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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)
OF IDAHO POWER COMPANY FOR)
AUTHORITY TO INSTITUTE REVISED)
DEPRECIATION RATES FOR ELECTRIC)
PLANT IN SERVICE)
_____)

CASE NO. IPC-E-03-07

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

JOHN J. SPANOS

1 Q. Please state your name and business address.

2 A. My name is John J. Spanos. My business
3 address is 207 Senate Avenue, Camp Hill, Pennsylvania.

4 Q. Are you associated with any firm?

5 A. Yes. I am associated with the firm of
6 Gannett Fleming, Inc. - Valuation and Rate Division.

7 Q. How long have you been associated with
8 Gannett Fleming, Inc.?

9 A. I have been associated with the firm since
10 college graduation in June, 1986.

11 Q. What is your position with the firm?

12 A. I am a Vice President of the Valuation and
13 Rate Division.

14 Q. What is your educational background?

15 A. I have Bachelor of Science degrees in
16 Industrial Management and Mathematics from Carnegie-Mellon
17 University and a Master of Business Administration from York
18 College.

19 Q. Do you belong to any professional societies?

20 A. Yes. I am a member of the Society of
21 Depreciation Professionals and the American Gas
22 Association/Edison Electric Institute Industry Accounting
23 Committee.

24 Q. Do you hold any special certification as a
25 depreciation expert?

1 A. Yes. The Society of Depreciation
2 Professionals has established national standards for
3 depreciation professionals. The Society administers an
4 examination to become certified in this field. I passed the
5 certification exam in September 1997.

6 Q. Please outline your experience in the field
7 of depreciation.

8 A. In June, 1986, I was employed by Gannett
9 Fleming, Inc. as a Depreciation Analyst. During the period
10 from June, 1986 through December, 1995, I helped prepare
11 numerous depreciation and original cost studies for utility
12 companies in various industries. I helped perform
13 depreciation studies for the following telephone companies:
14 United Telephone of Pennsylvania, United Telephone of New
15 Jersey and Anchorage Telephone Utility. I helped perform
16 depreciation studies for the following companies in the
17 railroad industry: Union Pacific Railroad, Burlington
18 Northern Railroad and Wisconsin Central Transportation
19 Corporation.

20 I helped perform depreciation studies for the
21 following organizations in the electric industry: Chugach
22 Electric Association, The Cincinnati Gas and Electric
23 Company (CG&E), The Union Light, Heat and Power Company
24 (ULH&P), Northwest Territories Power Corporation and the
25 City of Calgary - Electric System.

1 I helped perform depreciation studies for the
2 following pipeline companies: TransCanada Pipelines Limited,
3 Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe
4 Line Inc., Nova Gas Transmission Limited and Lakehead
5 Pipeline Company.

6 I helped perform depreciation studies for the
7 following gas companies: Columbia Gas of Pennsylvania,
8 Columbia Gas of Maryland, The Peoples Natural Gas Company,
9 T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg
10 Gas Company and Penn Fuel Gas, Inc.

11 I helped perform depreciation studies for the
12 following water companies: Indiana-American Water Company,
13 Consumers Pennsylvania Water Company and The York Water
14 Company; and depreciation and original cost studies for
15 Philadelphia Suburban Water Company and Pennsylvania-
16 American Water Company.

17 In each of the above studies, I assembled and
18 analyzed historical and simulated data, performed field
19 reviews, developed preliminary estimates of service life and
20 net salvage, calculated annual depreciation, and prepared
21 reports for submission to state public utility commissions
22 or federal regulatory agencies. I performed these studies
23 under the general direction of William M. Stout, P.E.

24 In January, 1996, I was assigned to the
25 position of Supervisor of Depreciation Studies. In July,

1 1999, I was promoted to the position of Manager,
2 Depreciation and Valuation Studies. In December, 2000, I
3 was promoted to my present position as Vice-President of the
4 Valuation and Rate Division of Gannett Fleming, Inc. and I
5 became responsible for conducting all depreciation,
6 valuation and original cost studies, including the
7 preparation of final exhibits and responses to data requests
8 for submission to the appropriate regulatory bodies.

9 Since January, 1996, I have conducted
10 depreciation studies similar to those previously listed
11 including assignments for Hampton Water Works Company, Omaha
12 Public Power District, Enbridge Pipe Line Company, Inc.,
13 Columbia Gas of Virginia, Inc., Columbia Gas of Kentucky,
14 Inc., Virginia Natural Gas Company, National Fuel Gas
15 Distribution Corporation - New York and Pennsylvania
16 Divisions, The City of Bethlehem - Bureau of Water, The City
17 of Coatesville Authority, The City of Lancaster - Bureau of
18 Water, Peoples Energy Corporation, Public Service Company of
19 Colorado, Reliant Energy - HLP, Massachusetts-American Water
20 Company, St. Louis County Water Company, Alliant Energy -
21 Interstate Power and Light Co., Alliant Energy - Interstate
22 Power Company, Cinergy Corporation - PSI Energy, Citizens
23 Gas & Coke Utility, Dominion Hope Gas, Dominion Transmission
24 Inc., Dominion Virginia Power, Duquesne Light Company,
25 Enbridge Consumers Gas Company, Missouri-American Water

1 Company, Northampton, Bucks County Municipal Authority,
2 Centennial Pipeline Company, Northwest Territories Power
3 Corporation, NUI Corporation - Virginia Gas Distribution
4 Company, Elizabethtown Gas Company, PPL Gas Division, South
5 Carolina Electric and Gas Company, Chugach Electric
6 Association and B. C. Gas Utility, Ltd. My additional
7 duties include determining final life and salvage estimates,
8 conducting field reviews and presenting recommended
9 depreciation rates to management for their consideration.

10 Q. Have you submitted testimony to any state
11 utility commission on the subject of utility plant
12 depreciation?

13 A. Yes. I have submitted testimony to the
14 Pennsylvania Public Utility Commission, the Massachusetts
15 Department of Telecommunications and Energy, the Public
16 Utilities Commission of Ohio, the Public Utility Board of
17 New Jersey, Indiana Public Utilities Commission, and the
18 Commonwealth of Kentucky Public Service Commission.

19 Q. Have you had any additional education
20 relating to utility plant depreciation?

21 A. Yes. I have completed the following courses
22 conducted by Depreciation Programs, Inc.: "Techniques of
23 Life Analysis," "Techniques of Salvage and Depreciation
24 Analysis," "Forecasting Life and Salvage," "Modeling and
25 Life Analysis Using Simulation" and "Managing a Depreciation

1 Study." I have also completed the "Introduction to Public
2 Utility Accounting" program conducted by the American Gas
3 Association.

4 Q. What is the purpose of your testimony in this
5 proceeding?

6 A. I am sponsoring the depreciation study
7 performed on behalf of Idaho Power Company.

8 Q. Please define the concept of depreciation.

9 A. Depreciation refers to the loss in service
10 value not restored by current maintenance, incurred in
11 connection with the consumption or prospective retirement of
12 utility plant in the course of service from causes, which
13 can be reasonably anticipated or contemplated, against which
14 the Company is not protected by insurance. Among the causes
15 to be given consideration are wear and tear, decay, action
16 of the elements, inadequacy, obsolescence, changes in the
17 art, changes in demand and the requirements of public
18 authorities.

19 Q. Was the depreciation study prepared under
20 your direction and control?

21 A. Yes.

22 Q. What depreciation procedure did you initially
23 recommend to the Company?

24 A. I recommended the use of the Equal Life Group
25 Procedure as this procedure best matches the recovery rate

1 of capital investment with the asset service value.

2 Q. Did Idaho Power request that you prepare an
3 alternative to the preferred procedure?

4 A. Yes, The Company requested I prepare a
5 depreciation study based on the use of the Average Service
6 Life Procedure.

7 Q. Do you continue to believe that the ELG is
8 the more appropriate method to be used in the Company's
9 depreciation study?

10 A. Yes. The Equal Life Group Procedure is the
11 superior method for determining depreciation accrual rates.
12 In the Equal Life Group procedure, also known as the unit
13 summation procedure, the property group is subdivided
14 according to service life. That is, each equal life group
15 includes that portion of the property which experiences the
16 life of that specific group. The relative size of each
17 equal life group is determined from the property's life
18 dispersion curve. The calculated depreciation for the
19 property group is the summation of the calculated
20 depreciation based on the service life of each equal life
21 unit.

22 This procedure eliminates the need to base
23 annual depreciation expense on average lives, inasmuch as
24 each group has a single life. The full cost of short-lived
25 items is accrued during their lives, leaving no deferral of

1 accruals required to be added to the annual cost associated
2 with long-lived items. The depreciation expense for the
3 property group is the summation of the depreciation expense
4 based on the service life of each equal life group.

5 Q. Is Exhibit 1 a true and accurate copy of the
6 depreciation study performed by you on behalf of Idaho Power
7 Company using the average service life procedure?

8 A. Yes.

9 Q. Does Exhibit 1 accurately portray the results
10 of your depreciation study using the average service life
11 procedure as of December 31, 2001?

12 A. Yes.

13 Q. In conducting the depreciation study, did you
14 follow generally accepted practices in the field of
15 depreciation valuation?

16 A. Yes.

17 Q. Please describe the contents of Exhibit 1.

18 A. I recommend changes to the depreciation rates
19 currently in use as follows:

20	<u>Function</u>	<u>Existing %</u>	<u>Recommended %</u>
21	Steam Production Plant	3.07%	3.00%
22	Hydraulic Production Plant	1.99%	2.22%
23	Other Production Plant	2.77%	2.84%
24	Transmission Plant	2.18%	2.34%
25	Distribution Plant	3.26%	2.66%

1 Q. Have you prepared a summary of your detailed
2 recommendations that are described in Exhibit 1?

3 A. Yes, pages III-4 through III-11 (Exhibit 1,
4 pages 51 through 58) set forth the annual depreciation
5 accrual rates as of December 31, 2001.

6 Q. Please explain how you performed your
7 depreciation study.

8 A. I used the straight line remaining life
9 method of depreciation, with the average service life
10 procedure. The annual depreciation is based on a method of
11 depreciation accounting that seeks to distribute the
12 unrecovered cost of fixed capital assets over the average
13 remaining life of the property within a group rather than
14 recovering the unrecovered costs over the estimated
15 remaining useful life of each unit, or group of assets.

16 For General Plant Accounts 391.1, 391.2,
17 393.0, 394.0, 395.0, 397.1, 397.2, 397.3, 397.4 and 398, I
18 used the straight line remaining life method of
19 amortization. The account numbers identified throughout my
20 testimony represent those in effect as of December 31, 2001.
21 The annual amortization is based on amortization accounting
22 that distributes the unrecovered cost of fixed capital
23 assets over the remaining amortization period selected for
24 each account and vintage.

25 Q. How did you determine the recommended annual

1 depreciation accrual rates?

2 A. I did this in two phases. In the first phase,
3 I estimated the service life and net salvage characteristics
4 for each depreciable group, that is, each plant account or
5 subaccount identified as having similar characteristics. In
6 the second phase, I calculated the composite remaining lives
7 and annual depreciation accrual rates based on the service
8 life and net salvage estimates determined in the first
9 phase.

10 Q. Please describe the first phase of the
11 depreciation study, in which you estimated the service life
12 and net salvage characteristics for each depreciable group.

13 A. The service life and net salvage study
14 consisted of compiling historical data from records related
15 to Idaho Power's plant; analyzing these data to obtain
16 historical trends of survivor characteristics; obtaining
17 supplementary information from management and operating
18 personnel concerning practices and plans as they relate to
19 plant operations; and interpreting the above data and the
20 estimates used by other electric utilities to form judgments
21 of average service life and net salvage characteristics.

22 Q. What historical data did you analyze for the
23 purpose of estimating service life characteristics?

24 A. I analyzed the Company's accounting entries
25 that record plant transactions during the period 1946

1 through 2001. The transactions included additions,
2 retirements, transfers, sales and the related balances. The
3 Company records included surviving dollar value by year
4 installed for each plant account as of December 31, 2001.

5 Q. What method did you use to analyze this
6 service life data?

7 A. I used the retirement rate method. This is
8 the most appropriate method when retirement data covering a
9 long period of time is available, because this method
10 determines the average rates of retirement actually
11 experienced by the Company during the period of time covered
12 by the depreciation study.

13 Q. Please describe how you used the retirement
14 rate method to analyze Idaho Power's service life data.

15 A. I applied the retirement rate analysis to
16 each different group of property in the study. For each
17 property group, I used the retirement rate data to form a
18 life table which, when plotted, shows an original survivor
19 curve for that property group. Each original survivor curve
20 represents the average survivor pattern experienced by the
21 several vintage groups during the experience band studied.
22 The survivor patterns do not necessarily describe the life
23 characteristics of the property group; therefore,
24 interpretation of the original survivor curves is required
25 in order to use them as valid considerations in estimating

1 service life. The Iowa type survivor curves were used to
2 perform these interpretations.

3 Q. What is an "Iowa-type Survivor Curve" and how
4 did you use such curves to estimate the service life
5 characteristics for each property group?

6 A. Iowa type curves are a widely-used group of
7 survivor curves that contain the range of survivor
8 characteristics usually experienced by utilities and other
9 industrial companies. The Iowa curves were developed at the
10 Iowa State College Engineering Experiment Station through an
11 extensive process of observing and classifying the ages at
12 which various types of property used by utilities and other
13 industrial companies had been retired.

14 Iowa type curves are used to smooth and
15 extrapolate original survivor curves determined by the
16 retirement rate method. The Iowa curves and truncated Iowa
17 curves were used in this study to describe the forecasted
18 rates of retirement based on the observed rates of
19 retirement and the outlook for future retirements.

20 The estimated survivor curve designations for
21 each depreciable property group indicate the average service
22 life, the family within the Iowa system to which the
23 property group belongs, and the relative height of the mode.
24 For example, the Iowa 35-R2 indicates an average service
25 life of thirty-five years; a right-moded, or R, type curve

1 (the mode occurs after average life for right-moded curves);
2 and a moderate height, 2, for the mode (possible modes for R
3 type curves range from 1 to 5).

4 Q. Did you physically observe Idaho Power's
5 plant and equipment in the field as part of your
6 depreciation study?

7 A. Yes. I made field reviews of Idaho Power's
8 property on August 7, and October 14 through 16, 2002, to
9 observe representative portions of plant. Field reviews are
10 conducted to become familiar with Company operations and
11 obtain an understanding of the function of the plant and
12 information with respect to the reasons for past retirements
13 and the expected future causes of retirements. This
14 knowledge as well as information from other discussions with
15 management was incorporated in the interpretation and
16 extrapolation of the statistical analyses.

17 Q. Please describe how you estimated net salvage
18 percentages.

19 A. I estimated the net salvage percentages by
20 incorporating the historical data for the period 1954
21 through 2001 and considered estimates for other electric
22 companies.

23 Q. Please describe the second phase of the
24 process that you used in the depreciation study in which you
25 calculated composite remaining lives and annual depreciation

1 accrual rates.

2 A. After I estimated the service life and net
3 salvage characteristics for each depreciable property group,
4 I calculated the annual depreciation accrual rates for each
5 group, using the straight line remaining life method, and
6 using remaining lives weighted consistent with the average
7 service life procedure.

8 Q. Please describe the straight line remaining
9 life method of depreciation.

10 A. The straight line remaining life method of
11 depreciation allocates the original cost of the property,
12 less accumulated depreciation, less future net salvage, in
13 equal amounts to each year of remaining service life.

14 Q. Please describe the average service life
15 procedure.

16 A. The average service life procedure is a
17 method for determining the remaining life annual accrual for
18 each vintage property group. Under this procedure, the rate
19 of annual depreciation is based on the average service life
20 of the group, and this rate is applied to the surviving
21 balances of the group's cost. The average remaining life is
22 derived from the area under the survivor curve between the
23 attained age of the vintage and the maximum age. The future
24 book accruals (original cost less book reserve) are divided
25 by the average remaining life of the vintage which is

1 determined by the average service life.

2 Q. Please describe amortization accounting.

3 A. In amortization accounting, units of property
4 are capitalized in the same manner as they are in
5 depreciation accounting. Amortization accounting is used
6 for accounts with a large number of units, but small asset
7 values, therefore, depreciation accounting is difficult for
8 these assets because periodic inventories are required to
9 properly reflect plant in service. Consequently,
10 retirements are recorded when a vintage is fully amortized
11 rather than as the units are removed from service. That is,
12 there is no dispersion of retirement. All units are retired
13 when the age of the vintage reaches the amortization period.
14 Each plant account or group of assets is assigned a fixed
15 period which represents an anticipated life which the asset
16 will render full benefit. For example, in amortization
17 accounting, assets that have a 10-year amortization period
18 will be fully recovered after 10 years of service and taken
19 off the Company books, but not necessarily removed from
20 service. In contrast, assets that are taken out of service
21 before 10 years remain on the books until the amortization
22 period for that vintage has expired.

23 Q. Amortization accounting is being implemented
24 to which plant accounts?

25 A. Amortization accounting is only appropriate

1 for certain General Plant accounts. These accounts are
2 391.1, 391.2, 393.0, 394.0, 395.0, 397.1, 397.2, 397.3,
3 397.4 and 398.0 which represent only two percent of
4 depreciable plant.

5 Q. Please use an example to illustrate how the
6 annual depreciation accrual rate for a particular group of
7 property is presented in your depreciation study, Exhibit 1.

8 A. I will use Account 362, Station Equipment, as
9 an example as it is a typical depreciable group.

10 The retirement rate method was used to
11 analyze the survivor characteristics of this property group.
12 Aged plant accounting data was compiled from 1916 through
13 2001 and analyzed in periods that best represent the overall
14 service life of this property. The life tables for the
15 1996-2001 experience band is presented on pages III-67
16 through III-69 (Exhibit 1, pages 114 through 116) of the
17 report. The life tables display the retirement and
18 surviving ratios of the aged plant data exposed to
19 retirement by age interval. For example, Page III-67
20 (Exhibit 1, page 114) shows \$10,548 retired at age 0.5 with
21 \$28,736,129 exposed to retirement. Consequently, the
22 retirement ratio is .0004 and the surviving ratio is 0.9996.
23 This life table, or original survivor curve, is plotted
24 along with the estimated smooth survivor curve, the 50-01 on
25 page III-66 (Exhibit 1, page 113).

1 My calculation of the annual depreciation
2 related to the original cost at December 31, 2001, of
3 utility plant is presented on pages III-287 through III-289
4 (Exhibit 1, pages 334 through 336). The calculation is
5 based on the 50-01 survivor curve, 0% negative net salvage,
6 the attained age, and the allocated book reserve. The
7 tabulation sets forth the installation year, the original
8 cost, calculated accrued depreciation, allocated book
9 reserve, future accruals, remaining life and annual accrual.
10 These totals are brought forward to the table on page III-10
11 (Exhibit 1, page 57).

12 Q. What date does the company propose that the
13 new depreciation rates become effective.

14 A. I have been advised that the Company desires
15 a December 1, 2003 implementation date.

16 Q. Does this conclude your testimony?

17 A. Yes.