Q. Re: Life: Please provide a detailed narrative for each account, identifying what steps were undertaken to arrive at the proposed average service life and corresponding dispersion curve. The response should identify specifically what information was relied upon, what life analysis procedure was utilized, including clear identification of experience band, placement band, and intervals, if the best fitting curve and life combination were not chosen, what other information was specifically relied upon to make modifications in order to establish the actual proposed life parameters. Further, provide all work papers, assumptions, considerations, and material reviewed and relied upon in sufficient detail to permit replication of the Company's proposed average service life and dispersion curve combination by account.

A. As indicated in response to CA-NLH-10(a) there were four primary considerations in the development of the average service life estimate, namely:

- The review of historic retirement experience through the completion of a retirement rate analysis as provide in Section IV of the Gannett Fleming study. As indicated at page II-30 of the Gannett Fleming study, detailed retirement information was available for a 19 year period from 1991 through 2009, as such this 19 year band of retirement of retirement experience combined with an all-inclusive placement band was used in the analysis of all accounts discussed below;
- The review of the average service life estimates of peer Canadian Electric utilities as provided starting at page III-6 of the Gannett Fleming study;
- Information gained from discussions held with Operating and Management staff of Hydro; and

- Compliance with IFRS requirement IAS 16 with respect to the development of the revised account structure.

The following account by account discussion relates to the manner in which the above four considerations were factored into the average service life estimate for each account.

A01 - AIRCRAFT LANDING STRIP - In the completion of the response to this Request for Information, Gannett Fleming has noticed the incorrect Iowa curve was provided in the Gannett Fleming report. A corrected graph of the fit of the 22-S6 Iowa curve is provided as CA-NLH-19 Attachment 1.

A review of peer companies did not provide any meaningful input as this account is not separately identified by the peer group. Based on the retirement rate analysis, a 22 year life is recommended. In selecting the S6 Iowa curve Gannett Fleming gave consideration to the fact there were two large retirements which lead to a high mode curve. The 22 year average service life is reasonable given the retirement history in this account and further given the nature in which retirements occurred (few but large amounts).

A04 - AUXILIARY POWER SYSTEMS - A preliminary life estimate of 40 years was determined from the initial retirement rate analysis. However, as noted in CA-NLH-12 – Attachment 1, this account was reviewed as part of the operations and management meetings, and Hydro staff indicated the 40year preliminary life estimate was much too long. The operations staff recommended the continuation of a 25 year average life with a curve that would result in a maximum life indication of between 30 and 40 years.

A review of the life estimates of the peer group indicated life estimates (listed in Schedule 2 under "Other Production - Accessory Electrical Equipment") varying from 20 to 35 years with an average of 27.5 years. This peer estimate provides support to the comments of the operations staff. Furthermore, a review of the aged surviving plant on page V-2 of the Gannett Fleming report indicated only a minor amount of investment remaining after age 30 years. Based on all of the above, Gannett Fleming fit a 30-R4 Iowa curve to the observed life table as presented on page IV-4. The 30-R4 provides a life estimate within the range of the industry peers (although longer than the average), and provides for a maximum life of 43 years, which is longer than the maximum life indication of the operations group, but provides for only a very limited amount of surviving investment at age 40 years. Therefore the Iowa 30-R4 is recommended for this account.

B01 - BATTERY AND POWER SYSTEMS - Please refer to CA-NLH-64.

B02 - BOILER SYSTEM - A preliminary life estimate of the Iowa 35-R3 was based on the retirement rate analysis. During the retirement rate analysis, Gannett Fleming noted there was one large instance of a retirement, and a larger number of smaller retirements. While giving recognition to the large retirement experience, the fact is a significant percentage of total plant exposure still remains. As such, Gannett Fleming viewed the recommended 35-R3 provides a reasonable recognition of the historic retirements.

While not specifically identified in the peer analysis provided on page III-6 of the Gannett Fleming report, it has been the experience of Mr. Kennedy that a life estimate of between 25 and 35 years is normal for boiler systems. As such, the recommended 35-R3 is consistent with the experience of Mr. Kennedy as well.

B03 - BOOMS – TIMBERS - There is only $263,995.47 of investment in this account. The data associated with this account did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comment during the operational interviews which indicated that historically, these assets would be expected to retire at an age of between 30 and 40 years.

B04 – BRIDGES –The retirement rate analysis indicated only a very limited amount of retirement experience in this account. Gannett Fleming had previously recommended using a 50 year average life estimate, which based on the lack of retirement experience, should be extended. A review of the aged surviving plant as provided on page V-6 of the Gannett Fleming report indicates the majority of investment was installed in the early 1980s, with the earliest installations going back to the 1960s. These early 1980 vintage assets have not yet experienced any retirement activity and the 1960s assets have had only limited amounts of investment retired. As such a higher mode Iowa curve with an average life of more than 40 years is appropriate.

A review of the peer companies indicates life estimates ranging from 10 years to 75 years. Gannett Fleming viewed the 10year life estimate as an outlier leaving two comparable estimates of 75 and 55 years (providing for an average of 65 years). It was also noted there are two comparable life estimates of 40 years for Roads and Trails. If these two accounts are considered, a modified average life estimate of 52.5 years results. Giving consideration to these comparable utilities, and the indications of a high mode curve with a life estimate of more than 40 years, Gannett Fleming viewed a life extension from 25 to 60 years to be reasonable.

B05 - BUILDINGS – OTHER – The retirement rate analysis for this account is greatly impacted by the retirements at age 9.5 years. The details of these retirements at age 9.5 years are discussed in response to CA-NLH-66. As noted in the response to CA-NLH-66, these early retirements can be considered to be indicative of the future retirements. A visual best fit of the observed life table provided for an Iowa 50-R0.5, however this fit was extremely influenced by the large retirements of the Roddickton Wood Chip Plant. Therefore, in the retirement rate analysis, and in the fit of an Iowa curve to the observed life table, a consideration was given to provide lesser weight to these transactions. As such, the recommended Iowa curve fits a life that is longer than would be a best fit to the observed life table.

A review of the peer analysis indicated life estimates ranging from 30 through 60 years, with an average of 43 years. Overall, when giving consideration to the peer analysis and to the retirement rate analysis (when a lesser weighting is provided to the early retirements) an Iowa 50-R0.5 is appropriate.

B06 - BUILDINGS – METAL - In the completion of the response to this Request for Information, Gannett Fleming has noted that an incorrect Iowa curve was provided in the Gannett Fleming report. A corrected graph of the fit of the Iowa 55-R3 is provided as CA-NLH-19 Attachment 2.

The average service life recommendation was based on the results of the retirement rate analysis. Refer to CA-NLH-67 Attachment 1 for a detailed listing of the specific items that were retired at age 13.5 years which had a material influence on the retirement rate analysis. As noted in CA-NLH-67, the majority of retirements were caused by the decommissioning of the Davis Inlet Diesel Plant. Retirement of plant resulting from decommissioning of isolated diesel plants is a force of retirement that is, and should be, considered a normal business activity for electric

generation systems. As such the recommended 55-R3 is expected to be indicative of future retirement patterns.

B07 - BUS DUCT GENERATOR - There is only a limited amount of investment (under $1 Million) in this account. The data associated with this account did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comment during the operational interviews which indicated that a life estimate of 35 years is reasonable.

B08 - BUSWORK AND HARDWARE – Please refer to CA-NLH-68.

C01 - CABLES – TELECONTROL – The data associated with this account did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comment during the operational interviews which indicated that a life estimate of 40 years is reasonable.

Review of peer companies indicated the telecontrol cable is not usually separated from the telecontrol account. However, the company in its IFRS implementation work decided there is a sufficient difference in the forces of retirement related to the telecontrol cable as compared to the telecontrol equipment to componentize this investment separately. Therefore the peer analysis provided for average service life estimates that are shorter due to the technological changes to digital end equipment. As such, the results of the peer analysis were not used in this account.

C02 - CABLE – SUBMARINE – The retirement rate analysis indicated only a very limited amount of retirement experience in this account. Gannett Fleming had previously recommended using a 40 year average life estimate. The retirement rate analysis, notwithstanding, that it was based on limited amounts of retirement data, produced an average service life indication of 45 years. A review of the aged surviving plant as provided on page V-12 of the Gannett Fleming report indicates the majority of investment was installed in the late 1980s, with the earliest installations going back to 1980.

The indication from the operations group was that this conductor is mainly installed in the distribution system, and suggested the continuation of the previously recommended 40 year life. However, Gannett Fleming believes that notwithstanding, the majority of this conductor is approximately 20 years old and based on it's experience with submarine cable in other systems, a short life extension from the previous recommendations is reasonable. Therefore the 45-R4 Iowa curve resulting from the retirement rate analysis is recommended for this account.

C03 – CABLES – UNDER GROUND – The retirement rate analysis indicated no retirement experience in this account. Gannett Fleming has previously recommended a 50 year average life estimate, which based on the lack of retirement experience should be extended. A review of the aged surviving plant as provided on page V-13 of the Gannett Fleming report indicates investment going back to as far as 1967. Given these early vintages have not yet experienced any retirement activity provides further indication that a life extension is necessary.

A review of the peer group of companies indicates life estimates varying from 25 years to 59 years. Gannett Fleming views the life estimates of 25 years to be an

outlier as they are from utilities with very limited underground installations. After removal of the outliers, the range of life estimates is from 32 to 59 years with an average of 47 years.

The average life estimate of 47 years resulting from the peer analysis is shorter than the previously recommended estimate of 50 years, which as described above is noted to require extension. Given the age of the currently surviving aged balances, Gannett Fleming views an increase in the average service life from 50 to 60 years (a 20% increase) to be appropriate at this time.

C04 – CABLES – ABOVE GROUND – Please refer to CA-NLH-69.

C06 – CAPACITORS – The data associated with this account did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comments during the operational interviews which indicated a 35 year life is reasonable.

This review of peer companies indicated that capacitors are not usually separated from the substation equipment account. However, the company in its IFRS implementation work decided there is a sufficient difference in the forces of retirement related to capacitors cable as compared to the remaining substation equipment to componentize this investment separately. The average service life of substation equipment from the peer group varies from 27 to 53 years, with an average of 41 years. However, it is noted the investment in capacitors would have a shorter life than much of the other substation equipment such as substation transformers and circuit breakers, and therefore a life shorter than 41 years would be reasonable from the point of view of the peer analysis. It was also noted that

Newfoundland Power is the only peer company to separate the Capacitors into a separate account, and use a 36 year life estimate for the capacitor banks.

The recommended 35-R4 Iowa curve complies with the peer group, is very close to the life estimate of Newfoundland Power, is consistent with management and operations expectations, and represents the continuation of the currently proposed life estimate.

C09 – CIRCUIT BREAKERS - The life estimate for this account was based primarily on the results of the retirement rate analysis, and based on a review with the operations and management staff. The retirement rate analysis indicates a moderate level of retirement activity, which as discussed in response to CA-NLH-71, is considered to be from normal types of retirement that can be expected to reoccur in the future.

This review of peer companies indicated that circuit breakers are not usually separated from the substation equipment account. However, the company in its IFRS implementation work decided there is a sufficient difference in the forces of retirement related to circuit breakers as compared to the remaining substation equipment to componentize this investment separately. The average service life of substation equipment from the peer group varies from 27 to 53 years, with an average of 41 years. However, it is noted the investment in breakers would have a longer life than much of the other substation equipment such as substation transformers and capacitors, and therefore a life longer than 41 years would be reasonable from the results of the peer analysis. It is noted however, the recommended 55year life is longer than any of the peer companies.

The recommended Iowa 55-R3 represents a life extension of 13 years (31%) from the previously recommended life estimate. However, given the retirement rate analysis, and the confirmation received from the operating staff, there is sufficient evidence to support an extension of this magnitude.

C10 – COMPRESSED AIR SYSTEMS – The average service life recommendation was based entirely on the results of the retirement rate analysis, and as confirmed by the operating staff of the Company. The recommended Iowa 40-R3 represents a life extension of nine years (30%) from the previously recommended life estimate. However, given the retirement rate analysis, and the confirmation reserve from the operating staff, there is sufficient evidence to support an extension of this magnitude.

C11 – COMPUTERS – Please refer to CA-NLH-72.

C13 – CONDUCTOR – This account is comprised of transmission voltage (69 kV and above) conductor. The retirement rate analysis provided an average service life estimate of 60 years. The analysis was largely impacted by a group of retirements at age 9.5 and 28.5 years. As discussed in the response to CA-NLH-73, investigation of these retirements indicates they are retirements that could be expected to be indicative of future retirement activity, and therefore should be included in the consideration of the average service life estimate.

Review of the average service life estimates from the peer group indicates life estimates ranging from 47 through 60 years with an average of 52 years. As such the recommended life estimate of 60 years is at the long end of the industry range and longer than the average of the average life estimates of the peers, however it is still within the range.

The recommended Iowa 60-R3 represents a life extension of 10 years (20%) from the previously recommended life estimate. However, given the retirement rate analysis, and the confirmation received from the operating staff that a life of approximately 60 years is appropriate, there is sufficient evidence to support an extension of this magnitude.

C14 – CONDUCTOR – DISTRIBUTION – The retirement rate analysis provided an average service life estimate of 55 years. This account has a significant volume of historic retirements, which provide a strong basis for the results of the analysis. As noted on page IV -43 of the Gannett Fleming report, retirements occur at all age intervals through 27.5 years. By age 29.5 years the plant exposed to retirement is much lower than the 1% that is generally considered to be relevant in retirement rate analysis.

Review of the average service life estimates from the peer group indicates life estimates ranging from 25 through 60 years with an average of 43 years. It was also specifically noted that Newfoundland Power uses a number of accounts for this conductor, with life estimates ranging from 25 to 50 years – all of which are shorter than the recommended 55 year estimate in this study. The recommended life estimate of 55 years is at the higher end of the industry range and longer than the average of the life estimates of the peers, however it is still within the range.

The recommend Iowa 55-R3 represents a life extension of five years (10%) from the previously recommended life estimate. However, given the retirement rate analysis, and the confirmation received from the operating staff, there is sufficient evidence to support this extension.

C15 – CONTROL, METER / RELAYING – Please refer to CA-NLH-74.

C16 – COOLING SYSTEMS – The retirement rate analysis provided an average service life estimate of 40 years. This account has a significant volume of historic retirements to provide a basis for meaningful analysis. The 40year life estimate resulting from the retirement rate analysis was confirmed as reasonable by the operations staff.

The assets in this account were not componentized by the peer group of companies, and therefore a peer analysis was not prepared. The recommended Iowa 40-R1.5 represents a life extension of 10 years (33%) from the previously used life estimate. However, given the retirement rate analysis, and the confirmation received from the operating staff, there is sufficient evidence to support an extension of this magnitude.

C17 – COUNTERPOISE – The retirement rate analysis provided an average service life estimate of 50 year. This account has a significant enough volume of historic retirements to provide a basis for meaningful analysis. The 50year life estimate resulting from the retirement rate analysis was confirmed as reasonable by operations staff.

The assets in this account were not componentized by the peer group of companies, and therefore a peer analysis was not prepared. The recommended Iowa 50-R3 represents a life extension of 10 years (25%) from the previously recommended life estimate. However, given the retirement rate analysis, and the confirmation received from the operating staff, there is sufficient evidence to support an extension of this magnitude.

C18 – CRANE – The retirement rate analysis indicated only a very limited amount of retirement experience in this account. Gannett Fleming had previously recommended a 75year average life estimate. The retirement rate analysis, notwithstanding that it was based on limited amounts of retirement data, did produce an average service life indication of 70 years. A review of the aged surviving plant as provided on page V-24 of the Gannett Fleming report indicates the majority of investment was installed in the early 1980s, with the earliest installations going back to 1967. As such it would not be expected that investment from these vintages would have yet retired.

The assets in this account were not componentized by the peer group of companies, and therefore a peer analysis was not prepared. However, Mr. Kennedy notes the life expectations of cranes have been discussed during a number of field reviews for utilities across Canada. Based on this knowledge gained from these field reviews, Mr. Kennedy views a life expectation of 70 years to be longer than would be expected by most Canadian utilities.

The recommend Iowa 70-R3 represents a reduction in the life estimate by five years (6.7%) from the previously recommended life estimate.

D01 – DAMS AND DYKES – Please refer to CA-NLH-75.

D02 – DIESEL SYSTEMS AND ENGINES – The retirement rate analysis provided average service life estimates ranging from 25 to 27 years. This account has a significant volume of historic retirements, which provide a strong basis for the results of the analysis. As noted in response to CA-NLH-76, all historic retirements in this account are considered to be indicative of future retirement activity.

Review of the average service life estimates from the peer group indicates life estimates ranging from 18 through 30 years with an average of 25 years. The recommended life estimate of 25 years is consistent with the industry average. The recommend Iowa 25-S0.5 represents a life extension of five years (20%) from the previously recommended life estimate. However, given the retirement rate analysis, the confirmation from the operating staff and the peer analysis there is sufficient evidence to support this extension.

D03 – DISCONNECT SWITCHES – The retirement rate analysis provided an average service life estimate of the Iowa 50-R3. This account has a significant enough volume of historic retirements to provide a basis for meaningful analysis. However, based on discussions with operations staff when preliminary life estimates were reviewed, the 50year life estimate was considered to be too long by the operations staff. The investment in this account is reaching an age where there will be significant retirements required. As indicated on page V-27 of the Gannett Fleming report, a portion of the current investment was originally installed in the 1960s and 1970s. To date, this investment has not yet started to require significant replacement which is indicating a life estimate that is not appropriate for the future. As such, the operations staff suggests an average life of not more than 45 years. Through additional curve fitting, Gannett Fleming selected an Iowa 45-S2.5 which still provides a reasonable fit to the historic retirements, but better aligns to the expectations of the operations staff.

The review of peer companies indicated that disconnect switches are not usually separated from the substation equipment account. However, the company in its IFRS implementation work decided there is a sufficient difference in the forces of retirement related to disconnect switches as compared to the remaining substation equipment to componentize this investment separately. The average service life of

substation equipment from the peer group varies from 27 to 53 years, with an average of 41 years. However, it is noted the investment in switches may have a longer life than much of the other substation equipment such as substation transformers and capacitors, and therefore a life longer than 41 years would be reasonable from the point of view of the peer analysis.

The recommended Iowa 45-S2.5 represents a life extension of 3 years (7%) from the previously used life estimate. However, given the retirement rate analysis, and the comments from the operating staff, there is evidence to support this extension.

D04 – DYKES AND LINERS – The assets in this account relate to the dykes and liners required for the fuel storage related to the diesel generating equipment. The retirement rate analysis produced a 42-L1 Iowa curve fit. This account has sufficient retirements to provide a basis for meaningful analysis. The operations group agreed the 42-L1 resulting from the retirement rate analysis provided a reasonable expectation of the future average service life characteristics.

Review of the average service life estimates for this type of fuel storage dykes and liners noted these assets are normally included in the Fuel Holders or Other Diesel production asset account. The life estimates for these accounts range from 20 to 40 years. However the life estimates for these accounts would include a number of assets that would be expected to have a shorter life expectation. As such, the peer review did not provide any meaningful input, and the recommended 42-L1 was based on the results of the retirement rate analysis.

E01 – ELEVATORS – This account includes a minimal amount of investment of $89,800 all from one vintage year. As such, the data associated with this account

did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comment during the operational interviews.

E02 – EMS EQUIPMENT – The average service life estimate was based on the discussions with the operations group. The assets in this account related to an Energy Management system (EMS) that is highly computerized and software based. The majority of equipment remaining in this account at the end of 2009 was originally purchased in 1990 as part of the implementation of this system. That system has since been replaced. However this equipment should have a life of no longer than 20 to 25 years.

E03 – ENVIRONMENTAL EQUIPMENT – This account includes a minimal amount of investment of $10,400. The data associated with this account did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comment during the operational interviews.

F01 – FALL ARREST EQUIPMENT – Please refer to CA-NLH-78.

F02 – FENCING – In the completion of the response to this Request for Information, Gannett Fleming has noted that an incorrect Iowa curve was provided in the Gannett Fleming report. A corrected graph of the fit of the Iowa 47-R3 is provided as CA-NLH-19 Attachment 3.

The retirement rate analysis produced a 47-R3 Iowa curve fit. This account has sufficient volume of historic retirements to provide a basis for meaningful analysis.

The operations group agreed the 47-R3 resulting from the retirement rate analysis provided a reasonable expectation of the future average service life characteristics.

Review of the average service life estimates for fencing noted these assets are normally included in the Structures and Improvements asset account, with life estimates ranging from 32 to 55 years. As such, the results of the retirement rate analysis appear to be in the range of estimates used by the peer group of companies. As such, the recommended 47-R3 Iowa curve was based on the results of the retirement rate analysis.

F03 – FIRE FIGHTING EQUIPMENT – This account has only a limited amount of retirement history over the 1991 through 2009 observation period. Based on this limited experience, the retirement rate analysis indicated a life of approximately 45 years. During the preparation of the retirement rate analysis, it was noted that this account has not had any recorded retirements in many years; therefore, a life extension to the previously recommended 35 year life may be appropriate. The preliminary life estimate was discussed with the operations group who confirmed the 45year life as being reasonable.

While this account was not specifically broken out on the peer comparison schedule, Mr. Kennedy has reviewed these types of assets during site tours and interviews of a number of Canadian utilities. Based on this experience, Mr. Kennedy views a 40 to 45 year life as reasonable. Therefore, an increase in the average service from the previously used 35 years to 45 years is recommended.

F04 – FOOTINGS AND FOUNDATIONS –The average service life estimate in this account was selected entirely on the results of the retirement rate analysis as presented at page IV-73 of the Gannett Fleming report. This account has

experienced a significant amount of retirement experience which does provide for meaningful analysis. Additionally, the asset in this account have not been componentized by any utilities in the peer group, therefore a peer analysis was not completed.

F05 – FREQ CONVERSION – This account contained a limited amount of investment until 2009 when $781,000 of investment was added. Given the limited investment prior to 2009, combined with the fact that no retirements have been booked to this account, the retirement rate analysis did not provide any meaningful information for analysis. As such, the average service life estimate was based on the knowledge of the Hydro personnel and on the background of Mr. Kennedy in developing average service life estimates throughout Canada. As such, a high mode, mid-life curve was considered appropriate at this time. Once the company has some history with the most recently installed equipment, a change to the life estimate may be required.

F06 – FUEL SYSTEMS – Please refer to the response to CA-NLH-80 for a description of the assets retired at a number of age intervals. As indicated in CA-NLH-80, the retirement rate analysis indicated a trend of large retirements at early ages. Investigation of these early retirements has indicated the causes of these retirements are expected to reoccur in the future. As such, the retirement rate analysis does need to specifically consider these retirements in the development of the average service life expectations.

This account has sufficient volume of historic retirements to provide a basis for meaningful analysis. In the analysis of the observed life table, particular weighting was applied to the retirement ratios and percentages of surviving balance through age 37 years, at which point the remaining plant exposed to retirement was

approximately 5.7% of the total plant exposed to retirement. The analysis resulted in a preliminary life estimate of the Iowa 50-R1.5. The operations group agreed the 50-R1.5 resulting from the retirement rate analysis provided a reasonable expectation of the future average service life characteristics.

Review of the average service life estimates for Fuel systems included Fuel Holders or Other Diesel production asset accounts. The life estimates for these accounts range from 20 to 40 years. However the life estimates for these accounts would include a number of assets that would be expected to have a shorter life expectation. As such, it would be expected the peer review would result in a shorter life estimate than the 50-R1.5 produced from this accounts retirement rate analysis.

G01 – GAS TURBINE SYSTEMS – Please refer to CA-NLH-82.

G02 – GATES – Please refer to CA-NLH-84.

G03 – GENERATORS – Please refer to CA-NLH-86.

G04 – GENERATOR – WINDINGS – This account was recently componentized out of the G03 – Generators account as part of the conversion to IFRS. As such, the investment by vintage has been identified on page V-41 of the Gannett Fleming report, however there has been no retirement transactions associated with this account. At the time that this study was completed, a number of Canadian generation utilities were reviewing the generator windings to determine if they should be categorized into a separate account; and if separated, the estimated useful life. It had been generally concluded within the Canadian electric generation industry the windings required separation into a unique account, and that a life

significantly shorter than the generator's life was appropriate (which drove the need for the componentization). The previously recommended life for Account G03 – Generators was 50 years. The operations staff felt the windings would have had a life shortening impact on the generation equipment.

Based on a number of reviews of Canadian electric utilities, and on the comments of the operations staff, it was determined the windings should have a 40year average service life as compared to the 60 year life as determined for the new G03 – Generators account (which now excludes the windings). The previously recommended life estimate for generators was 50 years. As such the impact of the windings in this account has been estimated to have a life shortening impact of approximately 10 years, therefore the windings account has been assigned a 40year life and the generation account has a life recommendation of 60 years.

G05 – GLYCOL SYSTEMS – The majority of the investment in this account ($437,684 of the total $620,704) was added in 1992 and has not yet experienced any retirement history. As such a life estimate of at least 20 years is appropriate. Furthermore, discussions with the operations staff did not indicate any plans for significant retirement to these assets in the near future. Given the lack of retirement history, and the absence for any short term replacement plans, Gannett Fleming has recommended a 10year life extension from the previously recommended 30 years to the Iowa 40-S3.

G06 – GOVENORS – Please refer to CA-NLH-89.

G07 – GROUND WIRE SYSTEM – The average service life recommendations for this account were primarily based on the retirement rate analysis as presented on page

IV-91 of the Gannett Fleming report. The preliminary life estimate of the Iowa 55-R4 was also confirmed as reasonable with the operations staff.

The review of peer companies indicated the ground wire system is not usually separated from the substation equipment account. However, the company in its IFRS implementation work decided there is a sufficient difference in the forces of retirement related to the ground wire system as compared to the remaining substation equipment to componentize this investment separately. The average service life of substation equipment for the peer group varies from 27 to 53 years, with an average of 41 years. However, it is noted the investment in the ground wire system would have a longer life than much of the other substation equipment such as substation transformers and circuit breakers. Therefore the life estimate of 55 years resulting from the retirement rate analysis was deemed to be within range of the peer company analysis.

I02 – INSTRUMENTATION – In the completion of the response to this Request for Information, Gannett Fleming has noted that an incorrect Iowa curve was provided in the Gannett Fleming report. A corrected graph of the fit of the Iowa 26-L0.5 is provided as CA-NLH-19 Attachment 4.

The retirement rate analysis produced a best fit of the Iowa 28-L0 curve. During the reviews with operations staff it was determined the historic retirements were based on a significantly different type of technology (analog) as compare to the currently installed digital technology. As indicated on page V-45 of the Gannett Fleming report, the majority of the investment in this account (93%) has been installed since 2004, and is of the newer digital technology. It is the view of the operations staff the newer digital technology would have a significantly shorter life expectation than was experienced with the older analog equipment. Mr. Kennedy

confirms that this view is shared by most of the regulated Canadian electric utilities. As such, the results of the retirement rate analysis were modified to reflect the change in technology.

Although not specifically identified in the peer analysis, Mr. Kennedy notes that based upon his experience that this equipment normally has average service life estimates ranging from 15 to 25 years, which is shorter than the results of the retirement rate analysis. As such the preliminary life estimate of the 28-L0 curve was reduced to the 26-L0.5, which in the view of Gannett Fleming still provides a reasonable fit to the historic retirement data, and is closer to the peer group life estimates.

I03 – INSULATORS – Please refer to CA-NLH-92.

I04 – INTAKE STRUCTURES – This account has experienced no retirement activity over the 1991 through 2009 observation period. As such, a retirement rate analysis does not provide for any meaningful retirement dispersion information other than an indication of a very long life expectation given the original investment made in 1967, has experienced no retirement activity. Gannett Fleming noted three specific facts in the determination of the average service life recommendation as follows:

- The average life estimates for peer companies ranges from 60 to 100 years;
- The previously recommended life estimate is 100 years; and
- The operations staff indicated the 100 year life should continue to be used.

Given the above indications, Gannett Fleming viewed that a life of 100 years is appropriate, and the fact there has been no retirement activity to date would warrant the continuation of the 100 year estimate. Additionally, the lack of historic retirement experience would lead to a high mode R curve. Giving consideration to these factors, Gannett Fleming recommends the continued use of the 100-R4 Iowa curve.

I05 – INVERTERS – The results of the retirement rate analysis produced a best fit of the Iowa 16-L1.5. Reviews of this preliminary life estimate with the operations staff confirmed that a life estimate of between 15 to 20 years would be appropriate. However, Gannett Fleming notes the retirement rate study was largely influenced by a large retirement at age 9.5 years. In order to moderate the influence of this large retirement, Gannett Fleming has proposed that a reduction from the previously recommended 50 years to the recommended 25 years is more reasonable than the reduction to the 16 years as indicated through the review of historic retirements and as suggest by the internal operations staff.

A peer analysis was not possible for this account, as this plant is not componentized by any of the peer group, and given its relatively small amount of investment; it is difficult to identify the impact these assets would have on larger accounts. As such, Gannett Fleming has recommended a moderated approach and the use of the 25-S3 Iowa curve.

L03 – LAND IMPROVEMENTS – The average service life estimate in this account was based on the results of the retirement rate analysis as presented at page IV-105 of the Gannett Fleming report, on the expectations of Hydro Staff and on the experience of Gannett Fleming. As indicated in RFI responses CA-NLH-94 and CA-

NLH-95, the retirement activity analyzed in the retirement rate analyses was normal activity that could be expected to be predictive of the future. However, the large percentages of plant surviving at age 44.5, Gannett Fleming views that an extension of 10 years (25%) from the previously recommended 40 years to 50 years is appropriate. This extension was confirmed as reasonable by the Hydro staff and is therefore recommended in this study. If future depreciation studies continue to display a lack of the retirement actively, additional life extensions may be required at that time.

L04 – LIGHTING SYSTEMS – This account includes a minimal amount of investment of $10,400. The data associated with this account did not provide for a meaningful retirement rate analysis. The average service life estimate was based on the experience of Mr. Kennedy and on a limited amount of comment during the operational interviews.

L05 – LIGHTNING ARRESTORS – The retirement rate analysis resulted in an Iowa curve estimate of the Iowa 58-R3 curve. During review on this preliminary life estimate with the operations groups it was felt that a 58 year life estimate may be appropriate for the high voltage system assets, but would be too long for the assets on the distribution system. The operations staff felt the retirement of distribution lightening arrestors could begin as early as the 20th year, but also recognized that some would have a very long life. Overall, it was felt that an average life of approximately 45 years would be appropriate for distribution system. Additionally, the operations staff felt the historic retirements should provide some indication of the life expectation of the assets currently in service.

Future review of the Iowa 58-R3 by Gannett Fleming, following the discussions with the operations group, confirmed the Iowa 58-R3 was actually in line with the views

of the operations group. The view that retirements would begin by the 20th year in the distribution system is consistent with the Iowa 58-R3, which would also provide for the long life indication of some investment.

A review of the peer electric utilities indicate that Lightning Arrestors are contained on a number of accounts ranging from Poles and Towers to Substation Equipment. As such, a peer analysis was not possible for this account.

Based on this further review, and on the comments the historic retirements should be indicative of the future retirement trends, Gannett Fleming recommended the Iowa 58-R3 curve.

L06 – LINE COUPLING EQUIPMENT – This account has only $12,725 of investment, and sufficient activity for a meaningful retirement rate analysis. As such, the average service life recommendation for this account was based entirely on the results of the retirement rate analysis as provided on page IV-110 of the Gannett Fleming report.

M01 – MAIN BREAKERS – This account has enough historic retirements to provide a basis for meaningful analysis. The preliminary results of the analysis yielded a 42-R0.5 Iowa curve. The preliminary results were discussed with operations staff who felt the 42 year life was too long and suggested a life of 33 to 35 years. Gannett Fleming did test the 35 year life with a number of retirement dispersion curves and was unable to come to a reasonable fit to the historic retirement transactions.

Review of the peer group of electric utilities indicates average service life estimates for substation equipment ranging from 27 to 53 years with an average of 42 years. Given the relatively small amount of investment in this account, Gannett Fleming

has recommended the 42-R0.5 Iowa curve based primarily on the results of the retirement rate analysis and peer review.

M03 – METALCLAD SWITCHGEAR CUB/EQU 4kv/600 – The average service life estimate was based on the confirmations of the operations group. There were insufficient retirements in the account for a meaningful retirement rate analysis. The previously recommended average service life of the assets was 25 years. However, as indicated on page V-54 of the Gannett Fleming report, the original investment in this account remains in service after 30 years. Therefore Gannett Fleming recommends a life extension of five years from 25 to 30 years (25%) at this time and, as such, the Iowa 30-R4 is recommended.

M04 – METER TEST SWITCHES – Given the small amount of investment in this account ($48,910), the views of the operations staff were relied upon for the determination of the average service life estimate. There were insufficient retirements in the account for a meaningful retirement rate analysis.

M05 – METERING TANKS – This account has enough volume of historic retirements to provide a basis for meaningful analysis. The preliminary results of the analysis yielded a 37-R3 Iowa curve. The preliminary results were discussed with operations staff who confirmed that a 37 year life estimate is reasonable for these assets.

M06 – METERS – DIGITAL – The results of the retirement rate analysis produced fits in the low 20 year life range with high mode “L” and “R” retirement dispersions. While Hydro does have a meaningful history of retirement transactions in this account, it is expected that future retirement patterns will differ from the historic patterns. As indicated in the interview notes attached to CA-NLH-12, Measurement Canada has implemented the measurement standard S-S-06, which will have a

dramatic impact on the manner in which meters are tested. It is the expectation of Hydro, and the electric industry in general, that this new standard, combined with the harsh penalties to be applied to utilities that have meters that fail in service, will cause a life shortening impact. Furthermore, as the cost to purchase meters continues to be reduced, the historic practice of repairing meters and returning them to service is not expected to continue. As such, Gannett Fleming made a small adjustment to the life estimates resulting from the retirement rate analysis and is recommending the 20-L3 Iowa curve at this time.

M07 – METERS – ANALOG –The results of the retirement rate analysis produced a 25-L3 Iowa curve. While Hydro does have a meaningful history of retirement transactions in this account, analog meters are being replaced with Automatic Meter Reading (AMR) meters when removed from service. As indicated in the interview notes attached to CA-NLH-12, Measurement Canada has implemented the measurement standard S-S-06, which will have a dramatic impact on the manner in which meters are tested. It is the expectation of Hydro, and the electric industry, in general that this new standard, combined with the harsh penalties to be applied to utilities that have meters that fail in service, will cause a life shortening impact. However, given that no new plant has been added to this account since 1989 and the remaining investment will eventually retire through attrition, Gannett Fleming is not recommending a change from the previously recommended 25year life.

M08 – METERS – OTHER – Given the limited amount of investment ($194,392) the average service life was selected on the basis of the best fit resulting from the retirement rate analysis. The Iowa 22-L3 curve was confirmed as reasonable by the operations staff.

M10 – MISC. UNITS OF PROP – The average service life was selected on the basis of the best fit resulting from the retirement rate analysis. The Iowa 20-R1 curve was confirmed as reasonable by the operations staff.

M11 – MOBILE – A.T.V.'S AND SNOWMOBILES – The average service life estimates were based primarily on the company data as provided as CA-NLH-12 Attachment five and on the notes from the Transportation department in response to Gannett Fleming's request for information regarding fleet assets provided as CA-NLH-19 Attachment 6. As noted in these attachments, the harsh operating environment and terrain in which this equipment is relied upon required more frequent replacement than would be experienced by other Canadian electric peers. Review of the peer life estimates indicates that this equipment is depreciated over a life estimate ranging from nine through 18 years. Given the indications from the Transportation department, it is felt that a seven year life is reasonable.

M12 – MOBILE – AIR COMPRESSOR ATTACHMENT AND BOAT – This account has a sufficient retirement history to analyze through a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 20-L0.5. However it was the view of Gannett Fleming the L0.5 retirement dispersion curve provided an extraordinary amount of weighting on the retirement ratios early in the asset's life. As such, the Iowa curve was amended to the Iowa 20-R2. The Iowa 20-R2 was reviewed by the Transportation department, which viewed the life estimate as slightly long.

Review of the peer companies indicated life estimates ranging from 10 to 25 years. As such the 20 year estimate resulting from the historic analysis was considered reasonable, and is recommended for this account.

M13 – MOBILE – ARGOS – The average service life estimate was based on the company's replacement criteria as provided in CA-NLH-19 Attachment 5.

M14 – MOBILE – FLEX/FORK/LOAD/GRADE/MUSK/TRAILER – This account has a sufficient retirement history to analyze through a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 20-R2. The Iowa 20-R2 was reviewed by the Transportation department, which viewed the life estimate as slightly long and suggested that a 12 to 15 year life may be more reasonable. However the future retirement expectation is similar to the historic retirement history, therefore Gannett Fleming viewed the retirement rate analysis to be meaningful.

Review of the peer companies indicated life estimates ranging from 10 to 25 years. As such the 20 year estimate resulting from the historic analysis was considered reasonable, and is recommended for this account.

M16 – MULTIPLEX EQUIPMENT – This account has a sufficient retirement history to analyze through a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 18-R2.5. The Iowa 18-R2.5 was reviewed by the operations department, which viewed the life estimate as reasonable. Therefore it is recommended for this account.

O01 – OFFICE EQUIPMENT – The average service life recommendation was based on the experience of Mr. Kennedy and on the peer analysis. Mr. Kennedy has reviewed the average service life characteristics of this account in almost all depreciation studies conducted on behalf of Canadian electric utilities.

As noted in the peer analysis provided on page III-7 of the Gannett Fleming report the amortization periods for the peer companies range from five years to 25 years,

with most being either 15 or 20 years. The 20-SQ as recommended by Gannett Fleming is widely used within the industry and is a significant increase from the five year life previously recommended.

O02 – OFFICE FURNITURE – The average service life recommendation was based on the experience of Mr. Kennedy and on the peer analysis. Mr. Kennedy has reviewed the average service life characteristics of this account in almost all depreciation studies conducted on behalf of Canadian electric utilities.
As noted in the peer analysis provided on page III-7 of the Gannett Fleming report the amortization periods for the peer companies range from 15 years to 25 years, with most being either 15 or 20 years. The 20-SQ as recommended by Gannett Fleming is widely used within the industry and represents a continuation of the previously recommended 20 year life.

P01 – P.C.B. STORAGE CONTAINER – Given the small amount of investment in this account ($42,480), the views of the operations staff were relied upon for the determination of the average service life estimate. There were insufficient retirements in the account for a meaningful retirement rate analysis.

P02 – PABX – PRIV AUTO BRANCH EXCH – This account includes the investment associated with the telephone switches and handsets. The average service life estimate was based primarily on the experience of Mr. Kennedy who has reviewed equipment of this type in many operational interviews and site tours. It is the experience of Mr. Kennedy that most utilities have historically used a life estimate of 20 years for this type of equipment, however, given the trend to a more digital nature for this equipment, the expectation of utilities is the life of equipment will be shorter. Additionally, the software to support the systems will not likely have a life

of 20 years. These broad industry expectations are consistent with the comments received from the operations staff during the Gannett Fleming discussions.

However, Gannett Fleming notes that a significant portion of the plant in this account is 10 years old and the company has not booked any retirements over the 1998 through 2009 period. This experience gives rise to a longer than 10 year life as estimated by the operations staff. As such, Mr. Kennedy recommends using a 20-R4 Iowa curve at this time and to closely monitor the life expectancies of these assets in future studies.

P03 – PENSTOCK – Please refer to CA-NLH-96.

P04 – POLE CRIBS AND POLE HARDWARE – This account has a sufficient retirement history which provides for a meaningful retirement rate analysis. The preliminary life estimate resulting from the best fit retirement rate analysis was the Iowa 42-L2.5. The analysis considered the retirement ratios through age 28.5 years, at which time the plant exposed to retirement was approximately one-tenth of one percent of the total plant exposures at age 0 years. However it was the view of Gannett Fleming the fit of the Iowa 42-L2.5 retirement dispersion curve provided an extraordinary amount of weighting on the retirement ratios at age 26.5 years, and has not placed sufficient emphasis on the retirement activity from ages 21.5 to 25.5. Through the visual fitting of a number of curves, Gannett Fleming concluded the Iowa 50-L2 provides a more reasonable fit through all areas of the observed life table through to age 28.5 years. A visual curve match of both the statistically best fit and the visual best fit is provided in CA-NLH-19 Attachment 7.

A review of the preliminary Gannett Fleming recommendation of the Iowa 50-L2 with operations staff was undertaken. The operations staff viewed the 50 year life

was reasonable but did suggest that Gannett Fleming should review the historic data to determine if a 40 to 45 year would be reasonable.

Review of the peer companies indicated life estimates ranging from 25 to 55 years with an average of 45 years. As such the 50 year estimate is within the range of service life estimates. It is also noted that most of the peer utilities have not componentized the pole cribs to the same extent as Hydro. As such, a precise comparison to the peers cannot be made.

In the development of the final life estimate, Gannett Fleming did review a number of additional Iowa curves following the discussions with the operations staff. After giving additional consideration to the historic data, to the suggestions of the operations staff, and the peer analysis, Gannett Fleming still considered the Iowa 50-L2 provided the best expectation of the future retirement pattern for the assets currently in service.

P05 – POLE STRUCTURES – WOOD – This account has sufficient retirement history to provide for a meaningful retirement rate analysis. The preliminary life estimate resulting from the best fit retirement rate analysis was the Iowa 53-L4. The analysis considered the retirement ratios through age 42.5 years, at which time the plant exposed to retirement was significant throughout the entire observation period. Prior to discussions with operations staff, Gannett Fleming modified the Iowa curve to the Iowa 53-R4 to better 15.5 through age 28.5 years.

A review of the preliminary Gannett Fleming recommendation of the Iowa 53-R4 with operations staff was undertaken. The operations staff viewed the 53 year life was reasonable, in particular given the selection of the 50 year life for account P04, as discussed above.

Review of the peer companies indicated life estimates ranging from 25 to 55 years with an average of 45 years. As such the 53year estimate is within the range of service life estimates. It is also noted that most of the peer utilities have not componentized the various pole accounts to the same extent as Hydro. As such, a precise comparison to the peers cannot be made.

In the development of the final life estimate, Gannett Fleming considered the results of the retirement rate analysis, the discussions with the operations staff, and the peer review. After giving additional consideration to these factors Gannett Fleming determined the Iowa 53-R4 provided the best expectation of the future retirement pattern for the assets currently in service.

P06 – POLES – CONCRETE – This account has a limited amount of investment ($215,305) and only one retirement transaction. The average service life estimate was based on the age of the one retirement, the experience of Gannett Fleming and on the comments of the operations group.

There were no comparable accounts within the peer group. As such no peer analysis was performed.

P07 – POLES – WOOD – Please refer to CA-NLH-106.

P08 – POWER LINE CARRIER – This account has a sufficient retirement history to analyze through a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 22-S2.5. Prior to review with the operations staff, Gannett Fleming modified the Iowa curve to the 20-R4 to better fit the observed life table from age 13.5 through age 19.5 years, where the majority of

retirement occurred. The Iowa 20-R4 was reviewed by operations and considered to be reasonable.

Review of the peer companies indicated life estimates ranging from 10 to 25 years. Of particular note is the 15-SQ used by Newfoundland Power. As such the 20 year estimate resulting from the historic analysis was considered reasonable, and is recommended for this account.

P09 – POWER SYSTEMS – This account has a sufficient retirement history to analyze through a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 18-R3 which was reviewed with the operations staff and considered to be reasonable.

Review of the peer companies indicated life estimates ranging from 10 to 25 years. As such the 18 year estimate resulting from the historic analysis was considered reasonable, and is recommended for this account.

P10 – POWERHOUSE – Please refer to CA-NLH-109.

P11 – PRINTERS – The average service life recommendation for this account was based on the experience of Mr. Kennedy and on the peer analysis. Mr. Kennedy has reviewed the average service life characteristics of computer peripheral equipment in almost all depreciation studies conducted on behalf of Canadian electric utilities.

As noted in the peer analysis provided on page III-7 of the Gannett Fleming report the depreciation periods for the peer companies are all five years. The 5-SQ as recommended by Gannett Fleming is widely used within the industry and is a

continuation of the five year life previously recommended. **P12 – PROTECTIVE CONTROL AND RELAY PANELS** – Please refer to CA-NLH-111.

R01 – RADIO TOWERS (WOOD OR STEEL) – This account has a sufficient retirement history to analyze through a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 35-R3.

Review of the peer companies indicated life estimates ranging from 15 to 35 years. Notwithstanding the 35 year estimate resulting from the historic analysis is longer than any of the peer group. The results of the retirement rate analysis were considered reasonable and is recommended for this account.

R02 – RADIOS – FIXED MICROWAVE EQUIPMENT – This account does have a material amount of retirement history, which was conducive to a retirement rate analysis. The review of the mortality history produced a life estimate of the Iowa 22-R4, and gave particular recognition to a large indication of retirement at age 18.5 years. The operations group noted that all of the current investment in the account has been installed since 2001, and has shown only a minimal amount of retirement. However, the operations staff also view the newer equipment currently installed may have a shorter life than the older previously retired equipment. However, until indications of retirement are apparent, Gannett Fleming views the use of the 22-R4 curve is appropriate.

R03 – RADIOS – FIXED UHF EQUIPMENT – Given that this account does have a material amount of retirement history which was conducive to a retirement rate analysis, and only a limited amount of investment ($114,224), the retirement rate analysis was the primary consideration in the average service life recommendation. The review of the mortality history produced a life estimate of the Iowa 15-L1.5

which was considered appropriate by the operations staff. The 15 year life estimate is also consistent with most of the utilities within the peer group and is therefore recommended for this account.

R04 – RADIOS – FIXED VHF EQUIPMENT – Given that this account does have a material amount of retirement history which was conducive to a retirement rate analysis, and only a limited amount of investment ($330,529), the retirement rate analysis was the primary consideration in the average service life recommendation. The review of the mortality history produced a life estimate of the Iowa 19-R3 which was considered as appropriate by the operations staff. Although the 19 year life estimate is a bit longer than the 15 years used by most of the utilities within the peer group, it is not materially longer and given the small amount of investment the results of the retirement rate study are recommended.

R05 – RADIOS – MOBILE VHF BASE STATION – Please refer to CA-NLH-113.

R06 – RAMPS – YARD STORAGE – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the estimates of the operations group.

R07 – REACTORS AND RESISTORS – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. The company had previously been using a 40 year life on the basis of the expectations of

the Hydro personnel. Given the majority of investment in this account was installed in 1995, a 40 year life with a high mode Iowa curve is consistent with the lack of retirement experience. As such, the continuation of the 40 year average service life combined with the S4 Iowa curve is recommended for this account.

R08 – RECLOSERS – This account has a limited amount of retirement history over the observation period, which was used in a retirement rate analysis. The analysis provided a preliminary estimate of the Iowa 40-R4. In Gannett's 2007 study, a 40 year life was chosen on the basis of the expectations of the Hydro personnel. Given the majority of investment in this account was installed since 1982, a 40 year life with a high mode Iowa curve is consistent the relative lack of retirement experience. As such, the continuation of the 40 year average service life combined with the R4 Iowa curve is recommended for this account.

R09 – REGULATORS – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the estimates of the operations group.

R11 - REVENUE METERING – This account does have a material amount of retirement history, which was conducive to a retirement rate analysis. The review of the mortality history produced a life estimate of the Iowa 35R3, and gave particular recognition to a constant trend of retirements from age 9.5 through 27.5 years. The operations group noted that much of the historic retirement activity resulted from the retirement of analog metering equipment and retirements prior to the issuance of the Measurement Canada Standard S-S-06. However, it was also noted that much of the current investment in the account was installed prior to the

year 2000, and is analog metering equipment. As such, the retirement history of the analog metering equipment is still meaningful for the plant in service in this account. Therefore, in future studies when the investment in the account is representative of more digital plant, the average service life may need to be significantly reduced. However, at this point in time, the results of the retirement rate analysis prove that the 35-R3 Iowa curve, should be recommended.

R12 – RIGHT–OF–WAYS – Please refer to CA-NLH-115.

R13 – ROADS – Please refer to CA-NLH-118.

R14 – ROUTERS AND LAN – Please refer to CA-NLH-119.

R15 – RUNNER – Please refer to CA-NLH-122.

S01 – SCADA EQUIPMENT –This account does have a material amount of retirement history, which was conducive to a retirement rate analysis. The review of the mortality history produced a life estimate of the Iowa 20-R3, and gave particular recognition to a constant trend of retirements from age 10.5 through 27.5 years. The operations group noted that going forward, the newer equipment may have a slightly shorter life than the historic equipment, and suggest a slight reduction in the life estimate from the historically based 21-L2. As such, based on these comments, Gannett Fleming modified the average life estimate to the Iowa 20-R3, which, in the view of Gannett Fleming also provided increased weighting on the retirement activity at age 27.5 years.

Review of the peer companies indicated life estimates ranging from 10 to 24 years. As such, the revised Gannett Fleming estimate of the Iowa 20-R3 is within the range

of the industry peers. The Iowa 20-R3, based primarily on the results of the retirement rate analysis and comments from the operations group is recommended for this account.

S02 – SECTIONALIZERS – Given the relatively small amount of investment in this account ($152,708), and the lack of retirement experience, the average service life estimate was based on the experience of Mr. Kennedy and on the confirmations of the life estimate with the operations group.

S03 – SERVERS – Please refer to CA-NLH-123.

S04 – SEWAGE DISPOSAL SYSTEM – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. A review of the aged surviving balances as provided on page V-97 of the Gannett Fleming report indicated the majority of investment was installed after 1980, however, none of that investment has experienced any retirement activity. Therefore, given this lack of retirement activity, Gannett Fleming is recommending a life extension from the previously recommended 40 years to the Iowa 45-R2.5.

S05 – SOFTWARE – Please refer to CA-NLH-126.

S06 – SPILLWAY STRUCTURES – This account has experienced no retirement activity over the 1991 through 2009 observation period. As such, a retirement rate analysis does not provide for any meaningful retirement dispersion information other than an indication of a very long life expectation given the original investment made in

1967, has experienced no retirement activity. Gannett Fleming noted three specific facts in the determination of the average service life recommendation as follows:

- The average life estimates for peer companies ranges from 60 to 100 years;
- The previously recommended life estimate is 100 years; and
- The operations staff had a strong view the 100year life should continue to be used.

Given the above indications, Gannett Fleming viewed that a life of 100 years is appropriate, and the fact there has been no retirement activity to date would warrant the continuation of the 100year estimate. Additionally, the lack of historic retirement experience would lead to a high mode R curve. Giving consideration to these factors, Gannett Fleming recommends the continued use of the 100-R4 Iowa curve.

S07 – STACKS – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the estimates of the operations group.

S08 – STATIC EXCITATION SYSTEM – This account does have a material amount of retirement history, which was conducive to a retirement rate analysis. The review of the mortality history produced good fits of the Iowa curve in the 30 to 32year ranges and with high mode R and S retirement dispersions. Through the fitting of a number of curves, Gannett Fleming selected the Iowa 32-R4 as best representing the retirement history of this account. The operations staff agreed with the results of the retirement rate analysis.

The peer group have all grouped the static excitation system and not separately componentized this plant. As such a meaningful peer review could not be prepared. However, Mr. Kennedy does note that through interviews and site tours among many Canadian electric generating plants, the excitation equipment has a significantly shorter life than the overall generating units.

Based on all factors, Gannett Fleming has recommended the use of the Iowa 32-R4 curve to reflect the expected future retirement patterns of this account.

S09 – STATIC EXCITATION – XFORMERS - This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, Gannett Fleming viewed the matching of the life characteristics with the life estimates of Account S08 – Static Excitation Equipment was reasonable. This concept was agreed to by the operations group. As such, Gannett Fleming has recommended the continued use of the Iowa 32-R4 curve to reflect the expected future retirement patterns of this account.

S10 – STATION SERVICE – In the preparation of this response, Gannett Fleming has noted that an incorrect Iowa curve of 35-R3 was provided in the original report. However, given this account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis, the retirement rate analysis was not relied upon. The correct updated curve has been provided with the revised retirement analysis separately provided. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life

was based entirely on the estimates of the operations group who recommend the continued use of the 40year life estimate.

S11 – STOP LOGS – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the estimates of the operations group who agree with the use of the 65year life estimate.

S12 – STORAGE PALLETS AND RACKINGS –– This account has a limited amount of investment ($21,648) and only one retirement transaction. The average service life estimate was based on the age of the one retirement, the experience of Gannett Fleming and on the comments of the operations group.

There were no comparable accounts within the peer group. As such no peer analysis was performed.

S13 – STORM AND YARD DRAINAGE – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the estimates of the operations group who agree with the previously recommended 45 year life estimate.

S14 – STREET LIGHTS – Please refer to CA-NLH-130.

S15 – STRUCTURAL SUPPORTS (WOOD OR STEEL) – In the completion of the response to this Request for Information, Gannett Fleming has noted that an incorrect Iowa curve was provided in the Gannett Fleming report. A corrected graph of the fit of the Iowa 45-R4 is provided as CA-NLH-19 Attachment 8 to this response.

This account has a limited amount of retirement history over the observation period, which was used in a retirement rate analysis. The analysis provided a preliminary estimate of the Iowa 45-R4. Gannett Fleming had previously recommended a 45year life on the basis of the expectations of the Hydro personnel. The operations staff did not agree that a life extension, based on an expectation of retirement activity between ages 20 to 45 years was required. A review of the peer analysis indicated that none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. As such, based on the retirement history and the comments of the operations staff, the continued use of the Iowa 45-R4 curve was recommended.

S16 – STUDIES – The average life estimate of five years was based on company practice and on the experience of Mr. Kennedy who notes that a five year amortization period for studies is common.

S17 – SUMP SYSTEMS – This account has a limited amount of investment ($238,639) and only one retirement transaction. The average service life estimate was based on the age of the one retirement, the experience of Gannett Fleming and on the comments of the operations group.

There were no comparable accounts within the peer group. As such no peer analysis was performed.

S18 – SURGE SYSTEMS – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, a preliminary life estimate of the Iowa 45-R3 was developed based on the experience of Gannett Fleming. This preliminary estimate was reviewed with the Hydro personnel, who viewed the estimate as reasonable.

S19 – STATION SWITCHING – This account does have a material amount of retirement history, which was conducive to a retirement rate analysis. The review of the mortality history produced an Iowa 34-R2.5 through an age of 37.5 years, after which the plant exposure to retirement reduces to a level that is not statistically significant. However, in reviewing the results of the best fit analysis, Gannett Fleming viewed the Iowa 34-R2.5 placed too much emphasis of the retirement activity occurring at age 29.5 years. In order to test a number of other potential Iowa curve fits, Gannett Fleming visually fit a number of alternative curves. Based on this additional testing, Gannett Fleming viewed the Iowa 45-L1.5 provided a better overall fit to the observed life table through age 37.5 years. Attached to this response as CA-NLH-19 Attachment 9 is a graphical representation of both the statistical best fit (Iowa 34-R2.5) and Gannett Fleming's modified fit of the Iowa 45-L1.5.

The Iowa 45-L1.5 was discussed with the operations group who indicated that a life estimate ranging from 40 to 45 years was reasonable. A review of the life estimates used by the peer group indicated life estimates ranging from 35 to 53

years. As such, the Iowa 45-L1.5 is within the range of the lives used by the peer group for this equipment.

Based on all factors, Gannett Fleming has recommended the use of the Iowa 45-L1.5 curve to reflect the expected future retirement patterns of this account.

S20 – SWITCHING SYSTEMS – L.V. – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the experience and judgment of Mr. Kennedy.

T01 – TELECONTROL SYSTEM – This account does have a material amount of retirement history, which was conducive to a retirement rate analysis. The review of the mortality history produced an Iowa 279-L0.5. However, in reviewing this life estimate with the operations staff, it was felt that this 29year life estimate was based on older technology analog equipment that has a longer life expectation than the digital control equipment that is now being installed. It was felt the newer digital equipment currently being installed would have a life estimate of not more than 15 years. Based on a review of the aged balances as provided on page V-114 of the Gannett Fleming report, it was noted the majority of the investment in this account was installed prior to the year 2000. As such, it is expected the majority of investment in this account would still be subject to the longer life characteristics. However, the operations' views did cause Gannett Fleming to review the preliminary 27-L0.5 life estimate and modify it slightly to the 27-L1 curve

A review of the life estimates used by the peer group indicated life estimates ranging from 10 to 35 years, with most using estimates in the 15 to 20 year range. As such, the Iowa 27-L1 is within, but at the longer end of the range of the lives used by the peer group for this equipment. However, giving recognition to the age of investment, the 27-L1 is considered by Gannett Fleming to reasonably fit into the range of peers.

Based on all factors, Gannett Fleming has recommended the use of the Iowa 27-L1 curve to reflect the expected retirement patterns of this account for the investment currently in service. However, future studies will need to address the evolution towards more digital technology in this account.

T02 – TEST EQUIPMENT – The average service life recommendation for this account was based on the experience of Mr. Kennedy and on the peer analysis. Mr. Kennedy has reviewed the average service life characteristics of test equipment in almost all depreciation studies conducted on behalf of Canadian electric utilities. The concept of amortization accounting for this type of general plant is widely accepted and used.

As noted in the peer analysis provided on page III-7 of the Gannett Fleming report the amortization periods for the peer companies range from 15 to 25 years. It is specifically noted the average service life used by Newfoundland Power is based on the 15-SQ curve. However in the circumstances of Hydro, it is recognized the aged balances in this account extend back to the 1970s with a lot of investment remaining from the 1980s installations. It is believed that this older surviving plant results from missed retirement activity and it will require investigation and potential correction prior to the next depreciation study. Gannett Fleming views that a 15year life is too short at this time. The 20-SQ as

recommended by Gannett Fleming is widely used within the industry and is reasonable given the age of the investment that has not yet been retired from the accounting ledgers.

T03 – TOOLS AND EQUIPMENT – Please refer to CA-NLH-133.

T04 – TOWERS – This account has a sufficient retirement history which provides for a meaningful retirement rate analysis. The preliminary life estimate resulting from the best fit retirement rate analysis was the Iowa 65-R3. The analysis considered the retirement ratios throughout the entire observation period.

A review of the preliminary Gannett Fleming recommendation of the Iowa 65-R3 with operations staff was undertaken. The operations staff viewed the 65 year life was reasonable, and noted the lack of significant issues associated with this account would warrant the five year extension from the previously suggested 60 year life.

Review of the peer companies indicated life estimates ranging from 35 to 60 years with an average of 45 years. As such the 65year estimate is outside the range of service life estimates. It is also noted that many of the peer utilities have not componentized the tower account into its own category. Therefore, the peer analysis is viewed to provide an average life that is short for the towers comparison. As such, a precise comparison to the peers cannot be made..

In the development of the final life estimate, Gannett Fleming considered the results of the retirement rate analysis and the discussions with the operations staff. After giving additional consideration to these factors historic data, Gannett Fleming considered the Iowa 65-R3 provided the best expectation of the future retirement pattern for the assets currently in service.

T05 – TRANSFORMERS – Please refer to CA-NLH-139.

T06 – TRANSFORMERS – PADMOUNT – This account did not have sufficient retirement experience for which a meaningful retirement rate analysis could be performed. Gannett Fleming noted three specific facts in the determination of the average service life recommendation as follows:

- The average life estimates for peer companies ranges from 27 to 50 years;
- The previously suggested life estimate was 40 years; and
- The operations staff indicated a 40year life was appropriate.

Given the above indications, Gannett Fleming viewed that a life of 40 years is appropriate. Giving consideration to these factors, Gannett Fleming recommends the continued use of the 40-R3 Iowa curve.

T07 – TRANSFORMERS – POLE MOUNTED – Please refer to CA-NLH-143.

T09 – TURBINES – Please refer to CA-NLH-145.

V01 – VACUUM CLEANING SYSTEM – This account has a limited amount of investment ($72,451) and no retirement transactions. The average service life estimate was based on the continuation of the previously suggested 60 year life estimate.

There were no comparable accounts within the peer group. As such no peer analysis was performed.

V02 – VALVES – PENSTOCK – This account did not have sufficient retirement experience to provide meaningful results from a retirement rate analysis. Additionally, none of the peer companies have these assets componentized into a separate account, resulting in the fact that a peer analysis was not possible. Therefore, the average service life was based entirely on the estimates of the operations group who recommend the use of the 65year life estimate.

V04 – VEHICLES – ¾ TON AND UNDER – This account has a significant retirement history which enabled retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 7-L3. Gannett Fleming noted the 7-L3 conformed to the company practices and notes from the Transportation department as provided in CA-NLH-19 Attachments 5 and 6.

Review of the peer companies indicated life estimates ranging from six to ten years. As noted in CA-NLH-19 Attachment 6, it is expected the life of the units used by Hydro will be shorter than that of the peer group given the harsh operating conditions these vehicles are subjected. As such, the Iowa 7-L3 curve resulting from the historic analysis was considered reasonable, and is recommended for this account.

V05 – VEHICLES – BOOMS/BODIES/CRANES/CAB AND CHASSIS – This account has a significant retirement history which enabled retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 15-L1.5. Gannett Fleming noted the 15-L1.5 conformed to the company polices and notes from the Transportation department as provided in CA-NLH-19 – Attachments 5 and 6.

Review of the peer companies indicated life estimates ranging from 9to 17 years. As noted in CA-NLH-19 Attachment 6, it is expected the life of the units used by Hydro will be shorter than that of the peer group given the harsh operating conditions these vehicles are subjected. As such the Iowa 15-L1.5 curve resulting from the historic analysis was considered reasonable, and is recommended for this account.

V06 – VEHICLES – CARS, STATION WAGONS AND VAN – This account has a significant retirement history which enabled a retirement rate analysis. The preliminary life estimate resulting from the retirement rate analysis was the Iowa 6-L3. Gannett Fleming noted the 6-L3 conformed to the company polices and notes from the Transportation department as provided in CA-NLH-19 Attachments 5 and 6.

Review of the peer companies indicated life estimates ranging from three to 10 years. As such the Iowa 6-L3 curve resulting from the historic analysis was considered reasonable, and is recommended for this account.

V07 – VEHICLES – DUMP TRUCKS – This account has virtually no retirement history and only $20,135 of investment. The average service life estimate was based on the professional experience of Mr. Kennedy and is reflective of the small investment remaining.

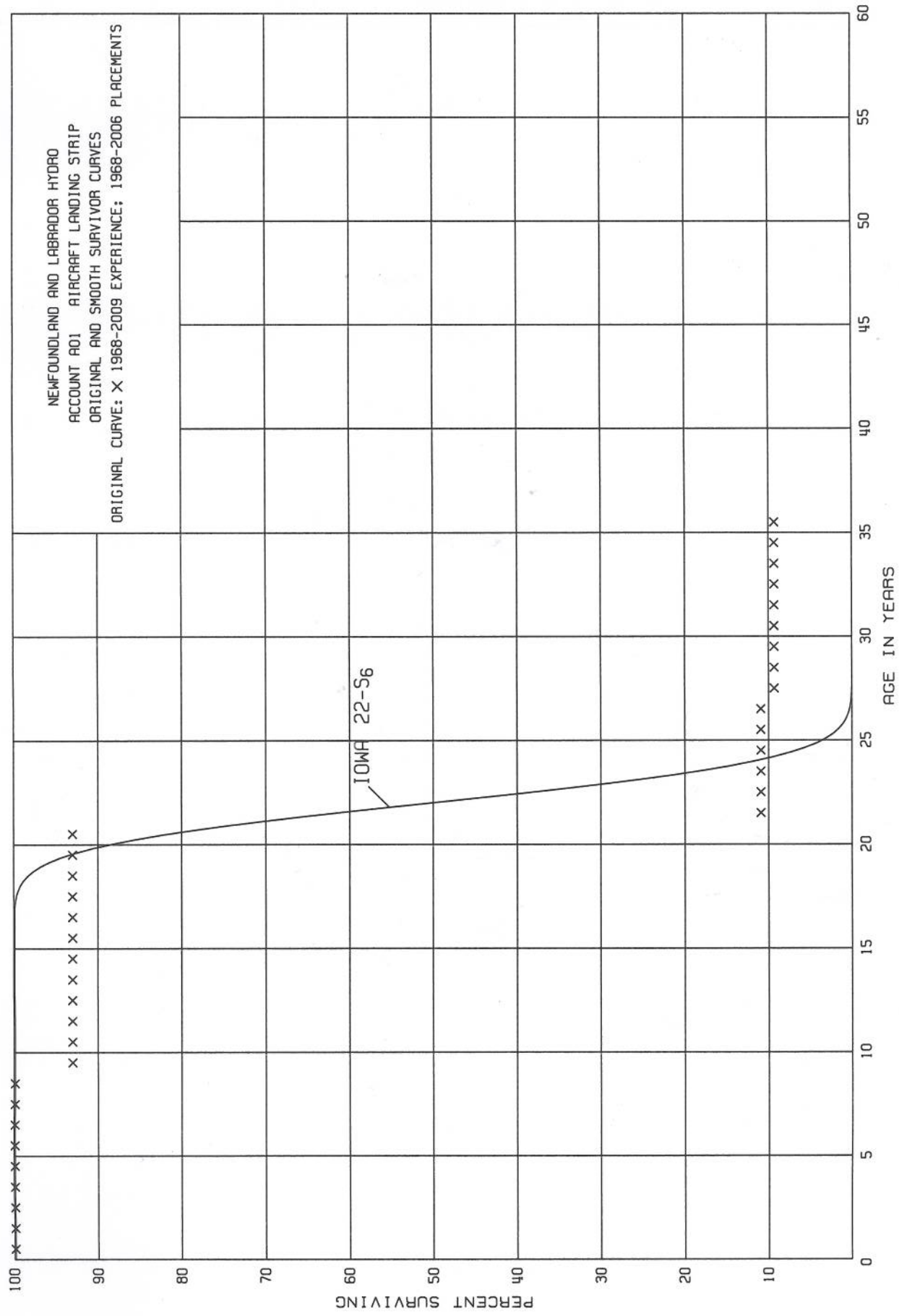
W01 – WATER REGULATING STRUCTURES – Please refer to CA-NLH-150.

W02 – WATER SYSTEMS This account has a large instance of retirement activity at age 25.5 which has caused a preliminary indication of a 30 year average service life. Hydro staff has confirmed that this retirement activity can be considered as normal. These assets have not been componentized by any of the peer Canadian utilities

which does not allow for a peer analysis. As such the Iowa 30-L4 was selected on the basis of the historic retirement activity.

W03 – WATER SYSTEMS – FEED – The retirement activity in this account is limited to one large retirement at age 9.5 years and one smaller retirement at age 16.5 years. Additionally, the current plant in service all related to two installation years. Given this limited retirement history, but still considering the large retirement at age 9.5 years, Gannett Fleming discussed the use of the Iowa 45-L2 with the operations group, who considered the 45 year life reasonable.

W04 – WATER TREATMENT – The retirement activity in this account is limited to two large retirements at age 9.5 and age 30.5 years. Additionally the current plant in service all predominantly relates to the 1991 installation year. Given this limited retirement history, but still considering the two large retirement transactions Gannett Fleming discussed the use of the Iowa 34-L4 with the operations group who considered the 34 year life reasonable.


NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT A01 AIRCRAFT LANDING STRIP
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1968-2009 EXPERIENCE; 1968-2006 PLACEMENTS
IOWA 22-S6
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
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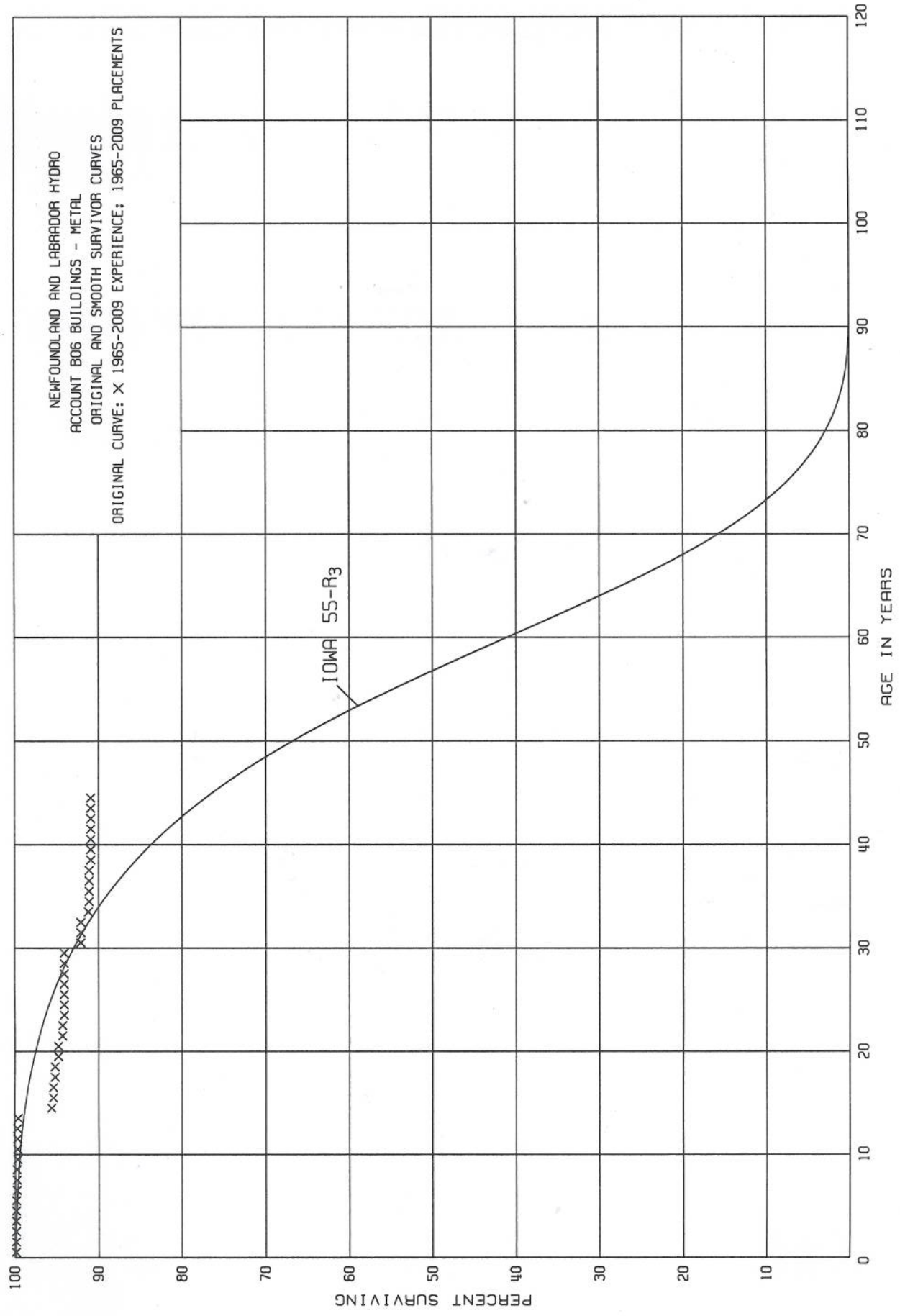
NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT B06 BUILDINGS - METAL
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1965-2009 EXPERIENCE; 1965-2009 PLACEMENTS
IOWA 55-R3
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
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30
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30
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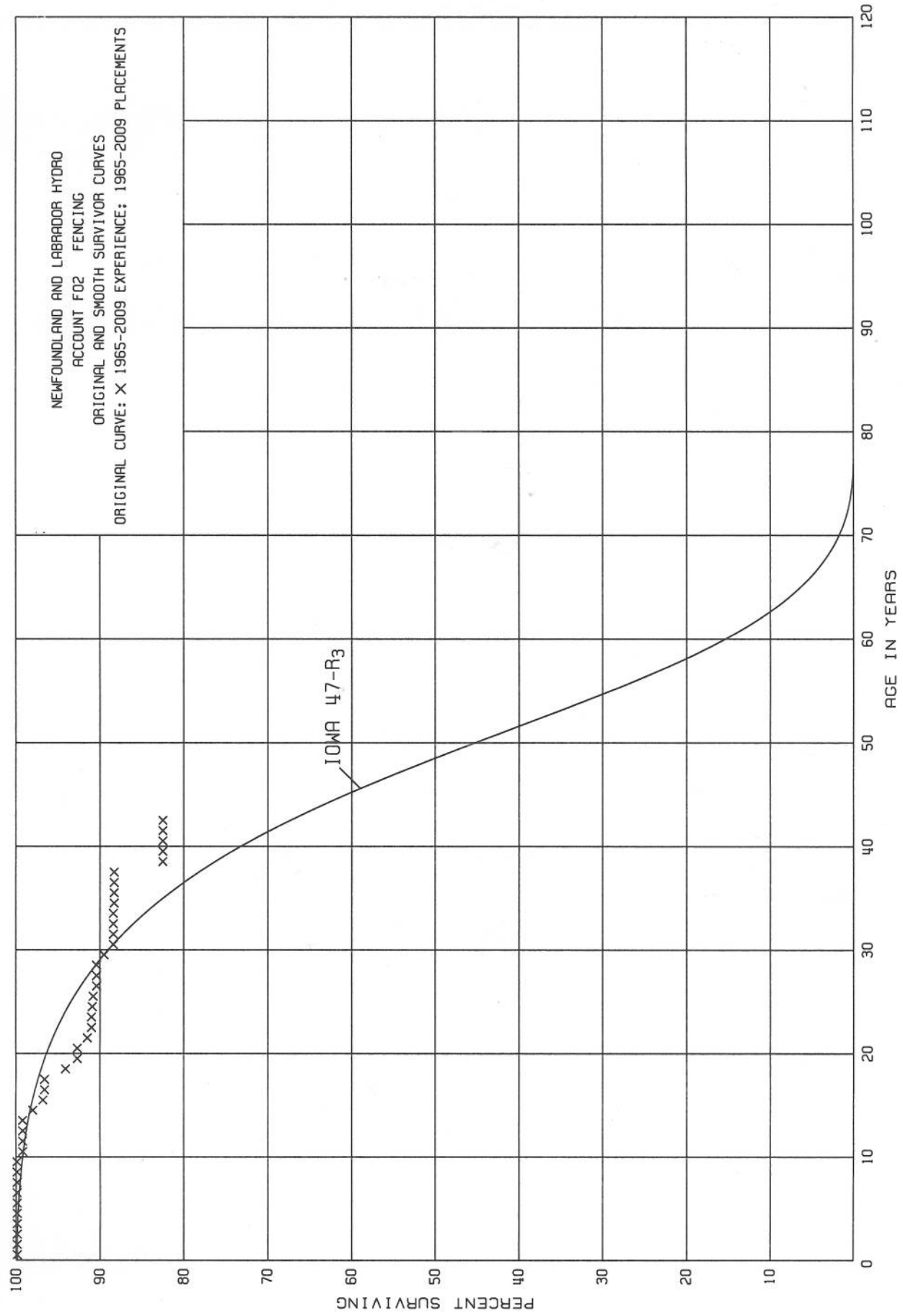
50
60
70
80
90
100
110
120


NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT F02 FENCING
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1965-2009 EXPERIENCE: 1965-2009 PLACEMENTS
IOWA 47-R3
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
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10
0
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50
60
70
80
90
100
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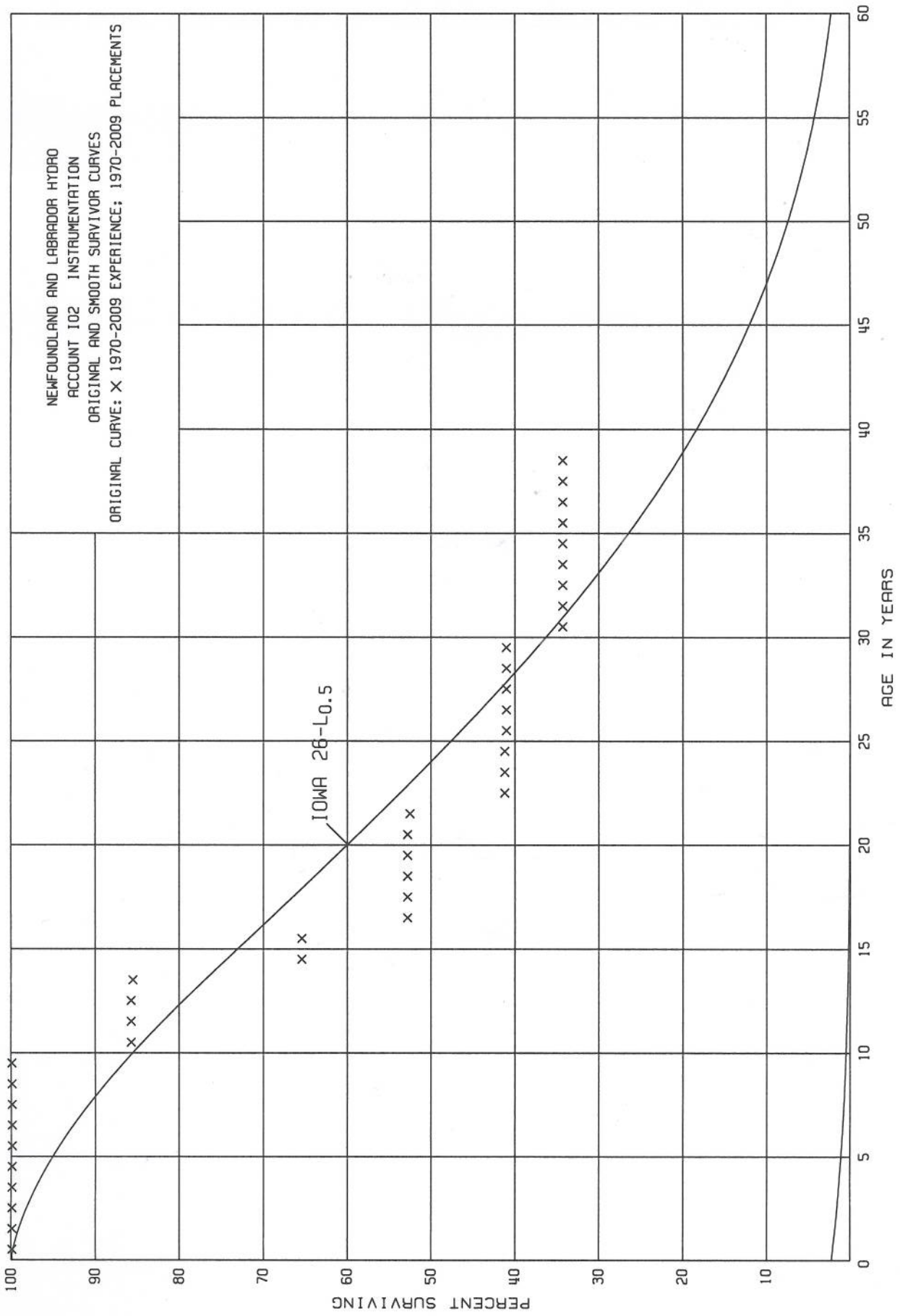
120


NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT 102 INSTRUMENTATION
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1970-2009 EXPERIENCE: 1970-2009 PLACEMENTS
IOWA 28-L0.5
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
10
0
5
10
15
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25
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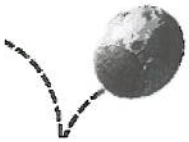
35
40
45
50
55
60

NL Hydro Units of Property & Service Life

Old Designation	Service Life	Hydro Class	Revised Designation	Gross Vehicle Weight Classification	Recommended Service Life
Vehicles					
Cars & Stn Wagons	5 Years	Class 1000	Cars/ Mini Vans	1	5 - 7 Years 150,000 Kms
1/2 Ton Pick ups	6 Years	Class 2000	Pick Ups & Full Size Vans	1	5 - 7 Years 150,000 Kms
1/4 Ton Pick ups	6 Years	Class 2000	Pick Ups & Full Size Vans	1	5 - 7 Years 150,000 Kms
3/4 Ton Pick ups	6 Years	Class 2000	Pick Ups & Full Size Vans	2	5 - 7 Years 150,000 Kms
Vans & 4X4s	5 Years	Class 2000	Pick Ups & Full Size Vans	2	5 - 7 Years 150,000 Kms
1 Ton Pick ups	6 Years	Class 3000	MD Chassis < 6,350 kgs	3	6 - 8 yrs 200,000 Kms
Cab & Chassis	5 Years	Class 4000	Cab & Chassis	6 to 8	6 - 8 yrs 250,000 Kms
Booms & Cranes	5 Years	Class 4000	Boom Truck	6 to 8	6 - 8 yrs 250,000 Kms
Booms/ Stake Bodies	5 Years	Class 4000	Boom Truck	6 to 8	6 - 8 yrs 250,000 Kms
Dump Trucks	5 Years	Class 4000	Dump Trucks	8	6 - 8 yrs 250,000 Kms
Line Bodies	5 Years	Class 4000	Line Bodies	8	6 - 8 yrs 250,000 Kms
Cab & Chassis	6 Years	Class 4000	MD Chassis 6351 kgs to 7257 kgs	4	6 - 8 yrs 200,000 Kms
Cab & Chassis	6 Years	Class 4000	MD Chassis 7258 kgs to 8845 kgs	5	6 - 8 yrs 200,000 Kms
Cab & Chassis	6 Years	Class 4000	MD Chassis 8846 kgs up to 11,793 Kgs	6	6 - 8 yrs 200,000 Kms
Cab & Chassis	6 Years	Class 4000	MHD Chassis up to 14,969 Kgs	7	6 - 8 yrs 250,000 Kms
Cab & Chassis	6 Years	Class 4000	HD Chassis > 14,970 Kgs	8	6 - 8 yrs 250,000 Kms
Mobile Equipment					
ATVs	6 Years	Class 7000	ATVs	Not Applicable	4 Yrs Transmission Crews/ 6 years Distribution Crews
Air Compressors	5 Years	Class 9000	Air Compressors		8 - 10 years
Argos	5 Years	Class 7000	Argos		5 - 7 years
Attachments	10 Years	Class 9000	Attachments		10 - 12 Years
Excavators	10 Years	Class 7000	Heavy Equipment		12 - 15 Years
Flextrac	10 Years	Class 7000	HD Off Road Track Gear		12 - 15 Years
Forklifts	5 Years	Class 9000	Forklifts		8 - 10 Years
Loaders / Graders	10 Years	Class 9000	Heavy Equipment		12 - 15 Years
Muskegs	10 Years	Class 7000	HD Off Road Track Gear		12 - 15 Years
Snowmobiles	6 Years	Class 7000	Snowmobiles		4 Yrs Transmission Crews/ 6 years Distribution Crews
Trailers	10 Years	Class 8000	LD Trailers (<4,500 KGs)		6 - 8 Years
Trailers	10 Years	Class 8000	HD Trailers (>4,500 KGs)		12 -15 Years



Paul Smith/NLHydro
06/04/2009 09:36 AM

To Chris Fry/NLHydro@NLHydro
cc Angus Nichols/NLHydro@NLHydro, Asim Haldar/NLHydro@NLHydro, Bill Nippard/NLHydro@NLHydro, Brian
bcc
Subject Re: Service Life Listing

Chris,

The T&RS dept. maintains a close liaison with other utilities across Canada and has established the current replacement criteria based on industry standards and Nalcor's operating experience. The comments associated with Service Life of Vehicles and Mobile equipment below reflects this criteria. It is important to note the lower number on the recommended service life is the first year the unit is assessed for replacement, this doesn't necessarily mean the unit will be replaced in that year. The factors that are considered for replacement in any year are the age, usage and maintenance costs. Please call if you require further clarifications on the below or any other Service Life questions related to vehicles.

Note #1- Current replacement criteria considered age and/or kilometers, extension of the service life without consideration of kilometers will result in increased operating and maintenance costs.
Note #2 - In addition these units are primarily field vehicles which are used in all types of harsh environments carrying heavy loads, for instance accessing remote sites in remote Southern Labrador gravel roads.
Note # 3 - Current replacement criteria considered age, condition and work application for instance extensive use over very harsh terrain by Lines verses travelling access roads to communication sites.Extension of the service life without consideration of work application will result in increased operating and maintenance costs.
Note# 4 - Current operating and maintenance experience indicates 12 years is a more realistic service life.
Note #5 - Service life of attachments varies dependant on a number of factors including location,annul utilization and conditions under which the equipment is used recommend 10 years more appropriate.
Note #6 - Service life of Loaders and Graders varies dependant on a number of factors including location, annul utilization and conditions under which the equipment is used recommend 12 years more appropriate.
Note #7 - Service life of Light duty trailers varies dependant on a number of factors including location,annul utilization and conditions under which the equipment is used . Corrective Maintenance records indicate beyond 6 years trailers have more likelihood to malfunction when being used recommend 6 years more appropriate.
Note#8 - Current operating and maintenance experience indicates 12 years is a more realistic service life.
Note#9 - Service life of Dump Trucks varies dependant on a number of factors including location,annul utilization and conditions under which the equipment is used recommend 8

years more appropriate.
Note#10 - Service life of Snowblowers varies dependant on a number of factors including location, annul utilization and conditions under which the equipment is used recommend 12 years more appropriate.

Cars & Station Wagons - Note #1
Vans & 4 x 4's - Note#1, Note#2
1/4 ton Pick-ups - Note#1 Note #2
1/2 ton Pick-ups - Note#1,Note#2
3/4 ton Pick-ups - Note#1, Note#2
1 ton Pick-ups - Note#1, Note #2
Cab & Chassis - Note#1, Note #2
Boom & Stake Trucks -Note#1, Note #2
Line Bodies - Body condition usually replaced with chassis.
Boom & Cranes - Costs of remounting and availability of OEM parts in addition to the condition.
Ski - Doo - Note # 3
ATV - Note # 3
Argos - This is in-line with current replacement criteria of 5-7 years
Forklifts - This is acceptable.
Air Compressors - Corrosion is the issue in extending to 25 year service life recommend 10 years.
Muskegs - Note# 4
Flextracs - Note# 4
Attachments- Note #5
Loaders and Graders - Note #6
Trailers - Light Duty - Note #7
Trailers - Heavy Duty - Note# 8
Dump Trucks - Note#1 & 9
Snowblower - Note #5,

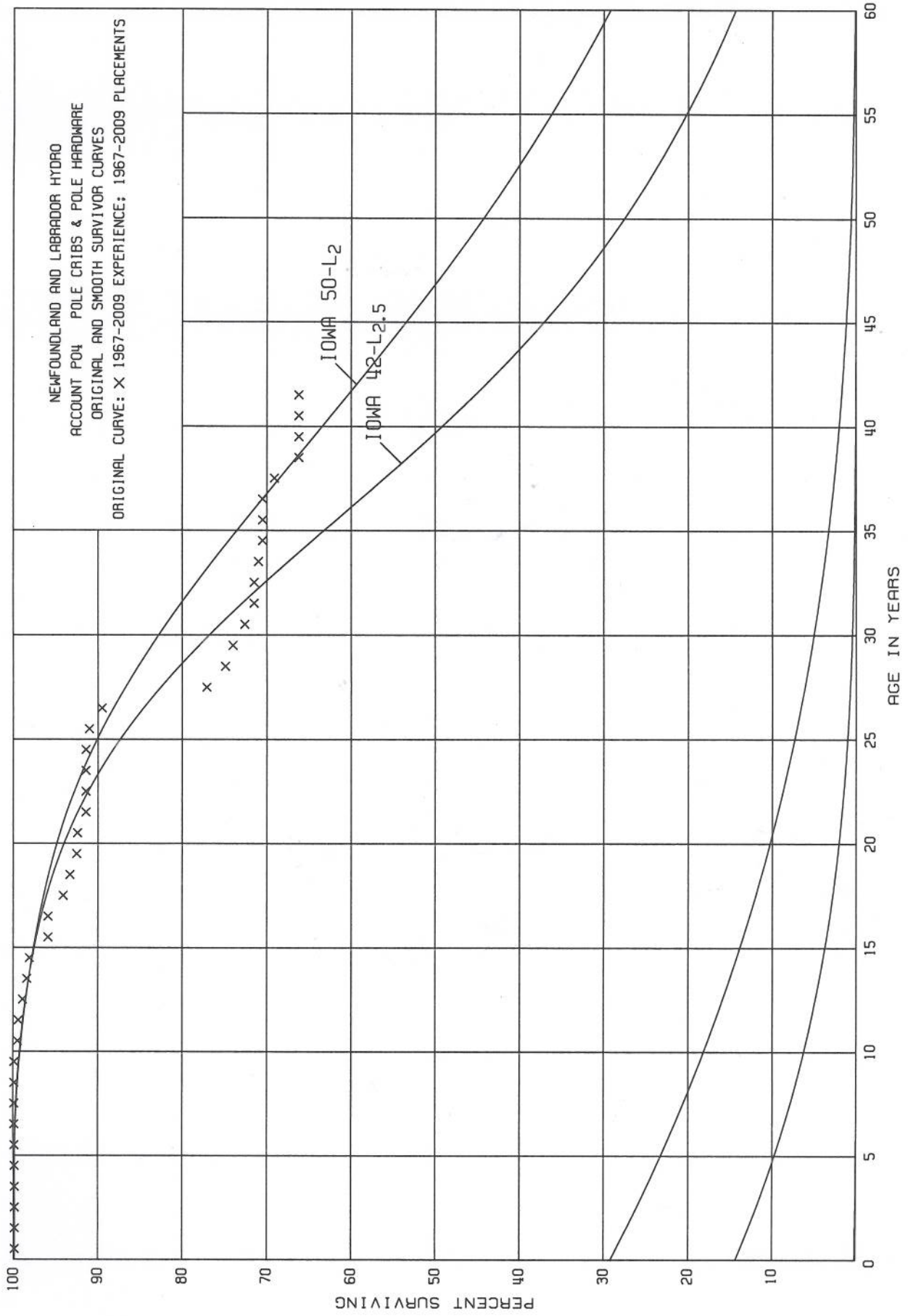
Regards,

Paul W. Smith
Manager Transportation & Regional Services
EMS, Management Representative
Nalcor Energy,Newfoundland Labrador Hydro
Tel: 709-258-2370 Cell: 709-486-2132
email:pwsmith@nlh.nl.ca

Chris Fry/NLHydro

Chris Fry/NLHydro
05/28/2009 01:10 PM

To Angus Nichols/NLHydro@NLHydro, Bill


NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT P04 POLE CRIBS & POLE HARDWARE
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1967-2009 EXPERIENCE: 1967-2009 PLACEMENTS
IOWA 50-L2
IOWA 48-L2.5
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
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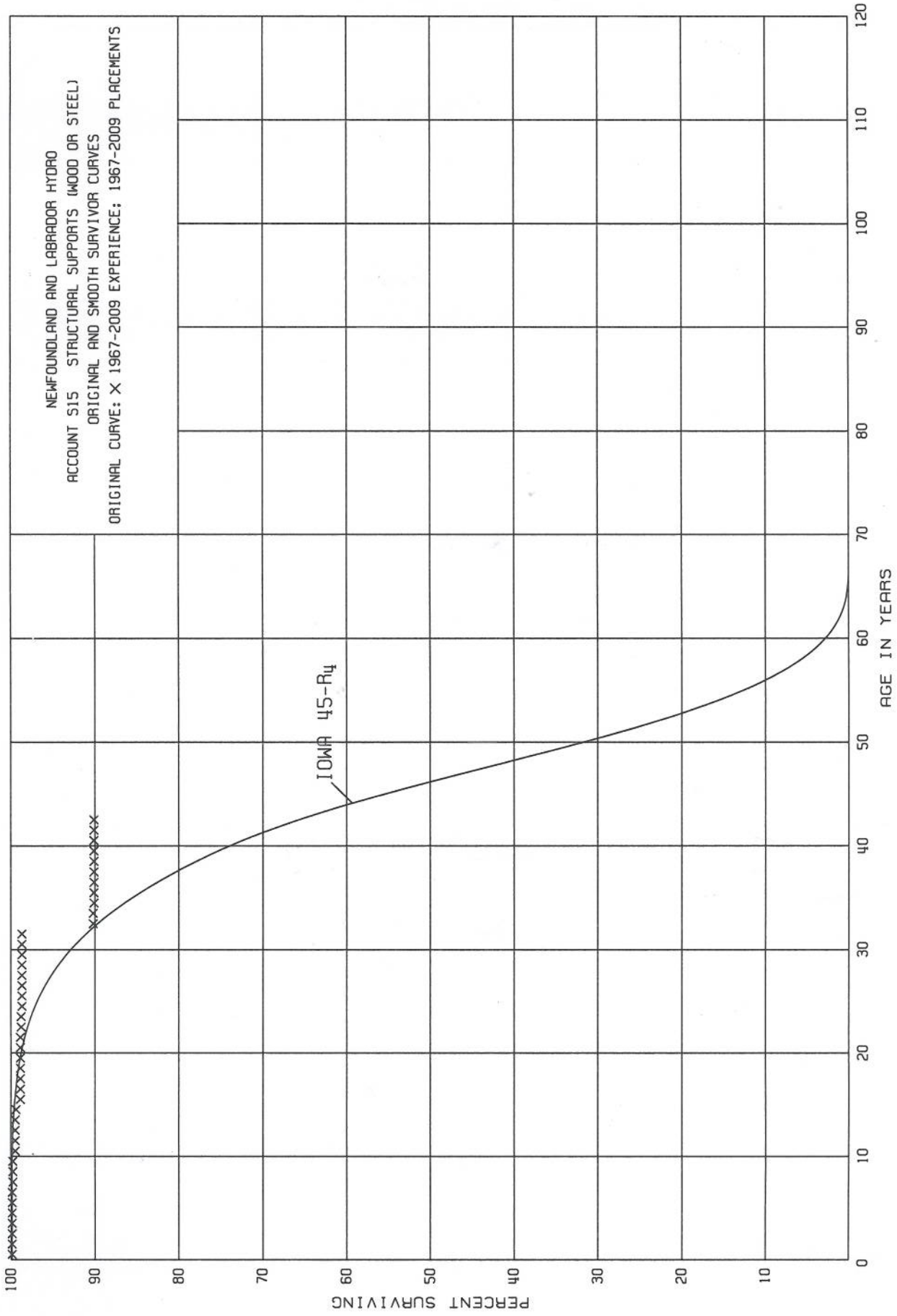
NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT S15 STRUCTURAL SUPPORTS (WOOD OR STEEL)
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1967-2009 EXPERIENCE; 1967-2009 PLACEMENTS
IOWA 45-R4
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
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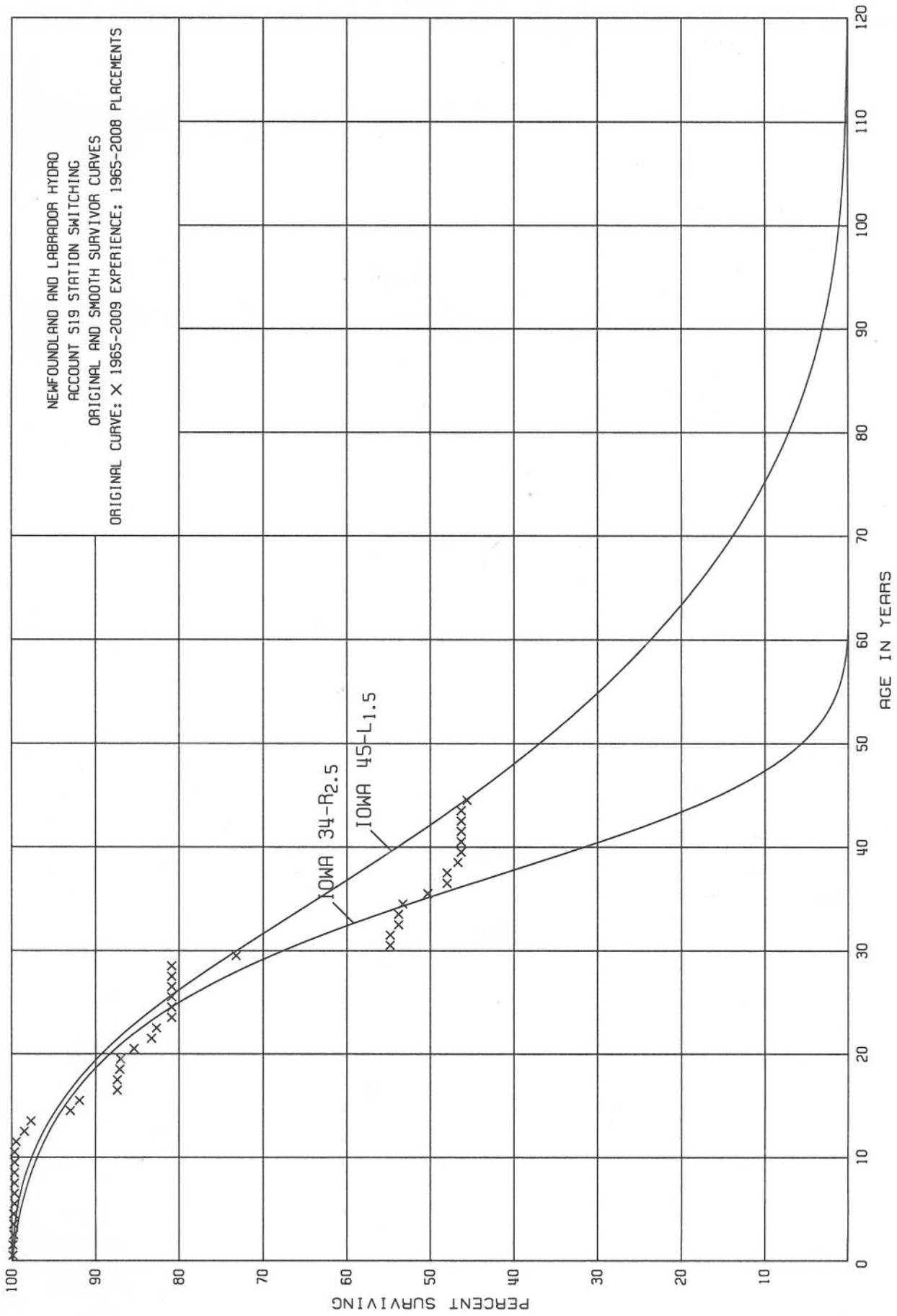
NEWFOUNDLAND AND LABRADOR HYDRO
ACCOUNT S19 STATION SWITCHING
ORIGINAL AND SMOOTH SURVIVOR CURVES
ORIGINAL CURVE: X 1965-2009 EXPERIENCE; 1965-2008 PLACEMENTS
IOWA 34-R2.5
IOWA 45-L1.5
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
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0
10
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30
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