23	
56.5	280,581	3,922	0.0140	0.9860	31.81	
57.5	276,831	26,920	0.0972	0.9028	31.36	
58.5	253,498	20,467	0.0807	0.9193	28.31	
59.5	232,646	446	0.0019	0.9981	26.03	
60.5	233,332	295	0.0013	0.9987	25.98	
61.5	232,519	994	0.0043	0.9957	25.94	
62.5	222,158	10,213	0.0460	0.9540	25.83	
63.5	247,263	19,333	0.0782	0.9218	24.64	
64.5	227,508	8,875	0.0390	0.9610	22.72	
65.5	217,839	386	0.0018	0.9982	21.83	
66.5	217,248	19,020	0.0876	0.9124	21.79	
67.5	197,457	426	0.0022	0.9978	19.88	
68.5	164,946	110	0.0007	0.9993	19.84	
69.5	86,969	458	0.0053	0.9947	19.83	
70.5	51,467	185	0.0036	0.9964	19.72	
71.5	51,014	6,920	0.1356	0.8644	19.65	
72.5	42,171	7,422	0.1760	0.8240	16.99	
73.5	34,117	166	0.0049	0.9951	14.00	
74.5	33,602		0.0000	1.0000	13.93	
75.5	33,759		0.0000	1.0000	13.93	
76.5	38,390		0.0000	1.0000	13.93	
77.5	26,301		0.0000	1.0000	13.93	
78.5	26,301	643	0.0245	0.9755	13.93	

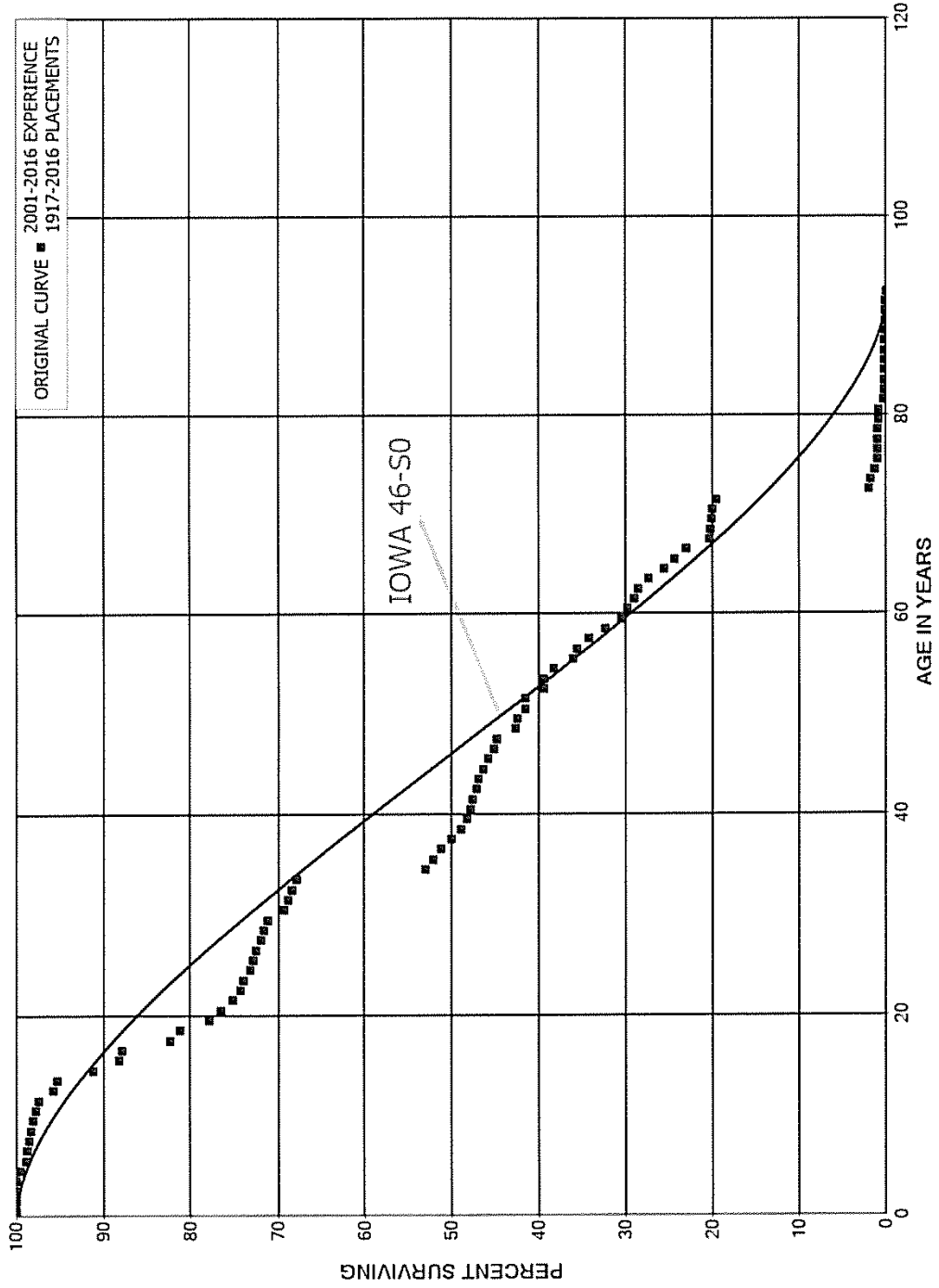
CITIZENS ENERGY GROUP
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ACCOUNT 311.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1914-2016			EXPERIENCE BAND 2002-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	29,574	890	0.0301	0.9699	13.59	
80.5	28,684	1,857	0.0647	0.9353	13.18	
81.5	28,574	29	0.0010	0.9990	12.33	
82.5	28,628	0	0.0000	1.0000	12.31	
83.5	70,792	8,564	0.1210	0.8790	12.31	
84.5	62,179	1,595	0.0257	0.9743	10.82	
85.5	60,584	6,981	0.1152	0.8848	10.55	
86.5	53,564	28,974	0.5409	0.4591	9.33	
87.5	30,906	2,311	0.0748	0.9252	4.28	
88.5	28,595	1,605	0.0561	0.9439	3.96	
89.5	26,960	1,862	0.0691	0.9309	3.74	
90.5	24,870	4,289	0.1725	0.8275	3.48	
91.5	20,581	18,444	0.8962	0.1038	2.88	
92.5	2,137		0.0000	1.0000	0.30	
93.5	2,137	196	0.0916	0.9084	0.30	
94.5	1,941		0.0000	1.0000	0.27	
95.5	1,941	1,941	1.0000		0.27	
96.5						

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ACCOUNT 312.0 BOILER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 312.0 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1917-2016			EXPERIENCE BAND 2001-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	49,435,016		0.0000	1.0000	100.00
0.5	48,876,003		0.0000	1.0000	100.00
1.5	48,528,869		0.0000	1.0000	100.00
2.5	40,002,875	5,119	0.0001	0.9999	100.00
3.5	34,428,632	159,769	0.0046	0.9954	99.99
4.5	31,765,351	214,108	0.0067	0.9933	99.52
5.5	30,664,012	53,574	0.0017	0.9983	98.85
6.5	28,811,225	47,127	0.0016	0.9984	98.68
7.5	21,654,706	43,730	0.0020	0.9980	98.52
8.5	14,702,525	43,592	0.0030	0.9970	98.32
9.5	10,838,638	27,759	0.0026	0.9974	98.03
10.5	7,414,410	32,855	0.0044	0.9956	97.78
11.5	7,008,430	118,419	0.0169	0.9831	97.34
12.5	4,804,771	20,660	0.0043	0.9957	95.70
13.5	3,890,837	167,660	0.0431	0.9569	95.29
14.5	3,275,112	109,024	0.0333	0.9667	91.18
15.5	3,140,257	9,545	0.0030	0.9970	88.15
16.5	3,131,676	197,703	0.0631	0.9369	87.88
17.5	2,663,685	38,366	0.0144	0.9856	82.33
18.5	2,040,708	84,298	0.0413	0.9587	81.14
19.5	1,965,296	33,168	0.0169	0.9831	77.79
20.5	1,762,675	30,200	0.0171	0.9829	76.48
21.5	1,648,034	19,373	0.0118	0.9882	75.17
22.5	1,514,669	6,747	0.0045	0.9955	74.29
23.5	1,460,165	14,954	0.0102	0.9898	73.95
24.5	1,139,649	6,101	0.0054	0.9946	73.20
25.5	1,102,831	4,475	0.0041	0.9959	72.81
26.5	854,900	6,012	0.0070	0.9930	72.51
27.5	1,169,971	5,875	0.0050	0.9950	72.00
28.5	1,180,346	8,147	0.0069	0.9931	71.64
29.5	1,139,341	29,179	0.0256	0.9744	71.14
30.5	1,089,470	7,029	0.0065	0.9935	69.32
31.5	1,048,529	6,649	0.0063	0.9937	68.87
32.5	1,043,505	8,619	0.0083	0.9917	68.44
33.5	1,013,982	222,163	0.2191	0.7809	67.87
34.5	771,582	13,954	0.0181	0.9819	53.00
35.5	734,713	12,520	0.0170	0.9830	52.04
36.5	730,600	16,926	0.0232	0.9768	51.16
37.5	712,507	16,622	0.0233	0.9767	49.97
38.5	717,015	9,478	0.0132	0.9868	48.81

CITIZENS ENERGY GROUP
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ACCOUNT 312.0 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1917-2016			EXPERIENCE BAND 2001-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	657,705	5,258	0.0080	0.9920	48.16
40.5	610,509	3,098	0.0051	0.9949	47.78
41.5	492,311	4,379	0.0089	0.9911	47.53
42.5	333,656	2,162	0.0065	0.9935	47.11
43.5	193,085	2,353	0.0122	0.9878	46.80
44.5	181,463	1,837	0.0101	0.9899	46.23
45.5	180,332	2,573	0.0143	0.9857	45.77
46.5	175,163	1,507	0.0086	0.9914	45.11
47.5	408,855	19,234	0.0470	0.9530	44.73
48.5	357,103	1,623	0.0045	0.9955	42.62
49.5	352,412	7,591	0.0215	0.9785	42.43
50.5	399,473	232	0.0006	0.9994	41.51
51.5	400,950	20,055	0.0500	0.9500	41.49
52.5	367,399	489	0.0013	0.9987	39.41
53.5	467,146	12,835	0.0275	0.9725	39.36
54.5	543,193	33,247	0.0612	0.9388	38.28
55.5	510,385	5,377	0.0105	0.9895	35.94
56.5	504,818	20,271	0.0402	0.9598	35.56
57.5	487,937	27,094	0.0555	0.9445	34.13
58.5	460,635	26,913	0.0584	0.9416	32.24
59.5	420,830	8,109	0.0193	0.9807	30.35
60.5	382,281	10,614	0.0278	0.9722	29.77
61.5	370,457	6,225	0.0168	0.9832	28.94
62.5	449,359	17,931	0.0399	0.9601	28.45
63.5	374,790	24,964	0.0666	0.9334	27.32
64.5	349,106	16,066	0.0460	0.9540	25.50
65.5	295,469	16,479	0.0558	0.9442	24.33
66.5	276,397	32,178	0.1164	0.8836	22.97
67.5	242,165	1,359	0.0056	0.9944	20.30
68.5	184,321	1,281	0.0070	0.9930	20.18
69.5	123,033	786	0.0064	0.9936	20.04
70.5	122,179	2,380	0.0195	0.9805	19.91
71.5	119,652	107,810	0.9010	0.0990	19.53
72.5	9,580	953	0.0995	0.9005	1.93
73.5	8,587	2,315	0.2696	0.7304	1.74
74.5	5,841	1,630	0.2791	0.7209	1.27
75.5	4,084	71	0.0175	0.9825	0.92
76.5	6,531		0.0000	1.0000	0.90
77.5	3,553		0.0000	1.0000	0.90
78.5	3,553	96	0.0269	0.9731	0.90

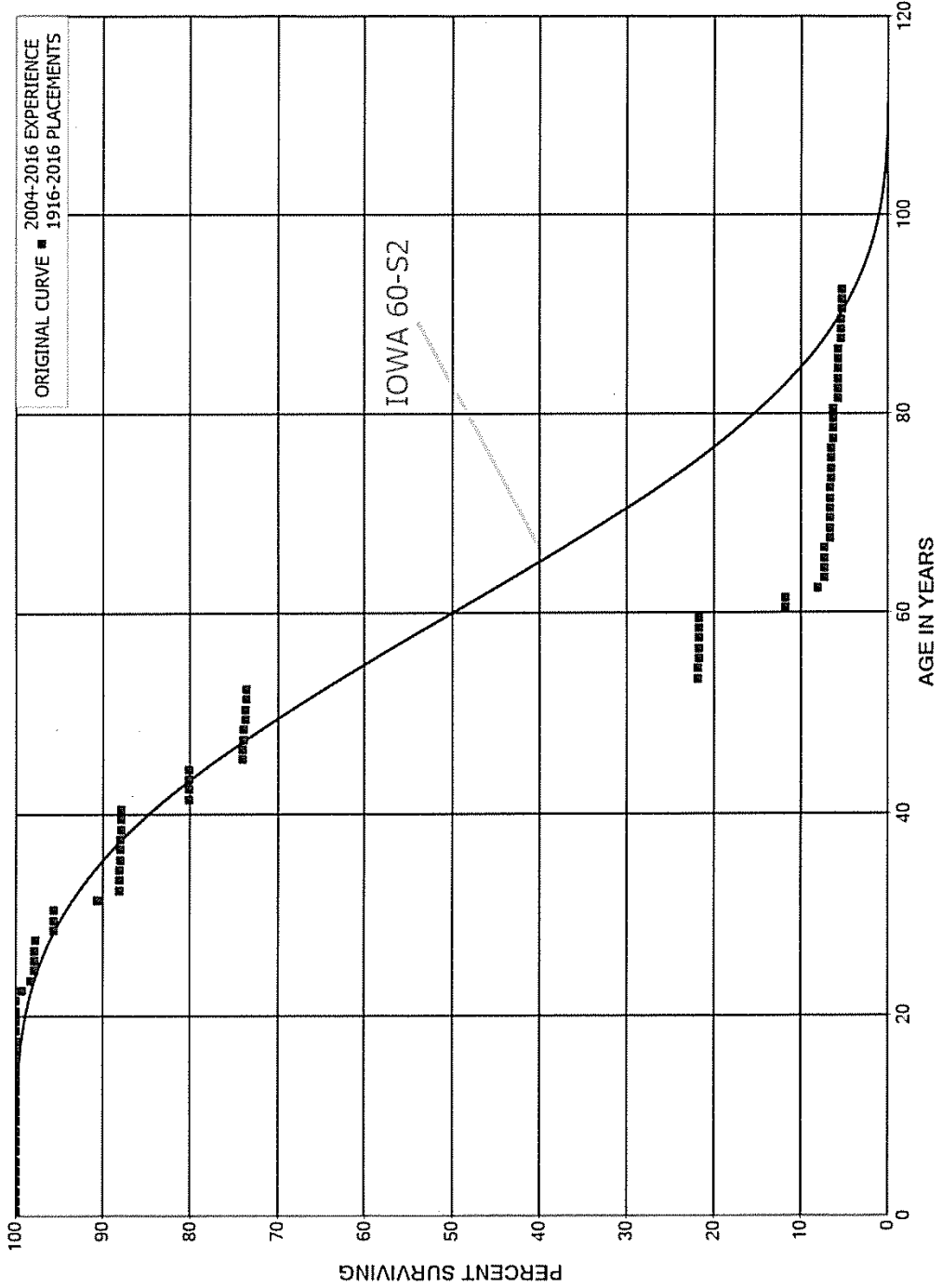
CITIZENS ENERGY GROUP
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ACCOUNT 312.0 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1917-2016			EXPERIENCE BAND 2001-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	3,458	292	0.0845	0.9155	0.88
80.5	3,242	1,889	0.5826	0.4174	0.80
81.5	1,353	624	0.4612	0.5388	0.33
82.5	4,084		0.0000	1.0000	0.18
83.5	12,110		0.0000	1.0000	0.18
84.5	12,110	76	0.0063	0.9937	0.18
85.5	12,034	653	0.0542	0.9458	0.18
86.5	11,381	687	0.0604	0.9396	0.17
87.5	10,694	8,027	0.7506	0.2494	0.16
88.5	2,668		0.0000	1.0000	0.04
89.5	2,668		0.0000	1.0000	0.04
90.5	2,668		0.0000	1.0000	0.04
91.5	2,668	2,668	1.0000		0.04
92.5					

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ACCOUNT 314.0 TURBOGENERATOR UNITS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 314.0 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1916-2016			EXPERIENCE BAND 2004-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,675,899		0.0000	1.0000	100.00
0.5	1,673,367		0.0000	1.0000	100.00
1.5	2,145,757		0.0000	1.0000	100.00
2.5	2,145,757		0.0000	1.0000	100.00
3.5	2,145,757		0.0000	1.0000	100.00
4.5	2,145,757		0.0000	1.0000	100.00
5.5	2,145,757		0.0000	1.0000	100.00
6.5	2,145,757		0.0000	1.0000	100.00
7.5	2,103,259		0.0000	1.0000	100.00
8.5	1,988,247		0.0000	1.0000	100.00
9.5	2,001,175		0.0000	1.0000	100.00
10.5	1,932,786		0.0000	1.0000	100.00
11.5	1,958,547		0.0000	1.0000	100.00
12.5	584,608		0.0000	1.0000	100.00
13.5	561,521	0	0.0000	1.0000	100.00
14.5	89,130	1	0.0000	1.0000	100.00
15.5	89,853	0	0.0000	1.0000	100.00
16.5	96,875	2	0.0000	1.0000	100.00
17.5	96,872	2	0.0000	1.0000	100.00
18.5	101,901	8	0.0001	0.9999	99.99
19.5	113,249	14	0.0001	0.9999	99.99
20.5	107,023	86	0.0008	0.9992	99.98
21.5	107,899	648	0.0060	0.9940	99.89
22.5	94,327	969	0.0103	0.9897	99.29
23.5	90,739	438	0.0048	0.9952	98.27
24.5	65,158	0	0.0000	1.0000	97.80
25.5	25,836	5	0.0002	0.9998	97.80
26.5	24,477	12	0.0005	0.9995	97.78
27.5	28,508	607	0.0213	0.9787	97.74
28.5	27,379	2	0.0001	0.9999	95.65
29.5	20,362	4	0.0002	0.9998	95.65
30.5	20,358	1,077	0.0529	0.9471	95.63
31.5	15,290	421	0.0276	0.9724	90.57
32.5	3,613		0.0000	1.0000	88.08
33.5	3,775	0	0.0001	0.9999	88.08
34.5	3,775	5	0.0014	0.9986	88.07
35.5	3,769	0	0.0001	0.9999	87.94
36.5	3,769		0.0000	1.0000	87.93
37.5	3,769	2	0.0006	0.9994	87.93
38.5	3,767	3	0.0008	0.9992	87.88

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ACCOUNT 314.0 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2016			EXPERIENCE BAND 2004-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	4,021	0	0.0000	1.0000	87.81	
40.5	1,484	129	0.0869	0.9131	87.81	
41.5	2,108	1	0.0004	0.9996	80.18	
42.5	2,107		0.0000	1.0000	80.15	
43.5	2,554	0	0.0001	0.9999	80.15	
44.5	1,890	144	0.0760	0.9240	80.14	
45.5	1,746	0	0.0000	1.0000	74.05	
46.5	1,585	1	0.0005	0.9995	74.04	
47.5	1,584	1	0.0003	0.9997	74.01	
48.5	1,584	6	0.0039	0.9961	73.98	
49.5	1,577	0	0.0003	0.9997	73.69	
50.5	5,615	2	0.0004	0.9996	73.67	
51.5	5,868	4	0.0006	0.9994	73.64	
52.5	5,737	4,038	0.7038	0.2962	73.59	
53.5	1,699	1	0.0005	0.9995	21.80	
54.5	963	1	0.0006	0.9994	21.79	
55.5	1,105		0.0000	1.0000	21.77	
56.5	805		0.0000	1.0000	21.77	
57.5	734	0	0.0004	0.9996	21.77	
58.5	1,355	3	0.0022	0.9978	21.77	
59.5	1,352	622	0.4597	0.5403	21.72	
60.5	1,103	0	0.0002	0.9998	11.73	
61.5	1,206	376	0.3120	0.6880	11.73	
62.5	1,146	106	0.0924	0.9076	8.07	
63.5	1,040	0	0.0002	0.9998	7.33	
64.5	788	3	0.0038	0.9962	7.32	
65.5	26,102	1	0.0000	1.0000	7.30	
66.5	26,102	2,247	0.0861	0.9139	7.30	
67.5	23,650	1	0.0000	1.0000	6.67	
68.5	24,487	1	0.0000	1.0000	6.67	
69.5	24,487	6	0.0003	0.9997	6.67	
70.5	24,357		0.0000	1.0000	6.67	
71.5	24,357	51	0.0021	0.9979	6.67	
72.5	24,306	512	0.0211	0.9789	6.65	
73.5	23,793		0.0000	1.0000	6.51	
74.5	23,879	2	0.0001	0.9999	6.51	
75.5	24,187	201	0.0083	0.9917	6.51	
76.5	23,986	618	0.0257	0.9743	6.46	
77.5	23,625		0.0000	1.0000	6.29	
78.5	1,293	8	0.0065	0.9935	6.29	

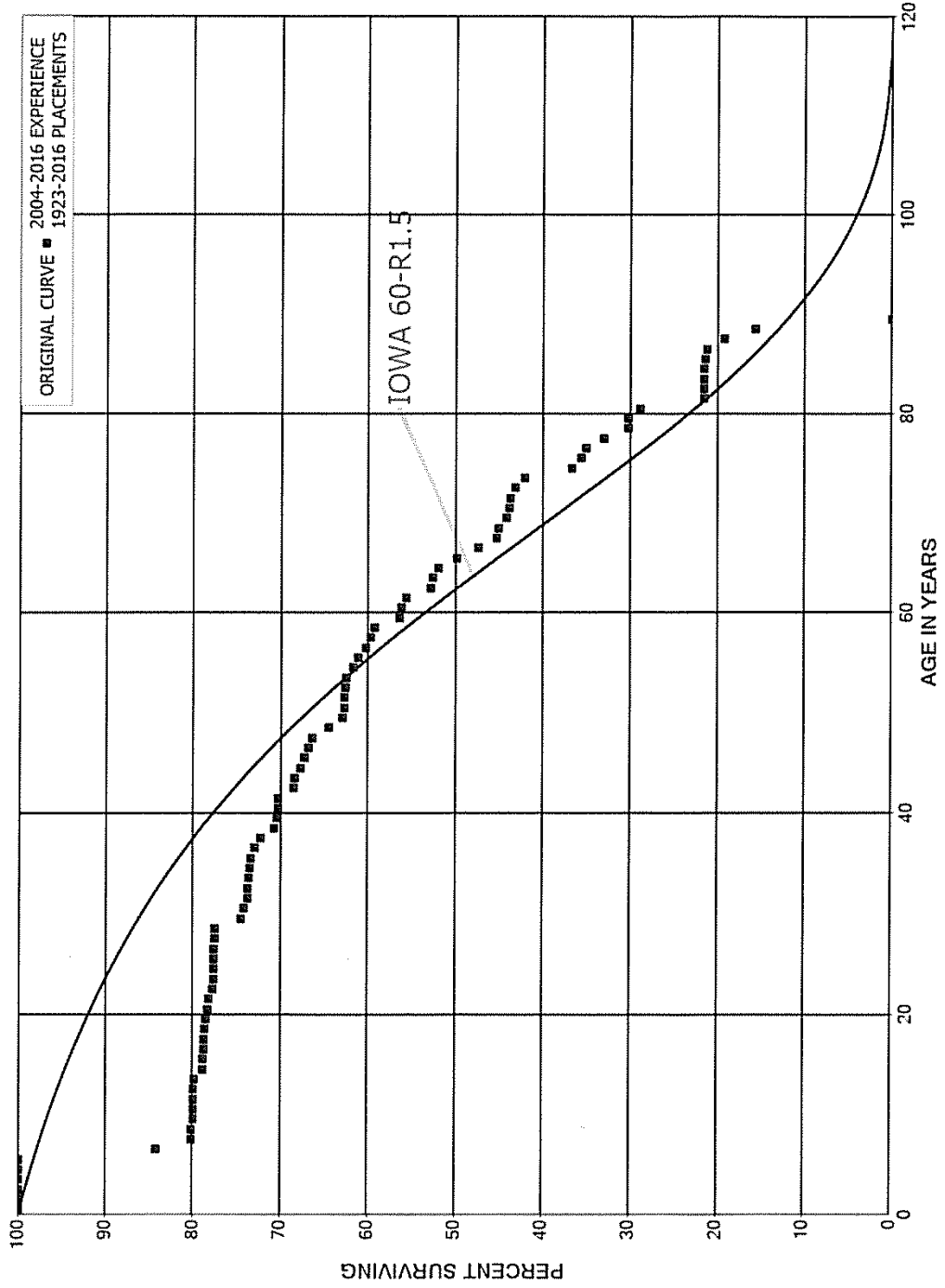
CITIZENS ENERGY GROUP
STEAM

ACCOUNT 314.0 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2016			EXPERIENCE BAND 2004-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	112,580		0.0000	1.0000	6.25
80.5	112,580	9,311	0.0827	0.9173	6.25
81.5	102,327	3	0.0000	1.0000	5.73
82.5	102,324		0.0000	1.0000	5.73
83.5	102,324	1	0.0000	1.0000	5.73
84.5	102,323	10	0.0001	0.9999	5.73
85.5	103,373	407	0.0039	0.9961	5.73
86.5	102,966	4,713	0.0458	0.9542	5.71
87.5	99,799	3	0.0000	1.0000	5.45
88.5	99,796	1,628	0.0163	0.9837	5.45
89.5	98,168	1,286	0.0131	0.9869	5.36
90.5	96,639		0.0000	1.0000	5.29
91.5	96,639		0.0000	1.0000	5.29
92.5					5.29

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ACCOUNT 315.0 ACCESSORY ELECTRIC EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 315.0 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1923-2016

EXPERIENCE BAND 2004-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,103,431		0.0000	1.0000	100.00
0.5	2,031,414		0.0000	1.0000	100.00
1.5	1,961,929		0.0000	1.0000	100.00
2.5	1,907,426		0.0000	1.0000	100.00
3.5	164,726		0.0000	1.0000	100.00
4.5	147,182		0.0000	1.0000	100.00
5.5	221,040	34,981	0.1583	0.8417	100.00
6.5	136,415	6,445	0.0472	0.9528	84.17
7.5	222,996		0.0000	1.0000	80.20
8.5	225,648	739	0.0033	0.9967	80.20
9.5	237,462		0.0000	1.0000	79.93
10.5	327,016	5	0.0000	1.0000	79.93
11.5	577,312	106	0.0002	0.9998	79.93
12.5	627,850	269	0.0004	0.9996	79.92
13.5	734,758	9,636	0.0131	0.9869	79.88
14.5	863,805	216	0.0002	0.9998	78.84
15.5	836,111	1,208	0.0014	0.9986	78.82
16.5	837,752	198	0.0002	0.9998	78.70
17.5	840,473	1,066	0.0013	0.9987	78.68
18.5	778,924	1,264	0.0016	0.9984	78.59
19.5	775,800	1,907	0.0025	0.9975	78.46
20.5	687,968	944	0.0014	0.9986	78.26
21.5	686,996	3,548	0.0052	0.9948	78.16
22.5	679,124	1,084	0.0016	0.9984	77.75
23.5	591,096	55	0.0001	0.9999	77.63
24.5	345,208	83	0.0002	0.9998	77.62
25.5	304,391	124	0.0004	0.9996	77.60
26.5	182,821	152	0.0008	0.9992	77.57
27.5	58,808	42	0.0007	0.9993	77.51
28.5	84,109	3,172	0.0377	0.9623	77.45
29.5	98,767	472	0.0048	0.9952	74.53
30.5	105,867	663	0.0063	0.9937	74.18
31.5	93,585	36	0.0004	0.9996	73.71
32.5	95,422	128	0.0013	0.9987	73.68
33.5	94,807	48	0.0005	0.9995	73.58
34.5	92,212	202	0.0022	0.9978	73.55
35.5	85,308	471	0.0055	0.9945	73.38
36.5	87,966	830	0.0094	0.9906	72.98
37.5	85,556	1,859	0.0217	0.9783	72.29
38.5	83,911	394	0.0047	0.9953	70.72

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ACCOUNT 315.0 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2016			EXPERIENCE BAND 2004-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	87,634	75	0.0009	0.9991	70.39	
40.5	92,907	129	0.0014	0.9986	70.33	
41.5	66,935	1,612	0.0241	0.9759	70.23	
42.5	46,412	109	0.0024	0.9976	68.54	
43.5	33,321	308	0.0092	0.9908	68.38	
44.5	33,218	203	0.0061	0.9939	67.74	
45.5	29,895	237	0.0079	0.9921	67.33	
46.5	26,419	172	0.0065	0.9935	66.80	
47.5	31,578	901	0.0285	0.9715	66.36	
48.5	30,287	703	0.0232	0.9768	64.47	
49.5	26,359	90	0.0034	0.9966	62.97	
50.5	33,367	32	0.0010	0.9990	62.75	
51.5	32,999	48	0.0015	0.9985	62.69	
52.5	29,170	70	0.0024	0.9976	62.60	
53.5	30,871	371	0.0120	0.9880	62.45	
54.5	29,519	235	0.0080	0.9920	61.70	
55.5	29,350	459	0.0157	0.9843	61.21	
56.5	36,990	312	0.0084	0.9916	60.25	
57.5	50,906	433	0.0085	0.9915	59.74	
58.5	50,473	2,452	0.0486	0.9514	59.24	
59.5	47,867	193	0.0040	0.9960	56.36	
60.5	46,909	438	0.0093	0.9907	56.13	
61.5	45,788	2,307	0.0504	0.9496	55.61	
62.5	43,386	168	0.0039	0.9961	52.80	
63.5	37,278	496	0.0133	0.9867	52.60	
64.5	36,916	1,493	0.0405	0.9595	51.90	
65.5	38,619	1,868	0.0484	0.9516	49.80	
66.5	25,640	1,131	0.0441	0.9559	47.39	
67.5	24,230	125	0.0052	0.9948	45.30	
68.5	24,759	473	0.0191	0.9809	45.07	
69.5	17,439	139	0.0080	0.9920	44.21	
70.5	6,360	11	0.0018	0.9982	43.85	
71.5	6,348	94	0.0147	0.9853	43.77	
72.5	6,255	153	0.0245	0.9755	43.13	
73.5	3,593	470	0.1309	0.8691	42.07	
74.5	3,123	93	0.0298	0.9702	36.56	
75.5	3,030	45	0.0147	0.9853	35.47	
76.5	3,077	175	0.0570	0.9430	34.95	
77.5	2,801	233	0.0831	0.9169	32.96	
78.5	1,010		0.0000	1.0000	30.22	

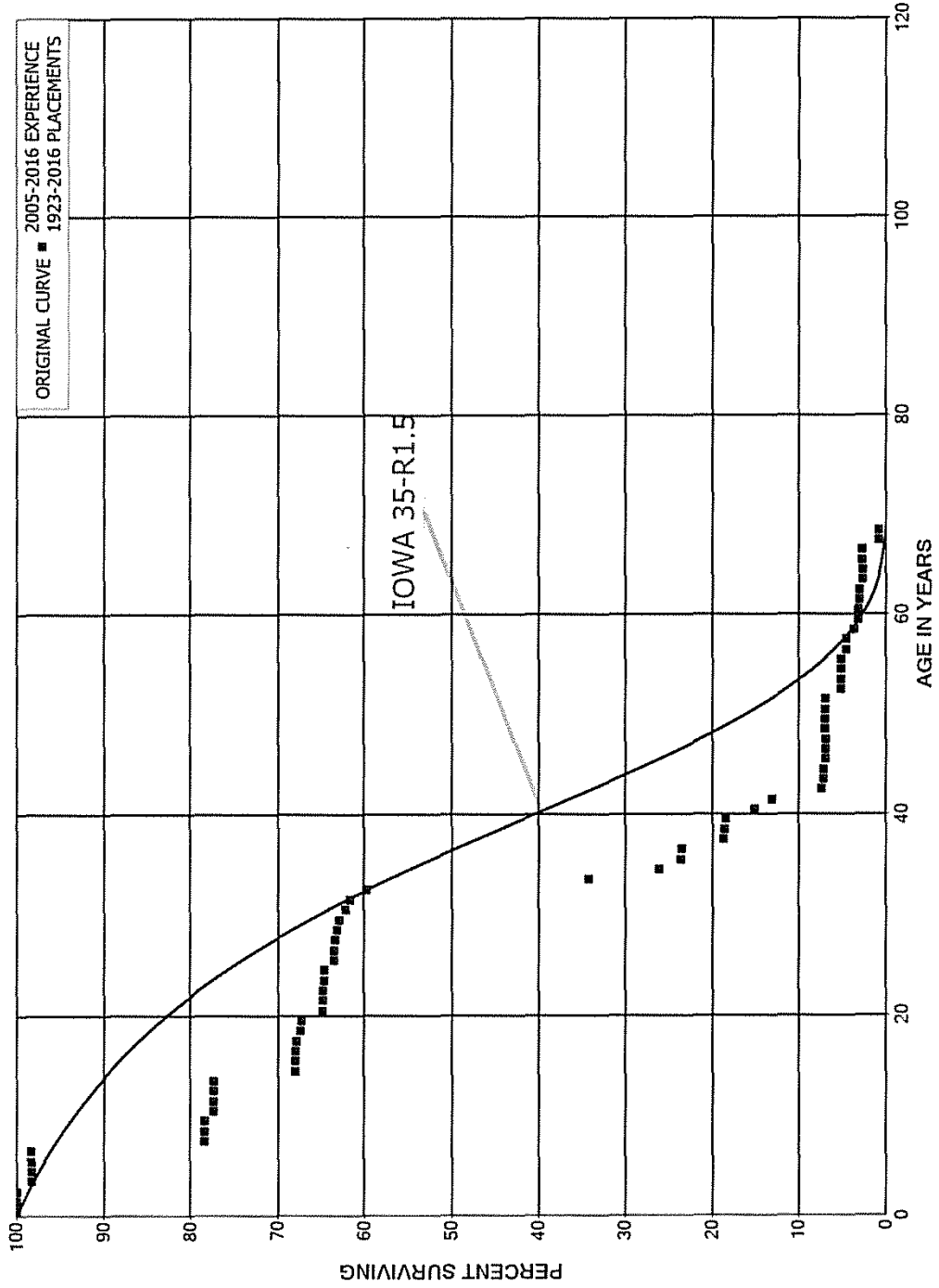
CITIZENS ENERGY GROUP
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ACCOUNT 315.0 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2016			EXPERIENCE BAND 2004-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,885	87	0.0462	0.9538	30.22	
80.5	3,588	917	0.2555	0.7445	28.83	
81.5	2,133		0.0000	1.0000	21.46	
82.5	2,133		0.0000	1.0000	21.46	
83.5	2,133		0.0000	1.0000	21.46	
84.5	2,133	5	0.0023	0.9977	21.46	
85.5	2,128	19	0.0091	0.9909	21.41	
86.5	2,109	205	0.0970	0.9030	21.22	
87.5	1,904	353	0.1852	0.8148	19.16	
88.5	1,552	1,552	1.0000		15.61	
89.5						

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ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1923-2016			EXPERIENCE BAND 2005-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	812,552		0.0000	1.0000	100.00
0.5	605,338		0.0000	1.0000	100.00
1.5	649,978		0.0000	1.0000	100.00
2.5	270,480	4,584	0.0169	0.9831	100.00
3.5	146,803		0.0000	1.0000	98.31
4.5	152,996		0.0000	1.0000	98.31
5.5	160,051		0.0000	1.0000	98.31
6.5	125,309	25,323	0.2021	0.7979	98.31
7.5	101,494		0.0000	1.0000	78.44
8.5	102,419		0.0000	1.0000	78.44
9.5	105,882	1,406	0.0133	0.9867	78.44
10.5	104,849	16	0.0001	0.9999	77.40
11.5	113,383	19	0.0002	0.9998	77.39
12.5	115,924	20	0.0002	0.9998	77.37
13.5	48,610	5,923	0.1219	0.8781	77.36
14.5	30,967	3	0.0001	0.9999	67.93
15.5	30,964	14	0.0004	0.9996	67.93
16.5	33,601	6	0.0002	0.9998	67.90
17.5	27,146	209	0.0077	0.9923	67.88
18.5	26,937	14	0.0005	0.9995	67.36
19.5	26,366	988	0.0375	0.9625	67.33
20.5	31,781	24	0.0008	0.9992	64.81
21.5	41,202	1	0.0000	1.0000	64.76
22.5	44,345	65	0.0015	0.9985	64.76
23.5	38,082	3	0.0001	0.9999	64.66
24.5	36,121	645	0.0179	0.9821	64.66
25.5	35,306	3	0.0001	0.9999	63.50
26.5	33,664	59	0.0017	0.9983	63.50
27.5	33,812	98	0.0029	0.9971	63.39
28.5	25,029	109	0.0044	0.9956	63.20
29.5	25,479	317	0.0124	0.9876	62.92
30.5	26,386	233	0.0088	0.9912	62.14
31.5	26,926	804	0.0298	0.9702	61.59
32.5	18,938	8,124	0.4290	0.5710	59.75
33.5	7,682	1,807	0.2353	0.7647	34.12
34.5	4,678	439	0.0938	0.9062	26.09
35.5	2,024	15	0.0075	0.9925	23.65
36.5	2,687	542	0.2017	0.7983	23.47
37.5	2,145	16	0.0073	0.9927	18.74
38.5	2,129	22	0.0104	0.9896	18.60

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ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2016

EXPERIENCE BAND 2005-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,337	430	0.1840	0.8160	18.41
40.5	2,185	278	0.1272	0.8728	15.02
41.5	2,040	893	0.4375	0.5625	13.11
42.5	153	4	0.0239	0.9761	7.37
43.5	149		0.0000	1.0000	7.20
44.5	149	5	0.0339	0.9661	7.20
45.5	144		0.0000	1.0000	6.95
46.5	144		0.0000	1.0000	6.95
47.5	144		0.0000	1.0000	6.95
48.5	573		0.0000	1.0000	6.95
49.5	683		0.0000	1.0000	6.95
50.5	683		0.0000	1.0000	6.95
51.5	912	229	0.2511	0.7489	6.95
52.5	757		0.0000	1.0000	5.21
53.5	757		0.0000	1.0000	5.21
54.5	1,874	31	0.0166	0.9834	5.21
55.5	2,030	194	0.0954	0.9046	5.12
56.5	2,032	41	0.0202	0.9798	4.63
57.5	2,504	521	0.2080	0.7920	4.54
58.5	2,220	242	0.1089	0.8911	3.59
59.5	1,978		0.0000	1.0000	3.20
60.5	1,549	92	0.0594	0.9406	3.20
61.5	1,361		0.0000	1.0000	3.01
62.5	1,361	122	0.0899	0.9101	3.01
63.5	1,239		0.0000	1.0000	2.74
64.5	1,176	20	0.0171	0.9829	2.74
65.5	1,156		0.0000	1.0000	2.70
66.5	1,025	692	0.6749	0.3251	2.70
67.5	333		0.0000	1.0000	0.88
68.5	174	9	0.0491	0.9509	0.88
69.5	166		0.0000	1.0000	0.83
70.5	166		0.0000	1.0000	0.83
71.5	166		0.0000	1.0000	0.83
72.5	110	14	0.1298	0.8702	0.83
73.5	96		0.0000	1.0000	0.72
74.5	96	17	0.1755	0.8245	0.72
75.5	79		0.0000	1.0000	0.60
76.5	79		0.0000	1.0000	0.60
77.5	79		0.0000	1.0000	0.60
78.5					0.60

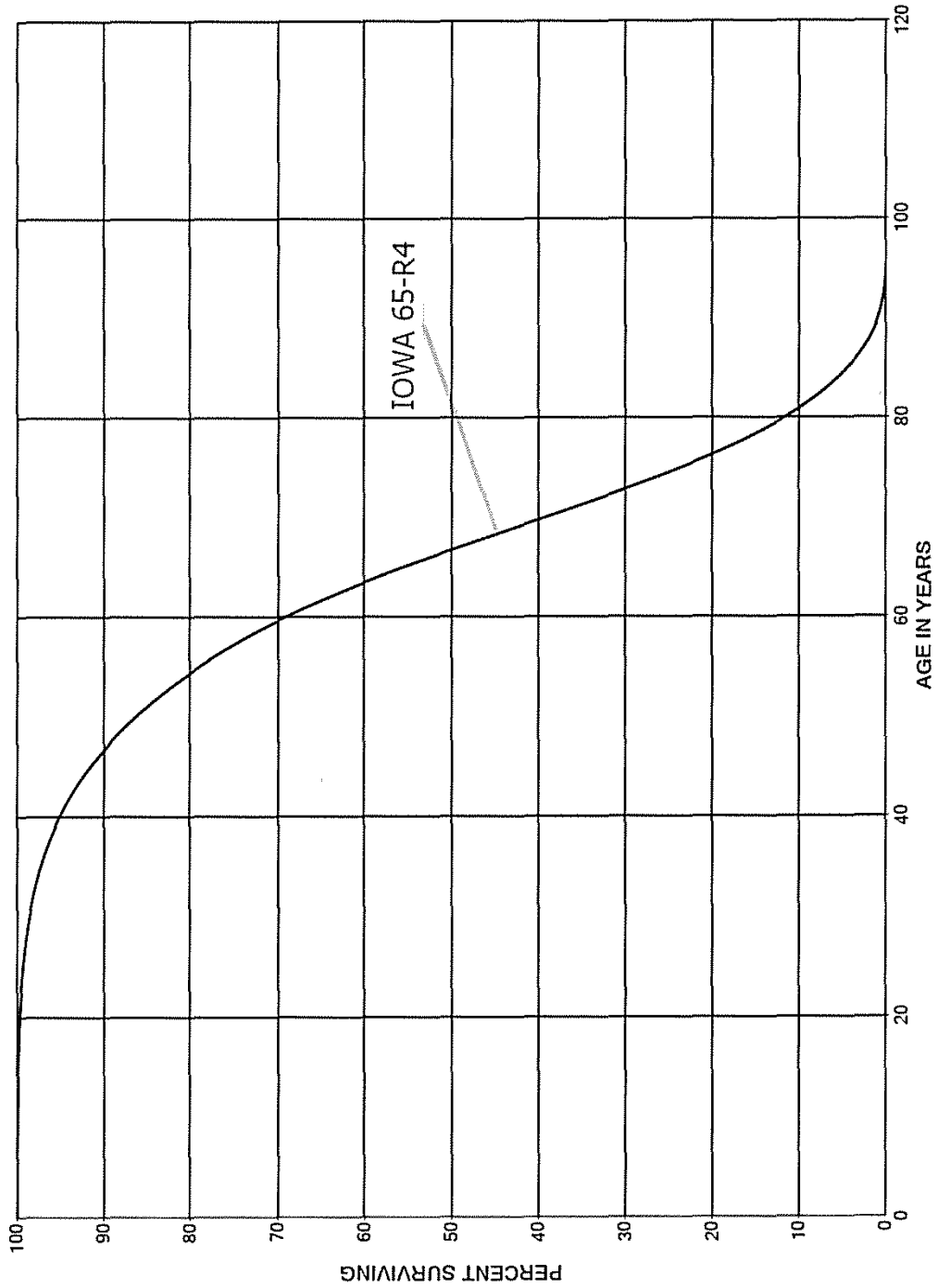
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ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT

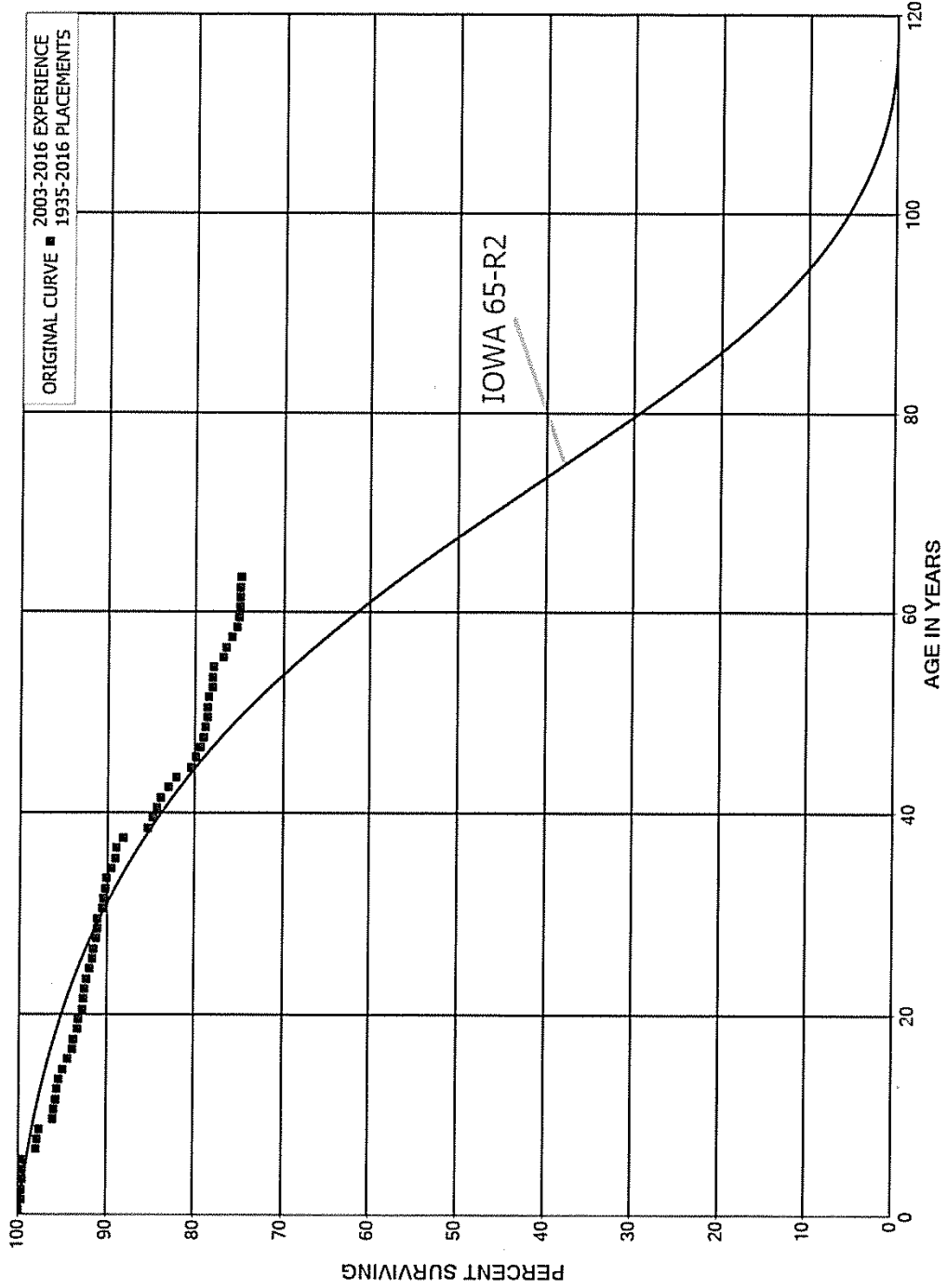
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2016			EXPERIENCE BAND 2005-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5	60	60	1.0000		
81.5	2,626		0.0000		
82.5	2,626		0.0000		
83.5	2,626		0.0000		
84.5	2,626		0.0000		
85.5	2,626		0.0000		
86.5	2,626		0.0000		
87.5	2,626	810	0.3086		
88.5	1,816		0.0000		
89.5	1,816	1,737	0.9567		
90.5	79		0.0000		
91.5	79		0.0000		
92.5	79		0.0000		
93.5					

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SMOOTH SURVIVOR CURVE



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ACCOUNT 366.0 MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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STEAM

ACCOUNT 366.0 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1935-2016

EXPERIENCE BAND 2003-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	15,397,452		0.0000	1.0000	100.00
0.5	13,037,292	47,042	0.0036	0.9964	100.00
1.5	12,322,910		0.0000	1.0000	99.64
2.5	11,284,451	9,386	0.0008	0.9992	99.64
3.5	9,951,561	2,003	0.0002	0.9998	99.56
4.5	8,657,741	9,946	0.0011	0.9989	99.54
5.5	7,080,501	105,075	0.0148	0.9852	99.42
6.5	6,542,310	4,464	0.0007	0.9993	97.95
7.5	5,973,479	15,490	0.0026	0.9974	97.88
8.5	5,730,834	91,516	0.0160	0.9840	97.63
9.5	4,234,373	4,540	0.0011	0.9989	96.07
10.5	5,452,372	13,251	0.0024	0.9976	95.96
11.5	4,478,856	6,448	0.0014	0.9986	95.73
12.5	4,597,163	8,322	0.0018	0.9982	95.59
13.5	4,693,496	23,318	0.0050	0.9950	95.42
14.5	4,674,943	27,504	0.0059	0.9941	94.95
15.5	4,841,931	27,193	0.0056	0.9944	94.39
16.5	4,882,832	8,297	0.0017	0.9983	93.86
17.5	5,023,198	19,876	0.0040	0.9960	93.70
18.5	5,029,965	10,159	0.0020	0.9980	93.33
19.5	5,024,838	23,427	0.0047	0.9953	93.14
20.5	4,935,449	5,586	0.0011	0.9989	92.70
21.5	4,853,456	4,732	0.0010	0.9990	92.60
22.5	4,652,406	10,472	0.0023	0.9977	92.51
23.5	4,348,749	18,792	0.0043	0.9957	92.30
24.5	2,699,384	8,129	0.0030	0.9970	91.90
25.5	2,480,847	2,242	0.0009	0.9991	91.63
26.5	2,187,354	8,425	0.0039	0.9961	91.54
27.5	2,025,706	1,602	0.0008	0.9992	91.19
28.5	1,888,774	1,685	0.0009	0.9991	91.12
29.5	1,676,583	9,254	0.0055	0.9945	91.04
30.5	1,616,458	1,842	0.0011	0.9989	90.53
31.5	1,560,280	3,716	0.0024	0.9976	90.43
32.5	1,439,782	1,738	0.0012	0.9988	90.22
33.5	1,245,616	8,723	0.0070	0.9930	90.11
34.5	1,072,484	4,822	0.0045	0.9955	89.48
35.5	957,458	1,958	0.0020	0.9980	89.07
36.5	840,212	6,454	0.0077	0.9923	88.89
37.5	669,621	21,330	0.0319	0.9681	88.21
38.5	594,529	4,164	0.0070	0.9930	85.40

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ACCOUNT 366.0 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1935-2016			EXPERIENCE BAND 2003-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	650,536	3,018	0.0046	0.9954	84.80	
40.5	615,808	3,531	0.0057	0.9943	84.41	
41.5	551,669	5,884	0.0107	0.9893	83.92	
42.5	460,001	4,961	0.0108	0.9892	83.03	
43.5	432,277	8,546	0.0198	0.9802	82.13	
44.5	292,395	2,047	0.0070	0.9930	80.51	
45.5	197,847	1,277	0.0065	0.9935	79.94	
46.5	172,776	850	0.0049	0.9951	79.43	
47.5	173,896	519	0.0030	0.9970	79.04	
48.5	189,449	458	0.0024	0.9976	78.80	
49.5	191,469	74	0.0004	0.9996	78.61	
50.5	191,127	282	0.0015	0.9985	78.58	
51.5	194,138	926	0.0048	0.9952	78.47	
52.5	194,300	83	0.0004	0.9996	78.09	
53.5	80,308	126	0.0016	0.9984	78.06	
54.5	66,299	931	0.0140	0.9860	77.94	
55.5	59,053	278	0.0047	0.9953	76.84	
56.5	59,566	521	0.0088	0.9912	76.48	
57.5	56,460	402	0.0071	0.9929	75.81	
58.5	52,324	155	0.0030	0.9970	75.27	
59.5	51,169	30	0.0006	0.9994	75.05	
60.5	49,289	34	0.0007	0.9993	75.00	
61.5	46,264	11	0.0002	0.9998	74.95	
62.5	25,778	45	0.0017	0.9983	74.94	
63.5	17,722	25	0.0014	0.9986	74.81	
64.5	17,242	29	0.0017	0.9983	74.70	
65.5	12,777	75	0.0059	0.9941	74.57	
66.5	10,951	0	0.0000	1.0000	74.14	
67.5	24,738	74	0.0030	0.9970	74.14	
68.5	24,208		0.0000	1.0000	73.91	
69.5	18,308	654	0.0357	0.9643	73.91	
70.5	16,275	602	0.0370	0.9630	71.28	
71.5	15,605	192	0.0123	0.9877	68.64	
72.5	15,414	20	0.0013	0.9987	67.79	
73.5	15,393	5	0.0003	0.9997	67.70	
74.5	15,388	143	0.0093	0.9907	67.68	
75.5	15,245	34	0.0022	0.9978	67.05	
76.5	15,211	71	0.0047	0.9953	66.90	
77.5	15,140	561	0.0371	0.9629	66.59	
78.5	14,579		0.0000	1.0000	64.12	

CITIZENS ENERGY GROUP
STEAM

ACCOUNT 366.0 MAINS

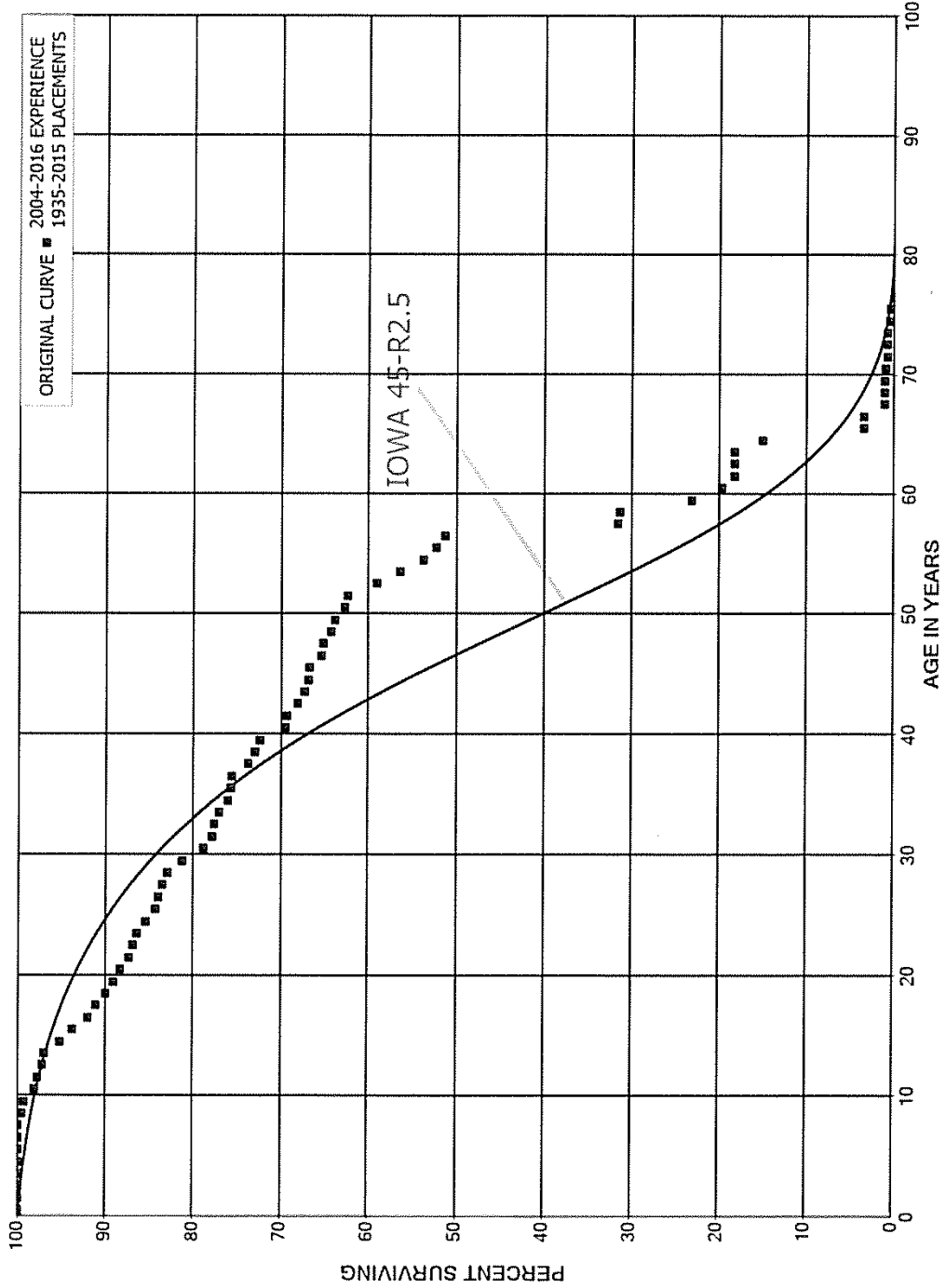
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1935-2016

EXPERIENCE BAND 2003-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,444		0.0000	1.0000	64.12
80.5	12,444		0.0000	1.0000	64.12
81.5					64.12

CITIZENS ENERGY GROUP
STEAM
ACCOUNT 369.0 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
STEAM

ACCOUNT 369.0 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1935-2015			EXPERIENCE BAND 2004-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,029,867		0.0000	1.0000	100.00
0.5	3,098,218		0.0000	1.0000	100.00
1.5	2,166,586		0.0000	1.0000	100.00
2.5	2,166,586		0.0000	1.0000	100.00
3.5	2,088,062		0.0000	1.0000	100.00
4.5	1,741,110		0.0000	1.0000	100.00
5.5	1,771,914		0.0000	1.0000	100.00
6.5	1,791,941	910	0.0005	0.9995	100.00
7.5	1,772,282	8,376	0.0047	0.9953	99.95
8.5	1,545,621	3,579	0.0023	0.9977	99.48
9.5	1,034,761	12,282	0.0119	0.9881	99.25
10.5	785,097	2,323	0.0030	0.9970	98.07
11.5	800,136	4,899	0.0061	0.9939	97.78
12.5	582,530	1,697	0.0029	0.9971	97.18
13.5	546,720	9,491	0.0174	0.9826	96.90
14.5	350,526	5,334	0.0152	0.9848	95.21
15.5	364,828	7,274	0.0199	0.9801	93.77
16.5	273,917	2,418	0.0088	0.9912	91.90
17.5	268,621	3,215	0.0120	0.9880	91.09
18.5	257,469	2,573	0.0100	0.9900	89.99
19.5	259,978	2,345	0.0090	0.9910	89.10
20.5	264,264	2,872	0.0109	0.9891	88.29
21.5	273,504	1,403	0.0051	0.9949	87.33
22.5	245,642	1,437	0.0058	0.9942	86.88
23.5	248,685	2,858	0.0115	0.9885	86.38
24.5	233,244	3,143	0.0135	0.9865	85.38
25.5	207,113	590	0.0029	0.9971	84.23
26.5	185,864	971	0.0052	0.9948	83.99
27.5	167,005	1,157	0.0069	0.9931	83.55
28.5	155,297	3,152	0.0203	0.9797	82.98
29.5	135,006	4,156	0.0308	0.9692	81.29
30.5	112,751	1,416	0.0126	0.9874	78.79
31.5	100,815	178	0.0018	0.9982	77.80
32.5	101,870	750	0.0074	0.9926	77.66
33.5	86,708	1,104	0.0127	0.9873	77.09
34.5	53,812	241	0.0045	0.9955	76.11
35.5	48,425	95	0.0020	0.9980	75.77
36.5	47,179	1,150	0.0244	0.9756	75.62
37.5	43,338	488	0.0113	0.9887	73.78
38.5	41,015	287	0.0070	0.9930	72.94

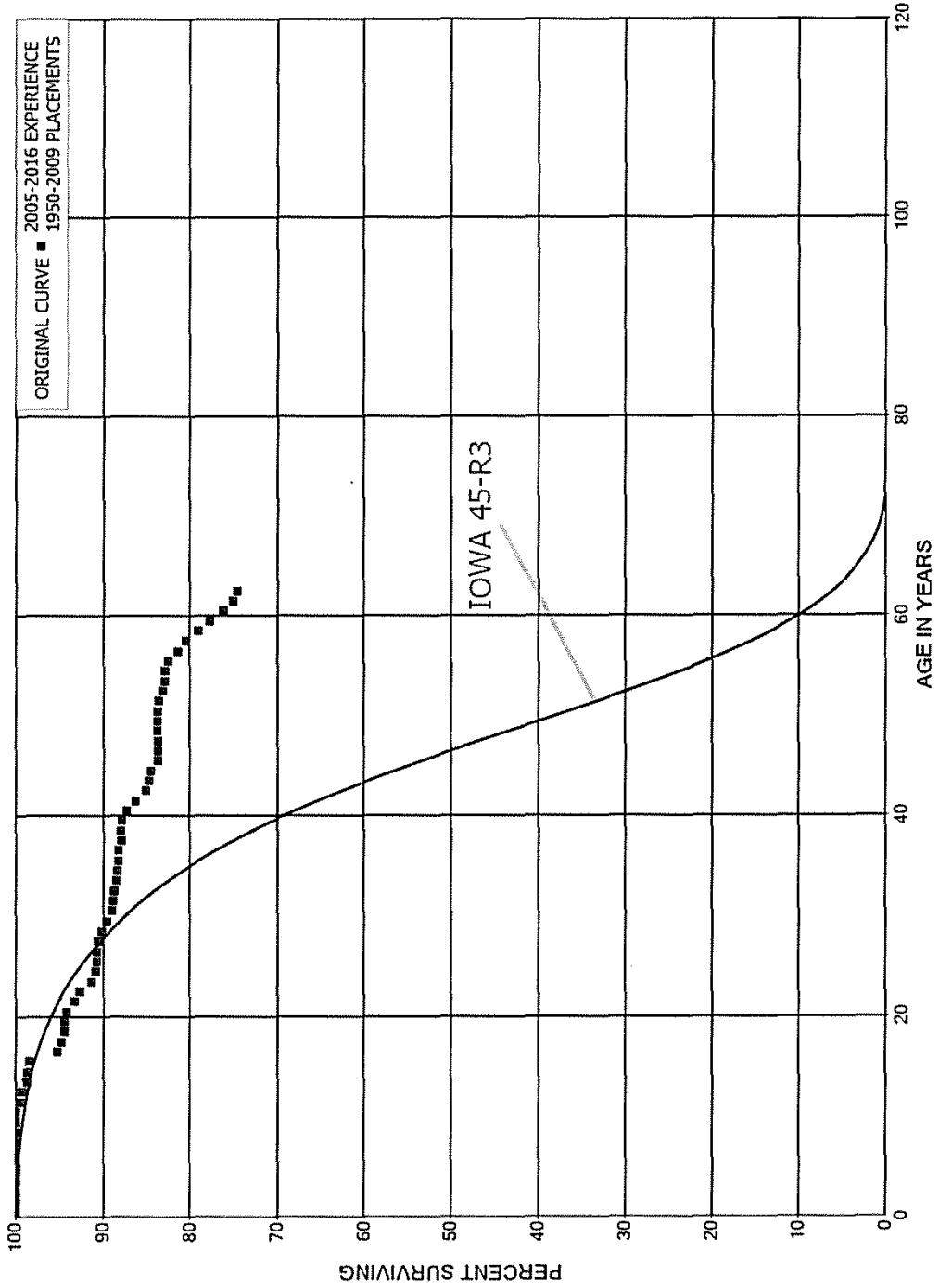
CITIZENS ENERGY GROUP
STEAM

ACCOUNT 369.0 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1935-2015			EXPERIENCE BAND 2004-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	35,176	1,427	0.0406	0.9594	72.43	
40.5	32,465	98	0.0030	0.9970	69.50	
41.5	31,669	548	0.0173	0.9827	69.29	
42.5	27,597	327	0.0119	0.9881	68.09	
43.5	27,028	161	0.0059	0.9941	67.28	
44.5	25,911	43	0.0016	0.9984	66.88	
45.5	8,822	183	0.0207	0.9793	66.77	
46.5	7,659	27	0.0036	0.9964	65.39	
47.5	7,017	90	0.0128	0.9872	65.15	
48.5	5,587	38	0.0068	0.9932	64.32	
49.5	4,757	83	0.0175	0.9825	63.88	
50.5	4,426	29	0.0066	0.9934	62.76	
51.5	3,240	170	0.0524	0.9476	62.35	
52.5	3,062	139	0.0453	0.9547	59.08	
53.5	2,398	115	0.0480	0.9520	56.40	
54.5	2,055	53	0.0259	0.9741	53.69	
55.5	1,936	39	0.0202	0.9798	52.30	
56.5	1,794	693	0.3859	0.6141	51.24	
57.5	1,345	8	0.0063	0.9937	31.47	
58.5	1,337	349	0.2614	0.7386	31.27	
59.5	988	147	0.1493	0.8507	23.10	
60.5	840	63	0.0751	0.9249	19.65	
61.5	978		0.0000	1.0000	18.17	
62.5	978		0.0000	1.0000	18.17	
63.5	1,205	210	0.1745	0.8255	18.17	
64.5	995	768	0.7718	0.2282	15.00	
65.5	1,566		0.0000	1.0000	3.42	
66.5	1,942	1,339	0.6896	0.3104	3.42	
67.5	603		0.0000	1.0000	1.06	
68.5	1,266		0.0000	1.0000	1.06	
69.5	1,266	124	0.0976	0.9024	1.06	
70.5	1,142	224	0.1962	0.8038	0.96	
71.5	918		0.0000	1.0000	0.77	
72.5	918	5	0.0057	0.9943	0.77	
73.5	913	371	0.4060	0.5940	0.77	
74.5	542	8	0.0151	0.9849	0.46	
75.5	534	534	1.0000		0.45	
76.5						

CITIZENS ENERGY GROUP
STEAM
ACCOUNT 370.0 METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
STEAM

ACCOUNT 370.0 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1950-2009

EXPERIENCE BAND 2005-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	74,067		0.0000	1.0000	100.00
0.5	196,185		0.0000	1.0000	100.00
1.5	196,185		0.0000	1.0000	100.00
2.5	196,185		0.0000	1.0000	100.00
3.5	201,986		0.0000	1.0000	100.00
4.5	226,003		0.0000	1.0000	100.00
5.5	226,003		0.0000	1.0000	100.00
6.5	227,800		0.0000	1.0000	100.00
7.5	222,271	138	0.0006	0.9994	100.00
8.5	222,133		0.0000	1.0000	99.94
9.5	222,133		0.0000	1.0000	99.94
10.5	210,083	1,103	0.0052	0.9948	99.94
11.5	181,547	312	0.0017	0.9983	99.41
12.5	71,568	408	0.0057	0.9943	99.24
13.5	77,728	72	0.0009	0.9991	98.68
14.5	89,582	180	0.0020	0.9980	98.59
15.5	242,037	7,798	0.0322	0.9678	98.39
16.5	222,945	1,091	0.0049	0.9951	95.22
17.5	228,144	737	0.0032	0.9968	94.75
18.5	234,323	99	0.0004	0.9996	94.45
19.5	222,756	625	0.0028	0.9972	94.41
20.5	244,108	2,159	0.0088	0.9912	94.14
21.5	261,182	1,924	0.0074	0.9926	93.31
22.5	292,017	4,161	0.0142	0.9858	92.62
23.5	292,224	1,551	0.0053	0.9947	91.30
24.5	280,401	149	0.0005	0.9995	90.82
25.5	275,089	229	0.0008	0.9992	90.77
26.5	266,070	351	0.0013	0.9987	90.69
27.5	118,330	535	0.0045	0.9955	90.57
28.5	106,579	628	0.0059	0.9941	90.17
29.5	101,328	743	0.0073	0.9927	89.63
30.5	92,098	185	0.0020	0.9980	88.98
31.5	81,214	50	0.0006	0.9994	88.80
32.5	62,206	161	0.0026	0.9974	88.74
33.5	45,373	80	0.0018	0.9982	88.51
34.5	16,449	7	0.0004	0.9996	88.36
35.5	9,749	9	0.0009	0.9991	88.32
36.5	8,210	25	0.0030	0.9970	88.24
37.5	7,573	1	0.0002	0.9998	87.97
38.5	4,765	8	0.0017	0.9983	87.95

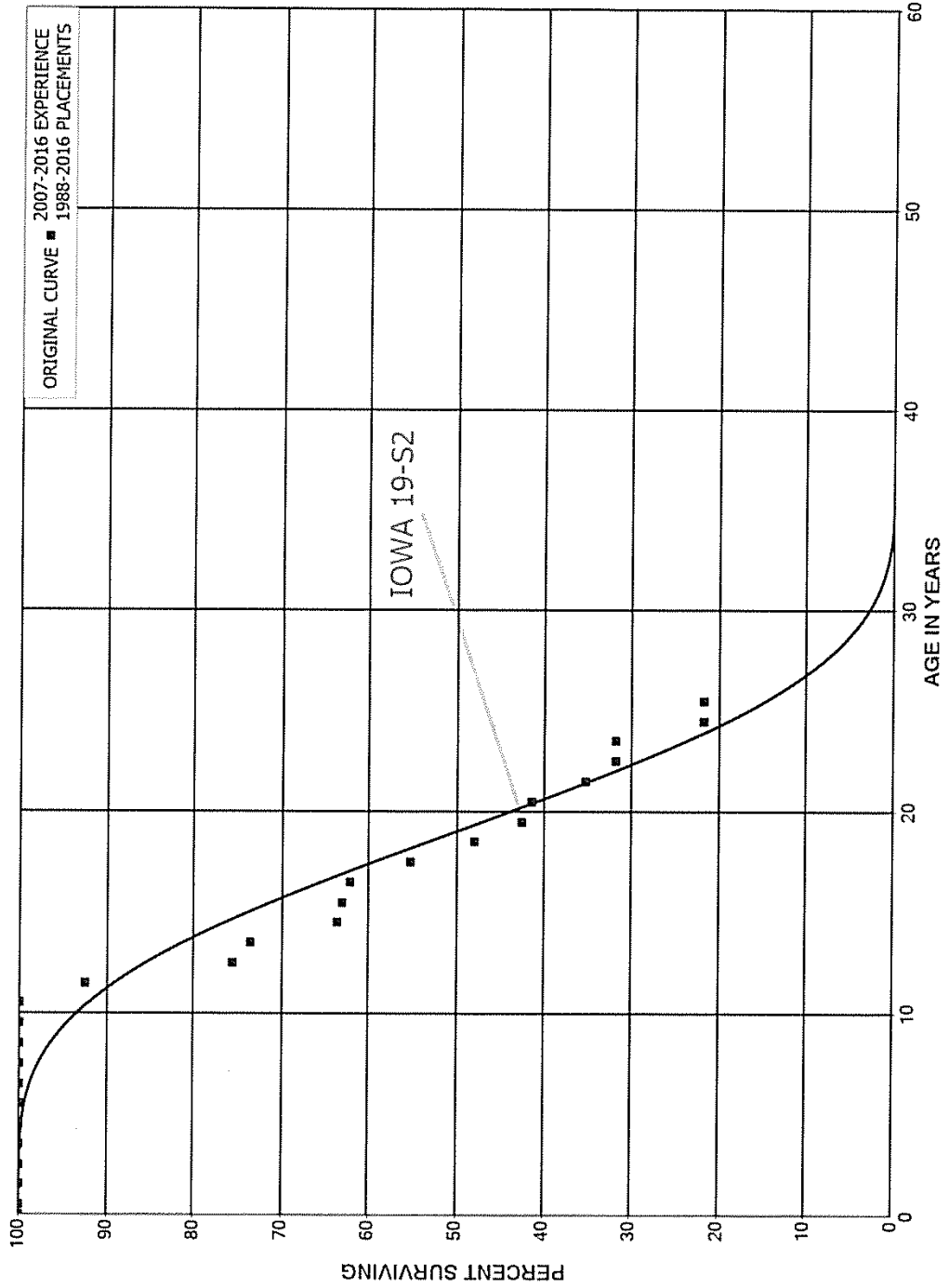
CITIZENS ENERGY GROUP
STEAM

ACCOUNT 370.0 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1950-2009			EXPERIENCE BAND 2005-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	4,526	26	0.0058	0.9942	87.80	
40.5	4,500	53	0.0119	0.9881	87.29	
41.5	3,660	49	0.0133	0.9867	86.25	
42.5	3,612	18	0.0050	0.9950	85.11	
43.5	3,488	9	0.0027	0.9973	84.69	
44.5	3,266	27	0.0082	0.9918	84.46	
45.5	2,351		0.0000	1.0000	83.76	
46.5	1,289		0.0000	1.0000	83.76	
47.5	926		0.0000	1.0000	83.76	
48.5	1,413		0.0000	1.0000	83.76	
49.5	1,100		0.0000	1.0000	83.76	
50.5	1,610	3	0.0016	0.9984	83.76	
51.5	2,004	10	0.0049	0.9951	83.63	
52.5	2,543	7	0.0028	0.9972	83.22	
53.5	2,859	2	0.0005	0.9995	82.98	
54.5	2,937	15	0.0051	0.9949	82.94	
55.5	2,922	38	0.0132	0.9868	82.52	
56.5	2,759	31	0.0113	0.9887	81.43	
57.5	2,616	46	0.0176	0.9824	80.51	
58.5	2,569	43	0.0167	0.9833	79.10	
59.5	2,460	51	0.0208	0.9792	77.77	
60.5	1,964	29	0.0150	0.9850	76.16	
61.5	1,677	9	0.0055	0.9945	75.02	
62.5	1,206		0.0000	1.0000	74.61	
63.5	848		0.0000	1.0000	74.61	
64.5	356		0.0000	1.0000	74.61	
65.5	67		0.0000	1.0000	74.61	
66.5					74.61	

CITIZENS ENERGY GROUP
STEAM
ACCOUNT 392.0 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



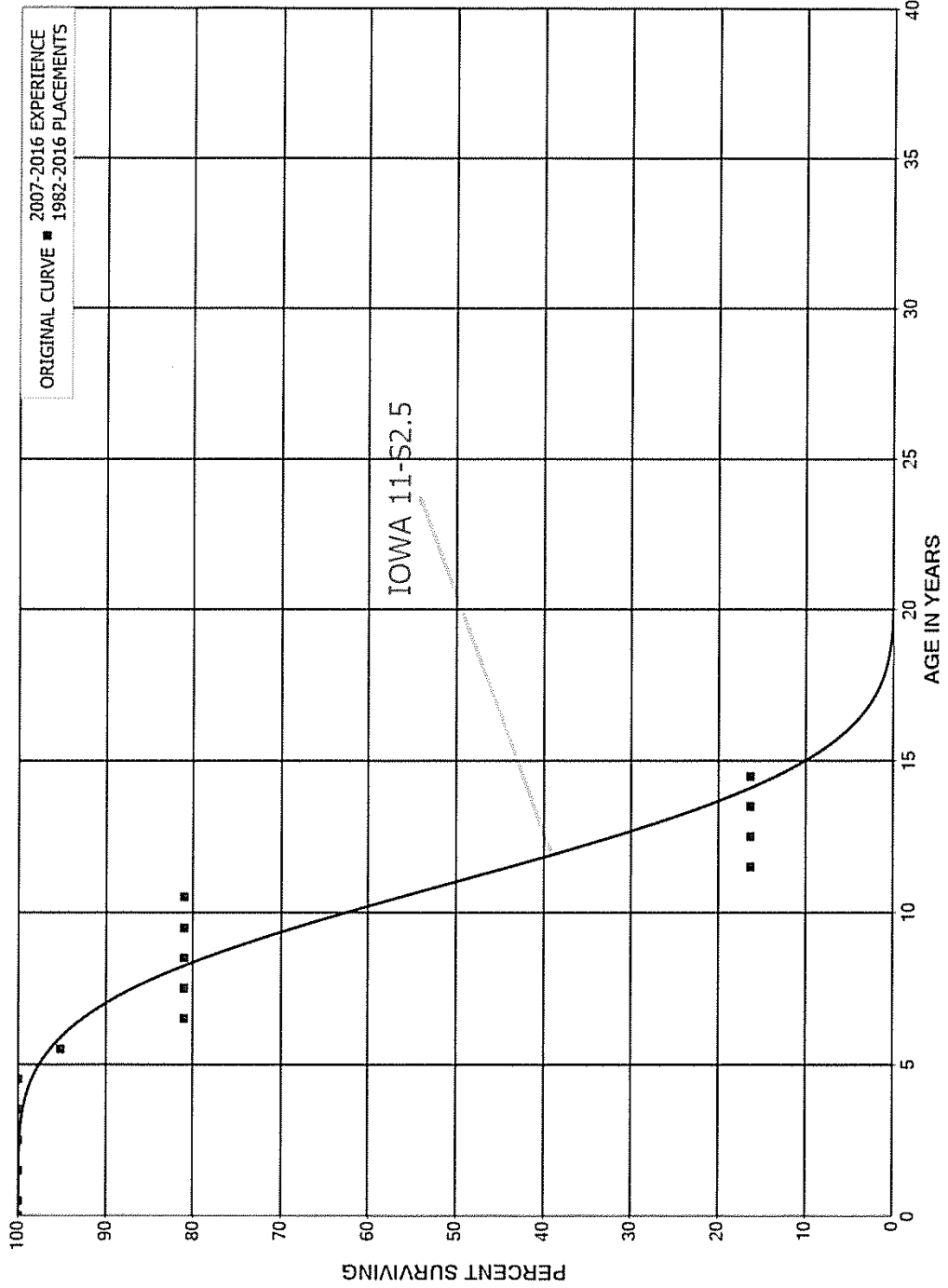
CITIZENS ENERGY GROUP
STEAM

ACCOUNT 392.0 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2016			EXPERIENCE BAND 2007-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	569,501		0.0000	1.0000	100.00
0.5	548,950		0.0000	1.0000	100.00
1.5	512,835		0.0000	1.0000	100.00
2.5	538,771		0.0000	1.0000	100.00
3.5	736,647		0.0000	1.0000	100.00
4.5	749,767		0.0000	1.0000	100.00
5.5	710,972		0.0000	1.0000	100.00
6.5	710,972		0.0000	1.0000	100.00
7.5	663,682		0.0000	1.0000	100.00
8.5	589,878		0.0000	1.0000	100.00
9.5	483,468		0.0000	1.0000	100.00
10.5	483,468	36,201	0.0749	0.9251	100.00
11.5	366,164	67,033	0.1831	0.8169	92.51
12.5	242,654	6,278	0.0259	0.9741	75.58
13.5	43,123	5,877	0.1363	0.8637	73.62
14.5	33,351	266	0.0080	0.9920	63.59
15.5	49,597	686	0.0138	0.9862	63.08
16.5	53,175	5,912	0.1112	0.8888	62.21
17.5	41,045	5,494	0.1339	0.8661	55.29
18.5	29,915	3,330	0.1113	0.8887	47.89
19.5	26,585	756	0.0284	0.9716	42.56
20.5	25,829	3,861	0.1495	0.8505	41.35
21.5	20,166	2,003	0.0993	0.9007	35.17
22.5	11,577		0.0000	1.0000	31.67
23.5	8,791	2,769	0.3150	0.6850	31.67
24.5	6,022		0.0000	1.0000	21.70
25.5					21.70

CITIZENS ENERGY GROUP
STEAM
ACCOUNT 396.0 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
STEAM

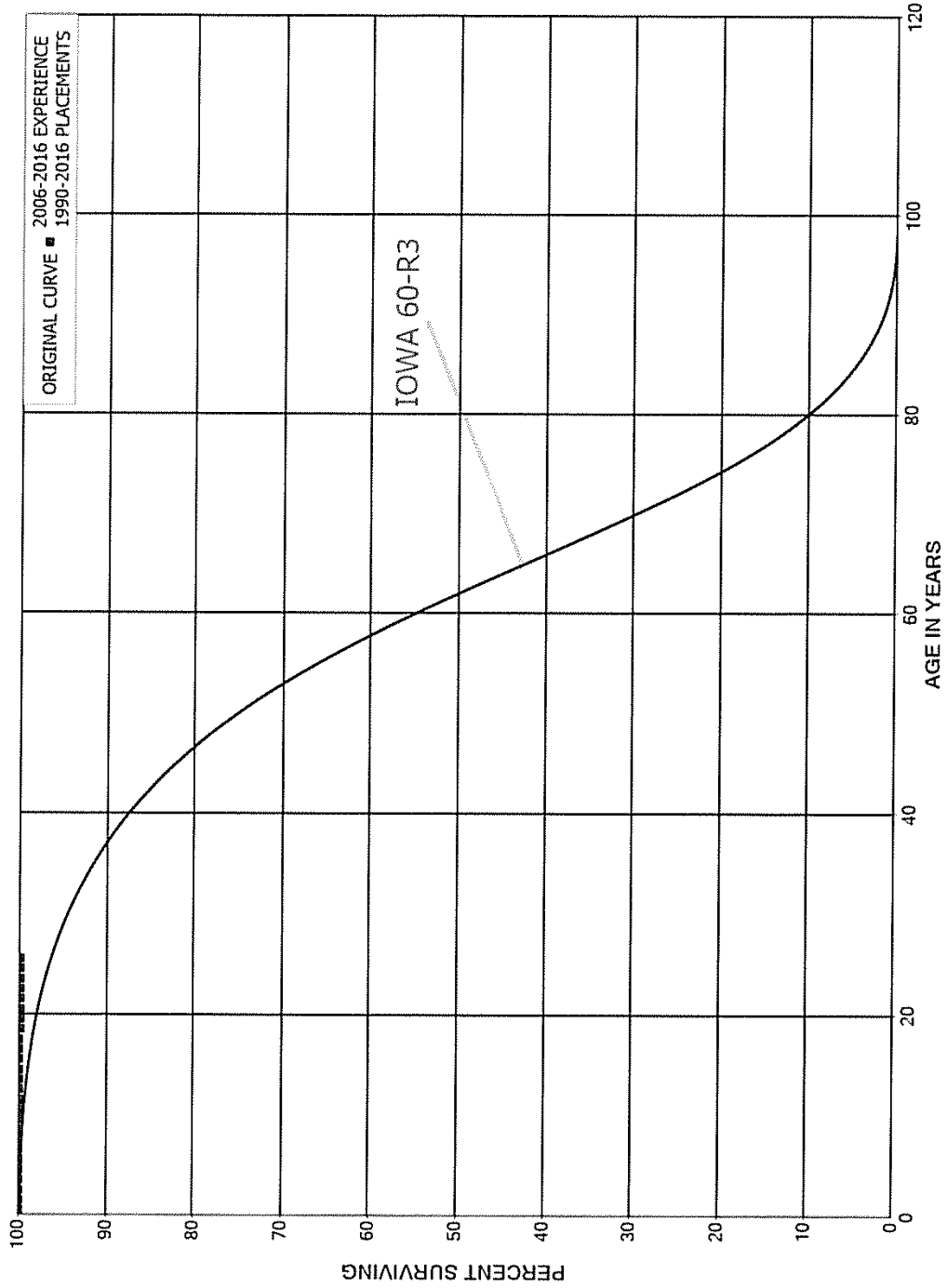
ACCOUNT 396.0 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-2016			EXPERIENCE BAND 2007-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	381,687		0.0000	1.0000	100.00
0.5	255,509		0.0000	1.0000	100.00
1.5	326,009		0.0000	1.0000	100.00
2.5	326,009		0.0000	1.0000	100.00
3.5	485,094		0.0000	1.0000	100.00
4.5	542,761	26,336	0.0485	0.9515	100.00
5.5	498,551	73,526	0.1475	0.8525	95.15
6.5	373,707		0.0000	1.0000	81.12
7.5	356,182		0.0000	1.0000	81.12
8.5	309,667		0.0000	1.0000	81.12
9.5	287,252		0.0000	1.0000	81.12
10.5	287,252	229,585	0.7992	0.2008	81.12
11.5	57,667		0.0000	1.0000	16.28
12.5	57,667		0.0000	1.0000	16.28
13.5	57,667		0.0000	1.0000	16.28
14.5					16.28
15.5					
16.5	1,946		0.0000		
17.5	1,946		0.0000		
18.5	12,335		0.0000		
19.5	12,335	411	0.0333		
20.5	12,037		0.0000		
21.5	12,037	2,753	0.2287		
22.5	9,284		0.0000		
23.5	14,281	37	0.0026		
24.5	21,468		0.0000		
25.5	21,468		0.0000		
26.5	19,933	2,199	0.1103		
27.5	17,734	3,553	0.2004		
28.5	6,544		0.0000		
29.5	6,544		0.0000		
30.5	6,468		0.0000		
31.5	6,468		0.0000		
32.5	6,468		0.0000		
33.5	3,670		0.0000		
34.5					

THERMAL - CHILLED WATER AND ICE

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 311.0 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



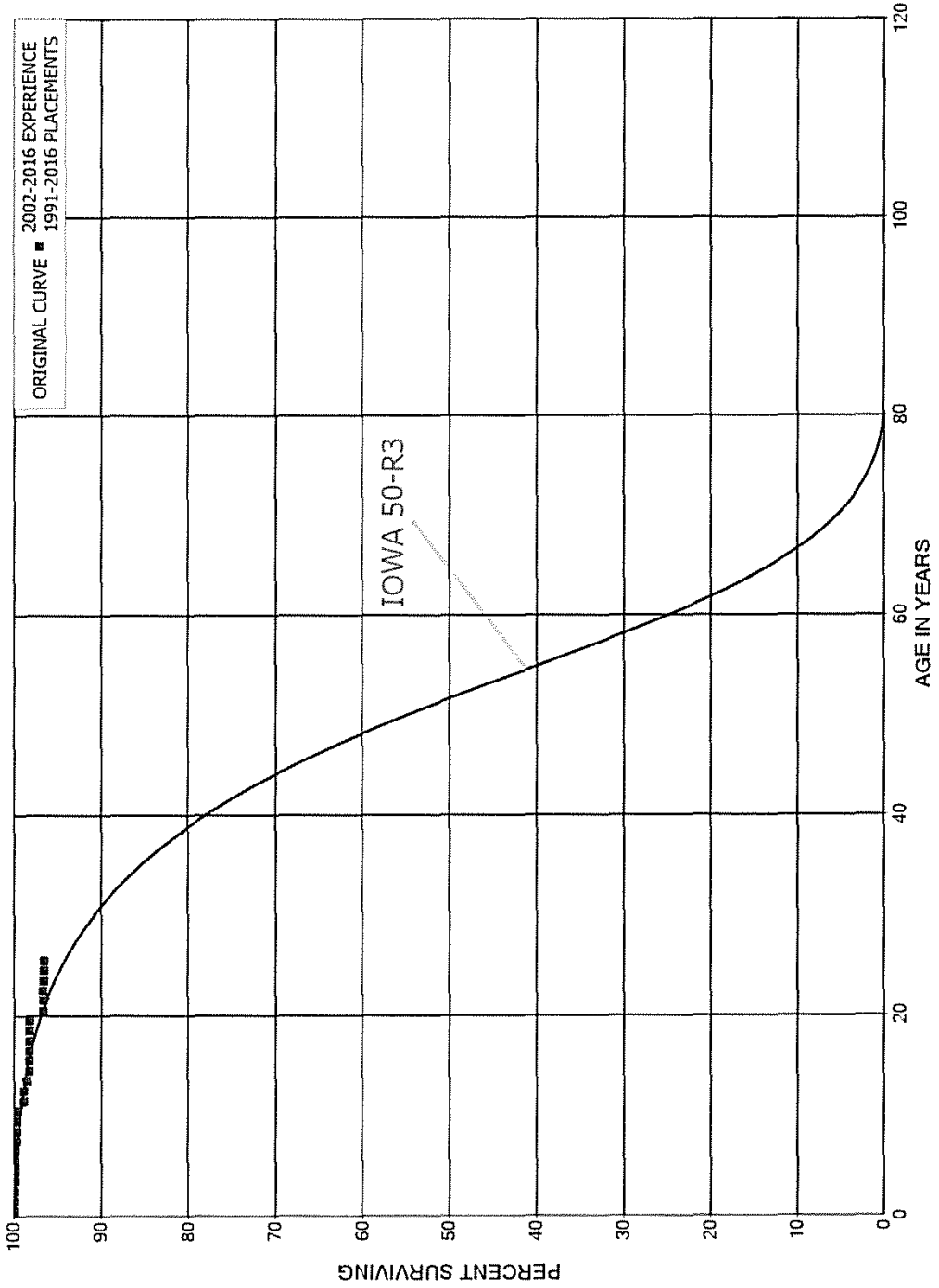
CITIZENS ENERGY GROUP
CHILLED WATER

ACCOUNT 311.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1990-2016			EXPERIENCE BAND 2006-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	12,991,461		0.0000	1.0000	100.00
0.5	12,692,084		0.0000	1.0000	100.00
1.5	12,605,510		0.0000	1.0000	100.00
2.5	12,519,511		0.0000	1.0000	100.00
3.5	12,497,204		0.0000	1.0000	100.00
4.5	7,851,901		0.0000	1.0000	100.00
5.5	7,832,923		0.0000	1.0000	100.00
6.5	7,832,923		0.0000	1.0000	100.00
7.5	7,823,993		0.0000	1.0000	100.00
8.5	354,257		0.0000	1.0000	100.00
9.5	1,158,279		0.0000	1.0000	100.00
10.5	1,279,674		0.0000	1.0000	100.00
11.5	1,258,717		0.0000	1.0000	100.00
12.5	1,217,592		0.0000	1.0000	100.00
13.5	1,209,472		0.0000	1.0000	100.00
14.5	1,747,261		0.0000	1.0000	100.00
15.5	1,743,515		0.0000	1.0000	100.00
16.5	1,743,515		0.0000	1.0000	100.00
17.5	901,092	1,092	0.0012	0.9988	100.00
18.5	900,000		0.0000	1.0000	99.88
19.5	900,000		0.0000	1.0000	99.88
20.5	900,000		0.0000	1.0000	99.88
21.5	537,788		0.0000	1.0000	99.88
22.5	537,788		0.0000	1.0000	99.88
23.5	537,788		0.0000	1.0000	99.88
24.5	537,788		0.0000	1.0000	99.88
25.5					99.88

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 312.0 BOILER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



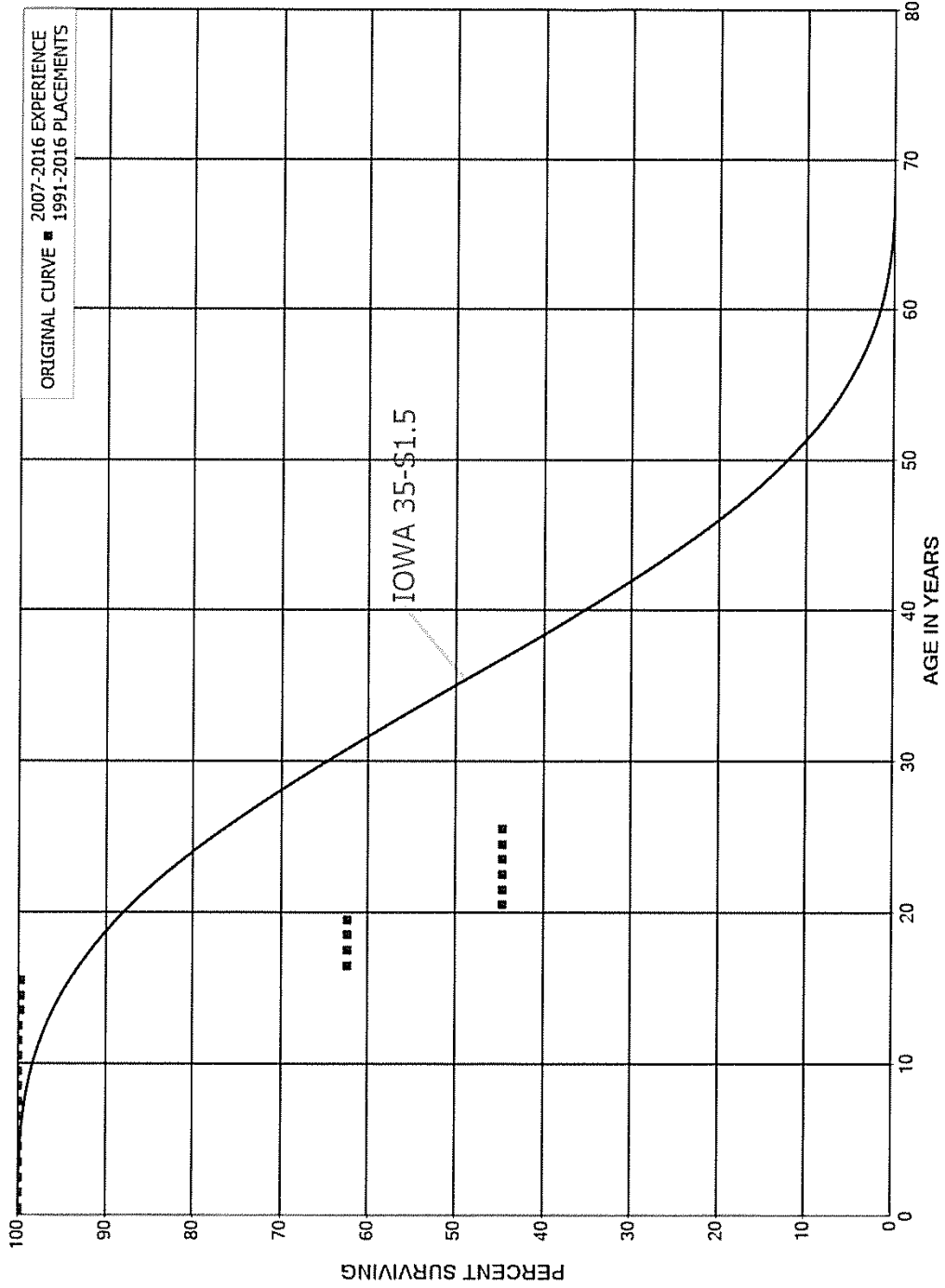
CITIZENS ENERGY GROUP
CHILLED WATER

ACCOUNT 312.0 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2016		EXPERIENCE BAND 2002-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	31,069,459		0.0000	1.0000	100.00
0.5	30,675,027		0.0000	1.0000	100.00
1.5	29,689,321	27,630	0.0009	0.9991	100.00
2.5	28,752,039	10,000	0.0003	0.9997	99.91
3.5	28,575,362		0.0000	1.0000	99.87
4.5	18,486,251	15,727	0.0009	0.9991	99.87
5.5	20,136,002	3,296	0.0002	0.9998	99.79
6.5	20,907,834	41,600	0.0020	0.9980	99.77
7.5	20,657,626		0.0000	1.0000	99.57
8.5	11,155,946		0.0000	1.0000	99.57
9.5	9,911,236		0.0000	1.0000	99.57
10.5	7,958,792	57,497	0.0072	0.9928	99.57
11.5	6,767,265		0.0000	1.0000	98.85
12.5	6,656,121	23,414	0.0035	0.9965	98.85
13.5	6,376,367	20,228	0.0032	0.9968	98.51
14.5	6,188,906		0.0000	1.0000	98.19
15.5	6,113,480		0.0000	1.0000	98.19
16.5	6,112,413		0.0000	1.0000	98.19
17.5	4,007,224		0.0000	1.0000	98.19
18.5	3,704,537		0.0000	1.0000	98.19
19.5	3,664,614	59,638	0.0163	0.9837	98.19
20.5	3,604,976		0.0000	1.0000	96.59
21.5	2,462,464		0.0000	1.0000	96.59
22.5	2,462,464	1,100	0.0004	0.9996	96.59
23.5	2,460,446		0.0000	1.0000	96.55
24.5	1,952,278		0.0000	1.0000	96.55
25.5					96.55

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



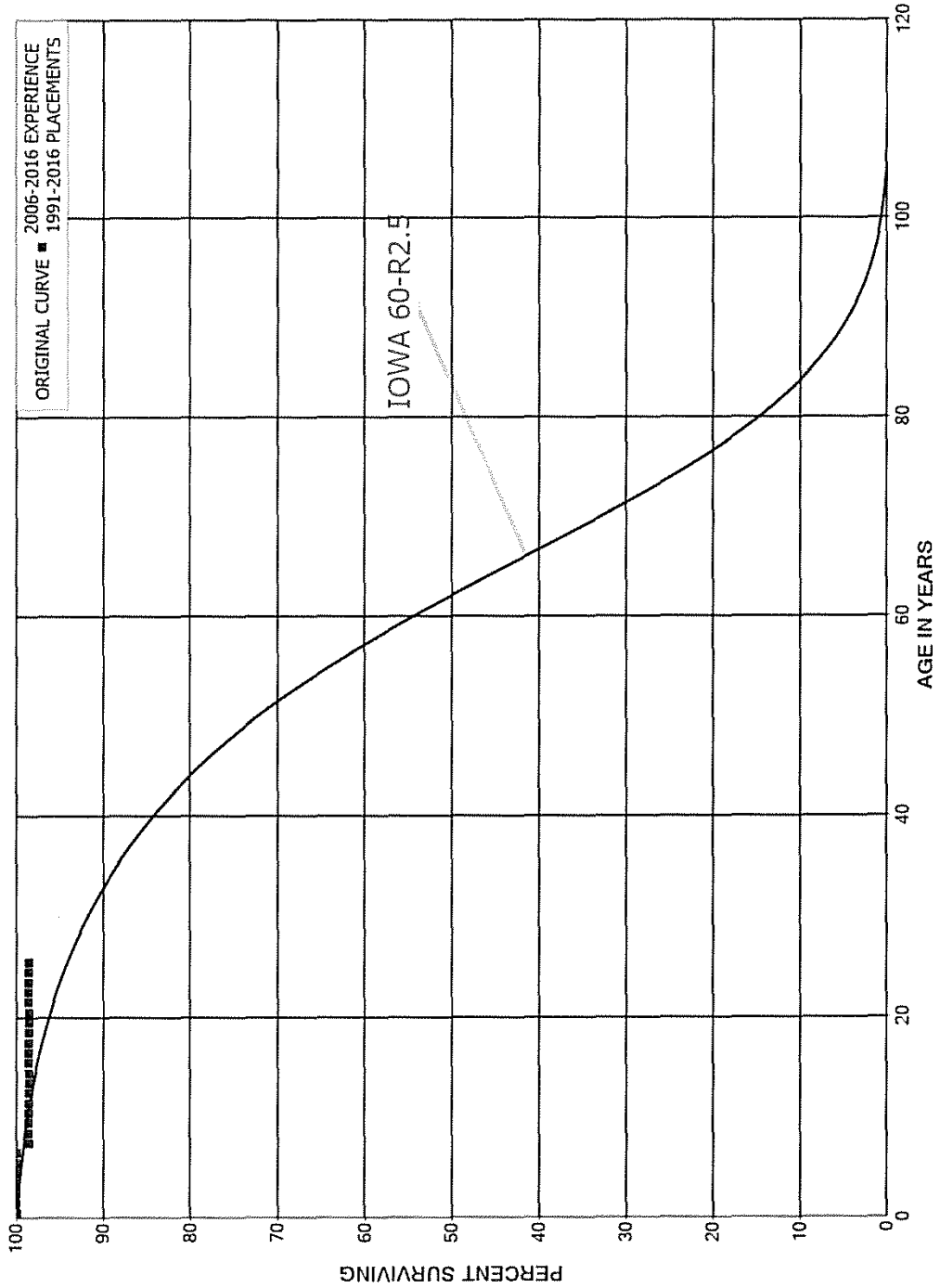
CITIZENS ENERGY GROUP
CHILLED WATER

ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2016			EXPERIENCE BAND 2007-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	851,494		0.0000	1.0000	100.00
0.5	815,759		0.0000	1.0000	100.00
1.5	694,141		0.0000	1.0000	100.00
2.5	169,065		0.0000	1.0000	100.00
3.5	113,535		0.0000	1.0000	100.00
4.5	136,775		0.0000	1.0000	100.00
5.5	170,975		0.0000	1.0000	100.00
6.5	159,905		0.0000	1.0000	100.00
7.5	141,668		0.0000	1.0000	100.00
8.5	137,649		0.0000	1.0000	100.00
9.5	137,649		0.0000	1.0000	100.00
10.5	136,082		0.0000	1.0000	100.00
11.5	62,796		0.0000	1.0000	100.00
12.5	64,009	146	0.0023	0.9977	100.00
13.5	65,094		0.0000	1.0000	99.77
14.5	60,034		0.0000	1.0000	99.77
15.5	34,936	13,078	0.3743	0.6257	99.77
16.5	21,858		0.0000	1.0000	62.42
17.5	14,129		0.0000	1.0000	62.42
18.5	14,129		0.0000	1.0000	62.42
19.5	14,129	4,019	0.2844	0.7156	62.42
20.5	9,909		0.0000	1.0000	44.67
21.5	9,396		0.0000	1.0000	44.67
22.5	8,182		0.0000	1.0000	44.67
23.5	6,952		0.0000	1.0000	44.67
24.5	5,083		0.0000	1.0000	44.67
25.5					44.67

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 366.0 MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CHILLED WATER

ACCOUNT 366.0 MAINS

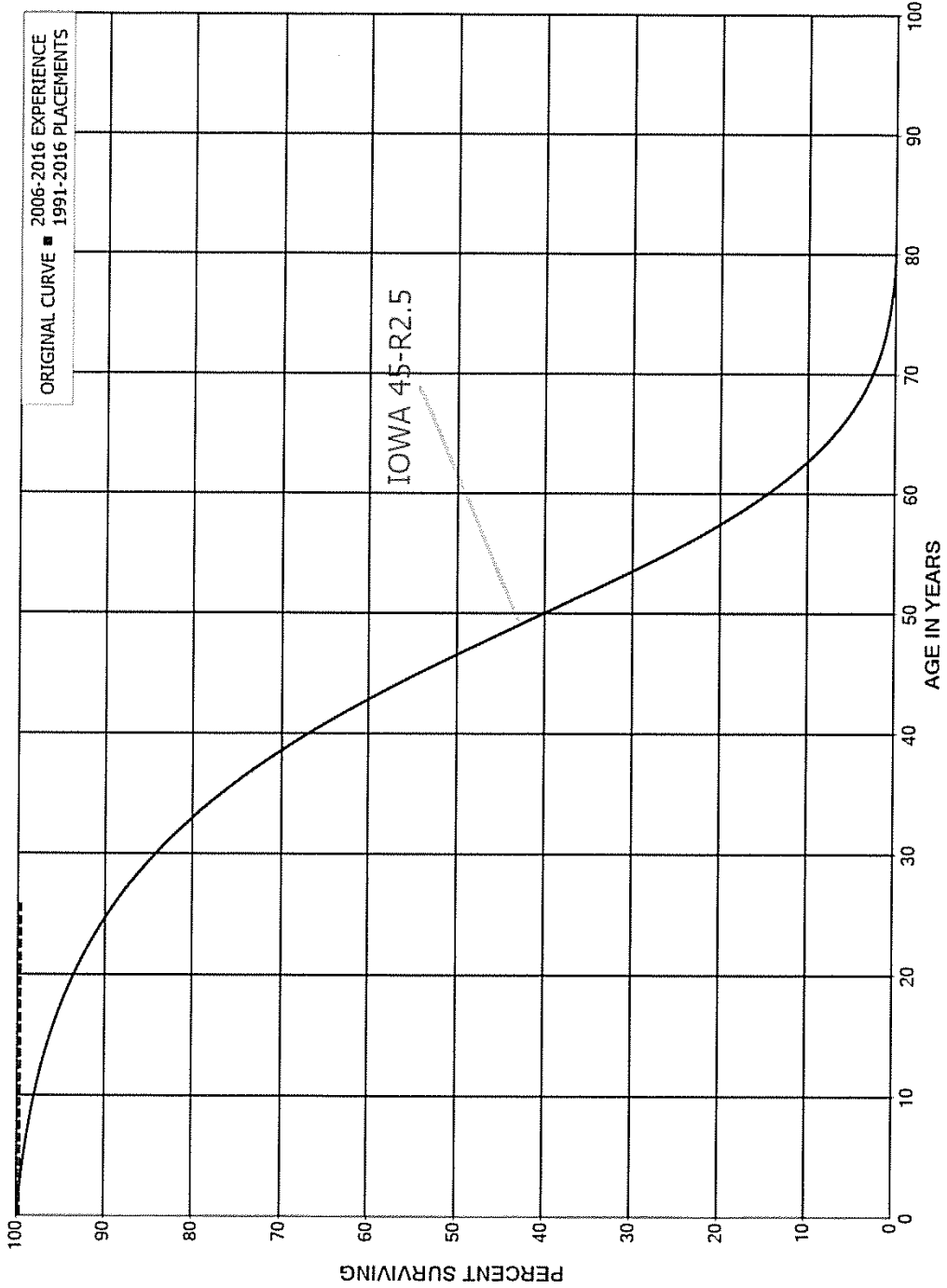
ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2016

EXPERIENCE BAND 2006-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	9,092,358		0.0000	1.0000	100.00
0.5	20,597,497		0.0000	1.0000	100.00
1.5	20,417,657		0.0000	1.0000	100.00
2.5	20,916,494		0.0000	1.0000	100.00
3.5	20,916,494		0.0000	1.0000	100.00
4.5	17,344,490		0.0000	1.0000	100.00
5.5	17,344,490		0.0000	1.0000	100.00
6.5	17,344,490	263,000	0.0152	0.9848	100.00
7.5	17,081,490		0.0000	1.0000	98.48
8.5	13,268,884		0.0000	1.0000	98.48
9.5	13,385,020		0.0000	1.0000	98.48
10.5	14,779,207		0.0000	1.0000	98.48
11.5	2,220,002		0.0000	1.0000	98.48
12.5	2,895,779		0.0000	1.0000	98.48
13.5	2,343,626		0.0000	1.0000	98.48
14.5	4,073,127		0.0000	1.0000	98.48
15.5	4,073,127		0.0000	1.0000	98.48
16.5	4,073,127		0.0000	1.0000	98.48
17.5	3,956,992		0.0000	1.0000	98.48
18.5	3,956,992		0.0000	1.0000	98.48
19.5	3,956,992		0.0000	1.0000	98.48
20.5	3,956,992		0.0000	1.0000	98.48
21.5	2,557,837		0.0000	1.0000	98.48
22.5	2,463,208		0.0000	1.0000	98.48
23.5	1,787,431		0.0000	1.0000	98.48
24.5	1,729,502		0.0000	1.0000	98.48
25.5					98.48

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 369.0 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



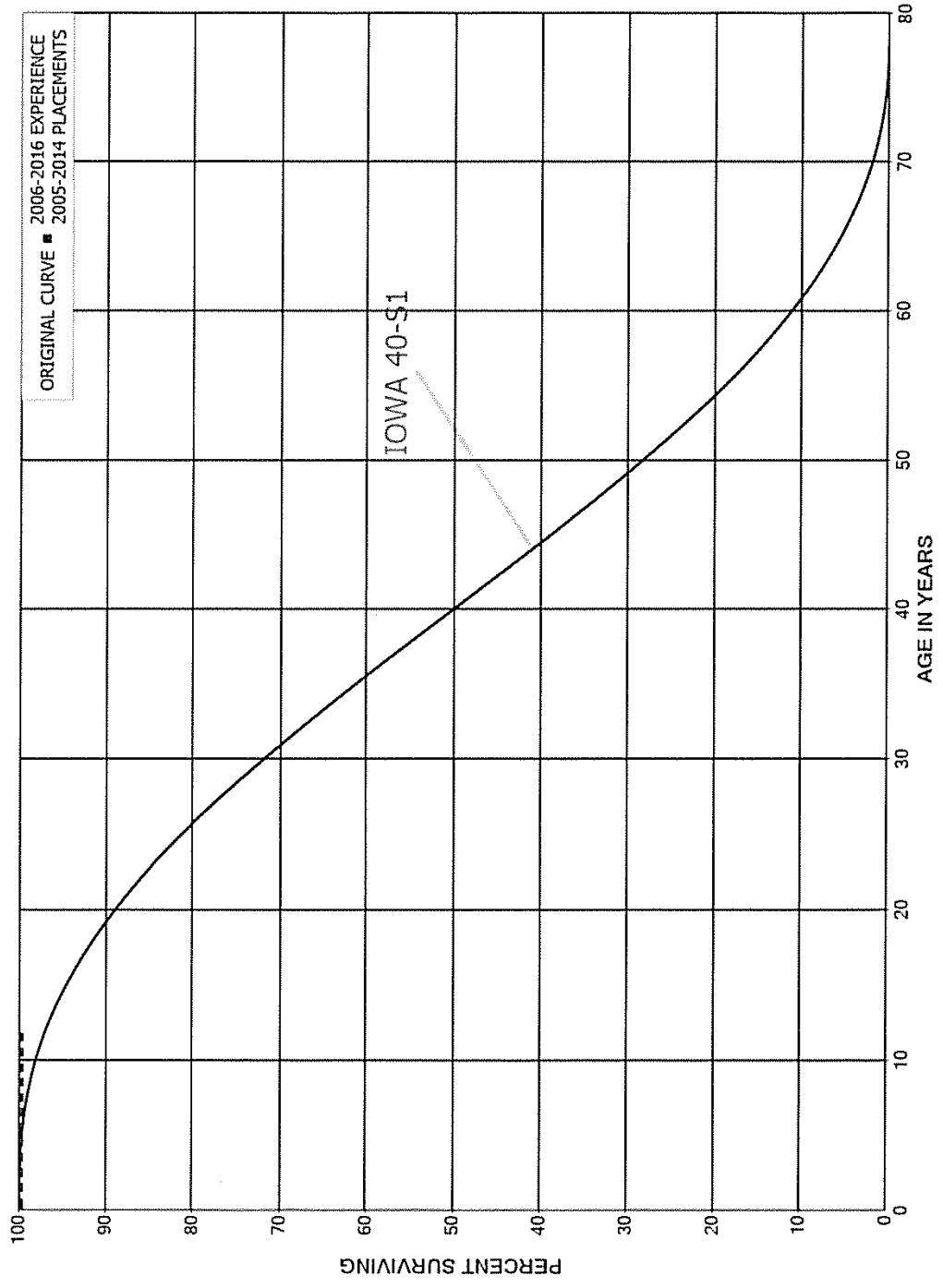
CITIZENS ENERGY GROUP
CHILLED WATER

ACCOUNT 369.0 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2016			EXPERIENCE BAND 2006-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	8,009,713		0.0000	1.0000	100.00
0.5	8,560,768		0.0000	1.0000	100.00
1.5	8,625,131		0.0000	1.0000	100.00
2.5	8,321,394		0.0000	1.0000	100.00
3.5	8,017,371		0.0000	1.0000	100.00
4.5	7,814,656		0.0000	1.0000	100.00
5.5	5,317,848		0.0000	1.0000	100.00
6.5	5,204,279		0.0000	1.0000	100.00
7.5	3,370,913		0.0000	1.0000	100.00
8.5	2,078,876		0.0000	1.0000	100.00
9.5	1,459,375		0.0000	1.0000	100.00
10.5	1,105,252		0.0000	1.0000	100.00
11.5	457,973		0.0000	1.0000	100.00
12.5	372,910		0.0000	1.0000	100.00
13.5	302,436		0.0000	1.0000	100.00
14.5	308,799		0.0000	1.0000	100.00
15.5	308,799		0.0000	1.0000	100.00
16.5	308,799		0.0000	1.0000	100.00
17.5	298,564		0.0000	1.0000	100.00
18.5	208,379		0.0000	1.0000	100.00
19.5	188,237		0.0000	1.0000	100.00
20.5	170,188		0.0000	1.0000	100.00
21.5	99,982		0.0000	1.0000	100.00
22.5	86,460		0.0000	1.0000	100.00
23.5	13,533		0.0000	1.0000	100.00
24.5	6,363		0.0000	1.0000	100.00
25.5					100.00

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 370.0 METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CHILLED WATER

ACCOUNT 370.0 METERS

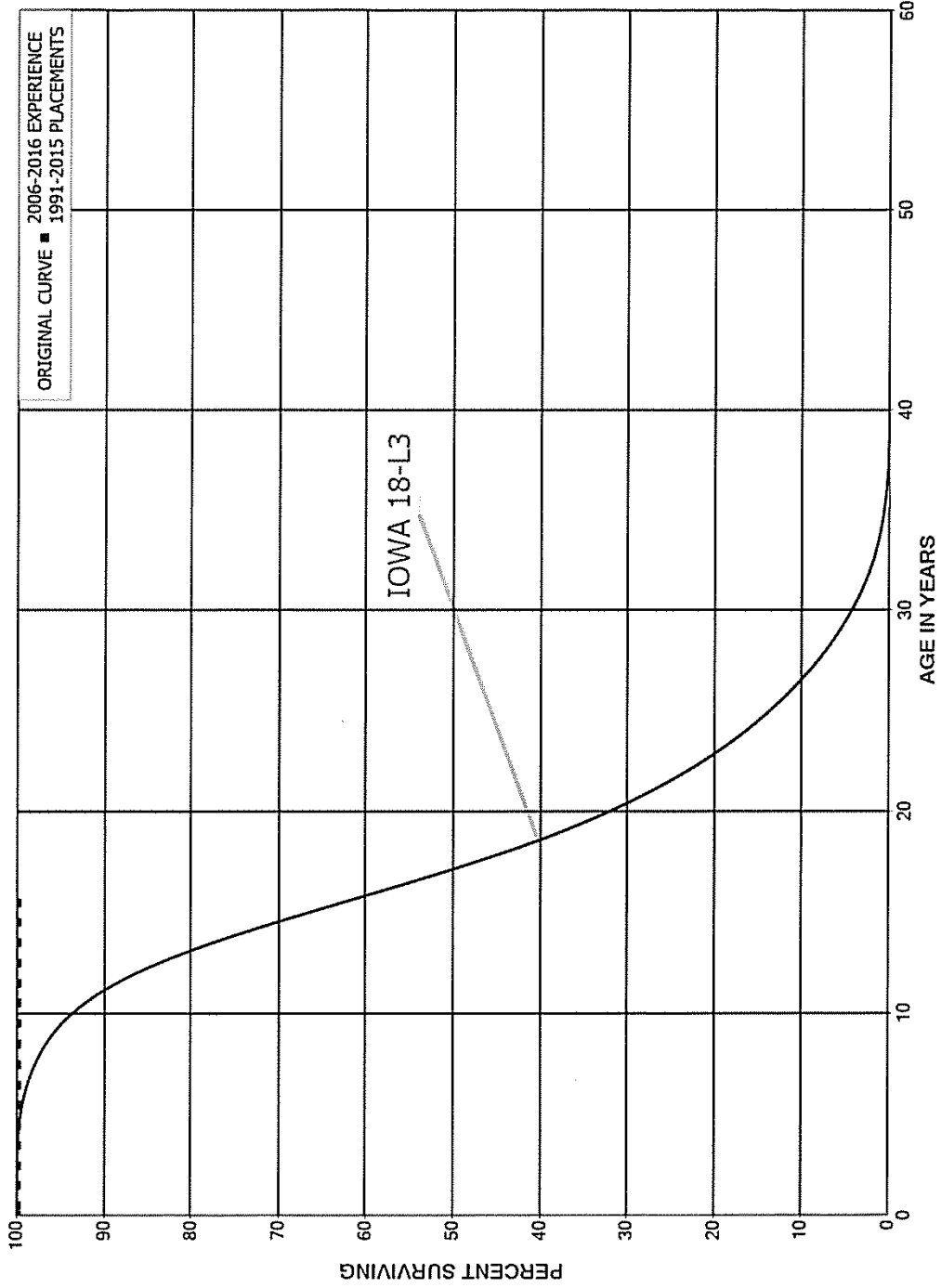
ORIGINAL LIFE TABLE

PLACEMENT BAND 2005-2014

EXPERIENCE BAND 2006-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	644,011		0.0000	1.0000	100.00
0.5	860,279		0.0000	1.0000	100.00
1.5	860,279		0.0000	1.0000	100.00
2.5	630,522		0.0000	1.0000	100.00
3.5	616,086		0.0000	1.0000	100.00
4.5	570,764		0.0000	1.0000	100.00
5.5	537,952		0.0000	1.0000	100.00
6.5	499,937		0.0000	1.0000	100.00
7.5	443,365		0.0000	1.0000	100.00
8.5	275,463		0.0000	1.0000	100.00
9.5	264,262		0.0000	1.0000	100.00
10.5	216,267		0.0000	1.0000	100.00
11.5					100.00

CITIZENS ENERGY GROUP
CHILLED WATER
ACCOUNT 392.0 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CHILLED WATER

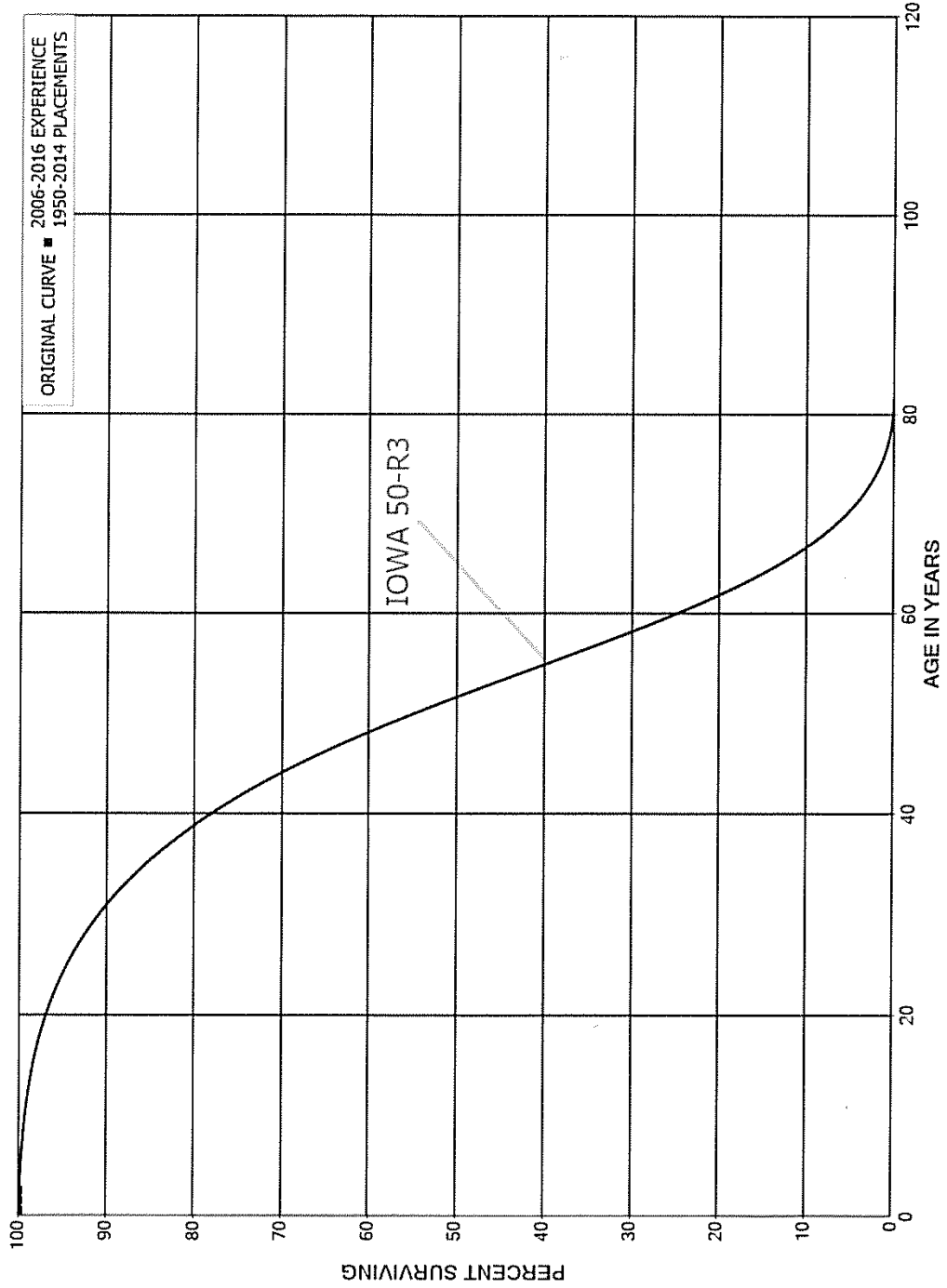
ACCOUNT 392.0 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2015			EXPERIENCE BAND 2006-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	156,817		0.0000	1.0000	100.00
0.5	205,820		0.0000	1.0000	100.00
1.5	192,999		0.0000	1.0000	100.00
2.5	190,251	3	0.0000	1.0000	100.00
3.5	143,738		0.0000	1.0000	100.00
4.5	143,738		0.0000	1.0000	100.00
5.5	112,202		0.0000	1.0000	100.00
6.5	112,202		0.0000	1.0000	100.00
7.5	112,202		0.0000	1.0000	100.00
8.5	80,446		0.0000	1.0000	100.00
9.5	80,446		0.0000	1.0000	100.00
10.5	80,446		0.0000	1.0000	100.00
11.5	61,445		0.0000	1.0000	100.00
12.5	42,131		0.0000	1.0000	100.00
13.5	7,211		0.0000	1.0000	100.00
14.5	2,460		0.0000	1.0000	100.00
15.5	2,460		0.0000	1.0000	100.00
16.5	2,460		0.0000	1.0000	100.00
17.5	2,460		0.0000	1.0000	100.00
18.5	2,460		0.0000	1.0000	100.00
19.5	2,460		0.0000	1.0000	100.00
20.5	2,460		0.0000	1.0000	100.00
21.5	2,460		0.0000	1.0000	100.00
22.5	2,460		0.0000	1.0000	100.00
23.5	2,460		0.0000	1.0000	100.00
24.5	2,377		0.0000	1.0000	100.00
25.5					100.00

CITIZENS GAS OF WESTFIELD

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 375.0 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 375.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1950-2014			EXPERIENCE BAND 2006-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	28,305		0.0000	1.0000	100.00
0.5	28,305		0.0000	1.0000	100.00
1.5	28,305		0.0000	1.0000	100.00
2.5					100.00
3.5					
4.5					
5.5					
6.5					
7.5					
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

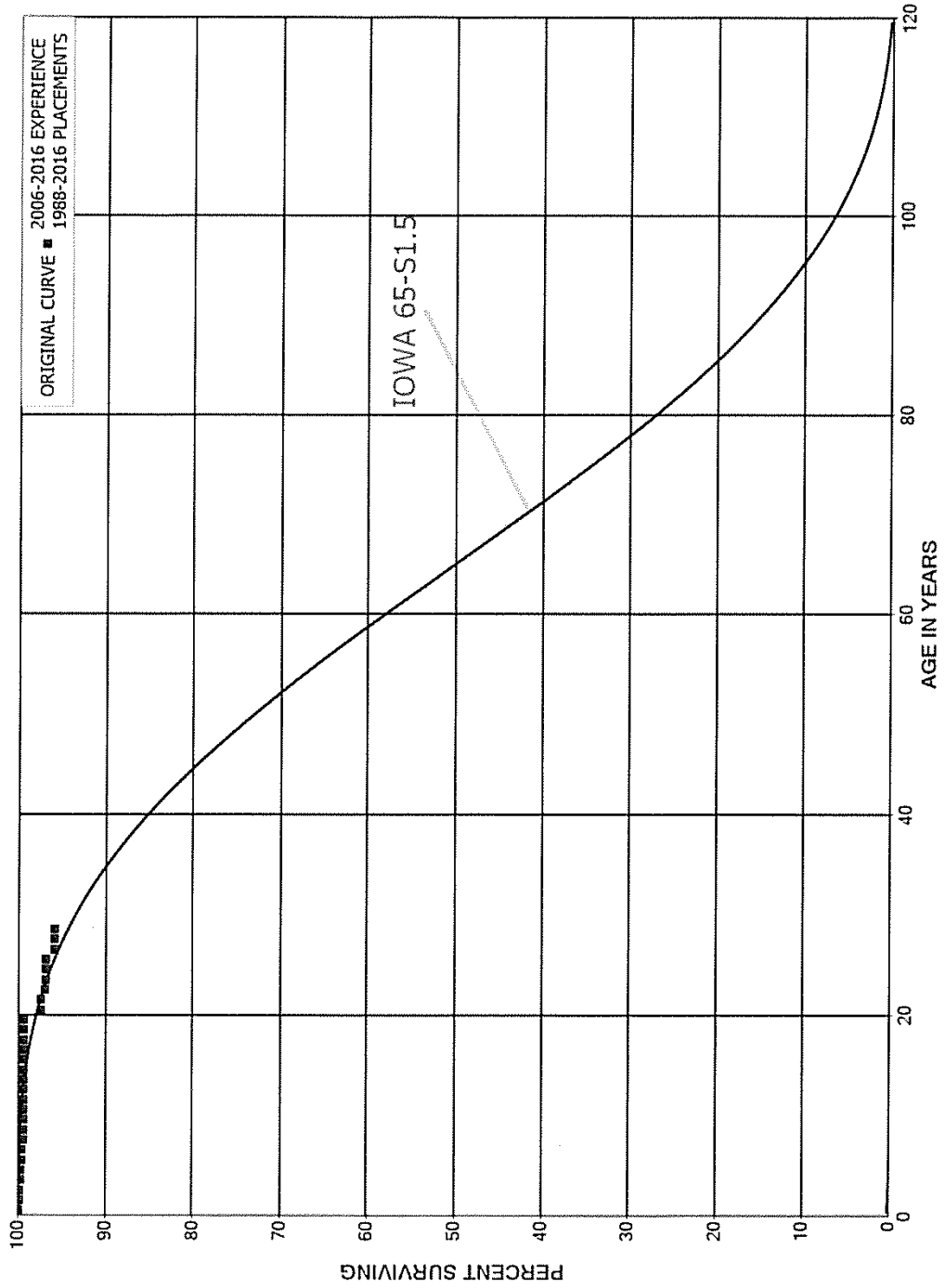
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 375.0 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1950-2014		EXPERIENCE BAND 2006-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5	275	275	1.0000		
56.5					

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 376.0 MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



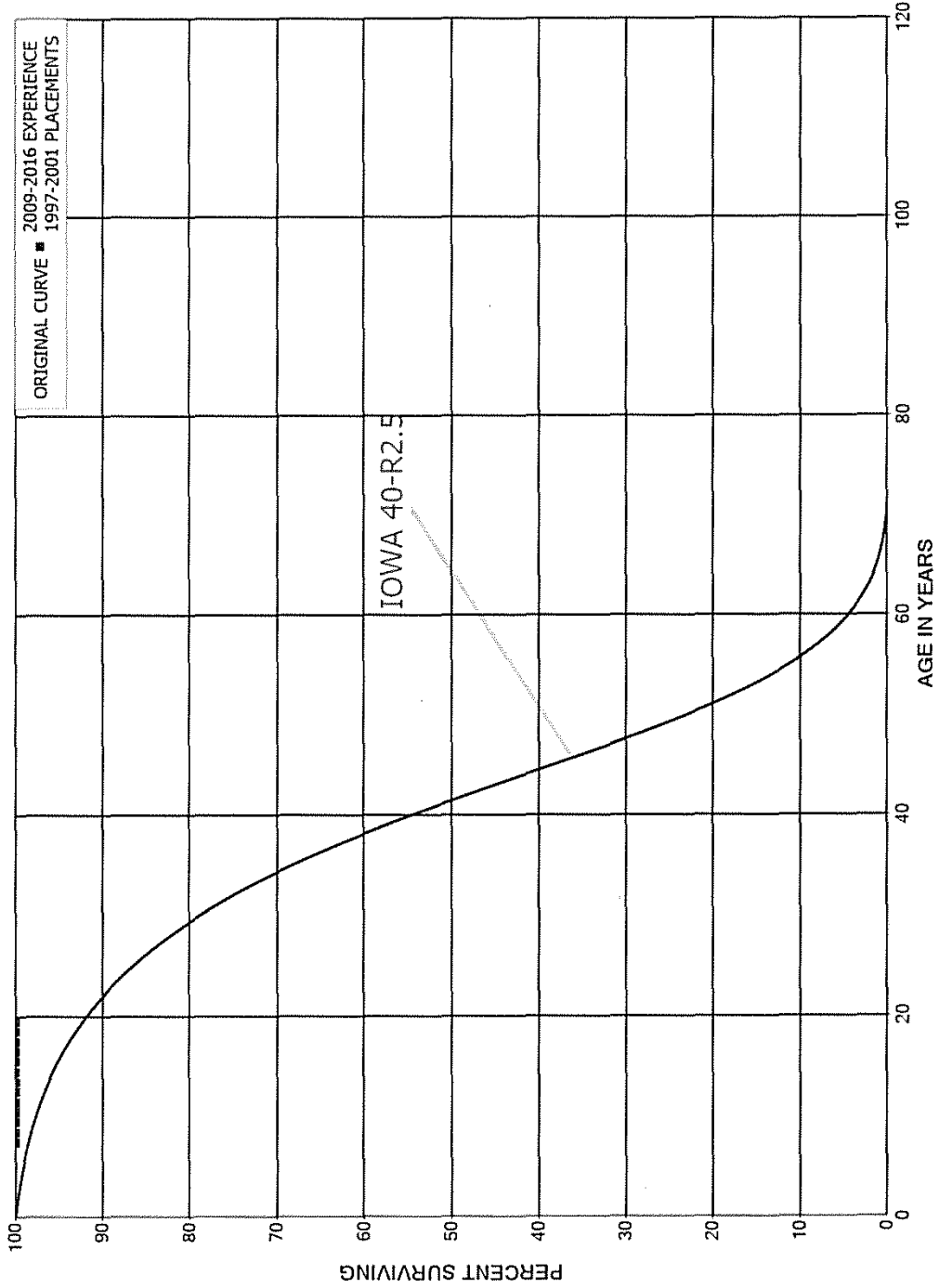
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 376.0 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2016		EXPERIENCE BAND 2006-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,603,475		0.0000	1.0000	100.00
0.5	5,697,381	9,822	0.0017	0.9983	100.00
1.5	4,877,374		0.0000	1.0000	99.83
2.5	4,663,595	4,114	0.0009	0.9991	99.83
3.5	3,994,865	2,305	0.0006	0.9994	99.74
4.5	4,287,291	752	0.0002	0.9998	99.68
5.5	4,179,488		0.0000	1.0000	99.66
6.5	4,281,276	13,602	0.0032	0.9968	99.66
7.5	4,325,142		0.0000	1.0000	99.35
8.5	4,112,014		0.0000	1.0000	99.35
9.5	4,071,338		0.0000	1.0000	99.35
10.5	2,564,142		0.0000	1.0000	99.35
11.5	1,426,866		0.0000	1.0000	99.35
12.5	1,352,545		0.0000	1.0000	99.35
13.5	1,208,026		0.0000	1.0000	99.35
14.5	1,132,037		0.0000	1.0000	99.35
15.5	678,376		0.0000	1.0000	99.35
16.5	583,367		0.0000	1.0000	99.35
17.5	918,019		0.0000	1.0000	99.35
18.5	810,572		0.0000	1.0000	99.35
19.5	720,320	14,541	0.0202	0.9798	99.35
20.5	597,621		0.0000	1.0000	97.34
21.5	475,551	1,892	0.0040	0.9960	97.34
22.5	450,293	492	0.0011	0.9989	96.96
23.5	449,802		0.0000	1.0000	96.85
24.5	449,802		0.0000	1.0000	96.85
25.5	449,802	4,548	0.0101	0.9899	96.85
26.5	445,254		0.0000	1.0000	95.87
27.5	445,254		0.0000	1.0000	95.87
28.5					95.87

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 378.0 MEASURING AND REGULATING EQUIPMENT - GENERAL
ORIGINAL AND SMOOTH SURVIVOR CURVES



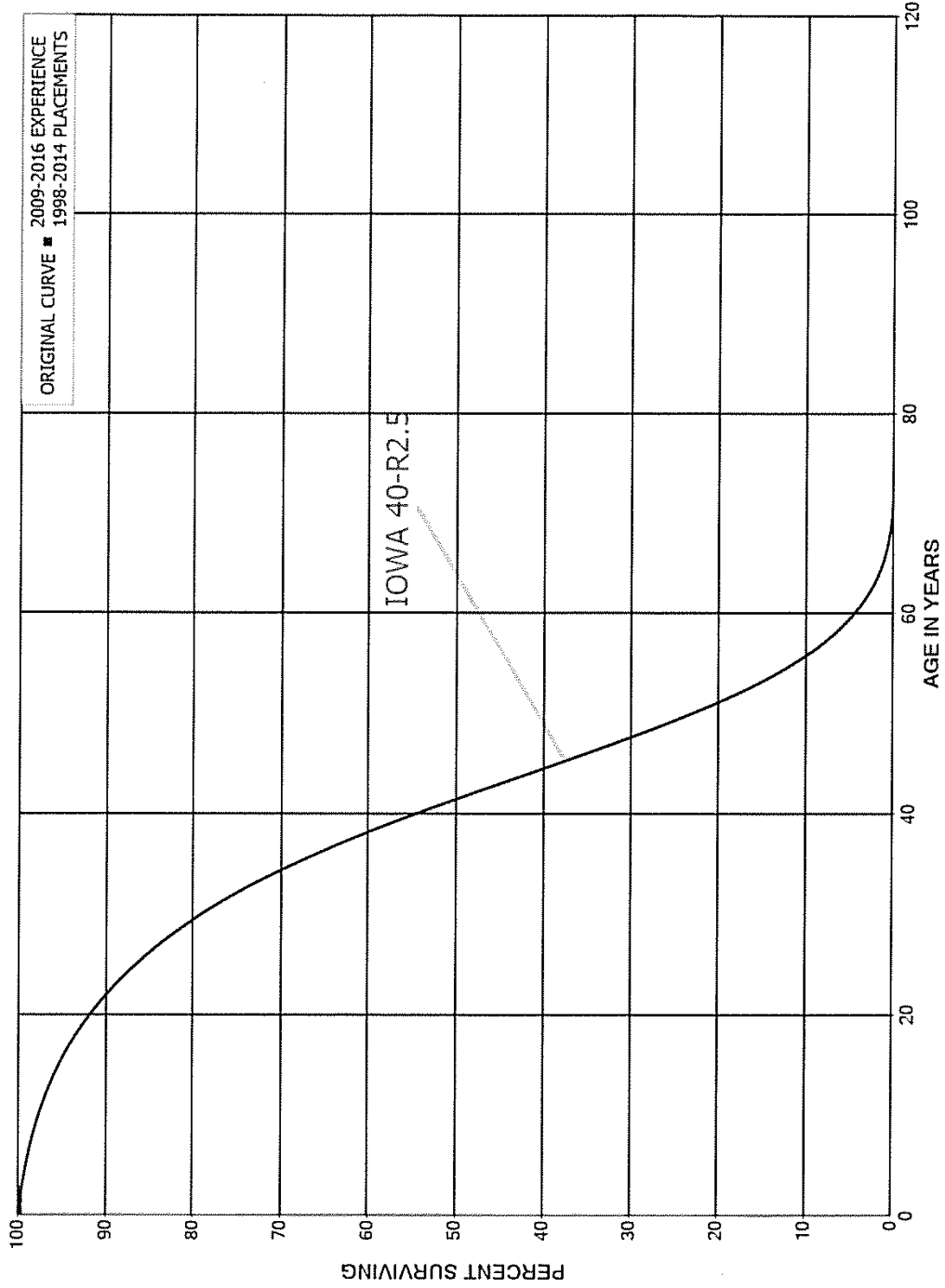
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 378.0 MEASURING AND REGULATING EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1997-2001			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5					
7.5	3,562		0.0000	1.0000	100.00
8.5	6,379		0.0000	1.0000	100.00
9.5	6,379		0.0000	1.0000	100.00
10.5	6,379		0.0000	1.0000	100.00
11.5	10,754		0.0000	1.0000	100.00
12.5	10,754		0.0000	1.0000	100.00
13.5	10,754		0.0000	1.0000	100.00
14.5	10,754		0.0000	1.0000	100.00
15.5	7,192		0.0000	1.0000	100.00
16.5	4,375		0.0000	1.0000	100.00
17.5	4,375		0.0000	1.0000	100.00
18.5	4,375		0.0000	1.0000	100.00
19.5					100.00

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 379.0 MEASURING AND REGULATING EQUIPMENT - GCCS
ORIGINAL AND SMOOTH SURVIVOR CURVES



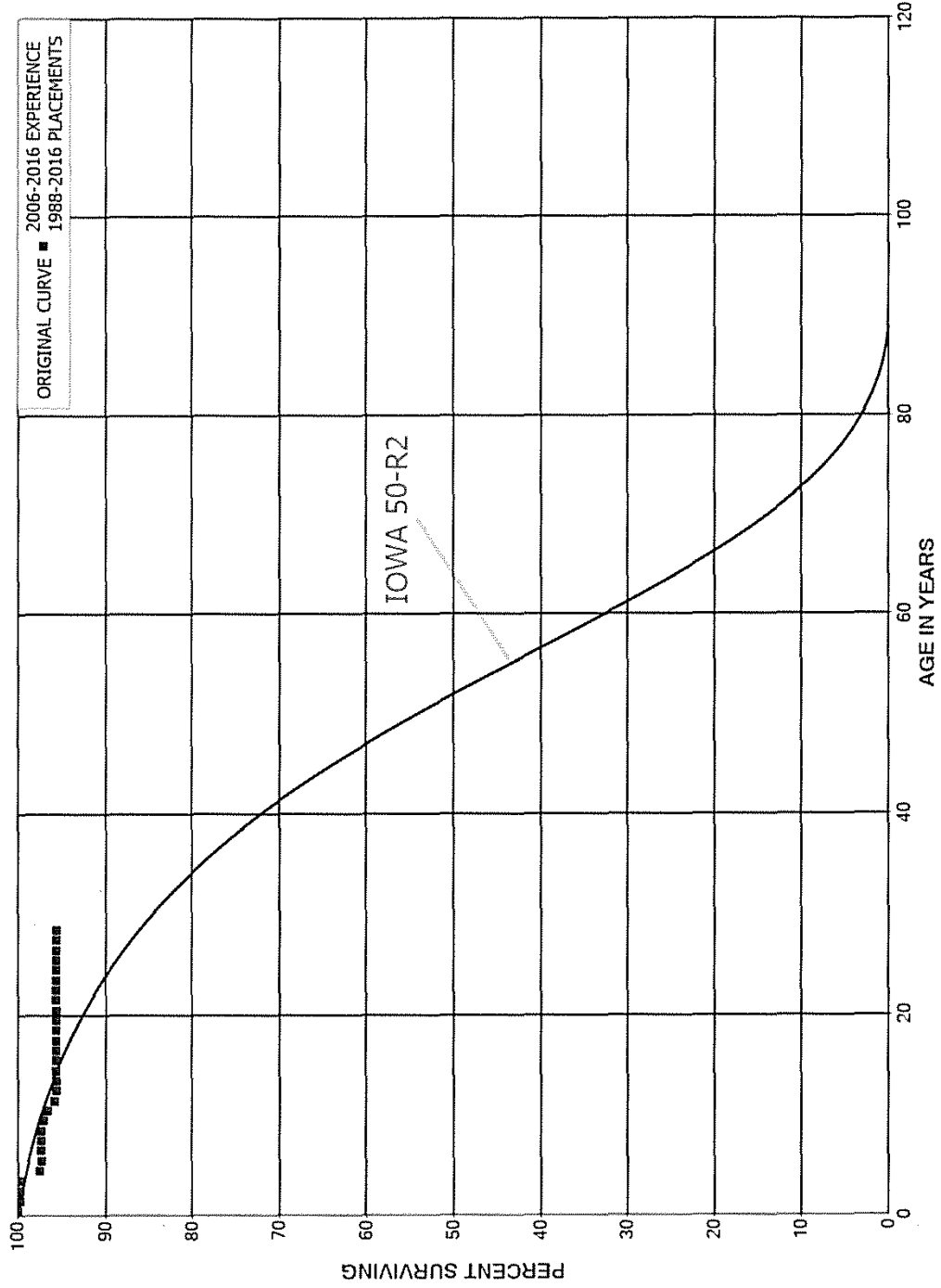
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 379.0 MEASURING AND REGULATING EQUIPMENT - GCCS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1998-2014			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	85,153		0.0000	1.0000	100.00
0.5	85,153		0.0000	1.0000	100.00
1.5	85,153		0.0000	1.0000	100.00
2.5					100.00
3.5					
4.5					
5.5	1,149		0.0000		
6.5	1,149		0.0000		
7.5	1,149		0.0000		
8.5	1,149		0.0000		
9.5	2,086		0.0000		
10.5	6,971		0.0000		
11.5	6,971		0.0000		
12.5	6,971		0.0000		
13.5	5,822		0.0000		
14.5	5,822		0.0000		
15.5	5,822		0.0000		
16.5	5,822		0.0000		
17.5	4,885		0.0000		
18.5					

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 380.0 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



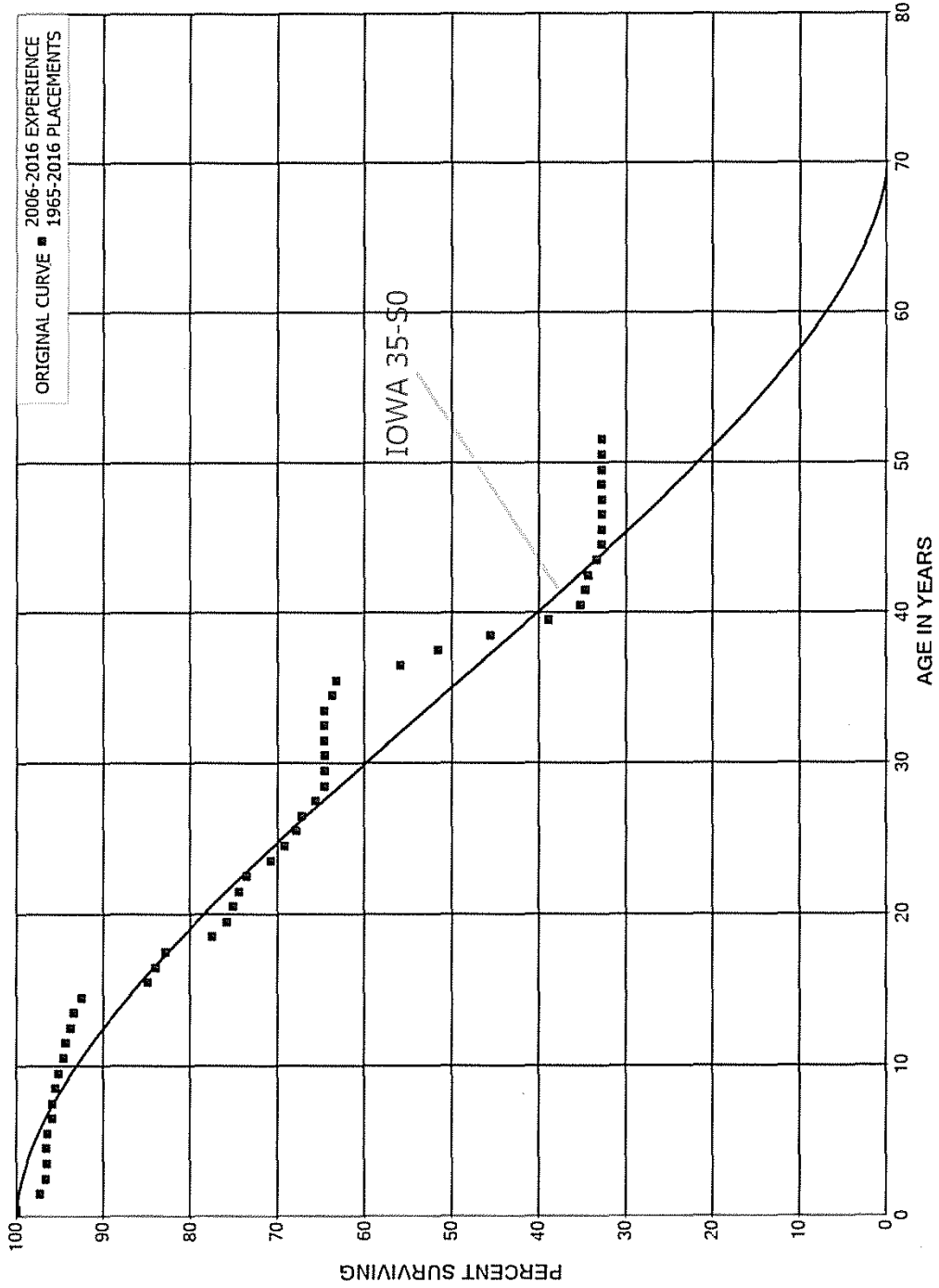
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 380.0 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2016			EXPERIENCE BAND 2006-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,240,070		0.0000	1.0000	100.00
0.5	1,395,981	3,219	0.0023	0.9977	100.00
1.5	1,339,196		0.0000	1.0000	99.77
2.5	1,305,292		0.0000	1.0000	99.77
3.5	1,251,931	27,893	0.0223	0.9777	99.77
4.5	1,255,050	3,326	0.0027	0.9973	97.55
5.5	1,246,505		0.0000	1.0000	97.29
6.5	1,233,719		0.0000	1.0000	97.29
7.5	1,223,977		0.0000	1.0000	97.29
8.5	1,179,692	2,747	0.0023	0.9977	97.29
9.5	1,029,178	5,088	0.0049	0.9951	97.06
10.5	674,670	5,088	0.0075	0.9925	96.58
11.5	434,847	1,018	0.0023	0.9977	95.85
12.5	321,884		0.0000	1.0000	95.63
13.5	252,074		0.0000	1.0000	95.63
14.5	179,149		0.0000	1.0000	95.63
15.5	119,822		0.0000	1.0000	95.63
16.5	78,956		0.0000	1.0000	95.63
17.5	416,625		0.0000	1.0000	95.63
18.5	384,323		0.0000	1.0000	95.63
19.5	382,088		0.0000	1.0000	95.63
20.5	382,088		0.0000	1.0000	95.63
21.5	382,088		0.0000	1.0000	95.63
22.5	382,088		0.0000	1.0000	95.63
23.5	382,088		0.0000	1.0000	95.63
24.5	382,088		0.0000	1.0000	95.63
25.5	382,088		0.0000	1.0000	95.63
26.5	382,088		0.0000	1.0000	95.63
27.5	382,088		0.0000	1.0000	95.63
28.5					95.63

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 381.0 METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 381.0 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1965-2016			EXPERIENCE BAND 2006-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	347,322		0.0000	1.0000	100.00
0.5	398,760	10,739	0.0269	0.9731	100.00
1.5	366,378	2,480	0.0068	0.9932	97.31
2.5	358,479	369	0.0010	0.9990	96.65
3.5	347,495	122	0.0004	0.9996	96.55
4.5	362,975	370	0.0010	0.9990	96.51
5.5	386,129	2,263	0.0059	0.9941	96.42
6.5	398,532	203	0.0005	0.9995	95.85
7.5	412,205	1,367	0.0033	0.9967	95.80
8.5	419,851	1,971	0.0047	0.9953	95.48
9.5	380,243	2,198	0.0058	0.9942	95.04
10.5	234,481	612	0.0026	0.9974	94.49
11.5	190,626	1,000	0.0052	0.9948	94.24
12.5	199,931	669	0.0033	0.9967	93.75
13.5	190,166	1,818	0.0096	0.9904	93.43
14.5	169,687	14,195	0.0837	0.9163	92.54
15.5	136,467	1,338	0.0098	0.9902	84.80
16.5	118,548	1,589	0.0134	0.9866	83.97
17.5	103,075	6,608	0.0641	0.9359	82.84
18.5	85,333	1,885	0.0221	0.9779	77.53
19.5	72,355	685	0.0095	0.9905	75.82
20.5	64,832	623	0.0096	0.9904	75.10
21.5	53,036	622	0.0117	0.9883	74.38
22.5	39,972	1,511	0.0378	0.9622	73.51
23.5	27,920	612	0.0219	0.9781	70.73
24.5	21,596	408	0.0189	0.9811	69.18
25.5	20,576	204	0.0099	0.9901	67.87
26.5	17,720	408	0.0230	0.9770	67.20
27.5	12,736	204	0.0160	0.9840	65.65
28.5	6,732		0.0000	1.0000	64.60
29.5	8,604		0.0000	1.0000	64.60
30.5	11,868		0.0000	1.0000	64.60
31.5	17,056		0.0000	1.0000	64.60
32.5	21,544		0.0000	1.0000	64.60
33.5	29,908	408	0.0136	0.9864	64.60
34.5	30,520	204	0.0067	0.9933	63.72
35.5	31,540	3,672	0.1164	0.8836	63.29
36.5	28,480	2,244	0.0788	0.9212	55.92
37.5	29,500	3,468	0.1176	0.8824	51.52
38.5	26,488	3,876	0.1463	0.8537	45.46

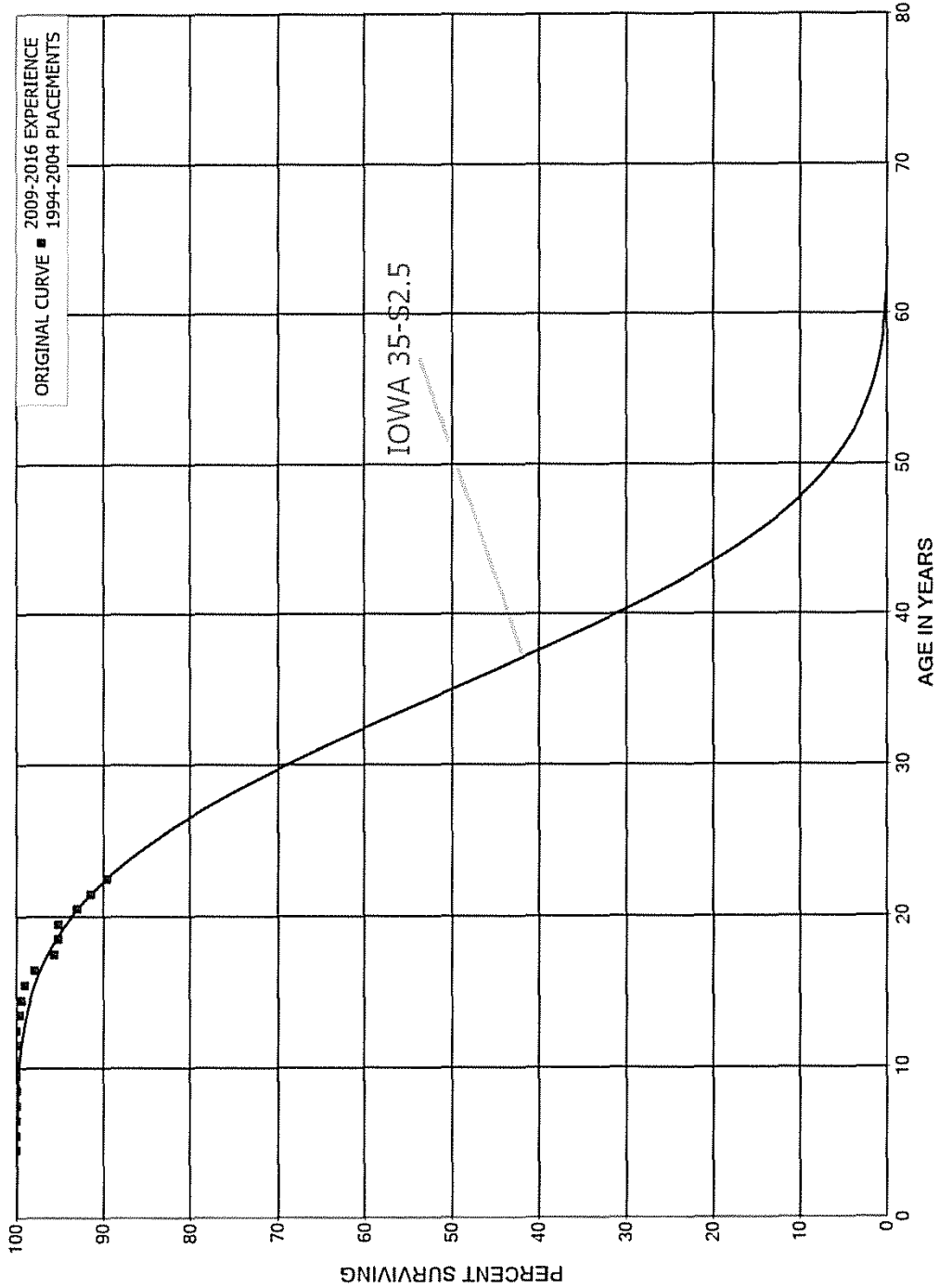
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 381.0 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1965-2016			EXPERIENCE BAND 2006-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	22,612	2,088	0.0923	0.9077	38.81	
40.5	23,380	408	0.0175	0.9825	35.22	
41.5	20,320	204	0.0100	0.9900	34.61	
42.5	14,928	408	0.0273	0.9727	34.26	
43.5	10,848	204	0.0188	0.9812	33.33	
44.5	6,564		0.0000	1.0000	32.70	
45.5	6,564		0.0000	1.0000	32.70	
46.5	6,564		0.0000	1.0000	32.70	
47.5	6,564		0.0000	1.0000	32.70	
48.5	6,564		0.0000	1.0000	32.70	
49.5	6,564		0.0000	1.0000	32.70	
50.5	6,564		0.0000	1.0000	32.70	
51.5					32.70	

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 382.0 METER INSTALLATIONS
ORIGINAL AND SMOOTH SURVIVOR CURVES



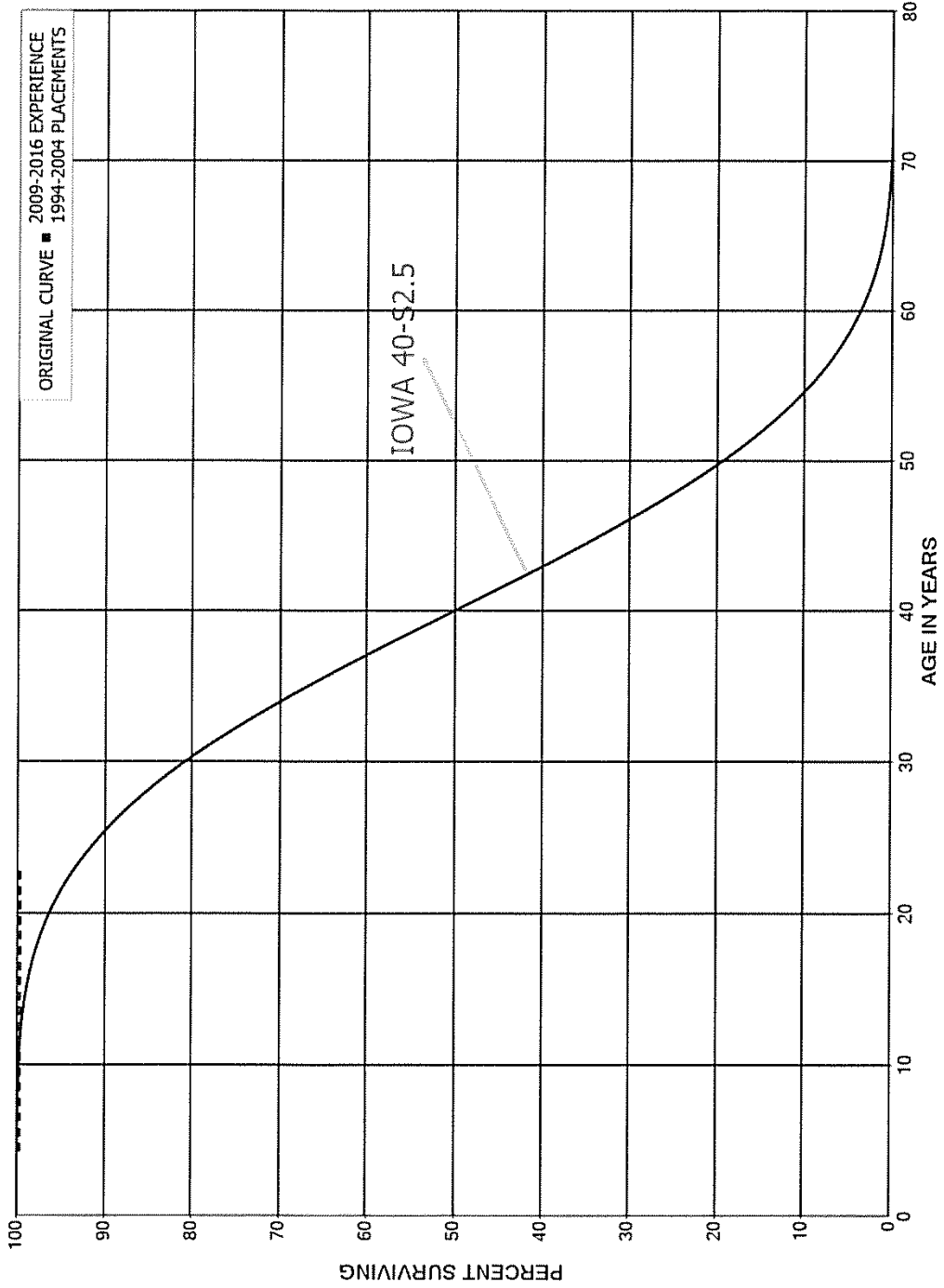
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 382.0 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1994-2004			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5	975		0.0000	1.0000	100.00
5.5	3,202		0.0000	1.0000	100.00
6.5	4,712		0.0000	1.0000	100.00
7.5	5,829		0.0000	1.0000	100.00
8.5	7,303		0.0000	1.0000	100.00
9.5	10,519		0.0000	1.0000	100.00
10.5	15,147	8	0.0005	0.9995	100.00
11.5	15,139	8	0.0005	0.9995	99.95
12.5	14,172	40	0.0029	0.9971	99.90
13.5	13,740	27	0.0020	0.9980	99.62
14.5	12,855	64	0.0049	0.9951	99.42
15.5	11,707	128	0.0109	0.9891	98.93
16.5	10,137	230	0.0227	0.9773	97.85
17.5	6,818	30	0.0044	0.9956	95.63
18.5	2,402		0.0000	1.0000	95.21
19.5	2,402	56	0.0232	0.9768	95.21
20.5	2,346	39	0.0168	0.9832	93.00
21.5	546	11	0.0206	0.9794	91.44
22.5					89.55

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 383.0 HOUSE REGULATORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



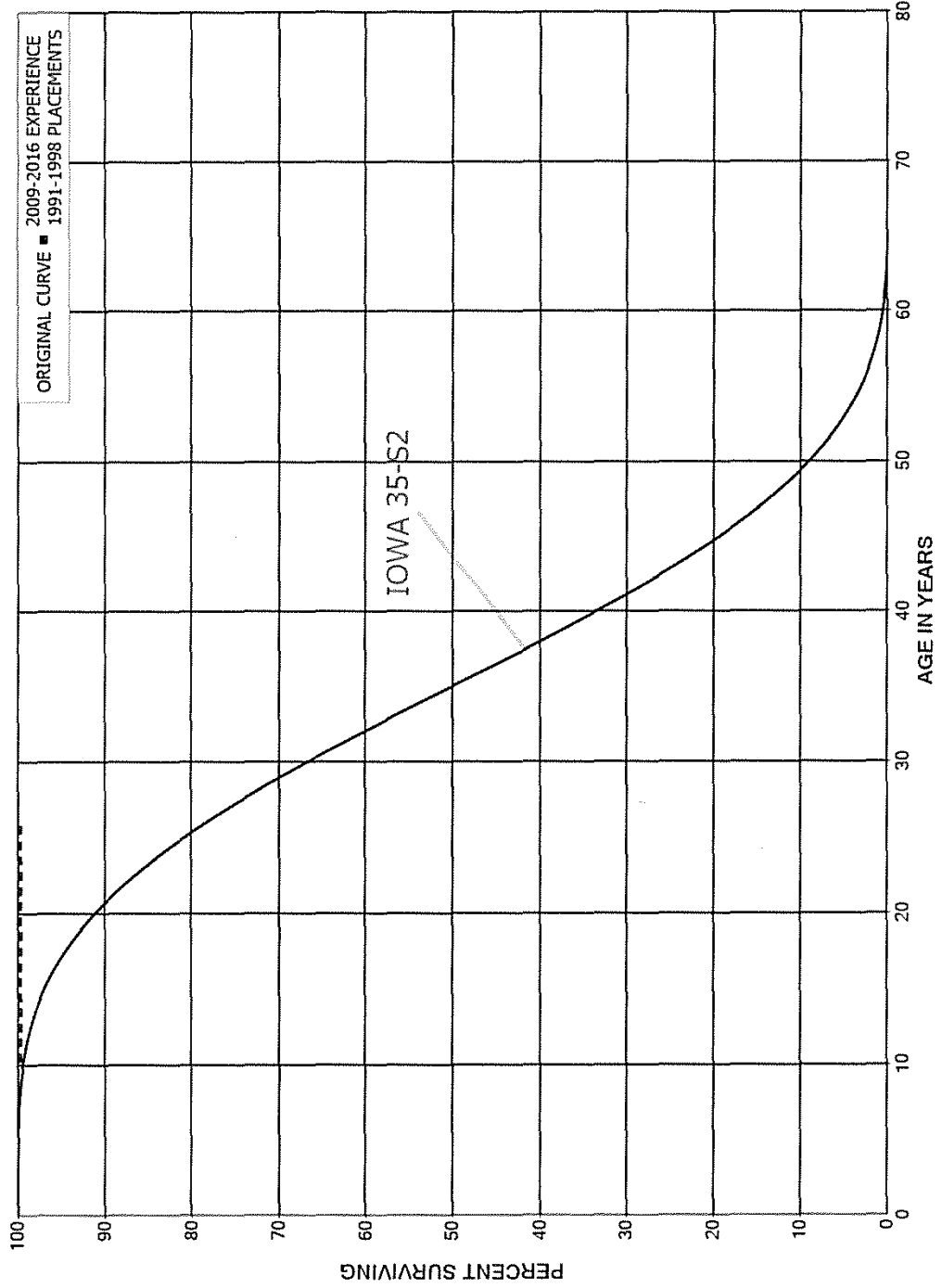
CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

ACCOUNT 383.0 HOUSE REGULATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1994-2004			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5	4,555		0.0000	1.0000	100.00
5.5	10,165		0.0000	1.0000	100.00
6.5	21,820		0.0000	1.0000	100.00
7.5	30,458		0.0000	1.0000	100.00
8.5	39,187		0.0000	1.0000	100.00
9.5	42,655		0.0000	1.0000	100.00
10.5	48,326		0.0000	1.0000	100.00
11.5	69,823		0.0000	1.0000	100.00
12.5	73,207		0.0000	1.0000	100.00
13.5	71,313		0.0000	1.0000	100.00
14.5	64,843		0.0000	1.0000	100.00
15.5	56,205		0.0000	1.0000	100.00
16.5	47,476		0.0000	1.0000	100.00
17.5	44,008		0.0000	1.0000	100.00
18.5	38,337		0.0000	1.0000	100.00
19.5	16,840		0.0000	1.0000	100.00
20.5	8,901		0.0000	1.0000	100.00
21.5	5,185		0.0000	1.0000	100.00
22.5					100.00

CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD
ACCOUNT 385.0 INDUSTRIAL MEASURING AND REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS GAS OF WESTFIELD

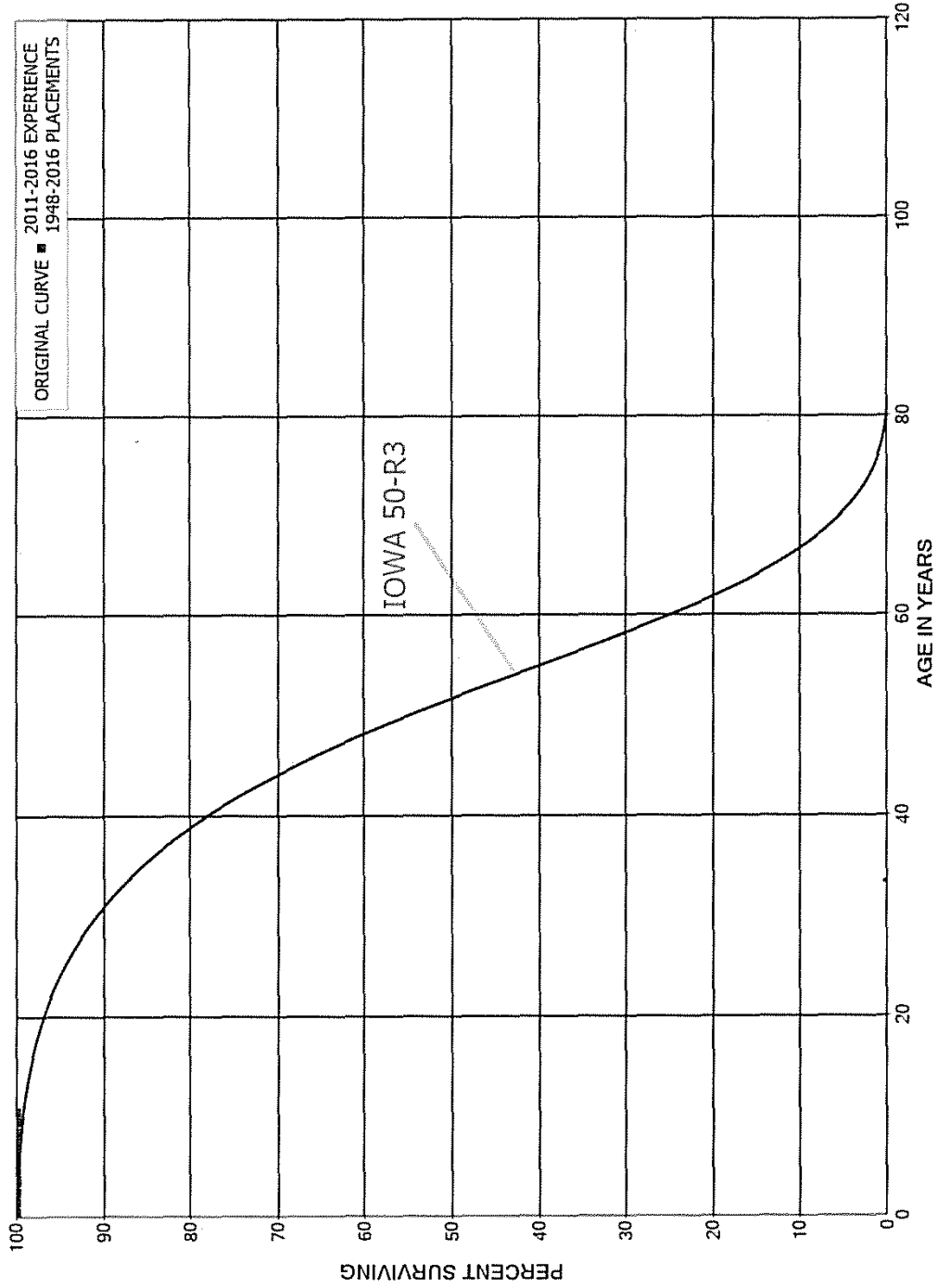
ACCOUNT 385.0 INDUSTRIAL MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-1998			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5					
7.5					
8.5					
9.5					
10.5	13,050		0.0000	1.0000	100.00
11.5	29,062		0.0000	1.0000	100.00
12.5	29,062		0.0000	1.0000	100.00
13.5	29,062		0.0000	1.0000	100.00
14.5	29,062		0.0000	1.0000	100.00
15.5	29,062		0.0000	1.0000	100.00
16.5	29,062		0.0000	1.0000	100.00
17.5	32,553		0.0000	1.0000	100.00
18.5	19,503		0.0000	1.0000	100.00
19.5	3,491		0.0000	1.0000	100.00
20.5	3,491		0.0000	1.0000	100.00
21.5	3,491		0.0000	1.0000	100.00
22.5	3,491		0.0000	1.0000	100.00
23.5	3,491		0.0000	1.0000	100.00
24.5	3,491		0.0000	1.0000	100.00
25.5					100.00

CITIZENS WATER

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 304.2 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY AND PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 304.2 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY AND PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,740,410		0.0000	1.0000	100.00
0.5	8,998,088		0.0000	1.0000	100.00
1.5	8,909,160		0.0000	1.0000	100.00
2.5	8,173,712		0.0000	1.0000	100.00
3.5	8,523,760		0.0000	1.0000	100.00
4.5	5,069,541		0.0000	1.0000	100.00
5.5	3,835,218		0.0000	1.0000	100.00
6.5	2,347,882		0.0000	1.0000	100.00
7.5	2,341,854		0.0000	1.0000	100.00
8.5	2,341,854		0.0000	1.0000	100.00
9.5	991,854		0.0000	1.0000	100.00
10.5					100.00
11.5	2,032,407		0.0000		
12.5	5,911,668		0.0000		
13.5	5,911,668		0.0000		
14.5	6,315,633		0.0000		
15.5	6,427,341		0.0000		
16.5	6,427,341		0.0000		
17.5	5,788,489		0.0000		
18.5	2,628,452		0.0000		
19.5	2,628,452		0.0000		
20.5	2,224,487		0.0000		
21.5	2,140,917		0.0000		
22.5	2,140,917		0.0000		
23.5	747,362		0.0000		
24.5	1,390,428		0.0000		
25.5	1,390,428		0.0000		
26.5	1,390,428		0.0000		
27.5	1,362,290		0.0000		
28.5	1,362,290		0.0000		
29.5	1,362,290		0.0000		
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5	1,444,657		0.0000		
38.5	1,444,657		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WATER

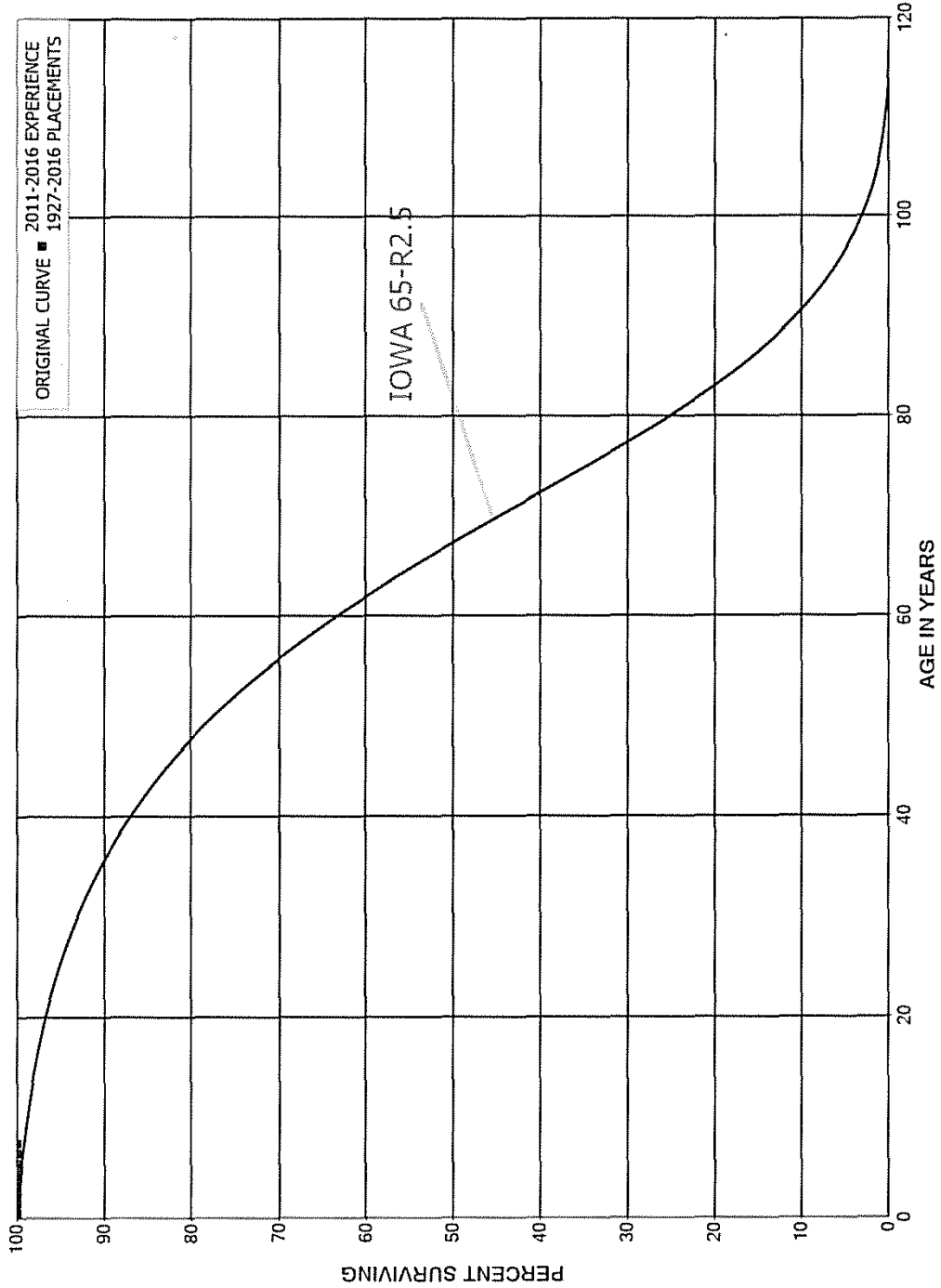
ACCOUNT 304.2 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY AND PUMPING

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2016 EXPERIENCE BAND 2011-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,444,657		0.0000		
40.5	1,729,276		0.0000		
41.5	1,729,276		0.0000		
42.5	1,729,276		0.0000		
43.5	284,619		0.0000		
44.5	284,619		0.0000		
45.5	284,619		0.0000		
46.5					
47.5	1,019,971		0.0000		
48.5	3,968,366		0.0000		
49.5	3,968,366		0.0000		
50.5	3,968,366		0.0000		
51.5	3,968,366		0.0000		
52.5	3,968,366		0.0000		
53.5	3,656,277		0.0000		
54.5	707,882		0.0000		
55.5	707,882		0.0000		
56.5	707,882		0.0000		
57.5	707,882		0.0000		
58.5	707,882		0.0000		
59.5					
60.5	315,237		0.0000		
61.5	315,237		0.0000		
62.5	513,953		0.0000		
63.5	513,953		0.0000		
64.5	513,953		0.0000		
65.5	513,953		0.0000		
66.5	198,716		0.0000		
67.5	198,716		0.0000		
68.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1927-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	18,061,589		0.0000	1.0000	100.00
0.5	16,877,870		0.0000	1.0000	100.00
1.5	11,850,174		0.0000	1.0000	100.00
2.5	10,190,451	3,336	0.0003	0.9997	100.00
3.5	4,576,393		0.0000	1.0000	99.97
4.5	1,335,565		0.0000	1.0000	99.97
5.5	1,045,707		0.0000	1.0000	99.97
6.5	1,045,707		0.0000	1.0000	99.97
7.5					99.97
8.5					
9.5					
10.5					
11.5					
12.5					
13.5	33,638,740		0.0000		
14.5	33,638,740		0.0000		
15.5	33,638,740		0.0000		
16.5	33,638,740		0.0000		
17.5	33,638,740		0.0000		
18.5	33,638,740		0.0000		
19.5	59,645,161		0.0000		
20.5	59,645,161		0.0000		
21.5	74,142,104		0.0000		
22.5	74,142,104		0.0000		
23.5	74,142,104		0.0000		
24.5	74,142,104		0.0000		
25.5	14,496,943		0.0000		
26.5	14,496,943		0.0000		
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5	15,949,018		0.0000		
35.5	15,949,018		0.0000		
36.5	15,949,018		0.0000		
37.5	15,949,018		0.0000		
38.5	15,949,018		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2016		EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	PCT SURV BEGIN OF INTERVAL
39.5	15,949,018	90,976	0.0057	
40.5				
41.5				
42.5	45,704,648		0.0000	
43.5	45,704,648		0.0000	
44.5	45,704,648		0.0000	
45.5	45,704,648		0.0000	
46.5	45,704,648	12,140	0.0003	
47.5	45,692,508		0.0000	
48.5				
49.5				
50.5				
51.5				
52.5				
53.5				
54.5				
55.5				
56.5				
57.5				
58.5				
59.5				
60.5				
61.5				
62.5				
63.5				
64.5				
65.5				
66.5				
67.5				
68.5				
69.5				
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71.5				
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73.5				
74.5				
75.5				
76.5				
77.5				
78.5				

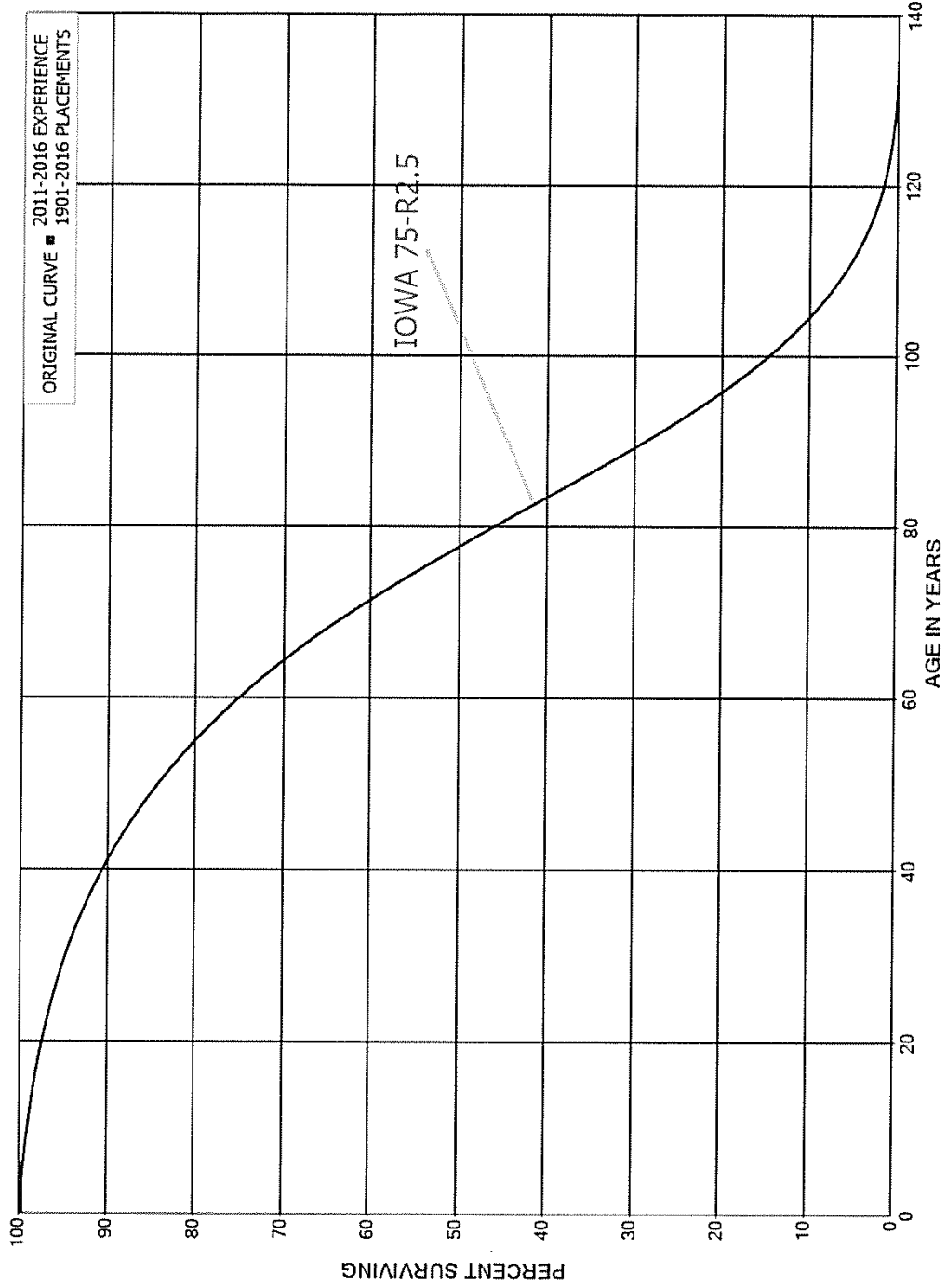
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5	4,284,811		0.0000		
84.5	4,284,811		0.0000		
85.5	4,284,811		0.0000		
86.5	4,284,811		0.0000		
87.5	4,284,811		0.0000		
88.5	4,284,811		0.0000		
89.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 305.2 COLLECTING AND IMPOUNDING RESERVOIRS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 305.2 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1901-2016		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,435,426		0.0000	1.0000	100.00
0.5	2,788,778		0.0000	1.0000	100.00
1.5	2,788,778		0.0000	1.0000	100.00
2.5	2,788,778		0.0000	1.0000	100.00
3.5	637,570		0.0000	1.0000	100.00
4.5	637,570		0.0000	1.0000	100.00
5.5					100.00
6.5					
7.5					
8.5					
9.5					
10.5					
11.5					
12.5	13,063,698		0.0000		
13.5	13,063,698		0.0000		
14.5	13,063,698		0.0000		
15.5	13,063,698		0.0000		
16.5	13,063,698		0.0000		
17.5	13,063,698		0.0000		
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 305.2 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5	2,671,928		0.0000		
41.5	2,671,928		0.0000		
42.5	2,671,928		0.0000		
43.5	2,671,928		0.0000		
44.5	2,671,928		0.0000		
45.5	2,671,928		0.0000		
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5	27,057,497		0.0000		
55.5	27,057,497		0.0000		
56.5	27,057,497		0.0000		
57.5	27,057,497		0.0000		
58.5	27,057,497		0.0000		
59.5	27,057,497		0.0000		
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5	7,102,593		0.0000		
68.5	7,102,593		0.0000		
69.5	7,102,593		0.0000		
70.5	7,102,593		0.0000		
71.5	7,102,593		0.0000		
72.5	7,102,593		0.0000		
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

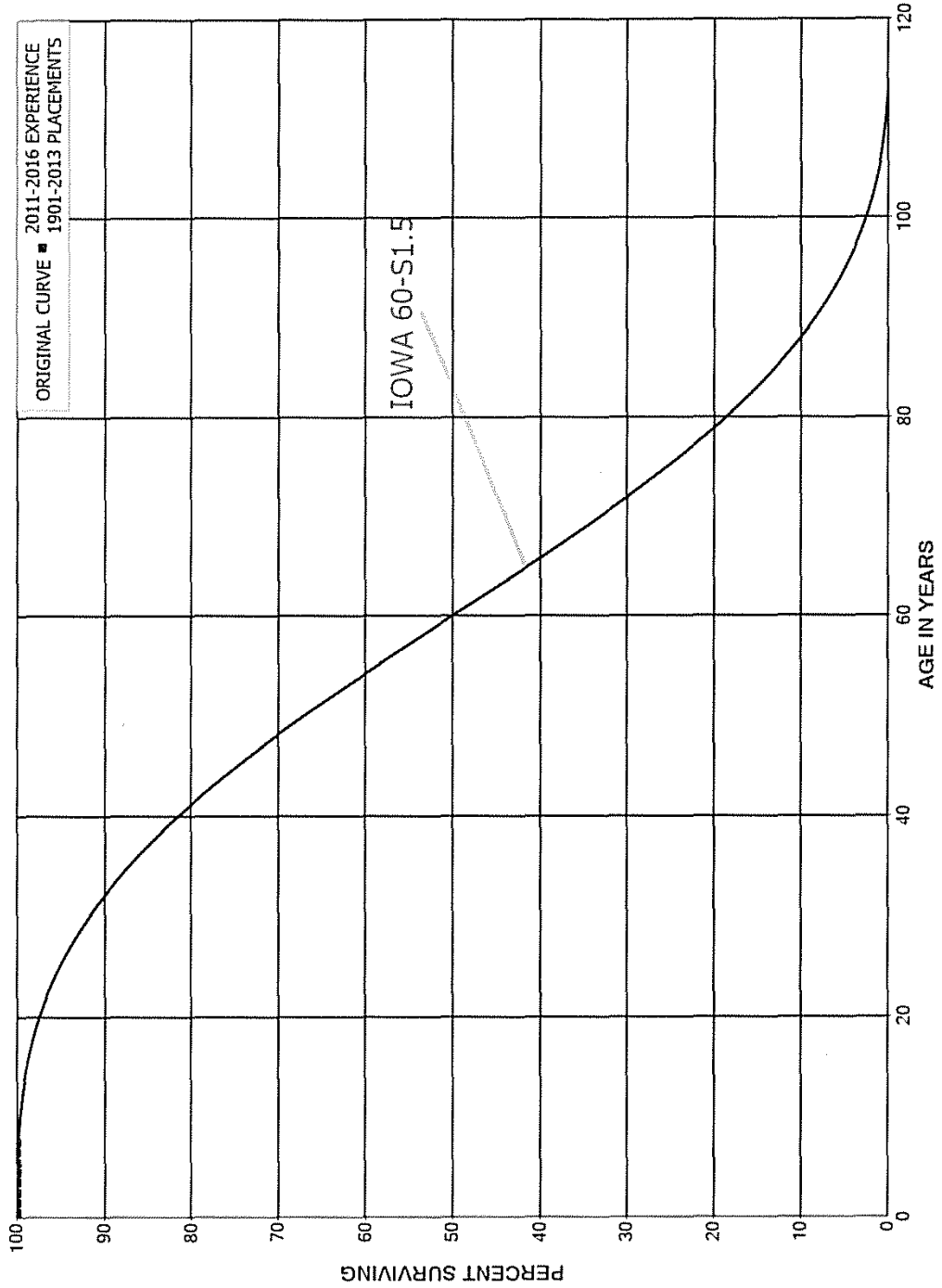
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 305.2 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2016		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5					
85.5					
86.5					
87.5					
88.5					
89.5					
90.5					
91.5					
92.5					
93.5					
94.5					
95.5					
96.5					
97.5					
98.5					
99.5					
100.5					
101.5					
102.5					
103.5					
104.5					
105.5					
106.5					
107.5					
108.5					
109.5	98,647		0.0000		
110.5	98,647		0.0000		
111.5	98,647		0.0000		
112.5	98,647		0.0000		
113.5	98,647		0.0000		
114.5	98,647		0.0000		
115.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 306.2 LAKE, RIVER AND OTHER INTAKES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 306.2 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1901-2013		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,787,528		0.0000	1.0000	100.00
0.5	1,787,528		0.0000	1.0000	100.00
1.5	2,859,887		0.0000	1.0000	100.00
2.5	2,859,887		0.0000	1.0000	100.00
3.5	1,365,506		0.0000	1.0000	100.00
4.5	1,294,009		0.0000	1.0000	100.00
5.5	1,072,359		0.0000	1.0000	100.00
6.5	1,072,359		0.0000	1.0000	100.00
7.5					100.00
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 306.2 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2013			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

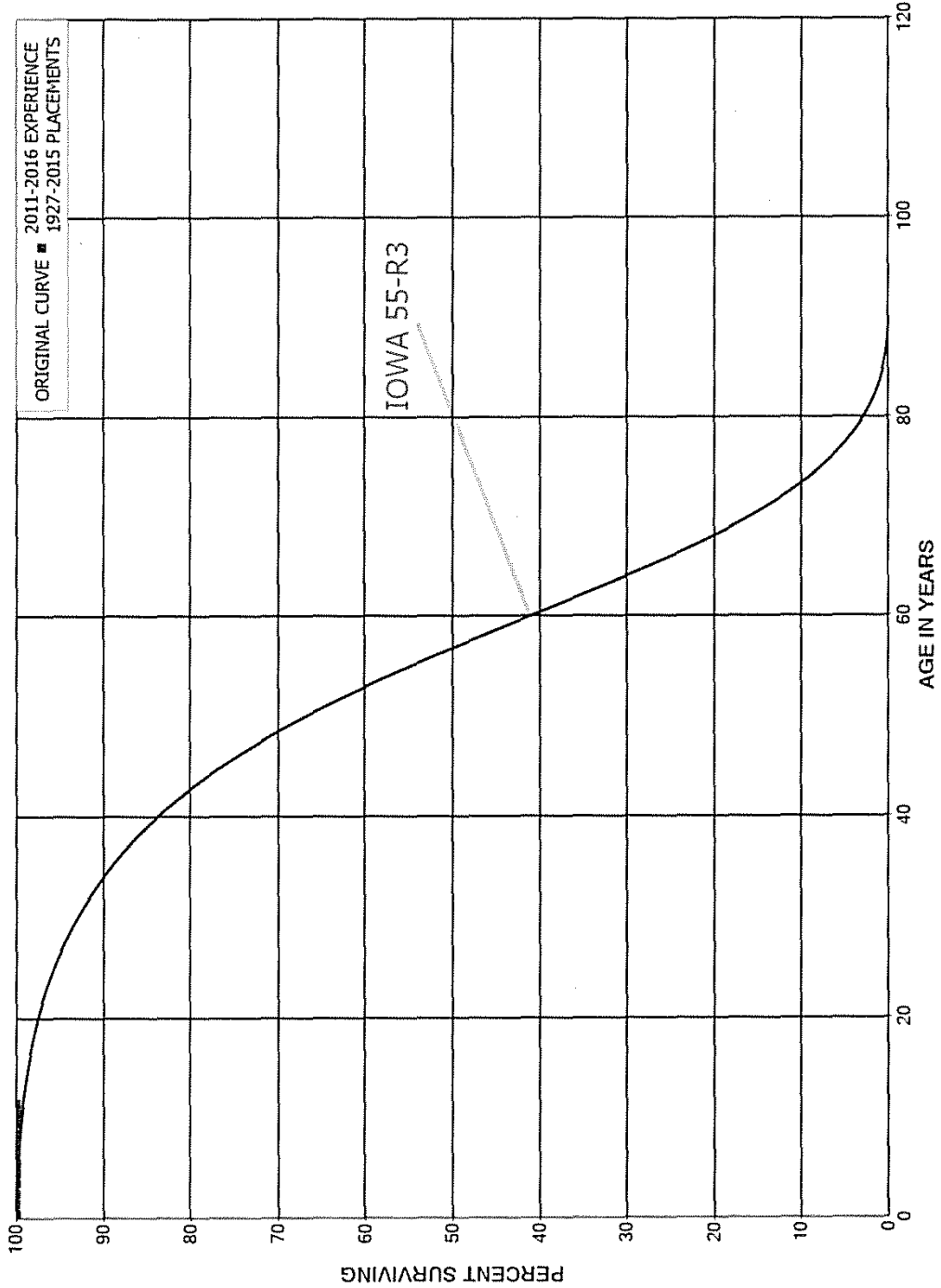
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 306.2 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2013		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5					
85.5					
86.5					
87.5					
88.5					
89.5					
90.5					
91.5					
92.5					
93.5					
94.5					
95.5					
96.5					
97.5					
98.5					
99.5					
100.5					
101.5					
102.5					
103.5					
104.5					
105.5					
106.5					
107.5					
108.5					
109.5	86,580		0.0000		
110.5	86,580		0.0000		
111.5	86,580		0.0000		
112.5	86,580		0.0000		
113.5	86,580		0.0000		
114.5	86,580		0.0000		
115.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 307.2 WELLS AND SPRINGS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 307.2 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1927-2015			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	22,067,000		0.0000	1.0000	100.00
0.5	24,777,476		0.0000	1.0000	100.00
1.5	17,210,249		0.0000	1.0000	100.00
2.5	16,397,469		0.0000	1.0000	100.00
3.5	16,397,469	15,001	0.0009	0.9991	100.00
4.5	16,064,672		0.0000	1.0000	99.91
5.5	5,913,444		0.0000	1.0000	99.91
6.5	3,202,968		0.0000	1.0000	99.91
7.5	2,510,167		0.0000	1.0000	99.91
8.5	2,510,167		0.0000	1.0000	99.91
9.5	2,510,167		0.0000	1.0000	99.91
10.5	2,510,167		0.0000	1.0000	99.91
11.5					99.91
12.5					99.91
13.5	4,860,649		0.0000		
14.5	4,860,649		0.0000		
15.5	4,860,649		0.0000		
16.5	4,860,649		0.0000		
17.5	4,860,649		0.0000		
18.5	4,860,649		0.0000		
19.5					
20.5					
21.5	301,821		0.0000		
22.5	301,821		0.0000		
23.5	301,821		0.0000		
24.5	301,821		0.0000		
25.5	301,821		0.0000		
26.5	301,821		0.0000		
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5	71,082		0.0000		
35.5	71,082		0.0000		
36.5	71,082		0.0000		
37.5	71,082		0.0000		
38.5	71,082		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 307.2 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2015		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	71,082		0.0000		
40.5					
41.5					
42.5	340,953		0.0000		
43.5	340,953		0.0000		
44.5	340,953		0.0000		
45.5	340,953		0.0000		
46.5	340,953		0.0000		
47.5	340,953		0.0000		
48.5	226,739		0.0000		
49.5	226,739		0.0000		
50.5	226,739		0.0000		
51.5	226,739		0.0000		
52.5	226,739		0.0000		
53.5	226,739		0.0000		
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

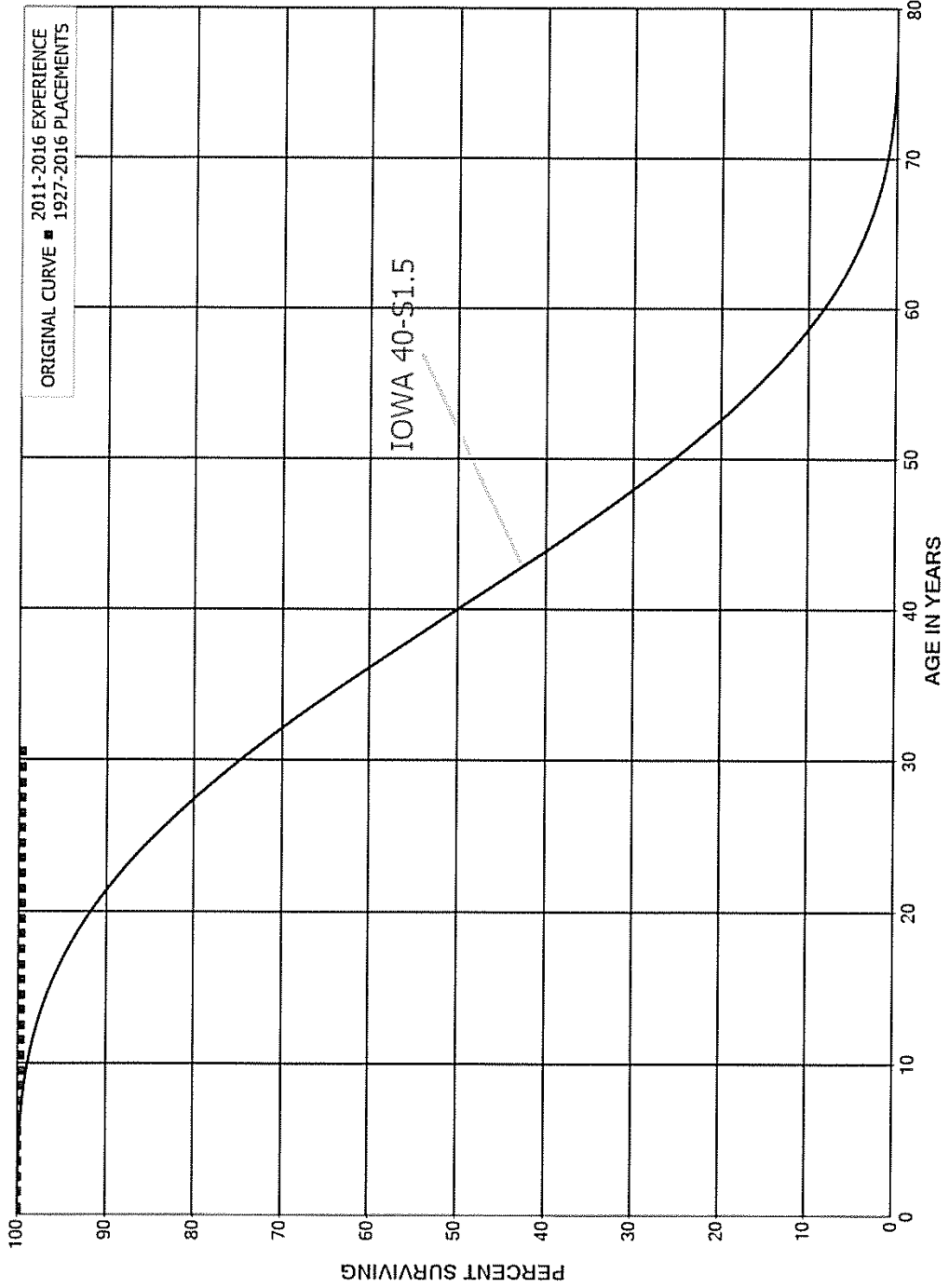
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 307.2 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2015			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5	3,339		0.0000		
81.5	3,339		0.0000		
82.5	3,339		0.0000		
83.5	62,563		0.0000		
84.5	62,563		0.0000		
85.5	62,563		0.0000		
86.5	59,224		0.0000		
87.5	59,224	3,058	0.0516		
88.5	56,166		0.0000		
89.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 311.2 PUMPING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 311.2 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1927-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	21,175,372		0.0000	1.0000	100.00
0.5	27,656,878		0.0000	1.0000	100.00
1.5	27,759,362		0.0000	1.0000	100.00
2.5	25,920,944		0.0000	1.0000	100.00
3.5	21,411,141		0.0000	1.0000	100.00
4.5	21,820,587		0.0000	1.0000	100.00
5.5	12,711,378		0.0000	1.0000	100.00
6.5	6,175,644		0.0000	1.0000	100.00
7.5	5,308,458	21,300	0.0040	0.9960	100.00
8.5	5,287,158		0.0000	1.0000	99.60
9.5	2,904,588		0.0000	1.0000	99.60
10.5	1,887,526		0.0000	1.0000	99.60
11.5	2,320,221		0.0000	1.0000	99.60
12.5	6,733,968		0.0000	1.0000	99.60
13.5	10,678,499		0.0000	1.0000	99.60
14.5	11,118,398		0.0000	1.0000	99.60
15.5	11,240,682		0.0000	1.0000	99.60
16.5	11,240,682		0.0000	1.0000	99.60
17.5	10,367,850		0.0000	1.0000	99.60
18.5	6,697,564		0.0000	1.0000	99.60
19.5	2,753,033		0.0000	1.0000	99.60
20.5	2,313,134		0.0000	1.0000	99.60
21.5	2,426,717		0.0000	1.0000	99.60
22.5	2,426,717		0.0000	1.0000	99.60
23.5	979,328		0.0000	1.0000	99.60
24.5	1,485,179		0.0000	1.0000	99.60
25.5	1,485,179		0.0000	1.0000	99.60
26.5	1,485,179		0.0000	1.0000	99.60
27.5	1,249,312		0.0000	1.0000	99.60
28.5	1,249,312		0.0000	1.0000	99.60
29.5	1,249,312		0.0000	1.0000	99.60
30.5					99.60
31.5					
32.5					
33.5					
34.5	50,883		0.0000		
35.5	50,883		0.0000		
36.5	50,883		0.0000		
37.5	1,142,483		0.0000		
38.5	1,142,483		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 311.2 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2016		EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,142,483		0.0000	
40.5	1,346,806		0.0000	
41.5	1,346,806		0.0000	
42.5	1,582,919		0.0000	
43.5	491,319	30,000	0.0611	
44.5	461,319		0.0000	
45.5	461,319		0.0000	
46.5	206,113		0.0000	
47.5	1,219,444		0.0000	
48.5	4,163,996		0.0000	
49.5	4,163,996		0.0000	
50.5	4,163,996		0.0000	
51.5	4,163,996		0.0000	
52.5	4,163,996		0.0000	
53.5	3,903,869		0.0000	
54.5	753,204		0.0000	
55.5	753,204		0.0000	
56.5	753,204		0.0000	
57.5	753,204		0.0000	
58.5	753,204		0.0000	
59.5				
60.5	343,284		0.0000	
61.5	343,284		0.0000	
62.5	545,051		0.0000	
63.5	545,051		0.0000	
64.5	545,051		0.0000	
65.5	545,051		0.0000	
66.5	201,767		0.0000	
67.5	201,767		0.0000	
68.5				
69.5				
70.5				
71.5				
72.5				
73.5				
74.5				
75.5				
76.5				
77.5				
78.5				

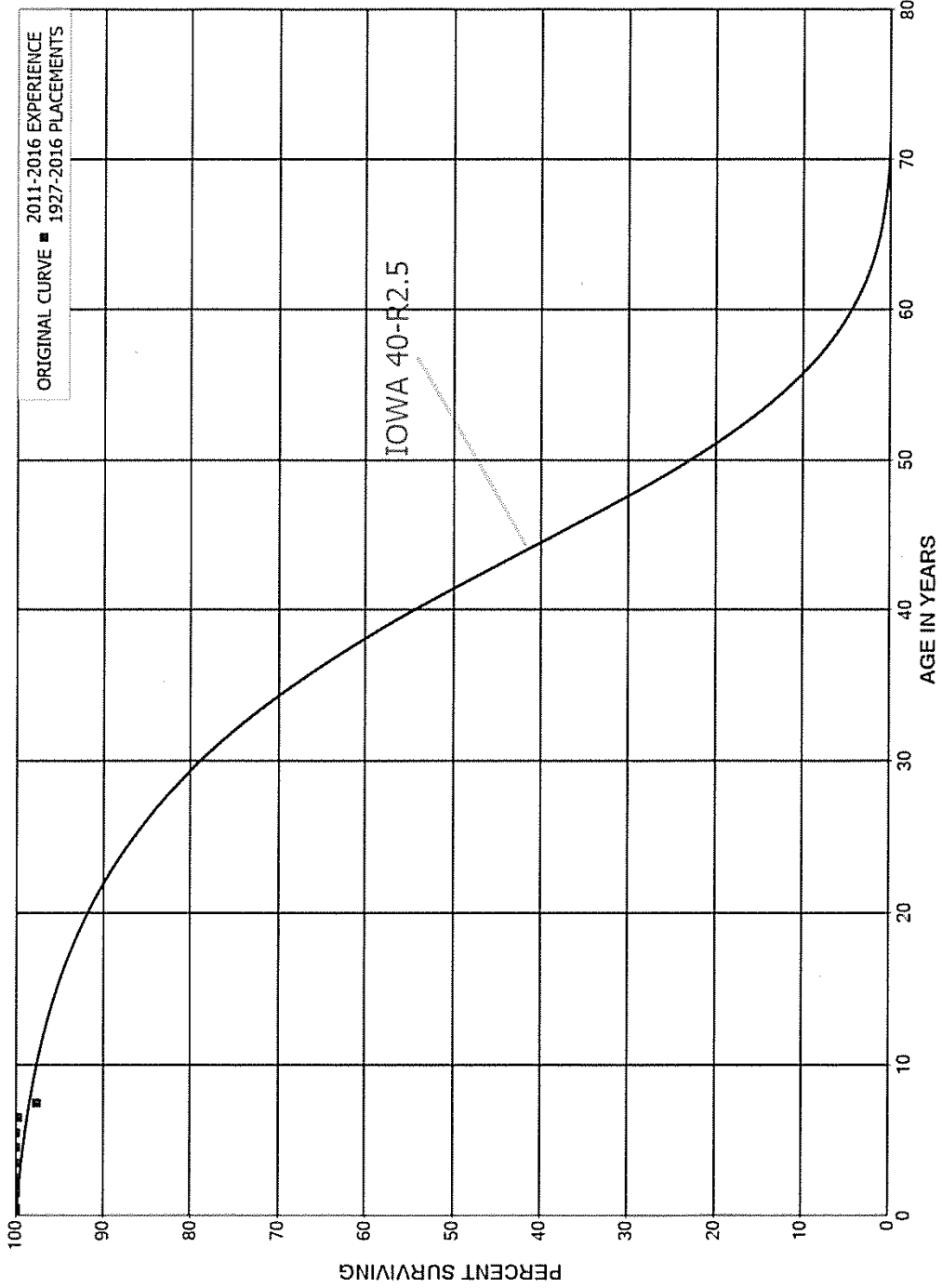
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 311.2 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5	2,512		0.0000		
81.5	2,512		0.0000		
82.5	2,512		0.0000		
83.5	43,919		0.0000		
84.5	43,919		0.0000		
85.5	43,919		0.0000		
86.5	41,407		0.0000		
87.5	41,407		0.0000		
88.5	41,407		0.0000		
89.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 320.3 WATER TREATMENT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 320.3 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1927-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	65,315,505		0.0000	1.0000	100.00
0.5	90,409,869		0.0000	1.0000	100.00
1.5	85,649,785		0.0000	1.0000	100.00
2.5	82,955,616		0.0000	1.0000	100.00
3.5	78,113,856	77,358	0.0010	0.9990	100.00
4.5	66,575,797		0.0000	1.0000	99.90
5.5	30,525,404	47,500	0.0016	0.9984	99.90
6.5	3,716,270	80,538	0.0217	0.9783	99.75
7.5					97.58
8.5					
9.5					
10.5					
11.5					
12.5					
13.5	15,196,651		0.0000		
14.5	15,196,651		0.0000		
15.5	15,196,651		0.0000		
16.5	15,196,651		0.0000		
17.5	15,196,651		0.0000		
18.5	15,196,651		0.0000		
19.5	27,351,264		0.0000		
20.5	27,351,264		0.0000		
21.5	33,830,779		0.0000		
22.5	33,830,779		0.0000		
23.5	33,830,779		0.0000		
24.5	33,830,779		0.0000		
25.5	6,479,515		0.0000		
26.5	6,479,515		0.0000		
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5	6,841,379		0.0000		
35.5	6,841,379		0.0000		
36.5	6,841,379		0.0000		
37.5	6,841,379	106,280	0.0155		
38.5	6,735,099		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 320.3 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2016		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,735,099		0.0000		
40.5					
41.5					
42.5	19,954,023		0.0000		
43.5	19,954,023	12,000	0.0006		
44.5	19,942,023		0.0000		
45.5	19,942,023		0.0000		
46.5	19,942,023		0.0000		
47.5	19,942,023	43,780	0.0022		
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

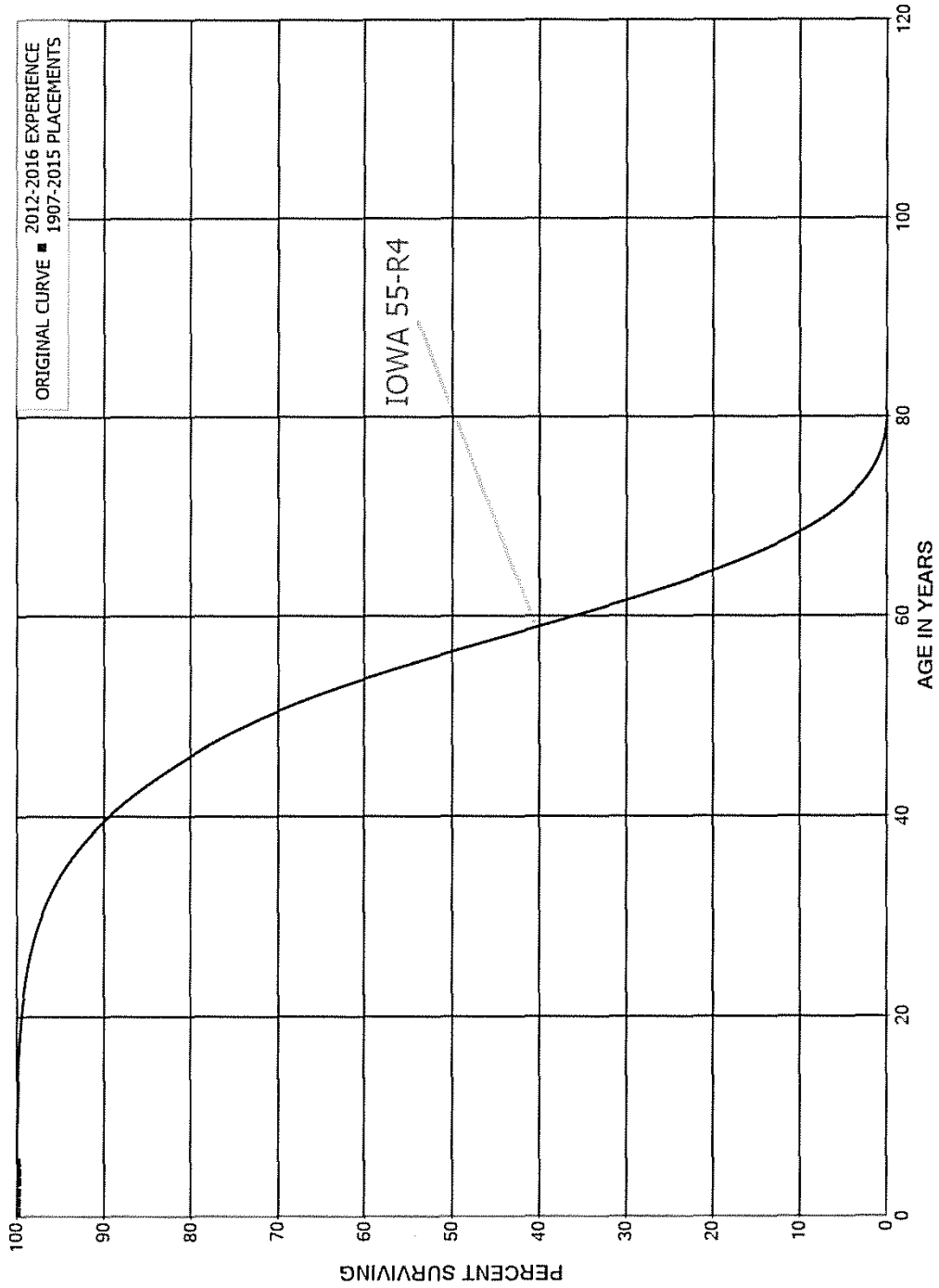
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 320.3 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2016		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5	1,805,364		0.0000		
84.5	1,805,364		0.0000		
85.5	1,805,364		0.0000		
86.5	1,805,364	285,203	0.1580		
87.5	1,520,161		0.0000		
88.5	1,520,161		0.0000		
89.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1907-2015		EXPERIENCE BAND 2012-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	921,179		0.0000	1.0000	100.00
0.5	921,179		0.0000	1.0000	100.00
1.5	109,082		0.0000	1.0000	100.00
2.5	234,297		0.0000	1.0000	100.00
3.5	571,675		0.0000	1.0000	100.00
4.5	378,506		0.0000	1.0000	100.00
5.5					100.00
6.5					
7.5	3,465,127		0.0000		
8.5	3,465,127		0.0000		
9.5	3,430,551		0.0000		
10.5	3,430,551		0.0000		
11.5					
12.5					
13.5					
14.5					
15.5					
16.5	556,786		0.0000		
17.5	1,899,346	185,604	0.0977		
18.5	1,156,956		0.0000		
19.5	129,718		0.0000		
20.5	308,596		0.0000		
21.5	178,878		0.0000		
22.5					
23.5	1,367,062		0.0000		
24.5	1,367,062		0.0000		
25.5	582,029		0.0000		
26.5	582,029		0.0000		
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5	233,395		0.0000		
35.5	233,395		0.0000		
36.5					
37.5					
38.5	923,983		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2015			EXPERIENCE BAND 2012-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	923,983		0.0000		
40.5	177,414		0.0000		
41.5	177,414		0.0000		
42.5	176,593		0.0000		
43.5	176,593		0.0000		
44.5	155,817		0.0000		
45.5	155,817		0.0000		
46.5	498,466		0.0000		
47.5	498,466		0.0000		
48.5					
49.5					
50.5					
51.5	340,720		0.0000		
52.5	340,720		0.0000		
53.5					
54.5					
55.5					
56.5					
57.5	174,515		0.0000		
58.5	174,515		0.0000		
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

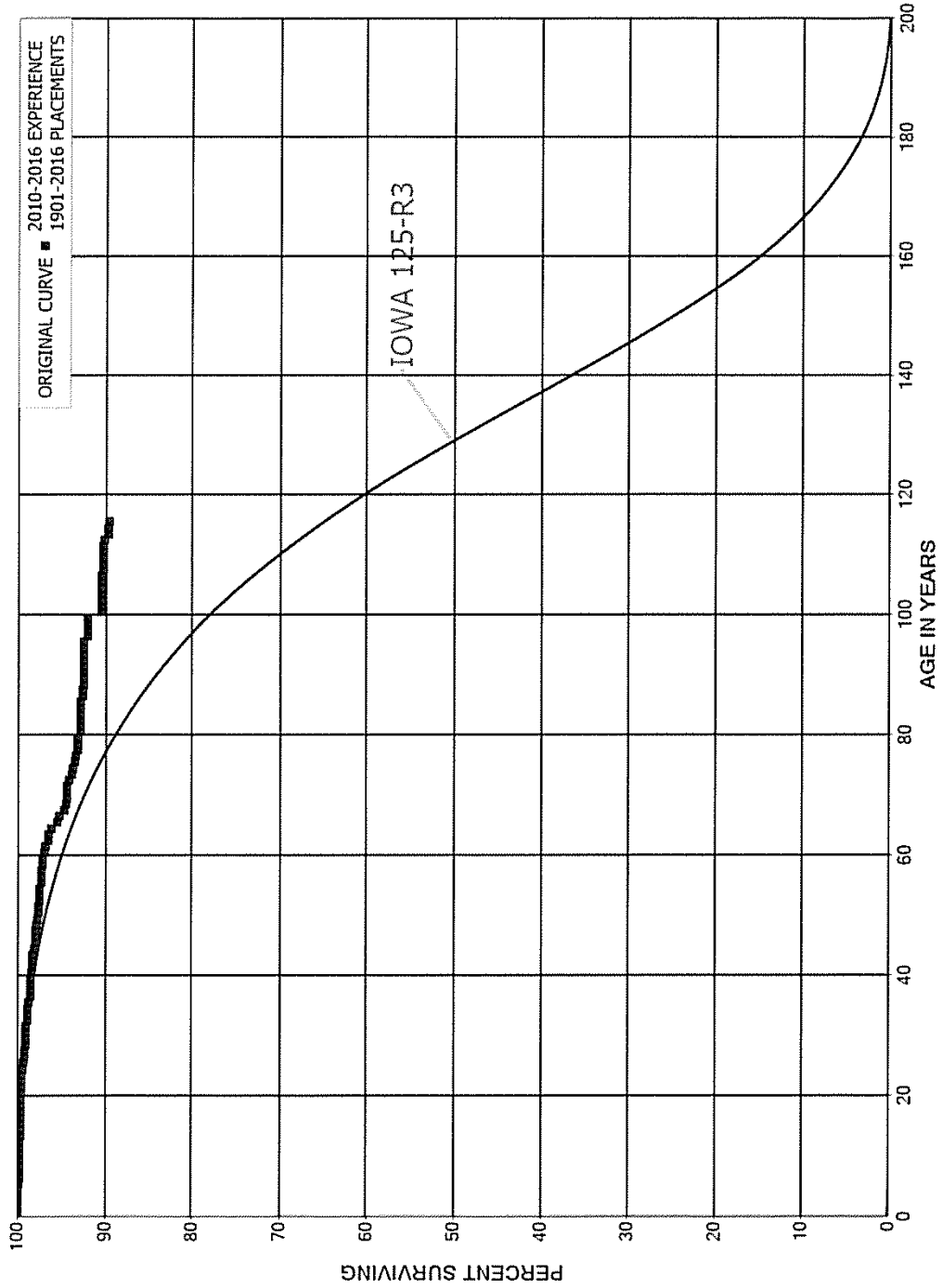
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2015			EXPERIENCE BAND 2012-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5					
85.5					
86.5					
87.5	75,290		0.0000		
88.5	75,290		0.0000		
89.5					
90.5					
91.5					
92.5	117,087		0.0000		
93.5	117,087		0.0000		
94.5					
95.5					
96.5					
97.5					
98.5					
99.5					
100.5					
101.5					
102.5					
103.5					
104.5					
105.5					
106.5					
107.5	5,839		0.0000		
108.5	5,839		0.0000		
109.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1901-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	93,785,127		0.0000	1.0000	100.00
0.5	99,619,639	8,222	0.0001	0.9999	100.00
1.5	100,700,811	41,996	0.0004	0.9996	99.99
2.5	85,033,600	5,127	0.0001	0.9999	99.95
3.5	74,009,084	6,179	0.0001	0.9999	99.94
4.5	61,378,456	72,217	0.0012	0.9988	99.94
5.5	73,273,820	40,969	0.0006	0.9994	99.82
6.5	79,178,617	4,177	0.0001	0.9999	99.76
7.5	86,347,096	50,308	0.0006	0.9994	99.76
8.5	102,671,144	129	0.0000	1.0000	99.70
9.5	112,213,246	297	0.0000	1.0000	99.70
10.5	117,902,001	2,162	0.0000	1.0000	99.70
11.5	111,287,216	7,378	0.0001	0.9999	99.70
12.5	124,306,954	93,356	0.0008	0.9992	99.69
13.5	128,500,122	655	0.0000	1.0000	99.62
14.5	118,049,902	18,771	0.0002	0.9998	99.61
15.5	117,056,710	2,395	0.0000	1.0000	99.60
16.5	127,818,071	3,511	0.0000	1.0000	99.60
17.5	117,449,373	2,148	0.0000	1.0000	99.59
18.5	102,077,912	26,765	0.0003	0.9997	99.59
19.5	89,519,243	12,464	0.0001	0.9999	99.57
20.5	92,874,645	1,292	0.0000	1.0000	99.55
21.5	92,223,097	9,417	0.0001	0.9999	99.55
22.5	74,890,211	7,727	0.0001	0.9999	99.54
23.5	77,226,396	79,826	0.0010	0.9990	99.53
24.5	72,607,416	90,782	0.0013	0.9987	99.43
25.5	72,499,641	91,527	0.0013	0.9987	99.30
26.5	65,778,771	33,640	0.0005	0.9995	99.18
27.5	55,102,777	28,692	0.0005	0.9995	99.13
28.5	44,614,850	4,261	0.0001	0.9999	99.08
29.5	37,375,974	10,250	0.0003	0.9997	99.07
30.5	32,436,218	1,814	0.0001	0.9999	99.04
31.5	30,415,018	53,567	0.0018	0.9982	99.03
32.5	27,375,793	19,013	0.0007	0.9993	98.86
33.5	29,115,552	2,032	0.0001	0.9999	98.79
34.5	30,069,363	8,062	0.0003	0.9997	98.78
35.5	30,096,298	85,167	0.0028	0.9972	98.76
36.5	34,696,621		0.0000	1.0000	98.48
37.5	35,460,763	2,905	0.0001	0.9999	98.48
38.5	40,799,285	2,743	0.0001	0.9999	98.47

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	43,932,601	36,628	0.0008	0.9992	98.46
40.5	46,081,022	36,874	0.0008	0.9992	98.38
41.5	46,530,669	2,455	0.0001	0.9999	98.30
42.5	47,642,312	7,387	0.0002	0.9998	98.30
43.5	55,628,075	135,254	0.0024	0.9976	98.28
44.5	54,169,658	66,566	0.0012	0.9988	98.04
45.5	51,212,891	239	0.0000	1.0000	97.92
46.5	52,236,390	11,392	0.0002	0.9998	97.92
47.5	53,247,317	48,719	0.0009	0.9991	97.90
48.5	51,906,913	53,343	0.0010	0.9990	97.81
49.5	46,514,135	19,669	0.0004	0.9996	97.71
50.5	47,194,480	36,345	0.0008	0.9992	97.67
51.5	46,076,703	22,729	0.0005	0.9995	97.59
52.5	43,180,828	26,661	0.0006	0.9994	97.55
53.5	39,948,121	10,231	0.0003	0.9997	97.49
54.5	36,068,648	50,059	0.0014	0.9986	97.46
55.5	32,804,690	11,194	0.0003	0.9997	97.33
56.5	29,479,077	10,229	0.0003	0.9997	97.29
57.5	27,598,138	9,368	0.0003	0.9997	97.26
58.5	26,989,431	417	0.0000	1.0000	97.23
59.5	25,571,274	57,575	0.0023	0.9977	97.22
60.5	25,853,358	58,300	0.0023	0.9977	97.00
61.5	25,622,560	66,864	0.0026	0.9974	96.79
62.5	22,763,087	8,046	0.0004	0.9996	96.53
63.5	22,336,641	64,000	0.0029	0.9971	96.50
64.5	20,183,863	161,489	0.0080	0.9920	96.22
65.5	17,935,269	23,946	0.0013	0.9987	95.45
66.5	13,495,894	88,282	0.0065	0.9935	95.33
67.5	7,651,074	14,985	0.0020	0.9980	94.70
68.5	6,762,394	7,870	0.0012	0.9988	94.52
69.5	5,754,808		0.0000	1.0000	94.41
70.5	5,960,087		0.0000	1.0000	94.41
71.5	7,239,393	21,457	0.0030	0.9970	94.41
72.5	8,083,534	24,923	0.0031	0.9969	94.13
73.5	9,528,054	14,246	0.0015	0.9985	93.84
74.5	7,907,752	15,596	0.0020	0.9980	93.70
75.5	6,491,382	6,019	0.0009	0.9991	93.51
76.5	5,219,574	15,242	0.0029	0.9971	93.42
77.5	3,339,026		0.0000	1.0000	93.15
78.5	2,372,456		0.0000	1.0000	93.15

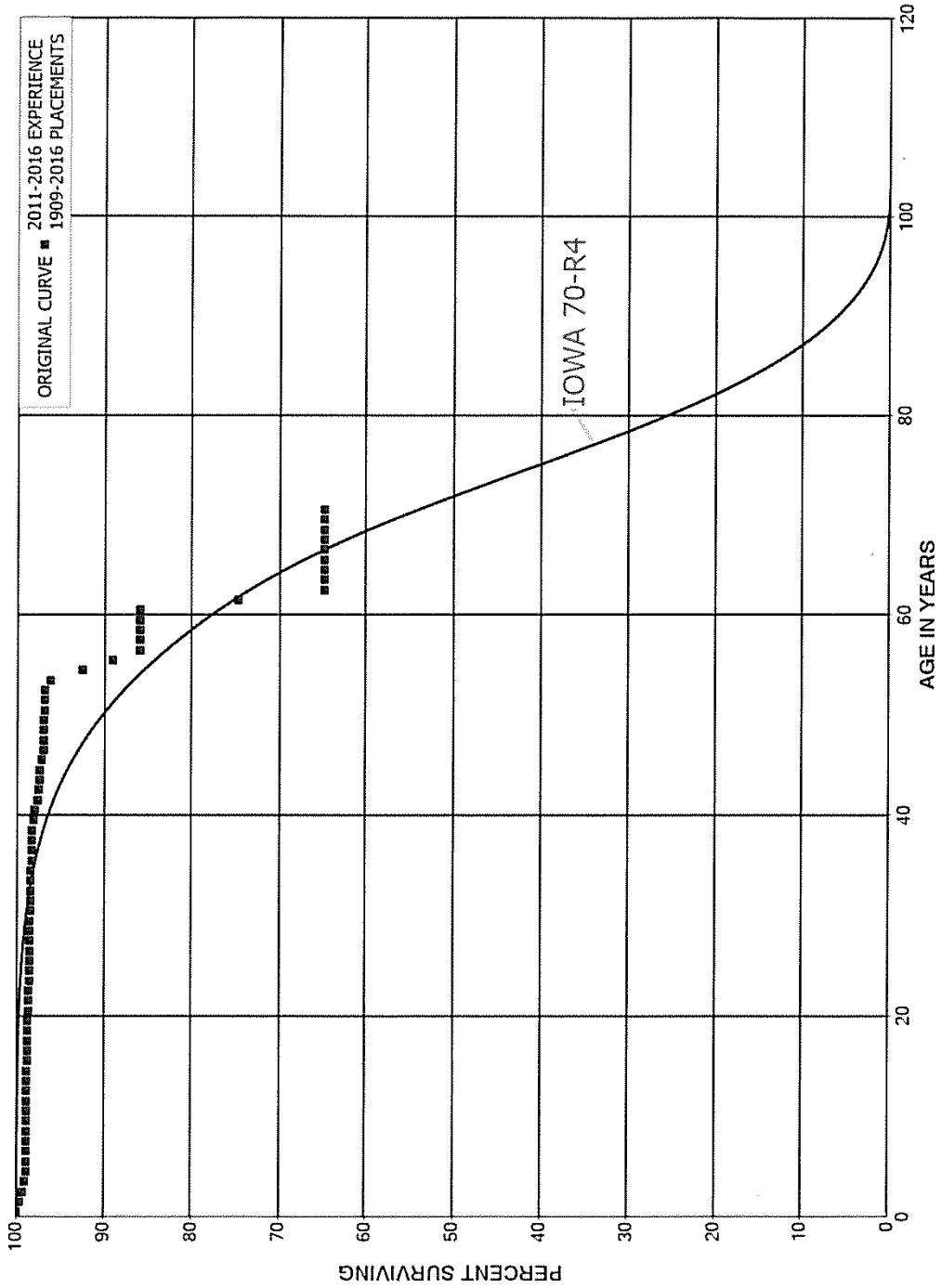
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,618,846	5,814	0.0036	0.9964	93.15
80.5	4,459,416		0.0000	1.0000	92.82
81.5	8,768,576		0.0000	1.0000	92.82
82.5	11,877,880		0.0000	1.0000	92.82
83.5	14,427,490		0.0000	1.0000	92.82
84.5	17,384,729	2,954	0.0002	0.9998	92.82
85.5	20,405,889	45,934	0.0023	0.9977	92.80
86.5	21,049,195	7,057	0.0003	0.9997	92.59
87.5	20,858,431	1,343	0.0001	0.9999	92.56
88.5	19,310,530	814	0.0000	1.0000	92.56
89.5	18,156,506		0.0000	1.0000	92.55
90.5	16,693,926	8,849	0.0005	0.9995	92.55
91.5	13,307,986		0.0000	1.0000	92.50
92.5	9,653,280		0.0000	1.0000	92.50
93.5	6,465,155		0.0000	1.0000	92.50
94.5	5,838,237		0.0000	1.0000	92.50
95.5	6,187,531	28,251	0.0046	0.9954	92.50
96.5	8,442,560		0.0000	1.0000	92.08
97.5	10,066,166		0.0000	1.0000	92.08
98.5	11,887,966	1,298	0.0001	0.9999	92.08
99.5	11,785,385	195,104	0.0166	0.9834	92.07
100.5	11,883,769	7,709	0.0006	0.9994	90.55
101.5	10,946,957		0.0000	1.0000	90.49
102.5	8,640,266		0.0000	1.0000	90.49
103.5	8,022,823		0.0000	1.0000	90.49
104.5	7,527,247	112	0.0000	1.0000	90.49
105.5	7,931,631		0.0000	1.0000	90.49
106.5	8,069,312	14,133	0.0018	0.9982	90.49
107.5	10,211,964		0.0000	1.0000	90.33
108.5	9,746,627	2,512	0.0003	0.9997	90.33
109.5	29,309,312	21,570	0.0007	0.9993	90.30
110.5	27,638,075	431	0.0000	1.0000	90.24
111.5	26,241,093	33,444	0.0013	0.9987	90.24
112.5	24,708,425	102,804	0.0042	0.9958	90.12
113.5	21,657,218	14,569	0.0007	0.9993	89.75
114.5	20,811,980	4,943	0.0002	0.9998	89.69
115.5					89.66

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 333.4 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 333.4 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,401,366		0.0000	1.0000	100.00
0.5	13,869,868	49,606	0.0036	0.9964	100.00
1.5	10,798,425	37,811	0.0035	0.9965	99.64
2.5	11,272,201	22,202	0.0020	0.9980	99.29
3.5	15,492,101	38,500	0.0025	0.9975	99.10
4.5	20,476,255	1,372	0.0001	0.9999	98.85
5.5	27,004,463	1,029	0.0000	1.0000	98.84
6.5	31,734,619	1,372	0.0000	1.0000	98.84
7.5	33,905,271	686	0.0000	1.0000	98.84
8.5	35,046,058	686	0.0000	1.0000	98.83
9.5	31,530,951	1,372	0.0000	1.0000	98.83
10.5	27,251,409	1,372	0.0001	0.9999	98.83
11.5	24,654,452	3,088	0.0001	0.9999	98.82
12.5	23,178,416	686	0.0000	1.0000	98.81
13.5	23,639,205	3,431	0.0001	0.9999	98.81
14.5	20,009,845	3,088	0.0002	0.9998	98.79
15.5	18,526,262	3,431	0.0002	0.9998	98.78
16.5	15,089,041	4,803	0.0003	0.9997	98.76
17.5	11,294,307	1,716	0.0002	0.9998	98.73
18.5	8,988,646	2,402	0.0003	0.9997	98.71
19.5	8,401,939	4,117	0.0005	0.9995	98.69
20.5	9,035,997	1,372	0.0002	0.9998	98.64
21.5	10,197,062	5,147	0.0005	0.9995	98.62
22.5	12,088,254	2,059	0.0002	0.9998	98.57
23.5	12,657,807	3,088	0.0002	0.9998	98.56
24.5	12,638,936	1,029	0.0001	0.9999	98.53
25.5	11,269,949	1,716	0.0002	0.9998	98.53
26.5	9,794,599	686	0.0001	0.9999	98.51
27.5	8,116,476	2,745	0.0003	0.9997	98.50
28.5	6,186,514	686	0.0001	0.9999	98.47
29.5	7,407,965	1,029	0.0001	0.9999	98.46
30.5	8,869,248	3,088	0.0003	0.9997	98.45
31.5	8,820,528	1,029	0.0001	0.9999	98.41
32.5	9,474,827	3,431	0.0004	0.9996	98.40
33.5	8,966,004	1,029	0.0001	0.9999	98.36
34.5	8,169,657	1,372	0.0002	0.9998	98.35
35.5	5,327,381	686	0.0001	0.9999	98.34
36.5	2,663,520	1,372	0.0005	0.9995	98.32
37.5	1,925,158	686	0.0004	0.9996	98.27
38.5	704,393	1,029	0.0015	0.9985	98.24

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 333.4 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	404,520	686	0.0017	0.9983	98.09	
40.5	354,426	1,029	0.0029	0.9971	97.93	
41.5	291,294	343	0.0012	0.9988	97.64	
42.5	228,506	343	0.0015	0.9985	97.53	
43.5	160,915		0.0000	1.0000	97.38	
44.5	138,955	343	0.0025	0.9975	97.38	
45.5	183,901	343	0.0019	0.9981	97.14	
46.5	203,459		0.0000	1.0000	96.96	
47.5	273,796		0.0000	1.0000	96.96	
48.5	258,356		0.0000	1.0000	96.96	
49.5	252,523	343	0.0014	0.9986	96.96	
50.5	207,920		0.0000	1.0000	96.83	
51.5	135,868		0.0000	1.0000	96.83	
52.5	104,302	686	0.0066	0.9934	96.83	
53.5	8,918	343	0.0385	0.9615	96.19	
54.5	9,261	343	0.0370	0.9630	92.49	
55.5	9,947	343	0.0345	0.9655	89.07	
56.5	8,918		0.0000	1.0000	86.00	
57.5	7,546		0.0000	1.0000	86.00	
58.5	6,517		0.0000	1.0000	86.00	
59.5	6,517		0.0000	1.0000	86.00	
60.5	7,889	1,029	0.1304	0.8696	86.00	
61.5	5,145	686	0.1333	0.8667	74.78	
62.5	5,488		0.0000	1.0000	64.81	
63.5	5,145		0.0000	1.0000	64.81	
64.5	5,488		0.0000	1.0000	64.81	
65.5	5,145		0.0000	1.0000	64.81	
66.5	3,430		0.0000	1.0000	64.81	
67.5	3,087		0.0000	1.0000	64.81	
68.5	2,058		0.0000	1.0000	64.81	
69.5	1,372		0.0000	1.0000	64.81	
70.5	1,372		0.0000	1.0000	64.81	
71.5	1,715		0.0000	1.0000	64.81	
72.5	2,401		0.0000	1.0000	64.81	
73.5	2,401		0.0000	1.0000	64.81	
74.5	3,430		0.0000	1.0000	64.81	
75.5	3,430	686	0.2000	0.8000	64.81	
76.5	2,401		0.0000	1.0000	51.85	
77.5	1,715		0.0000	1.0000	51.85	
78.5	1,372		0.0000	1.0000	51.85	

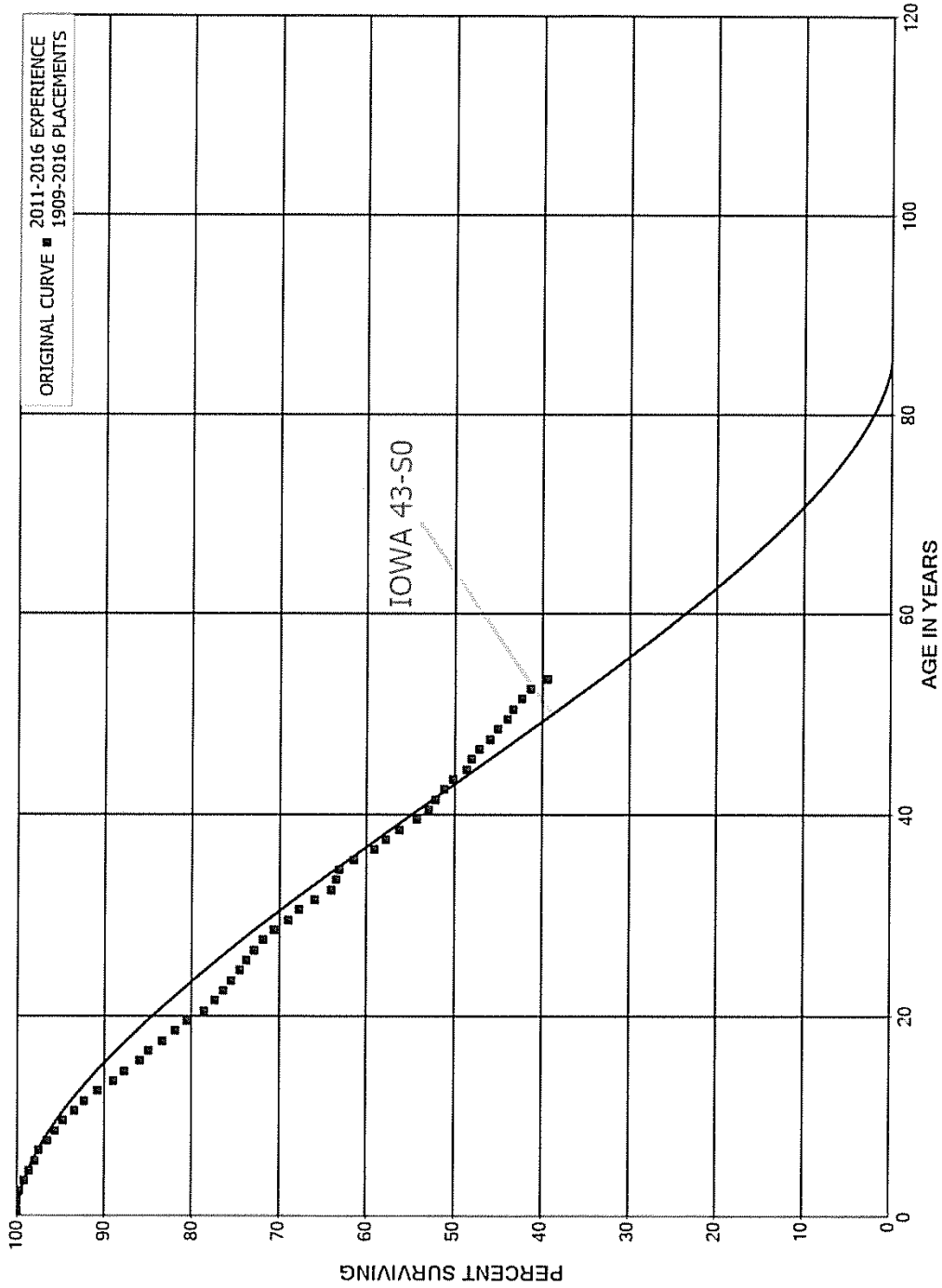
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 333.4 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,372		0.0000	1.0000	51.85
80.5	686		0.0000	1.0000	51.85
81.5	686		0.0000	1.0000	51.85
82.5	343		0.0000	1.0000	51.85
83.5	343		0.0000	1.0000	51.85
84.5	343		0.0000	1.0000	51.85
85.5	343		0.0000	1.0000	51.85
86.5					51.85
87.5					
88.5					
89.5	42,888		0.0000		
90.5	43,231		0.0000		
91.5	43,231	343	0.0079		
92.5	42,888		0.0000		
93.5	42,888		0.0000		
94.5	42,888		0.0000		
95.5					
96.5					
97.5	343		0.0000		
98.5	343		0.0000		
99.5	343		0.0000		
100.5	686		0.0000		
101.5	1,372		0.0000		
102.5	1,372		0.0000		
103.5	1,029		0.0000		
104.5	1,029		0.0000		
105.5	1,029		0.0000		
106.5	686		0.0000		
107.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 334.4 METERS AND METER INSTALLATIONS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 334.4 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,632,272		0.0000	1.0000	100.00
0.5	10,849,025	11,291	0.0010	0.9990	100.00
1.5	14,064,027	27,215	0.0019	0.9981	99.90
2.5	13,687,894	78,182	0.0057	0.9943	99.70
3.5	15,387,573	75,190	0.0049	0.9951	99.13
4.5	19,628,884	131,704	0.0067	0.9933	98.65
5.5	22,198,982	112,439	0.0051	0.9949	97.99
6.5	24,704,005	249,498	0.0101	0.9899	97.49
7.5	21,356,140	195,878	0.0092	0.9908	96.51
8.5	22,060,860	204,632	0.0093	0.9907	95.62
9.5	19,861,122	274,886	0.0138	0.9862	94.73
10.5	17,110,280	211,416	0.0124	0.9876	93.42
11.5	15,403,190	255,406	0.0166	0.9834	92.27
12.5	14,328,162	279,481	0.0195	0.9805	90.74
13.5	14,429,055	198,942	0.0138	0.9862	88.97
14.5	12,055,325	240,306	0.0199	0.9801	87.74
15.5	11,104,388	142,039	0.0128	0.9872	85.99
16.5	9,016,049	153,419	0.0170	0.9830	84.89
17.5	6,769,039	117,089	0.0173	0.9827	83.45
18.5	5,436,637	92,138	0.0169	0.9831	82.00
19.5	5,172,477	130,877	0.0253	0.9747	80.62
20.5	5,535,562	82,728	0.0149	0.9851	78.58
21.5	6,261,953	77,913	0.0124	0.9876	77.40
22.5	7,452,538	94,985	0.0127	0.9873	76.44
23.5	7,785,420	101,113	0.0130	0.9870	75.46
24.5	7,790,235	83,166	0.0107	0.9893	74.48
25.5	6,927,498	77,695	0.0112	0.9888	73.69
26.5	6,004,358	88,638	0.0148	0.9852	72.86
27.5	4,952,309	82,947	0.0167	0.9833	71.79
28.5	3,774,856	86,011	0.0228	0.9772	70.58
29.5	4,569,965	82,728	0.0181	0.9819	68.98
30.5	5,509,521	147,072	0.0267	0.9733	67.73
31.5	5,407,972	147,948	0.0274	0.9726	65.92
32.5	5,729,692	52,089	0.0091	0.9909	64.12
33.5	5,412,348	30,202	0.0056	0.9944	63.53
34.5	4,944,649	135,035	0.0273	0.9727	63.18
35.5	3,222,024	119,496	0.0371	0.9629	61.45
36.5	1,626,553	37,206	0.0229	0.9771	59.17
37.5	1,189,275	30,640	0.0258	0.9742	57.82
38.5	423,931	15,758	0.0372	0.9628	56.33

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 334.4 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	246,000	5,690	0.0231	0.9769	54.24
40.5	213,828	3,064	0.0143	0.9857	52.98
41.5	176,619	3,721	0.0211	0.9789	52.22
42.5	137,005	2,408	0.0176	0.9824	51.12
43.5	97,830	3,064	0.0313	0.9687	50.22
44.5	86,886	1,094	0.0126	0.9874	48.65
45.5	115,994	1,970	0.0170	0.9830	48.04
46.5	127,155	3,283	0.0258	0.9742	47.22
47.5	170,490	3,283	0.0193	0.9807	46.00
48.5	158,672	3,939	0.0248	0.9752	45.12
49.5	151,449	2,407	0.0159	0.9841	44.00
50.5	125,188	3,064	0.0245	0.9755	43.30
51.5	80,980	1,751	0.0216	0.9784	42.24
52.5	62,159	2,845	0.0458	0.9542	41.33
53.5	5,912		0.0000	1.0000	39.43
54.5	6,131	219	0.0357	0.9643	39.43
55.5	6,568		0.0000	1.0000	38.03
56.5	6,130	219	0.0357	0.9643	38.03
57.5	5,471		0.0000	1.0000	36.67
58.5	4,595		0.0000	1.0000	36.67
59.5	4,376		0.0000	1.0000	36.67
60.5	5,031		0.0000	1.0000	36.67
61.5	3,937		0.0000	1.0000	36.67
62.5	4,593		0.0000	1.0000	36.67
63.5	4,376		0.0000	1.0000	36.67
64.5	4,594	437	0.0952	0.9048	36.67
65.5	3,500	219	0.0626	0.9374	33.18
66.5	2,188		0.0000	1.0000	31.10
67.5	1,969		0.0000	1.0000	31.10
68.5	1,312		0.0000	1.0000	31.10
69.5	874		0.0000	1.0000	31.10
70.5	874		0.0000	1.0000	31.10
71.5	1,093		0.0000	1.0000	31.10
72.5	1,530		0.0000	1.0000	31.10
73.5	1,530		0.0000	1.0000	31.10
74.5	2,187		0.0000	1.0000	31.10
75.5	2,187		0.0000	1.0000	31.10
76.5	1,968		0.0000	1.0000	31.10
77.5	1,530		0.0000	1.0000	31.10
78.5	1,093		0.0000	1.0000	31.10

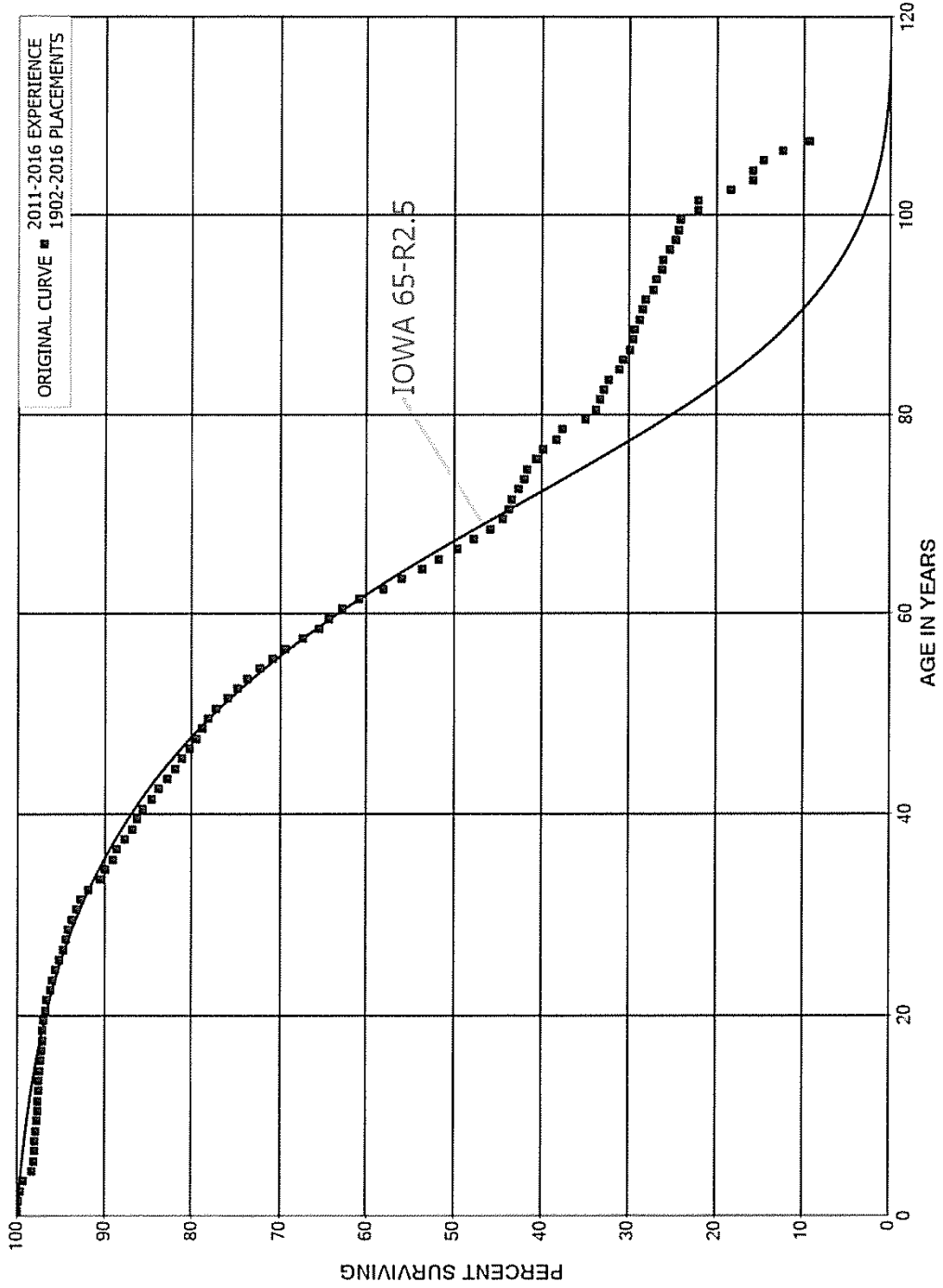
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 334.4 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,093		0.0000	1.0000	31.10
80.5	436		0.0000	1.0000	31.10
81.5	436		0.0000	1.0000	31.10
82.5	218		0.0000	1.0000	31.10
83.5	218		0.0000	1.0000	31.10
84.5	218		0.0000	1.0000	31.10
85.5	218		0.0000	1.0000	31.10
86.5					31.10
87.5					
88.5					
89.5	27,357		0.0000		
90.5	27,576		0.0000		
91.5	27,576		0.0000		
92.5	27,576		0.0000		
93.5	27,576		0.0000		
94.5	27,576		0.0000		
95.5	219		0.0000		
96.5					
97.5	219		0.0000		
98.5	219		0.0000		
99.5	219		0.0000		
100.5	438		0.0000		
101.5	876		0.0000		
102.5	876		0.0000		
103.5	657		0.0000		
104.5	657		0.0000		
105.5	657		0.0000		
106.5	438		0.0000		
107.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 335.4 HYDRANTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 335.4 HYDRANTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1902-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	18,208,545		0.0000	1.0000	100.00
0.5	18,258,428	26,274	0.0014	0.9986	100.00
1.5	16,577,725	33,271	0.0020	0.9980	99.86
2.5	12,407,299	47,477	0.0038	0.9962	99.66
3.5	8,674,461	90,418	0.0104	0.9896	99.27
4.5	4,333,280	8,873	0.0020	0.9980	98.24
5.5	3,003,079	1,779	0.0006	0.9994	98.04
6.5	2,803,122	650	0.0002	0.9998	97.98
7.5	3,207,001	5,199	0.0016	0.9984	97.96
8.5	3,688,538	2,599	0.0007	0.9993	97.80
9.5	4,149,931	2,599	0.0006	0.9994	97.73
10.5	4,165,527	3,899	0.0009	0.9991	97.67
11.5	4,281,200	1,950	0.0005	0.9995	97.58
12.5	4,524,243	3,249	0.0007	0.9993	97.53
13.5	4,474,855	5,199	0.0012	0.9988	97.46
14.5	4,160,978	3,249	0.0008	0.9992	97.35
15.5	3,966,673	2,599	0.0007	0.9993	97.27
16.5	4,094,694	3,899	0.0010	0.9990	97.21
17.5	3,761,971	3,249	0.0009	0.9991	97.12
18.5	3,272,636	4,549	0.0014	0.9986	97.03
19.5	3,051,687	6,499	0.0021	0.9979	96.90
20.5	3,173,209	3,899	0.0012	0.9988	96.69
21.5	3,237,544	12,347	0.0038	0.9962	96.57
22.5	2,977,604	7,798	0.0026	0.9974	96.21
23.5	3,018,545	11,047	0.0037	0.9963	95.95
24.5	2,958,759	13,647	0.0046	0.9954	95.60
25.5	2,898,323	12,997	0.0045	0.9955	95.16
26.5	2,666,977	9,748	0.0037	0.9963	94.73
27.5	2,306,311	4,549	0.0020	0.9980	94.39
28.5	2,001,532	9,098	0.0045	0.9955	94.20
29.5	1,881,960	12,347	0.0066	0.9934	93.77
30.5	1,713,000	7,798	0.0046	0.9954	93.16
31.5	1,667,510	16,246	0.0097	0.9903	92.73
32.5	1,644,766	24,694	0.0150	0.9850	91.83
33.5	1,639,567	8,448	0.0052	0.9948	90.45
34.5	1,802,029	19,495	0.0108	0.9892	89.99
35.5	1,635,668	7,148	0.0044	0.9956	89.01
36.5	1,697,404	16,896	0.0100	0.9900	88.62
37.5	1,695,454	17,546	0.0103	0.9897	87.74
38.5	1,764,338	11,697	0.0066	0.9934	86.83

CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 335.4 HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2016			EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,893,008	12,997	0.0069	0.9931	86.26	
40.5	1,727,297	20,795	0.0120	0.9880	85.67	
41.5	1,741,593	16,896	0.0097	0.9903	84.63	
42.5	1,779,284	21,445	0.0121	0.9879	83.81	
43.5	1,857,916	18,196	0.0098	0.9902	82.80	
44.5	1,679,858	16,896	0.0101	0.9899	81.99	
45.5	1,475,805	16,896	0.0114	0.9886	81.17	
46.5	1,457,609	14,297	0.0098	0.9902	80.24	
47.5	1,401,723	11,047	0.0079	0.9921	79.45	
48.5	1,403,672	12,347	0.0088	0.9912	78.82	
49.5	1,364,031	14,947	0.0110	0.9890	78.13	
50.5	1,349,085	22,095	0.0164	0.9836	77.28	
51.5	1,369,880	22,095	0.0161	0.9839	76.01	
52.5	1,342,586	19,495	0.0145	0.9855	74.78	
53.5	1,275,652	24,694	0.0194	0.9806	73.70	
54.5	1,139,834	22,095	0.0194	0.9806	72.27	
55.5	933,182	19,495	0.0209	0.9791	70.87	
56.5	859,099	24,044	0.0280	0.9720	69.39	
57.5	707,035	20,795	0.0294	0.9706	67.45	
58.5	609,558	10,398	0.0171	0.9829	65.46	
59.5	547,822	12,997	0.0237	0.9763	64.35	
60.5	485,437	15,596	0.0321	0.9679	62.82	
61.5	489,336	22,095	0.0452	0.9548	60.80	
62.5	510,781	18,846	0.0369	0.9631	58.06	
63.5	562,769	23,395	0.0416	0.9584	55.91	
64.5	569,267	19,495	0.0342	0.9658	53.59	
65.5	553,671	22,745	0.0411	0.9589	51.76	
66.5	454,244	17,546	0.0386	0.9614	49.63	
67.5	350,918	13,647	0.0389	0.9611	47.71	
68.5	241,094	7,798	0.0323	0.9677	45.86	
69.5	192,355	2,599	0.0135	0.9865	44.37	
70.5	196,904	1,950	0.0099	0.9901	43.77	
71.5	198,854	3,249	0.0163	0.9837	43.34	
72.5	235,895	3,899	0.0165	0.9835	42.63	
73.5	277,485	1,950	0.0070	0.9930	41.93	
74.5	289,182	7,148	0.0247	0.9753	41.63	
75.5	262,539	5,199	0.0198	0.9802	40.60	
76.5	226,147	8,448	0.0374	0.9626	39.80	
77.5	181,308	3,249	0.0179	0.9821	38.31	
78.5	152,714	11,047	0.0723	0.9277	37.63	

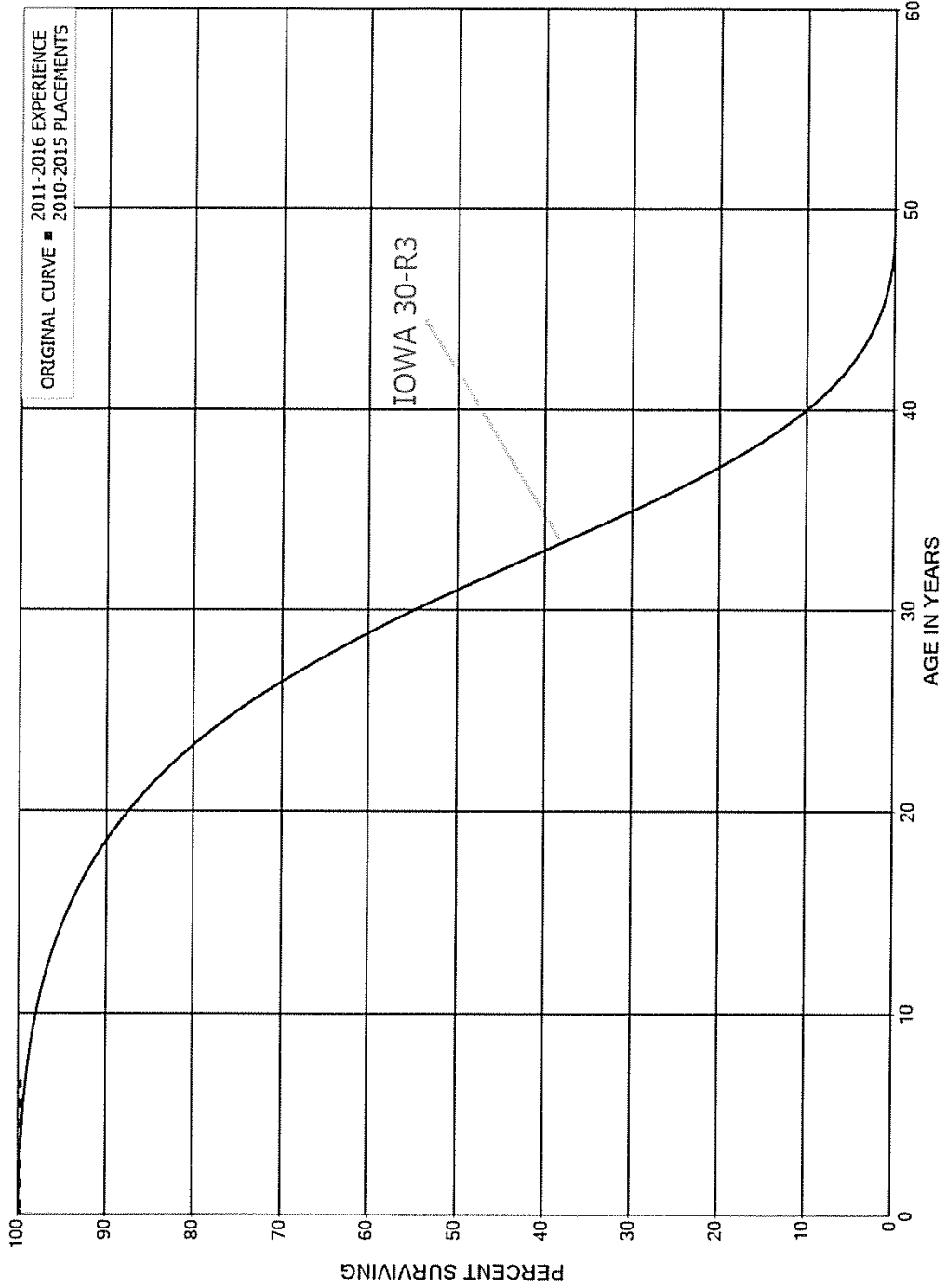
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 335.4 HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2016			EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	114,373	3,899	0.0341	0.9659	34.90	
80.5	160,512	1,950	0.0121	0.9879	33.71	
81.5	234,595	3,249	0.0139	0.9861	33.30	
82.5	260,589	4,549	0.0175	0.9825	32.84	
83.5	299,580	11,047	0.0369	0.9631	32.27	
84.5	307,378	4,549	0.0148	0.9852	31.08	
85.5	382,111	9,748	0.0255	0.9745	30.62	
86.5	369,114	3,899	0.0106	0.9894	29.84	
87.5	326,874	3,249	0.0099	0.9901	29.52	
88.5	348,968	5,849	0.0168	0.9832	29.23	
89.5	356,767	4,549	0.0128	0.9872	28.74	
90.5	353,517	3,899	0.0110	0.9890	28.37	
91.5	275,536	9,098	0.0330	0.9670	28.06	
92.5	217,049	2,599	0.0120	0.9880	27.13	
93.5	196,904	4,549	0.0231	0.9769	26.81	
94.5	153,364	650	0.0042	0.9958	26.19	
95.5	105,925	3,249	0.0307	0.9693	26.08	
96.5	71,483	1,950	0.0273	0.9727	25.28	
97.5	61,736	650	0.0105	0.9895	24.59	
98.5	58,486	650	0.0111	0.9889	24.33	
99.5	31,843	2,599	0.0816	0.9184	24.06	
100.5	12,347		0.0000	1.0000	22.10	
101.5	7,798	1,300	0.1667	0.8333	22.10	
102.5	9,098	1,300	0.1429	0.8571	18.41	
103.5	7,798		0.0000	1.0000	15.78	
104.5	9,098	650	0.0714	0.9286	15.78	
105.5	8,448	1,300	0.1538	0.8462	14.66	
106.5	5,199	1,300	0.2500	0.7500	12.40	
107.5	4,549		0.0000	1.0000	9.30	
108.5	634,252	1,300	0.0020	0.9980	9.30	
109.5	632,302		0.0000	1.0000	9.28	
110.5	632,302	18,196	0.0288	0.9712	9.28	
111.5	614,107	20,145	0.0328	0.9672	9.01	
112.5	592,662	3,899	0.0066	0.9934	8.72	
113.5	588,113	3,899	0.0066	0.9934	8.66	
114.5					8.60	

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 339.2 OTHER MISCELLANEOUS EQUIPMENT - SOURCE OF SUPPLY AND PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



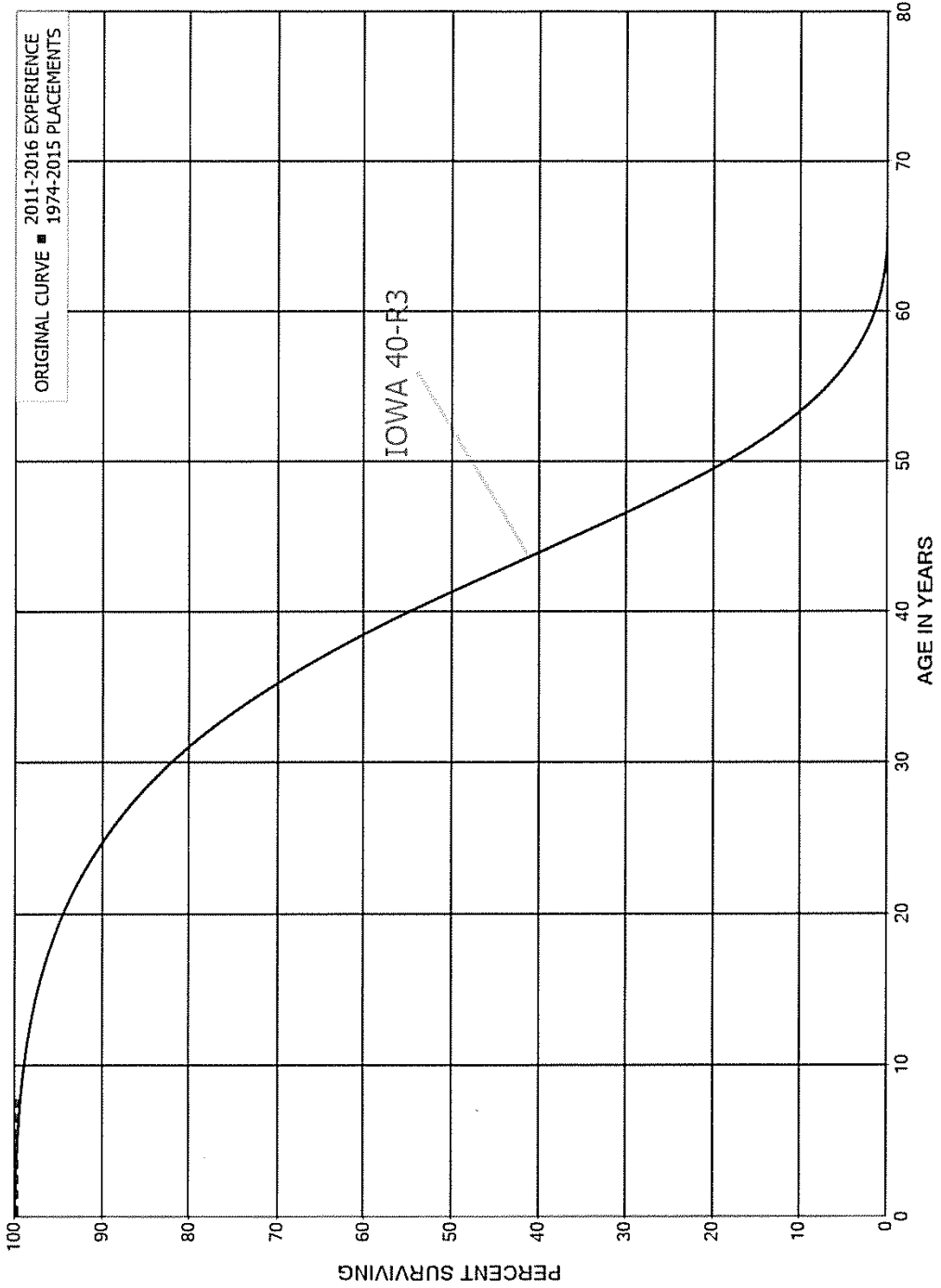
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 339.2 OTHER MISCELLANEOUS EQUIPMENT - SOURCE OF SUPPLY AND PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 2010-2015			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,288,367		0.0000	1.0000	100.00
0.5	4,430,135		0.0000	1.0000	100.00
1.5	3,943,008		0.0000	1.0000	100.00
2.5	3,943,008		0.0000	1.0000	100.00
3.5	713,073		0.0000	1.0000	100.00
4.5	141,768		0.0000	1.0000	100.00
5.5	141,768		0.0000	1.0000	100.00
6.5					100.00

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 339.4 OTHER MISCELLANEOUS EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 339.4 OTHER MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1974-2015		EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,709,601		0.0000	1.0000	100.00
0.5	1,843,295		0.0000	1.0000	100.00
1.5	1,861,910		0.0000	1.0000	100.00
2.5	1,861,910		0.0000	1.0000	100.00
3.5	1,861,910		0.0000	1.0000	100.00
4.5	617,604		0.0000	1.0000	100.00
5.5	417,604		0.0000	1.0000	100.00
6.5	283,910		0.0000	1.0000	100.00
7.5					100.00
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5	790,430		0.0000		
37.5	790,430		0.0000		
38.5	790,430		0.0000		

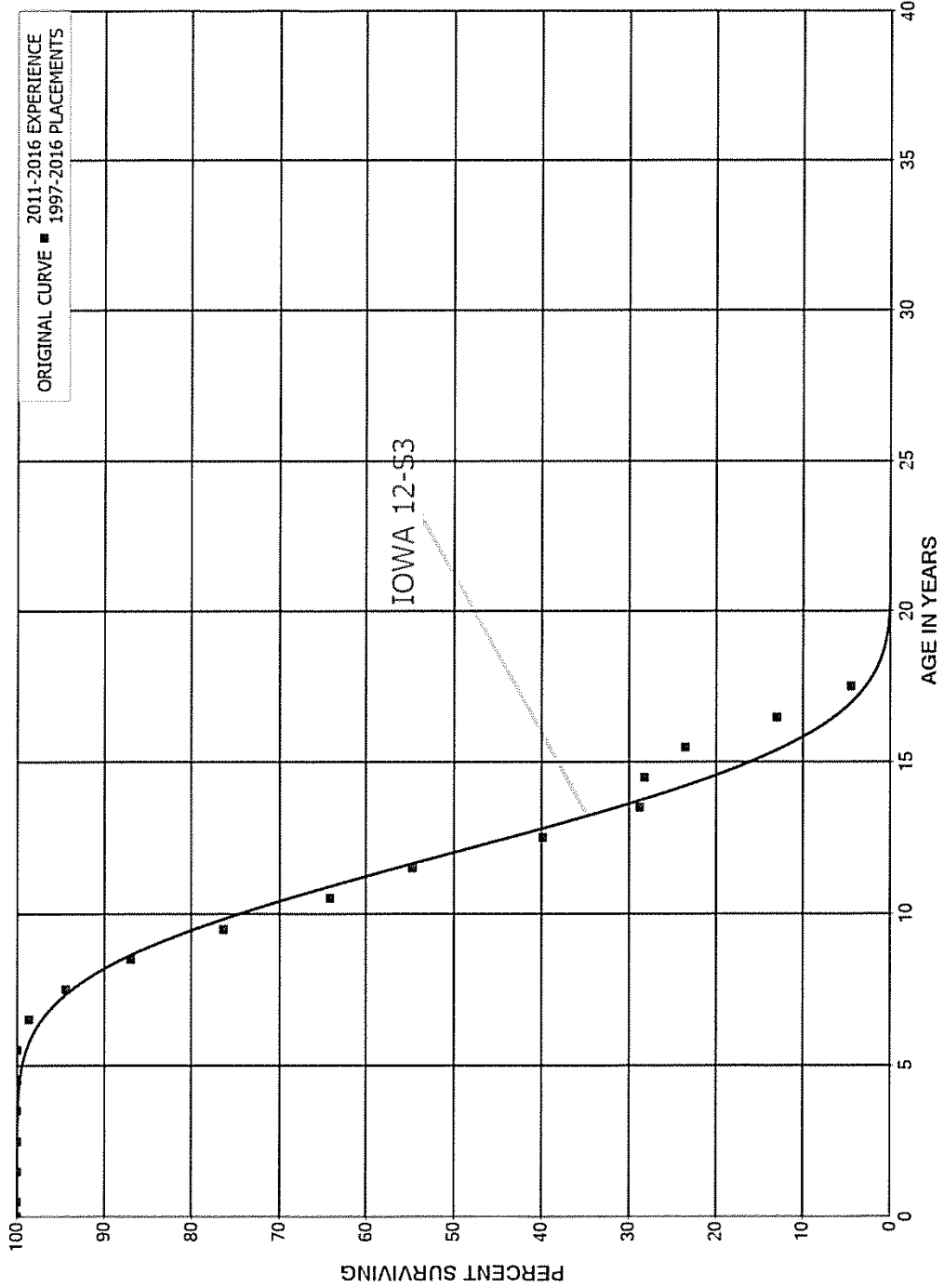
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 339.4 OTHER MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1974-2015			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	790,430		0.0000		
40.5	790,430		0.0000		
41.5	790,430		0.0000		
42.5					

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 341.5 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



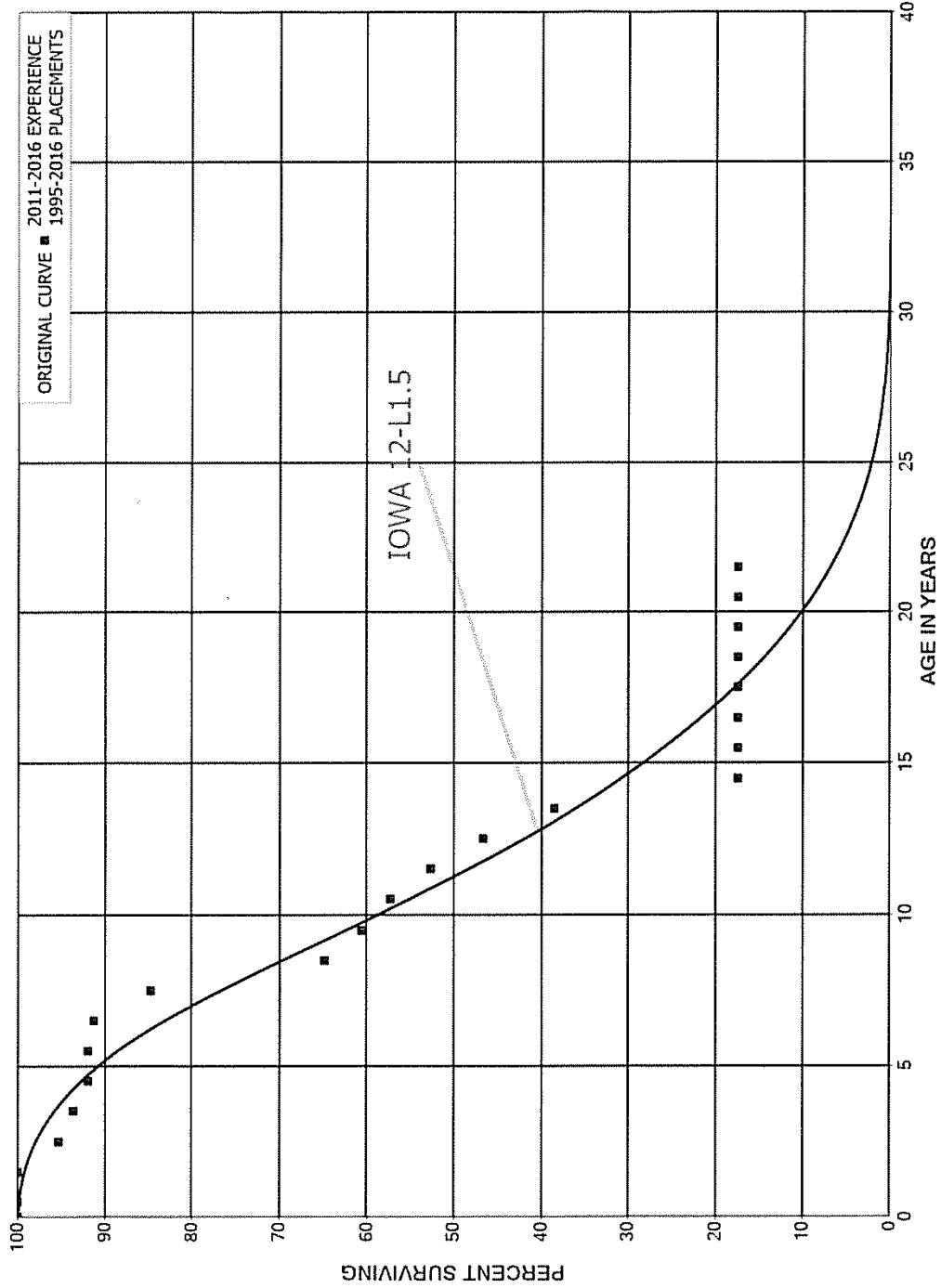
CITIZENS ENERGY GROUP
CITIZENS WATER

ACCOUNT 341.5 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1997-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,001,230		0.0000	1.0000	100.00
0.5	3,425,478		0.0000	1.0000	100.00
1.5	3,096,430		0.0000	1.0000	100.00
2.5	3,159,354		0.0000	1.0000	100.00
3.5	2,953,921		0.0000	1.0000	100.00
4.5	2,382,051		0.0000	1.0000	100.00
5.5	3,098,575	41,450	0.0134	0.9866	100.00
6.5	3,995,130	171,329	0.0429	0.9571	98.66
7.5	4,684,511	372,095	0.0794	0.9206	94.43
8.5	3,613,133	438,633	0.1214	0.8786	86.93
9.5	3,504,616	561,966	0.1604	0.8396	76.38
10.5	2,814,440	410,991	0.1460	0.8540	64.13
11.5	2,302,537	625,500	0.2717	0.7283	54.77
12.5	1,338,803	373,611	0.2791	0.7209	39.89
13.5	661,901	12,573	0.0190	0.9810	28.76
14.5	616,660	103,150	0.1673	0.8327	28.21
15.5	200,576	90,287	0.4501	0.5499	23.49
16.5	70,169	45,759	0.6521	0.3479	12.92
17.5					4.49

CITIZENS ENERGY GROUP
CITIZENS WATER
ACCOUNT 345.5 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WATER

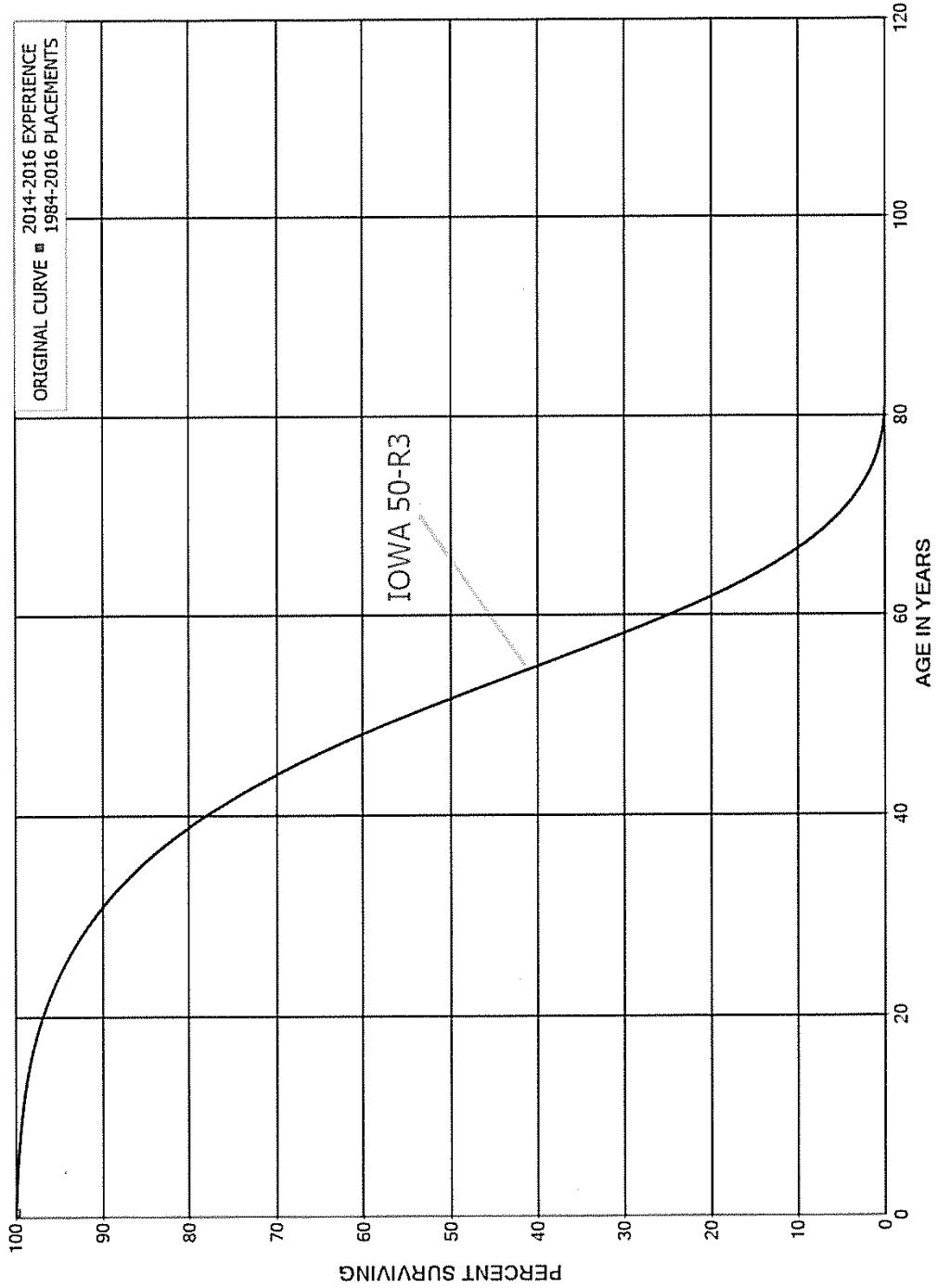
ACCOUNT 345.5 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1995-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	477,168		0.0000	1.0000	100.00
0.5	362,237		0.0000	1.0000	100.00
1.5	766,858	35,972	0.0469	0.9531	100.00
2.5	928,889	15,995	0.0172	0.9828	95.31
3.5	825,345	14,650	0.0178	0.9822	93.67
4.5	1,112,043		0.0000	1.0000	92.01
5.5	1,647,396	12,350	0.0075	0.9925	92.01
6.5	2,728,892	198,270	0.0727	0.9273	91.32
7.5	2,646,635	621,137	0.2347	0.7653	84.68
8.5	1,634,544	104,435	0.0639	0.9361	64.81
9.5	1,875,590	104,378	0.0557	0.9443	60.67
10.5	1,483,782	120,464	0.0812	0.9188	57.29
11.5	1,012,779	115,011	0.1136	0.8864	52.64
12.5	489,519	85,681	0.1750	0.8250	46.66
13.5	318,430	174,467	0.5479	0.4521	38.49
14.5	143,963		0.0000	1.0000	17.40
15.5	88,700		0.0000	1.0000	17.40
16.5	88,700		0.0000	1.0000	17.40
17.5	2,195		0.0000	1.0000	17.40
18.5	2,195		0.0000	1.0000	17.40
19.5	2,195		0.0000	1.0000	17.40
20.5	2,195		0.0000	1.0000	17.40
21.5					17.40

WESTFIELD WATER

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 304.2 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY AND PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



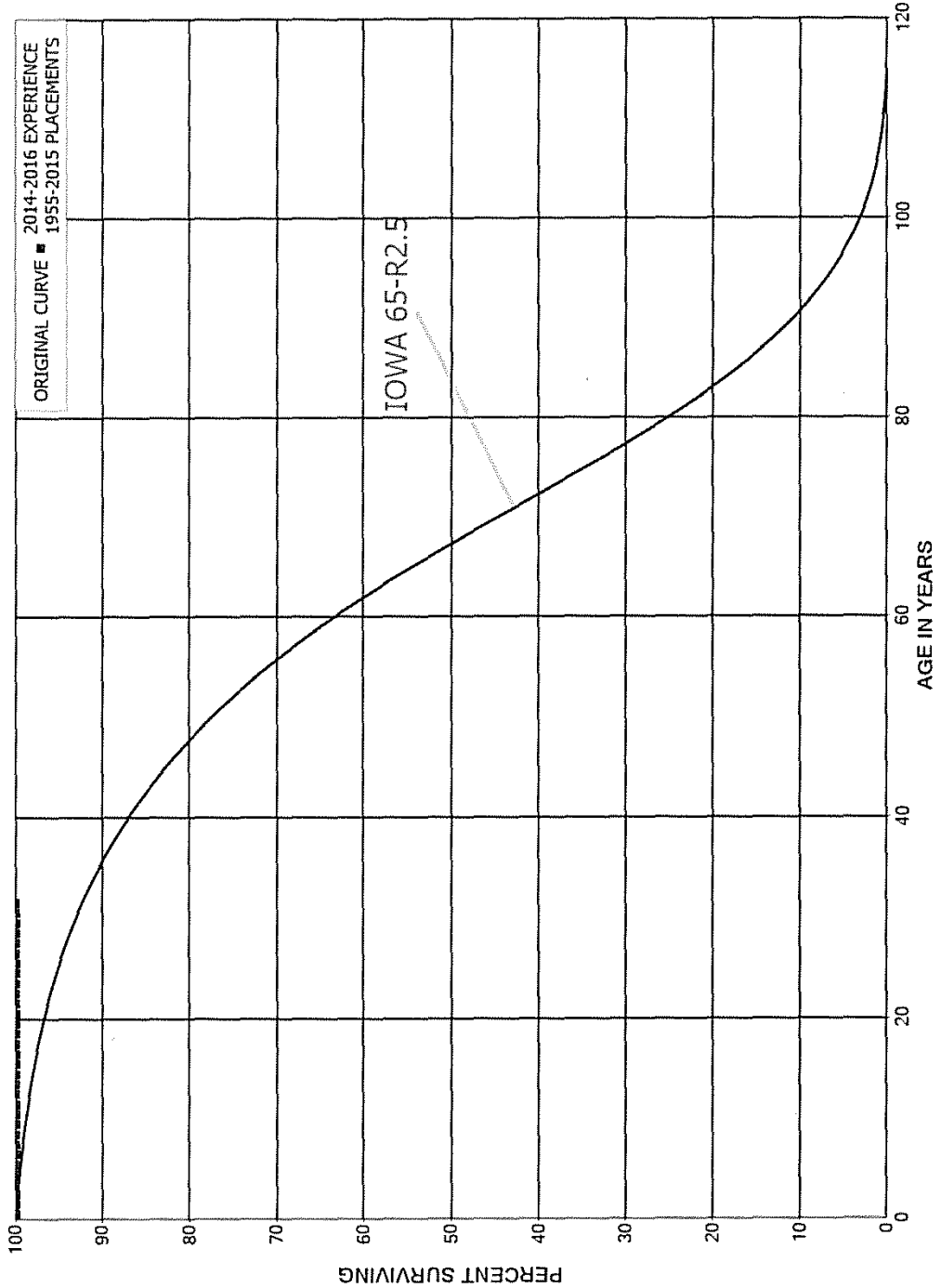
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 304.2 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY AND PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1984-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	17,121		0.0000	1.0000	100.00
0.5					100.00
1.5	8,694		0.0000		
2.5	8,694		0.0000		
3.5	8,694		0.0000		
4.5					
5.5	2,320		0.0000		
6.5	15,070		0.0000		
7.5	15,070		0.0000		
8.5	12,750		0.0000		
9.5					
10.5	17,212		0.0000		
11.5	34,728		0.0000		
12.5	34,728		0.0000		
13.5	132,779		0.0000		
14.5	218,005		0.0000		
15.5	218,005		0.0000		
16.5	202,905		0.0000		
17.5	100,163		0.0000		
18.5	100,163		0.0000		
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5	11,257		0.0000		
30.5	11,257		0.0000		
31.5	11,257		0.0000		
32.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2015			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,253		0.0000	1.0000	100.00
0.5	24,691		0.0000	1.0000	100.00
1.5	10,438		0.0000	1.0000	100.00
2.5	10,438		0.0000	1.0000	100.00
3.5	2,392,585		0.0000	1.0000	100.00
4.5	2,392,585		0.0000	1.0000	100.00
5.5	2,392,585		0.0000	1.0000	100.00
6.5	776,818		0.0000	1.0000	100.00
7.5	865,935		0.0000	1.0000	100.00
8.5	1,085,539		0.0000	1.0000	100.00
9.5	360,805		0.0000	1.0000	100.00
10.5	949,006		0.0000	1.0000	100.00
11.5	729,402		0.0000	1.0000	100.00
12.5	705,700		0.0000	1.0000	100.00
13.5	192,013		0.0000	1.0000	100.00
14.5	2,996,014		0.0000	1.0000	100.00
15.5	2,967,631		0.0000	1.0000	100.00
16.5	2,957,294		0.0000	1.0000	100.00
17.5	153,293		0.0000	1.0000	100.00
18.5	549,455		0.0000	1.0000	100.00
19.5	420,256		0.0000	1.0000	100.00
20.5	420,256		0.0000	1.0000	100.00
21.5	24,094		0.0000	1.0000	100.00
22.5	1,150		0.0000	1.0000	100.00
23.5	4,613		0.0000	1.0000	100.00
24.5	5,565		0.0000	1.0000	100.00
25.5	6,621		0.0000	1.0000	100.00
26.5	45,431		0.0000	1.0000	100.00
27.5	157,602		0.0000	1.0000	100.00
28.5	158,424		0.0000	1.0000	100.00
29.5	116,151		0.0000	1.0000	100.00
30.5	3,028		0.0000	1.0000	100.00
31.5					100.00
32.5					
33.5					
34.5					
35.5					
36.5	143,461		0.0000		
37.5	143,461		0.0000		
38.5	169,660		0.0000		

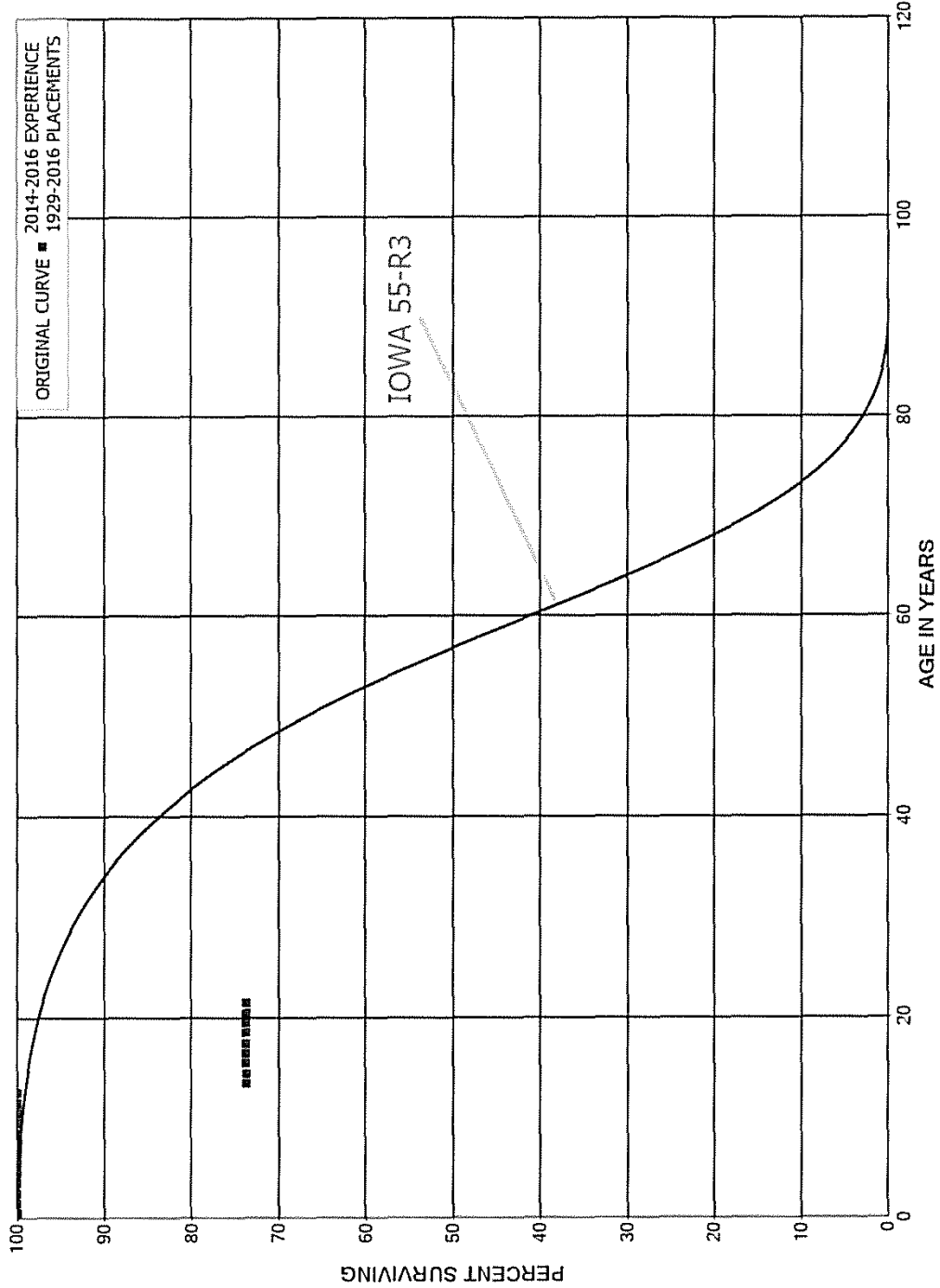
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 304.3 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2015			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	26,199		0.0000		
40.5	26,199		0.0000		
41.5	6,000		0.0000		
42.5	6,000		0.0000		
43.5	6,000		0.0000		
44.5					
45.5					
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5	53,418		0.0000		
59.5	53,418		0.0000		
60.5	53,418		0.0000		
61.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 307.2 WELLS AND SPRINGS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 307.2 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2016		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	238,488		0.0000	1.0000	100.00
0.5	196,462		0.0000	1.0000	100.00
1.5	163,471		0.0000	1.0000	100.00
2.5	630,360		0.0000	1.0000	100.00
3.5	865,795		0.0000	1.0000	100.00
4.5	1,409,131		0.0000	1.0000	100.00
5.5	942,243		0.0000	1.0000	100.00
6.5	707,763		0.0000	1.0000	100.00
7.5	17,263		0.0000	1.0000	100.00
8.5	17,263		0.0000	1.0000	100.00
9.5	140,122		0.0000	1.0000	100.00
10.5	145,922		0.0000	1.0000	100.00
11.5	145,922		0.0000	1.0000	100.00
12.5	22,082	5,800	0.2627	0.7373	100.00
13.5	56,282		0.0000	1.0000	73.73
14.5	56,282		0.0000	1.0000	73.73
15.5	228,566		0.0000	1.0000	73.73
16.5	251,775		0.0000	1.0000	73.73
17.5	251,775		0.0000	1.0000	73.73
18.5	69,194		0.0000	1.0000	73.73
19.5	5,985		0.0000	1.0000	73.73
20.5	5,985		0.0000	1.0000	73.73
21.5					73.73
22.5					
23.5	14,201		0.0000		
24.5	14,201		0.0000		
25.5	48,960		0.0000		
26.5	34,759		0.0000		
27.5	78,781		0.0000		
28.5	44,021		0.0000		
29.5	44,021		0.0000		
30.5					
31.5					
32.5					
33.5	57,228		0.0000		
34.5	58,898		0.0000		
35.5	95,796		0.0000		
36.5	52,023		0.0000		
37.5	52,678		0.0000		
38.5	16,337		0.0000		

CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 307.2 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	58,790		0.0000		
40.5	56,465		0.0000		
41.5	55,907		0.0000		
42.5					
43.5					
44.5					
45.5					
46.5	17,500		0.0000		
47.5	17,500		0.0000		
48.5	17,500		0.0000		
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5	7,900		0.0000		
59.5	7,900		0.0000		
60.5	7,900		0.0000		
61.5					
62.5					
63.5					
64.5	6,370		0.0000		
65.5	6,370		0.0000		
66.5	6,370		0.0000		
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

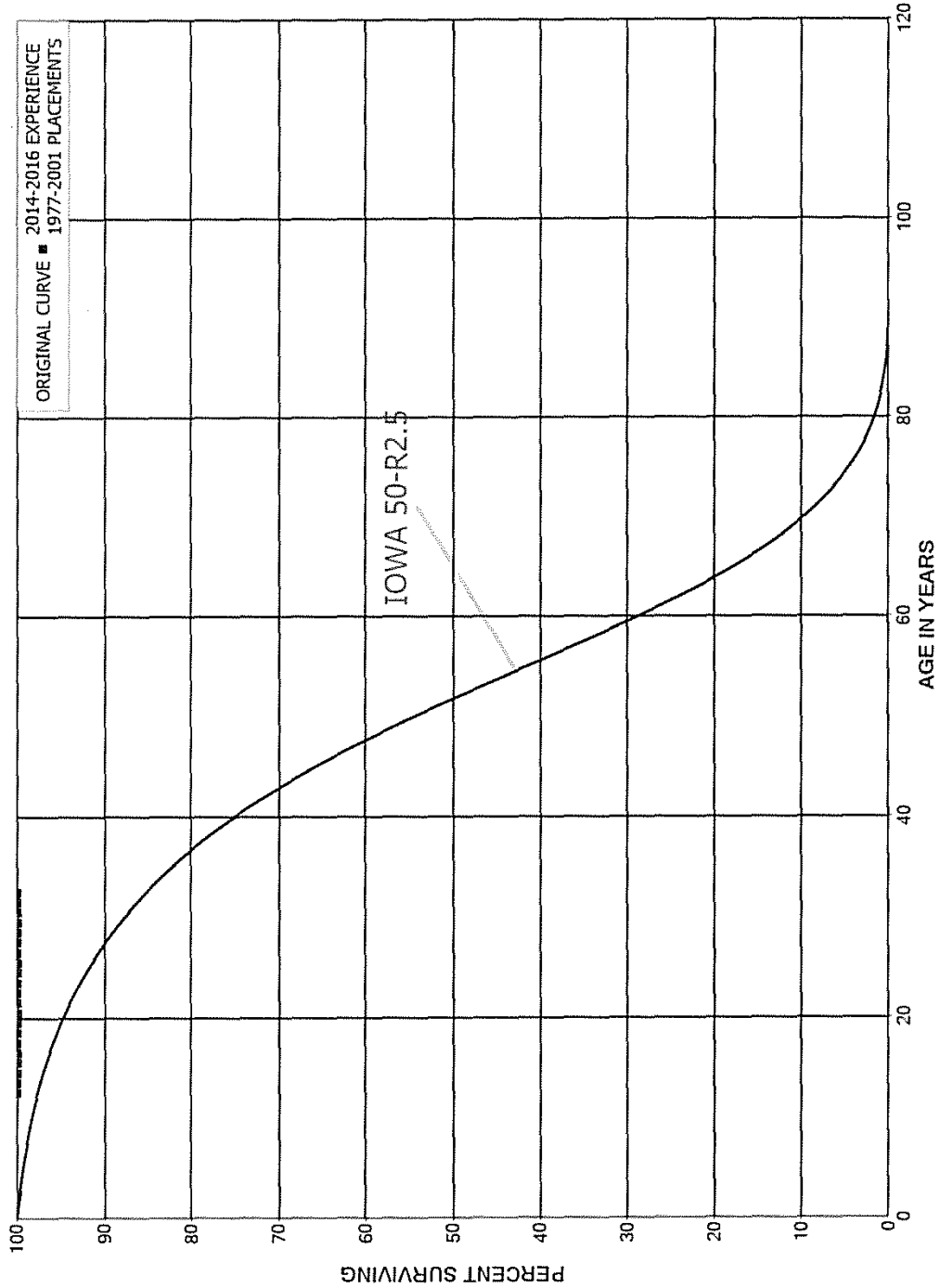
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 307.2 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5	4,960		0.0000		
85.5	4,960		0.0000		
86.5	4,960		0.0000		
87.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 309.2 SUPPLY MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



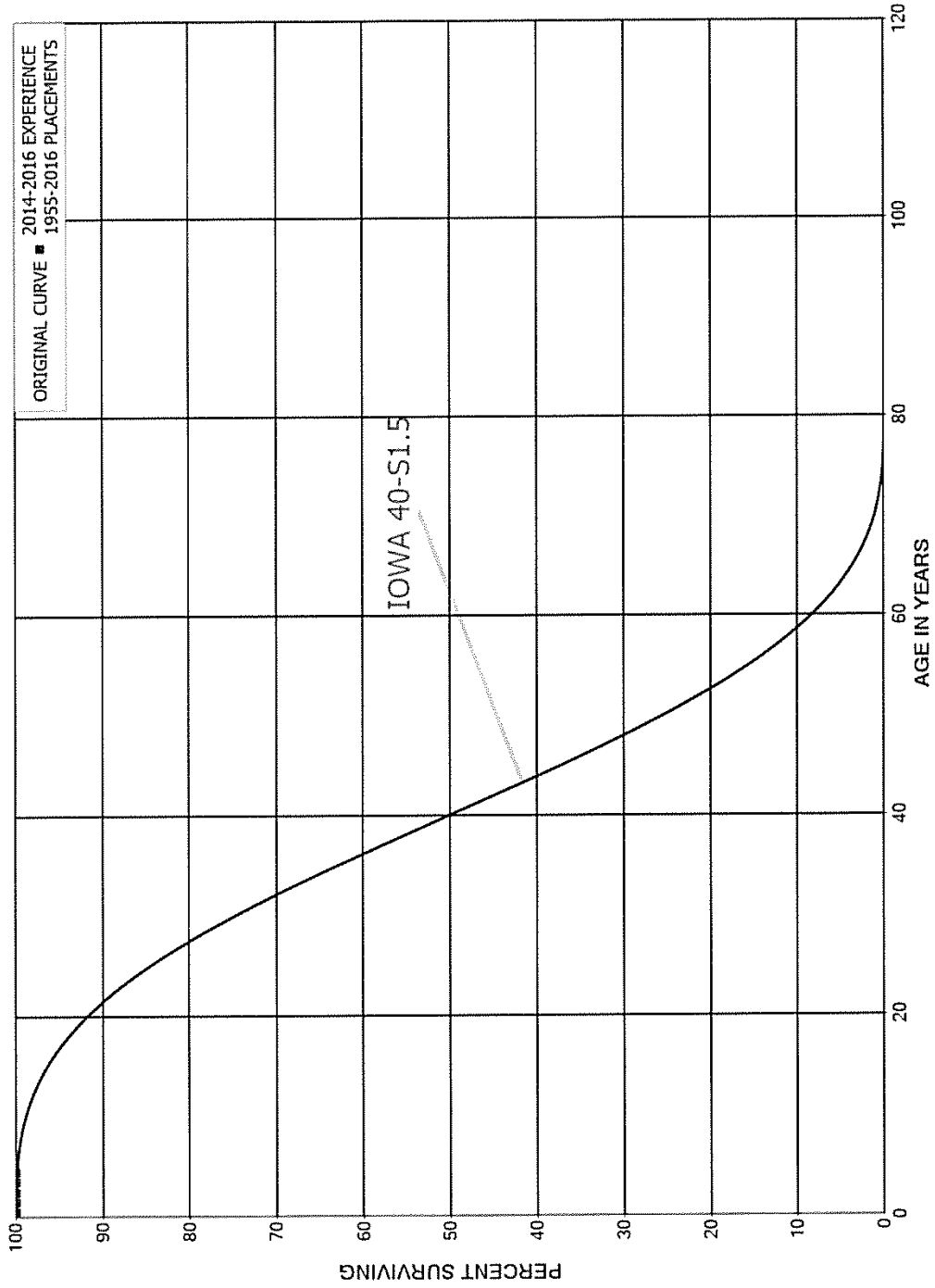
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 309.2 SUPPLY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1977-2001		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5					
7.5					
8.5					
9.5					
10.5					
11.5					
12.5	111,792		0.0000	1.0000	100.00
13.5	322,830		0.0000	1.0000	100.00
14.5	3,325,740		0.0000	1.0000	100.00
15.5	3,213,948		0.0000	1.0000	100.00
16.5	3,033,801		0.0000	1.0000	100.00
17.5	30,892		0.0000	1.0000	100.00
18.5	35,988		0.0000	1.0000	100.00
19.5	5,096		0.0000	1.0000	100.00
20.5	283,853		0.0000	1.0000	100.00
21.5	357,504		0.0000	1.0000	100.00
22.5	436,738		0.0000	1.0000	100.00
23.5	199,253		0.0000	1.0000	100.00
24.5	120,506		0.0000	1.0000	100.00
25.5	138,119		0.0000	1.0000	100.00
26.5	219,507		0.0000	1.0000	100.00
27.5	1,077,833		0.0000	1.0000	100.00
28.5	980,987		0.0000	1.0000	100.00
29.5	947,779		0.0000	1.0000	100.00
30.5	89,452		0.0000	1.0000	100.00
31.5	89,452		0.0000	1.0000	100.00
32.5					100.00
33.5	11,750		0.0000		
34.5	11,750		0.0000		
35.5	11,750		0.0000		
36.5	3,072		0.0000		
37.5	3,072		0.0000		
38.5	3,072		0.0000		
39.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 311.2 PUMPING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 311.2 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2016		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	351,283		0.0000	1.0000	100.00
0.5	294,102		0.0000	1.0000	100.00
1.5	56,725		0.0000	1.0000	100.00
2.5	56,725		0.0000	1.0000	100.00
3.5	47,351		0.0000	1.0000	100.00
4.5					100.00
5.5	32,073		0.0000		
6.5	51,310		0.0000		
7.5	65,399	3,085	0.0472		
8.5	42,322		0.0000		
9.5	32,320		0.0000		
10.5	18,231		0.0000		
11.5	16,358		0.0000		
12.5	24,351		0.0000		
13.5	230,402		0.0000		
14.5	270,440		0.0000		
15.5	288,609	31,146	0.1079		
16.5	87,759		0.0000		
17.5	45,579		0.0000		
18.5	36,725		0.0000		
19.5	31,524		0.0000		
20.5	27,202		0.0000		
21.5	660		0.0000		
22.5	660		0.0000		
23.5					
24.5	6,850		0.0000		
25.5	49,390		0.0000		
26.5	50,390		0.0000		
27.5	74,862		0.0000		
28.5	35,682		0.0000		
29.5	49,209		0.0000		
30.5	17,887		0.0000		
31.5	14,527		0.0000		
32.5	6,504		0.0000		
33.5	9,609		0.0000		
34.5	9,609		0.0000		
35.5	3,105		0.0000		
36.5	1,146		0.0000		
37.5	1,146		0.0000		
38.5	1,146		0.0000		

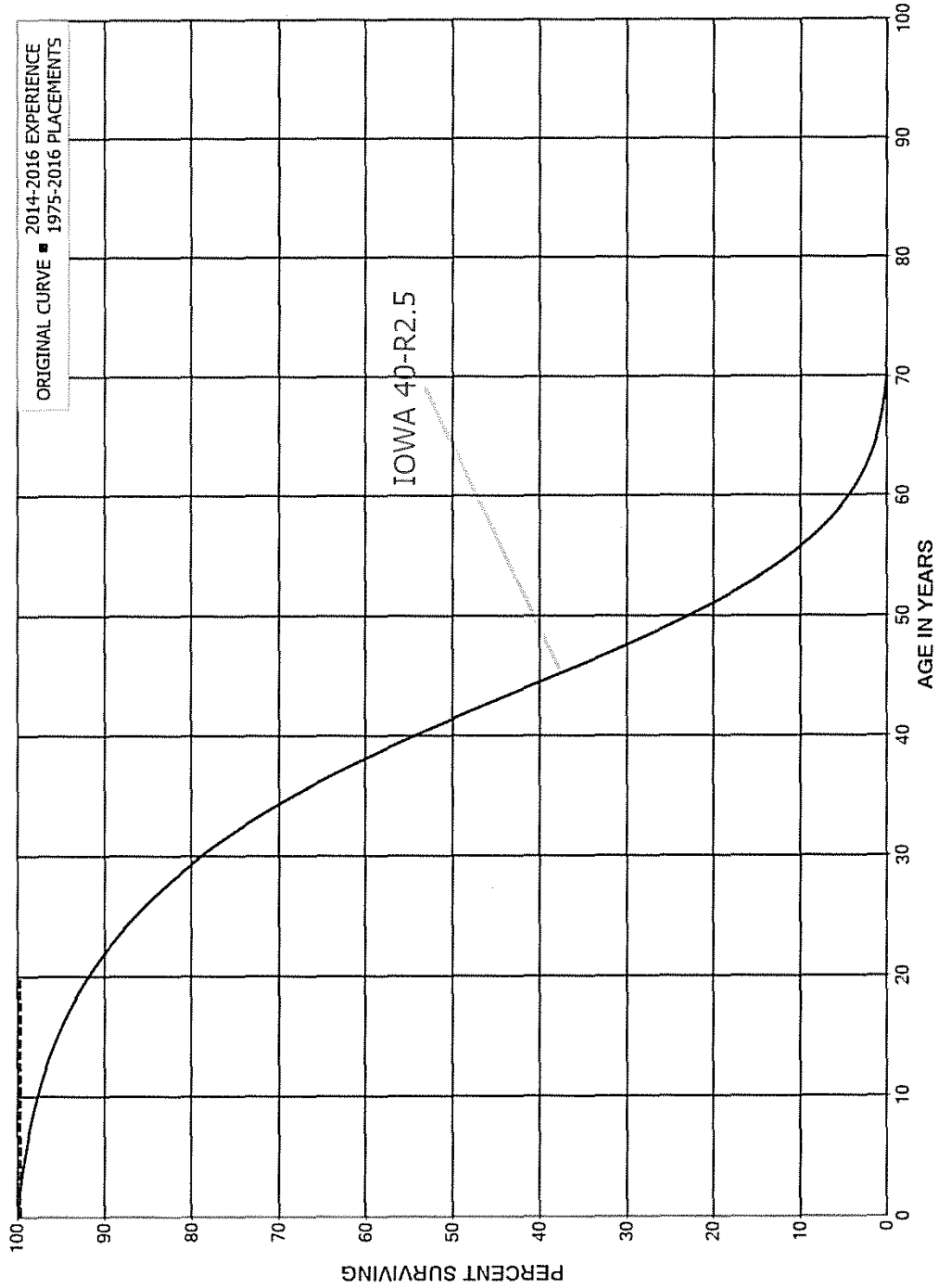
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 311.2 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5	2,685		0.0000		
43.5	2,685		0.0000		
44.5	2,685		0.0000		
45.5					
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5	2,350		0.0000		
59.5	2,350		0.0000		
60.5	2,350		0.0000		
61.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 320.3 WATER TREATMENT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



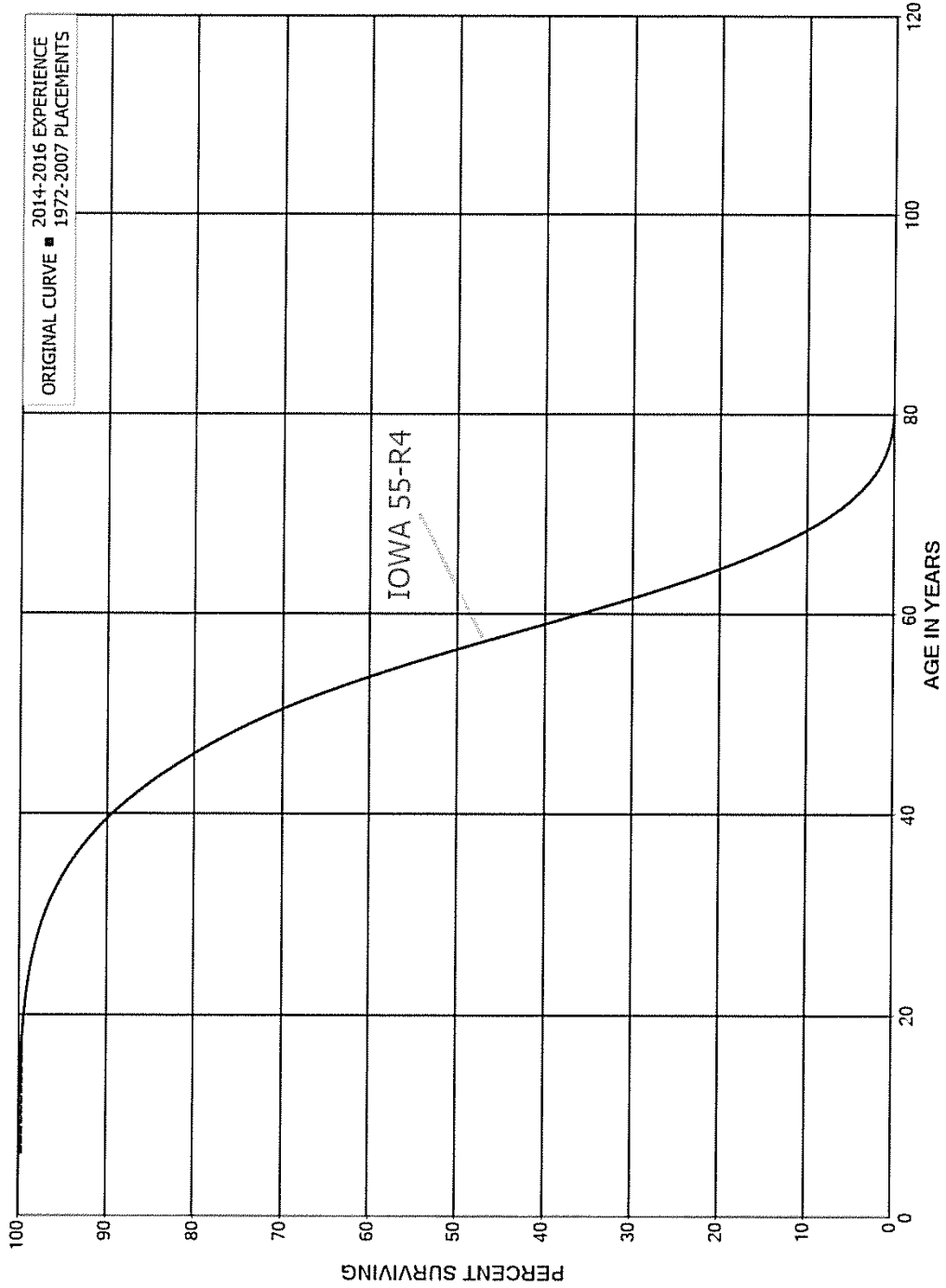
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 320.3 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1975-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,332,545		0.0000	1.0000	100.00
0.5	1,194,727		0.0000	1.0000	100.00
1.5	71,386		0.0000	1.0000	100.00
2.5	32,621		0.0000	1.0000	100.00
3.5	1,441,516		0.0000	1.0000	100.00
4.5	1,433,682		0.0000	1.0000	100.00
5.5	1,422,543		0.0000	1.0000	100.00
6.5	220,732		0.0000	1.0000	100.00
7.5	247,010		0.0000	1.0000	100.00
8.5	280,339		0.0000	1.0000	100.00
9.5	65,006		0.0000	1.0000	100.00
10.5	38,868		0.0000	1.0000	100.00
11.5	13,480		0.0000	1.0000	100.00
12.5	12,867		0.0000	1.0000	100.00
13.5	9,496		0.0000	1.0000	100.00
14.5	13,399		0.0000	1.0000	100.00
15.5	11,844		0.0000	1.0000	100.00
16.5	39,494		0.0000	1.0000	100.00
17.5	27,650		0.0000	1.0000	100.00
18.5	27,650		0.0000	1.0000	100.00
19.5					100.00
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5	6,089		0.0000		
27.5	311,900		0.0000		
28.5	314,625		0.0000		
29.5	311,261		0.0000		
30.5	9,070		0.0000		
31.5	6,345		0.0000		
32.5	3,620		0.0000		
33.5	796		0.0000		
34.5	1,394		0.0000		
35.5	5,161		0.0000		
36.5	5,771		0.0000		
37.5	65,522		0.0000		
38.5	87,295		0.0000		
39.5	85,889		0.0000		
40.5	25,540		0.0000		
41.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1972-2007			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5	611,897		0.0000	1.0000	100.00
7.5	616,726		0.0000	1.0000	100.00
8.5	645,696		0.0000	1.0000	100.00
9.5	82,638		0.0000	1.0000	100.00
10.5	101,952		0.0000	1.0000	100.00
11.5	72,982		0.0000	1.0000	100.00
12.5	24,142		0.0000	1.0000	100.00
13.5	255,296		0.0000	1.0000	100.00
14.5	255,296		0.0000	1.0000	100.00
15.5	255,296		0.0000	1.0000	100.00
16.5					100.00
17.5					
18.5	507,908		0.0000		
19.5	523,533		0.0000		
20.5	1,145,229		0.0000		
21.5	637,321		0.0000		
22.5	621,696		0.0000		
23.5					
24.5					
25.5	1,295		0.0000		
26.5	1,295		0.0000		
27.5	1,295		0.0000		
28.5	4,123		0.0000		
29.5	329,648		0.0000		
30.5	329,648		0.0000		
31.5	325,525		0.0000		
32.5					
33.5					
34.5					
35.5	68,449		0.0000		
36.5	68,449		0.0000		
37.5	68,449		0.0000		
38.5					

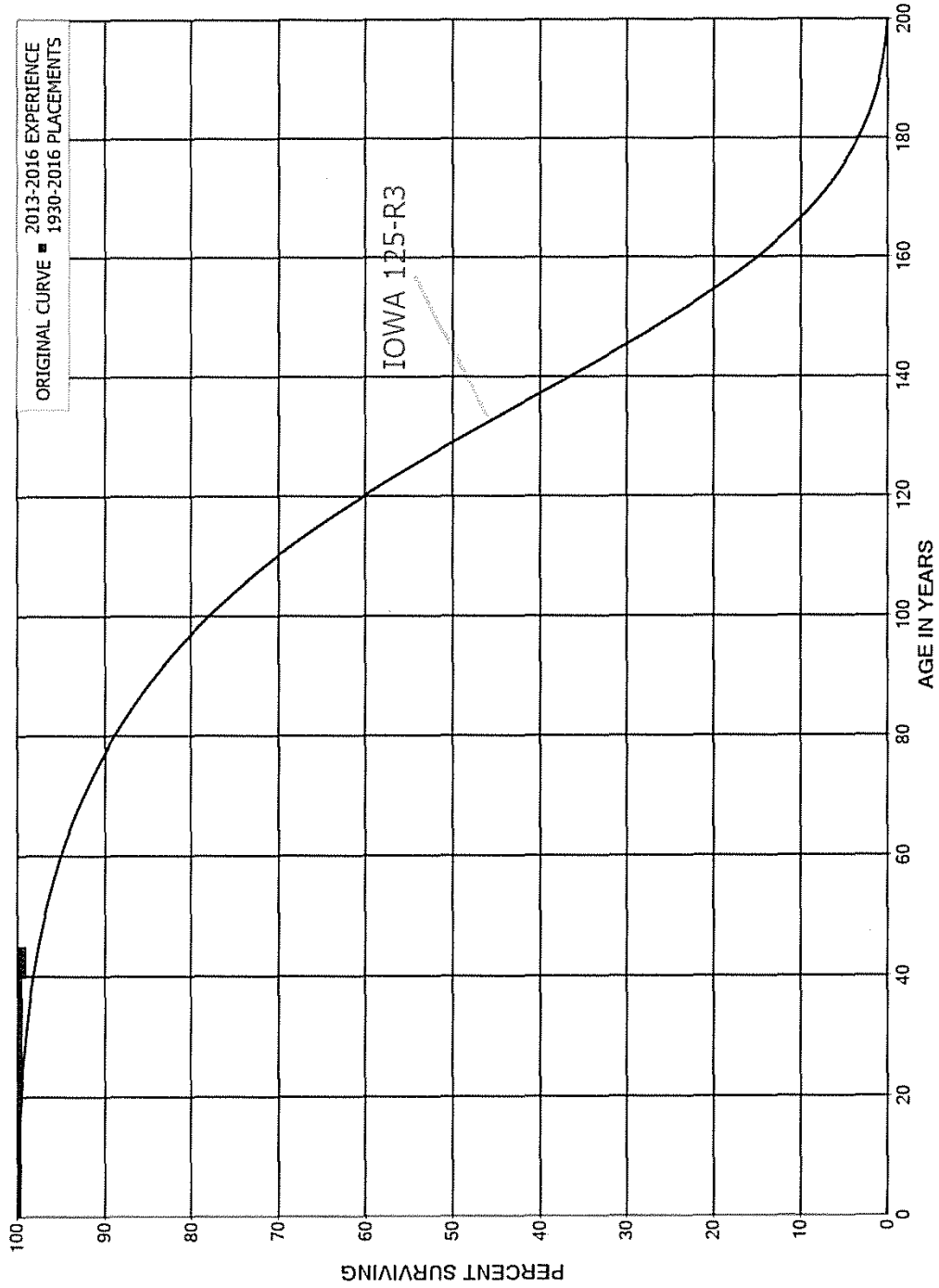
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1972-2007			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5	88,945		0.0000		
42.5	88,945		0.0000		
43.5	88,945		0.0000		
44.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 2013-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	12,181,173		0.0000	1.0000	100.00
0.5	9,517,911		0.0000	1.0000	100.00
1.5	6,311,193		0.0000	1.0000	100.00
2.5	3,546,664		0.0000	1.0000	100.00
3.5	2,042,570		0.0000	1.0000	100.00
4.5	1,788,873		0.0000	1.0000	100.00
5.5	2,483,263		0.0000	1.0000	100.00
6.5	3,775,045		0.0000	1.0000	100.00
7.5	7,519,535		0.0000	1.0000	100.00
8.5	6,629,354		0.0000	1.0000	100.00
9.5	5,012,214		0.0000	1.0000	100.00
10.5	655,574		0.0000	1.0000	100.00
11.5	875,134		0.0000	1.0000	100.00
12.5	693,043		0.0000	1.0000	100.00
13.5	1,859,444		0.0000	1.0000	100.00
14.5	2,277,341		0.0000	1.0000	100.00
15.5	2,958,527		0.0000	1.0000	100.00
16.5	2,431,176		0.0000	1.0000	100.00
17.5	3,076,867		0.0000	1.0000	100.00
18.5	2,762,533		0.0000	1.0000	100.00
19.5	2,414,262		0.0000	1.0000	100.00
20.5	1,162,798		0.0000	1.0000	100.00
21.5	488,767		0.0000	1.0000	100.00
22.5	119,824	251	0.0021	0.9979	100.00
23.5	247,740		0.0000	1.0000	99.79
24.5	280,915		0.0000	1.0000	99.79
25.5	279,836		0.0000	1.0000	99.79
26.5	233,429		0.0000	1.0000	99.79
27.5	202,460		0.0000	1.0000	99.79
28.5	310,995		0.0000	1.0000	99.79
29.5	184,729		0.0000	1.0000	99.79
30.5	159,831		0.0000	1.0000	99.79
31.5	18,130		0.0000	1.0000	99.79
32.5	16,475		0.0000	1.0000	99.79
33.5	171,797		0.0000	1.0000	99.79
34.5	186,272		0.0000	1.0000	99.79
35.5	266,462		0.0000	1.0000	99.79
36.5	213,169		0.0000	1.0000	99.79
37.5	320,967		0.0000	1.0000	99.79
38.5	378,279		0.0000	1.0000	99.79

CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 2013-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	296,910	1,015	0.0034	0.9966	99.79	
40.5	232,789		0.0000	1.0000	99.45	
41.5	221,303		0.0000	1.0000	99.45	
42.5	185,342		0.0000	1.0000	99.45	
43.5	125,000		0.0000	1.0000	99.45	
44.5					99.45	
45.5	9,200		0.0000			
46.5	29,500		0.0000			
47.5	33,350		0.0000			
48.5	28,700		0.0000			
49.5	8,400		0.0000			
50.5	18,050		0.0000			
51.5	13,500		0.0000			
52.5	16,750		0.0000			
53.5	3,250		0.0000			
54.5	3,250		0.0000			
55.5						
56.5	15,600		0.0000			
57.5	20,550		0.0000			
58.5	20,550		0.0000			
59.5	6,700		0.0000			
60.5	1,750		0.0000			
61.5	1,750		0.0000			
62.5						
63.5						
64.5	1,400		0.0000			
65.5	1,400		0.0000			
66.5	1,400		0.0000			
67.5	700		0.0000			
68.5	700		0.0000			
69.5	700		0.0000			
70.5						
71.5						
72.5						
73.5						
74.5						
75.5						
76.5	1,200		0.0000			
77.5	1,200		0.0000			
78.5	1,200		0.0000			

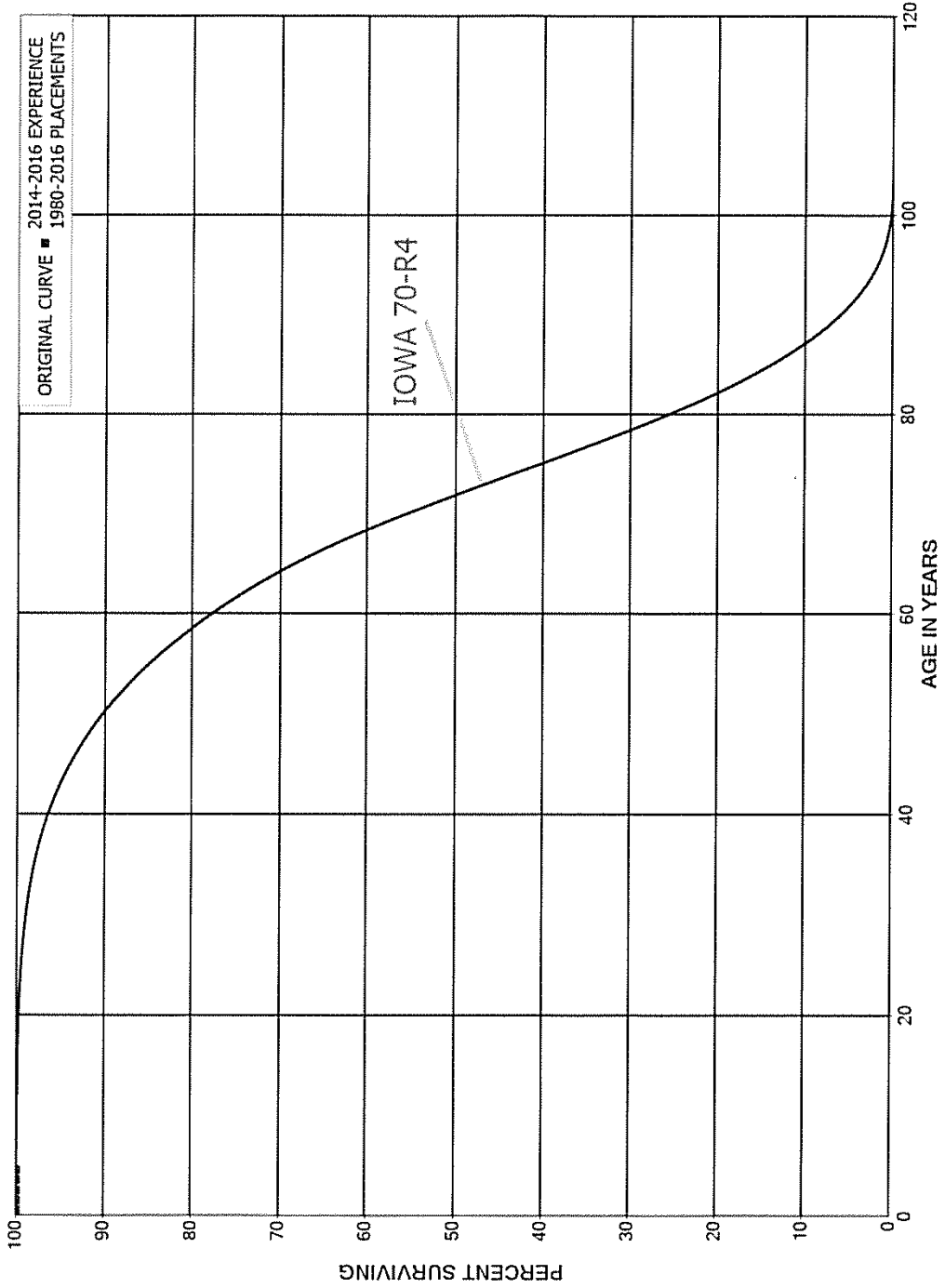
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 331.4 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 2013-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5	21,099		0.0000		
84.5	21,099		0.0000		
85.5	21,099		0.0000		
86.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 333.4 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



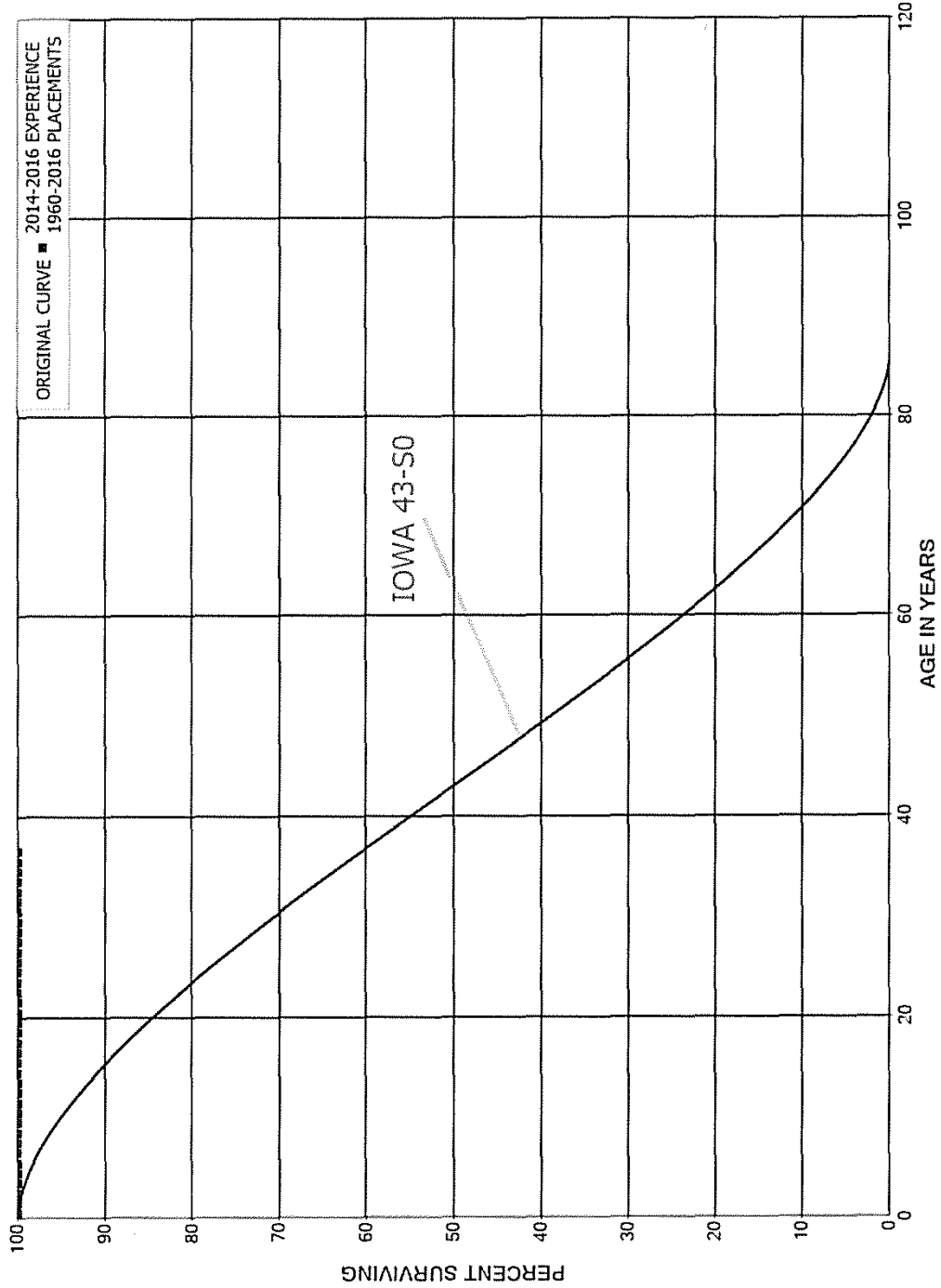
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 333.4 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1980-2016		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,071,203		0.0000	1.0000	100.00
0.5	402,061		0.0000	1.0000	100.00
1.5	101,791		0.0000	1.0000	100.00
2.5	3,275		0.0000	1.0000	100.00
3.5	3,275		0.0000	1.0000	100.00
4.5					100.00
5.5					
6.5					
7.5					
8.5					
9.5					
10.5					
11.5					
12.5	683		0.0000		
13.5	683		0.0000		
14.5	683		0.0000		
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5	2,148		0.0000		
23.5	2,148		0.0000		
24.5	2,148		0.0000		
25.5	25,661		0.0000		
26.5	28,279		0.0000		
27.5	28,279		0.0000		
28.5	2,618		0.0000		
29.5					
30.5					
31.5					
32.5					
33.5	497		0.0000		
34.5	497		0.0000		
35.5	497		0.0000		
36.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 334.4 METERS AND METER INSTALLATIONS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 334.4 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,039,805		0.0000	1.0000	100.00
0.5	1,299,180		0.0000	1.0000	100.00
1.5	926,651		0.0000	1.0000	100.00
2.5	497,333		0.0000	1.0000	100.00
3.5	106,156		0.0000	1.0000	100.00
4.5	62,402		0.0000	1.0000	100.00
5.5	35,015		0.0000	1.0000	100.00
6.5	251,040		0.0000	1.0000	100.00
7.5	552,872		0.0000	1.0000	100.00
8.5	784,233		0.0000	1.0000	100.00
9.5	848,468		0.0000	1.0000	100.00
10.5	658,735		0.0000	1.0000	100.00
11.5	511,250		0.0000	1.0000	100.00
12.5	344,788		0.0000	1.0000	100.00
13.5	383,044		0.0000	1.0000	100.00
14.5	478,650		0.0000	1.0000	100.00
15.5	487,283		0.0000	1.0000	100.00
16.5	393,388		0.0000	1.0000	100.00
17.5	247,433		0.0000	1.0000	100.00
18.5	189,338		0.0000	1.0000	100.00
19.5	177,046		0.0000	1.0000	100.00
20.5	168,825		0.0000	1.0000	100.00
21.5	139,197		0.0000	1.0000	100.00
22.5	117,516		0.0000	1.0000	100.00
23.5	108,195		0.0000	1.0000	100.00
24.5	110,252		0.0000	1.0000	100.00
25.5	115,352		0.0000	1.0000	100.00
26.5	86,603		0.0000	1.0000	100.00
27.5	53,440		0.0000	1.0000	100.00
28.5	13,786		0.0000	1.0000	100.00
29.5	11,331		0.0000	1.0000	100.00
30.5	8,191		0.0000	1.0000	100.00
31.5	10,081		0.0000	1.0000	100.00
32.5	7,719		0.0000	1.0000	100.00
33.5	10,954		0.0000	1.0000	100.00
34.5	6,244		0.0000	1.0000	100.00
35.5	3,695		0.0000	1.0000	100.00
36.5					100.00
37.5					
38.5					

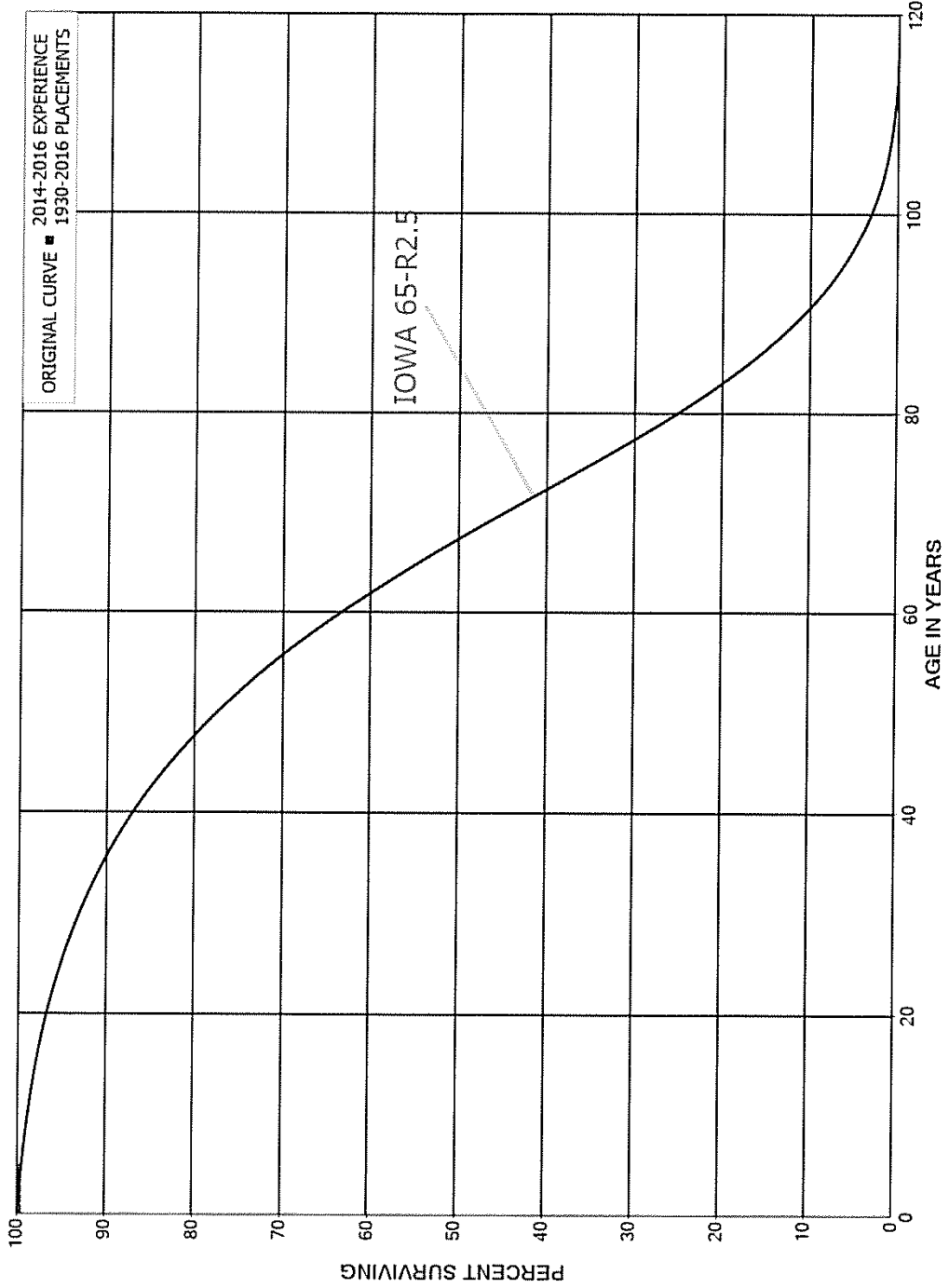
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 334.4 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5	7,784		0.0000		
54.5	7,784		0.0000		
55.5	7,784		0.0000		
56.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 335.4 HYDRANTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 335.4 HYDRANTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1930-2016		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,005,200		0.0000	1.0000	100.00
0.5	1,164,049		0.0000	1.0000	100.00
1.5	694,741		0.0000	1.0000	100.00
2.5	492,980		0.0000	1.0000	100.00
3.5	208,330		0.0000	1.0000	100.00
4.5					100.00
5.5					
6.5	11,850		0.0000		
7.5	24,270		0.0000		
8.5	24,270		0.0000		
9.5	12,420		0.0000		
10.5					
11.5	2,811		0.0000		
12.5	5,628		0.0000		
13.5	5,628		0.0000		
14.5	22,221		0.0000		
15.5	20,251		0.0000		
16.5	22,256		0.0000		
17.5	2,852		0.0000		
18.5	7,684		0.0000		
19.5	5,679		0.0000		
20.5	5,679		0.0000		
21.5					
22.5					
23.5	1,365		0.0000		
24.5	5,873		0.0000		
25.5	19,048		0.0000		
26.5	20,772		0.0000		
27.5	17,531		0.0000		
28.5	7,259		0.0000		
29.5	4,754		0.0000		
30.5	4,632		0.0000		
31.5	1,729		0.0000		
32.5	2,395		0.0000		
33.5	6,150		0.0000		
34.5	6,150		0.0000		
35.5	6,700		0.0000		
36.5	1,800		0.0000		
37.5	1,800		0.0000		
38.5	2,100		0.0000		

CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 335.4 HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,100		0.0000		
40.5	3,000		0.0000		
41.5	2,775		0.0000		
42.5	2,775		0.0000		
43.5	1,875		0.0000		
44.5					
45.5					
46.5					
47.5	1,650		0.0000		
48.5	1,650		0.0000		
49.5	1,650		0.0000		
50.5	2,000		0.0000		
51.5	2,000		0.0000		
52.5	2,450		0.0000		
53.5	450		0.0000		
54.5	450		0.0000		
55.5					
56.5	1,050		0.0000		
57.5	1,800		0.0000		
58.5	1,800		0.0000		
59.5	750		0.0000		
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5	110		0.0000		
68.5	110		0.0000		
69.5	110		0.0000		
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

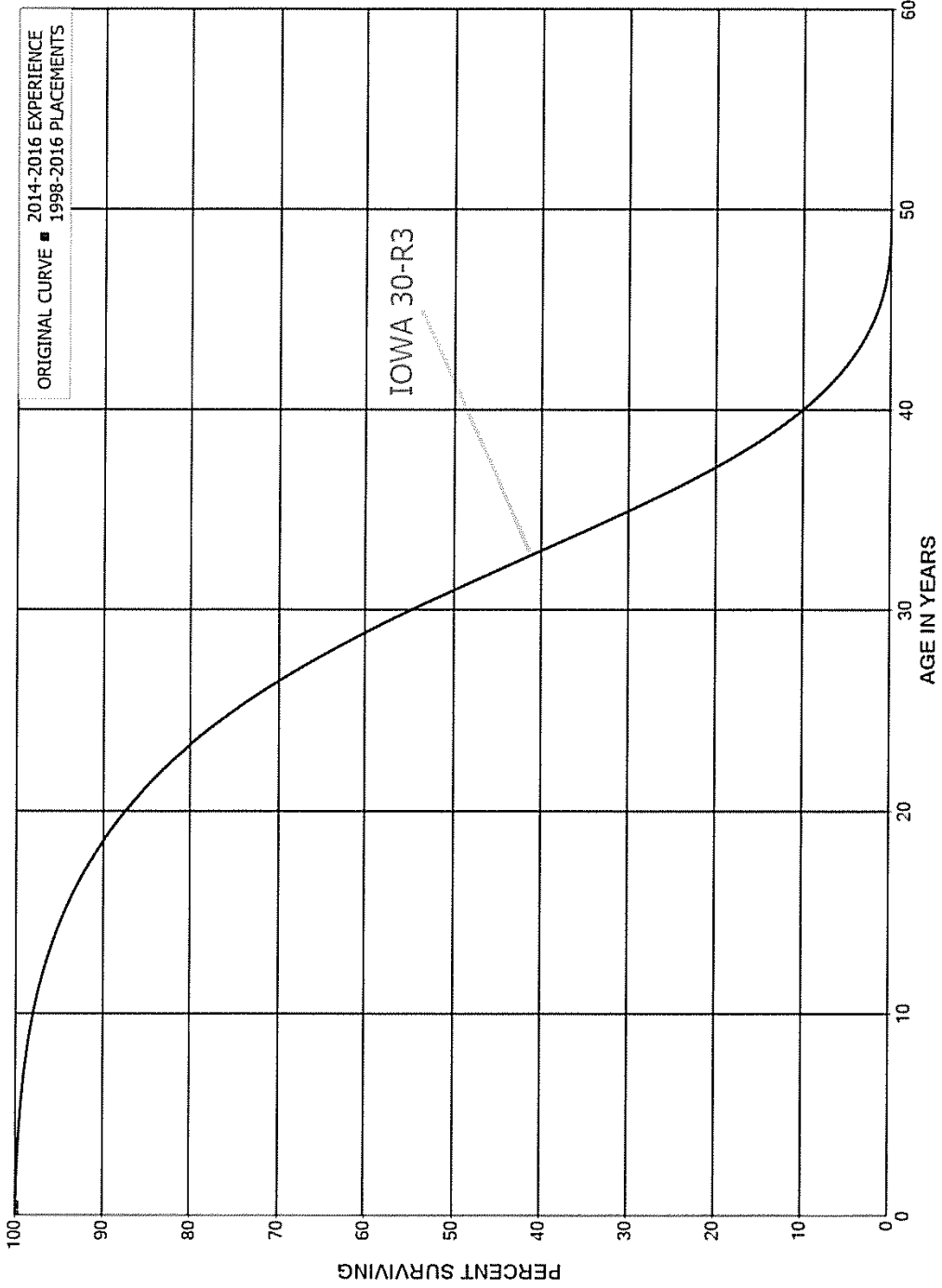
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 335.4 HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5	1,760		0.0000		
84.5	1,760		0.0000		
85.5	1,760		0.0000		
86.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 339.2 OTHER MISCELLANEOUS EQUIPMENT - SOURCE OF SUPPLY AND PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



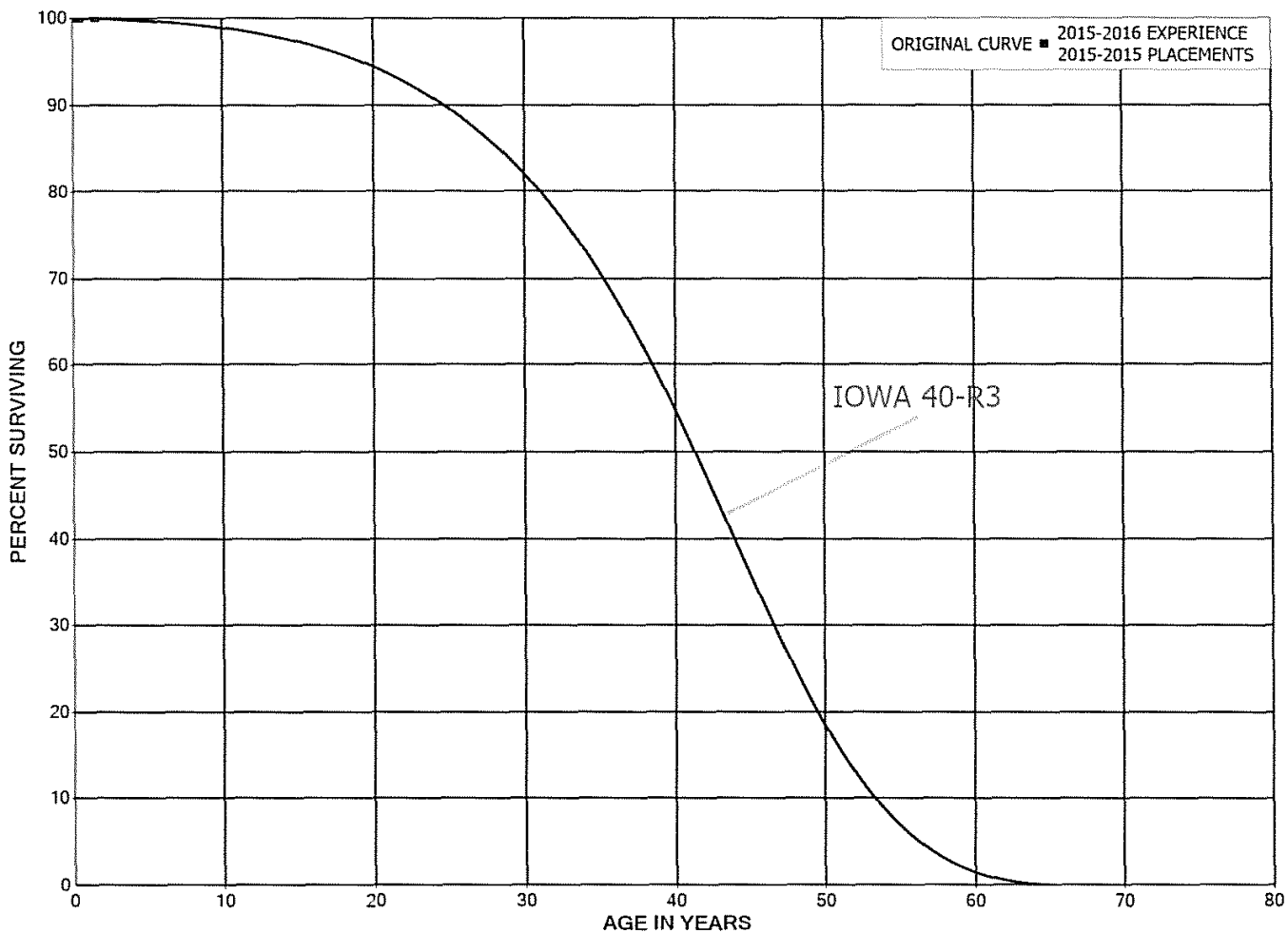
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 339.2 OTHER MISCELLANEOUS EQUIPMENT - SOURCE OF SUPPLY AND PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1998-2016		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,376		0.0000	1.0000	100.00
0.5					100.00
1.5					
2.5					
3.5					
4.5	3,960		0.0000		
5.5	3,960		0.0000		
6.5	3,960		0.0000		
7.5					
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5					
15.5	1,730		0.0000		
16.5	1,730		0.0000		
17.5	1,730		0.0000		
18.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 339.4 OTHER MISCELLANEOUS EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



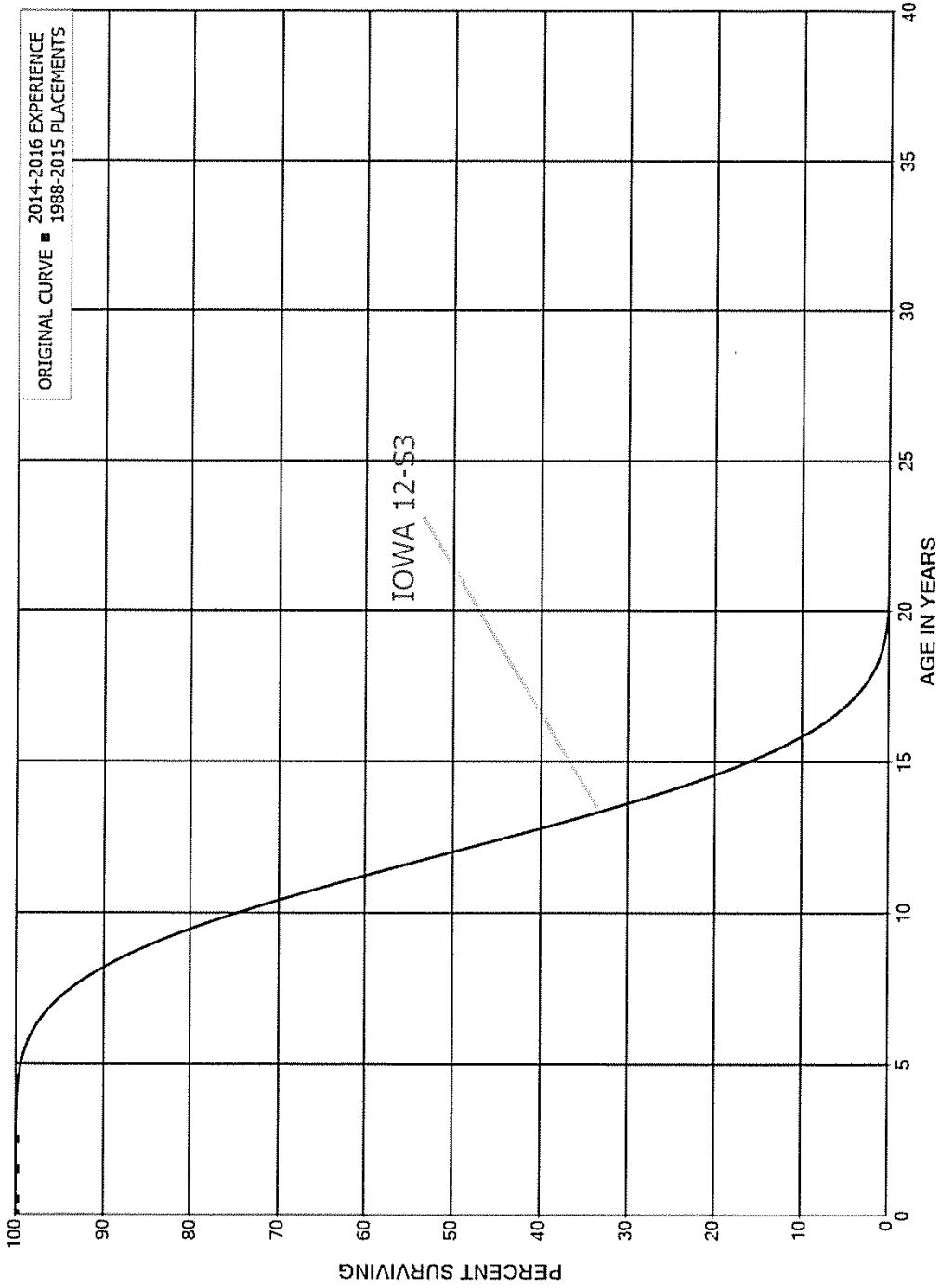
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 339.4 OTHER MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2015-2015			EXPERIENCE BAND 2015-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	25,718		0.0000	1.0000	100.00
0.5	25,718		0.0000	1.0000	100.00
1.5					100.00

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 341.5 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



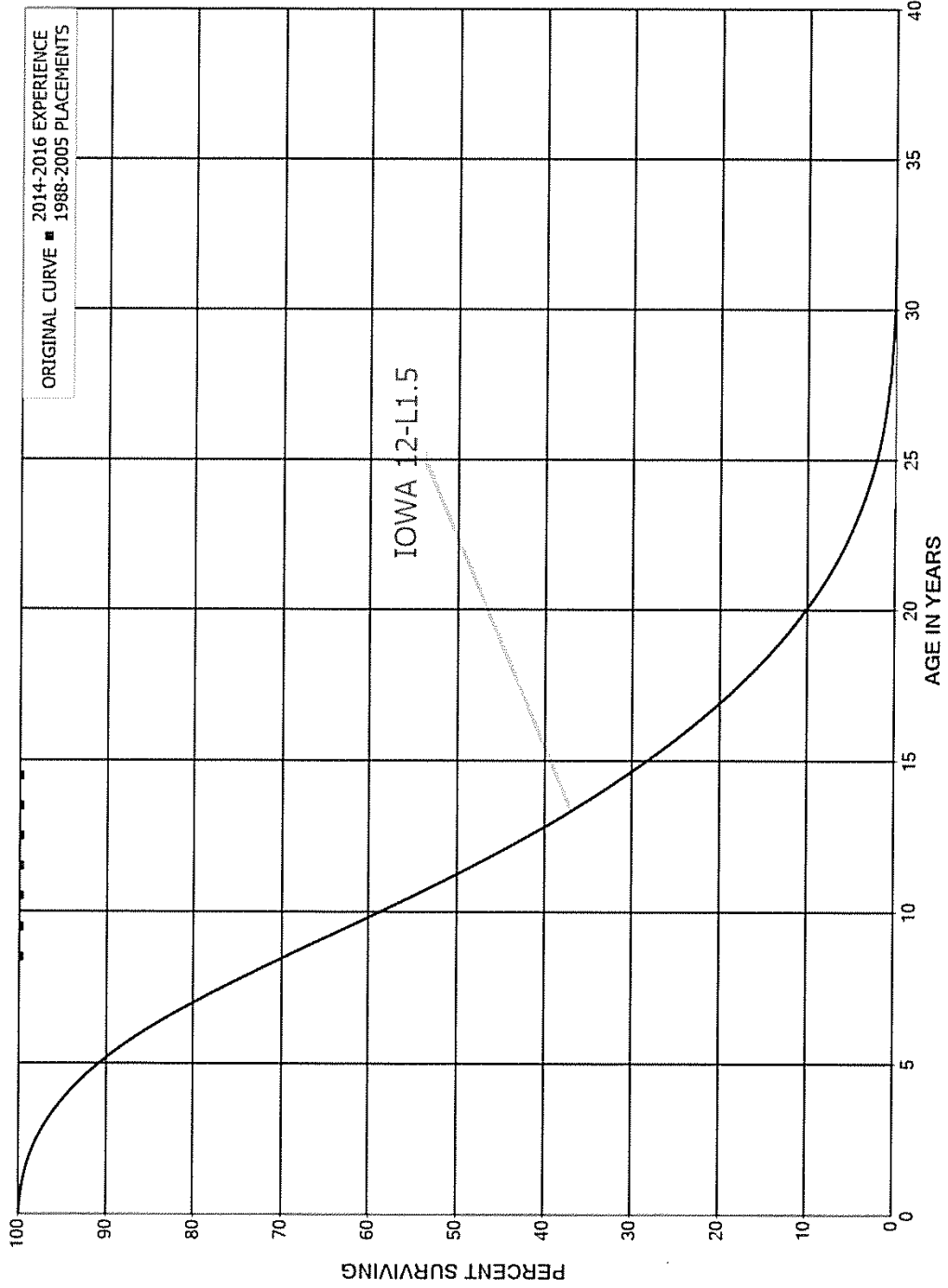
CITIZENS ENERGY GROUP
WESTFIELD WATER

ACCOUNT 341.5 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2015		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	52,908		0.0000	1.0000	100.00
0.5	52,908		0.0000	1.0000	100.00
1.5	26,907		0.0000	1.0000	100.00
2.5					100.00
3.5					
4.5					
5.5					
6.5	36,237		0.0000		
7.5	76,642		0.0000		
8.5	93,747	1,162	0.0124		
9.5	57,510	17,105	0.2974		
10.5					
11.5	8,726		0.0000		
12.5	8,726		0.0000		
13.5	8,726		0.0000		
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5	699		0.0000		
26.5	699		0.0000		
27.5	699		0.0000		
28.5					

CITIZENS ENERGY GROUP
WESTFIELD WATER
ACCOUNT 345.5 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WATER

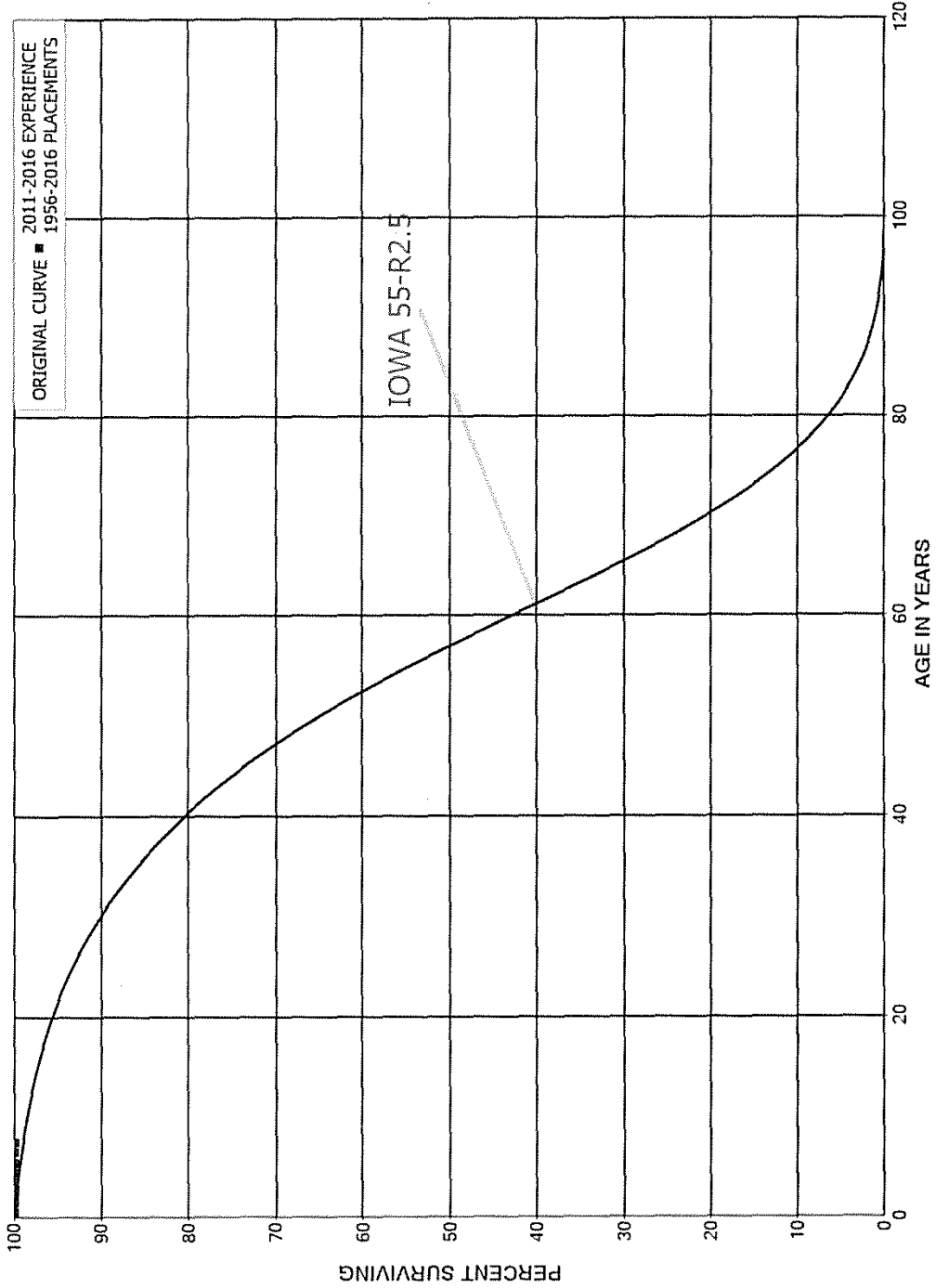
ACCOUNT 345.5 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2005		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5					
7.5					
8.5	41,700		0.0000	1.0000	100.00
9.5	41,700		0.0000	1.0000	100.00
10.5	41,840		0.0000	1.0000	100.00
11.5	2,827		0.0000	1.0000	100.00
12.5	2,827		0.0000	1.0000	100.00
13.5	2,688		0.0000	1.0000	100.00
14.5					100.00
15.5	2,363		0.0000		
16.5	2,363		0.0000		
17.5	2,363		0.0000		
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5	1,891		0.0000		
26.5	1,891		0.0000		
27.5	1,891		0.0000		
28.5					

CITIZENS WASTEWATER

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	11,854,111		0.0000	1.0000	100.00
0.5	11,807,652		0.0000	1.0000	100.00
1.5	11,126,789		0.0000	1.0000	100.00
2.5	9,102,141	3,000	0.0003	0.9997	100.00
3.5	8,948,267		0.0000	1.0000	99.97
4.5	3,544,373		0.0000	1.0000	99.97
5.5	135,000		0.0000	1.0000	99.97
6.5	135,000		0.0000	1.0000	99.97
7.5					99.97
8.5					
9.5					
10.5					
11.5	6,183,705		0.0000		
12.5	6,183,705		0.0000		
13.5	6,183,705		0.0000		
14.5	6,500,058		0.0000		
15.5	6,500,058		0.0000		
16.5	6,500,058		0.0000		
17.5	11,634,446		0.0000		
18.5	11,634,446		0.0000		
19.5	12,050,742		0.0000		
20.5	12,047,766		0.0000		
21.5	12,047,766	35,000	0.0029		
22.5	12,583,796		0.0000		
23.5	6,067,124		0.0000		
24.5	13,392,330		0.0000		
25.5	14,856,133		0.0000		
26.5	14,542,756		0.0000		
27.5	18,152,590	8,000	0.0004		
28.5	24,282,981	440,211	0.0181		
29.5	21,011,759		0.0000		
30.5	15,972,644	97,340	0.0061		
31.5	15,569,575		0.0000		
32.5	16,409,561		0.0000		
33.5	16,752,051		0.0000		
34.5	10,042,630		0.0000		
35.5	8,547,431		0.0000		
36.5	6,269,340		0.0000		
37.5	4,792,310		0.0000		
38.5	3,952,324		0.0000		

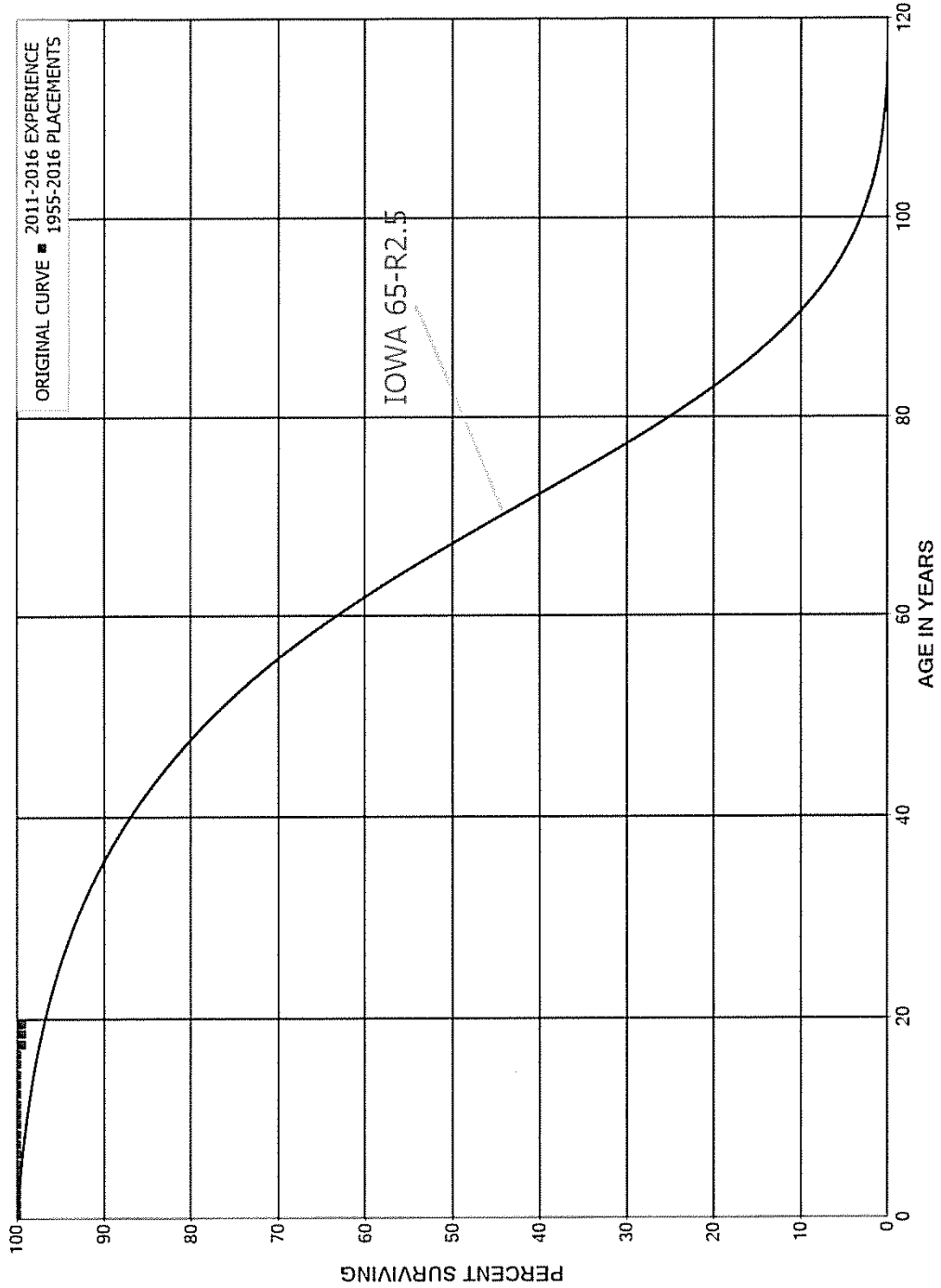
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5	1,095,999		0.0000		
42.5	1,095,999		0.0000		
43.5	1,095,999		0.0000		
44.5	1,095,999		0.0000		
45.5	1,095,999		0.0000		
46.5	1,095,999		0.0000		
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5	216,943		0.0000		
54.5	947,609		0.0000		
55.5	947,609		0.0000		
56.5	947,609		0.0000		
57.5	947,609		0.0000		
58.5	947,609		0.0000		
59.5	730,666		0.0000		
60.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	189,350,446		0.0000	1.0000	100.00
0.5	158,183,560		0.0000	1.0000	100.00
1.5	138,942,355		0.0000	1.0000	100.00
2.5	123,228,123		0.0000	1.0000	100.00
3.5	104,482,654		0.0000	1.0000	100.00
4.5	33,474,874		0.0000	1.0000	100.00
5.5	76,693,695		0.0000	1.0000	100.00
6.5	76,629,172		0.0000	1.0000	100.00
7.5	69,465,919		0.0000	1.0000	100.00
8.5	69,465,919	18,730	0.0003	0.9997	100.00
9.5	69,447,189		0.0000	1.0000	99.97
10.5	79,492,997		0.0000	1.0000	99.97
11.5	29,868,184		0.0000	1.0000	99.97
12.5	29,868,184		0.0000	1.0000	99.97
13.5	30,751,579		0.0000	1.0000	99.97
14.5	30,751,579		0.0000	1.0000	99.97
15.5	30,751,579		0.0000	1.0000	99.97
16.5	12,991,349	80,000	0.0062	0.9938	99.97
17.5	883,395		0.0000	1.0000	99.36
18.5	883,395		0.0000	1.0000	99.36
19.5					99.36
20.5					
21.5					
22.5					
23.5	16,645,490		0.0000		
24.5	16,645,490	625,000	0.0375		
25.5	16,020,490		0.0000		
26.5	16,020,490	4,000	0.0002		
27.5	16,016,490	20,000	0.0012		
28.5	129,153,229		0.0000		
29.5	113,156,739	99,093	0.0009		
30.5	119,808,229		0.0000		
31.5	151,856,028	1,750,000	0.0115		
32.5	150,106,028	6,032,000	0.0402		
33.5	144,074,028	1,112,766	0.0077		
34.5	31,665,616	1,617,000	0.0511		
35.5	30,048,616	4,740,000	0.1577		
36.5	18,558,033		0.0000		
37.5					
38.5					

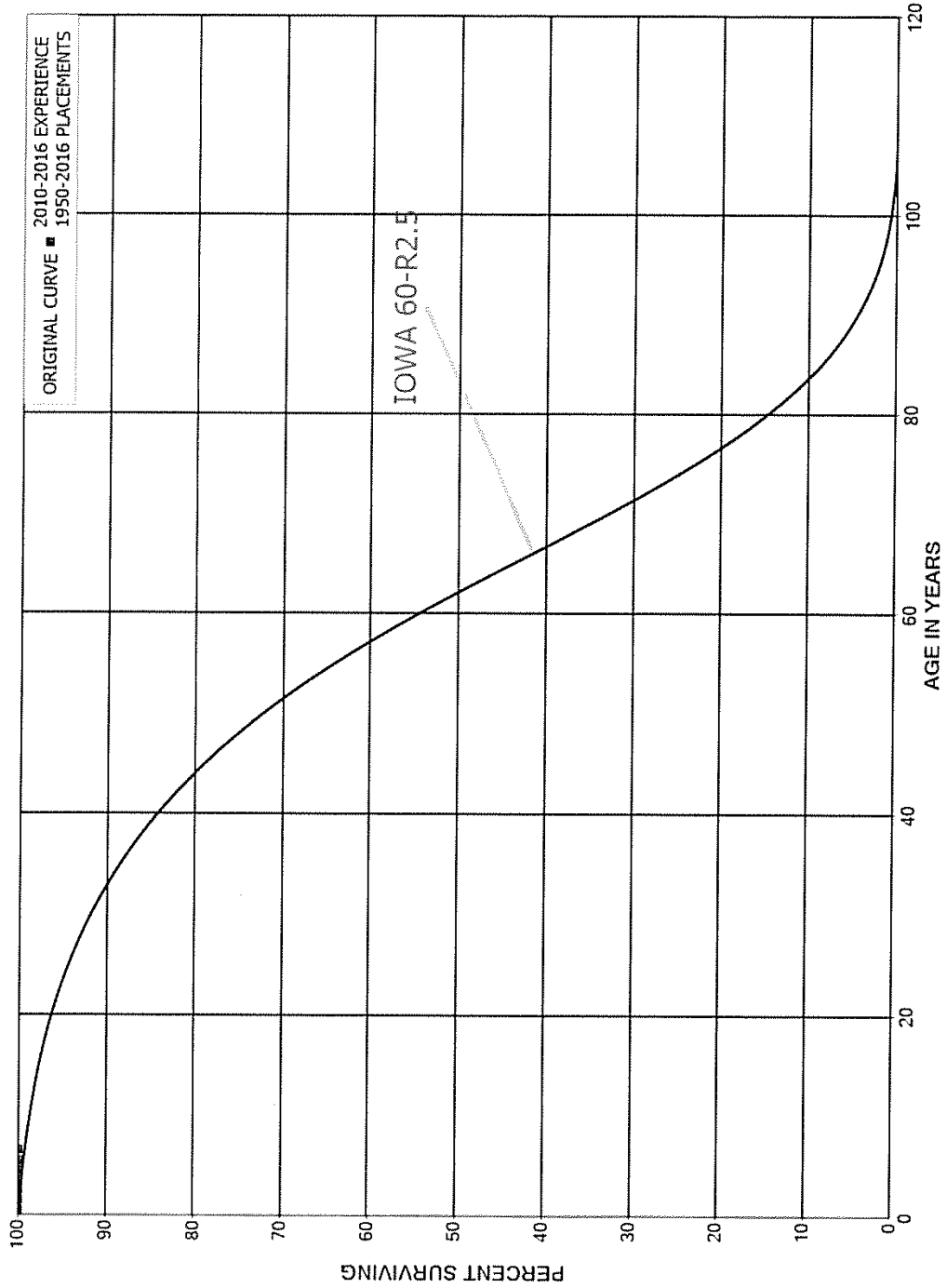
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5	6,054,624		0.0000		
41.5	6,054,624		0.0000		
42.5	17,555,298		0.0000		
43.5	17,555,298	5,000	0.0003		
44.5	29,475,369	2,905,440	0.0986		
45.5	26,569,929	5,000	0.0002		
46.5	23,420,745		0.0000		
47.5	23,420,745	20,000	0.0009		
48.5	11,920,071	70,000	0.0059		
49.5	11,850,071		0.0000		
50.5					
51.5					
52.5					
53.5					
54.5					
55.5	5,223,315		0.0000		
56.5	5,223,315		0.0000		
57.5	5,223,315		0.0000		
58.5	5,223,315		0.0000		
59.5	5,223,315		0.0000		
60.5	5,223,315	15,000	0.0029		
61.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 360.2 COLLECTION SEWERS - FORCE
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 360.2 COLLECTION SEWERS - FORCE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1950-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	11,141,165		0.0000	1.0000	100.00
0.5	11,902,755		0.0000	1.0000	100.00
1.5	11,695,096		0.0000	1.0000	100.00
2.5	8,691,601		0.0000	1.0000	100.00
3.5	8,127,753		0.0000	1.0000	100.00
4.5	6,319,209		0.0000	1.0000	100.00
5.5	822,987		0.0000	1.0000	100.00
6.5					100.00
7.5					
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5	193,462		0.0000		
31.5	193,462		0.0000		
32.5	193,462		0.0000		
33.5	193,462		0.0000		
34.5	193,462		0.0000		
35.5	193,462		0.0000		
36.5					
37.5					
38.5					

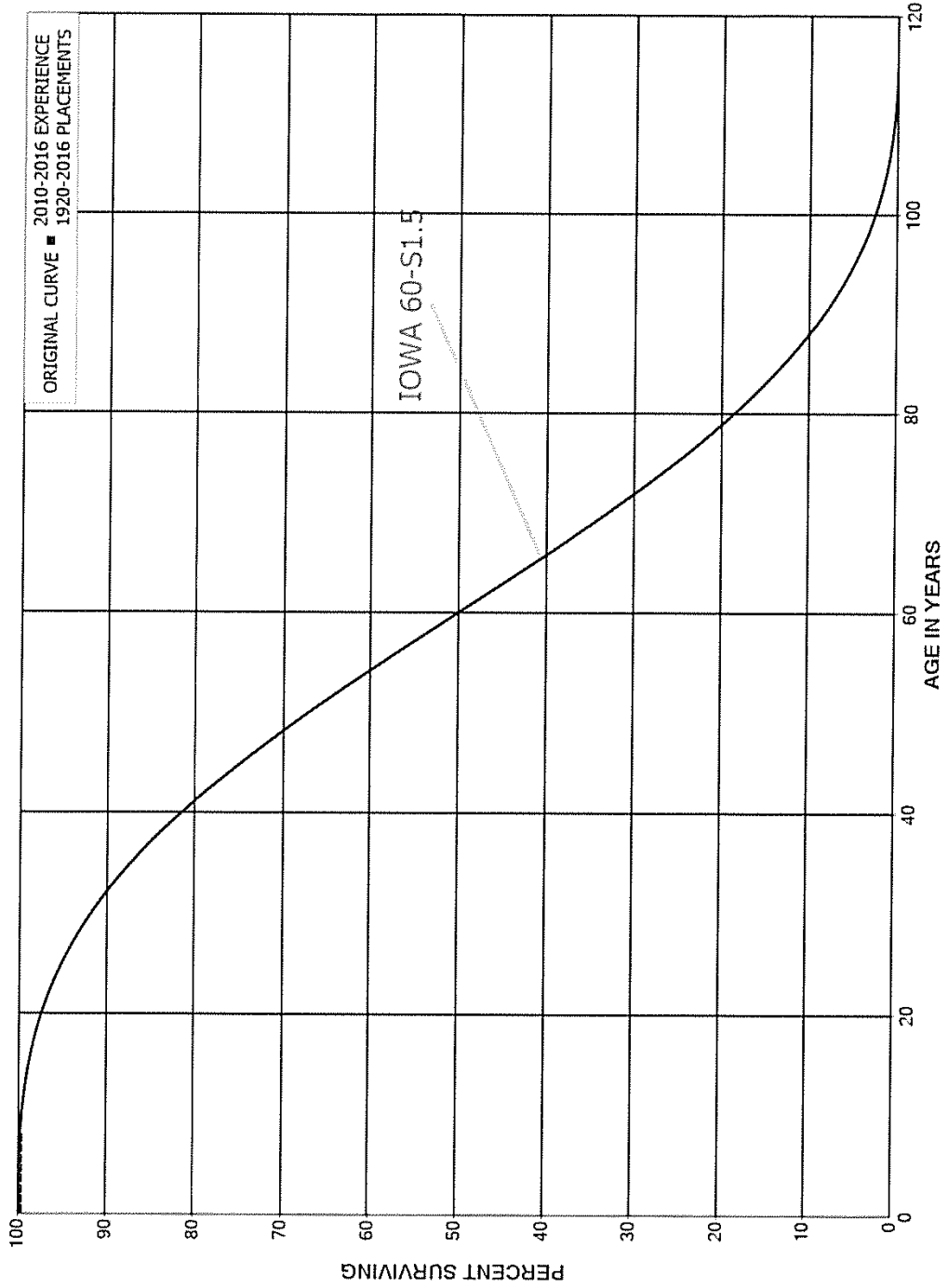
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 360.2 COLLECTION SEWERS - FORCE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1950-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5	2,269,298		0.0000		
41.5	2,269,298		0.0000		
42.5	2,269,298		0.0000		
43.5	2,269,298		0.0000		
44.5	2,269,298		0.0000		
45.5	2,269,298		0.0000		
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5	74,827		0.0000		
61.5	74,827		0.0000		
62.5	74,827		0.0000		
63.5	74,827		0.0000		
64.5	74,827		0.0000		
65.5	74,827		0.0000		
66.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1920-2016		EXPERIENCE BAND 2010-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	246,280,340		0.0000	1.0000	100.00
0.5	280,182,832		0.0000	1.0000	100.00
1.5	305,552,710		0.0000	1.0000	100.00
2.5	269,486,657		0.0000	1.0000	100.00
3.5	215,293,345		0.0000	1.0000	100.00
4.5	133,961,206		0.0000	1.0000	100.00
5.5	73,196,456		0.0000	1.0000	100.00
6.5	36,459,515		0.0000	1.0000	100.00
7.5					100.00
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5	32,412,071		0.0000		
21.5	32,412,071		0.0000		
22.5	32,412,071		0.0000		
23.5	32,412,071		0.0000		
24.5	32,412,071		0.0000		
25.5	32,412,071		0.0000		
26.5					
27.5					
28.5					
29.5					
30.5	19,761,095		0.0000		
31.5	19,761,095		0.0000		
32.5	19,761,095		0.0000		
33.5	19,761,095		0.0000		
34.5	19,761,095		0.0000		
35.5	46,922,546		0.0000		
36.5	27,161,451		0.0000		
37.5	27,161,451		0.0000		
38.5	27,161,451		0.0000		

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1920-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	27,161,451	10,000	0.0004		
40.5	124,835,819		0.0000		
41.5	679,692,571		0.0000		
42.5	679,692,571		0.0000		
43.5	679,692,571		0.0000		
44.5	679,692,571		0.0000		
45.5	707,314,466		0.0000		
46.5	609,630,098		0.0000		
47.5	27,621,895		0.0000		
48.5	27,621,895		0.0000		
49.5	27,621,895	20,000	0.0007		
50.5	28,916,434		0.0000		
51.5	1,314,539		0.0000		
52.5	1,314,539		0.0000		
53.5	1,314,539		0.0000		
54.5	1,314,539		0.0000		
55.5	1,314,539		0.0000		
56.5					
57.5					
58.5					
59.5					
60.5	2,130,987		0.0000		
61.5	2,130,987		0.0000		
62.5	2,130,987		0.0000		
63.5	2,130,987		0.0000		
64.5	2,130,987		0.0000		
65.5	2,130,987		0.0000		
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5	296,249		0.0000		
76.5	296,249		0.0000		
77.5	296,249		0.0000		
78.5	296,249		0.0000		

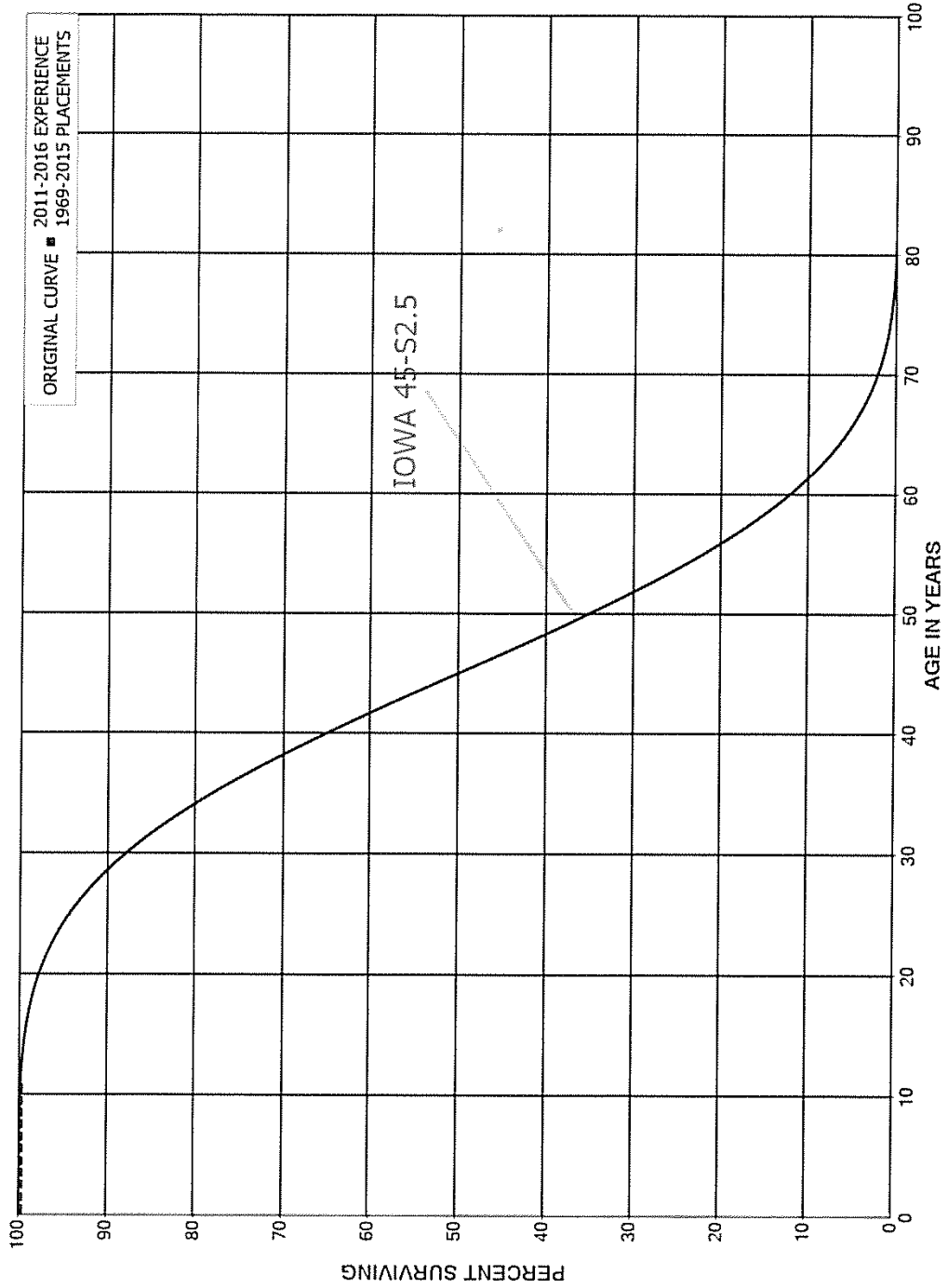
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1920-2016			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	296,249		0.0000		
80.5	332,012		0.0000		
81.5	35,763		0.0000		
82.5	35,763		0.0000		
83.5	35,763		0.0000		
84.5	35,763		0.0000		
85.5	8,710,988		0.0000		
86.5	8,675,225		0.0000		
87.5	8,675,225		0.0000		
88.5	8,675,225		0.0000		
89.5	8,675,225		0.0000		
90.5	11,412,729		0.0000		
91.5	2,737,504		0.0000		
92.5	2,737,504		0.0000		
93.5	2,737,504		0.0000		
94.5	2,737,504		0.0000		
95.5	2,737,504		0.0000		
96.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNTS 362.2 AND 362.22 SPECIAL COLLECTING STRUCTURES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNTS 362.2 AND 362.22 SPECIAL COLLECTING STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1969-2015			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	37,256,348		0.0000	1.0000	100.00
0.5	37,256,348		0.0000	1.0000	100.00
1.5	22,665,336		0.0000	1.0000	100.00
2.5	91,667,908		0.0000	1.0000	100.00
3.5	80,817,311		0.0000	1.0000	100.00
4.5	85,219,510		0.0000	1.0000	100.00
5.5	84,228,000		0.0000	1.0000	100.00
6.5	84,228,000		0.0000	1.0000	100.00
7.5	84,228,000		0.0000	1.0000	100.00
8.5	4,408,241		0.0000	1.0000	100.00
9.5	4,408,241		0.0000	1.0000	100.00
10.5					100.00
11.5					
12.5					
13.5					
14.5					
15.5	21,998,365		0.0000		
16.5	21,998,365		0.0000		
17.5	21,998,365		0.0000		
18.5	21,998,365		0.0000		
19.5	21,998,365		0.0000		
20.5	21,998,365		0.0000		
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

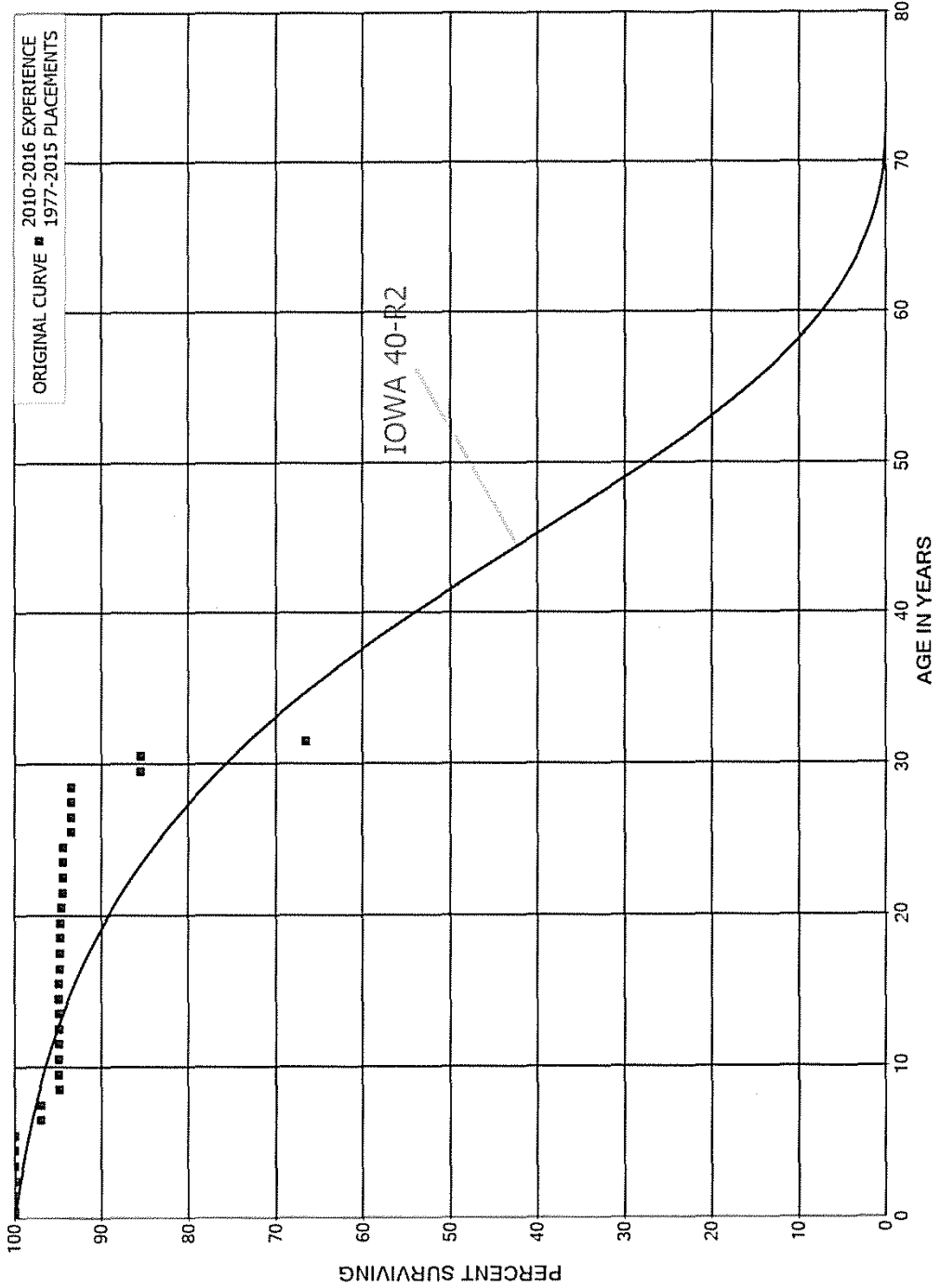
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNTS 362.2 AND 362.22 SPECIAL COLLECTING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1969-2015			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5	44,849,174		0.0000		
42.5	44,849,174		0.0000		
43.5	44,849,174		0.0000		
44.5	44,849,174		0.0000		
45.5	44,849,174		0.0000		
46.5	44,849,174		0.0000		
47.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 371.3 PUMPING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



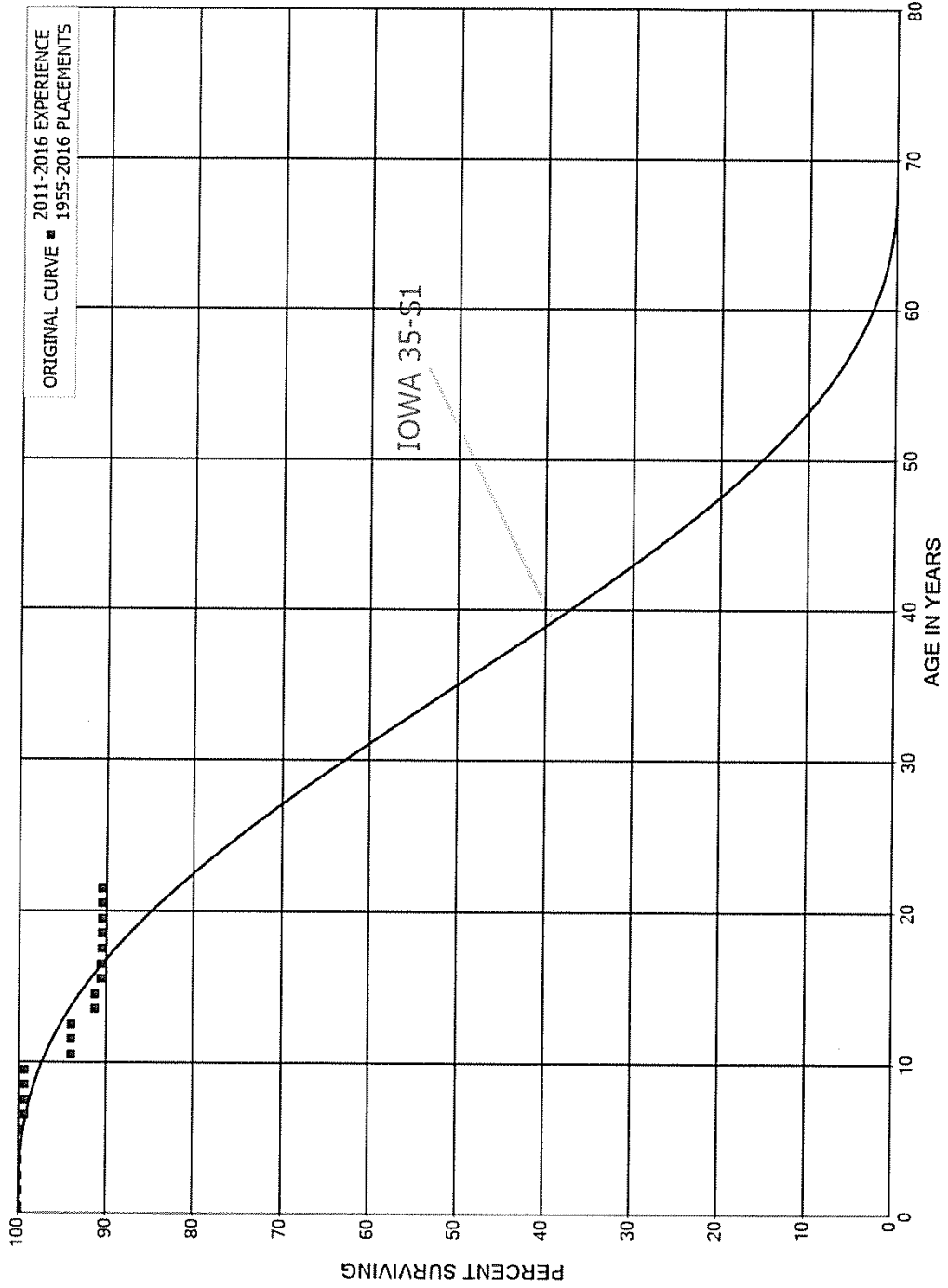
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 371.3 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1977-2015			EXPERIENCE BAND 2010-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	12,005,354		0.0000	1.0000	100.00
0.5	12,127,771		0.0000	1.0000	100.00
1.5	13,041,087		0.0000	1.0000	100.00
2.5	8,910,497		0.0000	1.0000	100.00
3.5	8,312,416		0.0000	1.0000	100.00
4.5	6,293,121		0.0000	1.0000	100.00
5.5	2,441,594	75,000	0.0307	0.9693	100.00
6.5	2,244,177		0.0000	1.0000	96.93
7.5	2,621,432	55,875	0.0213	0.9787	96.93
8.5	5,984,330		0.0000	1.0000	94.86
9.5	5,984,330		0.0000	1.0000	94.86
10.5	5,649,206		0.0000	1.0000	94.86
11.5	9,450,419		0.0000	1.0000	94.86
12.5	10,788,884		0.0000	1.0000	94.86
13.5	8,558,451		0.0000	1.0000	94.86
14.5	7,774,325		0.0000	1.0000	94.86
15.5	13,422,782	15,000	0.0011	0.9989	94.86
16.5	13,407,782		0.0000	1.0000	94.76
17.5	18,973,695		0.0000	1.0000	94.76
18.5	23,822,747		0.0000	1.0000	94.76
19.5	25,834,903	65,000	0.0025	0.9975	94.76
20.5	26,060,362	24,375	0.0009	0.9991	94.52
21.5	24,454,970		0.0000	1.0000	94.43
22.5	26,127,568		0.0000	1.0000	94.43
23.5	20,446,583		0.0000	1.0000	94.43
24.5	14,259,066	150,000	0.0105	0.9895	94.43
25.5	12,431,849		0.0000	1.0000	93.44
26.5	9,506,743		0.0000	1.0000	93.44
27.5	5,678,678		0.0000	1.0000	93.44
28.5	4,006,080	339,054	0.0846	0.9154	93.44
29.5	334,939		0.0000	1.0000	85.53
30.5	334,939	74,431	0.2222	0.7778	85.53
31.5					66.52
32.5					
33.5	2,098,479		0.0000		
34.5	2,098,479		0.0000		
35.5	2,098,479		0.0000		
36.5	2,098,479		0.0000		
37.5	2,098,479		0.0000		
38.5	2,098,479		0.0000		
39.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 380.4 TREATMENT AND DISPOSAL EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 380.4 TREATMENT AND DISPOSAL EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	166,759,423		0.0000	1.0000	100.00
0.5	110,589,897		0.0000	1.0000	100.00
1.5	60,179,476		0.0000	1.0000	100.00
2.5	63,830,477	20,000	0.0003	0.9997	100.00
3.5	60,125,269		0.0000	1.0000	99.97
4.5	61,844,243		0.0000	1.0000	99.97
5.5	70,792,983	504,000	0.0071	0.9929	99.97
6.5	73,812,483		0.0000	1.0000	99.26
7.5	79,113,162		0.0000	1.0000	99.26
8.5	65,613,162	5,000	0.0001	0.9999	99.26
9.5	61,655,947	3,327,586	0.0540	0.9460	99.25
10.5	51,257,259		0.0000	1.0000	93.89
11.5	46,854,740		0.0000	1.0000	93.89
12.5	43,331,240	1,225,000	0.0283	0.9717	93.89
13.5	36,922,792		0.0000	1.0000	91.24
14.5	32,422,792	225,000	0.0069	0.9931	91.24
15.5	196,149,549		0.0000	1.0000	90.61
16.5	179,585,899	290,000	0.0016	0.9984	90.61
17.5	164,471,757		0.0000	1.0000	90.46
18.5	164,471,757		0.0000	1.0000	90.46
19.5	163,661,757		0.0000	1.0000	90.46
20.5	163,661,757		0.0000	1.0000	90.46
21.5					90.46
22.5					
23.5	31,593,108		0.0000		
24.5	31,593,108	400,000	0.0127		
25.5	32,447,712	3,514,340	0.1083		
26.5	28,933,372	2,000,000	0.0691		
27.5	26,933,372	30,960	0.0011		
28.5	173,199,017		0.0000		
29.5	147,551,209		0.0000		
30.5	156,575,470		0.0000		
31.5	182,183,640	35,000	0.0002		
32.5	182,148,640	5,138,000	0.0282		
33.5	177,010,640	1,600,806	0.0090		
34.5	29,226,229		0.0000		
35.5	29,226,229	2,000,000	0.0684		
36.5	18,201,968		0.0000		
37.5					
38.5					

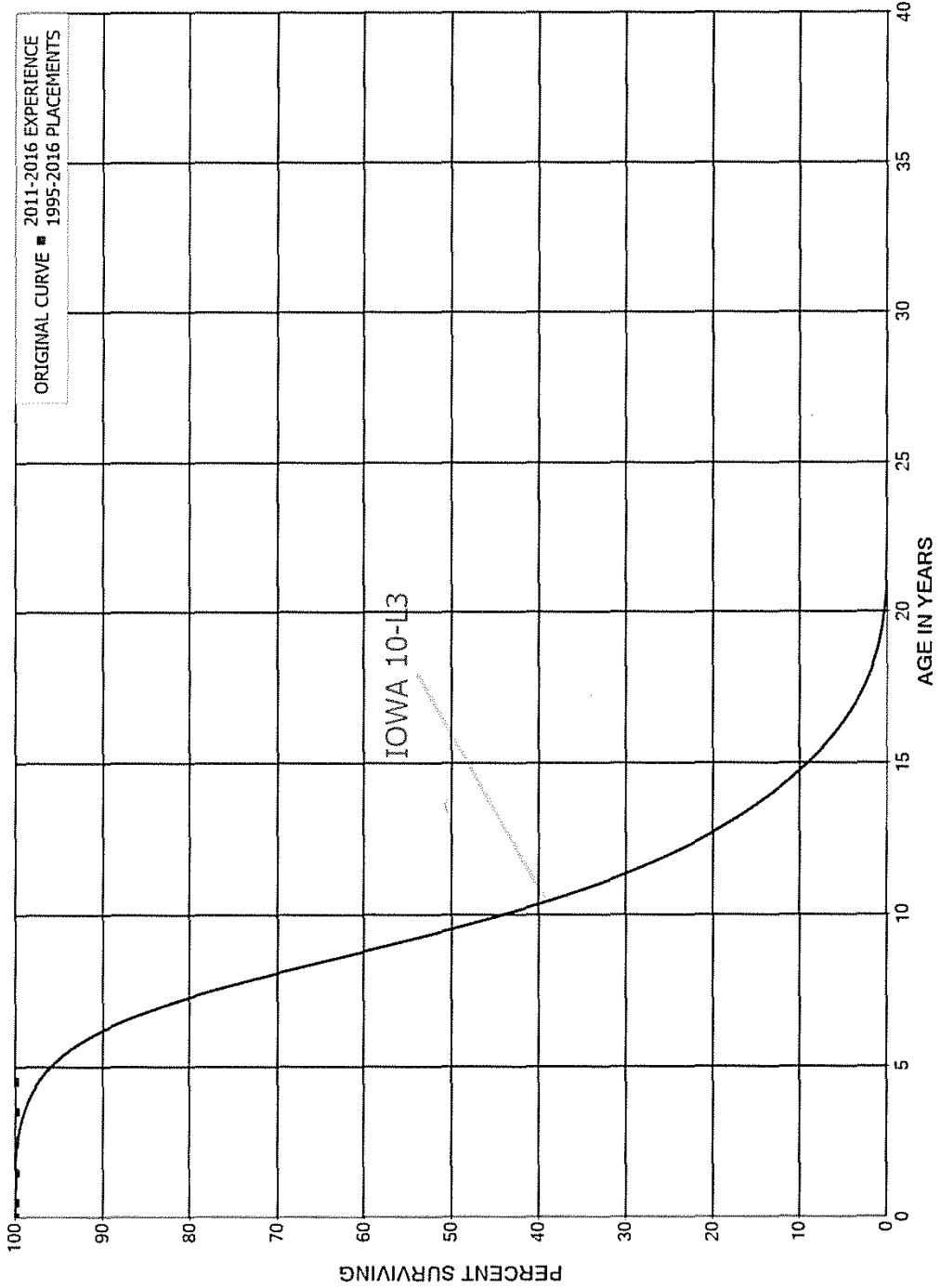
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 380.4 TREATMENT AND DISPOSAL EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5	11,628,711		0.0000		
41.5	11,628,711		0.0000		
42.5	17,857,455		0.0000		
43.5	17,857,455		0.0000		
44.5	24,890,555	1,225,000	0.0492		
45.5	23,665,555		0.0000		
46.5	13,261,844		0.0000		
47.5	13,261,844		0.0000		
48.5	7,033,100		0.0000		
49.5	7,033,100		0.0000		
50.5					
51.5					
52.5					
53.5					
54.5					
55.5	2,191,353		0.0000		
56.5	2,191,353		0.0000		
57.5	2,191,353		0.0000		
58.5	2,191,353		0.0000		
59.5	2,191,353		0.0000		
60.5	2,191,353		0.0000		
61.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 391.7 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



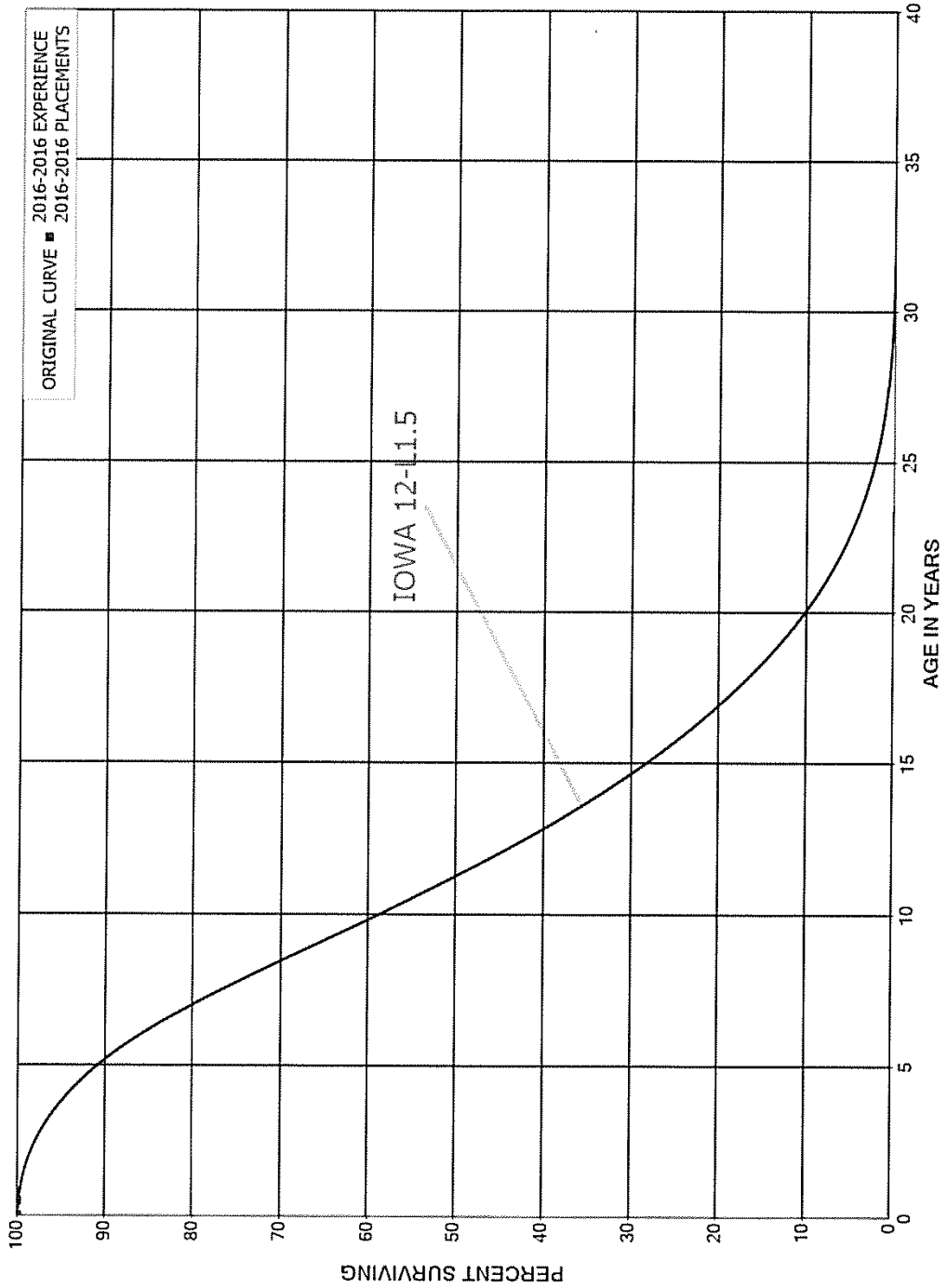
CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

ACCOUNT 391.7 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1995-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,612,851		0.0000	1.0000	100.00
0.5	3,696,149		0.0000	1.0000	100.00
1.5	2,288,630		0.0000	1.0000	100.00
2.5	1,256,905		0.0000	1.0000	100.00
3.5	754,937		0.0000	1.0000	100.00
4.5					100.00
5.5	1,312		0.0000		
6.5	2,296		0.0000		
7.5	2,296		0.0000		
8.5	24,764		0.0000		
9.5	24,764		0.0000		
10.5	41,574		0.0000		
11.5	62,402		0.0000		
12.5	76,916	13,776	0.1791		
13.5	70,602	11,890	0.1684		
14.5	50,430	20,828	0.4130		
15.5	38,212	11,890	0.3112		
16.5	26,322	6,970	0.2648		
17.5	19,352	1,230	0.0636		
18.5	13,612	1,230	0.0904		
19.5	11,070	4,100	0.3704		
20.5	4,510		0.0000		
21.5					

CITIZENS ENERGY GROUP
CITIZENS WASTEWATER
ACCOUNT 395.7 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
CITIZENS WASTEWATER

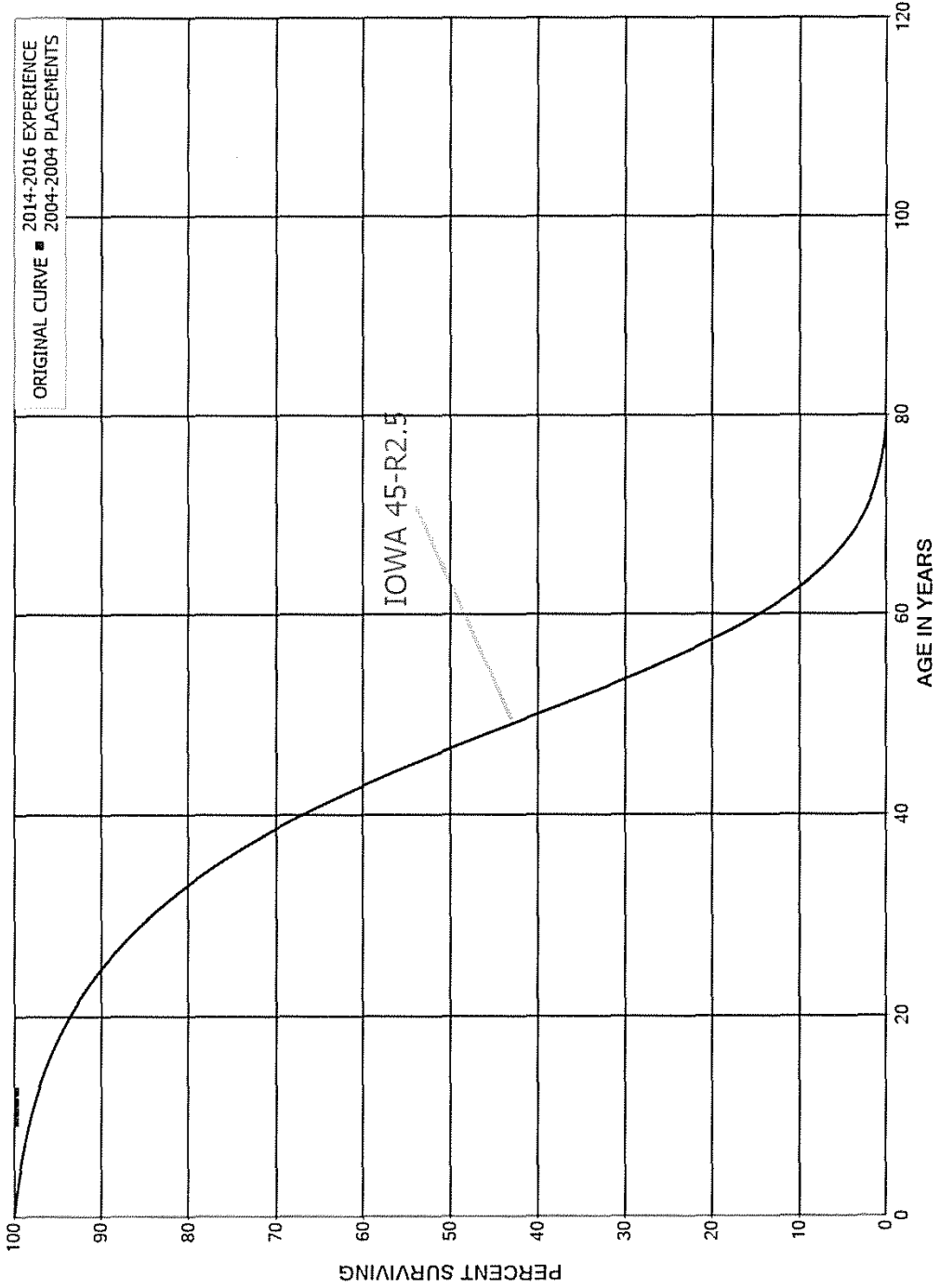
ACCOUNT 395.7 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2016-2016			EXPERIENCE BAND 2016-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	97,576		0.0000	1.0000	100.00
0.5					100.00

WESTFIELD WASTEWATER

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION
ORIGINAL AND SMOOTH SURVIVOR CURVES



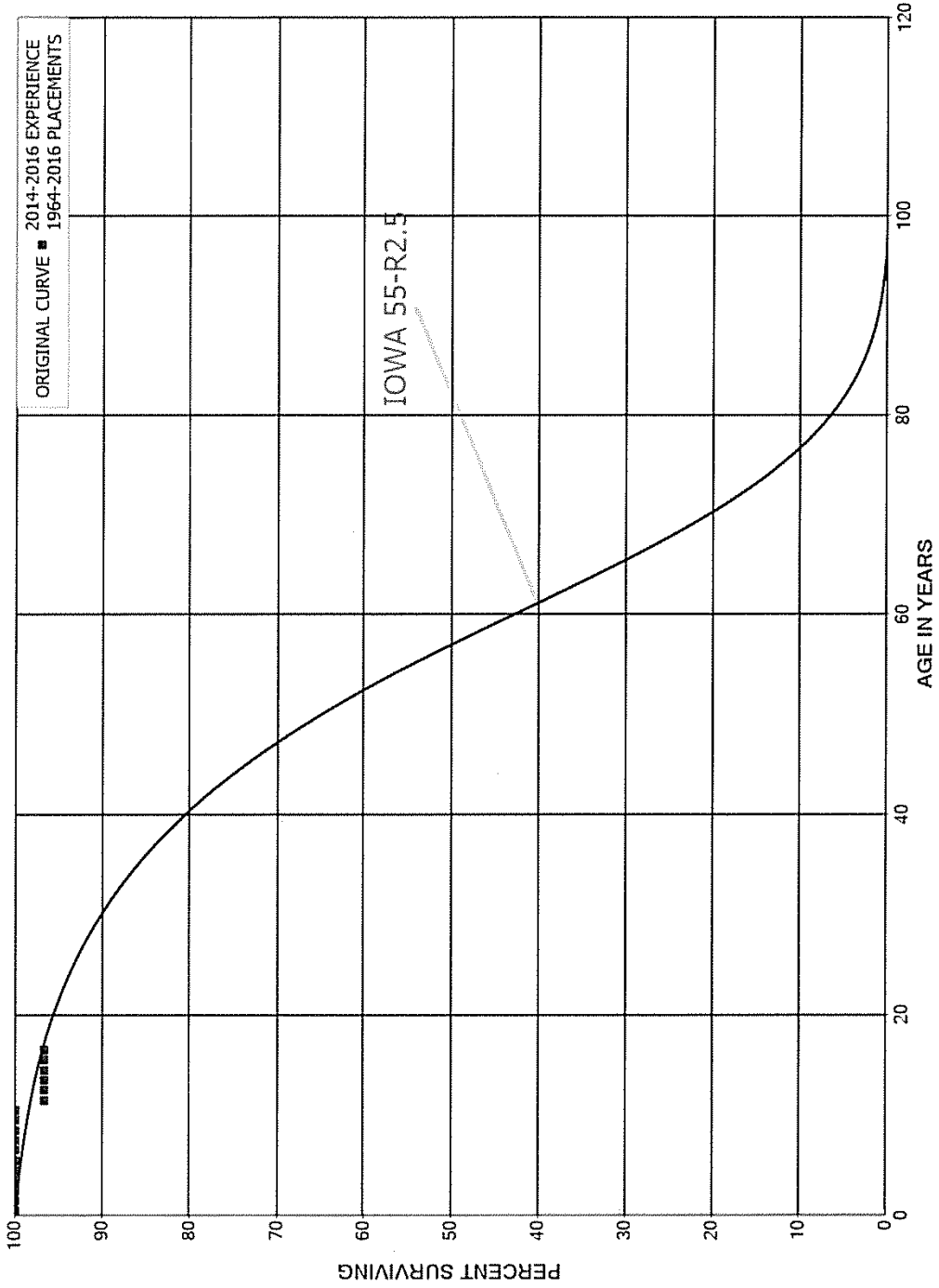
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 2004-2004			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5					
7.5					
8.5					
9.5	647		0.0000	1.0000	100.00
10.5	647		0.0000	1.0000	100.00
11.5	647		0.0000	1.0000	100.00
12.5					100.00

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1964-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	496,900		0.0000	1.0000	100.00
0.5	97,310		0.0000	1.0000	100.00
1.5	27,235		0.0000	1.0000	100.00
2.5	27,235		0.0000	1.0000	100.00
3.5	38,325		0.0000	1.0000	100.00
4.5	11,090		0.0000	1.0000	100.00
5.5	376,570		0.0000	1.0000	100.00
6.5	774,702		0.0000	1.0000	100.00
7.5	905,004		0.0000	1.0000	100.00
8.5	560,212		0.0000	1.0000	100.00
9.5	266,646		0.0000	1.0000	100.00
10.5	145,806	5,000	0.0343	0.9657	100.00
11.5	259,419		0.0000	1.0000	96.57
12.5	143,763		0.0000	1.0000	96.57
13.5	134,722		0.0000	1.0000	96.57
14.5	420		0.0000	1.0000	96.57
15.5	420		0.0000	1.0000	96.57
16.5					96.57
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5	25,000		0.0000		
33.5	45,000		0.0000		
34.5	45,000		0.0000		
35.5	20,000		0.0000		
36.5					
37.5					
38.5					

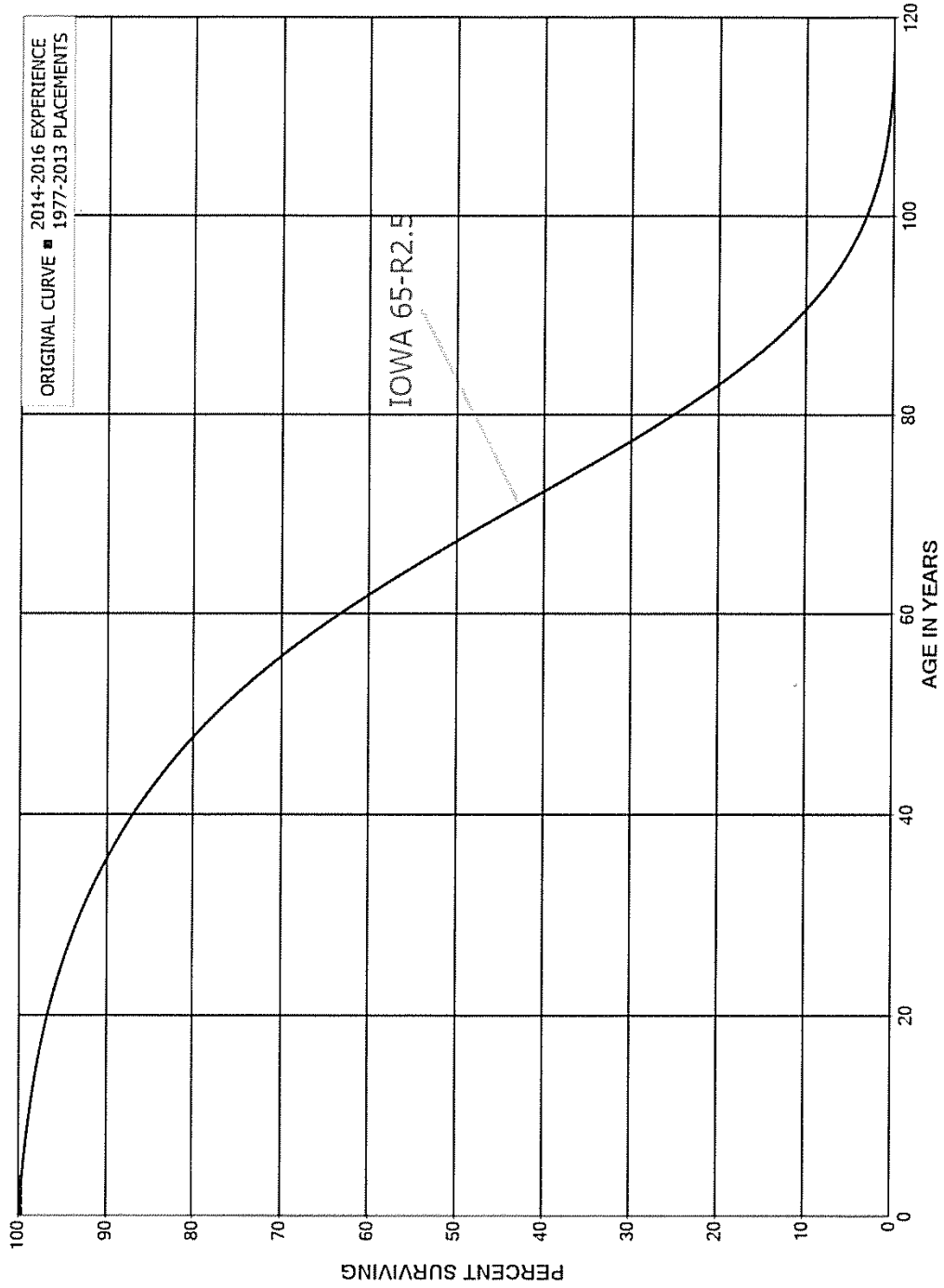
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1964-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5	35,000		0.0000		
50.5	35,000		0.0000		
51.5	35,000		0.0000		
52.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



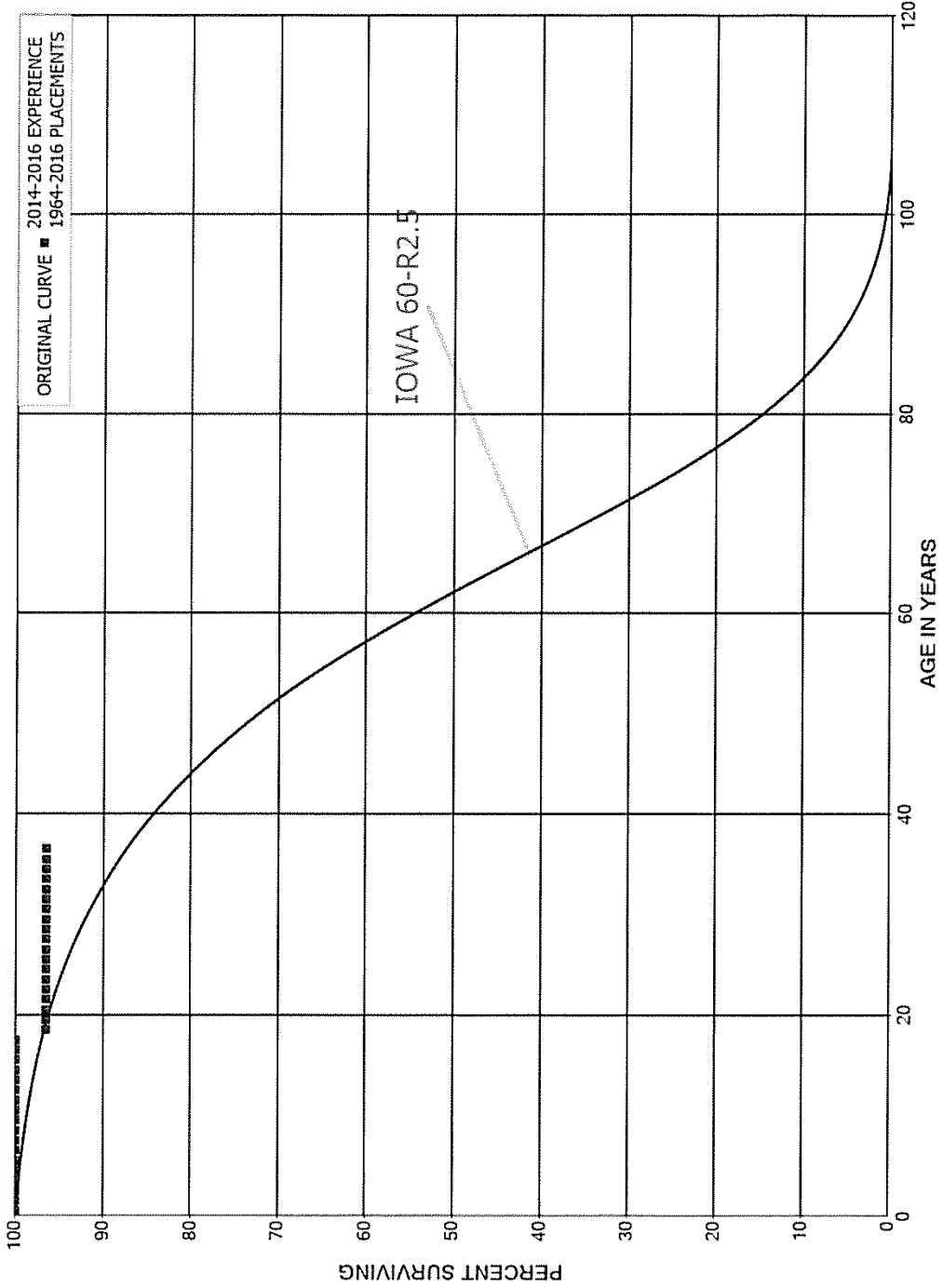
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1977-2013			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5	7,874		0.0000	1.0000	100.00
1.5	7,874		0.0000	1.0000	100.00
2.5	7,874		0.0000	1.0000	100.00
3.5					100.00
4.5					
5.5	79,420		0.0000		
6.5	1,681,392		0.0000		
7.5	2,145,844		0.0000		
8.5	9,509,764		0.0000		
9.5	7,928,492		0.0000		
10.5	7,511,184		0.0000		
11.5	70,942		0.0000		
12.5	76,937		0.0000		
13.5	51,605		0.0000		
14.5	236,191		0.0000		
15.5	6,150,644		0.0000		
16.5	6,128,832		0.0000		
17.5	5,941,148		0.0000		
18.5	41,003		0.0000		
19.5	41,003		0.0000		
20.5	41,003		0.0000		
21.5					
22.5	748,765		0.0000		
23.5	749,352		0.0000		
24.5	750,304		0.0000		
25.5	1,539		0.0000		
26.5	953		0.0000		
27.5	800		0.0000		
28.5	800		0.0000		
29.5	800		0.0000		
30.5					
31.5					
32.5					
33.5	7,000		0.0000		
34.5	13,097		0.0000		
35.5	13,097		0.0000		
36.5	175,191		0.0000		
37.5	169,093		0.0000		
38.5	169,093		0.0000		
39.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 360.2 COLLECTION SEWERS - FORCE
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 360.2 COLLECTION SEWERS - FORCE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1964-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,550,443		0.0000	1.0000	100.00
0.5	1,280,354		0.0000	1.0000	100.00
1.5	328,523		0.0000	1.0000	100.00
2.5	222,420		0.0000	1.0000	100.00
3.5	24,000		0.0000	1.0000	100.00
4.5	24,000		0.0000	1.0000	100.00
5.5	48,674		0.0000	1.0000	100.00
6.5	1,131,577		0.0000	1.0000	100.00
7.5	1,131,577		0.0000	1.0000	100.00
8.5	1,108,539		0.0000	1.0000	100.00
9.5	1,636		0.0000	1.0000	100.00
10.5	14,922		0.0000	1.0000	100.00
11.5	90,561		0.0000	1.0000	100.00
12.5	138,192		0.0000	1.0000	100.00
13.5	909,001		0.0000	1.0000	100.00
14.5	1,119,427		0.0000	1.0000	100.00
15.5	1,200,743		0.0000	1.0000	100.00
16.5	602,630		0.0000	1.0000	100.00
17.5	427,799	15,000	0.0351	0.9649	100.00
18.5	1,539,659		0.0000	1.0000	96.49
19.5	1,370,676		0.0000	1.0000	96.49
20.5	1,257,806		0.0000	1.0000	96.49
21.5	201,033		0.0000	1.0000	96.49
22.5	98,387		0.0000	1.0000	96.49
23.5	98,387		0.0000	1.0000	96.49
24.5	17,922		0.0000	1.0000	96.49
25.5	1,505		0.0000	1.0000	96.49
26.5	4,485		0.0000	1.0000	96.49
27.5	4,485		0.0000	1.0000	96.49
28.5	102,515		0.0000	1.0000	96.49
29.5	100,610		0.0000	1.0000	96.49
30.5	100,610		0.0000	1.0000	96.49
31.5	3,559		0.0000	1.0000	96.49
32.5	83,184		0.0000	1.0000	96.49
33.5	307,184		0.0000	1.0000	96.49
34.5	304,700		0.0000	1.0000	96.49
35.5	224,000		0.0000	1.0000	96.49
36.5					96.49
37.5					96.49
38.5					96.49

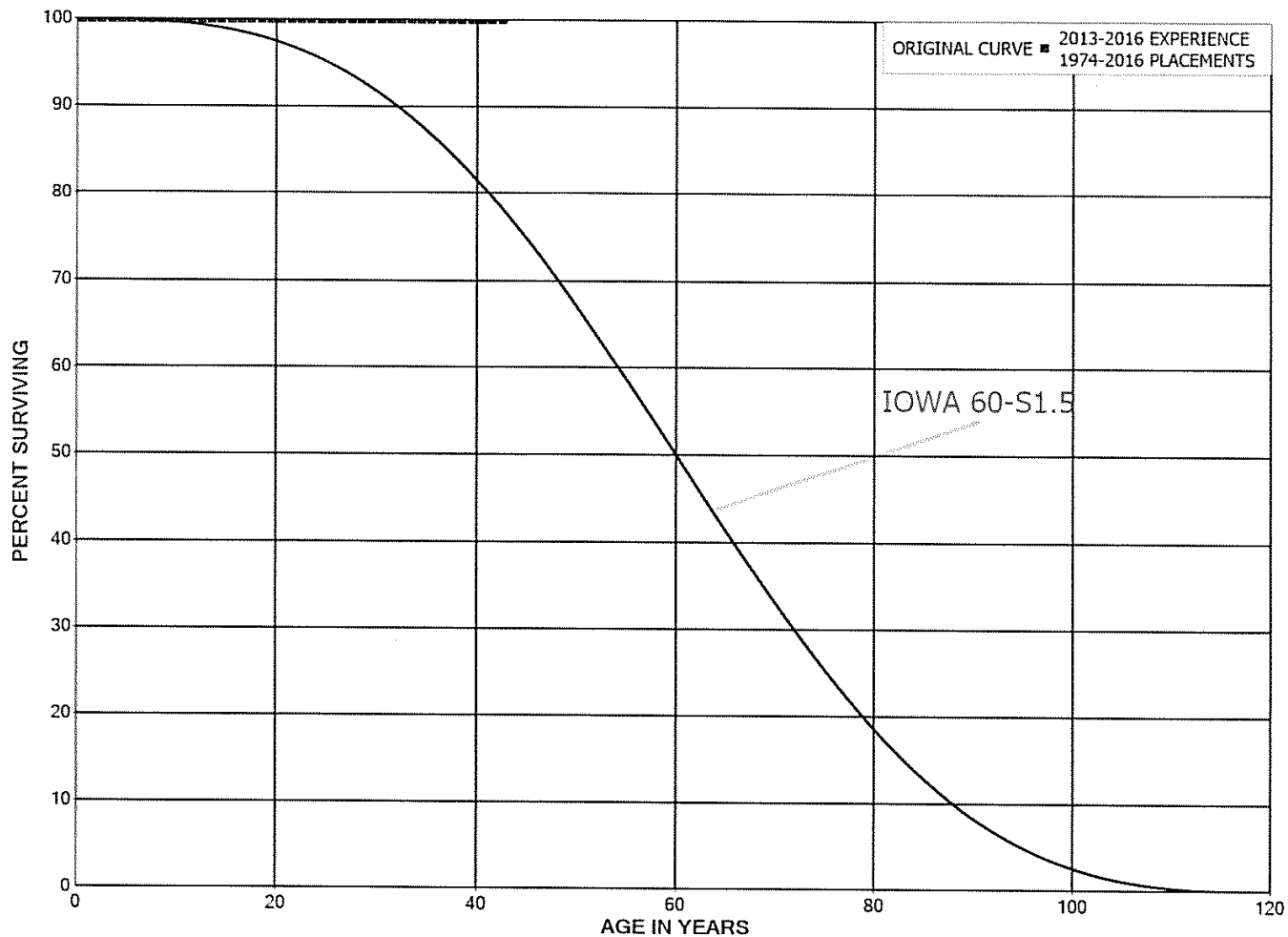
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 360.2 COLLECTION SEWERS - FORCE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1964-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5	618,000		0.0000		
50.5	618,000		0.0000		
51.5	618,000		0.0000		
52.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1974-2016			EXPERIENCE BAND 2013-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	30,872,585		0.0000	1.0000	100.00
0.5	28,076,472		0.0000	1.0000	100.00
1.5	22,793,432		0.0000	1.0000	100.00
2.5	2,510,013		0.0000	1.0000	100.00
3.5	1,546,199		0.0000	1.0000	100.00
4.5	1,063,777		0.0000	1.0000	100.00
5.5	2,649,922		0.0000	1.0000	100.00
6.5	5,196,514		0.0000	1.0000	100.00
7.5	13,466,093		0.0000	1.0000	100.00
8.5	11,673,862		0.0000	1.0000	100.00
9.5	10,019,750		0.0000	1.0000	100.00
10.5	2,378,406		0.0000	1.0000	100.00
11.5	2,359,338		0.0000	1.0000	100.00
12.5	1,257,935		0.0000	1.0000	100.00
13.5	1,106,510		0.0000	1.0000	100.00
14.5	1,993,504		0.0000	1.0000	100.00
15.5	5,374,534		0.0000	1.0000	100.00
16.5	5,366,667		0.0000	1.0000	100.00
17.5	5,567,794		0.0000	1.0000	100.00
18.5	2,108,257		0.0000	1.0000	100.00
19.5	1,877,404		0.0000	1.0000	100.00
20.5	997,739		0.0000	1.0000	100.00
21.5	901,566		0.0000	1.0000	100.00
22.5	248,585		0.0000	1.0000	100.00
23.5	138,327		0.0000	1.0000	100.00
24.5	152,923		0.0000	1.0000	100.00
25.5	208,321		0.0000	1.0000	100.00
26.5	122,292		0.0000	1.0000	100.00
27.5	2,445,542		0.0000	1.0000	100.00
28.5	2,517,709		0.0000	1.0000	100.00
29.5	2,540,217		0.0000	1.0000	100.00
30.5	185,672		0.0000	1.0000	100.00
31.5	132,554		0.0000	1.0000	100.00
32.5	83,902		0.0000	1.0000	100.00
33.5	201,525		0.0000	1.0000	100.00
34.5	377,767		0.0000	1.0000	100.00
35.5	428,483		0.0000	1.0000	100.00
36.5	410,389		0.0000	1.0000	100.00
37.5	365,850		0.0000	1.0000	100.00
38.5	315,188		0.0000	1.0000	100.00

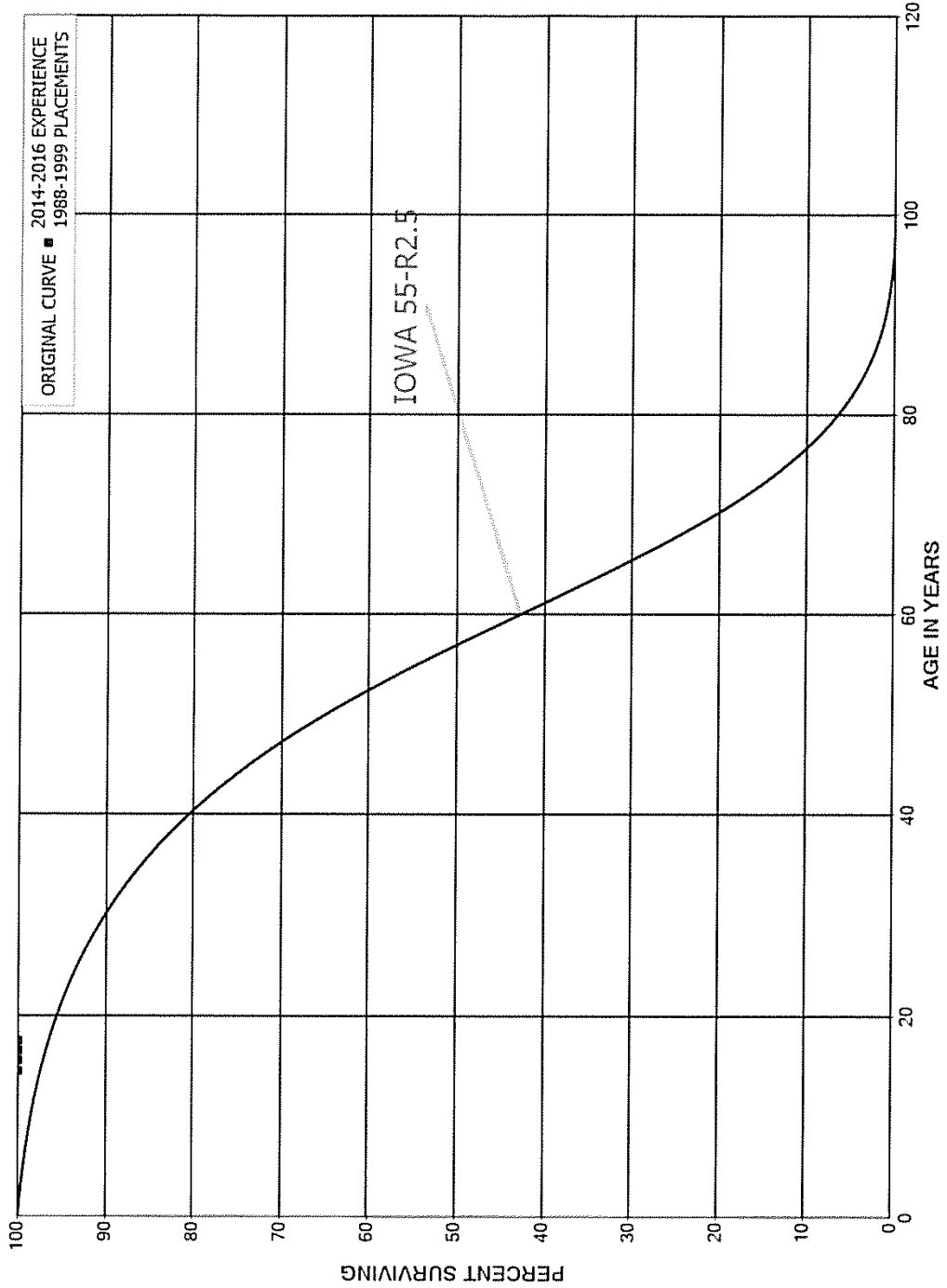
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 361.2 COLLECTION SEWERS - GRAVITY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1974-2016			EXPERIENCE BAND 2013-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	233,890		0.0000	1.0000	100.00
40.5	18,931		0.0000	1.0000	100.00
41.5	18,231		0.0000	1.0000	100.00
42.5					100.00

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 363.2 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



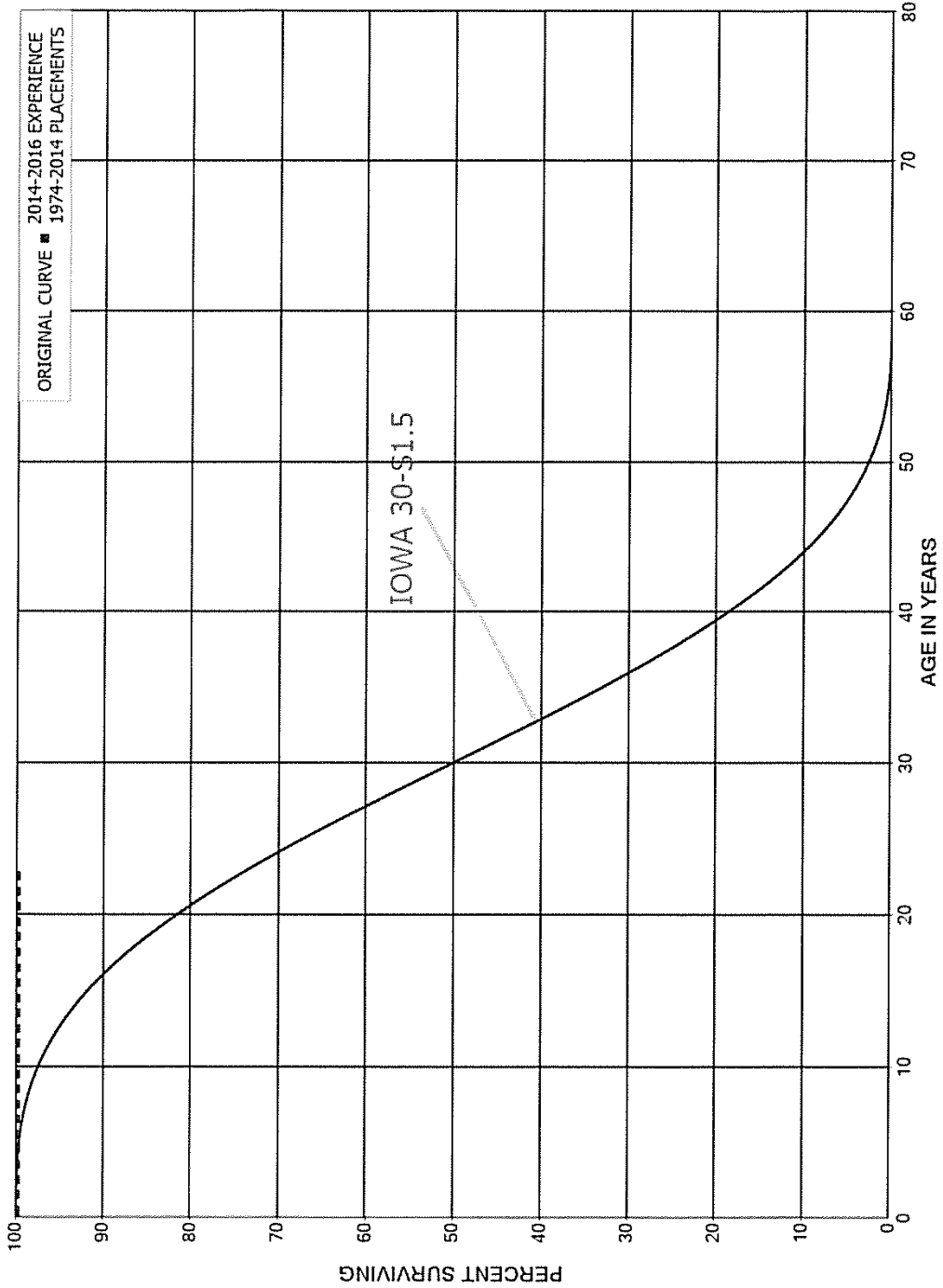
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 363.2 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-1999		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5					
7.5					
8.5					
9.5					
10.5					
11.5					
12.5					
13.5					
14.5	3,808		0.0000	1.0000	100.00
15.5	3,808		0.0000	1.0000	100.00
16.5	3,808		0.0000	1.0000	100.00
17.5					100.00
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5	24,215		0.0000		
26.5	24,215		0.0000		
27.5	24,215		0.0000		
28.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 364.2 FLOW MEASURING DEVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 364.2 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1974-2014			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,790		0.0000	1.0000	100.00
0.5	30,652		0.0000	1.0000	100.00
1.5	46,682		0.0000	1.0000	100.00
2.5	25,892		0.0000	1.0000	100.00
3.5	16,030		0.0000	1.0000	100.00
4.5	7,119		0.0000	1.0000	100.00
5.5	38,160		0.0000	1.0000	100.00
6.5	212,125		0.0000	1.0000	100.00
7.5	444,652		0.0000	1.0000	100.00
8.5	657,259		0.0000	1.0000	100.00
9.5	755,792		0.0000	1.0000	100.00
10.5	636,737		0.0000	1.0000	100.00
11.5	393,589		0.0000	1.0000	100.00
12.5	141,589		0.0000	1.0000	100.00
13.5	20,999		0.0000	1.0000	100.00
14.5	31,388		0.0000	1.0000	100.00
15.5	10,888		0.0000	1.0000	100.00
16.5	10,888		0.0000	1.0000	100.00
17.5	102,941		0.0000	1.0000	100.00
18.5	122,030		0.0000	1.0000	100.00
19.5	133,080		0.0000	1.0000	100.00
20.5	30,139		0.0000	1.0000	100.00
21.5	11,050		0.0000	1.0000	100.00
22.5					100.00
23.5					
24.5					
25.5					
26.5					
27.5	1,200		0.0000		
28.5	1,200		0.0000		
29.5	1,200		0.0000		
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

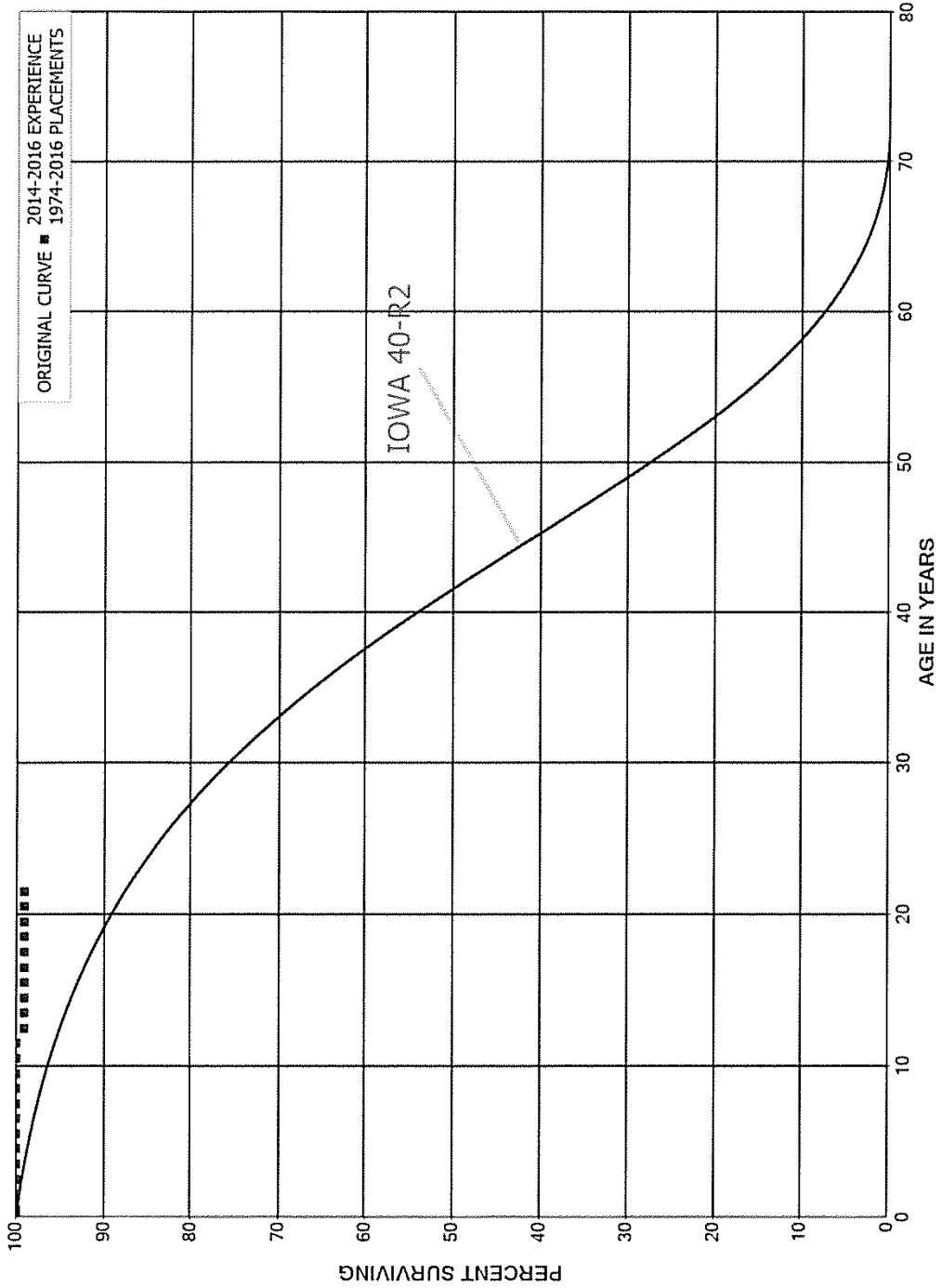
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 364.2 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1974-2014			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,920		0.0000		
40.5	1,920		0.0000		
41.5	1,920		0.0000		
42.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 371.3 PUMPING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 371.3 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1974-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,921,004		0.0000	1.0000	100.00
0.5	171,997		0.0000	1.0000	100.00
1.5	191,445		0.0000	1.0000	100.00
2.5	74,168		0.0000	1.0000	100.00
3.5	54,619		0.0000	1.0000	100.00
4.5	13,004		0.0000	1.0000	100.00
5.5	13,004		0.0000	1.0000	100.00
6.5	15,650		0.0000	1.0000	100.00
7.5	48,015		0.0000	1.0000	100.00
8.5	69,898		0.0000	1.0000	100.00
9.5	166,561		0.0000	1.0000	100.00
10.5	501,616		0.0000	1.0000	100.00
11.5	521,083	5,000	0.0096	0.9904	100.00
12.5	689,197		0.0000	1.0000	99.04
13.5	334,478		0.0000	1.0000	99.04
14.5	345,194		0.0000	1.0000	99.04
15.5	165,388		0.0000	1.0000	99.04
16.5	171,047		0.0000	1.0000	99.04
17.5	262,299		0.0000	1.0000	99.04
18.5	357,664		0.0000	1.0000	99.04
19.5	344,304		0.0000	1.0000	99.04
20.5	200,986		0.0000	1.0000	99.04
21.5					99.04
22.5					
23.5	15,439		0.0000		
24.5	150,895		0.0000		
25.5	150,895	15,439	0.1023		
26.5	135,456		0.0000		
27.5	23,835		0.0000		
28.5	23,835		0.0000		
29.5	23,835		0.0000		
30.5					
31.5	16,135		0.0000		
32.5	21,246		0.0000		
33.5	33,944		0.0000		
34.5	18,254		0.0000		
35.5	13,143		0.0000		
36.5	6,045		0.0000		
37.5	5,600		0.0000		
38.5	5,600		0.0000		

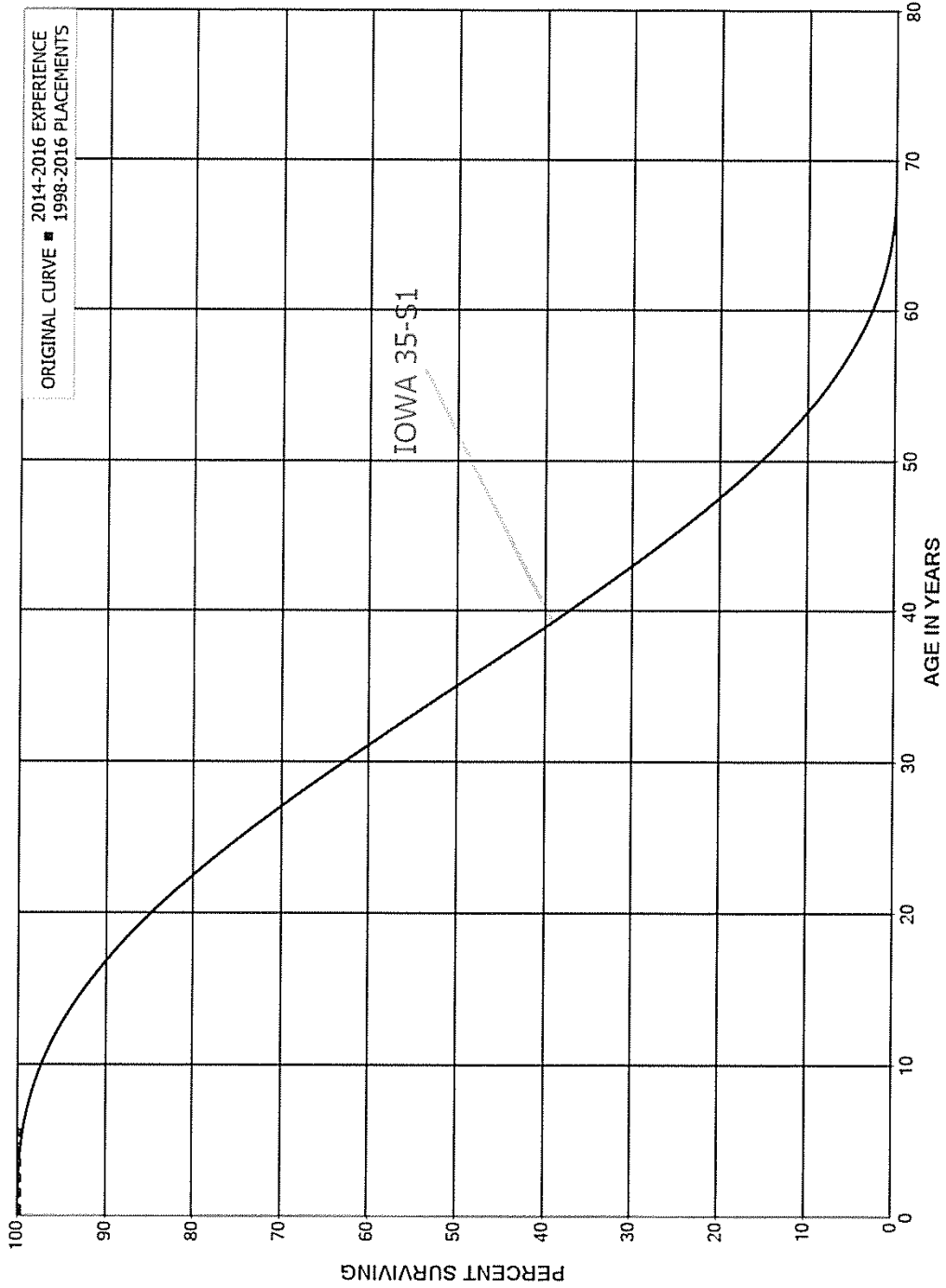
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 371.3 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1974-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,594		0.0000		
40.5	6,594		0.0000		
41.5	6,594		0.0000		
42.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 380.4 TREATMENT AND DISPOSAL EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



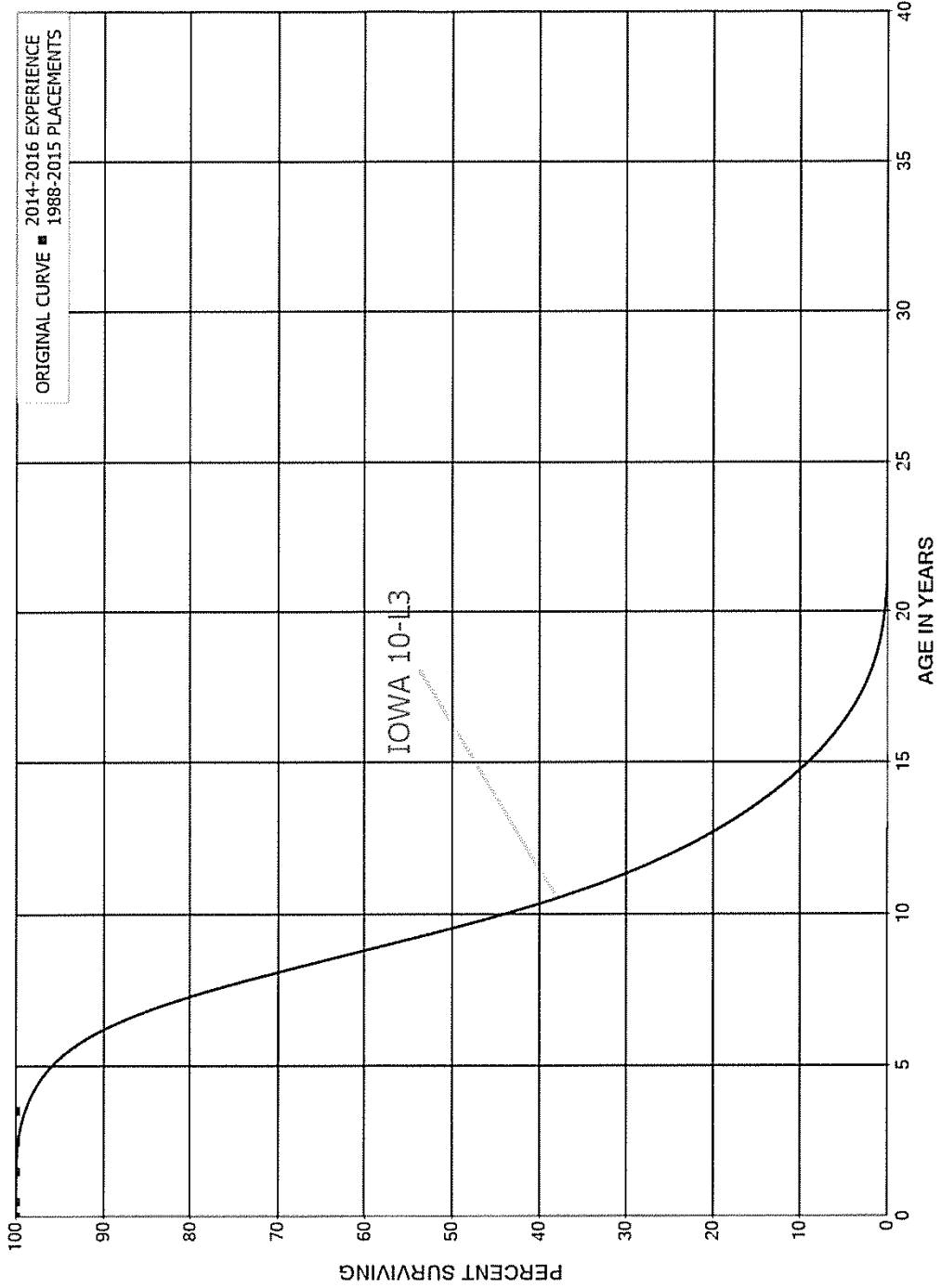
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 380.4 TREATMENT AND DISPOSAL EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1998-2016			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	81,263		0.0000	1.0000	100.00
0.5	121,794		0.0000	1.0000	100.00
1.5	121,823		0.0000	1.0000	100.00
2.5	266,040		0.0000	1.0000	100.00
3.5	205,992		0.0000	1.0000	100.00
4.5	158,441		0.0000	1.0000	100.00
5.5					100.00
6.5					
7.5	115,025		0.0000		
8.5	4,836,603		0.0000		
9.5	4,876,203		0.0000		
10.5	4,761,179		0.0000		
11.5	51,164		0.0000		
12.5	54,223		0.0000		
13.5	57,094		0.0000		
14.5	127,794		0.0000		
15.5	1,920,405		0.0000		
16.5	1,917,534		0.0000		
17.5	1,835,270		0.0000		
18.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 391.7 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



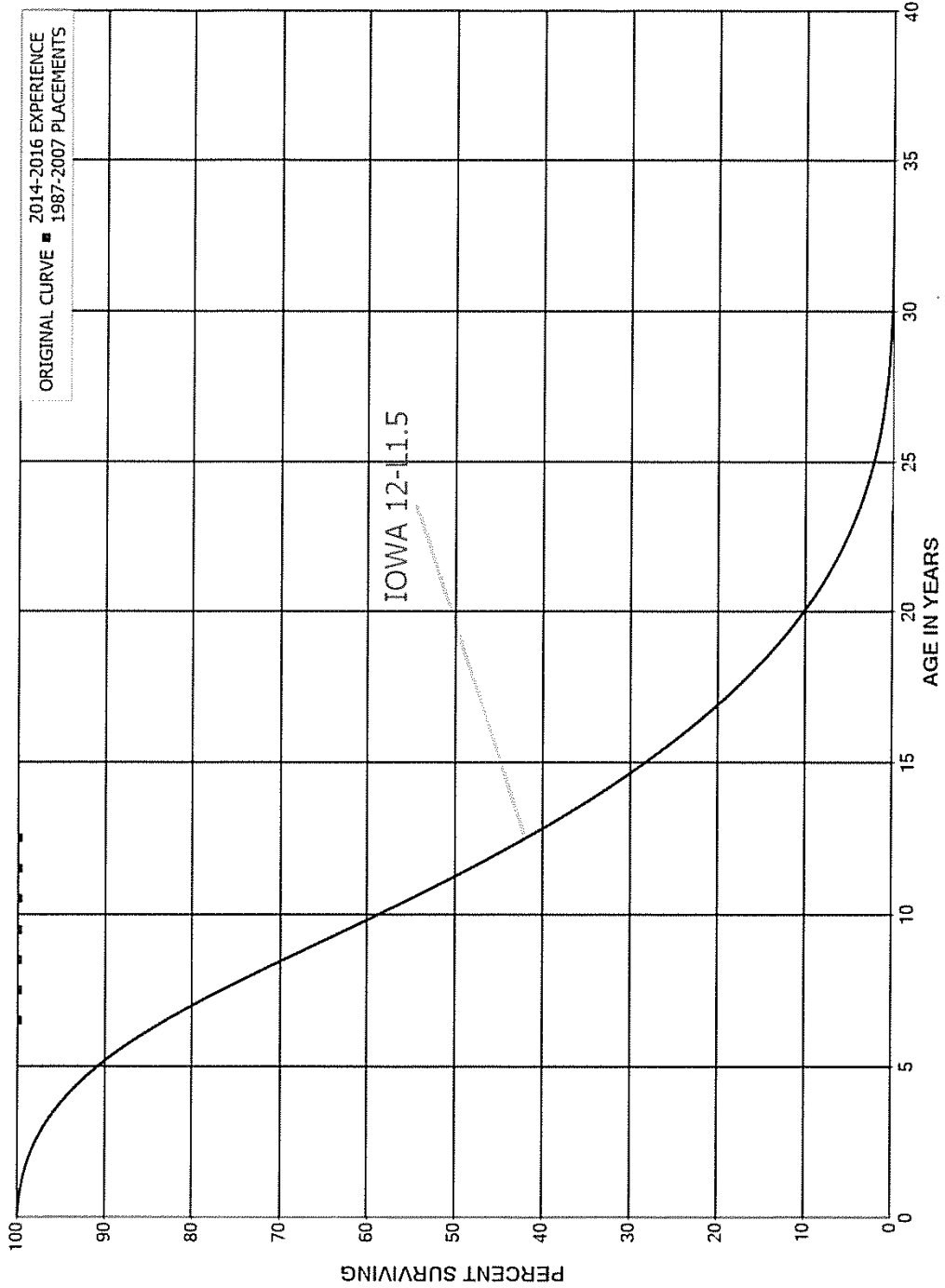
CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

ACCOUNT 391.7 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2015			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	24,704		0.0000	1.0000	100.00
0.5	127,636		0.0000	1.0000	100.00
1.5	102,932		0.0000	1.0000	100.00
2.5	102,932		0.0000	1.0000	100.00
3.5					100.00
4.5					
5.5					
6.5	10,685		0.0000		
7.5	33,227		0.0000		
8.5	50,332		0.0000		
9.5	40,550	17,105	0.4218		
10.5	51,574		0.0000		
11.5	68,243	308	0.0045		
12.5	67,341		0.0000		
13.5	17,235		0.0000		
14.5	566		0.0000		
15.5	566		0.0000		
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5	699		0.0000		
26.5	699		0.0000		
27.5	699		0.0000		
28.5					

CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER
ACCOUNT 395.7 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
WESTFIELD WASTEWATER

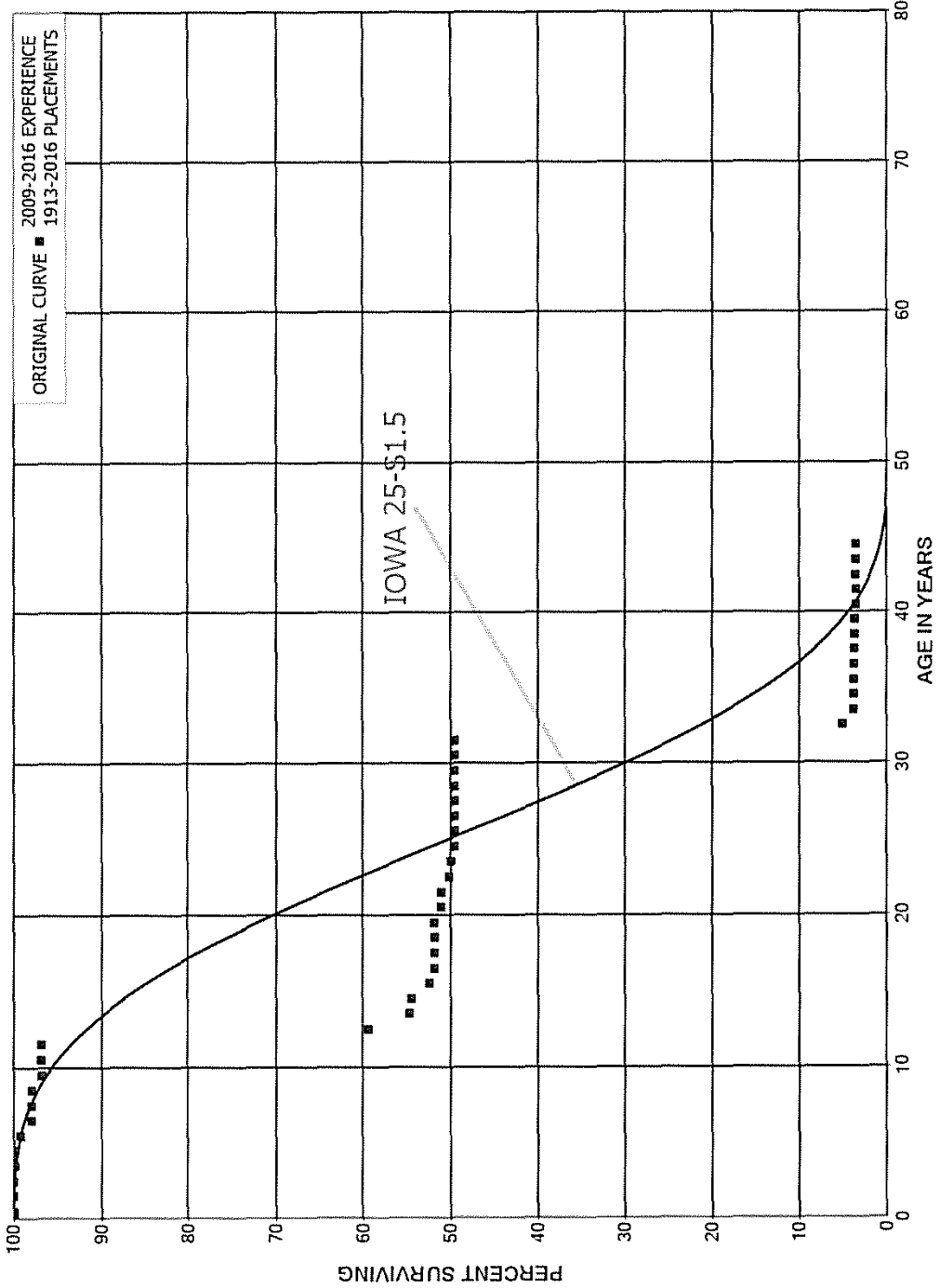
ACCOUNT 395.7 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1987-2007		EXPERIENCE BAND 2014-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5					
2.5					
3.5					
4.5					
5.5					
6.5	136,852		0.0000	1.0000	100.00
7.5	157,123		0.0000	1.0000	100.00
8.5	157,123		0.0000	1.0000	100.00
9.5	22,137		0.0000	1.0000	100.00
10.5	1,866		0.0000	1.0000	100.00
11.5	1,866		0.0000	1.0000	100.00
12.5					100.00
13.5	3,108		0.0000		
14.5	3,108		0.0000		
15.5	5,470		0.0000		
16.5	2,363		0.0000		
17.5	2,363		0.0000		
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5	968		0.0000		
26.5	1,468		0.0000		
27.5	1,468		0.0000		
28.5	500		0.0000		
29.5					

SHARED SERVICES

CITIZENS ENERGY GROUP
SHARED SERVICES
ACCOUNT 390 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
SHARED SERVICES

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1913-2016			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	26,172,002		0.0000	1.0000	100.00
0.5	27,828,846		0.0000	1.0000	100.00
1.5	31,272,350	14,518	0.0005	0.9995	100.00
2.5	10,519,819	13,005	0.0012	0.9988	99.95
3.5	10,461,906		0.0000	1.0000	99.83
4.5	9,680,062	68,485	0.0071	0.9929	99.83
5.5	9,693,859	111,761	0.0115	0.9885	99.12
6.5	9,708,640	7,920	0.0008	0.9992	97.98
7.5	8,665,708		0.0000	1.0000	97.90
8.5	5,348,229	55,890	0.0105	0.9895	97.90
9.5	2,188,305		0.0000	1.0000	96.88
10.5	2,221,388		0.0000	1.0000	96.88
11.5	1,129,201	437,513	0.3875	0.6125	96.88
12.5	764,608	59,879	0.0783	0.9217	59.34
13.5	746,152	2,264	0.0030	0.9970	54.69
14.5	746,377	29,738	0.0398	0.9602	54.53
15.5	327,943	3,169	0.0097	0.9903	52.36
16.5	303,858		0.0000	1.0000	51.85
17.5	517,614		0.0000	1.0000	51.85
18.5	5,115,751		0.0000	1.0000	51.85
19.5	5,120,873	76,340	0.0149	0.9851	51.85
20.5	5,121,600		0.0000	1.0000	51.08
21.5	5,134,556	87,786	0.0171	0.9829	51.08
22.5	5,052,222	29,048	0.0057	0.9943	50.20
23.5	5,000,591	46,601	0.0093	0.9907	49.92
24.5	4,754,963		0.0000	1.0000	49.45
25.5	4,830,681		0.0000	1.0000	49.45
26.5	786,001		0.0000	1.0000	49.45
27.5	513,787		0.0000	1.0000	49.45
28.5	64,084		0.0000	1.0000	49.45
29.5	31,975		0.0000	1.0000	49.45
30.5	29,393		0.0000	1.0000	49.45
31.5	19,320	17,353	0.8982	0.1018	49.45
32.5	7,796	1,967	0.2523	0.7477	5.03
33.5	115,836		0.0000	1.0000	3.76
34.5	208,196		0.0000	1.0000	3.76
35.5	98,189		0.0000	1.0000	3.76
36.5	52,515		0.0000	1.0000	3.76
37.5	70,370	2,966	0.0422	0.9578	3.76
38.5	20,258		0.0000	1.0000	3.61

CITIZENS ENERGY GROUP
SHARED SERVICES

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-2016			EXPERIENCE BAND 2009-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	32,500	711	0.0219	0.9781	3.61	
40.5	43,304		0.0000	1.0000	3.53	
41.5	55,718		0.0000	1.0000	3.53	
42.5	48,204		0.0000	1.0000	3.53	
43.5	17,968		0.0000	1.0000	3.53	
44.5	302,750		0.0000	1.0000	3.53	
45.5	290,475		0.0000	1.0000	3.53	
46.5	838		0.0000	1.0000	3.53	
47.5	2,340		0.0000	1.0000	3.53	
48.5	6,478		0.0000	1.0000	3.53	
49.5	6,146		0.0000	1.0000	3.53	
50.5	11,275		0.0000	1.0000	3.53	
51.5	1,129,080		0.0000	1.0000	3.53	
52.5	1,122,438	1,170	0.0010	0.9990	3.53	
53.5	1,101,998		0.0000	1.0000	3.52	
54.5	1,101,998		0.0000	1.0000	3.52	
55.5	1,106,775		0.0000	1.0000	3.52	
56.5	1,818,403		0.0000	1.0000	3.52	
57.5	2,025,593		0.0000	1.0000	3.52	
58.5	1,312,263	153,352	0.1169	0.8831	3.52	
59.5	1,761		0.0000	1.0000	3.11	
60.5					3.11	
61.5	1,013		0.0000			
62.5	1,013		0.0000			
63.5						
64.5	1,494		0.0000			
65.5	1,494		0.0000			
66.5						
67.5						
68.5						
69.5						
70.5						
71.5						
72.5						
73.5						
74.5						
75.5						
76.5						
77.5						
78.5						

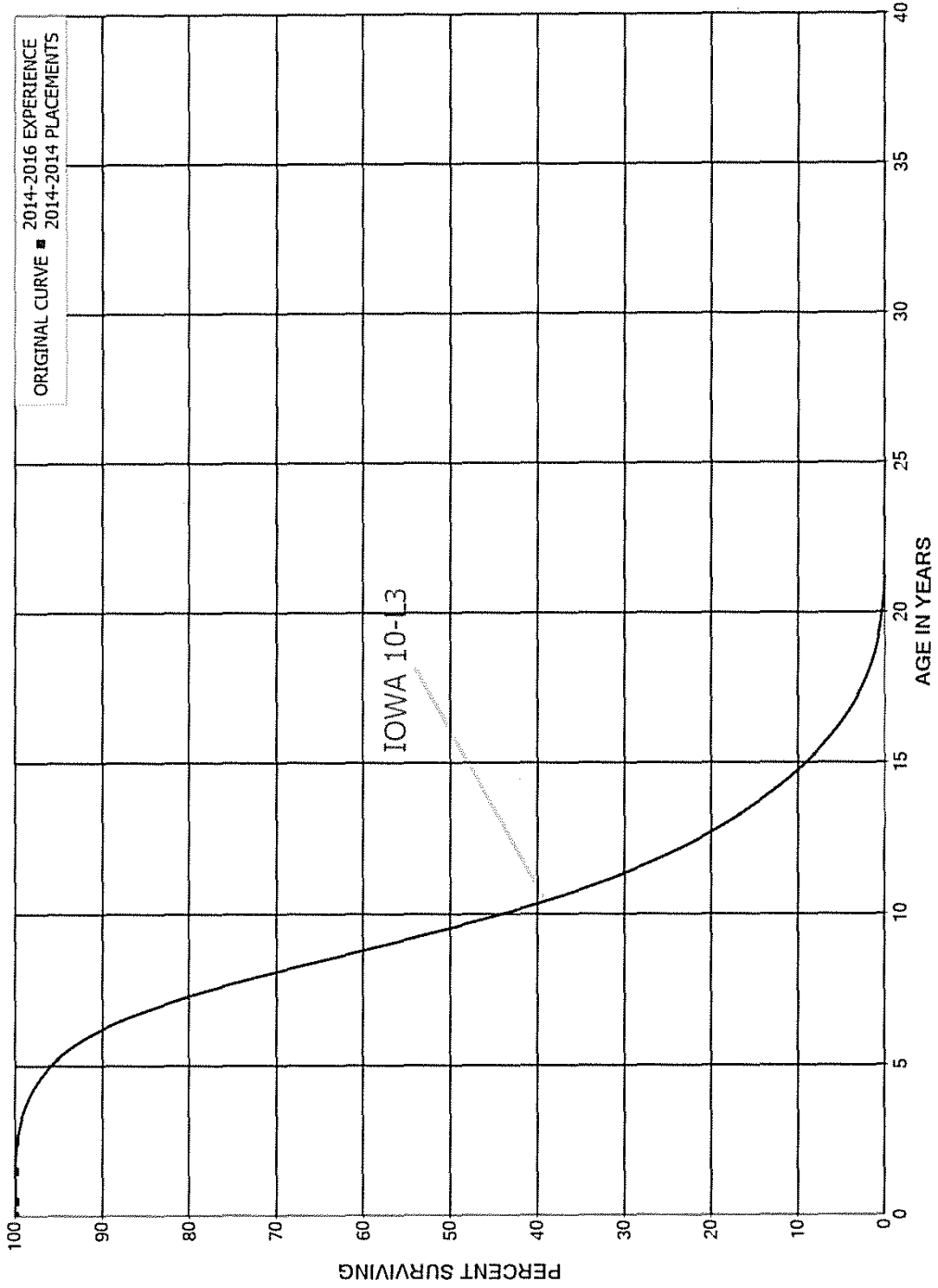
CITIZENS ENERGY GROUP
SHARED SERVICES

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-2016			EXPERIENCE BAND 2009-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5					
85.5					
86.5					
87.5					
88.5					
89.5					
90.5					
91.5					
92.5					
93.5					
94.5					
95.5					
96.5					
97.5					
98.5					
99.5					
100.5					
101.5	13,204		0.0000		
102.5	13,204		0.0000		
103.5					

CITIZENS ENERGY GROUP
SHARED SERVICES
ACCOUNT 392.1 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



CITIZENS ENERGY GROUP
SHARED SERVICES

ACCOUNT 392.1 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2014-2014			EXPERIENCE BAND 2014-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	75,108		0.0000	1.0000	100.00
0.5	75,108		0.0000	1.0000	100.00
1.5	75,108		0.0000	1.0000	100.00
2.5					100.00

Westfield Gas, LLC
Original Cost Rate Base

Attachment CAJ-4

Line	Description	Test Year Balance	Reference
1	Original cost plant-in-service at December 31, 2021	18,793,675	wp 155
2	Original cost accumulated depreciation at December 31, 2021	(5,984,833)	wp 155
3	Original cost net plant-in-service at December 31, 2021	<u>12,808,842</u>	sum of lines 1 and 2
4	Shared Services original cost plant-in-service at December 31, 2021	123,561,616	wp 155
5	Shared Services original cost accumulated depreciation at December 31, 2021	(66,016,845)	wp 155
6	Shared Services original cost net plant-in-service at December 31, 2021	<u>57,544,772</u>	sum of lines 4 and 5
7	Allocable to Westfield: 1.16%	667,519	wp 155
8	Average Inventory (Dec. 2020 - Dec. 2021)	401,124	Testimony of Craig Jackson
9	Total Original Cost Rate Base	13,877,485	sum of lines 3, 7 and 8