STATE OF NEW HAMPSHIRE BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DIRECT TESTIMONY OF

JAY W. SHUTT, P.E.

ON BEHALF OF

AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.

DW 08-098

AUGUST 28, 2008

1000		
	Q.	Please state your full name and business address.
2	A.	My name is Jay W. Shutt.
3		My business address is 3769 Columbus Pike, P. O. Box 8016, Delaware, Ohio 43015.
4		
5	Q.	By whom are you employed and in what capacity?
6	А.	I am President and Chief Executive Officer of Floyd Browne Group, Inc.
7		
8	Q.	On whose behalf are you testifying in this proceeding?
9	A.	I am testifying on behalf of Aquarion Water Company of New Hampshire, Inc.
10		("Aquarion").
11		
\bigcirc_{12}	Q.	What is the business of Floyd Browne Group, Inc.?
13	A.	Floyd Browne Group, Inc. is a professional engineering, scientific and environmental
14		management consulting firm which provides a broad range of services related to water
15		treatment, storage and distribution, wastewater collection and treatment, hazardous waste
16		management, remediation, solid waste management, geoscientific investigation and
17		construction management.
18		
19		Floyd Browne Group, Inc. provides management, valuation and rate consulting services
20		for municipal and investor-owned utilities. In addition, Floyd Browne Group, Inc.
21		previously owned and operated a privatized water treatment plant in Lee County, North
22		Carolina and currently operates the Bellefontaine, Ohio wastewater treatment plant. As a
()		-1-

result, we are directly involved in the financial aspects of utility operations on a day-to-1 2 day basis. 3 Please describe your educational training and involvement with professional 4 Q. 5 associations. I received a Bachelor of Science degree in Agricultural Engineering and a Master of 6 A. Science degree in Engineering from the Ohio State University, Columbus, Ohio in 1973 7 and 1974 respectively. I received a Master of Business Administrative degree from the 8 9 University of Dayton, Dayton, Ohio in 1979. 10 I am a Registered Professional Engineer in Ohio. I am a member of the American Water 11 12 Works Association where under the auspice of the Water Utility Council, I served as Chairman of the Risk Management Technical Advisory Group and sat on its Technical 13 Advisory Group from 1987 through 1994. I am an Associate Member of the National 14 Association of Water Companies ("NAWC") and serve on its Water Technology 15 committee; I am also associate member of the Ohio Chapter of NAWC. I am a former 16 President of the American Council of Engineering Companies of Ohio. 17 18 Please describe your professional experience. 19 Q. From 1974 to 1981, I was employed by Floyd Browne Associates, Ltd. where my 20 A. assignments included engineering studies, design, environmental assessments; cost 21 estimates, evaluation of financial requirements, and estimation of user charges, for water, 22

-2-

1	wastewater and stormwater facilities. These assignments included water and wastewater
2	facilities projects for numerous communities in Ohio and Indiana. I was employed by
3	Indiana Cities Water Corporation ("Indiana Cities") from 1981 to 1987, where as Vice
4	President Engineering and Vice President and General Manager, my assignments
5	included cost of service studies, reproduction cost new less depreciation studies,
6	assistance with depreciation analyses and preparation for and testimony at various rate
7	proceedings. My assignments also included negotiation of wholesale water sales and
8	purchase agreements. In addition, I was responsible for development and implementation
9	of the Company's capital and major maintenance programs. While at Indiana Cities my
10	assignments included engineering support for sister utilities in Ohio and Missouri.
11	
12	From 1987 to 1992, I was employed as Vice President of Operations for Aquarion Water
13	Company of Connecticut's Eastern Division (formerly Bridgeport Hydraulic Company),
14	Bridgeport, Connecticut, where my assignments included annual updates of fire service
15	rates, facilities valuation studies, and development of various miscellaneous, non-
16	consumption rates and fees. The valuation studies were related to property tax issues and
17	facility asset purchase issues and involved use of the Handy-Whitman and Engineering
18	News-Record (ENR) indices to determine reproduction costs and estimate original costs
19	when such records were not available.
20	
21	Since 1992, I have been employed as President of Floyd Browne Group, Inc. I have

22 prepared studies of the reproduction cost new less depreciation of the utility properties of

-3-

1		Indiana Cities Water Corporation and of Indiana American Water Company. I have
2		developed a utility capacity fee system for the City of Delaware, Ohio which is based
3		upon the concept of new customers "buying-in" to a share of the utility's current value.
4		The Handy-Whitman and ENR indexes were used to determine the current value of the
5		Delaware utilities. In 1996 I prepared a depreciation study for Aquarion Water Company
6		of Connecticut's Eastern Division (formerly Bridgeport Hydraulic Company). In 2007 I
7		prepared a depreciation study for Aquarion Water Company of Connecticut. In 2008 I
8		prepared a depreciation study for Aquarion Water Company of Massachusetts. I have
9		also prepared a Cost of Service Study for the Ohio-American Water Company.
10		
11	Q.	Have you previously testified in regulatory proceedings involving utilities?
) ₁₂	A.	Yes I have. I have testified on rate making matters before the Connecticut Department of
13		Public Utility Control, before what was then known as the Public Service Commission of
14		Indiana, before the Indiana Utility Regulatory Commission and before the Public Utilities
15		Commission of Ohio. My testimony before the Indiana Commission concerned, among
16		other things, the reproduction cost new ("RCN") and reproduction cost new less
17		depreciation ("RCNLD") of Indiana Cities Water Corporation's utility property and the
18		RCNLD of Indiana-American Water Company's utility property. My testimony before
19		the Public Utilities Commission of Ohio concerned cost of service. My previous
20		testimony before the Connecticut Department of Public Utility Control has related to
21		operational issues, non-consumptive rates, and depreciation studies. I have also testified
22		before the Connecticut State Legislature on various utility regulatory issues.
		-4-

-4-

\bigcirc_1		Jay W. Shutt
2	Q.	What is your experience in performing depreciation studies of the type you have
3		performed for Aquarion?
4	A.	While employed by Indiana Cities, I worked directly with an outside consultant to
5		prepare a depreciation study of the type I have performed for Aquarion Water Company
6		of New Hampshire. Under the consultant's guidance, I compiled the necessary data and
7		performed the analyses necessary to determine depreciation rates.
8		
9		The aspects of the depreciation study related to evaluating the physical condition and
10		useful life of water facilities are the same as those employed in the performance of
11		replacement cost new less depreciation studies and utility capacity fee studies which were
12		mentioned earlier in my testimony. Each of these types of studies involves identifying
13		utility plant by vintage year, evaluating the useful life of the facilities and calculating the
14		depreciated value of the utility plant.
15		
16		In 1996, I performed a detailed depreciation study and provided Direct Testimony
17		relative to Aquarion Water Company of Connecticut's Eastern Division's (formerly
18		Bridgeport Hydraulic Company) depreciation rates under Docket No. 96-01-26.
19		
20		In 2004, I was retained by Aquarion to provide an opinion on the appropriateness of
21		adopting uniform depreciation rates for all of the Company's divisions.
22		
		-5-

-5-

1		In 2007, I performed a detailed depreciation study and provided Direct Testimony
2		relative to Aquarion Water Company of Connecticut's depreciation rates under Docket
3		No. 07-05-19.
4		
5		In 2008, I performed a detailed depreciation study and provided Direct Testimony
6		relative to Aquarion Water Company of Massachusetts' depreciation rates under D.P.U.
7		08-27.
8		
9	Q.	What is the scope of your testimony in this proceeding?
10	А.	Floyd Browne Group, Inc. was retained by Aquarion to conduct a study of the
11		depreciation rates of the Company's utility plant in service as of March 31, 2008.
12		
13	Q.	Are you personally familiar with the properties of Aquarion?
14	А.	Yes, I am. As a part of my current assignment, I have examined the utility property used
15		to provide service for Aquarion's water system which included a review of the original
16		cost of the property and property's vintage and condition.
17		
18		I also examined utility plant additions and retirements through March 2008. I have
19		discussed with Company employees the nature of the property to the extent that I deemed
20		necessary. Finally, I have made site visits to selected facilities to gain a first hand
21		understanding of their use and usefulness to the Company and its customers and the

-6-

1		overall condition and maintenance level to augment my understanding gained through
2		other methods.
3		
4	Q.	Are you sufficiently familiar with the Aquarion utility property to render an opinion
5		on the appropriateness of adopting uniform depreciation rates for each of its water
6		systems?
7	А.	Yes. I am able to provide such an opinion based on my knowledge of the property, the
8		Company's capital improvement and replacement policies, and my engineering training
9		and experience. When combined with my engineering knowledge and experience and
10		through the use of the procedures discussed in this testimony, I am able to render an
11		opinion as to the depreciation rates for Aquarion's utility property as of March 31, 2008.
12		
13	Q.	Please describe your assignment.
14	A.	I was asked to prepare a depreciation study of all utility property for the Company's
15		water system and recommend annual depreciation rates. The results of the depreciation
16		study are contained in my Report on Depreciation Rates which is identified as
17		Attachment JWS-1.
18		
19	Q.	Would you briefly define what you mean by depreciation and explain a few of the
20		basic fundamentals associated with depreciation?
21	A.	The dictionary defines depreciation as a loss in value. A valuation expert may use market
22		value replacement cost reproduction cost or even sentimental value as different

-7-

.

1		approaches to establishing value of any given property. A study of the history of
2		depreciation as applied to regulated public utility property reveals a narrowing of the
3		meaning of depreciation to the allocation of cost concept.
4		
5		Depreciation expense also includes a provision for removal costs or salvage proceeds,
6		which take place upon retirement. Annual depreciation expense consists of two
7		components: (1) the recovery of the original capital cost and (2) the recovery, or credit,
8		for net salvage proceeds associated with the property item. For some categories of utility
9		property, removal cost exceeds any salvage proceeds.
10		
11		Depreciation expense, therefore, is the process of allocating the cost of a depreciable
\bigcup_{12}		asset over its productive life. Many of the assets used by the Company are long-lived.
13		The costs associated with these assets, when they have been used up, are considered an
14		expense of doing business.
15		
16	Q.	Are parts of the water utility system, such as mains, meters or services, depreciated
17		on an individual basis or are they handled as a group?
18	А.	Depreciation rates for water utility property are based on group depreciation procedures.
19		Under the group method of depreciation, all property of similar nature, such as all water
20		mains or all meters, is depreciated at a uniform annual rate. The rate would apply to all
21		property in the account, regardless of its actual age.
22		
		-8-

-8-

1	Q.	What is the basis of the Company's present depreciation rates?
2	А.	The present depreciation rates were established in docket DW 99-057, the Company's
3		last rate proceeding before it was acquired by Aquarion Water Company. Those rates
4		were based upon a depreciation study applicable to utility plant at December 31, 1998.
5		
6	Q.	Do you propose that the Commission approve the application of the depreciation
. 7		rates recommended in your report?
8	A.	Yes.
9		
10	0	What depresention method do you propose?
10	Q.	what depreciation method do you propose:
11	A.	The Calculated Accumulated Depreciation method of depreciation should be used. This
12		method is based on the recovery of the original cost, less depreciation and net salvage, over
13		the estimated service life of each account of property. The Calculated Accumulated
14		Depreciation method is a well accepted method for recovering the total depreciable cost
15		over the service life of the property and when coupled with amortization of any depreciation
16		reserve variance reflects changes in depreciation rates caused by revisions in total and
17		remaining service lives. It is also consistent with the method used in previous depreciation
18		studies of the Company's property.
19		
20	Q.	Please explain the Calculated Accrued Depreciation method.
21	A.	The Calculated Accrued Depreciation method is based on recovering the original
22		investment, less the depreciation reserve, plus net salvage over the estimated service life of
23		the property in question.
\bigcirc		-9-

-9-

1		
2	Q.	Please identify the document identified as Attachment JWS-1.
3	А.	Attachment JWS-1 is my report entitled Aquarion Water Company of New Hampshire
4		Report on Depreciation Rates, August, 2008.
5		
6	Q.	Would you briefly describe and discuss the contents of this exhibit?
7	А.	Yes. Section 1 of the report provides a general discussion and some background
8		information on Aquarion and a brief summary of certain factors which affect the service
9		lives of the property and the annual depreciation rates. These include technical and
10		economical factors which affect the service lives and net salvage of Company property.
11		
12		Section 2 of Attachment JWS-1 contains some general definitions relating to depreciation
)13		and descriptions of the analysis procedures used in the study.
14		
15		Section 3 of Attachment JWS-1 explains the service life study procedures more fully.
16		Service lives were determined for individual plant accounts using the following approaches:
17		
18		1. A service life analysis was conducted through computer processing by analyzing the
19		history of additions, retirements, and plant balances over a select period of years for
20		accounts where there have been sufficient retirements for study. The method used in
21		this process is known as the Simulated Plant-Record Analysis Method. The
22		Simulated Plant-Record Analysis compares the actual history of a utility plant
23		account with the series of Iowa curves and identifies the curve or curves which best
24		fit the data. The method also estimates the average service life of the facilities
25		included in that utility plant account. The Iowa curves are a family of retirement
All Designed		-10-

10

patterns and average service lives which collectively reflect the patterns of retirements for utility property.

1

2

3

4

5

6

7

8

9

10

11

12

13

2. For each account evaluated, specific factors with respect to current and anticipated technological changes, obsolescence, physical condition and other elements unique to the account were reviewed.

Section 4 of Attachment JWS-1 contains an account-by-account discussion of the factors considered for recommended depreciation rates. Section 5 of Attachment JWS-1 contains a summary of the proposed depreciation rates recommended in the study. The proposed rates were applied to the adjusted account balances at March 31, 2008 for comparison with present rates.

Q. Could you please explain how the actual computation was made in determining depreciation rates using the Calculated Accrued Depreciation method?

16 A. Annual depreciation, using the Calculated Accrued Depreciation method, was computed by 17 first determining the straight line annual depreciation accrual rate based on the estimated 18 average service life, applying that rate to the account balance and adding in a net salvage 19 adjustment percentage to arrive at the annual accrual amount for each plant account. Next 20the calculated accrued depreciation was determined by multiplying each vintage year's 21 surviving balance by an accrued depreciation ratio taken from the appropriate Iowa Curve 22 table for that vintage year's percent of the account's estimated average age. These vintage 23 year calculated accruals are then summed and a net salvage adjustement percentage added to 24 determine the entire account's calculated accrued depreciation. The account's calculated 25 accrued depreciation is then compared to the book depreciation reserve to determine the

-11-

1		reserve variance. A ten year amortization of any reserve variance is added to the previously
2		calculated annual accrual amount to determine the total proposed annual depreciation
3		expense. A table showing the depreciation rate development for each account is shown in
4		Attachment JWS-1, Table 5-1.
5		
6	Q.	Were there particular factors that are unique to the Company that you used in
7		developing its depreciation rates?
8	A.	Yes. The service lives have been determined on the basis of studies of past retirement
9		history for the major accounts, and on the basis of the Company's replacement programs.
10		
11	Q.	Did you consider the past service life history of the property?.
12	А.	Yes. I have considered the past service life history for all accounts where there has been
13		retirement activity, including the retirement characteristics and service life resulting from
14		past retirements. I used the Simulated Plant-Record Analysis Method for this analysis.
15		Section 4 of Attachment JWS-1 describes this analysis and provides a sample illustration of
16		actual accounts included.
17		
18	Q.	Are the results of these methods indicative for all accounts?
19	А.	No. They can only be used where there have been sufficient retirements to provide enough
20		history for analysis. For certain accounts, the retirements have been limited, the life results
21		cover a wide range, or the Index of Variation was high. For these accounts, I have also
22		relied upon the present service lives and/or typical industry service lives to estimate the
23		average and remaining lives.
24		

-12-

1	Q.	Where average service lives are indicated by the past history, is this service life always
2		appropriate to use for present and future depreciation purposes?
3	А.	No. With each account or each class of equipment, it is necessary to consider the conditions
4		which have resulted in retirements and determine whether or not these same conditions
5		prevail presently or are expected to prevail in the future. The past history is only one of
6		several kinds of information required in order to determine an appropriate average service
7		life or remaining life.
8		
9	Q.	Why are both positive and negative numbers shown in the Estimated Salvage or
10		Retirement cost columns of Table 5-1 of Attachment JWS-1?
11	А.	The positive numbers represent a positive salvage value meaning that when the property is
12		retired from utility service its remaining value can be captured by selling it. A good
)13		example of this is selling retired water meters for their scrap metal value. On the other
14		hand, there is often a cost associated with removing utility property from service. A typical
15		example would be a water main that, while the bulk of the pipe is abandoned in place, there
16		is a cost of excavation to disconnect the retired pipe from the active portion of the water and
17		from service lines, fire hydrants, etc. The cost of the excavation, backfill and pavement
18		repairs can be quite significant at current prices in comparison to the pricing levels when the
19		water main was originally installed, in many cases 60 to 100 or more years ago.
20		
21	Q.	Why is it important that proper net salvage factors be included in the Company's
22		depreciation rates?
23	А.	The reason is that the Company has incurred and is expected to incur removal costs of
24		retired property which, for several accounts, has not been adequately reflected in the
25		depreciation rates. Should this situation continue for a period of time, there would tend to -13 -

1

2

3

4

5

6

be a deficiency in the depreciation reserve. Eventually, future customers would be burdened with costs that should have been paid by present day customers through depreciation rates.

- Q. How should an accumulation of the negative net salvage portion of the allowed depreciation expense over a period of years be viewed in relation to the utility's recorded negative net salvage (or retirement) cost for that same period?
- 7 Α. If the Calculated Annual Depreciation method is used to establish the depreciation rates 8 including the negative net salvage portion of the allowed depreciation expense, the negative 9 net salvage expense will accumulate in roughly equal amounts each year since the method is 10 a form of straight-line depreciation. However, the actually experienced negative net salvage 11 (or retirement) cost is not expected to occur in a uniform, straight-line manner. Rather, the 12 actually experienced costs would be expected to follow the retirement pattern represented by one of the Iowa type curves. The Iowa curves discussed in my Report of Depreciation Rates 13 14 are not linear. Therefore, one would not expect to see a close correlation in the pattern of 15 the accumulation of booked net salvage expense and actually experienced net salvage cost.
- 16

17 Depending upon the shape of the Iowa type curve that the particular utility plant follows, 18 over any given period of years, the booked net salvage expense could either significantly 19 exceed or significantly lag behind the net salvage costs. By the end of the life of the utility 20 property in question, the booked expense and the actual cost would be expected to coincide. 21 The point of allowed depreciation expenses, including the net negative salvage portion of the expense, is to spread the depreciation cost uniformly over the life of the utility plant 22 23 rather than to charge the cost to the customers in the year that an actual retirement event 24 occurs. It is believed by most regulators that this approach is the fairest way to distribute the

-14-

1		non-linear costs over the life of the utility plant. Further, it is believed that this provides for
2		the most equitable distribution of the costs between past, present and future customers.
3		
4	Q.	Would you summarize your recommended depreciation rates?
5	А.	Yes. A summary of my depreciation recommendations is contained in Attachment JWS-1,
6		Table 5-1. The proposed depreciation rates result in a total annual expense of \$938,623
7		based on the property in service March 31, 2008.
8		,
9	Q.	Can you summarize the effect of the proposed rates and your conclusions as to the
10		basis for these rates?
11	А.	Yes. The proposed rates reflect the service lives for each utility plant account for the
12		composite utility plant in service. The proposed rates are based upon the best estimates of
13		anticipated service lives, along with consideration of the expected net salvage or removal
14		costs, where applicable. The proposed rates are considered reasonable for the capital cost
15		recovery of the water system investment and removal costs.
16		
17	Q.	In summary, what is your recommendation regarding the service lives which you have
18		presented in the report?
19	А.	I recommend the continuation of the Calculated Accrued Depreciation method of
20		determining annual depreciation rates and amortization of the reserve variance over ten
21		years consistent with prior Commission policies resulting in the proposed rates shown in the
22		report. These changes will, in my opinion, provide an equitable and reasonable capital
23		recovery for the investment in the water system plant than the present depreciation rates.
24		The proposed rates will ensure that such recovery is more consistent with the services
25		provided than under the present rates.
		-15-

-15-

1 Q. Does this conclude your testimony?

2 A. Yes.

Aquarion Water Company of New Hampshire

Estimated Survivor Curve, Net Salvage, Original Cost, Calculated Annual and Accrued Depreciation As Applied to Plant Investment as of March 31,

Account		<u>Survivo</u> Iowa	or Curve Avg. Service	Net Salavage	Total Plant Balance	Calculated Accrual	l Annual Accrual	Calculated Accrued	Book Depreciation Reserve	Reserve	Annual
Number	Account Description	Curve	Life	Percent	03/31/08	Amount	Rate	Depreciation	03/31/08	Variance	Amortization
				(%)	(\$)	(\$)	(%)	(\$)	(\$)	(\$)	(\$)
	Source of Supply Plant				17 700						
301	Organization				17,700	004	0.000/	0.004	0.070	4.654	455
303	Miscellaneous Intangible Plant	SQ	30	0%	20,727	691	3.33%	3,624	2,073	1,001	100
310	Land & Land Rights (Supply)	05	40	400/	460,591	10.045	0.76%	90 740	05 047	E7 E00	5 750
311	Structures & Improvements	Ro	40	-10%	611,459	10,010	2.75%	02,740	20,217	57,525	5,752
312	Volle & Springe	Do	20	10%	2 775 032	101 751	3 67%	1 044 100	465 652	578 448	57 845
314	Supply Maine	D3	100	-20%	182 035	2 195	1 20%	68 879	59 704	9 175	917
317	Other Water Source Plant	SO	20	0%	1 499 100	74 955	5.00%	285 381	64,354	221.027	22,103
517	Other Water Source Flant	002	20	070	5.567.543	196,407	0.0070	1.484.724	617.000	867.724	86,772
	Pumping Plant				0,001,010	100,107		1,101,121	,		,
320	Land & Land Rights (Pumping)				709						
321	Structures & Improvements	R5	40	-10%	1,275,322	35,071	2.75%	488,486	373,821	114,665	11,467
325	Electric Pumping Equipment, Booster	R1	35	-20%	880,695	30,195	3.43%	389,514	515,790	(126,276)	(12,628)
326	Diesel Pumping Equipment	R1	30	-10%	32,297	1,184	3.67%	32,297	22,582	9,715	972
328	Other Pumping Equipment	R1	25	-10%	34,764	1,530	4.40%	29,160	25,773	3,387	339
	, , , , ,				2,223,786	67,980		939,456	937,966	1,490	149
	Water Treatment Plant										
330	Land & Land Rights (Treatment)										
331	Structures & Improvements	R5	40	-10%	176,164	4,845	2.75%	34,403	30,299	4,104	410
332	Water Treatment Equipment	R5	30	-10%	282,411	10,355	3.67%	131,519	195,265	(63,746)	(6,375)
					458,575	15,200		165,922	225,564	(59,642)	(5,964)
	Transmission & Distribution Plant										
340	Land & Land Rights (T & D)				154,202						(0.00.0)
341	Structures & Improvements	R5	40	-10%	289,440	7,960	2.75%	44,771	136,815	(92,044)	(9,204)
342	Distribution Reservoirs & Standpipes	R5	60	-20%	1,272,926	25,459	2.00%	701,225	672,993	28,232	2,823
343	Transmission & Distribution Mains	R3	100	-20%	13,946,093	167,353	1.20%	2,649,725	2,687,999	(38,274)	(3,827)
345	Services	R3	65	-20%	4,464,538	81,991	1.85%	1,260,585	1,400,931	(140,346)	(14,035)
346	Meters	K1	25	5%	740,054	28,122	3.80%	304,460	293,720	92 261	8 226
347	Meter Installation	K1	25	5%	243,519	9,204	3.80%	100,104	17,920	60 231	6,220
348	Hydrants Other T & D Bloot	53	20	-20%	08 704	4,227	2.40%	16 532	3 697	12 835	1 283
349	Other I & D Plant	30	20	076	21 802 273	339 300	5.00 %	5 367 075	5 434 440	(67 365)	(6,736)
	Conoral Plant				21,002,270	000,000		0,001,010	0,101,110	(0.,000)	(-,)
389	Land & Land Rights(General)										
390	Structures & Improvements	R1	35	-10%	590.808	18,568	3,14%	179,214	117,199	62,015	6,202
391	Office Euroiture & Equipment	R1	13	0%	80,398	6,184	7.69%	73,116	12.314	60,802	6,080
30111/5	Computer Hardware	so	5	0%	568 558	113 712	20.00%	559 740	443.827	115,913	11,591
3911/0	Transportation Equipment	200	8	10%	292 784	32 938	11 25%	175 349	148 330	27.019	2,702
392	Stores Equipment	80	20	0%	17 801	895	5.00%	4 215	2 018	2 197	220
393	Stores Equipment	50	20	0%	142 771	7 120	5.00%	82,885	68 542	14 343	1 4 3 4
394	Tools, Shop & Garage Equipment	50	20	0%	22 007	1,109	5.00%	10 160	16 903	2 266	227
395	Laboratory Equipment	50	15	0%	162.047	1,054	6.67%	19,109 58 154	10,300	16 770	1 677
396	Power Operated Equipment	R3	15	0%	102,947	10,003	0.07%	00,104	41,304	(69,822)	(6.883)
397	Communications Equipment (non-telephor	n SQ	10	0%	200,000	28,661	10.00%	200,810	323,042	(00,032)	(0,003)
398	Miscellaneous Equipment	SQ	15	0%	26,780	1,785	6.67%	14,615	15,352	(737)	
					2,193,452	222,339		1,427,266	1,199,911	231,700	23,170
	T-4-1 Hiller Direct				33 345 630	841 227	2 61%	9 384 444	8 410 481	973 963	97 396
	Potar ounity Plant				32,243,020	041,221	2.01/0	3,004,444	0,410,401	0.0,000	51,500
		Δn	nual Rose	rve Deficiency	Amortization	97.396					
				are benefetoy	,	,					
			Prop	osed Deprecia	tion Expense:	938,623					

Table 5-2

Aquarion Water Company of New Hampshire Comparison of Current and Proposed Depreciation Rates

Account Number	Account Description	Current Rates	Proposed Rates	Current Annual Accrual Amount	Proposed Annual Accrual Amount	Current Annual Reserve Shortfall Amotization	Proposed Annual Reserve Shortfall Amortization
		(%)	(%)	(\$)	(\$)	(\$)	(\$)
	Source of Supply Plant	· · /		• •	• •	N <i>B</i>	
301	Organization						
303	Miscellaneous Intangible Plant	5.00%	3.33%	1,036	691	0	155
310	Land & Land Rights (Supply)						
311	Structures & Improvements	1.60%	2.75%	9,783	16,815	13	5,752
312	Collecting & Impounding Reservoirs						
313	Lake, river and other intakes						
314	Wells & Springs	1.45%	3.67%	40,238	101,751	5,378	57,845
316	Supply Mains	1.36%	1.20%	2,488	2,195	1,290	917
317	Other Water Source Plant	1.33%	5.00%	19,938	74,955	38	22,103
320	<u>Pumping Plant</u> Land & Land Rights (Pumping)						
321	Structures & Improvements	2.47%	2.75%	31,500	35,071	4,845	11,467
325	Electric Pumping Equipment, Booster	4.28%	3.43%	37,694	30,195	8,574	(12,628)
328	Other Pumping Equipment	5.00%	3.67%	1,615	1,184	385	972
		4.08%	4.40%	1,418	1,530	511	339
	Water Treatment Plant						
330	Land & Land Rights (Treatment)						
331	Structures & Improvements	2.47%	2.75%	4,351	4,845	1,967	410
332	Water Treatment Equipment	6.56%	3.67%	18,526	10,355	289	(6,375)
	Transmission & Distribution Plant						
340	Land & Land Rights (T & D)						
341	Structures & Improvements	2.04%	2.75%	5,905	7,960	3,641	(9,204)
342	Distribution Reservoirs & Standpipes	2.04%	2.00%	25,968	25,459	14,883	2,823
343	Transmission & Distribution Mains	1.36%	1.20%	189,667	167,353	53,204	(3,827)
345	Services	2.00%	1.85%	89,291	81,991	26,495	(14,035)
346	Meters	5.94%	3.80%	43,959	28,122	3,710	1,074
347	Meter Installation	1.54%	3.80%	3,750	9,254	1,501	8,226
348	Hydrants	2.27%	2.40%	13,457	14,227	4,488	6,923
349	Other T & D Plant	1.33%	5.00%	1,313	4,935	0	1,283
	General Plant						
389	Land & Land Rights(General)	0.000/			10 500	•	
390	Structures & Improvements	2.99%	3.14%	17,665	18,568	0	6,202
391	Office Furniture & Equipment	3.09%	7.69%	2,484	6,184	812	6,080
391H	Computer Hardware & Software	12.65%	20.00%	71,923	113,712	2,987	11,591
392	Transportation Equipment	10.00%	11.25%	29,278	32,938	13	2,702
393	Stores Equipment	2.87%	5.00%	513	895	34	220
394	Tools, Shop & Garage Equipment	3.46%	5.00%	4,940	7,139	1,163	1,434
395	Laboratory Equipment	6.67%	6.67%	1,595	1,594	300	227
396	Power Operated Equipment	4.73%	6.67%	7,707	10,863	179	1,677
397	Communications Equipment (non-telephon	10.00%	10.00%	28,661	28,661	3,943	(6,883)
398	Miscellaneous Equipment	6.28%	6.67%	1,682	1,785	43	(74)
	Total Utility Plant	2.20%	2.61%	\$708.345	\$841.227	\$140.687	\$97.396
	rotar othry r lant	2.20/0		4.00,0-0	ww Tijanan i	÷1-10,007	<i>wor,000</i>

AFFIDAVIT

STATE OF NEW HAMPSHIRE PUBLIC UTILITY COMMISSION

JAY W. SHUTT, being first duly sworn, deposes and states:

That he is the Jay W. Shutt whose direct testimony accompanies this Affidavit, that said direct testimony is a true and accurate statement of his answers to the questions contained herein, and that he adopts those answers as his sworn testimony in this proceeding.

ŚHUTT

SWORN TO and SUBSCRIBED before me this <u>22nd</u> day of <u>August</u>.

otary Publi



LISA M. JAGO NOTARY PUBLIC, STATE OF OHIO MY COMMISSION EXPIRES 5/31/2011 Õ

·

0

AQUARION WATER COMPANY OF NEW HAMPSHIRE REPORT ON DEPRECIATION RATES

AUGUST, 2008

JAY W. SHUTT, PE FLOYD BROWNE GROUP



	TABLE OF CONTENTS	
SECTION 1	- AQUARION WATER COMPANY OF NEW HAMPSHIRE REPORT ON DEPRECIATION RATES	PAGE NO.
	General	1 - 1
SECTION 2	2 - DEPRECIATION DEFINITIONS AND PROCEDURES	
	Remaining Life Method Simulated Plant-Record Method Iowa Survivor Curves	2 - 1 2 - 2 2 - 4
SECTION 3	- SERVICE LIFE STUDIES AND DEPRECIATION COMPUTATION PROCEDURES	
	Service Life Study Procedures Simulated Plant-Record Method Remaining Life Depreciation Computation Procedure	3 - 1 3 - 1 3 - 2 3 - 3
SECTION 4	- WATER SYSTEM REMAINING LIFE AND NET SALVAGE FACTORS	
	General Source of Supply Pumping Plant	4 - 1 4 - 1 4 - 3

Source of Supply	4 - 1
Pumping Plant	4 - 3
Treatment Plant	4 - 4
Transmission and Distribution Plant	4 - 7
General Plant	4 - 10
General Plant	4 - 10

TABLE OF CONTENTS (continued)

SECTION 5 - SUMMARY AND RECOMMENDATIONS 5 - 1

Table 5-1 - Estimated Survivor Curve, Net Salvage, Original Cost, Calculated Annual and Accrued Depreciation

Table 5-2 - Comparison of Present and Proposed Rates

APPENDIX A - SIMULATED PLANT-RECORD ANALYSIS

APPENDIX B - CALCULATED ANNUAL AND ACCRUED DEPRECIATION ANALYSIS

AQUARION WATER COMPANY OF NEW HAMPSHIRE Report on Depreciation Rates

General

This report contains a description of the depreciation study of the property and plant of the Aquarion Water Company of New Hampshire as of March 31, 2008. The Aquarion Water Company of New Hampshire, an Aquarion subsidiary, is the public water supply company for approximately 8,770 customer accounts in Hampton, North Hampton and Rye.

The present depreciation rates were established in the Company's rate proceeding, DW 99-057, based upon a depreciation study applicable to utility plant at December 31, 1998. Table 5 -2 includes a tabulation of the present depreciation rates for each utility plant account.

This depreciation study includes an evaluation of historical service lives experienced by the Company for various types of plant property and equipment, a consideration of the cost of removal and salvage proceeds associated with property retirements, and the preparation of recommended depreciation rates for the various accounts.

Depreciation expenses are a regular and fundamental part of the cost of providing utility services. The annual depreciation expense charged against income over the service life of the property is a mechanism by which the capital investments in physical assets are recovered by water utilities. The depreciation rate also provides recognition of net salvage costs. These costs--salvage proceeds less the cost of retirement--are also

provided for in the annual depreciation expense rate.

In accordance with the policy of the New Hampshire Public Utility Commission, the recommended amortization of the variance between the book and accumulated depreciation and the calculated accrued depreciation is based on a ten-year amortization period for each property group. The calculated accrued depreciation represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics and net salvage materialize and are used as a basis for depreciation accounting. The calculated accrued depreciation provides a measure of the book accumulated depreciation. The use of this measure is recommended in the amortization of book accumulated depreciation variances to insure complete recovery of capital over the life of the property.

The Company is being subjected to a number of factors which have a direct bearing on depreciation rates and expense. Older pumps, motors, valves, instrumentation and other operating mechanisms are being replaced and modernized. Older style meters are being supplanted with newer and more efficient meters. Switchgear and instrumentation are being upgraded with computerized systems and hydrants and water mains are being replaced. Some of the water plant facilities may be physically sound but may need replacement for a variety of reasons such as requirements of the Safe Drinking Water Act. Thus, a variety of factors may influence the remaining life of a particular piece of equipment. The requirements for improvements in water quality, safety and reliability, including technical and economic obsolescence, all have an impact on the service lives and remaining lives of the Company's property.

The historical retirement experience of the Company has been used as a guide to

the average service life. Wherever possible a statistical analysis of the retirement history of the asset account was performed to provide an estimate of the average service live. For some accounts, insufficient retirement history data was available to support a statistical analysis because total retirements have been only a small portion of the plant in service. In such cases, the service lives proposed have been developed with reference to industry and regulatory authority standards.

Section 2 of the report discusses and defines basic depreciation terms and analysis procedures used for this Study. Section 3 details the service life studies that were used and the depreciation computation procedures. Section 4 provides a discussion of the specific factors which were taken into consideration in developing the depreciation rates for each asset account or subaccount. Section 5 contains a summary of the study results and proposed rates. The Appendix contains printouts of the various information and studies used as a guide in preparing the proposed rates.

SECTION 2 DEPRECIATION DEFINITIONS AND PROCEDURES

For water utility rate making purposes, the principal associated with the cost of capital expenditures which will provide service over a number of years is recovered as an annual charge termed depreciation expense. The annual expense is accumulated in a depreciation reserve. Upon retirement, the cost of the asset is charged to the depreciation reserve thus reducing the original cost and the amount of the reserve by an equal amount. The annual depreciation expense is modified according to whether or not it is expected that the retirement of the asset will result in a positive salvage amount, or if it will result in additional cost to be incurred to effect the retirement, or negative salvage.

Public water utility depreciation practices are typically based on group accounting methods. A single depreciation rate is applied to like items, either an entire account or by subaccount, rather than determining a separate rate for each individual asset. Average service lives, or average remaining lives, are determined for the group for depreciation purposes. The use of groups and averages means that some assets in the group will be retired before the average life and others after the average life.

Basis of Study

The purpose of the depreciation study was to determine the annual depreciation accrual rates applicable to the cost of utility plant in service at March 31, 2008, and to measure the adequacy of Accumulated Depreciation. For most accounts, the straight line whole life method using attained ages and estimated survivor curves was the basis for the calculation of annual and accrued depreciation. For some accounts, the annual and accrued depreciation amounts were based on the age of the property and the selected amortization period.

Simulated Plant-Record Method

A common method of analysis of past service life history involves the use of the Simulated Plant-Record method (SPR). This method does not require detailed dated retirement information but instead uses gross additions by years, actual plant balances and a set of standard utility mortality curves. The gross addition and plant balance information is almost always available so that the SPR procedure can be used where detailed records are lacking, or where abstracting the detailed data is costly and time consuming.

There are two procedures that can be used under the SPR, one involving the simulated balances and the other the simulated retirements. The simulated retirement method is subject to considerable variations (annual retirements can vary substantially from year to year depending on the construction budget of the utility) and is not used extensively. In the simulated balances method, a mortality or retirement curve is applied to the gross additions to determine the simulated balances. The simulated balances are compared with the actual plant balances (usually for a span of 5, 10 or more years) using the least squares method of computation. Many curves and service lives are applied until the curve(s) with the best fit (smallest least squares total) is determined. As shown in Appendix A of the report, tables are produced which list the various curves ranked according to fit.

The tabulation also shows an Index of Variation which is a measure of how consistently the simulated balances match the actual balances. The following table shows the relative rating of the two indexes:

Index of Variation (IV)	Rating
<13	Excellent
13 to 20	Good
20 to 40	Fair
>40	Poor

Another qualitative measure of the Simulated Plant-Record analysis is the Retirements Experience Index (REI). The REI is the percent of the property retired from the oldest vintage in the test year by the end of the test year. A low REI indicates that the data may not contain enough history to uncover the life characteristics of the property being studied. The following ratings are suggested by depreciation experts:

REI	Rating		
>75%	Excellent		
50% to 75%	Good		
33% to 50%	Fair		
17% to 33%	Poor		
0% to 17%	Valueless		

Net Salvage

Net salvage is defined as the salvage, proceeds realized upon retirement, less any cost of removal incurred. For example, an automobile costing \$24,000 and traded in or sold for \$6,000 would have 25 percent net salvage factor (as there is no cost of removal). Similarly, a building costing \$250,000 and removed upon retirement at a cost of \$25,000 would have a negative 10 percent net salvage. The net salvage costs are related to the

original cost of the plant retired. The net salvage costs are present day costs while the original costs of property retired were frequently incurred 50 or more years ago, at much lower costs levels. For these reasons, it is not uncommon to have the cost of removal (primarily current labor costs) be a significant percentage of the cost of the plant retired. This information was used as a guide for the proposed service lives and remaining lives and net salvage factors.

Iowa Survivor Curves

The lowa Curves used extensively in the depreciation study practice were developed during the 1930's at lowa State University. The Curves are a family of retirement patterns and average service lives which collectively reflect the patterns of retirements for utility property.

There are three basic types of curves, R, L and S. The R family of curves designates patterns where the maximum rate of retirements occurs to the right or after the average service life. The S family denotes peak retirements at the average service life and the L set of curves reflect the peak retirements to the left or earlier than the average service life. There are several other types of curves which have been developed to reflect a single one time retirement of the property and the straight line or uniform rate of retirement over the service life history. The curves are designated within each of the three basic sets from zero to six. Where retirements occur at a fairly uniform rate over the service life, the zero curves such as L0 would be indicated. Where retirements occur at a rapid rate with very few retirements during the early and later years of service, the 6 type such as L6 curve would be indicated. Curves are normally designated by the curve type

and the years of service such as an R2-40 year curve.

Assuming an R1-40 year service life, the remaining life of the new property at the end of the year when it is installed would be 39.5 years (at December 31, property installed at a given year is considered to have an age of 0.5 years). At 10.5 years, there would be 92 percent of the original property surviving and a remaining life of 32.5 years. Thus, the total life at that point is 43 years for the surviving property (10.5 plus 32.5 years). At age 50.5, there will be 32.6 percent of the original property surviving and 10 years remaining life for a total of 60.5 years. The utility survivor curves are like human mortality curves. When born, infants may have an expected life of 72 years on the average. At age 60, the remaining expectancy may be 20 years for a total of 80 years. At age 80, the expectancy may be 6 years for a total of 86 years. The humans who live longer than the average offset infant mortality and deaths of people prior to the age 72.

The lowa Curves used in service life studies using both the retirement rate and simulated plant-record methods, are used to calculate depreciation reserves, and are used to estimate remaining service life. The availability of computers has greatly enhanced the use of the curves in such studies. The original tables developed at Iowa State University in the 1930's required several man-years of mechanical calculator computations. Similar tables can be generated by modern computers in a few minutes or less.

SECTION 3 SERVICE LIFE STUDIES AND DEPRECIATION COMPUTATION PROCEDURES

Service Life Study Procedures

Several procedures were used to determine the service lives as the basis for computing the depreciation accrual rates in this study. The average service life was determined by individual account and was based primarily on three factors:

- 1. The specific history of additions and plant balances over a select period of years for group properties was studied through the use of actuarial methodologies (simulated plant-record analysis).
- 2. The depreciation rates used by other water utilities, various properties and the range of rates for several water utilities recommended by the NARUC were considered. The service lives presently used by the Company have also been considered.
- 3. Specific factors with respect to current and anticipated technological changes, obsolescence, physical condition and other elements unique to the property were evaluated. These included a review of present and prospective construction and replacement programs, consideration of terminal or replacement dates for certain types of property and the net salvage or cost of removal required to take equipment out of service.

Simulated Plant-Record Method

The Simulated Plant-Record Method was applied to accounts where there was adequate retirement experience. The Simulated Plant-Record software allows making a

variety of studies looking at the retirement experience covering different spans of years. Original cost, retirement, transfer and adjustment data used in the depreciation study were obtained from the Company's continuing property records. Data used in the study extended through March 31, 2008. As discussed earlier, standard utility retirement curves known as the Iowa Curves were used for the study.

Tabulations of simulated plant balance studies are included in Appendix A.

Estimation of Net Salvage Percents

The estimates of net salvage were based primarily on judgment which considered a number of factors including a) data compiled for the years 1993 through 1998 and analyzed for a previous depreciation study in 1998, b) comparison of those findings to previous studies of other water companies, c) engineering and operational knowledge of retirement means and methods, and d) environmental regulatory requirements. Net salvage estimates are expressed as a percent of the original cost of plant retired. Recommended net salvage percentages for each plant account are included in Appendix B.

Depreciation Computation Procedure

Proposed depreciation rates were computed after weighing all the facts with respect to the remaining service life, average service life, age and lowa curves based on historical data, comparison of typical industry rates, determination of net salvage, physical and functional aspects of the property and all other factors, including future expectations, which might also have a bearing on the remaining life of the property.

Calculate Annual Depreciation Expense

Simulated Plant-Record studies and other service life analyses provide the

average years of service life and a representative retirement pattern by means of an lowa Curve selection. The first step in calculating the annual depreciation expense was to apply a straight line whole life approach. That is, assuming a uniform straight line depreciation percentage over the estimated average service life. After the average service life is determined, the annual depreciation rate can be computed by the following equation:

100% / Average Service Life = Annual Accrual Rate (percent) For example, assuming a 20 year average service life: 100% / 20 = 5% This annual depreciation percentage was then applied to each vintage year plant balance and summed to arrive at a total for the plant account.

The Net Salvage Adjustment as then added to arrive at the Annual Depreciation for each plant account. This adjustment is calculated by multiplying the Net Salvage Factor expressed as a percent of the original cost times the plant account's calculated total annual depreciation amount.

The calculations of the annual depreciation expense by plant account are included in Appendix B.

Calculated Accrued Depreciation

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 taken from the lowa Curve table to the surviving original cost of each vintage of each

account, based upon the attained age and the estimated survivor curve of each vintage. The vintage year accrued depreciation was calculated as follows:

Vintage Year Accrued Depreciation = Ratio (*based on vintage year percent of average age*) x Vintage Year Surviving Balance

The vintage year accruals are added and a net salavage adjustment is added to arrive at the total calculated accrued depreciation for the plant account. The calculations of the accrued depreciation by plant account are included in Appendix B.
SECTION 4 WATER SYSTEM REMAINING LIFE AND NET SALVAGE FACTORS

General

The annual depreciation accrual and the calculated accrued depreciation have been analyzed for each account. An analysis of the retirement history of the major accounts was conducted where there was adequate retirement activity and information available. Since the mathematical analyses are based only on historical data, which is sometimes limited, the results of the retirement analysis are not necessarily considered to be definitive. Judgments were applied considering other factors, including the present lives and lives used for other water systems.

The determination of the proposed depreciation expense is shown in Table 5-1. The annual depreciation expense proposed for the water system is \$938,623 as shown in Table 5-1. This amount represents a composite annual accrual rate of 2.61 percent on the total plant investment of \$32,245,628 plus an additional amortization of \$97,396 to correct the \$973,963 reserve variance.

Following is a brief discussion of the recommended average service and and the net salvage factors for each account.

Source of Supply

Account 303 – Miscellaneous Intangible Plant

There has been limited activity in this account and it is of relatively small dollar value. A 30 year amortization period is proposed for this account.

Account 311 - Structures and Improvements

Data for all the various utility plant structures and improvement accounts (Accounts

311, 321, 331, and 341) were combined in order to accumulate adequate activity to support the use of statistical analysis. This was possible because the utility plant in these various accounts are very similar in age and general type of construction. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. The lowa curve of best fit for Structures and Improvements per the statistical analysis is an R5 - 38 year curve. Figure 1 suggests an average service life of 35 – 40 years. An R5-40 lowa Curve was selected to fall within the suggested range. Net salvage of minus 10 percent is proposed for the account to provide for the removal costs for concrete and other structures and to be consistent with prior practices.

Account 314 - Wells and Springs

There has been limited activity in this account. FIGURE 1 of <u>Depreciation</u> <u>Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Wells and Springs Plant is 25 – 35 years. An R3-30 lowa Curve was selected to fall within the suggested range. Net salvage of minus 10 percent is proposed for the account to provide for the removal costs for properly sealing the retired wells and to be consistent with prior practices.

Account 316 - Supply Mains

These lines convey the raw water from the raw water intake to the treatment facilities. The Simulated Plant-Record analysis did not produce meaningful results due to the limited activity in this account. Supply Mains are similar to transmission and

distribution mains so use of the R5-100 lowa Curve as indicated for transmission and distribution mains is proposed. A net salvage of minus 20 percent is proposed to also consistent with that proposed for transmission and distribution mains.

Account 317 - Other Water Source Plant

This account contains the costs of various master planning studies. Since such studies typically use a 20 year planning horizon we can expect their value and usefulness to diminish over that time period. Therefore, a 20 year amortization is proposed. **Pumping Plant**

Account 321 - Structures and Improvements

Data for all the various utility plant structures and improvement accounts (Accounts 311, 321, 331, and 341) were combined in order to accumulate adequate activity to support the use of statistical analysis. This was possible because the utility plant in these various accounts are very similar in age and general type of construction. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. The lowa curve of best fit for Structures and Improvements per the statistical analysis is an R5 - 38 year curve. Figure 1 suggests an average service life of 35 – 40 years. An R5-40 lowa Curve was selected to fall within the suggested range. Net salvage of minus 10 percent is proposed for the account to provide for the removal costs for concrete and other structures and to be consistent with prior practices.

Account 325 - Electric Pumping Equipment

The Simulated Plant-Record analysis was inconclusive but seemed to indicate an average service life higher than the 20 year life suggested by FIGURE 1 of <u>Depreciation</u>

<u>Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979. The R1-35 lowa curve was selected for this account. A minus 20 percent net salvage factor is recommended for this account based on the complexity of removal of the various electrical apparatus, wiring, etc. which are associated with this type of equipment.

Account 326 – Diesel Pumping Equipment

The Simulated Plant-Record analysis was inconclusive. FIGURE 1 of <u>Depreciation</u> <u>Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Pumping Equipment is 20 - 25 years. Indications are, however, that the average life is somewhat longer at this utility. The R1-30 lowa curve was selected for this account. Net salvage of minus 10 percent is proposed for the account.

Account 328 - Other Pumping Equipment

The Simulated Plant-Record analysis was inconclusive. FIGURE 1 of <u>Depreciation</u> <u>Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Other Pumping Equipment is 25 years. The R1-25 lowa curve was selected for this account. Net salvage of minus 10 percent is proposed for the account.

Treatment Plant

Account 331 - Structures and Improvements

Data for all the various utility plant structures and improvement accounts (Accounts 311, 321, 331, and 341) were combined in order to accumulate adequate activity to support the use of statistical analysis. This was possible because the utility plant in these

various accounts are very similar in age and general type of construction. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. The Iowa curve of best fit for Structures and Improvements per the statistical analysis is an R5 - 38 year curve. Figure 1 suggests an average service life of 35 – 40 years. An R5-40 Iowa Curve was selected to fall within the suggested range. Net salvage of minus 10 percent is proposed for the account to provide for the removal costs for concrete and other structures and to be consistent with prior practices.

Account 332 - Water Treatment Equipment

The retirement analysis indicates an average age of about 30 years. The Retirement Experience Index (REI) is 100% which is excellent but the Index of Variation score is only in the fair range. Balancing this Index of Variation score is the consistency with which various Iowa Curves indicate an average service life in the 28 to 34 year range. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. Figure 1 suggests a range of 20 – 35 years as the average service life for water treatment equipment. The simulated plant record indicated 28 to 34 year average service life is therefore consistent. Such a range is also indicated because the typical design period used when engineers design water treatment plants is 20 years. The average service life is likely to be somewhat longer than 20 years because after the 20 year design period a WTP is typically upgraded or expanded rather than being completely replaced. In recognition of the above factors a 30 year life is proposed. The R5 - 30 year curve was selected to fall within the range. Net salvage of minus 10 percent is proposed for the

account.

Transmission and Distribution Plant

Account 341 - Structures and Improvements

Data for all the various utility plant structures and improvement accounts (Accounts 311, 321, 331, and 341) were combined in order to accumulate adequate activity to support the use of statistical analysis. This was possible because the utility plant in these various accounts are very similar in age and general type of construction. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. The lowa curve of best fit for Structures and Improvements per the statistical analysis is an R5 - 38 year curve. Figure 1 suggests an average service life of 35 – 40 years. An R5-40 lowa Curve was selected to fall within the suggested range. Net salvage of minus 10 percent is proposed for the account to provide for the removal costs for concrete and other structures and to be consistent with prior practices.

Account 342 - Distribution Reservoirs and Standpipes

The retirement analysis indicates the R5-61.4 Iowa Curve is the curve of best fit. The Retirement Experience Index (REI) is 100% which is excellent and the Index of Variation score of 11 is also excellent. FIGURE 1 of <u>Depreciation Practices for Small</u> <u>Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. Figure 1 suggests a range of 30 – 60 years as the average service life. Since Aquarion has a good track record of maintaining their water tanks a 60 year average service life is considered reasonable for the account. Therefore, an R5-60 lowa Curve was selected. The net salvage is proposed at minus 20 percent based upon the cost of retirement caused by requirements for lead paint abatement.

Account 343 - Transmission and Distribution Mains

The Simulated Plant-Record analysis was inconclusive, but suggested an average service life in the range of 100 years. FIGURE 1 of <u>Depreciation Practices for Small</u> <u>Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Transmission and Distribution Mains is 50 – 75 years. We will use an R3-100 curve. A net salvage factor of minus 20 percent is proposed because many transmission and distribution mains are installed under streets and roads and while the bulk of the length of pipe is abandoned in place it is still necessary to excavate in several locations to disconnect the retired main from the rest of the mains, fire hydrants, and service lines. The bulk of the retirement costs are due to the costs of compacted backfill and pavement repairs at the point of the excavations. Also, due to the relative long life of transmission and distribution mains the cost basis of the retired main is very low in comparison to the current cost basis for the required excavations and pavement repairs.

Account 345 - Services

The Simulated Plant-Balance analysis was inconclusive due to an extremely high index of variation, but did indicate a higher than typical average service life. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was also referenced for guidance. Figure 1 suggests a range of 30 – 50 years as the average service life. An R3-65 lowa Curve is proposed for this account to be consistent with prior practice and to recognize the indications of a fairly

long average service life. A net salvage factor of minus 20 percent is proposed because of the excavation, backfill and pavement repair costs typically associated with a service retirement as discussed under transmission and distribution mains.

Accounts 346 and 347 – Meters and Meter Installations

Company records provided for this study were not segregated between Accounts 346 and 347, therefore, the two accounts were treated as one for the purposes of this analysis. The Company has adopted a policy of replacing all 5/8-inch, 3/4-inch, 1-inch and 2-inch meters every 10 years. The analysis of data shows an indicated composite average service life between 24 and 30 years. This is longer than the 10 year replacement policy might seem to indicate, but since this account also includes the larger, more expensive meters that are tested and repaired in place rather than being retired after 10 years, and since it also includes meter installations that are not replaced every 10 years it seems appropriate. An R1-25 year lowa Curve is proposed for use with both Account 346 and 347. Retired meters are sold for scrap metal and consequently there is a positive salvage value. Since the accounts were jointly analyzed, a net salvage factor of 5% is proposed to be applied to both Accounts 346 and 347 even though there is not likely to be a positive salvage value for meter installations.

Account 348 - Hydrants

The simulated plant record analysis indicated a range of 46 to 65 years with the curve of best fit being an S3-49 curve. The Index of Variation was consistent across various Iowa Curves in the fair range. An S3-50 Iowa curve is proposed. A minus 20 percent net salvage factor is proposed for the account since excavation and pavement repair is often required at current cost levels versus the lower cost basis of the original

asset given its relatively long life.

Account 349 - Other Transmission and Distribution Plant

This account contains the costs of various master planning studies. Since such studies typically use a 20 year planning horizon we can expect their value and usefulness to diminish over that time period. Therefore, a 20 year amortization is proposed.

General Plant

Account 390 - Structures and Improvements

There has not been adequate activity in this account to support the use of statistical analysis. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for General Plant Structures and Improvements is 35 – 40 years. An R1-35 Iowa Curve was selected to fall within the suggested range and to be consistent with the prior practices. A minus 10 percent net salvage is proposed for this account.

Account 391 - Office Furniture and Equipment

The Simulated Plant Record Analysis showed a consistent estimated average service life of 13 years although the Index of Variation was very high. Therefore, caution is indicated. However, due to the extreme consistency of results pointing to a 13 year average service life it is proposed to be accepted. An R1-13 lowa Curve is proposed for this account.

Account 391H/S – Computer Hardware & Software

Retirements of computer hardware and software are mostly driven by rapid technology change which enables providing the company and its customers with more

and better information in a more timely fashion. As a part of this study data were collected on public utility commission approved computer hardware and software average service lives from five other states (Connecticut, Kentucky, Ohio, Tennessee, Pennsylvania, and Virginia). The approved hardware average service lives from this sample ranged from 4 to 8 years. The norm for non-regulated companies is to depreciate computer hardware and software using a 5 year average service life in accordance with Internal Revenue Service guidelines. A 5 year average service life for computer hardware and software as a software is proposed. Zero net salvage is recommended since retired computers are of little value and there is no significant cost of retirement.

Account 392 - Transportation Equipment

An lowa S6-8 curve is indicated as the curve of best fit by a Simulated Plant-Record analysis. Most other competing curves also indicate an 8 year average service life. Again there is a high Index of Variation, but consistency of results. An 8 year life seems reasonable given the mixture of vehicle types included in this account and the Company's vehicle replacement policies. An S6-8 lowa Curve is proposed for this account. A 10 percent net salvage is recommended for the account to reflect vehicle trade-in values.

Account 393 - Stores Equipment

There has not been adequate activity in this account to support the use of statistical analysis. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Stores Equipment is 20 years. A 20 year straight line amortization was selected to fall within the suggested range and to be

consistent with the prior practices.

Account 394 - Tools, Shop and Garage Equipment

There has not been adequate activity in this account to support the use of statistical analysis. FIGURE 1 of <u>Depreciation Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Tools, Shop & Garage Equipment is 20 years. A 20 year straight line amortization was selected to fall within the suggested range and to be consistent with the prior practices.

Account 395 - Laboratory Equipment

The Simulated Plant-Record analysis was inconclusive. FIGURE 1 of <u>Depreciation</u> <u>Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Laboratory Equipment is 15 – 20 years. A 15 year straight line amortization was selected to fall within the suggested range and to be consistent with the prior practices.

Account 396 - Power Operated Equipment

Although the Simulated Plant-Record analysis results had poor index of variation scores, they consistently indicated an average service live in the 12 to 14 year range. Based upon that consistency an R3-15 lowa Curve is proposed for this account.

Account 397 - Communication Equipment

The Simulated Plant-Record analysis was inconclusive. FIGURE 1 of <u>Depreciation</u> <u>Practices for Small Water Utilities</u>, National Association of Regulatory Utility Commissioners, August 15, 1979 was referenced for guidance. The suggested average service life for Communication Equipment is 10 years. A 10 year straight line amortization was selected to fall within the suggested range and to be consistent with the prior practices.

Account 398 - Miscellaneous Equipment

The Simulated Plant-Record analysis was inconclusive. A 10 year straight line amortization was selected to be consistent with the prior practices.

SECTION 5

SUMMARY AND RECOMMENDATIONS

The goal of a depreciation study is to determine the annual depreciation expense that must be recognized in order to allow the utility to recover its original investment in a plant asset and any cost of retirement of that asset over the life of the asset. The process is fairly straightforward but it does involve a large amount of data and number crunching.

Fundamentally the process is to analyze the past history of a utility's plant additions and retirements to discern a pattern that can be used to predict the average life span that can be expected and the pattern of retirements as the assets reach the end of their used and useful lives.

The type of analysis that is typically used for water utilities is a curve fitting process. Back in the 1930s a series of life curves were developed by researchers at lowa State. These curves predict what percentage of an asset will be retired in a given year of age. The process is to compare the actual past history of retirements to those predicted by the various lowa Curves. This is an iterative process facilitated by computer whereby the retirement pattern of each lowa Curve for every possible average service life is compared to the actual addition and retirement history of a given plant account or sub account. The validity of the lowa Curve and average service life prediction is tested in essentially two mathematical ways and by engineering judgment. The mathematical tests include a measure of the closeness of the actual annual data points to the standardized curve. This is measured by a statistical test called the sum of the squared differences which can also be reduced to an index called the Index of

Variation.

The second mathematical test is called the Retirement Experience Index. This is a measure of the percent of the predicted total life cycle represented by the actual plant account data. The less of the predicted total life cycle covered by the actual plant account data, the less likely that the true pattern has emerged and been detected.

The final test is one of engineering judgment. Given the nature of the plant in question, what type of retirement pattern makes sense? Some things tend to have relatively high failure rates early on – like computer hard drives – then settle down to a more gradual retirement rate. Other assets tend to have few retirements until well into their life expectancy – like water mains. In other words the blind mathematical analysis must be seasoned with a good dose of engineering knowledge and experience.

Once the most appropriate lowa Curve and average service life is determined and net salvage value is estimated, the next step is to calculate the annual depreciation accrual and calculated accrued depreciation of the assets in a plant account. This is done by applying the expected life ratios from the selected lowa Curve and average service life to plant balance and attained ages by vintage years and summing them to arrive at a total.

That last statement introduced one other element of the process and that is the salvage value or retirement cost that is either recovered or incurred at the time an asset is retired from service. If the utility can sell the retired asset it can recover part of its original investment – that is called salvage value. It is not necessary or appropriate to accrue depreciation expenses to cover that portion of the original cost. On the other hand, if additional costs are incurred at the time of retirement, public utility accounting

procedure is to recover that cost over the life of the asset so that those customers who have benefited from the asset pay the cost rather than future customers who will not benefit from the asset. Since the utility plant asset accounting process is based upon the original cost of the asset, the retirement costs or salvage values is expressed in terms of a percentage of the original cost. This can sometimes be confusing because, due to inflation, what appears to be a relatively small dollar amount in today's dollars can represent a significant percentage of the original cost – especially for long lived water utility assets.

The final step is to compare the calculated accrued depreciation to the book depreciation reserve of the account to determine the reserve variance that must be corrected. In accordance with the past policy of the New Hampshire Public Utility Commission, the variance between the book accumulated depreciation and the calculated accrued depreciation is proposed to be amortized over ten years for each plan account.

Revisions are proposed for the depreciation, service lives and net salvage factors for the Company. A schedule of depreciation rates is developed and shown in Table 5-1. The proposed annual depreciation expense, based on plant as of March 31, 2008, is \$938,623 with a composite rate of 2.61 percent of the total utility plant investment plus an additional 0.30 percent to amortize the Reserve Variance.

A comparison of the depreciation expense using the present and proposed rates is shown in Table 5-2.

The proposed rates are recommended as reasonable and necessary for the

Company to recover the costs associated with the investment in water system plant through depreciation expense.

APPENDIX A

SIMULATED PLANT RECORD ANALYSIS

SIMULATED PLANT RECORD ANALYSIS SIMULATED BALANCE METHOD

FLOYD BROWNE GROUP Jun-26-08

UTILITY - 402 AQUARION WATER COMPANY OF NEW HAMPSHIRE ACCOUNT - 311/321/331/341 STRUCTURES & IMPROVEMENTS

ACCOUNT CONTROL INFORMATION

EARLIEST ADDITION= 1900LATEST ADDITION= 2007EARLIEST BALANCE= 1938LATEST BALANCE= 2008EARLIEST RETIREMENT= 1938LATEST RETIREMENT= 2006INPUT= ADD & RET

ANALYS	IS BAND = 193	38 THRU 2008		INCREM	ENT = 1	
DISP	MEAN	SSD	IV	CI	REI	
S4	38.2 YRS.	0.2449E+10	14	71	100.00	
S5	38.1 YRS.	0.2357E+10	14	71	100.00	
S6	37.9 YRS.	0.2399E+10	14	71	100.00	
L4	39.5 YRS.	0.2526E+10	15	66	100.00	
L5	38.5 YRS.	0.2406E+10	14	71	100.00	
R4	39.3 YRS.	0.2322E+10	14	71	100.00	
R5	38.0 YRS.	0.2282E+10	14	71	100.00	
01	157.8 YRS.	0.5839E+10	22	45	34.38	
02	178.0 YRS.	0.5838E+10	22	45	34.28	
03	261.9 YRS.	0.5860E+10	23	43	32.55	
04	353.8 YRS.	0.5870E+10	23	43	31.94	

Jun-2	6-08	
XXX	XXXXXXXXXX ·	(X) CURVE OVERLAP
95!	X٠	(·) S5 38.1
90!	х·	(+) L5 38.5
85!	Х	(*) R5 38.0
80!	•	
75!	Х	
70!		
65!	Х	
60!	+	
55!		
50!	*	
45!	Х	
40!		
35!	Х	
30!		
25!		
20!	2	,
15!		+
10!		X+
5!		X+++
0!	!!!!	XX • ++++++ ! ! ! ! ! ! ! ! -
00+	10+ 20+ 30+ 40-	50+ 60+ 70+ 80+ 90+ 100+ 110+ 120+ 130+ 140+ 150+

 \bigcirc

 \bigcirc

SIMULATED PLANT RECORD ANALYSIS SIMULATED BALANCE METHOD FLOYD BROWNE GROUP Jun-25-08

UTILITY - 402 AQUARION WATER COMPANY OF NEW HAMPSHIRE ACCOUNT - 332 WATER TREATMENT PLANT WATER TREATMENT EQUIPMENT

ACCOUNT CONTROL INFORMATION

EARLIEST ADDITION= 1935LATEST ADDITION= 2007EARLIEST BALANCE= 1969LATEST BALANCE= 2008EARLIEST RETIREMENT= 1969LATEST RETIREMENT= 2008INPUT= ADD & RET

ANALYSIS BAND = 1969 THRU 2008 INCREMENT = 1							
DISP	MEAN	SSD	IV	CI	REI		
S5	29.7 YRS.	0.2516E+09	25	40	100.00		
S6	28.7 YRS.	0.2090E+09	23	43	100.00		
SQ	31.3 YRS.	0.3193E+09	29	34	100.00		
L4	33.3 YRS.	0.3698E+09	31	32	100.00		
L5	30.7 YRS.	0.2917E+09	27	37	100.00		
R4	33.6 YRS.	0.3900E+09	32	31	100.00		
R5	30.1 YRS.	0.2794E+09	27	37	100.00		
01 02 03 04	139.0 YRS. 156.7 YRS. 230.6 YRS. 311.5 YRS.	0.3596E+09 0.3597E+09 0.3592E+09 0.3589E+09	31 31 31 31	32 32 32 32 32	26.44 26.37 25.52 25.26		



SIMULATED PLANT RECORD ANALYSIS SIMULATED BALANCE METHOD

FLOYD BROWNE GROUP Jun-25-08

UTILITY - 402 AQUARION WATER COMPANY OF NEW HAMPSHIRE ACCOUNT - 342 T & D PLANT DISTRIBUTION RESERVOIRS & STANDPIPES

ACCOUNT CONTROL INFORMATION

EARLIEST ADDITION= 1900LATEST ADDITION= 2008EARLIEST BALANCE= 1937LATEST BALANCE= 2008EARLIEST RETIREMENT= 1937LATEST RETIREMENT= 2000INPUT= ADD & RET

ANALYS	IS BAND = 193	37 THRU 2008		INCREM	ENT = 1	
DISP	MEAN	SSD	IV	CI	REI	
S5	60.7 YRS.	0.2615E+10	12	83	100.00	
S6	59.2 YRS.	0.2380E+10	11	90	100.00	
SQ	64.5 YRS.	0.4168E+10	15	66	100.00	
L4	66.5 YRS.	0.2863E+10	12	83	99.11	
L5	62.6 YRS.	0.2656E+10	12	83	99.99	
R4	67.3 YRS.	0.3064E+10	13	76	100.00	
R5	61.4 YRS.	0.2453E+10	11	90	100.00	
01	470.7 YRS.	0.3385E+10	13	76	11.52	
02	525.6 YRS.	0.3385E+10	13	76	11.60	
03	781.0 YRS.	0.3384E+10	13	76	11.40	
04	***** YRS.	0.3383E+10	13	76	11.42	



SIMULATED PLANT RECOR SIMULATED BALANCE MET	RD ANALYSIS HOD			FLOYD	BROWNE GROUP Jun-25-08
UTILITY - 402 AQUA ACCOUNT - 346 & 347	NRION WATER COMP T & D PLANT ME	ANY OF NE TERS & ME	W HAMPSH TER INST	IRE ALLATIONS	
	ACCOUNT CON	TROL INFO	RMATION		
EARLIEST ADDITION = EARLIEST BALANCE = EARLIEST RETIREMENT =	= 1900 LATEST = 1913 LATEST = 1913 LATEST	ADDITION BALANCE RETIREME	= 200 = 200 NT = 200	7 8 7 INPUT =	= ADD & RET
ANALYSIS BAND = 191	.3 THRU 2008		INCREM	ENT = 1	
DISP MEAN	SSD	IV	CI	REI	
SO 25.4 YRS.	0.4528E+11	113	8	100.00	·
S0.5 24.4 YRS.	0.5148E+11	120	8	100.00	
LO 29.6 YRS.	0.3711E+11	102	9	100.00	
L0.5 27.6 YRS.	0.4151E+11	108	9	100.00	
R1 25.8 YRS.	0.4282E+11	110	9	100.00	
R1.5 24.2 YRS.	0.4972E+11	118	8	100.00	
01 29.7 YRS.	0.3087E+11	93	10	100.00	
02 32.5 YRS.	0.3255E+11	96	10	100.00	
03 42.2 IRS. 04 54.3 YRS.	0.3048E+11	93 92	10	82.81	

• 1

Jun-25-08	
XXX•	(X) CURVE OVERLAP
95! *XXX··	(·) SO 25.4
90! XXXX	(+) LO 29.6
85! +XXX	(*) R1 25.8
80! ++	$\langle X \star$
75!	++XX*
70!	+XX*
65!	+XX*
60!	XX*
55!	XXX
50!	• XX
45!	$\cdot \cdot X + +$
40!	•X*+++
35!	•X* +++
30!	•X +++
25!	XX ++++
20!	XX ++++
15!	XX• +++++
10!	*X• ++++++
5!	*XXX • +++++++++
0!!!	!!!!+++++++
00+ 05+ 10+	15+ 20+ 25+ 30+ 35+ 40+ 45+ 50+ 55+ 60+ 65+ 70+ 75+

 \bigcirc

SIMULATE SIMULATE	ED PLANT RECO ED BALANCE MET	RD ANALYSIS THOD			FLOYD	BROWNE GROUP Jun-25-08
UTILITY	- 402 AQU	ARION WATER COMP.	ANY OF NE	W HAMPSHI	IRE	
ACCOUNT	- 348 TRA	NSMISSION & DIST	RIBUTION	PLANT HYI	DRANTS	
		ACCOUNT CON	TROL INFC	RMATION		
EARLIEST	C ADDITION	= 1900 LATEST	ADDITION	I = 200	7	ADD & RET
EARLIEST	C BALANCE	= 1914 LATEST	BALANCE	= 200	8	
EARLIEST	C RETIREMENT	= 1914 LATEST	RETIREME	CNT = 200	7 INPUT =	
ANALYSI	IS BAND = 19	14 THRU 2008		INCREM	ENT = 1	
DISP	MEAN	SSD	IV	CI	REI	
S2.5	50.9 YRS.	0.1076E+10	23	43	100.00	
S3	49.0 YRS.	0.1040E+10	23	43	100.00	
L4	47.8 YRS.	0.1073E+10	23	43	100.00	
L5	45.7 YRS.	0.1126E+10	24	41	100.00	
R2	64.8 YRS.	0.1076E+10	23	43	98.75	
R2.5	58.4 YRS.	0.1017E+10	22	45	100.00	
R3	53.2 YRS.	0.1023E+10	22	45	100.00	
01 02 03 04	142.7 YRS. 159.3 YRS. 234.4 YRS. 316.7 YRS.	0.1022E+10 0.1023E+10 0.1020E+10 0.1019E+10	22 22 22 22 22	45 45 45 45	38.02 38.30 35.95 35.11	



SIMULATED PLANT RECORD ANALYSIS SIMULATED BALANCE METHOD

-

_

SURFACE TRANSPORTATION BOARD Jul-21-08

CARRIERS

402 AQUARION WATER COMPANY OF NEW HAMPSHIRE

ACCOUNT

42 GENERAL PLANT COMPUTER HARDWARE

ACCOUNT CONTROL INFORMATION

EARLIEST ADDITION = 1950 LATEST ADDITION = 2003 EARLIEST BALANCE = 1965 LATEST BALANCE = 2003 EARLIEST RETIREMENT = 1965 LATEST RETIREMENT = 1998 INPUT = ADD & RET

ANALYSI	IS BAND = 19	65 THRU 2003		INCREM	ENT = 1	
DISP	MEAN	SSD	IV	CI	REI	
S0.5	13.3 YRS.	0.2406E+10	186	5	100.00	
S1	13.1 YRS.	0.2401E+10	186	5	100.00	
S1.5	13.0 YRS.	0.2468E+10	188	5	100.00	
L1.5	13.8 YRS.	0.2222E+10	179	5	100.00	
L2	13.5 YRS.	0.2208E+10	178	5	100.00	
L2.5	13.2 YRS.	0.2273E+10	181	5	100.00	
R1	13.4 YRS.	0.2678E+10	196	5	100.00	
R1.5	13.1 YRS.	0.2631E+10	194	5	100.00	
R2	12.8 YRS.	0.2647E+10	195	5	100.00	
01	14.9 YRS.	0.2863E+10	203	4	100.00	
02	16.3 YRS.	0.2794E+10	200	5	100.00	
03	21.2 YRS.	0.2848E+10	202	4	90.92	
04	26.7 YRS.	0.2921E+10	205	4	82.86	



SIMULATED PLANT RECORD ANALYSIS SIMULATED BALANCE METHOD

FLOYD BROWNE GROUP Jun-25-08

UTILITY - 402 AQUARION WATER COMPANY OF NEW HAMPSHIRE ACCOUNT - 392 GENERAL PLANT TRANSPORTATION EQUIPMENT

ACCOUNT CONTROL INFORMATION

EARLIEST ADDITION= 1931LATEST ADDITION= 2007EARLIEST BALANCE= 1933LATEST BALANCE= 2008EARLIEST RETIREMENT= 1933LATEST RETIREMENT= 2003INPUT= ADD & RET

ANALYSIS	S BAND = 193	3 THRU 2008		INCREM	ENT = 1	
DISP	MEAN	SSD	IV	CI	REI	
S5	8.6 YRS.	0.1028E+11	354	2	100.00	
S6	8.5 YRS.	0.1016E+11	352	2	100.00	
SQ	8.4 YRS.	0.1111E+11	368	2	100.00	
L4	8.6 YRS.	0.1168E+11	377	2	100.00	
L5	8.6 YRS.	0.1068E+11	361	2	100.00	
R4	8.5 YRS.	0.1101E+11	366	2	100.00	
R5	8.5 YRS.	0.1027E+11	354	2	100.00	
01	9.3 YRS.	0.2960E+11	601	1	100.00	
02	10.4 YRS.	0.3277E+11	632	1	100.00	
03	13.0 YRS.	0.3971E+11	696	1	100.00	
04	15.2 YRS.	0.4364E+11	730	1	100.00	



φ

SIMULATED PLANT RECORD ANALYSIS SIMULATED BALANCE METHOD FLOYD BROWNE GROUP Jun-25-08

UTILITY - 402 AQUARION WATER COMPANY OF NEW HAMPSHIRE ACCOUNT - 396 GENERAL PLANT POWER OPERATED EQUIPMENT

ACCOUNT CONTROL INFORMATION

EARLIEST ADDITION= 1900LATEST ADDITION= 2007EARLIEST BALANCE= 1919LATEST BALANCE= 2008EARLIEST RETIREMENT= 1919LATEST RETIREMENT= 1986INPUT

ANALYSI	S BAND = 191	9 THRU 2008		INCREME	NT = 1
DISP	MEAN	SSD	IV	CI	REI
S5	12.6 YRS.	0.1388E+10	235	4	100.00
S6	12.4 YRS.	0.1384E+10	234	4	100.00
SQ	13.4 YRS.	0.1449E+10	240	4	100.00
L4	12.6 YRS.	0.1439E+10	239	4	100.00
L5	12.6 YRS.	0.1396E+10	236	4	100.00
R4	12.7 YRS.	0.1469E+10	242'	4	100.00
R5	12.5 YRS.	0.1393E+10	235	4	100.00
01	17.5 YRS.	0.4314E+10	414	2	100.00
02	19.1 YRS.	0.4275E+10	412	2	100.00
03	23.5 YRS.	0.4903E+10	442	2	100.00
04	28.5 YRS.	0.5377E+10	463	2	96.24



• •

.

APPENDIX B

CALCULATED ANNUAL AND ACCRUED DEPRECITATION

Aquarion Water Company of New Hampshire Calculated Annual and Accrued Depreciation

Account Number:	303	Misc. Intangible Plant
lowa Curve Type:	SQ	
Avg. Service Life:	30	Years
Net Salvage Percent:	0%	

								Percent of	Annual De	preclation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
2003	-	20,613			20,613	20,613	5.5	18.33	3.33%	687	0.1750	3607
2004	20,613	114			20,727	114	4.5	15.00	3.33%	4	0.1450	17
2005	20,727				20,727	-	3.5	11.67	3.33%		0.1050	0
2006	20,727				20,727	-	2.5	8.33	3.33%	-	0.0750	0
2007	20,727				20,727	-	1.5	5.00	3.33%		0.0450	0
2008	20,727				20,727		0.5	1.67	3.33%	-	0.0050	0
	-	20,727	-		124,248	20,727	-			691		3,624

Net Salavage Adjustment: ______ Annual Depreciation: 691 Accrued Depreciation: 3,624

Composit 3.33%

Aquarion Water Company of New Hampshire Calculated Annual and Accrued Depreciation

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

t:	311 R5 40 -10%	SOURCE OF SUF Years	PPLY STRUCT	URES & IMPROV	EMENTS						
							Percent of	Annual D	opreciation	Accrued De	preclation
Beg Bal	Add	Ret	Adi/Trans	End Bal	Net Change	Age	Avg, Age	Rato	Amount	Ratio	Amt.
-	6.370			6,370	6,370	7.5	18.75	2.50%	159	0.1800	1147
6.370	3,102			9,472	3,102	6.5	16.25	2,50%	78	0.1600	496
9.472	514.326			523,798	514,326	5.5	13.75	2.50%	12,858	0.1300	66862
523,798	21.812			545,610	21.812	4.5	11.25	2.50%	545	0.1100	2399
545.610	53,933			599,543	53,933	3.5	8.75	2.50%	1,348	0.0800	4315
599.543	11,920	(23.860)		587,603	(11,940)	2.5	6.25	2.50%	(298)	0.0600	-716
587,603	23.856	,		611,459	23,856	1.5	3.75	2.50%	596	0.0300	716
611,459				611,459	-	0.5	1.25	2.50%	-	0.0100	0
						-					
	6,370 9,472 523,798 545,610 599,543 587,603 611,459	6,370 3,102 9,472 514,326 523,798 21,812 545,610 53,933 599,543 11,920 587,603 23,856 611,459	- 0,370 6,370 3,102 9,472 514,326 523,798 21,812 545,610 53,933 599,543 11,920 (23,860) 587,603 23,856 611,459	- 0,370 6,370 3,102 9,472 514,326 523,798 21,812 545,610 53,933 599,543 11,920 (23,860) 587,603 23,856 611,459	- 6,370 5,370 6,370 3,102 9,472 9,472 514,326 523,798 523,798 21,812 545,610 545,610 53,933 599,543 599,543 11,920 (23,860) 587,603 687,603 23,856 611,459	- 6,370 0,370 0,370 0,370 6,370 3,102 9,472 3,102 9,472 3,102 9,472 514,326 523,798 514,326 523,798 514,326 523,798 21,812 545,610 21,812 545,610 21,812 545,610 53,933 599,543 519,263 519,393 599,543 11,920 (23,860) 587,603 (11,940) 587,603 23,856 611,459 23,856 611,459 -	- 6,370 6,370 6,370 6,370 7,102 6,5 6,370 3,102 9,472 3,102 6,5 5 5 5 5,23,798 514,326 5.5 5	- 6,370 6,370 6,370 6,370 7,3 10,75 6,370 3,102 9,472 3,102 6,5 16,25 9,472 514,326 523,798 514,326 5.5 13,76 523,798 21,812 545,610 21,812 4.5 11,25 545,610 53,933 599,543 53,933 3.5 8,75 599,543 11,920 (23,860) 587,603 (11,940) 2.5 6,25 587,603 23,856 611,459 - 0.5 17.5 3.75 611,459 - 0.5 12.5 12.5 12.5	- 6,370 6,370 6,370 7.3 10.75 2.50% 6,370 3,102 9,472 3,102 6.5 16.25 2.50% 9,472 514,326 523,798 514,326 5.5 13.76 2.50% 523,798 21,812 545,610 21,812 4.5 11.25 2.50% 545,610 53,933 3.5 8.75 2.50% 599,543 63,933 3.5 8.75 2.50% 599,543 11,920 (23,860) 587,603 (11,940) 2.5 6.25 2.50% 687,603 23,856 611,459 - 0.5 1.25 2.50%	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Net Salavage Adjustment: <u>1,529</u> Annual Depreciation: 16,815 Accrued Depreciation: 7,522 82,740

Composite Annual Accrual Rate, Percent: 2.75%
Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

314	SOURCE OF SUPPLY WELLS & SPRINGS
R3	

30 Years -10%

	Bag Bal	المام ا	Det	6 di/Tanana		Not Channe		Percent of	Annual D	opreciation A	ccrued Dep	preclation
1915	beg bai	9,179	Ket	Auptrans	9,179	9,179	93.5	AVG. AGE 311.67	3.33%	306	1.0000	9179
1916	9,179				9,179	-	92.5	308.33	3.33%	-	1.0000	0
1917	9,179				9,179	-	91.5	305.00	3.33%	-	1.0000	0
1919	9,179				9,179	-	90.5 89.5	298.33	3.33%	-	1.0000	0
1920	9,179				9,179	-	88.5	295.00	3.33%		1.0000	Ō
1921	9,179				9,179	-	87.5	291.67	3.33%	-	1.0000	0
1922	9,179				9,179	-	86.5	288.33	3.33%	-	1.0000	0
1924	9,179				9,179	-	84.5	281.67	3.33%	-	1.0000	õ
1925	9,179				9,179	-	83.5	278.33	3.33%	-	1.0000	0
1926	9,179				9,179	•	82.5	275.00	3.33%	-	1.0000	0
1928	9,179				9,179	-	80.5	268.33	3.33%	-	1.0000	0
1929	9,179				9,179	-	79.5	265.00	3.33%	-	1.0000	0
1930	9,179				9,179	-	78.5	261.67	3.33%	-	1.0000	0
1931	9,179				9,179	•	77.5	258.33	3.33%	-	1.0000	0
1933	9,179				9,179	-	75.5	251.67	3.33%	-	1.0000	0
1934	9,179				9,179	-	74.5	248.33	3.33%	-	1.0000	0
1935	9,179				9,179	-	73.5	245.00	3.33%	-	1.0000	0
1930	9,179				9,179	-	72.5	241.67	3.33%	-	1,0000	0
1938	9,179				9,179	-	70.5	235.00	3.33%	-	1.0000	ō
1939	9,179	25,371	(3,321)		31,229	22,050	69.5	231.67	3.33%	735	1.0000	22050
1940	31,229	6,781			38,009	6,781	68.5 67.5	228.33	3.33%	226	1,0000	6781
1942	38,009				38,009	-	66.5	221.67	3.33%	-	1.0000	0
1943	38,009				38,009	-	65.5	218.33	3.33%	•	1.0000	0
1944 1945	38,009				38,009	-	64.5 63.5	215.00	3.33%	•	1.0000	0
1946	38,009				38.009		62.5	208.33	3.33%	-	1.0000	0
1947	38,009				38,009		61.5	205.00	3.33%	-	1.0000	ō
1948	38,009				38,009	•	60.5	201.67	3.33%	•	1.0000	0
1949	38,009	8.512			38,009	- 8 512	58.5 58.5	198.33	3.33%	284	1.0000	0 8512
1951	46,521	288			46,809	288	57.5	191.67	3.33%	10	1.0000	288
1952	46,809				46,809	-	56.5	188.33	3.33%	-	1.0000	0
1953	46,809				46,809	-	55.5	185.00	3.33%	-	1.0000	0
1954	46,809				46,809	-	54.5 53.5	178.33	3.33%	-	1.0000	0
1956	46,809	112			46,921	112	52.5	175.00	3.33%	4	1.0000	112
1957	46,921		(3,793)		43,127	(3,793)	51.5	171.67	3.33%	(126)	1.0000	-3793
1958	43,127 48,852	9,031	(3,307)		48,852	5,724	50.5 49.5	168.33	3.33%	191	0.9950	5696
1960	48,852				48,852		48.5	161.67	3.33%	-	0.9875	Ő
1961	48,852	165			49,017	165	47.5	158.33	3.33%	6	0.9875	163
1962	49,017				49,017	-	46.5	155.00	3.33%	-	0.9689	0
1963	49,017	30,444			79,460	- 30,444	45.5	148.33	3.33%	1.015	0.9356	28891
1965	79,460				79,460	-	43.5	145.00	3.33%	-	0.9439	0
1966	79,460				79,460	-	42.5	141.67	3.33%	-	0.9310	0
1967 1968	79,460	29,203			108,663	29,203	41.5	138.33	3.33%	973	0.9233	26963
1969	108,663		(23,654)		85,009	(23,654)	39.5	131.67	3.33%	(788)	0.9052	-21412
1970	85,009				85,009	-	38.5	128.33	3.33%		0.8972	0
1971	85,009	11,008	200		96,016	11,008	37.5	125.00	3.33%	367	0.8918	9817
1972	96,016	2 119	308		96,325	2 119	35.5	121.67	3.33%	10	0.8775	1840
1974	98,444	2,110			98,444	-	34.5	115.00	3.33%	-	0.8550	0
1975	98,444				98,444	-	33.5	111.67	3.33%	-	0.8443	0
1976 1977	98,444 98 444				98,444 98 444	•	32.5	108.33	3.33%	-	0.8328	0
1978	98,444	32,088			130,532	32,088	30.5	101.67	3.33%	1,070	0.8029	25763
1979	130,532				130,532		29.5	98.33	3.33%	•	0.7887	0
1980	130,532	61,993			192,525	61,993	28.5	95.00	3.33%	2,066	0.7736	47958
1982	192,525				192,525	-	26.5	88.33	3.33%		0.7351	0
1983	192,525	42,391			234,916	42,391	25.5	85.00	3.33%	1,413	0.7172	30403
1984	234,916				234,916	•	24.5	81.67	3.33%	-	0.6923	0
1985	234,916 234,916	1.428			234,916 236,344	1.428	23.5 22.5	78.33	3.33%	- 48	0.6727	0 932
1987	236,344	120,516	(200)		356,660	120,316	21.5	71.67	3.33%	4,011	0.6245	75137
1988	356,660		,,		356,660		20.5	68.33	3.33%	-	0.6029	0
1989	356,660	115,160	(1,000)		470,820	114,160	19.5	65.00	3.33%	3,805	0.5807	66293
1991	470,820				470,820	-	17.5	58.33	3.33%	-	0.5268	0
1992	470,820			÷	470,820	-	16.5	55.00	3.33%	-	0.5029	0
1993	470,820			(38,333)	432,487	(38,333)) 15.5	51.67	3.33%	(1,278)	0.4704	-18032
1994	432,487		(314)		432,48/ 432,173	(314)) 13.5	48.33	3,33%	(10)	0.4404	-132
1996	432,173		(414)		432,173	-	12.5	41.67	3.33%	-	0.3855	0
1997	432,173	956,093			1,388,266	956,093	11.5	38.33	3.33%	31,870	0.3591	343333
1998	1,388,266	431,708			1,819,974	431,708	10.5 0.5	35.00	3.33%	14,390	0.3324	143500 58660
2000	2,018.017	867		134,745	2,153,629	135,612	8.5	28.33	3.33%	4,520	0.2687	36439
2001	2,153,629	41,032			2,194,661	41,032	7.5	25.00	3.33%	1,368	0.2408	9881
2002	2,194,661	155 001			2,194,661	455 00 -	6.5	21.67	3.33%	5 103	0.2033	0
2003 2004	2,194,001	5.837	(9,000)		2,350,465	(3.163)) 4.5	15.00	3.33%	(105)	0.1740	-462
2005	2,347,302	3,390	(0,000)		2,350,692	3,390	3.5	11.67	3.33%	113	0.1075	364
2006	2,350,692	2,782	(15,424)		2,338,050	(12,642)) 2.5	8.33	3.33%	(421)	0.0784	-991
2007	2,338,050	83,052			2,421,102	83,052	1.5	5.00	3.33% 3.33%	2,768	0.0491	4078 3469
2000	L, TL 1, 102				_,, , 0,001			1.07	5.5070	,		
	-	2,738,325	(59,706)	96,412	35,063,610	2,775,031				92,501	-	949,182

Net Salavage Adjustment: 9,250 94,918 Annual Depreciation: 101,751 Accrued Depreciation: 1,044,100

Composite Annual Accrual Rate, Percent: 3.67%

Account Number: Iowa Curve Type: Avg. Service Life: Net Salvage Percent: SOURCE OF SUPPLY SUPPLY MAINS

316 SOUR R3 100 Years -20%

								Percent of A	nnual De	preciation	Accrued De	preclation
1015	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt. 1020
1915	2.528	2,526			2,528	2,528	93.5	93.50	1.00%	- 25	0.7576	1929
1917	2,528	18,969			21,497	18,969	91.5	91.50	1.00%	190	0.7521	14267
1918	21,497	694			22,191	694	90.5	90.50	1.00%	7	0.7465	518
1919	22,191	3,903			26,094	3,903	89.5	89.50	1.00%	39	0.7409	2892
1921	31,545	5,451			31,545	5,451	87.5	87.50	1.00%	-	0.7292	0
1922	31,545	2,542			34,087	2,542	86.5	86.50	1.00%	25	0.7233	1839
1923	34,087	3,835			37,922	3,835	85.5	85.50	1.00%	38	0.7172	2750
1924	37,922	55,117			93,039	55,117	84.5	84.50	1.00%	551	0.7111	39193
1925	104.211	11,172			104,211	11,172	82.5	82.50	1.00%		0.6986	10/5
1927	104,211	3,587			107,798	3,587	81.5	81.50	1.00%	36	0,6923	2483
1928	107,798	1,014			108,812	1,014	80.5	80.50	1.00%	10	0.6858	695
1929	108,812	4,768			113,580	4,768	79.5	79.50	1.00%	48	0.6793	3239
1931	113,580				113,580	-	77.5	77.50	1.00%	-	0.6660	Ŭ
1932	113,580				113,580	-	76.5	76.50	1.00%		0.6593	0
1933	113,580				113,580	-	75.5	75.50	1.00%	-	0.6525	0
1934	113,580	(113,580)			0	(113,580)	74.5	74.50	1.00%	(1,136)	0.6456	-73327
1936	0				0	-	72.5	72.50	1.00%	-	0.6316	õ
1937	0				ō		71.5	71.50	1.00%		0.6245	0
1938	0				0	-	70.5	70.50	1.00%	-	0.6174	0
1939	0				0	-	69.5	69.50	1.00%	-	0.6102	0
1940	0				0	-	67.5	67.50	1.00%	-	0.5956	0
1942	ŏ				õ		66.5	66.50	1.00%	-	0.5882	0
1943	0				0	-	65.5	65.50	1.00%	-	0.5807	0
1944	0				0	-	64.5	64.50	1.00%	•	0.5732	0
1945	U A				0	-	63.5 62 F	63.50 62.50	1.00%	-	0.5656	0
1947	0	7,476			7,476	7,476	61.5	61.50	1.00%	75	0.5579	4171
1948	7,476	3,156			10,633	3,156	60.5	60.50	1.00%	32	0.5425	1712
1949	10,633				10,633		59.5	59.50	1.00%	-	0.5347	0
1950	10,633	5,320			15,953	5,320	58.5	58.50	1.00%	53	0.5268	2803
1952	16.052	33			16,052		56.5	56.50	1.00%	:	0.5110	0
1953	16,052				16,052	-	55.5	55.50	1.00%		0.5029	0
1954	16,052				16,052	-	54.5	54.50	1.00%	•	0.4949	0
1955	16,052				16,052	-	53.5	53.50	1.00%	-	0.4867	0
1956	16,052				16,052	-	52.5 51.5	52.50	1.00%		0.4704	0
1958	16,052	3,612	(238)		19,425	3,373	50.5	50.50	1.00%	34	0.4621	1559
1959	19,425				19,425	-	49.5	49.50	1.00%	-	0.4538	0
1960	19,425	(610)	(40)		18,815	(610)) 48.5	48.50	1.00%	(6)	0.4454	-272
1961	18,815		(40)		18,775	(40)) 47.5 46.5	47.50	1.00%	(0)	0.4370	-17
1963	18,775				18,775	-	45.5	45.50	1.00%	-	0.4200	ŏ
1964	18,775		278		19,053	278	44.5	44.50	1.00%	3	0.4114	115
1965	19,053				19,053	-	43.5	43.50	1.00%	-	0.4028	0
1966	19,053	61 006			19,053	-	42.5	42.50	1.00%	-	0.3942	23603
1968	80.279	01,220			80.279	01,220	40.5	40.50	1.00%		0.3767	23005
1969	80,279				80,279		39.5	39.50	1.00%	-	0.3679	0
1970	80,279				80,279	-	38.5	38.50	1.00%	-	0.3591	0
1971	80,279				80,279	-	37.5	37.50	1.00%		0.3503	0
1973	80.279				80.279	-	35.5	35.50	1.00%	-	0.3324	ŏ
1974	80,279				80,279	-	34.5	34.50	1.00%	-	0.3234	0
1975	80,279				80,279	-	33.5	33.50	1.00%	-	0.3144	0
1976	80,279				80,279	-	32.5	32.50	1.00%	•	0.3053	0
1977	80,279		(56.902)		23.377	(56.902)	31.5	30.50	1.00%	(569)	0.2871	-16337
1979	23,377		(00,000)		23,377	(, <u>-</u>	29.5	29.50	1.00%	-	0.2779	0
1980	23,377				23,377	-	28.5	28.50	1.00%	-	0.2687	0
1981	23,377	10 770			23,377	-	27.5	27.50	1.00%	-	0.2594	0 7107
1982	23,377	6.841	(536)		58.460	6.305	20.5	25.50	1.00%	63	0.2408	1518
1984	58,460	57	536		59,053	593	24.5	24.50	1.00%	6	0.2315	137
1985	59,053				59,053	-	23.5	23.50	1.00%	-	0.2221	0
1986	59,053				59,053	-	22.5	22.50	1.00%	-	0.2127	0
1987	59,053 59,053				59,053	-	21.5 20.5	21.50	1.00%	-	0.1938	0
1989	59,053	121,199			180,252	121,199	19.5	19.50	1.00%	1,212	0.1843	22337
1990	180,252	2,555	(75)		182,732	2,480	18.5	18.50	1.00%	25	0.1748	434
1991	182,732		(97)		182,635	(97) 17.5	17.50	1.00%	(1)	0.1653	-16
1992	182,635	1 634	(1 334)		182,035	- 300	10.5	15.50	1.00%	3	0.1557	44
1994	182,935	1,004	(1,004)		182,935	-	14.5	14.50	1.00%		0.1365	0
1995	182,935				182,935	-	13.5	13.50	1.00%	-	0.1269	0
1996	182,935				182,935	-	12.5	12.50	1.00%	-	0.1172	0
1997	182,935				182,935		11.5	11.50	1.00%	•	0.1075	0
1999	182.935				182,935	-	9.5	9.50	1.00%		0.0881	õ
2000	182,935				182,935	-	8.5	8.50	1.00%	-	0.0784	Ō
2001	182,935				182,935	-	7.5	7.50	1.00%	•	0.0686	0
2002	182,935				182,935	-	6.5 5 F	6.50	1.00%	•	0.0589	0
2003	182,935				182.935	-	4.5	4,50	1.00%		0.0393	0
2005	182,935				182,935	-	3.5	3.50	1.00%		0.0295	0
2006	182,935				182,935	-	2.5	2.50	1.00%	-	0.0197	0
2007	182,935				182,935	-	1.5	1.50	1.00%	-	0.0098	0
2008	182,930				102,935	-	0.5	0.50	1.00%	•	0.0000	
	-	241,343	(58,408)		6,661,786	182,935				1,829		57,399

Net Salavage Adjustment: <u>366</u> Annual Depreciation: 2,195 Accrued Depreciation: <u>11,480</u> 68,879

Composite Annual Accrual Rate, Percent: 1.20%

Account Nu	imber:
Iowa Curve	Type:
Avg. Servic	e Life:
Net Salvage	Percent:

unt Number Curve Type	:	317 SO	SOURCE OF SU	PPLY OTHER W	ATER SOURCE	PLANT						
Service Life alvage Perc	: :ent:	20 0%	Years									
								Percent of	Annual Do	preclation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1990		10,512			10,512	10,512	18.5	92.50	5.00%	526	0.9150	9618
1991	10,512				10,512	-	17.5	87.50	5.00%	-	0.8550	0
1992	10,512				10,512	-	16.5	82.50	5.00%	-	0.8150	0
1993	10,512				10,512	-	15.5	77.50	5.00%	-	0.7650	0
1994	10,512				10,512	-	14.5	72.50	5.00%	-	0.7150	0
1995	10,512				10,512	-	13.5	67.50	5.00%	-	0.6650	0
1996	10,512				10,512	-	12.5	62.50	5.00%	-	0.6150	0
1997	10,512				10,512		11.5	57.50	5.00%	-	0.5550	0
1998	10,512				10,512	-	10.5	52.50	5.00%	-	0.5150	0
1999	10,512				10,512	-	9.5	47.50	5.00%	-	0.4650	0
2000	10,512				10,512	-	8.5	42.50	5.00%	-	0.4150	0
2001	10,512				10,512	-	7.5	37.50	5.00%	-	0.3650	0
2002	10,512				10,512	-	6.5	32,50	5.00%		0.3150	0
2003	10,512	705,158			715,670	705.158	5.5	27.50	5.00%	35,258	0.2650	186867
2004	715,670	113,808	(3,300)		826,178	110,508	4.5	22.50	5.00%	5,525	0.2150	23759
2005	826,178	171,281	••••	3,300	1,000,759	174,581	3.5	17.50	5.00%	8,729	0.1650	28806
2006	1.000,759	78,775			1.079.534	78,775	2.5	12.50	5.00%	3,939	0.1150	9059
2007	1.079.534	419,566			1,499,100	419,566	1.5	7.50	5.00%	20,978	0.0650	27272
2008	1,499,100				1,499,100	-	0.5	2.50	5.00%	-	0.0150	0
		1,499,100	(3,300)		6,756,997	1,499,100	-			74,955	-	285,381

Net Salavage Adjustment: ______ Annual Depreciation: 74,955 Accrued Depreciation: 285,381

Composite Annual Accrual Rate, Percent: 5.00%

Account Number:	
Iowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

PUMPING PLANT STRUCTURES & IMPROVEMENTS

321 PUMPI R5 40 Years -10%

									Percent of	Annual	Depreciation A	ccrued De	preclation
101T	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Net Change	Age	Avg. Age	Rate	Amount 136	Ratio	Amt. 5423
1915	5,423	5,423			5,423	5,423	5,425	93.5	233.75	2.50%	-	1.0000	0425
1917	5,423				5,423		-	91.5	228.75	2.50%	-	1.0000	0
1918	5,423				5,423	-	-	90.5	226.25	2.50%	:	1.0000	0
1920	5,423				5,423	-	-	88.5	221.25	2.50%	-	1.0000	ő
1921	5,423				5,423	-	-	87.5	218.75	2.50%	-	1.0000	0
1922	5,423				5,423	-	-	86.5	216.25	2.50%	-	1.0000	0
1923	5,423				5,423	-	-	85.5	213.75	2.50%	-	1,0000	0
1925	5.423				5,423	-		83.5	208.75	2.50%	-	1,0000	ō
1926	5,423				5,423	-	-	82.5	206.25	2.50%	-	1.0000	0
1927	5,423				5,423	-	-	81.5	203.75	2.50%	-	1.0000	0
1928	5,423				5,423	-		80.5 79.5	201.25	2.50%	-	1.0000	0
1930	5,423				5,423	-	-	78.5	196.25	2.50%	-	1.0000	Ō
1931	5,423				5,423	-	-	77.5	193.75	2.50%		1.0000	0
1932	5,423				5,423	-	-	76.5	191.25	2.50%	•	1,0000	0
1933	5,423				5,423	-	-	75.5	186.75	2.50%	-	1.0000	0
1935	5,423				5,423	-	-	73,5	183.75	2.50%	-	1.0000	Ō
1936	5,423				5,423			72.5	181.25	2.50%	-	1.0000	0
1937	5,423	1,153	(17)		6,575	1,153	1,153	71.5	178.75	2.50%	29	1,0000	-17
1938	6,558	5.448	(17)		12.006	5.448	5.448	69.5	173,75	2.50%	136	1,0000	5448
1940	12,006	83			12,089	83	83	68.5	171.25	2.50%	2	1.0000	83
1941	12,089				12,089	-	-	67.5	168.75	2.50%	-	1,0000	0
1942	12,089				12,089	-	-	66.5	166.25	2.50%	-	1.0000	0
1943	12,089				12,009	-		64.5	161.25	2.50%	-	1.0000	õ
1945	12,089				12,089	-		63.5	158.75	2.50%	-	1.0000	0
1946	12,089				12,089	-	-	62.5	156.25	2.50%	-	1,0000	0
1947	12,089	1 402			12,089	1 492	- 1 492	61.5 60.5	103.70	2.50%	37	1.0000	1492
1948	13,582	1,492			13,582	-		59,5	148.75	2.50%	-	1.0000	0
1950	13,582				13,582	-		58.5	146.25	2.50%	-	1.0000	0
1951	13,582				13,582	-	-	57.5	143.75	2.50%	-	1.0000	0
1952	13,582	355			13,937	355	300	55.5	141.25	2.50%	9	1.0000	333
1954	13,937				13,937	-	-	54.5	136.25	2.50%		0.9950	Ő
1955	13,937	530	(290)		14,177	240	240	53.5	133.75	2.50%	6	0.9898	238
1956	14,177				14,177	•	-	52.5	131.25	2.50%	-	0.9854	0 559
1957	14,177	221	349		14,/4/	570 6512	570 6 512	51.5 50.5	128.75	2,50%	14	0.9734	6338
1959	21,259	0,012			21,259	-	0,012	49.5	123.75	2.50%	-	0.9660	0
1960	21,259	149	(125)		21,283	24	24	48.5	121.25	2.50%	1	0.9617	23
1961	21,283		(10,387)		10,896	(10,387)	(10,387)	47.5	118.75	2.50%	(260)	0.9558	-9928
1962	10,896	68 1 420	(1,295)		9,670	(1,226)	(1,226)	40.5	116.20	2.50%	(31)	0.9318	-110/
1964	11.099	14.754	(26)		25,827	14,728	14,728	44.5	111.25	2.50%	368	0.9400	13845
1965	25,827		. ,		25,827	-	-	43.5	108.75	2.50%	-	0.9312	0
1966	25,827	110	(000)		25,937	110	110	42.5	106.25	2.50%	3 610	0.9245	22301
1967	25,937	24,616	(200)		50,353	24,416	24,410	41.5	103.75	2.50%	11	0.9051	396
1969	50,790	155	3,091		54,036	3,246	3,246	39.5	98.75	2.50%	81	0.8914	2893
1970	54,036	900	(764)		54,172	136	136	38.5	96.25	2.50%	3	0.8814	120
1971	54,172				54,172	-	-	37.5	93.75	2.50%	-	0.8650	0
1972	54,172	68			54,172	- 68	- 68	35.5	88.75	2,50%	2	0.8340	57
1974	54,240				54,240	-	-	34.5	86.25	2.50%	-	0.8203	0
1975	54,240	534	(853)		53,921	(319)	(319)) 33.5	83.75	2.50%	(8)	0.7987	-255
1976	53,921	114	(68)		53,921 53,967	- 46	- 46	32.5	78.75	2.50%	- 1	0.7595	35
1978	53,967	27,181	(00)		81,148	27,181	27,181	30.5	76.25	2.50%	680	0.7430	20195
1979	81,148	(165)			80,983	(165)	(165)) 29.5	73.75	2.50%	(4)	0.7174	-118
1980	80,983	27 502	(00)		80,983	- 27 422	- 27 422	28.5	71.25	2.50%	-	0.6998	18450
1982	108.406	1.515	(00)		109.807	1.401	1,401	26.5	66.25	2.50%	35	0.6544	917
1983	109,807				109,807	-	-	25.5	63.75	2.50%	-	0.6263	0
1984	109,807	1,853	(000)		111,660	1,853	1,853	24.5	61.25	2.50%	46	0.6073	1125
1985	111,660	1 000	(300)		112,013	1 009	353 1 009	23.5	56.25	2.50%	25	0.5589	204 564
1987	113,022	1,005			113,022	1,000	-	21.5	53.75	2.50%	-	0.5295	0
1988	113,022		2,700		115,722	2,700	2,700	20.5	51.25	2.50%	68	0.5097	1376
1989	115,722	248,037	(1,266)		362,493	246,771	246,771	19.5	48.75	2.50%	6,169 /1\	0.4799	118425
1990	362,493		(28) (900)		361.565	(28) (900)	(28) 17.5	43.75	2.50%	(23)	0.4300	-387
1992	361,565	18,184	(214)		379,535	17,970	17,970	16.5	41.25	2.50%	449	0.4100	7368
1993	379,535	9,707	(1,029)	38,333	426,546	47,011	47,011	15.5	38.75	2.50%	1,175	0.3800	17864
1994	426,546	2 000	(400)		426,546	2710	- 2740	14.5	36.25	2.50% 2.50%	-	0.3500	0 108
1995	420,540	∠,908 2.769	(198) (550)		429,200	2,710	2,710	12.5	31,25	2.50%	55	0.3100	688
1997	431,475	154,234	(107)		585,602	154,127	154,127	11.5	28.75	2.50%	3,853	0.2800	43156
1998	585,602	501,997	(5,000)		1,082,599	496,997	496,997	10.5	26.25	2.50%	12,425	0.2600	129219
1999	1,082,599	91,712		127 004	1,174,311	91,712	91,712	9,5 85	23.75	2.50%	2,293	0.2300	21094
2000	1,1/4,311 1,191 906	34,193	(9.145)	(37,904)	1,216.954	25.048	25.048	7.5	18.75	2.50%	626	0.1800	4509
2002	1,216,954	(299)	(-,		1,216,655	(299)	(299) 6.5	16.25	2.50%	(7)	0.1600	-48
2003	1,216,655	(9,473)	10		1,207,182	(9,473)	(9,473) 5.5	13.75	2.50%	(237)	0.1300	-1231
2004	1,207,182	9,674 41.606	(2,303)		1,214,553	7,371 41.606	7,371 41 606	4.5	11.25	∠.50% 2,50%	1.040	0.0800	3328
2005	1,256.159	19,163			1,275,322	19,163	19,163	2.5	6.25	2.50%	479	0.0600	1150
2007	1,275,322				1,275,322		-	1.5	3.75	2.50%	-	0.0300	0
2008	1,275,322				1,275,322	-	•	0.5	1.25	2.50%	-	0.0100	0
		1,304.012	(29.119)		19,429,768	1,275,322	1,275,322	2			31,883		444,078
		.,	,,		, 2,, 30			-					

r:	325	PUMPING PLANT ELECTRIC PUMPING EQUIPMENT
e:	R1	
e:	35	Years
cent:	-20%	

Accour	nt Number:
Iowa C	urve Type:
Avg. Se	ervice Life:
Net Sal	vage Percent:

	Beg Bal	Add	Pot	Adi/Trans	End Rol	Not Change	600	Percent of A	nnual De	preclation A	ccrued Dep Ratio	Amt
1915	- Deg Dat	5,159	Rei	Aupmans	5,159	5,159	93.5	267.14	2.86%	147	1.0000	5159
1916	5,159				5,159	-	92.5	264.29	2.86%	-	1.0000	0
1917	5,159				5,159	-	91.5	261.43	2.86%	-	1.0000	0
1919	5,159				5,159	-	89.5	255.71	2.86%	-	1.0000	ő
1920	5,159				5,159	•	88.5	252.86	2.86%	-	1.0000	0
1921	5,159				5,159	-	87.5	250.00	2.86%	-	1.0000	0
1922	5,159				5,159	-	86.5	247.14	2.86%	-	1,0000	0
1924	5,159				5,159	-	84.5	241.43	2.86%	-	1.0000	0
1925	5,159				5,159	-	83.5	238.57	2.86%	-	1.0000	0
1926	5,159				5,159	•	82.5	235.71	2.86%	-	1.0000	0
1927	5,159				5,159		81.5	232.86	2.86%	-	1.0000	0
1929	5,159				5,159		79.5	227.14	2.86%	-	1.0000	0
1930	5,159				5,159	-	78.5	224.29	2.86%	-	1.0000	0
1931	5,159				5,159	-	77.5 76 E	221.43	2.86%	-	1.0000	0
1932	5,159				5,159	-	76.5	215.71	2.86%	-	1.0000	0
1934	5,159				5,159	-	74.5	212.86	2.86%	-	1.0000	0
1935	5,159				5,159	-	73.5	210.00	2.86%	-	1.0000	0
1936	5,159	27			5,186	27	72.5	207.14	2.86%	1	1.0000	27
1937	5,953	700			5,953	700	70.5	201.43	2.86%	-	1.0000	0
1939	5,953	2,590			8,543	2,590	69.5	198.57	2.86%	74	0.9896	2563
1940	8,543	1,770			10,313	1,770	68.5	195.71	2.86%	51	0.9801	1735
1941	10,313	10			10,313	-	67.5	192.86	2.86%	-	0.9701	0
1942	10,313	10			10,324	- 10	65.5	187.14	2.86%	•	0.9533	0
1944	10,324				10,324	-	64.5	184.29	2.86%	-	0.9435	Ō
1945	10,324		(2,337)		7,987	(2,337)	63.5	181.43	2.86%	(67)	0.9342	-2183
1946	7,987				7,987	-	62.5	178.57	2.86%	-	0.9252	0
1947	7,987	1 496			7,987	1 486	60.5	1/5./1	2.80%	42	0.9103	1349
1949	9,473	1,400			9,473		59.5	170.00	2.86%	-	0.9014	0
1950	9,473	7,407			16,880	7,407	58.5	167.14	2.86%	212	0.8924	6610
1951	16,880	183			17,064	183	57.5	164.29	2.86%	5	0.8831	162
1952	17,064	E 467	(000)		17,064	-	56.5	161.43	2.86%	-	0.8737	2697
1953	21,330	5,167	(900)		21,330	4,207	54.5	155.57	2.86%	52	0.8543	1564
1955	23,161	112			23,273	112	53.5	152.86	2.86%	3	0.8443	95
1956	23,273				23,273	-	52.5	150.00	2.86%	-	0.8376	0
1957	23,273		(2.500)		23,273	-	51.5	147.14	2.86%	-	0.8272	0
1958	23,273	10,934	(2,526)		31,681	8,408	50.5	144.29	2.86%	240	0.8155	108
1960	31,927	240			32,143	240	48.5	138.57	2.86%	6	0.7948	171
1961	32,143	2.0	(38)		32,105	(38)	47.5	135.71	2.86%	(1)	0.7835	-30
1962	32,105	2,414	(1,183)		33,336	1,231	46.5	132.86	2.86%	35	0.7720	951
1963	33,336	4.070	(00.0)		33,336	-	45.5	130.00	2.86%	-	0.7642	2016
1965	33,330	4,273	(204)		37,345	4,009	44.5	127.14	2.00%	21	0.7401	546
1966	38,084	1,480	(815)		38,749	665	42.5	121.43	2.86%	19	0.7276	484
1967	38,749	14,057	(325)		52,480	13,732	41.5	118.57	2.86%	392	0.7149	9817
1968	52,480	1,165	(0.0.10)		53,645	1,165	40.5	115.71	2.86%	33	0.7019	818
1969	53,645	75	(2,048)		51,672	(1,973)	39.5	112.86	2.86%	(36)	0.6887	-1359
1970	51,597	264	(36)		51,826	229	37.5	107.14	2.86%	7	0.6659	152
1972	51,826		()		51,826	•	36.5	104.29	2.86%	-	0.6519	0
1973	51,826				51,826	-	35.5	101.43	2.86%	-	0.6376	0
1974	51,826	293			52,119	293	34.5	98.57	2.86%	8	0.6230	183
1975	52,119				52,119	-	32.5	92.86	2.86%	-	0.5928	0
1977	52,119	462	(97)		52,484	365	31.5	90.00	2.86%	10	0.5824	213
1978	52,484	38,941	(292)		91,133	38,649	30.5	87.14	2.86%	1,104	0.5667	21902
1979	91,133	17,568	(4,932)		103,769	12,636	29.5	84.29	2.86%	361	0.5506	6957 7376
1980	103,709	13,807			173 403	55 827	20.0	78.57	2.86%	1.595	0.5174	28885
1982	173,403	71,048	(4,050)		240,401	66,998	26.5	75.71	2.86%	1,914	0.5004	33526
1983	240,401	22,856			263,257	22,856	25.5	72.86	2.86%	653	0.4831	11042
1984	263,257	1,551	(536)		264,272	1,015	24.5	70.00	2.86%	29	0.4714	478
1985	277.066	11.828	(7,248)		281.646	4.580	23.5	64.29	2.86%	131	0.4354	1994
1987	281,646	15,295	(,,,,,,,)		296,941	15,295	21.5	61.43	2.86%	437	0.4170	6378
1988	296,941				296,941	-	20.5	58.57	2.86%	-	0.3983	0
1989	296,941	252,614	(2,844)		546,711	249,770	19.5	55.71	2.86%	7,136	0.3794	94763
1990	545,/11 555 081	12,410	(3,140) (22 320)		569 979	9,270	18.5	50.00	2.86%	200	0.3602	4827
1992	569.878	4,419	(1,237)		573,060	3,182	16.5	47.14	2.86%	91	0.3278	1043
1993	573,060	8,278	(18,734)		562,604	(10,456)	15.5	44.29	2.86%	(299)	0.3080	-3220
1994	562,604	23,732	(294)		586,042	23,438	14.5	41.43	2.86%	670	0.2881	6752
1995	586,042	29,160	(4,535)		610,667 613 641	24,625	13.5	38.57	2.86%	/04	0.2680	737
1990	613 641	70.023	(1,898)		681.766	68.125	11.5	32.86	2.86%	1,946	0.2273	15485
1998	681,766	40,855	(4,495)		718,126	36,360	10.5	30.00	2.86%	1,039	0.2136	7766
1999	718,126	42,936			761,062	42,936	9.5	27.14	2.86%	1,227	0.1930	8287
2000	761,062	1,276	(319)	(2,360)	759,659	(1,403)	8.5	24.29	2.86%	(40)	0.1/22	-242
2001	759,659 750 524	5/5 12 140	(710)		771 664	(135) 12.140	6.5	21.43	2.86%	(4) 347	0,1302	-20
2003	771,664	71,425			843,089	71,425	5.5	15.71	2.86%	2,041	0.1090	7785
2004	843,089		(34,543)		808,546	(34,543)	4.5	12.86	2.86%	(987)	0.0876	-3026
2005	808,546	45,892		(3,300)	851,138	42,592	3.5	10.00	2.86%	1,217	0.0732	3118
2006	851,138	10,572			883,710	10,572	2.5	7.14 4 29	∠.00% 2.86%	302	0.0295	544 637
2008	883.297	6.532	(9,157)	24	880,695	(2,601)) 0.5	1.43	2.86%	(74)	0.0074	-19
							-					
	-	1,024,551	(138,219)		17,881,465	880,695	x			25,163		324,595

Net Salavage Adjustment: <u>5,033</u>..... Annual Depreciation: <u>30,195</u>..... Accrued Depreciation: 64,919 389,514

3.43% Composite Annual Accrual Rate, Percent:

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

326	PUMPING PLANT DIESEL PUMPING EQUIPMENT
R1	
30	Years

30	Y
-10%	

								Percent of	Annual De	preclation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1991		32,297			32,297	32,297	17.5	58.33	3.33%	1,077	0.3983	12864
1992	32,297				32,297	-	16.5	55.00	3.33%	-	0.3794	0
1993	32,297				32,297	-	15.5	51.67	3.33%	-	0.3538	0
1994	32,297				32,297	-	14.5	48.33	3.33%	-	0.3343	0
1995	32,297				32,297	-	13.5	45.00	3.33%	-	0.3146	0
1996	32,297				32,297	-	12.5	41.67	3.33%	-	0.2881	0
1997	32,297				32,297	-	11.5	38.33	3.33%	-	0.2680	0
1998	32,297				32,297	-	10.5	35.00	3.33%	-	0.2477	0
1999	32,297				32,297	-	9.5	31.67	3.33%	-	0.2205	0
2000	32,297				32,297	-	8.5	28.33	3.33%	-	0.1999	0
2001	32,297				32,297	-	7.5	25.00	3.33%	-	0.1792	0
2002	32,297				32,297	-	6.5	21.67	3.33%	-	0.1513	0
2003	32,297				32,297	-	5.5	18.33	3.33%	-	0.1302	0
2004	32,297				32,297	-	4.5	15.00	3.33%	-	0.1090	0
2005	32,297				32,297	-	3.5	11.67	3.33%	-	0.0804	0
2006	32,297				32,297	-	2.5	8.33	3.33%	-	0.0587	0
2007	32,297				32,297	-	1.5	5.00	3.33%	-	0.0369	0
2008	32,297				32,297	-	0.5	1.67	3.33%	-	0.0074	0
•	-	32,297			581,346	32,297	-			1,077		12,864

Net Salavage Adjustment:	108	1,286
Annual Depreciation:	1,184	
A	ccrued Depreciation:	14,150

Accrued Depreciation:

Composite Annual Accrual Rate, Percent: 3.67%

Account Number	r:
Iowa Curve Type	:
Ava, Service Life	:
Net Salvage Perc	ent:

PUMPING PLANT OTHER PUMPING EQUIPMENT

328 R1 25 -10% Years

	Bog Bol	Add	Pot	Adi/Trans	End Bal	Not Change	6.00	Percent of	Annual Di	apreciation A	ccrued De Ratio	preclation Amt
1915	-	2,330	itter	Aurtians	2,330	2,330	93.5	374.00	4.00%	93	1.0000	2330
1916	2,330				2,330	-	92.5	370.00	4.00%	-	1.0000	0
1917	2,330				2,330	-	91.5	366.00	4.00%	-	1.0000	0
1919	2,330				2,330	-	90.5	352.00	4.00%	-	1.0000	0
1920	2,330				2,330	-	88.5	354.00	4.00%	-	1.0000	0
1921	2,330				2,330	-	87.5	350.00	4.00%	-	1.0000	0
1922	2,330				2,330	-	86.5	346.00	4.00%	-	1.0000	0
1923	2,330				2,330	-	85.5	342.00	4.00%	-	1.0000	0
1924	2,330				2,330	•	84.5 03 E	338.00	4.00%	-	1,0000	0
1925	2,330				2,330	-	82.5	330.00	4.00%		1 0000	0
1927	2,330				2,330		81.5	326.00	4.00%	-	1.0000	Ő
1928	2,330				2,330		80.5	322.00	4.00%	-	1.0000	0
1929	2,330				2,330	-	79.5	318.00	4.00%	-	1.0000	0
1930	2,330				2,330	-	78.5	314.00	4.00%	-	1.0000	0
1931	2,330				2,330	-	77.5	310.00	4.00%		1.0000	0
1932	2,330	256			2,586	256	76.5	306.00	4.00%	10	1.0000	256
1933	2,560	15			2,001	15	75.5	208.00	4.00%	-	1,0000	10
1935	2,601				2,601	-	73.5	294.00	4.00%	-	1.0000	Ċ
1936	2,601				2,601		72.5	290.00	4.00%	-	1.0000	C
1937	2,601	3,498	(256)		5,843	3,242	71.5	286.00	4.00%	130	1.0000	3242
1938	5,843				5,843	-	70.5	282.00	4.00%	-	1.0000	C
1939	5,843	12,224			18,067	12,224	69.5	278.00	4.00%	489	1.0000	12224
1940	18,067	(1,458)			16,609	(1,458)	68.5	274.00	4.00%	(58)	1.0000	-1456
1941	16,009				16,609	-	67.0 68.5	270.00	4.00%	-	1.0000	, () ()
1943	16.609				16.609	-	65.5	262.00	4.00%	-	1.0000	
1944	16,609				16,609	-	64.5	258.00	4.00%	-	1.0000	Ċ
1945	16,609				16,609	-	63.5	254.00	4.00%	-	1.0000	C
1946	16,609				16,609	•	62.5	250.00	4.00%	-	1,0000	C
1947	16,609				16,609	-	61.5	246.00	4.00%	-	1.0000	(
1948	16,609				16,609	•	60.5 50 5	242.00	4.00%	-	1,0000	(
1949	16,609				16,009	-	58.5	238.00	4.00%		1.0000	
1951	16,609				16,609		57.5	230.00	4.00%	-	1.0000	Č
1952	16,609				16,609	-	56.5	226.00	4.00%	-	1.0000	Ċ
1953	16,609				16,609	-	55.5	222.00	4.00%	-	1.0000	C
1954	16,609				16,609	-	54.5	218.00	4.00%	-	1,0000	G
1955	16,609				16,609	-	53.5	214.00	4.00%	-	1.0000	(
1956	16,609		(2 227)		16,609	(0.227)	52.5	210.00	4.00%	-	1.0000	2222
1957	14 272		(2,337)		14,272	(2,337) (1,500)	50.5	200.00	4.00%	(93)	1.0000	-2007
1959	12,682		(1,530)		12,682	(1,030)	49.5	198.00	4.00%	(04)	0.9896	(
1960	12,682				12,682	-	48.5	194.00	4.00%	-	0.9768	Ċ
1961	12,682		(12,682)		-	(12,682)	47.5	190.00	4.00%	(507)	0.9634	-12218
1962	-	5,999			5,999	5,999	46.5	186.00	4.00%	240	0.9499	5699
1963	5,999	0.004			5,999	-	45.5	182.00	4.00%	-	0.9372	2066
1964	0,999 B 231	2,231			8,231	2,231	44.0	178.00	4.00%	69 15	0.9252	200:
1966	8.616	000	•		8.616	-	42.5	170.00	4.00%	-	0.9014	· (
1967	8,616	17,163			25,778	17,163	41.5	166.00	4.00%	687	0.8893	15263
1968	25,778				25,778	-	40.5	162.00	4.00%	-	0.8769	(
1969	25,778				25,778	-	39.5	158.00	4.00%	-	0.8641	(
1970	25,778				25,778	•	38.5	154.00	4.00%	-	0.8510	(
19/1	25,778				25,778	-	37.5	150.00	4.00%	-	0.8376	
1972	25,778				25,778		35.5	140.00	4.00%	-	0.0237	
1974	25,778				25,778		34.5	138.00	4.00%	-	0.7948	i
1975	25,778				25,778	-	33.5	134.00	4.00%	-	0.7797	
1976	25,778				25,778	-	32.5	130.00	4.00%	-	0.7642	1
1977	25,778				25,778	•	31.5	126.00	4.00%	-	0.7482	1
1978	25,778				25,778	-	30.5	122.00	4.00%	-	0.7318	1
1979	20,//8 25,779				23,118 25,779	-	29.0 28 5	118.00	4.00%	-	0.7149	
1981	25.778				25.778	-	27.5	110.00	4,00%	-	0.6797	
1982	25,778				25,778	-	26.5	106.00	4.00%	-	0.6613	
1983	25,778				25,778	-	25.5	102.00	4.00%	-	0.6424	
1984	25,778				25,778	-	24.5	98.00	4.00%	-	0.6230	
1985	25,778				25,778	•	23.5	94.00	4.00%	-	0.6030	
1980	20,178 25,778	A 578			20,//0 30,302	1 500	22.5	90.00	4.00%	181	0.5613	25.4
1988	30.306	4,020			30,306		20.5	82.00	4.00%		0.5397	204
1989	30,306		(3,200)		27,106	(3,200)	19.5	78.00	4.00%	(128)	0.5174	-165
1990	27,106		(2,500)		24,606	(2,500)	18.5	74.00	4.00%	(100)	0.4947	-123
1991	24,606		(3,100)		21,506	(3,100)	17.5	70.00	4.00%	(124)	0.4714	-146
1992	21,506				21,506	-	16.5	66.00	4.00%	-	0.4475	
1993	21,505				21,506	-	10.0	52.00	4.00%	-	0.4232	
1994	21,500				21,506	-	13.5	54.00	4.00%	-	0.3730	
1996	21.506	17.817	(5.734)		33.589	12,083	12.5	50.00	4.00%	483	0.3473	419
1997	33,589		,		33,589	-	11.5	46.00	4.00%	-	0.3212	
1998	33,589				33,589	-	10.5	42.00	4.00%	-	0.2947	
1999	33,589				33,589		9.5	38.00	4.00%	-	0.2680	
2000	33,589	1,297	(122)		34,764	1,175	8.5	34.00	4.00%	47	0.2409	28
2001	34,/04				34,104 34 764	•	1.0	26 00	4.00%	-	0.1861	
2003	34,764				34.764	-	5.5	22.00	4.00%	-	0.1583	
2004	34,764				34,764	-	4.5	18.00	4.00%	-	0.1302	
2005	34,764				34,764	-	3.5	14.00	4.00%	-	0.1019	
2006	34,764				34,764	-	2.5	10.00	4.00%	-	0.0732	
2007	34,764				34,764	-	1.5	6.00	4.00%	-	0.0442	
2000	34,704				34,104	-	0.5	2.00	4.00%	-	0.0140	
	•	66.285	(31.521)		1,637,135	34.764				1,391		26,509
	Filling and the second s				and the state of the		22					

Net Salavage Adjustment: 139 Annual Depreciation: 1,530 Accrued Depreciation:

2.651 29,160

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

1 WATER TREATMENT PLANT STRUCTURES & IMPROVEMENTS

331 WATE R5 40 Years -10%

								Percent of	Annual D	opreclation	Accrued De	preclation
1000	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1939	-	400			400	400	69.5	173.75	2.50%	10	1.0000	400
1940	400	-			400	· -	00.5	1/ 1.20	2.50%	-	1.0000	0
1941	400				400	-	07.0 66 E	100.70	2.00%	-	1.0000	0
1043	400				400	-	65.5	163 75	2.50%	-	1 0000	0
1944	400				400	-	64.5	161.25	2.50%	-	1.0000	ō
1945	400				400	-	63.5	158.75	2.50%	-	1.0000	0
1946	400				400	-	62.5	156.25	2.50%	-	1.0000	0
1947	400	(400)			-	(400)	61.5	153.75	2.50%	(10)	1.0000	-400
1948	-	. ,			-	-	60.5	151.25	2.50%		1.0000	0
1949	-				-	-	59.5	148.75	2.50%	-	1.0000	0
1950	-				-	-	58.5	146.25	2.50%	-	1.0000	0
1951	-					-	57.5	143.75	2.50%	-	1.0000	0
1952	-				-	-	56.5	141.25	2.50%	-	1.0000	0
1953	-				-	-	55.5	138.75	2.50%	-	1.0000	0
1954	-				-	-	54.5	136.25	2.50%	-	0.9950	0
1955	-				-	-	53.5	133.75	2.50%	-	0.9898	0
1956	. -				-	-	52.5	131.25	2.50%	-	0.9854	0
1957	-				-	-	51.5	120.70	2.50%	-	0.9703	0
1956	-				-	-	50.5 40.5	120.20	2.50%	-	0.97.54	0
1959	-				-	-	49.5	123.75	2.50%		0.9617	ů N
1961						-	40.0	118 75	2.50%	-	0.9558	õ
1962						-	46.5	116.25	2 50%		0.9518	ō
1963	-				-	-	45.5	113.75	2.50%	-	0.9451	0
1964	-				-	-	44.5	111.25	2.50%		0.9400	0
1965	-	1,740			1,740	1,740	43.5	108.75	2.50%	44	0.9312	1620
1966	1,740				1,740		42.5	106.25	2.50%	-	0.9245	0
1967	1,740				1,740	-	41.5	103.75	2.50%	-	0.9134	0
1968	1,740				1,740	-	40.5	101.25	2.50%	-	0.9051	0
1969	1,740		(1,740)		-	(1,740)) 39.5	98.75	2.50%	(44)	0.8914	-1551
1970	-				-	-	38.5	96.25	2.50%	-	0.8814	0
1971	-				-	-	37.5	93.75	2.50%	-	0.8650	0
1972	-				-	-	36.5	91.25	2.50%	-	0.8531	0
1973	-				-	-	35.5	88.75	2.50%	-	0.8340	0
1974	-				-	-	34.5	86.25	2.50%	-	0.8203	0
1975	-				-	-	33.5	83.75	2.50%		0.7967	0
1970	-				-	-	31.5	78 75	2.50%		0.7004	0
1079	-				-		30.5	76.75	2.50%		0.7430	0
1970	_				_		29.5	73 75	2 50%	-	0.7174	õ
1980	-				· · · ·	-	28.5	71.25	2.50%	-	0.6998	Ō
1981	-				-	-	27.5	68.75	2.50%	-	0.6728	0
1982	-				-		26.5	66.25	2.50%	-	0.6544	0
1983	-				-	-	25.5	63.75	2.50%	•	0.6263	0
1984	-				-	•	24.5	61.25	2.50%	-	0.6073	0
1985	-				-	-	23.5	58.75	2.50%	-	0.5784	0
1986	-				-	-	22.5	56.25	2.50%	-	0.5589	0
1987	-				-	-	21.5	53,75	2.50%	-	0.5295	0
1988	-				-	-	20.5	51.25	2.50%	-	0.5097	0
1989	-				-	-	19.5	48.75	2.50%	-	0.4799	0
1990	-				-	-	18.5	46.25	2.50%	-	0.4599	0
1991	-				-	-	10.5	43.75	2.50%	-	0.4300	0
1992	-				-	-	10.5	41.20	2.00%	-	0.4100	0
1993	-				-		14.5	36.25	2.50%	-	0.3600	0
1994	-				-		13.5	33.75	2.50%	-	0.3300	õ
1996	-				-	-	12.5	31.25	2.50%	-	0.3100	0
1997	-				-	-	11.5	28,75	2.50%	-	0.2800	0
1998	-				-		10.5	26.25	2.50%	-	0.2600	0
1999	-	108,204			108,204	108,204	9.5	23.75	2.50%	2,705	0.2300	24887
2000	108,204	19,401			127,605	19,401	8.5	21.25	2.50%	485	0.2100	4074
2001	127,605	2,521			130,126	2,521	7.5	18.75	2.50%	63	0.1800	454
2002	130,126	1,012			131,138	1,012	6.5	16.25	2.50%	25	0.1600	162
2003	131,138				131,138	• _ · ·	5.5	13.75	2.50%	•	0.1300	0
2004	131,138	518			131,656	518	4.5	11.25	2,50%	13	0.1100	57
2005	131,656	4,746			136,402	4,746	3.5	8.75	2.50%	119	0.0800	380
2006	136,402	20 700			136,402	-	2.5	6.25	2.50%	-	0.0000	1102
2007	136,402	39,762			176,164	39,762	. 1.5 0 F	3.75	2.50%	994	0.0300	1193
2000	170,104				170,104	-	0.5	1.20	2.00 %	•	0.0100	U
	-	177,904	(1,740)		1,395,159	176,164				4,404		31,276

 Net Salavage Adjustment:
 440
 3,128

 Annual Depreciation:
 4,845
 4,845

Accrued Depreciation: 34,403

Composite Annual Accrual Rate, Percent: 2.

2.75%

Account Number:
lowa Curve Type:
Avg. Service Life:
Net Salvage Percent:

332	WATER TREATMENT PLANT WATER TREATMENT EQUIPMENT

R5	
30	Years
-10%	

							Automation (Papel And Anna (May	Percent of	Annual De	preclation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg, Age	Rate	Amount	Ratio	Amt.
1947	-	927			927	927	61.5	205.00	3.33%	31	1.0000	927
1948	927	115 .			1,042	115	60.5	201.67	3.33%	4	1.0000	115
1949	1,042				1,042	-	59.5	198.33	3.33%	-	1.0000	0
1950	1,042				1,042	-	58.5	195.00	3.33%	-	1.0000	0
1951	1,042				1,042	-	57.5	191.07	3.33%	-	1.0000	0
1952	1,042				1,042	-	50.5	100.33	3.33%	-	1.0000	0
1953	1,042				1,042	-	55.5	103.00	3,33%	•	1,0000	0
1954	1,042				1,042	-	54.5 53.5	178 33	3,33%	-	1.0000	0
1955	1,042				1,042	-	53.5 E2.E	176.00	3 220/	-	1,0000	0
1950	1,042	345			1,042	245	52.5	175.00	3 3 3 3 %	11	1,0000	345
1058	1,042	545			1,300	545	50.5	169.33	3 3 3 3 %	2	1 0000	53
1050	1 / 30	00			1 430		49.5	165.00	3 33%	-	1,0000	0
1960	1 439				1 4 3 9	_	48.5	161.67	3.33%	-	1 0000	ů 0
1961	1 439	2 933			4 373	2 933	40.0	158.33	3.33%	98	1.0000	2933
1962	4 373	2,000			4 373	2,000	46.5	155.00	3.33%		1,0000	0
1963	4.373				4.373		45.5	151.67	3.33%	-	1.0000	0
1964	4.373	1.000			5.372	1.000	44.5	148.33	3.33%	33	1.0000	1000
1965	5.372	6			5.378	1,000	43.5	145.00	3.33%	0	1.0000	6
1966	5.378	-			5.378	-	42.5	141.67	3.33%	-	1.0000	0
1967	5.378	863			6,241	863	41.5	138.33	3.33%	29	1.0000	863
1968	6.241	207			6,448	207	40.5	135.00	3.33%	7	0.9937	205
1969	6,448	113	(440)		6,120	(328)	39.5	131.67	3.33%	(11)	0.9854	-323
1970	6,120	69	(48)		6,142	22	38.5	128.33	3.33%	1	0.9783	21
1971	6,142	263	. ,		6,405	263	37.5	125.00	3.33%	9	0.9709	256
1972	6,405				6,405		36.5	121.67	3.33%	•	0.9617	0
1973	6,405				6,405	-	35.5	118.33	3.33%	-	0.9558	0
1974	6,405				6,405	-	34.5	115.00	3.33%	-	0.9475	0
1975	6,405				6,405		33.5	111.67	3.33%	-	0.9400	0
1976	6,405	448	(324)		6,529	124	32.5	108.33	3.33%	4	0.9312	115
1977	6,529				6,529	-	31.5	105.00	3.33%	-	0.9210	0
1978	6,529				6,529	-	30.5	101.67	3.33%	-	0.9051	0
1979	6,529	4,379			10,908	4,379	29.5	98.33	3.33%	146	0.8914	3903
1980	10,908	790			11,698	790	28.5	95.00	3.33%	26	0.8761	692
1981	11,698	1,334			13,032	1,334	27.5	91.67	3.33%	44	0.8531	1138
1982	13,032	22,477			35,509	22,477	26.5	88.33	3.33%	749	0.8340	18746
1983	35,509	(3,729)			31,780	(3,729)) 25.5	85.00	3.33%	(124)	0.8133	-3033
1984	31,780	1,461			33,241	1,461	24.5	81.67	3.33%	49	0.7834	1145
1985	33,241	1,308			34,549	1,308	23.5	78.33	3.33%	44	0.7595	993
1986	34,549	21,772			56,321	21,772	22.5	75.00	3.33%	726	0.7345	15992
1987	56,321	1,561			57,882	1,561	21.5	71.67	3.33%	52	0.6998	1092
1988	57,882	1,912	(2,600)		57,194	(688)) 20.5	68.33	3.33%	(23)	0.6728	-463
1989	57,194	33,952	(467)		90,679	33,485	19.5	65.00	3.33%	1,110	0.6451	21601
1990	90,679				90,679	-	18.5	01.07	3.33%	-	0.0073	0
1991	90,679	E 4 E 4			90,079		17.5	50.33	3.33%	170	0.5764	2020
1992	90,079	5,154	(926)		90,033 100 652	0,154 2000	10.5	55.00	3330/	161	0.5491	2030
1004	100 652	3,000	(030)		100,000	4,020	10.0	101.07	3 3 3 3 %	127	0.0097	1831
1994	100,000	2 890			107 350	2,010	13.5	40,00	3 33%	96	0.4500	1301
1996	107 359	2,030			107 359	2,050	12.5	41 67	3 33%		0 4100	
1997	107.359				107.359	-	11.5	38.33	3.33%	-	0.3800	ñ
1998	107 359				107.359	-	10.5	35.00	3,33%		0.3500	n
1999	107.359	25.540			132.899	25.540	9.5	31.67	3,33%	851	0.3100	7917
2000	132,899	96.662		(1.000)	228,561	95,662	8.5	28.33	3.33%	3.189	0.2800	26785
2001	228,561	1,780		(230,341	1,780	7.5	25.00	3.33%	59	0.2500	445
2002	230,341	.,			230,341	-	6.5	21.67	3.33%	•	0.2100	0
2003	230,341	23,041			253,382	23,041	5.5	18.33	3.33%	768	0.1800	4147
2004	253,382	8,290			261,672	8,290	4.5	15.00	3.33%	276	0.1500	1244
2005	261.672	19.074			280,746	19.074	3.5	11.67	3.33%	636	0.1100	2098
2006	280,746				280,746	-	2.5	8.33	3.33%	-	0.0800	0
2007	280,746	4,193			284,939	4,193	1.5	5.00	3.33%	140	0.0500	210
2008	284,939		-2528		282,411	(2,528) 0.5	1.67	3.33%	(84)	0.0100	-25
							_					
	-	290,654	(7,243)		3,932,415	282,411				9,414		119,563
							_					

Net Salavage Adjustment: 941 11,956 Annual Depreciation: 10,355 Accrued Depreciation: 131,519

Composite Annual Accrual Rate, Percent: 3.67%

Account Number: Iowa Curve Type: Avg. Service Llfe: Net Salvage Percent:

341 TRANSMISSION & DISTRIBUTION PLANT STRUCTURES & IMPROVEMENTS

K9	
40	Years
-10%	

								Percent of	Annual De	preciation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1991	-	2,850			2,850	2,850	17.5	43.75	2.50%	71	0.4300	1226
1992	2,850				2,850	-	16.5	41.25	2.50%	-	0.4100	0
1993	2,850				2,850	-	15.5	38.75	2.50%	-	0.3800	0
1994	2,850	13,100			15,950	13,100	14.5	36.25	2.50%	328	0.3600	4716
1995	15,950	8,760			24,710	8,760	13.5	33.75	2.50%	219	0.3300	2891
1996	24,710	7,994			32,704	7,994	12,5	31.25	2.50%	200	0.3100	2478
1997	32,704				32,704	-	11.5	28.75	2.50%	-	0.2800	0
1998	32,704				32,704	-	10.5	26.25	2,50%	-	0.2600	0
1999	32,704				32,704	-	9.5	23.75	2.50%	-	0.2300	0
2000	32,704			(32,704)	-	(32,704)	8.5	21.25	2.50%	(818)	0.2100	-6868
2001		•			-	-	7.5	18.75	2.50%	-	0.1800	0
2002	-				-	-	6.5	16.25	2.50%	-	0.1600	0
2003	-	39,158		227,648	266,806	266,806	5.5	13.75	2.50%	6,670	0.1300	34685
2004	266,806	1,733			268,539	1,733	4.5	11.25	2.50%	43	0.1100	191
2005	268,539	6,464			275,003	6,464	3.5	8.75	2.50%	162	0.0800	517
2006	275,003	14,411			289,414	14,411	2.5	6.25	2.50%	360	0.0600	865
2007	289,414	26			289,440	26	1.5	3.75	2.50%	1	0.0300	1
2008	289,440				289,440		0.5	1.25	2.50%	-	0.0100	0
	-	94,496	-		1,858,668	289,440				7,236	-	40,701

Net Salavage Adjustment	: 724	4,070
Annual Depreciation	: 7,960	
	Accrued Depreciation:	44,771

Composite Annual Accrual Rate, Percent: 2.75%

Account Number: Iowa Curve Type: Avg. Service Life: Net Salvage Percent:

342 TRANS R5 60 Years -20%

	Ben Bal	Add	Ret	Adi/Trans	End Bat	Net Change	608	Percent of <u>A</u>	nnual De Rate	Amount	Accrued Dep Ratio	reclation
1915	-	12,508	<u>Itter</u>	Adjoordina	12,508	12,508	93.5	155.83	1.67%	208	1.0000	12508
1916	12,508				12,508	-	92.5	154.17	1.67%	•	1.0000	0
1917	12,508				12,508	-	91.5	152.50	1.67%	-	1.0000	0
1918	12,508				12,508	-	90.5	150.83	1.67%	-	1.0000	0
1920	12,508				12,508	-	88.5	149.17	1.67%	:	1.0000	0
1921	12,508				12,508	-	87.5	145.83	1.67%	-	1.0000	õ
1922	12,508				12,508	-	86.5	144.17	1.67%	-	1.0000	0
1923	12,508				12,508	-	85.5	142.50	1.67%	-	1.0000	0
1924	12,508				12,508	-	84.5	140.83	1.67%	-	1.0000	0
1925	12,508				12,508	-	83.5	139.17	1.67%	-	1,0000	0
1927	12,508				12,508	-	81.5	135.83	1.67%		0.9937	ŏ
1928	12,508				12,508	-	80.5	134.17	1.67%	-	0.9918	ō
1929	12,508				12,508	-	79.5	132.50	1.67%	-	0.9876	0
1930	12,508				12,508	•	78.5	130.83	1.67%	-	0.9831	0
1931	12,508	537			13,045	537	77.5	129.17	1.67%	9	0.9807	527
1933	13,045				13,045	-	75.5	127.50	1.67%		0.9709	0
1934	13,045				13.045	-	74.5	124.17	1.67%	-	0.9684	õ
1935	13,045				13,045	-	73.5	122.50	1.67%	-	0.9638	0
1936	13,045				13,045	-	72.5	120.83	1.67%	-	0.9597	0
1937	13,045		(537)		12,508	(537)	71.5	119.17	1.67%	(9)	0.9577	-515
1938	12,508	8 357			12,508	- 8 357	70.5	117,50	1.67%	130	0.9538	7936
1940	20,865	0,007			20,865		68.5	114.17	1.67%	.05	0.9475	0
1941	20,865				20,865		67.5	112.50	1.67%	-	0.9426	0
1942	20,865				20,865	-	66.5	110.83	1.67%	-	0.9372	0
1943	20,865				20,865	-	65.5	109.17	1.67%	-	0.9343	0
1944	20,865				20,865	-	64.5	107.50	1.67%	-	0.9279	0
1946	20,865				20,865	-	62.5	105.85	1.67%		0.9210	ő
1947	20,865				20,865	-	61.5	102.50	1.67%		0.9093	ō
1948	20,865				20,865		60.5	100.83	1.67%		0.9007	0
1949	20,865				20,865	-	59.5	99.17	1.67%	-	0.8961	0
1950	20,865	1 007			20,865	4 007	58.5	97.50	1.67%	-	0.8865	1084
1951	20,605	781			22,102	1,237	56.5	90.63	1.07%	13	0.8706	680
1953	22,883	99.066			121,949	99.066	55.5	92.50	1.67%	1.651	0.8591	85107
1954	121,949				121,949		54.5	90.83	1.67%	•	0.8469	0
1955	121,949				121,949	-	53.5	89.17	1.67%	-	0.8405	0
1956	121,949				121,949	-	52.5	87.50	1.67%	-	0.8273	0
1957	121,949				121,949	-	51.5	85.83	1.67%	•	0.8133	0
1950	121,949				121,949		49.5	82.50	1.67%		0.8060	0
1960	121,949				121,949		48.5	80.83	1.67%		0.7756	õ
1961	121,949	2,298	(780)		123,467	1,518	47.5	79.17	1.67%	25	0.7676	1166
1962	123,467				123,467	-	46.5	77.50	1.67%	-	0.7513	0
1963	123,467				123,467	-	45.5	75.83	1.67%	-	0.7345	0
1904	123,467				123,407	-	44.5	74.17	1.67%	:	0.7260	0
1966	123,467		(13,967)		109,500	(13,967)	42.5	70.83	1.67%	(233)	0.6909	-9650
1967	109,500	59,011			168,511	59,011	41.5	69.17	1.67%	984	0.6819	40240
1968	168,511	1,340			169,851	1,340	40.5	67.50	1.67%	22	0.6636	889
1969	169,851	2,270	(138)		171,982	2,131	39.5	65.83	1.67%	36	0.6451	1375
1970	171,962	79 8307	(79)		172,002	79 8 317	36.5	62.50	1.67%	139	0.6356	5131
1972	180.379	0,001	16		180,396	16	36.5	60.83	1.67%	0	0.5977	10
1973	180,396	2,080			182,476	2,080	35.5	59.17	1.67%	35	0.5881	1223
1974	182,476				182,476	-	34.5	57.50	1.67%	-	0.5687	0
1975	182,476				182,476	-	33.5	55.83	1.67%	-	0.5491	0
1976	182,476				182,476	-	31.5	52.50	1.67%		0.5395	0
1978	182,476				182,476	•	30.5	50.83	1.67%	-	0.4997	õ
1979	182,476		(890)		181,586	(890)) 29.5	49.17	1.67%	(15)	0.4898	-436
1980	181,586				181,586	-	28.5	47.50	1.67%	•	0.4699	0
1981	181,586	1 645	(070)		181,586	-	27.5	45.83	1.67%	-	0.4500	0
1902	182 825	977 <u>554</u>	(210)		1 160 370	. 1,239 977 554	20.0	44.17	1.67%	16.293	0.4400	410573
1984	1,160,379	11,100			1,171,479	11,100	24.5	40.83	1.67%	185	0.4000	4440
1985	1,171,479		(2,789)		1,168,690	(2,789)) 23.5	39.17	1.67%	(46)	0.3900	-1088
1986	1,168,690	1,192			1,169,882	1,192	22.5	37.50	1.67%	20	0.3700	441
1987	1,169,882	62,537	(0 700)		1,232,419	62,537	21.5	35.83	1.67%	1,042	0.3500	21888
1988	1,232,419		(2,700)		1,229,719	(2,700)) ∠0.5 10 ≂	34.17 32.50	1.67%	(45)	0.3400	-916
1909	1,229,719	3.010	2,530		1,235,259	5,540	18.5	30.83	1.67%	92	0.3000	1662
1991	1,235,259				1,235,259	•	17.5	29,17	1.67%	•	0.2900	0
1992	1,235,259				1,235,259	-	16.5	27.50	1.67%	•	0.2700	0
1993	1,235,259		(97)	5,804	1,240,966	5,707	15.5	25.83	1.67%	95	0.2500	1427
1994	1,240,966				1,240,966	-	14.5	24.17	1.67%	•	0.2400	0
1995	1,240,966				1,240,966	-	12.5	20.83	1.67%	-	0.2000	0
1997	1,240,966				1,240,966	-	11.5	19.17	1.67%	-	0.1900	õ
1998	1,240,966				1,240,966		10.5	17.50	1.67%	-	. 0.1700	0
1999	1,240,966				1,240,966	-	9.5	15.83	1.67%		0.1500	0
2000	1,240,966		(3,516)	(36,742)	1,200,708	(40,258)) 8.5	14.17	1.67%	(671)	0.1400	-5636
2001	1,200,708				1,200,708	-	7.5 8.5	12.50	1.0/%	• •	0.1200	0
2002	1,200,708	41.051			1.241.759	41.051	5.5	9.17	1,67%	684	0.0900	3695
2004	1,241,759				1,241,759	-	4.5	7.50	1.67%		0.0700	0
2005	1,241,759				1,241,759	-	3.5	5.83	1.67%	-	0.0500	0
2006	1,241,759				1,241,759	-	2.5	4.17	1.67%	•	0.0400	0
2007	1,241,759	31167 42			1,241,/59	31 167	1.5	2.50	1.07%	510	0.0200	0
2000	1,241,708	51107.42			1,212,320	51,107	0.3	0.03	1.01 /0	010	0.0000	5
	-	1,327,088	(23,224)	(30,938)	37,005,477	1,272,926				21,215		584,354

Net Salavage Adjustment: 4,243 Annual Depreciation: 25,459 Accrued Depreciation:

116,871

701,225

Composite Annual Accrual Rate, Percent: 2.00%

343

14,376,118

(506,898)

76,868

247,405,708

13,946,088

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

TRANSMISSION &	DISTRIBUTION PL	ANT TRANSMISSI	ON & DISTR	BUTION MAINS

Curve Typ Service Li	e: fe:	R3 100	Years									
alvage Pe	rcent:	-20%	, ouro									
								Percent of	Annual I	Depreciation	Accrued	Depreciation
1015	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg, Age	Rate	Amount	Ratio	Amt.
1915	126.843	126,843			126,843	126,843	93.5	93.50 92.50	1.00%	1,268	0.7630	96781
1917	126,843				126,843	-	91.5	91.50	1.00%	-	0.7521	ŏ
1918	126,843				126,843	-	90.5	90.50	1.00%	-	0.7465	0
1919	120,843				126,843		89.5 88.5	89.50	1.00%	-	0.7409	0
1921	126,843	1,448			128,291	1,448	87.5	87.50	1.00%	14	0.7292	1056
1922	128,291				128,291	-	86.5	86.50	1.00%	-	0.7233	0
1923	128,291				128,291	-	85.5	85.50	1.00%	-	0.7172	0
1925	128,291				128,291	-	83.5	83.50	1.00%	-	0.7049	0
1926	128,291	2,314			130,605	2,314	82.5	82.50	1.00%	23	0.6986	1617
1927	130,605				130,605	•	81.5	81.50	1.00%	-	0.6923	0
1929	130,605				130,605	-	80.5 79.5	80,50 79,50	1.00%	-	0.6856	0
1930	130,605	1,920			132,525	1,920	78.5	78.50	1.00%	19	0.6727	1291
1931	132,525	1,564	(05)		134,088	1,564	77.5	77.50	1.00%	16	0.6660	1041
1932	137,820	23.337	(85) (517)		137,820	3,732	75.5	75.50	1.00%	37	0.6525	2460
1934	160,640	8,258	()		168,897	8,258	74.5	74.50	1.00%	83	0.6456	5331
1935	168,897	115,733	(23)		284,607	115,710	73.5	73.50	1.00%	1,157	0.6387	73904
1936	284,607	2,265	(1,080)		285,793	1,185	72.5	72.50	1.00%	12	0.6316	749
1038	205,121	31,642	(6,833)		319,930	24,809	70.5	70.50	1.00%	248	0.6174	15317
1939	319,930	156,584	(193,110)		283,403	(36,527) 69.5	69.50	1.00%	(365)	0.6102	-22289
1940	283,403	9,002	(91)		292,406	9,002	68.5	68.50	1.00%	90	0.6029	5427
1942	297,209	261	(55)		297,209	4,803	66.5	66.50	1.00%	40	0.5882	121
1943	297,414		(11)		297,414		65.5	65.50	1.00%	-	0.5807	0
1944	297,414	400	(3,657)		293,757	(3,657) 64.5	64.50	1.00%	(37)	0.5732	-2096
1945	293,757	2 531	(74)		293,785	28	62.5	63.50	1.00%	21	0.5656	10
1947	295,916	31,713	(1,244)		326,385	30,469	61.5	61.50	1.00%	305	0.5579	16999
1948	326,385	3,834	(505)		330,219	3,834	60.5	60.50	1.00%	38	0.5425	2080
1949	330,219	8,652 30,364	(595) (1 793)		338,276	8,058	59.5 58.5	59.50	1.00%	81 286	0.5347	4308
1951	366,847	7,254	(52)		374,049	7,202	57.5	57.50	1.00%	72	0.5189	3737
1952	374,049	22,396	(7)		396,438	22,389	56.5	56.50	1.00%	224	0.5110	11441
1953	396,438	30,317	(1,117)		425,638	29,200	55.5	55.50	1.00%	292	0.5029	14685
1955	466,801	51,664	(537)		517,928	51.127	53.5	53.50	1.00%	511	0.4949	24884
1956	517,928	74,201	(633)		591,497	73,568	52.5	52.50	1.00%	736	0.4786	35210
1957	591,497	57,405	(62)		648,840	57,343	51.5	51.50	1.00%	573	0.4704	26974
1956	700.753	38,557	(477)		700,753	51,914	50.5 49.5	50.50 49.50	1.00%	519 377	0.4621	23989
1960	738,405	45,937	(2,183)		782,159	43,754	48.5	48.50	1.00%	438	0.4454	19488
1961	782,159	47,555	(5,077)		824,637	42,478	47.5	47.50	1.00%	425	0.4370	18563
1962	824,637	47,632	(391)		871,879	47,241	46.5	46.50	1.00%	472	0.4285	20243
1964	933,484	126,494	(3,402)		1,056,576	123,092	44.5	44.50	1.00%	1.231	0.4200	50640
1965	1,056,576	89,150	(2,288)		1,143,438	86,862	43.5	43.50	1.00%	869	0.4028	34988
1966	1,143,438	127,955	(3,352)		1,268,041	124,603	42.5	42.50	1.00%	1,246	0.3942	49119
1968	1,343,293	58,617	(1,432)		1,400,478	57,185	40.5	40,50	1.00%	572	0.3855	21542
1969	1,400,478	171,428	(1,451)		1,570,454	169,977	39.5	39.50	1.00%	1,700	0.3679	62534
1970	1,570,454	30,364	(708)		1,600,111	29,656	38.5	38.50	1.00%	297	0.3591	10650
1972	1,658,793	61,791	(820)		1,719,765	60.972	36.5	36.50	1.00%	610	0.3503	20536
1973	1,719,765	56,680	(5,578)		1,770,867	51,102	35.5	35.50	1.00%	511	0.3324	16986
1974	1,770,867	63,403	(20,637)		1,813,633	42,766	34.5	34.50	1.00%	428	0.3234	13831
1976	1,869,702	34.027	(739)		1,902,990	33,288	32.5	32.50	1.00%	333	0.3053	10163
1977	1,902,990	126,644	(374)		2,029,260	126,270	31.5	31.50	1.00%	1,263	0.2962	37401
1978	2,029,260	298,343	(8,037)		2,319,566	290,306	30.5	30.50	1.00%	2,903	0.2871	83347
1979	2,319,000	98,058	(109)		2,417,515	97,949 75,540	29.5	29.50	1.00%	979 755	0.2779	27220
1981	2,493,055	130,266	(361)		2,622,960	129,905	27.5	27.50	1.00%	1,299	0.2594	33697
1982	2,622,960	279,835	(280)		2,902,515	279,555	26.5	26.50	1.00%	2,796	0.2501	69917
1983	2,902,515	318,101	(2,131)		3,218,485	315,970	25.5	25.50	1.00%	3,160	0.2408	76086
1985	3,359,779	368,692		5,500	3,733,971	374,192	23.5	23.50	1.00%	3,742	0.2221	83108
1986	3,733,971	355,668	(1,702)		4,087,937	353,966	22.5	22.50	1,00%	3,540	0.2127	75289
1987	4,087,937	521,400	(20,746)		4,588,591	500,654	21.5	21.50	1.00%	5,007	0.2033	101783
1989	5,168,828	415.583	(21,000)		5,579,128	410.300	20,5	20.50	1.00%	4,103	0.1938	75618
1990	5,579,128	116,589	(7,836)		5,687,881	108,753	18.5	18.50	1.00%	1,088	0.1748	19010
1991	5,687,881	61,029	(2,151)		5,746,759	58,878	17.5	17.50	1.00%	589	0.1653	9733
1992	5,746,759	134,399	(16 563)		5,881,158	134,399	16.5	16.50	1.00%	1,344	0.1557	20926
1994	6,035,743	356,801	(119)		6,392,425	356,682	14.5	14.50	1.00%	3,567	0.1365	48687
1995	6,392,425	144,334		71,061	6,607,820	215,395	13.5	13.50	1.00%	2,154	0.1269	27334
1996	6,607,820	162,608	(11,049)		6,759,379	151,559	12.5	12.50	1.00%	1,516	0.1172	17763
1998	7,006.341	247,093 486.194	(131) (47)		7,492,488	240,962 486.147	10.5	11.50	1.00%	2,470 4.861	0.0978	20048 47545
1999	7,492,488	754,715	()		8,247,203	754,715	9.5	9.50	1.00%	7,547	0.0881	66490
2000	8,247,203	1,108,591	(22,816)	312	9,333,290	1,086,087	8.5	8.50	1.00%	10,861	0.0784	85149
2001 2002	9,333,290	272,696	(897)		9,880,241	271,799	65	7.50	1.00%	2,718	0.0686	18645
2003	9,880,241	560,621			10,440,862	560,621	5.5	5.50	1.00%	5,606	0.0491	27526
2004	10,440,862	556,745	(22,717)		10,974,890	534,028	4.5	4.50	1.00%	5,340	0.0393	20987
2005	10,974,890 11 052 242	77,352	(96 002)		11,052,242	1 645 103	3.5	3.50	1.00%	774 16 451	0.0295	2282
2007	12,697,345	451,978	(478)		13,148,845	451,500	1.5	1.50	1.00%	4,515	0.0098	4425
2008	13,148,845	797248.07	,	(5)	13,946,088	797,243	0.5	0.50	1.00%	7,972	0.0000	0

139,461 2,208,104

Net Salavage Adjustment: 27.892 167,353 441,621 Annual Depreciation: 2,649,725 Accrued Depreciation:

Composite Annual Accrual Rate, Percent: 1.20%

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

TRANSMISSION & DISTRIBUTION PLANT SERVICES

345 R3 65 -20% Years

	D D .!		~ .				Sector and the sector of the s	Annual De	apreciation A	Accrued Dep	preclation
1914	Beg Bal	Add 8 849	Ret	Adj/Trans	End Bal	Net Change 8 849	94.5	1 54%	Amount 136	0.9439	Amt. 8352
1915	8.849	0,045			8,849		93.5	1.54%	-	0.9352	0
1916	8,849				8,849	-	92.5	1.54%	-	0.9336	0
1917	8,849				8,849	-	91.5	1.54%	-	0.9285	0
1918	8,849				8,849	-	90.5	1.54%	•	0.9259	0
1919	8,849				8,849	-	89.5	1.54%	-	0.9207	0
1920	8,849				8,849	-	88.5	1.54%	-	0.9182	0
1921	8,849				8,849	-	87.0	1.04%	-	0.9130	0
1922	8 849	1 434			10 282	1 434	85.5	1.54%	22	0.9052	1298
1924	10.282	1,404			10,282		84.5	1.54%		0.9026	0
1925	10,282				10,282	-	83.5	1.54%	-	0.8972	0
1926	10,282				10,282	-	82.5	1.54%	-	0.8918	0
1927	10,282				10,282	-	81.5	1.54%	-	0.8918	0
1928	10,282				10,282	-	80.5	1.54%	-	0.8833	0
1929	10,282	050	(24)		10,282	-	79.5	1.54%	-	0.8804	817
1930	10,202	900	(24)		12 110	934	77.5	1.54%	14	0.8714	779
1932	12,110	1 4 1 6	(96)		13,431	1.321	76.5	1.54%	20	0.8550	1129
1933	13,431	605	(52)		13,983	552	75.5	1.54%	8	0.8518	471
1934	13,983	473			14,456	473	74.5	1.54%	7	0.8550	404
1935	14,456	722			15,178	722	73.5	1.54%	11	0.8515	614
1936	15,178	1,156			16,333	1,156	72.5	1.54%	18	0.8443	976
1937	16,333	1,570	(77.4)		17,903	1,570	/1.5	1.04%	24	0.8405	1320
1930	10 425	2,290	(774)		19,420	12 853	69.5	1.54%	198	0.8320	10600
1940	32.277	1.759	(89)		33,947	1,670	68.5	1.54%	26	0.8247	1377
1941	33,947	471	(115)		34,303	356	67.5	1.54%	5	0.8119	289
1942	34,303	887	(138)		35,052	749	66.5	1.54%	12	0.8075	605
1943	35,052	195	(67)		35,179	127	65.5	1.54%	2	0.7983	102
1944	35,179	515	<i></i>		35,694	515	64.5	1.54%	8	0.7935	408
1945	35,694	1,648	(207)		37,135	1,441	63.5	1.54%	22	0.7837	1129
1940	37,135	3,054	(578)		39,011	2,4/0	61.5	1.54%		0.7684	3008
1948	43.525	5,836	(724)		48,637	5,112	60.5	1.54%	79	0.7630	3900
1949	48,637	3,898	(632)		51,904	3,267	59.5	1.54%	50	0.7521	2457
1950	51,904	5,309	(335)		56,878	4,974	58.5	1.54%	77	0.7465	3713
1951	56,878	4,564	(398)		61,044	4,166	57.5	1.54%	64	0.7351	3062
1952	61,044	6,248	(162)		67,130	6,086	56.5	1.54%	94	0.7233	4402
1953	67,130	6,417	(327)		73,220	6,090	55.5	1.54%	94	0.7172	4368
1954	73,220	8,049	(236)		81,033	7,813	54.5	1,54%	120	0,7049	5505
1900	90,033	9,200	(279)		104.051	14 041	52.5	1.54%	216	0.6858	9629
1957	104 051	15.591	(938)		118,704	14,652	51.5	1.54%	225	0.6793	9953
1958	118,704	11,606	(1,257)		129,052	10,348	50.5	1.54%	159	0.6660	6892
1959	129,052	15,273	(1,256)		143,069	14,017	49.5	1.54%	216	0.6593	9241
1960	143,069	18,927	(2,091)		159,905	16,836	48.5	1.54%	259	0.6456	10870
1961	159,905	15,569	(1,246)		174,228	14,322	47.5	1.54%	220	0.6387	9148
1962	174,228	18,143	(1,098)		191,273	17,045	46.5	1.54%	202	0.6240	10645
1903	206 980	21 983	(620)		200,980	20 197	43.5	1.54%	311	0.6029	12177
1965	227,177	20.340	(1,812)		245,705	18.528	43.5	1.54%	285	0.5882	10898
1966	245,705	22,118	(1,439)		266,384	20,679	42.5	1.54%	318	0.5807	12008
1967	266,384	24,405	(753)		290,036	23,652	41.5	1.54%	364	0.5656	13378
1968	290,036	17,627	(492)		307,170	17,135	40.5	1.54%	264	0.5579	9559
1969	307,170	25,376	(681)		331,866	24,695	39.5	1.54%	380	0.5425	13397
1970	331,866	19,984	(292)		351,558	19,692	38.5	1.54%	303	0,5347	10529
1971	301,000	30,074	(1003)		428 780	30,009	36.5	1.54%	603	0.5110	20043
1973	428,789	39.087	(1.854)		466.022	37.233	35.5	1.54%	573	0.4949	18427
1974	466.022	10.811	(476,833	10,811	34.5	1.54%	166	0.4867	5262
1975	476,833	15,959	(186)		492,606	15,773	33.5	1.54%	243	0.4704	7420
1976	492,606	38,675	(322)		530,959	38,353	32.5	1.54%	590	0.4621	17723
1977	530,959	34,995	(282)		565,672	34,713	31.5	1.54%	534	0.4454	15461
19/8	565,672	51,878	(246)		617,304	51,032	30.5	1.54%	794	0.4200	22124
19/9	678 045	35 115	(381)		713 670	34 734	29.0	1.54%	534	0.4028	13991
1981	713.679	33.089	(573)		746.195	32.516	27.5	1.54%	500	0.3942	12818
1982	746,195	44,688	(35)		790,848	44,653	26.5	1.54%	687	0.3767	16821
1983	790,848	87,488			878,336	87,488	25.5	1.54%	1,346	0.3679	32187
1984	878,336	84,937	(15)		963,258	84,922	24.5	1.54%	1,306	0.3503	29748
1985	963,258	154,647	1110		1,117,905	154,647	23.5	1.54%	2,379	0.3413	52781 40007
1986	1,117,905	120,009	(119)		1,244,395	120,490	22.5	1.04%	2 407	0.3234	40907
1988	1.400 849	156,496	(372)		1.556.973	156.124	20.5	1,54%	2,402	0.2962	46244
1989	1,556,973	128,905	(0, 1)		1,685,878	128,905	19.5	1.54%	1,983	0.2871	37009
1990	1,685,878	126,251	(662)		1,811,467	125,589	18.5	1.54%	1,932	0.2687	33746
1991	1,811,467	78,273	(4,740)		1,885,000	73,533	17.5	1.54%	1,131	0.2501	18391
1992	1,885,000	77,542	(2,680)		1,959,862	74,862	16.5	1.54%	1,152	0.2408	18027
1993	1,959,862	68,572	(13,777)		2,014,657	54,795	0 15.5 14 E	1.04%	843 1 610	0.2221	22284
1994	2,014,007	150 505	(11,949) (3,670)		2,119,420	146 925	13.5	1.54%	2,260	0.1938	28474
1996	2,266.350	135.578	(3.562)		2,398.366	132.010	5 12.5	1.54%	2.031	0.1843	24331
1997	2,398,366	162,795	(3,392)		2,557,769	159,403	3 11.5	1.54%	2,452	0.1653	26349
1998	2,557,769	213,490	(2,882)		2,768,377	210,608	3 10.5	1.54%	3,240	0.1557	32792
1999	2,768,377	222,641	(13,144)		2,977,874	209,497	9.5	1.54%	3,223	0.1365	28596
2000	2,977,874	243,375	(32,132)	(755	3,188,362	210,488	5 8.5 1 7 F	1.54%	3,238	0.1269	20/11
2001	3,188,362	10/,459	(10,785)		3,345,035	100,074	1.5 5 85	1,04%	2,410	0.1075	9042
2002	3,446,761	67.451			3,514.212	67.45	5.5	1.54%	1.038	0.0784	5288
2004	3,514,212	157,058			3,671,270	157,058	3 4.5	1.54%	2,416	0.0589	9251
2005	3,671,270	193,351			3,864,621	193,351	3.5	1.54%	2,975	0.0491	9494
2006	3,864,621	417,800			4,282,421	417,800	2.5	1.54%	6,428	0.0295	12325
2007	4,282,421	172,212	(13,446)		4,447,18/	158,760	ד 1.5 חיק	1.04%	2,443	0.0197	3128
2008	4,441,10/	44			4,441,231	4.441.18	7 0.5		68,326	-	1,050,487
	· · ·	4,588,831	(146.845)	(755	5) 77,088,660						
						•					

Composite Annual Accrual Rate, Percent: 1.85%

Net Salavage Adjustment: 13,665 210,097 Annual Depreciation: 81,991 Accrued Depreciation: 1,260,585

210,097

			NAG. Savang Ce Lite Nat Savang C	Account Number Iowa Curve Type:	
		÷	ent: Beg Bai 336 336 336 338 338 338 338 338		ħ
÷.		1,383,811	Add 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5%	346 Cal	quarion Wa
		(400.238)	err Rat (17,502) (12,502) (12,50	culated Annua RANSMISSIO	ater Compa
			Adj/Trans	al and Accrued N & DISTRIBU N & DISTRIBU	ny of New H
		18,575,631	End Bal 336 336 336 336 336 336 336 336 336 33	Depreciation TION PLANT MET	ampshire
		983.573	Net Channe 3.6 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	ERS S	
Compo	Not		P		
site Annual A	Salavage Adju Annual Depri		Arriski Arrive		
scrual Rate, P	stment:		Rates Characteristic Constraints Constrain		
ercent:	(1.967) 37,376	39,343	Male Account 13 1 13 1 13 1 141 1 13 1 141 1 13 1 141 1 15 1 165 1 17 1 185 1 195 1 196 1 197 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198 1 198		
3.80%	intion.	I	Trund Chreme Trund Chreme title 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.		
	(21,297)	425,942	International and the second s		

Account Number: Iowa Curve Type: Avg. Service Life: Net Salvage Perce Beg Bal 7,768 7,768 12,665 12,665 12,665 12,665 12,665 12,665 14,264 14,264 14,274 14,2 Add 5.325 -20% 50 S348 39 Years TRANSMISSION & DISTRIBUTION PLANT HYDRANTS Rot (12,554) (3,029) (101) (101) (1177) (117 (1,959 (869 (253 (84 (49 (300 (66 (66 (84 Adj/Trans 6, 1922 7, 1946 7, 1946 19, 1947 19, 19 Net Change 5,325 111200 1111200 1111200 111200 111200 111200 111200 111200 111200 1112000
 Annual Deprecision 100
 Constant 200
 Constant 200

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1001

 100
 200%
 1011

 100
 200%
 111

 100
 200%
 111

 100
 200%
 111

 100
 200%
 121

 100
 200%
 121

 100
 200%
 121

 100
 200%
 121

 100
 200%
 121

 100
 200%
 120

 Accrued Deprect Ratio Ar 0.9850 0.9819 0.9785 c) 6661
 c) 6663
 c) 7744
 c) 8642
 c) 6645
 c) 6646
 c) 7744
 c) 8642
 c) 6646
 c) 7744
 c) 8642
 c) 8644
 c) 7744
 c) 8644
 c) 7744
 c) 8644
 c) 7745
 c) 86454
 c) 7745
 c) 86454
 c) 7745
 c) 86454
 c) 7744
 c) 7744

Net Salavage Adjustment: Annual Depreciation:

2.371 14,227 Accrued De

289,593

48,265

11,856

241.327

ite Annual Accrual Rate, Percent:

2.40%

Aquarion

Water Company of New Hampshire Calculated Annual and Accrued Depreciation

Account Number: Iowa Curve Type: Avg. Service Life: Net Salvage Perce

count Number: wa Curve Type: rg. Service Llfe: t Salvage Percent:		349 SQ 20 0%	 349 TRANSMISSION & DISTRIBUTION PLANT OTHER T & D PLANT SQ 20 Years 0% 											
								Percent of	Annua	I Depreciation	Accrued D	preclation		
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.		
2002	<u> </u>	5,777			5,777	5,777	6.5	32.50	5.00%	289	0.3150	1820		
2003	5,777	30,293			36,070	30,293	5.5	27.50	5.00%	1,515	0.2650	8028		
2004	36,070	333			36,403	333	4.5	22.50	5.00%	17	0.2150	72		
2005	36,403	14,983			51,386	14,983	3.5	17.50	5.00%	749	0.1650	2472		
2006	51,386	21,299			72,685	21,299	2.5	12.50	5.00%	1,065	0.1150	2449		
2007	72,685	26.019			98,704	26,019	1.5	7.50	5.00%	1,301	0.0650	1691		
2008	98,704	·			98,704	-	0.5	2.50	5.00%	•	0.0150	0		
	-	98,704	•		399,729	98,704	-			4,935		16,532		

.

Net Salavage Adjustment: Annual Depreciation: 4,935 Accrued Depreciation: 16,532

5.00% Composite Annual Accrual Rate, Percent:

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

ccount Numbe wa Curve Type	r: E	390 R1	GENERAL PLANT	STRUCTURES	& IMPROVEME	NTS						
vg. Service Life et Salvage Per	e: cent:	35 -10%	Years									
								Percent of	Annual De	preclation	Accrued Dej	preclation
1915	Beg Bal	Add 200	Ret	Adj/Trans	End Bal 200	Net Change 200	Age 93.5	Avg. Age 267 14	Rate 2 86%	Amount 6	Ratio 1.0000	Amt. 200
1916	200	200			200	-	92.5	264.29	2.86%	-	1.0000	0
1917	200				200	-	91.5	261.43	2.86%		1.0000	0
1918	200				200	-	90.5 89.5	258.57	2.86%	-	1.0000	0
1920	200				200	-	88.5	252.86	2.86%	-	1.0000	0
1921	200				200	-	87.5	250.00	2.86%	-	1.0000	0
1923	200				200		85.5	247.14	2.86%	-	1.0000	ŏ
1924	200				200	-	84.5	241.43	2.86%	-	1.0000	0
1925 1926	200				200 200	-	83.5 82.5	238.57 235.71	2.86%	-	1,0000	0
1927	200				200	-	81.5	232.86	2.86%	-	1.0000	0
1928	200				200	-	80.5	230.00	2.86%	-	1.0000	0
1929	200				200	-	79.5	224.29	2.86%		1.0000	0
1931	200				200	-	77.5	221.43	2.86%	•	1.0000	0
1932 1933	200				200 200	:	76.5 75.5	218.57 215.71	2.86%		1,0000	0
1934	200				200	-	74.5	212.86	2.86%	-	1.0000	0
1935	200				200	-	73.5	210.00	2.86%	-	1.0000	0.
1937	200				200	-	72.5	207.14	2.86%		1.0000	0
1938	200				200	-	70.5	201.43	2.86%	-	1.0000	0
1939 1940	200				200 200	•	69.5 68.5	198.57 195.71	2.86%	-	0.9896	0
1941	200				200		67.5	192.86	2.86%	-	0.9701	Ő
1942	200				200	-	66.5	190.00	2.86%	•	0.9634	0
1943	200				200	-	64.5	187.14	2.86%	:	0.9535	0
1945	200				200	•	63.5	181.43	2.86%	-	0.9342	0
1946	200				200	•	62.5 61.5	178.57	2.86%	-	0.9252	· 0
1948	200				200	-	60.5	172.86	2.86%	-	0.9074	ŏ
1949	200				200	•	59.5	170.00	2.86%	-	0.9014	0
1950 1951	200				200	-	58.5 57.5	167.14	2.86%	-	0.8924	0
1952	200	170			370	170	56.5	161.43	2.86%	5	0.8737	149
1953	370	385			755	385	55.5	158.57	2.86%	11	0.8641	333
1955	755				755	-	53.5	152.86	2.86%		0.8443	ő
1956	755				755	-	52.5	150.00	2.86%	-	0.8376	0
1957 1958	755		(385)		370 370	(385)) 51.5 50.5	147.14	2.86%	(11)	0.8272	-318
1959	370				370	-	49.5	141.43	2.86%	-	0.8058	Ō
1960	370				370		48.5	138.57	2.86%	-	0.7948	0
1961	370 11.584	3.007			11,584	3.007	47.5	135.71	2.86%	320	0.7835	2321
1963	14,590	4,438	(50)		18,979	4,388	45.5	130.00	2.86%	125	0.7642	3354
1964	18,979	170	26		19,174	195	44.5	127.14	2.86%	6	0.7523	147 94
1966	19,301	120			19,301	-	42.5	121.43	2.86%	-	0.7276	0
1967	19,301	7 00 4	(005)		19,301	-	41.5	118.57	2.86%	-	0.7149	0
1968	19,301 26,150	7,234	(385) (329)		26,150	6,849	40.5	115.71	2.86%	(1)	0.6887	-14
1970	26,130		,		26,130	-	38.5	110.00	2.86%	-	0.6797	0
1971	26,130				26,130 26,130	-	37.5	107.14	2.86%	-	0.6659	0
1973	26,130	110			26,240	110	35.5	101.43	2.86%	3	0.6376	70
1974	26,240				26,240	-	34.5	98,57	2.86%	-	0.6230	0
1975	26,240				26,240 26,240	:	33.5	92.86	2.86%	-	0.5928	0
1977	26,240				26,240	-	31.5	90.00	2.86%	-	0.5824	0
1978	26,240	035	(167)		26,240	- 768	30.5 29.5	87.14 84.29	2.86%	- 22	0.5667	0 423
1980	27,008	24,180	(107)		51,188	24,180	28.5	81.43	2.86%	691	0.5342	12917
1981	51,188				51,188	-	27.5	78.57	2.86%	-	0.5174	0
1983	51,188	9,087			60,275	9,087	25.5	72.86	2.86%	260	0.4831	4390
1984	60,275	27,584	(935)		86,924	26,649	24.5	70.00	2.86%	761	0.4714	12562
1985 1986	86,924 87 704	780 36 934	(1 103)		87,704 123 535	780 35 831	23.5	67.14 64 29	2.86% 2.86%	22 1.024	0.4535	354 15601
1987	123,535	111,347	37		234,919	111,384	21.5	61.43	2.86%	3,182	0.4170	46447
1988	234,919	34,415	5,754		275,088	40,169	20.5	58.57	2.86%	1,148	0.3983	15999
1989 1990	275,088		23.820		275,088	23.820	19.5	52,86	2.86%	681	0.3794	8580
1991	298,908		(780)		298,128	(780) 17.5	50.00	2.86%	(22)	0.3473	-271
1992	298,128	12,595	(51,613)		259,110	(39,018) 16.5	47.14	2.86%	(1,115) (23)	0.3278	-12790 -247
1994	258,307		(665)		258,307		14.5	41.43	2.86%	-	0.2881	0
1995	258,307				258,307	-	13.5	38.57	2.86%	-	0.2680	0
1996 1997	258,307	4,000		780	262,307 263 087	4,000	12.5	35.71	∠.86% 2.86%	114	0.2477	991 177
1998	263,087			100	263,087	-	10.5	30.00	2.86%		0.2136	0
1999	263,087	03.007	(001)	100 000	263,087	-	9.5	27.14	2.86%	1 007	0.1930	11405
2000	203,087 329.842	93,097 6,863	(89)	(20,301)	329,642	6,863	7.5	24.29 21.43	2.86%	196	0.1513	1038
2002	336,705	99,386			436,091	99,386	6.5	18.57	2.86%	2,840	0.1302	12940
2003	436,091 468 381	32,290			468,381 473 697	32,290 5 316	1 5.5 1 4.5	15.71 12 86	2.86%	923 152	0.1090	3520 466
2004	473,697	109,284			582,981	109,284	3.5	10.00	2.86%	3,122	0.0732	8000
2006	582,981	7,827			590,808	7,827	2.5	7.14	2.86%	224	0.0515	403
2007	590,808 590.808				590,808 590,808	-	0.5	4.29	2.86%	-	0.0295	0
		A 16 AF-			0.000.400	F00.000	-			16 990	-	162.022
	-	643,283	(27,904)		8,829,460	590,808	5			10,880		102,922

Net Salavage Adjustment: <u>1,688</u> Annual Depreciation: 18,568 Accrued Depreciation: 16,292 179,214

Composite Annual Accrual Rate, Percent: 3.14%

Account Number: Iowa Curve Type: Avg. Service Life: Net Salvage Percent:

1	GENERAL	PLANT	OFFICE	FURNITURE	& EQUIPMENT

391 R1 13 0% Years

								Percent of	Annual D	epreciation	Accrued De	preclation
	Beg Bal	Add -	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1950	-	188			188	188	58.5	450.00	7.69%	14	1.0000	188
1951	188	277			465	277	57.5	442.31	7.69%	21	1.0000	277
1952	465	158			623	158	56.5	434.62	7.69%	12	1.0000	158
1953	623				623	-	55,5	426.92	7.69%	-	1.0000	0
1954	623				623	-	54.5	419.23	7.69%	-	1.0000	0
1955	623	60			683	60	53.5	411,54	7.60%	17	1.0000	220
1956	683	220			903	220	52.5	403.65	7.09%	17	1.0000	220
1957	903	475			903	-	51.5	390.13	7.09%	13	1.0000	175
1950	903	1/0			1,079	1/5	10.5	300.40	7.09%	13	1,0000	157
1959	1,079	280			1,230	280	49.0	373 08	7.60%	22	1,0000	280
1960	1,230	200			2 250	200	40.5	365 38	7.69%	56	1,0000	734
1062	2 250	1 7 3 0			3 080	1 730	46.5	357.69	7 69%	134	1,0000	1739
1963	3 989	1.038			5 027	1 038	45.5	350.00	7 69%	80	1.0000	1038
1964	5 027	748			5 774	748	44.5	342.31	7.69%	58	1.0000	748
1965	5,774	478	(220)		6.032	258	43.5	334.62	7.69%	20	1.0000	258
1966	6.032	738	(218)		6,552	520	42.5	326.92	7.69%	40	1.0000	520
1967	6.552	822	(96)		7.279	726	41.5	319.23	7.69%	56	1.0000	726
1968	7.279	530	()		7.808	530	40.5	311.54	7.89%	41	1.0000	530
1969	7,808	218	(70)		7,957	148	39.5	303.85	7.69%	11	1.0000	148
1970	7,957	996	(239)		8,713	756	38.5	296.15	7.69%	58	1.0000	756
1971	8,713	295	. ,		9,008	295	37.5	288.46	7.69%	23	1.0000	295
1972	9,008	167			9,175	167	36.5	280.77	7.69%	13	1.0000	167
1973	9,175	90			9,265	90	35.5	273.08	7.69%	7	1.0000	90
1974	9,265				9,265	-	34.5	265.38	7.69%	-	1.0000	0
1975	9,265				9,265	-	33.5	257.69	7.69%	-	1.0000	0
1976	9,265				9,265	-	32.5	250.00	7.69%	-	1.0000	0
1977	9,265				9,265	•	31.5	242.31	7.69%	-	1.0000	0
1978	9,265	1,375	(505)		10,135	870	30.5	234.62	7.69%	67	1.0000	870
1979	10,135	759	(983)		9,911	(224)	29.5	226.92	7.69%	(17)	1.0000	-224
1980	9,911	4,527	(644)		13,794	3,883	28.5	219.23	7.69%	299	1.0000	3883
1981	13,794	1,211	(478)		14,527	733	27.5	211.54	7.69%	56	1.0000	733
1982	14,527	525	(102)		14,950	423	26.5	203.85	7.69%	33	1.0000	423
1983	14,950	1,678	(*****		16,628	1,678	25.5	196.15	7.69%	129	0.9833	1650
1984	16,628	8,503	(795)		24,336	7,708	24.5	188.40	7.59%	593	0.9567	13/4
1985	24,336	2,281	(617)		26,000	1,664	23.5	180.77	7.69%	128	0.9312	1000
1986	26,000	38,138	(390)		63,748	37,748	22.5	1/3.08	5 7.69%	2,904	0.9104	34300
1987	63,748	5,014			00,702	5,014	21.5	100.30	7.09%	300	0.0002	2105
1966	00,702	2,000	(600)		71,312	2,000	20.5	157.08	7,09%	103	0.0009	1124
1909	71,312	1,002	(520)		72,004 91,004	1,342	19.0	100.00	7 60%	650	0.0370	6034
1990	72,034	0,000	(4.020)		84 507	0,000	10.5	194.5	7.09%	260	0.0094	2633
1991	84 607	13 075	(4,920)		04,097	5 622	16.5	126.92	7.69%	432	0 7482	4207
1003	04,007	12 341	(1,402)		102 561	12 341	15.5	119 23	7 69%	949	0 7192	8876
1993	102 561	2 767	(1 413)		103,915	1 354	14.5	111.54	7 69%	104	0.6842	927
1995	103 915	2,707	(778)		105,729	1 814	13.5	103.85	5 7.69%	140	0.6472	1174
1996	105,729	2,002	(39,566)		66 163	(39,566)	12.5	96.15	7.69%	(3.044)	0.6130	-24254
1997	66 163	6 266	(270)		72 159	5,996	11.5	88.46	5 7.69%	461	0.5719	3429
1998	72 159	0,200	(8,612)		63.548	(8.612)	10.5	80.77	7.69%	(662)	0.5286	-4552
1999	63.548	4.842	(0,012)		68,390	4.842	9.5	73.08	3 7.69%	372	0.4889	2367
2000	68,390	1,258			69,648	1.258	8.5	65.38	3 7.69%	97	0.4415	555
2001	69.648	.,			69.648	-	7.5	57.69	7.69%	-	0.3920	0
2002	69,648				69,648	-	6.5	50.00	7.69%	-	0.3473	0
2003	69,648	10,749			80,397	10,749	5.5	42.3	1 7.69%	827	0.2947	3168
2004	80,397				80,397	-	4.5	34.62	2 7.69%	-	0.2409	0
2005	80,397				80,397	-	3.5	26.92	2 7.69%	-	0.1861	0
2006	80,397				80,397	-	2.5	19.23	3 7.69%	-	0.1373	0
2007	80,397				80,397	-	1.5	11.54	4 7.69%	-	0.0804	0
2008	80,397				80,397	-	0.5	3.8	5 7.69%	•	0.0222	0
							-				-	
	- a	149,283	(68,886)		2,071,318	80,397	-			6,184		73,116

Net Salavage Adjustment: Annual Depreciation: 6,184 Accrued Depreciation:

73,116

Composite Annual Accrual Rate, Percent: 7.69%

Account Number:
lowa Curve Type:
Avg. Service Life:
Net Salvage Percent:

Computer Hardware & Software

391H SQ 5 0% Years

								Percent of	Annual	Depreciation	Accrued D	epreclation
	Beg Bal	Add	<u>Ret</u>	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1984	(100)	9,055	(1)	-	8,954	9,054	24.5	490.00	20.00%	1,811	1.0000	9054
1985	8,954	5,527	(6,317)		8,164	(790)	23.5	470.00	20.00%	(158)	1.0000	-790
1986	8,164	3,948	`390	-	12,501	4,338	22.5	450.00	20.00%	868	1.0000	4338
1987	12,501	117,310	-	-	129,812	117,310	21.5	430.00	20.00%	23,462	1.0000	117310
1988	129,812	8,359	(533)	-	137,638	7,826	20.5	410.00	20.00%	1,565	1.0000	7826
1989	137,638	7,839	(360)	-	145,117	7,479	19.5	390.00	20.00%	1,496	1.0000	7479
1990	145,117	15,674	(1,192)	-	159,598	14,482	18.5	370.00	20.00%	2,896	1.0000	14482
1991	159,598	1,115	1,925		162,638	3,040	17.5	350.00	20.00%	608	1.0000	3040
1992	162,638	3,402	4,191	-	170,232	7,594	16.5	330.00	20.00%	1,519	1.0000	7594
1993	170,232	18,021	(13,833)		174,420	4,188	15.5	310.00	20.00%	838	1.0000	4188
1994	174,420	4,322	1,413	•	180,154	5,735	14.5	290.00	20.00%	1,147	1.0000	5735
1995	180,154	12,750	(21,196)	-	171,708	(8,446)	13.5	270.00	20.00%	(1,689)	1.0000	-8446
1996	171,708	8,061	(22,200)	-	157,570	(14,139)	12.5	250.00	20.00%	(2,828)	1.0000	-14139
1997	157,570	8,686	(71,448)	2,282	97,090	(60,480)	11.5	230.00	20.00%	(12,096)	1.0000	-60480
1998	97,090	78,767	7,495	•	183,351	86,262	10.5	210.00	20.00%	17,252	1.0000	86262
1999	183,351	111,256	-	-	294,607	111,256	9,5	190.00	20.00%	22,251	1.0000	111256
2000	294,607	9,765	(24,534)	-	279,838	(14,769)	8,5	170.00	20.00%	(2,954)	1.0000	-14769
2001	279,838	45,726	(250)		325,314	45,476	7,5	150.00	20.00%	9,095	1.0000	45476
2002	325,314	34,382	(173,527)	-	186,169	(139,145)	6.5	130.00	20.00%	(27,829)	1.0000	-139145
2003	186,169	357,180	(32,323)	-	511,026	324,857	5,5	110.00	20.00%	64,971	1.0000	324857
2004	511,026	15,727	-	-	526,753	15,727	4.5	90.00	20.00%	3,145	0.8950	14076
2005	526,753	40,547	-	-	567,300	40,547	3.5	70.00	20.00%	8,109	0.6950	28180
2006	567,300	8,726	-	-	576,026	8,726	2.5	50.00	20.00%	1,745	0.4950	4319
2007	576,026	14,239	-	-	590,265	14,239	1.5	30.00	20.00%	2,848	0.2950	4201
2008	590,265	-	(21,705)	-	568,560	(21,705)	0.5	10.00	20.00%	(4,341)	0.0950	-2062
		940,850	(374,572)		6,362,662	568,560				113,712	-	559,740

Net Salavage Adjustment: _____ Annual Depreciation: 113,712 _____ Accrued Depreciation:

559,740

•

Composite Annual Accrual Rate, Percent: 20.00%

Account Number:
lowa Curve Type:
Avg. Service Life:
Net Salvage Percent:

GENERAL PLANT TRANSPORTATION EQUIPMENT

392 S6 8 10% Years

4004	Beg Bal	Add	Ret	Adi/Trans End Bal	Net Change	Age	Percent of <u>Avg. Age</u>	Annual De Rate	Amount	Accrued De Ratio	preclation Amt.
1931	- ,	4			4 4	77.5	968.75	12.50%	1	1.0000	4
1932	4	585	(700)		89 585	/6.5	956.25	12.50%	/3	1.0000	565
1933	509	729	(730)	1	004 (00) 73.5	943.75	12.50%	(11)	1.0000	-00
1035	1 242	551	(580)	1,2	-42 / 30 IOS / 38	74.5	931.25	12.50%	(5)	1.0000	-38
1936	1 205	12	(555)	1.5	16 12	72.5	906.25	12.50%	(0)	1 0000	12
1937	1,216	.2		1 3	16 -	71.5	893.75	12.50%		1 0000	0
1938	1,216	625		1.8	41 625	70.5	881.25	12.50%	78	1.0000	625
1939	1.841			1.8	41 -	69.5	868.75	12.50%		1.0000	0
1940	1,841	675	(660)	1,8	56 15	68.5	856.25	12.50%	2	1.0000	15
1941	1,856	657	(556)	1,9	57 101	67.5	843,75	12.50%	13	1.0000	101
1942	1,957	778	(645)	2,0	90 133	66.5	831.25	12.50%	17	1.0000	133
1943	2,090			2,0	- 00	65.5	818.75	12.50%	•	1.0000	0
1944	2,090			2,0	- 00	64.5	806.25	12.50%	•	1.0000	0
1945	2,090			2,0	- 190	63.5	793.75	12.50%	•	1.0000	0
1946	2,090			2,0	- 190	62.5	781.25	12.50%	•	1,0000	0
1947	2,090	1 279	(657)	2,0	190 -	01.0 60.5	700.70	12.50%	78	1.0000	621
1940	2,090	1,270	(057)	2,0	11 021	50.5	730.25	12.50%	70	1.0000	021
1950	2,711	2 980	(1.433)	4 3	58 1.547	58.5	731.25	12.50%	193	1.0000	1547
1951	4.258		(11.00)	4.2	158 -	57.5	718.75	12.50%		1,0000	0
1952	4,258	1,829	(1,278)	4,8	551	56.5	706.25	12.50%	69	1.0000	551
1953	4,809			4,8	- 90	55.5	693.75	12.50%		1.0000	0
1954	4,809	260		5,0	69 260	54.5	681.25	12.50%	33	1.0000	260
1955	5,069	3,458	(1,595)	6,9	32 1,863	53.5	668.75	12.50%	233	1.0000	1863
1956	6,932	2,034	(1,829)	7,1	37 205	52.5	656.25	12.50%	26	1.0000	205
1957	7,137			7,7		51.5	643.75	12.50%	-	1.0000	0
1958	7,137			7,7		50.5	631.25	12.50%	-	1.0000	0
1959	7,137	5 454	(2.690)	(,)	37 -	49.5	618.75	12.50%	402	1.0000	1465
1900	7,137	5,154	(3,009)	0,0	202 1,400	40.0	503.75	12.50%	285	1,0000	2270
1962	10.881	5,727	(3,440)	10,0	81 -	46.5	581.25	12.50%	200	1,0000	22/3
1963	10,881	2.870	(2.268)	11.4	82 601	45.5	568.75	12.50%	75	1.0000	601
1964	11,482	3,481	(2,886)	12.0	078 596	44.5	556.25	12.50%	74	1.0000	596
1965	12,078	6,741	(2,670)	16,	49 4,071	43.5	. 543.75	12.50%	509	1.0000	4071
1966	16,149	4,907	(3,057)	17,9	999 1,850	42.5	531.25	12.50%	231	1.0000	1850
1967	17,999	6,120	(3,815)	20,3	304 2,305	41.5	518.75	12.50%	288	1.0000	2305
1968	20,304	7,179	(2,536)	24,9	48 4,644	40.5	506.25	12.50%	580	1.0000	4644
1969	24,948	6,867	(6,741)	25,0	126	39.5	493.75	12.50%	16	1.0000	126
1970	25,073			25,0		38.5	481.25	12.50%		1.0000	0
1971	25,073	13,475	(11,027)	27,	521 2,448	37.5	468.75	12.50%	306	1.0000	2448
1972	27,521	0,990	(7,179)	27,	001 (190 191 160	35.5	450.25	12.50%	(24)	1.0000	-190
1973	27,331	3,017	(3,007)	21,	181	34.5	443.75	12.50%	19	1.0000	150
1975	27 481	4 075	(3.251)	28	305 824	33.5	418 75	12.50%	103	1 0000	824
1976	28,305	10.071	(6,416)	31.9	360 3.655	32.5	406.25	12.50%	457	1.0000	3655
1977	31,960	12,909	(8,527)	36,	4,382	31.5	393.75	12.50%	548	1.0000	4382
1978	36,343	13,241	(7,491)	42,	93 5,751	30.5	381.25	12.50%	719	1.0000	5751
1979	42,093		(4,253)	37,	340 (4,253) 29.5	368.75	12.50%	(532)	1.0000	-4253
1980	37,840			37,	340 -	28.5	356.25	12.50%	•	1.0000	0
1981	37,840	593	(5,207)	33,	226 (4,614) 27.5	343.75	12.50%	(577)	1.0000	-4614
1982	33,226		(5,053)	28,	173 (5,053	b) 26.5	331.25	12.50%	(632)	1.0000	-5053
1983	28,173		(11,382)	16,	/91 (11,382	25.5	318.75	12.50%	(1,423)	1.0000	-11382
1984	10,791		(15,774)	1.	JI/ (15,774)17) 24.5 23.5	203.75	12.50%	(1,972)	1.0000	-15/74
1986	1,017			1,1	117 -	23.5	281.25	12.50%		1,0000	0
1987	1.017			1.1	017 -	21.5	268.75	12.50%		1.0000	Ő
1988	1,017		(490)	••	527 (490) 20.5	256.25	12.50%	(61)	1.0000	-490
1989	527	Ĩ	`6 5	:	592 65	19.5	243.75	12.50%	8	1.0000	65
1990	592				592 -	18.5	231.25	12.50%	-	1.0000	0
1991	592			:	592 -	17.5	218.75	12.50%	-	1.0000	0
1992	592			:	592 -	16.5	206.25	12.50%	-	1.0000	0
1993	592				- 592	15.5	193.75	12.50%	-	1.0000	0
1994	592				592 -	14.5	181.25	12.50%	-	1.0000	U
1995	592					13.5	108.75	12.50%	-	1,0000	0
1990	592				502 -	11.5	143.75	12,50%	-	1,0000	0
1997	592			-	592 -	10.5	131 25	12.50%		0.9860	0
1999	592	31.926		32	518 31.926) 9.5	118.75	12.50%	3.991	0.9762	31166
2000	32.518	35,986		68.	504 35,986	8.5	106.25	12.50%	4,498	0.9573	34449
2001	68,504	39,962		108,	466 39,962	2 7.5	93.75	12.50%	4,995	0.9061	36210
2002	108,466			108,	466 -	6.5	81.25	12.50%	-	0.8088	0
2003	108,466	77,476	(1,421)	184,	521 76,055	5 5.5	68.75	12.50%	9,507	0.6800	51717
2004	184,521			184,	521 -	4.5	56.25	12.50%		0.5600	0
2005	184,521	84,838		269,	359 84,838	3.5	43.75	12.50%	10,605	0.4300	36480
2006	269,359	20 405		269,	- 904 - 704	2.5	31.25	12.50%		0.3100	0
2007	209,359	23,425		292,	104 23,428 784	י 1.5 חב	10./5	12.50%	2,928	0.1600	4217 N
2006	292,104			292,		0.5	0.25	12.00%	-	0.0000	0
	<u> </u>	424.948	(132.165)	2.497.	787 292.784	Ţ.			36,598	-	194,832
			······································								

Net Salavage Adjustment: (3,660) Annual Depreciation: 32,938 Accrued Depreciation: (19,483)

175,349

Composite Annual Accrual Rate, Percent: 11.25%

9 3	GENERAL PLANT STORES EQUIPMENT
Q	

393 GENE SQ 20 Years 0%

								Percent of	Annual De	preclation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1958	-	185			185	185	50.5	252.50	5.00%	9	1.0000	185
1959	185				185	-	49.5	247.50	5.00%	-	1.0000	0
1960	185				185	-	48.5	242.50	5.00%	-	1.0000	0
1961	185				185	-	47.5	237,50	5.00%	-	1.0000	0
1962	185				185	-	46.5	232.50	5.00%	-	1.0000	0
1963	185				185	-	45.5	227.50	5.00%	-	1.0000	0
1964	185				185	-	44.5	222.50	5.00%	-	1.0000	0
1965	185				185	-	43.5	217.50	5.00%	-	1.0000	0
1966	185				185	-	42.5	212.50	5 00%	-	1.0000	Ő.
1967	185				185	-	41.5	207.50	5.00%	-	1 0000	ő
1968	185				185	_	40.5	202.50	5.00%		1 0000	ñ
1060	185		150		344	150	30.5	107.50	5.00%	8	1,0000	150
1070	344		155		244	155	20 5	107.00	5.00%	Ŭ	1,0000	100
1071	344				344	-	30.5	192.50	5.00%	-	1,0000	0
1070	344				344	-	37.5	107.50	5.00%	-	1.0000	0
1972	344				344	-	30.5	162.50	5.00%	-	1.0000	0
1973	344				344	-	35.5	177.50	5.00%	-	1,0000	U
1974	344				344	-	34.5	172.50	5.00%	-	1.0000	0
1975	344				344	-	33.5	167.50	5.00%	-	1.0000	0
1976	344				344	-	32.5	162.50	5.00%	-	1.0000	0
1977	344				344	-	31.5	157.50	5.00%	•	1.0000	0
1978	344				344	-	30.5	152.50	5.00%	-	1.0000	0
1979	344				344	-	29.5	147.50	5.00%	-	1,0000	0
1980	344				344		28.5	142.50	5.00%	-	1.0000	0
1981	344				344	-	27.5	137.50	5.00%	-	1.0000	0
1982	344				344	-	26.5	132.50	5.00%	-	1.0000	0
1983	344				344		25.5	127.50	5.00%	-	1.0000	0
1984	344				344	-	24.5	122.50	5.00%	-	1.0000	0
1985	344				344	-	23.5	117.50	5.00%		1.0000	0
1986	344				344	-	22.5	112 50	5 00%		1.0000	0
1987	344				344		21.5	107.50	5.00%		1 0000	0
1988	344	2 094			2 438	2 094	20.5	102.50	5.00%	105	1 0000	2094
1989	2 4 3 8	2,004			2 438	2,004	10.5	07.50	5.00%	100	0.9650	2004
1000	2,400				2,430		18.5	97.50	5.00%		0.9000	0
1001	2,400				2,450	-	17.5	97.50	5.00%	-	0.9150	0
1002	2,400				2,400	•	16.5	97.50	5.00%	-	0.0000	0
1002	2,430				2,400	-	10.0	32.50	5.00%	-	0.0150	0
1004	2,430				2,438	-	10.0	77.50	5.00%	-	0.7650	0
1994	2,430				2,438	-	14.5	72.50	5.00%	-	0.7150	0
1995	2,438				2,438	-	13.5	67.50	5.00%	-	0.6650	0
1996	2,438				2,438	-	12.5	62.50	5.00%	-	0.6150	0
1997	2,438				2,438	-	11.5	57.50	5.00%	-	0.5550	0
1998	2,438				2,438	-	10.5	52.50	5.00%	-	0.5150	0
1999	2,438				2,438	-	9.5	47.50	5.00%	-	0.4650	0
2000	2,438				2,438	-	8.5	42.50	5.00%	-	0.4150	0
2001	2,438				2,438	-	7.5	37.50	5.00%	•	0.3650	0
2002	2,438				2,438	-	6.5	32.50	5.00%	-	0.3150	0
2003	2,438				2,438	-	5.5	27.50	5.00%	-	0.2650	0
2004	2,438				2,438	-	4.5	22.50	5.00%	-	0.2150	0
2005	2,438				2,438	-	3.5	17.50	5.00%	-	0.1650	0
2006	2,438	15,454			17.892	15,454	2.5	12.50	5.00%	773	0.1150	1777
2007	17.892				17,892	-	1.5	7.50	5.00%		0.0650	
2008	17,892				17,892	-	0.5	2.50	5.00%	-	0.0150	õ
		17 700			100.1	47.0-5					· -	

Net Salavage Adjustment: ______ Annual Depreciation: 895

Accrued Depreciation: 4,215

Composite Annual Accrual Rate, Percent: 5.00%

Account Number:
lowa Curve Type:
Avg. Service Life:
Net Salvage Percent:

GENERAL PLANT TOOLS	, SHOP & GARAGE EQUIPMENT
---------------------	---------------------------

394	GENER
SQ	
20	Years
0%	

									Percent of	Annual D	epreciation	Accrued De	preclation
		Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
Service of the servic	1962	-	1,599			1,599	1,599	46.5	232.50	5.00%	80	1.0000	1599
/	1963	1,599				1,599	-	45.5	227.50	5.00%	-	1.0000	0
	1964	1,599	67	(194)		1,472	(128)	44.5	222.50	5.00%	(6)	1.0000	-128
	1965	1,472	781	(30)		2,223	751	43.5	217.50	5.00%	38	1.0000	751
	1966	2,223		(500)		1,722	(500)	42.5	212.50	5.00%	(25)	1.0000	-500
	1967	1,722				1,722	-	41.5	207.50	5.00%	-	1.0000	0
	1968	1,722				1,722	-	40.5	202.50	5.00%	-	1.0000	0
	1969	1,722	331	1,443		3,496	1,774	39.5	197.50	5.00%	89	1.0000	1774
	1970	3,496	578	(568)		3,506	10	38.5	192.50	5.00%	1	1.0000	10
	1971	3,506		13,322		16,828	13,322	37.5	187.50	5.00%	666	1.0000	13322
	1972	16,828	775	(589)		17,014	185	36.5	182.50	5.00%	9	1.0000	185
	1973	17,014	1,836	(1,238)		17,612	598	35.5	177.50	5.00%	30	1.0000	598.
	1974	17,612		(695)		16,917	(695)	34.5	172.50	5.00%	(35)	1.0000	-695
	1975	16,917	401			17,318	401	33.5	167.50	5.00%	20	1.0000	401
	1976	17,318	811	(270)		17,859	541	32.5	162.50	5.00%	27	1.0000	541
	1977	17,859	638	(401)		18,096	237	31.5	157,50	5.00%	12	1.0000	237
	1978	18,096				18,096	-	30.5	152,50	5.00%	-	1.0000	0
	1979	18,096	11,189	(4,455)		24,830	6,734	29.5	147.50	5.00%	337	1.0000	6734
	1980	24,830	2,662	(615)		26,877	2,047	28.5	142.50	5.00%	102	1.0000	2047
	1981	26,877	2,101			28,978	2,101	27.5	137.50	5.00%	105	1.0000	2101
	1982	28,978				28,978	-	26.5	132.50	5.00%	-	1.0000	0
	1983	28,978	6,375	(1,233)		34,120	5,142	25.5	127.50	5.00%	257	1.0000	5142
	1984	34,120	(589)	(137)		33,394	(726)	24.5	122,50	5.00%	(36)	1.0000	-726
	1985	33,394	979			34,373	979	23.5	117,50	5.00%	49	1.0000	979
	1986	34,373	2,092			36,465	2,092	22.5	112.50	5.00%	105	1.0000	2092
	1987	36,465	1,192			37,657	1,192	21.5	107.50	5.00%	60	1.0000	1192
	1988	37,657	967	506		39,130	1,473	20.5	102.50	5.00%	74	1.0000	1473
	1989	39,130	2,450	(900)		40,680	1,550	19.5	97,50	5.00%	78	0.9650	1496
	1990	40,680	5,657			46,337	5,657	18.5	92.50	5.00%	283	0.9150	5176
	1991	46,337	6,780			53,117	6,780	17.5	87.50	5.00%	339	0.8550	5797
	1992	53,117	1,646	(157)		54,606	1,489	16.5	82.50	5.00%	74	0.8150	1214
	1993	54,606	3,111	(700)		57.017	2.411	15.5	77.50	5.00%	121	0.7650	1844
	1994	57,017	6,097	. ,		63,114	6.097	14.5	72.50	5.00%	305	0,7150	4359
	1995	63,114	5,001			68,115	5.001	13.5	67.50	5.00%	250	0.6650	3326
	1996	68,115	2,487			70.602	2.487	12.5	62.50	5.00%	124	0.6150	1530
	1997	70,602	2,896			73,498	2.896	11.5	57.50	5.00%	145	0.5550	1607
	1998	73,498				73.498		10.5	52.50	5.00%	-	0.5150	0
	1999	73,498	7,252			80,750	7.252	9.5	47.50	5.00%	363	0,4650	3372
	2000	80,750	238			80,988	238	8.5	42.50	5.00%	12	0.4150	99
	2001	80,988				80,988	-	7.5	37.50	5.00%	-	0.3650	0
	2002	80,988				80,988	-	6.5	32.50	5.00%	-	0.3150	0
	2003	80,988	37,339			118.327	37.339	5.5	27.50	5.00%	1.867	0.2650	9895
	2004	118.327				118.327		4.5	22.50	5.00%	-	0.2150	0
00000	2005	118,327	24,494			142.821	24.494	3.5	17.50	5.00%	1.225	0.1650	4042
7	2006	142,821				142,821	,	2.5	12.50	5.00%	-	0.1150	0
	2007	142,821				142,821		1.5	7.50	5.00%	-	0.0650	Ő
	2008	142,821			-50	142,771	(50)	0.5	2.50	5.00%	(3)	0.0150	-1
			140 222	2 520		2 215 780	140 771	-			7 120	-	00 005
		-	170,202	2,009		2,210,700	142,171	•			1,139		02,000

Net Salavage Adjustment: ______ Annual Depreciation: 7,139 Accrued Depreciation: 82,885

Composite Annual Accrual Rate, Percent: 5.00%

Account Number:
lowa Curve Type:
Avg. Service Life:
Net Salvage Percent:

5 GENERAL PLANT LABORATORY EQUIPMENT

395 GENER SQ 15 Years 0%

								Percent of	Annual D	epreciation	Accrued De	preclation
	Beg Bal	Add	Ret	Adj/Trans	End Bal	Net Change	Age	Avg. Age	Rate	Amount	Ratio	Amt.
1964	-	1,443			1,443	1,443	44.5	296.67	6.67%	96	1.0000	1443
1965	1,443				1,443	-	43.5	290.00	6.67%	-	1.0000	0
1966	1,443				1,443	-	42.5	283.33	6.67%	-	1.0000	0
1967	1,443				1,443	-	41.5	276.67	6.67%	-	1.0000	0
1968	1,443				1,443	-	40.5	270.00	6.67%	-	1.0000	0
1969	1,443		(1,443)		-	(1,443)	39.5	263.33	6.67%	(96)	1.0000	-1443
1970	- ·				-		38.5	256.67	6.67%	-	1.0000	0
1971					-	-	37.5	250.00	6.67%	-	1.0000	0
1972					-	-	36.5	243.33	6.67%	-	1.0000	0
1973	-				-		35.5	236 67	6 67%	-	1 0000	Ō
1974	-				-		34.5	230.00	6 67%	-	1 0000	Ő
1975						_	33.5	223.33	6.67%	_	1 0000	ñ
1976							32.5	216.67	6.67%		1,0000	õ
1077					-	-	21.5	210.01	6 67%	-	1.0000	ő
1078					-	-	20 5	210.00	0.01 /0	-	1.0000	0
1070	-				-	-	30.5	203.33	0.07%	-	1.0000	0
1020	-				-	-	29.5	190.07	0.07%	-	1.0000	0
1001	•				-	-	20.0	190.00	0.07%	-	1.0000	0
1901	-				-	-	27.5	183.33	0.07%	-	1.0000	U
1982	-				-	-	26.5	176.67	6.67%	-	1.0000	0
1983	-				-	-	25.5	170.00	6.67%	-	1.0000	0
1984	-				-	-	24.5	163.33	6.67%	-	1.0000	0
1985	-				•	-	23.5	156.67	6.67%	-	1.0000	0
1986	•	11,387			11,387	11,387	22.5	150.00	6.67%	759	1.0000	11387
1987	11,387	17			11,404	17	21.5	143.33	6.67%	1	1.0000	17
1988	11,404	1,707			13,111	1,707	20.5	136.67	6.67%	114	1.0000	1707
1989	13,111				13,111	-	19.5	130.00	6.67%	-	1,0000	0
1990	13,111	713			13,824	713	18.5	123.33	6.67%	48	1.0000	713
1991	13,824				13,824	-	17.5	116.67	6.67%	-	1.0000	0
1992	13,824	591			14,415	591	16.5	110.00	6.67%	39	1.0000	591
1993	14,415				14,415	-	15.5	103.33	6.67%	-	1,0000	0
1994	14,415				14,415	-	14.5	96.67	6.67%		0,9550	0
1995	14,415	2,531			16,946	2,531	13.5	90.00	6.67%	169	0.8950	2265
1996	16,946		(3,345)		13,601	(3,345)	12.5	83.33	6.67%	(223)	0.8250	-2760
1997	13,601	2,437			16,038	2,437	11.5	76.67	6.67%	162	0.7550	1840
1998	16,038	763			16.801	763	10.5	70.00	6.67%	51	0.6950	530
1999	16,801				16.801	-	9.5	63.33	6.67%	-	0.6250	0
2000	16.801				16,801		8.5	56.67	6.67%	-	0.5550	0
2001	16.801	236			17.037	236	7.5	50.00	6 67%	16	0 4950	117
2002	17.037				17.037		6.5	43 33	6.67%		0.4250	0
2003	17.037	4 905	(1.951)		19 991	2 954	5.5	36.67	6 67%	197	0.3550	1049
2004	19 991	1000	(1,001)		10,001	2,004	4.5	30.00	6 67%	101	0 2950	1010
2005	10,001	8 075			28,066	9.075	3.5	22.22	6 679/	539	0.2350	1917
2006	28,066	0,010			20,000	0,075	3.5	16.67	6 670/	000	0.1550	1017
2000	20,000				20,000	-	2.0	10.07	6 670/	-	0.1550	0
2007	20,000		4150		20,000	4 450	1.0	10.00	6.670	-	0.0950	104
2000	20,000		-4159		23,907	(4,159)	0.5	3.33	0.07%	(277)	0.0200	-104
	-	34,805	(10,898)		406,268	23,907	-			1,594	-	19,169

Net Salavage Adjustment: ______ Annual Depreciation: 1,594 Accrued Depreciation: 19,169

Composite Annual Accrual Rate, Percent: 6.67%

Account Number:	
Iowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

G	ENERAL	PLANT	POWER	OPERATED	EQUIPMENT

396 R3 15 0% Years

	Beg Bal	Add	Ret	Adi/Trans	End Bal	Net Change	Ann	Percent of	Annual De	preclation /	Accrued De Ratio	Amt
1915		200	IVEL	Adjuttans	200	200	93.5	623.33	6.67%	13	1,0000	200
1916	200	744			200	-	92.5	616.67	6.67%	-	1.0000	0
1918	941	/41			941	- 741	91,5	603.33	6.67%	49	1.0000	0
1919	941	565	(100)		1,406	465	89.5	596.67	6.67%	31	1.0000	465
1920	1,406	17	(165)		1,258	(148)	88.5	590.00	6.67% 6.67%	(10)	1.0000	-148
1922	1,997	1,019	(1,124)		1,892	(105)	86.5	576.67	6.67%	(7)	1.0000	-105
1923	1,892	1,074			2,966	1,074	85.5	570.00	6.67%	72	1.0000	1074
1924	2,966	386			3,352	386	84,5	563.33 556.67	6.67% 6.67%	26 1	1.0000	386
1926	3,370	1,270	(813)		3,827	457	82.5	550.00	6.67%	30	1.0000	457
1927	3,827	174			4,001	174	81.5	543.33	6.67%	12	1.0000	174
1928	4,001	574	(490)		4,001	- 84	80.5 79.5	536.67	6.67% 6.67%	-	1.0000	84
1930	4,085	40	. ,		4,125	40	78.5	523.33	6.67%	3	1.0000	40
1931	4,125		(642)		4,125	-	77.5	516.67	6.67%	- (42)	1.0000	0
1933	3,483		(043)		3,483	(043)	75.5	503.33	6.67%	(43)	1.0000	-043
1934	3,483		(738)		2,745	(738)	74.5	496.67	6.67%	(49)	1.0000	-738
1935	2,745	74 64			2,819	74	73.5	490.00	6.67% 6.67%	5	1.0000	74 64
1937	2,883	256	(15)		3,125	241	71.5	476.67	6.67%	16	1.0000	241
1938	3,125		~		3,125	-	70.5	470.00	6.67%	-	1.0000	0
1939	3,125	127	(74)		3,177	53 187	69.5 68.5	463.33 456.67	6.67% 6.67%	4	1.0000	53 187
1941	3,365	508			3,872	508	67.5	450.00	6.67%	34	1.0000	508
1942	3,872	10		(629)	3,254	(619)	66.5	443.33	6.67%	(41)	1.0000	-619
1943	3,254				3,254	-	64.5	430.07	6.67%		1,0000	0
1945	3,254	1,688			4,941	1,688	63.5	423.33	6.67%	113	1.0000	1688
1946	4,941	126	(705)		5,067	126	62.5	416.67	6.67%	8	1.0000	126
1948	4,950	150	(105)		5,100	150	60.5	403.33	6.67%	10	1.0000	150
1949	5,100	254			5,354	254	59.5	396.67	6.67%	17	1.0000	254
1950	5,354 5,542	188			5,542	188	58.5 57.5	390.00	6,67% 6,67%	13	1.0000	188
1952	5,542	41			5,583	41	56.5	376.67	6,67%	3	1.0000	41
1953	5,583	123	(524)		5,182	(401)	55.5	370.00	6.67%	(27)	1.0000	-401
1954	5,182 5,211	29 477	(148)		5,211	29	54.5 53.5	363.33	6.67% 6.67%	2	1.0000	29 329
1956	5,541	2,002	(169)		7,374	1,833	52.5	350.00	6.67%	122	1.0000	1833
1957	7,374	1,535	(67)		8,843	1,468	51.5	343.33	6.67%	98	1.0000	1468
1958	8,996	5.009	(217)		12.854	153 3.858	50.5 49.5	336.67	6.67% 6.67%	10 257	1.0000	3858
1960	12,854	1,042	(1,063)		12,833	(21)	48.5	323.33	6.67%	(1)	1.0000	-21
1961	12,833	424	(29)		13,229	396	47.5	316.67	6.67%	26	1.0000	396
1963	13,588	829	(75)		14,343	754	46.5	303.33	6.67%	24 50	1.0000	754
1964	14,343	1,079	(153)		15,268	925	44.5	296.67	6.67%	62	1.0000	925
1965 1966	15,268	1 257	380		15,268	- 1637	43.5	290.00	6.67%	100	1.0000	0 1637
1967	16,905	550	(429)		17,026	121	42.5	276.67	6.67%	8	1.0000	103/
1968	17,026	106			17,131	106	40.5	270.00	6.67%	7	1.0000	106
1969	17,131	406	(2,697)		14,840 15,454	(2,291)	39.5	263.33	6.67% 6.67%	(153)	1.0000	-2291
1971	15,454	595	(14,844)		1,205	(14,249)	37.5	250.00	6.67%	(950)	1.0000	-14249
1972	1,205		(005)		1,205	-	36.5	243.33	6.67%	-	1,0000	0
1973	1,205		(695)		1.205	(695) 695	35.5	236.67	6.67% 6.67%	(46)	1,0000	-695
1975	1,205				1,205	-	33.5	223.33	6.67%	-	1.0000	0
1976	1,205				1,205	-	32.5	216.67	6.67%	-	1.0000	0
1978	1,205				1,205	-	31.5	203.33	6.67%		1.0000	0
1979	1,205				1,205	•	29.5	196.67	6.67%		1.0000	Ō
1980	1,205	3,834	(1,315)		3,724	2,519	28.5	190.00	6.67%	168	1.0000	2519
1982	3,724				3,724	-	26.5	176.67	6.67%		1.0000	0
1983	3,724				3,724	-	25.5	170.00	6.67%	-	1.0000	0
1984	3,724		(595)		3,129	(595)) 24.5	163.33	6.67% 6.67%	(40)	0.9875	-588 0
1986	3,129		(557)		2,572	(557)) 22.5	150.00	6.67%	(37)	0.9541	-531
1987	2,572				2,572	-	21.5	143.33	6.67%	•	0.9352	0
1988	2,572				2,572	-	20.5	136.67	6.67% 6.67%		0.9182	U O
1990	2,572			400	2,972	400	18.5	123.33	6.67%	27	0.8833	353
1991	2,972	1,993	157		4,965	1,993	17.5	116.67	6.67%	133	0.8518	1698
1992	4,965	5,962	157		11,104	6,139	16.5	10.00	6.67%	409	0.8405	5160
1994	11,104				11,104	-	14.5	96.67	6.67%	-	0.7787	Ō
1995	11,104				11,104	-	13.5	90.00	6.67%	-	0.7465	0
1997	11,104				11,104	-	12.5	76.67	6.67%		0.6593	0
1998	11,104				11,104	-	10.5	70.00	6.67%	-	0.6174	0
1999	11,104				11,104	-	9.5	63.33 56.67	6.67% 6.67%	•	0.5656	0
2000	11,104				11,104	-	7.5	50.00	6.67%	-	0.4621	0
2002	11,104	445 000			11,104		6.5	43.33	6.67%	-	0.4028	0
2003 2004	11,104 126.332	20.401			126,332	115,228 20.401	5.5 4.5	36.67	6.67%	7,682	0.3413	39327 5857
2005	146,733	12,614			159,347	12,614	3.5	23.33	6.67%	841	0.2221	2802
2006	159,347	2 600			159,347		2.5	16.67	6.67%	-	0.1557	0
2008	162,947	3,000			162,947	3,000	0.5	3.33	6.67%	240	0.0978	352
		400.000	(AA + A +)		4 107 007	1000-0-	-		-		-	
	-	192,639	(29,464)		1,435,802	162,947				10,863		58,154

Net Salavage Adjustment: _______ Annual Depreciation: 10,863 Accrued Depreciation:

Composite Annual Accrual Rate, Percent: 6.67% 58,154

Account Number: Iowa Curve Type: Avg. Service Life: Net Salvage Percent:

97 GENERAL PLANT COMMUNICATIONS EQUIPMENT

397 GENE SQ 10 Years 0%

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	reclation
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Amt.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	4444
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	0
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	948
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1028
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	0
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0
1976 6,420 - 32,5 325,00 10,00% - 1,000 1977 6,420 - 31,5 315,00 10,00% - 1,000 1978 6,420 1,200 (1,028) 6,592 172 30,5 305,00 10,00% - 1,000 1979 6,592 6,592 172 30,5 305,00 10,00% - 1,0000 1980 6,592 6,592 - 28,5 285,00 10,00% - 1,0000 1981 6,592 6,592 - 28,5 285,00 10,00% - 1,0000 1982 6,592 6,592 - 27,5 275,00 10,00% - 1,0000 1982 6,592 - 26,50 10,00% - 1,0000 1983 6,592 6,592 - 25,5 256,00 10,00% - 1,0000 1984 6,592 - 24,5 245,00 10,00% - 1,0000	0
1977 6,420 - 31.5 315.00 10.00% - 1.000 1978 6,420 1,200 (1,028) 6,592 172 30.5 305.00 10.00% 17 1.0000 1979 6,592 6,592 - 29.5 296.00 10.00% - 1.0000 1980 6,592 - 28.5 286.00 10.00% - 1.0000 1981 6,592 - 28.5 285.00 10.00% - 1.0000 1982 6,592 - 28.5 285.00 10.00% - 1.0000 1982 6,592 - 28.5 285.00 10.00% - 1.0000 1983 6,592 - 28.5 265.00 10.00% - 1.0000 1984 6,592 - 24.5 245.00 10.00% - 1.0000	0
1978 6,420 1,200 (1,028) 6,592 172 30.5 305.00 10.00% 17 1,000 1979 6,592 6,592 - 29.5 295.00 10.00% - 1.0000 1980 6,592 - 28.5 285.00 10.00% - 1.0000 1981 6,592 - 28.5 285.00 10.00% - 1.0000 1982 6,592 - 27.5 275.00 10.00% - 1.0000 1982 6,592 - 28.5 265.00 10.00% - 1.0000 1983 6,592 - 26.5 265.00 10.00% - 1.0000 1984 6,592 - 24.5 245.00 10.00% - 1.0000	0
1979 6,592 6,592 - 29.5 295.00 10.00% - 1.0000 1980 6,592 6,592 - 28.5 285.00 10.00% - 1.0000 1981 6,592 6,592 - 27.5 275.00 10.00% - 1.0000 1982 6,592 6,592 - 26.5 265.00 10.00% - 1.0000 1983 6,592 6,592 - 25.5 256.00 10.00% - 1.0000 1984 6,592 6,592 - 24.5 245.00 10.00% - 1.0000	172
19806,592-28.5285.0010.00%-1.000019816,5926,592-27.5275.0010.00%-1.000019826,5926,592-26.5265.0010.00%-1.000019836,5926,592-25.5255.0010.00%-1.000019846,5926,592-24.5245.0010.00%-1.0000	0
1981 6,592 - 27.5 275.00 10.00% - 1.0000 1982 6,592 6,592 - 26.5 265.00 10.00% - 1.0000 1983 6,592 6,592 - 25.5 255.00 10.00% - 1.0000 1984 6,592 6,592 - 24.5 245.00 10.00% - 1.0000	0
19826,592-26.5265.0010.00%-1.000019836,5926,592-25.5255.0010.00%-1.000019846,5926,592-24.5245.0010.00%-1.0000	0
1983 6,592 - 25.5 255.00 10.00% - 1.0000 1984 6,592 6,592 - 24.5 245.00 10.00% - 1.0000	0
1984 6,592 6,592 - 24.5 245.00 10.00% - 1.0000	0
	0
1985 6,592 6,592 6,592 - 23,5 235,00 10,00% - 1,0000	0
1986 6,592 6,592 - 22.5 225.00 10.00% - 1.0000	0
1987 6,592 3,613 10,205 3,613 21.5 215.00 10,00% 361 1,0000	3613
1988 10,205 3,793 13,998 3,793 20.5 205.00 10,00% 379 1,0000	3793
1989 13,998 3,350 (4,614) 12,734 (1,264) 19.5 195.00 10.00% (126) 1.0000	-1264
1990 12,734 2,924 (2,368) 13,290 556 18.5 185.00 10.00% 56 1.0000	556
1991 13,290 30,996 (13,290) 30,996 17,706 17.5 175.00 10.00% 1,771 1.0000	17706
1992 30,996 30,996 16.5 165.00 10.00% - 1.0000	0
1993 30,996 197,522 228,518 197,522 15.5 155.00 10.00% 19,752 1.0000	197522
1994 228,518 1,907 230,425 1,907 14.5 145.00 10.00% 191 1.0000	1907
1995 230,425 230,425 - 13.5 135.00 10.00% - 1.0000	0
1996 230,425 11,224 241,649 11,224 12.5 125.00 10.00% 1,122 1.0000	11224
1997 241,649 241,649 - 11.5 115.00 10.00% - 1.000	0
1998 241,649 9,796 (21,980) 229,465 (12,184) 10.5 105.00 10.00% (1,218) 1.0000	-12184
1999 229,465 3,870 233,335 3,870 9.5 95.00 10.00% 387 0.9450	3657
2000 233,335 962 234,297 962 8.5 85.00 10.00% 96 0.8550	823
2001 234,297 4,093 238,390 4,093 7,5 75,00 10,00% 409 0,7450	3049
2002 238,390 238,390 - 6.5 65.00 10.00% - 0.5450	0
2003 238,390 35,938 (2,000) 272,328 33,938 5.5 55.00 10.00% 3,394 0.5450	18496
2004 272,328 1,422 273,750 1,422 4.5 45,00 10.00% 142 0.4450	633
2005 273,750 13,256 287,006 13,256 3.5 35.00 10.00% 1,326 0.3550	4706
2006 287,006 287,006 - 2.5 25,00 10,00% - 0.2450	0
2007 287,006 287,006 - 1.5 15.00 10.00% - 0.1450	0
2008 287,006 -399,98 286,606 (400) 0.5 5.00 10.00% (40) 0.0450	-18
- 332,286 (45,680) 4,290,253 286,606 28,661	260,810

Net Salavage Adjustment: ______ Annual Depreciation: 28,661 Accrued Depreciation: 260,810

Composite Annual Accrual Rate, Percent: 10.00%

Account Number:	
lowa Curve Type:	
Avg. Service Life:	
Net Salvage Percent:	

MISCELLANEOUS EQUIPMENT

398 SQ 15 0% Years

								Percent of	Annual D	epreciation	Accrued De	preciation
	Beg Bal	<u>Add</u>	<u>Ret</u>	Adi/Trans	End Bal	<u>Net Change</u>	Age	Avg. Age	Rate	Amount	Ratio	Amt
1971	•		200		200	200	37.5	250.00	6.67%	13	1.0000	200
1972	200				200	-	36.5	243.33	6.67%	-	1.0000	0
1973	200				200		35.5	236.67	6.67%	-	1.0000	0
1974	200				200	-	34.5	230.00	6.67%	-	1.0000	0
1975	200		,		200	-	33.5	223.33	6.67%	-	1.0000	0
1976	200				200	-	32.5	216.67	6.67%	-	1.0000	0
1977	200				200	-	31.5	210.00	6.67%	-	1.0000	0
1978	200				200	-	30.5	203.33	6.67%	-	1.0000	0
1979	200				200	•	29.5	196.67	6.67%	-	1.0000	0
1980	200				200	-	28.5	190.00	6.67%	-	1.0000	0
1981	200				200	-	27.5	183.33	6.67%	-	1.0000	0
1982	200				200	-	26.5	176.67	6.67%	-	1.0000	0
1983	200				200	-	25.5	170.00	6.67%	-	1.0000	0
1984	200				200	-	24.5	163.33	6.67%	-	1.0000	0
1985	200				200	-	23.5	156.67	6.67%	-	1.0000	0
1986	200	279			479	279	22.5	150.00	6.67%	19	1.0000	279
1987	479				479	-	21.5	143.33	6.67%	-	1.0000	0
1988	479				479	-	20.5	136.67	6.67%	-	1.0000	0
1989	479				479	-	19.5	130.00	6.67%	-	1.0000	0
1990	479				479	-	18.5	123.33	6.67%	-	1.0000	0
1991	479	792			1,271	792	17.5	116.67	6.67%	53	1.0000	792
1992	1,271	588			1,859	588	16,5	110.00	6.67%	39	1.0000	588
1993	1,859				1,859	-	15.5	103.33	6.67%	-	1.0000	0
1994	1,859				1,859	-	14,5	96.67	6.67%	-	0,9550	0
1995	1,859	1,075			2,934	1,075	13.5	90.00	6.67%	72	0.8950	962
1996	2,934				2,934		12.5	83.33	6.67%	-	0.8250	0
1997	2,934				2,934	-	11.5	76.67	6.67%	-	0,7550	Ō
1998	2,934	380			3,314	380	10.5	70.00	6.67%	25	0.6950	264
1999	3,314				3,314	-	9.5	63.33	6.67%		0.6250	0
2000	3,314	6,959			10,273	6,959	8.5	56.67	6.67%	464	0.5550	3862
2001	10,273	1,429			11,702	1,429	7.5	50.00	6.67%	95	0.4950	707
2002	11,702				11,702		6.5	43.33	6.67%	-	0.4250	0
2003	11,702	14,713			26,415	14.713	5.5	36.67	6.67%	981	0.3550	5223
2004	26,415	4,298			30,713	4,298	4.5	30.00	6.67%	287	0.2950	1268
2005	30,713	2,840			33,553	2,840	3.5	23.33	6.67%	189	0.2250	639
2006	33,553				33,553	-	2.5	16.67	6.67%		0.1550	0
2007	33,553				33,553	-	1.5	10.00	6.67%	-	0.0950	ñ
2008	33,553		(6,773)		26,780	(6.773)	0.5	3.33	6.67%	(452)	0.0250	-169
						·····				()		
	-	33,750	(6,971)		246,692	26,780				1,785	-	14,615

Net Salavage Adjustment: ______ Annual Depreciation: ________ Accrued Depreciation:

14,615

Composite Annual Accrual Rate, Percent: 6.67%