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BEFORE THE POSTAL RATE COMMISSION WASHINGTON, D.C. 20268–0001

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

.PARTIAL RESPONSE OF THE UNITED STATES POSTAL SERVICE TO ANM/USPS-1-17, AS DIRECTED BY PRESIDING OFFICER'S RULING NO. R97-1/69

The United States Postal Service hereby provides the attached information as the partial response to ANM/USPS-1-17, as directed by page 4 of Presiding Officer's Ruling No. R97-1/69, dated November 21, 1997. This information is also being faxed to counsel for ANM. The summaries are arranged by library reference, in numerical order.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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LR-H-77

In LR-H-77, witness Smith provides piggyback factors and premium pay factors. Piggyback factors and premium pay factors are defined in the testimony of witness Smith, USPS-ST-45, pages 1-2. Generally, piggyback factors are ratios of total attributable cost to attributable labor cost for specific functions or operations (e.g. city carriers or OCRs). They are used as an input into special studies as described by witness Smith, USPS-ST-45, pages 1-2.

Development piggyback factors requires identification of the relevant attributable costs from the Base Year or Test Year from witnesses Alexandrovich or Patelunas for the specific function or operation. An example of this is shown in LR-H-77 at pages 41 to 47 for mail processing piggyback factors. The piggyback factors shown at page 47 are the ratio of column 36 (total estimated attributable costs for mail processing) on page 46 to the sum of columns 1 and 3 on page 42, which is total attributable labor costs. Column 36 of page 42, which reflects total attributable costs for mail processing, is calculated by summing the different component costs for supervision, administrative, benefits, facility-related and equipment-related for mail processing shown in pages 42 to 46.

Often there is a need to dissaggregate the component costs of witnesses Alexandrovich or Patelunas. An example is the calculation of the mail processing portion of unemployment compensation cost, (component 453), which is column 23 on page 44. The calculation of this cost is performed in a manner consistent with the attribution and distribution of these costs described in LR-H-1 at pages 18-8 to 18-10. Since unemployment compensation cost is attributable to the same degree as composite postal labor costs and is distributed based on the distribution of composite postal labor costs, the percentage of unemployment compensation cost which is associated with mail processing is equal to the ratio of mail processing labor to total composite postal labor. Thus, the basis for the calculations of piggyback factors is provided in the testimonies of witnesses Alexandrovich, USPS-T-5, and Patelunas, USPS-T-15, and those testimonies supporting their work. Also see LR-H-1, and witness Takis, USPS-T-41, pages 15-19, for his discussion of independent and dependent components.

Parts I and III of H-77 contain the computer programs. The material contained in these parts, plus additional information provided in this response, are intended to satisfy the 31(k)(3) requirements. These programs use test year and base year

attributable costs from witnesses Patelunas, USPS-T-15 and Alexandrovich, USPS-T-5, as discussed below. The documentation for the computer programs in part I is discussed further below.

For part II, witness Smith's testimony, USPS-ST-45, at pages 1-2, plus the materials on pages 191 and 215 of LR-H-77 describe this work and indicate the study plan. The calculations are footnoted or described in a manner which explains how they are performed. In addition, the Excel spreadsheets have also been provided to allow a detailed examination of the calculations. There are no statistical studies, econometric studies or computer analyses. This portion of the library reference consists of spreadsheets, which are workpapers, and are prepared in compliance with rule 54(o).

As indicated above with respect to the piggyback factors of part I of H-77, calculation of the operation specific piggyback factors requires identification and often disaggregation of the test year attributable costs of witness Patelunas. For the operation specific piggyback factors, the clerk and mail handler labor costs, facilityrelated and equipment related costs need to be determined for each piggyback factor category, as shown at pages 192 and 193 of H-77. The calculations shown in pages 194 to 214 of H-77 use the inputs to witness Alexandrovich testimony, including those from witness Degen, USPS-T-12 and LR-H-127, as starting points. These inputs are adjusted to be consistent with witnesses Alexandrovich and Patelunas' treatment of these inputs (though they have done so at a more aggregate level), to reflect the adjustments as done in USPS-T-5, WP B-3 for mail processing (such as for Lump Sum payments), or to reflect wage escalation or cost reductions and other programs as done by witness Patelunas.

With regard to part III, on premium pay factors, Page 234 of LR-H-77 shows the calculation of the premium pay factors. They are the ratio of the adjusted to unadjusted mail processing labor costs as calculated on page 234. The source of the data is witness Alexandrovich, USPS-T-5, Workpaper A-2, pages 1-4. Additional explanation of this calculation is provided at Tr. 13/ 6953-6, 6981-89, 7080-85.

Computer Program Documentation for Part I of LR-H-77

1. A general description of the program, processing tasks performed, methods and procedures employed, sources of data:

At page 21 of LR-H-77 is a typical copy of the JCL commands with some helpful information. At line 21, the IN1 statement refers to the mainframe input file (ALAHQV.VS420D01.FY96MODS.B.DATA) that is to be read on the mainframe.

(USPS H-6: Base Year / Roll Forward shows that these mainframe files were copied to tapes as ALAHQN.PS420T01.FY96MODS.B.DATA. See LR-H-6, pages 7, 11 and 12) This particular one refers to base year 1996 data. These data are read for mail processing, and at page 40, the same file is read for window service for the same year. A similar file for the test year at-current rates, after mail mix (ALAHQV.VS420D03.FY98RCBM.B.DATA, mainframe; tape begins with: ALAHQN.PSMANT03.FY98RCBM.B.DATA. See LR-H-6 at page 144.), which is the data from witness Patelunas, USPS-T-15, WP-E, is read for developing piggyback costs for mail processing (page 61), window service (p.80), city carrier (or city delivery) (p.102), vehicle service (p.119), special delivery (p.137), rural carrier (or rural delivery) (p.157), and accounting (and auditing) (p.190). Each of these input files are read by the corresponding SAS files showing corresponding unique data to be read; data to be kept (KEEP), which lines (classes/special services; Fnnn, etc.), conditional statements (IF ..., THEN ..): data grouping (DATA SALARY, SPACE, MISCELL); the process statement (PROC MATRIX); identification of variables used; development of ratios; and the development of the "spreadsheet" or tables. The output is described in the PROC FORMAT section, labelling (identifying) class/special service row; specifying how the numbers are to appear on the tables (PICTURE); and the print statement (PROC PRINT).

Listing of input and output data, definitions of variables, description of input and output file organization:

In Part I, each section of USPS LR-H-77 identifies the corresponding component (COMP) number to be read, and kept (KEEP), groups components (DATA ...), process the data (PROC MATRIX), and lays out the output tables (PROC PRINT).

Identification of all components/variables used have been made in the computer printout pages of each respective function piggyback.

USPS LR H-4, Base Year / Roll Forward, Input Data Files, and USPS LR H-6, Base Year / Roll Forward support the information in the JCL pages of LR H-77. The output files are those provided in LR H-6.

Documentation of programming:

See items (1) and (2) above. Calculations have comments, as well identification/description of various arithmetic processes: addition (+); multiplication (#); and division (#/).

Explanation of Calculations:

See the attached Appendix 1: "General Piggyback Matrix By Component

Numbers" (2 pages).

LR-H-89

In USPS-ST-47, witness Degen sponsors those portions of LR-H-89 which present the statistical documentation for the IOCS. This material presents no findings, conclusion, analyses, or output, and thus does not constitute an independent basis to trigger any portions of Rules 31 or 54. Instead, it provides background documentation on the IOCS of the type described in Rule 31(k)(2)(i).

In USPS-ST-48, witness Pafford sponsors those portions of LR-H-89 which present the statistical documentation for the RPW, and certain other material relating to data systems generally. This material presents no findings, conclusion, analyses, or output, and thus does not constitute an independent basis to trigger any portions of Rules 31 or 54. Instead, it provides background documentation on the RPW and the data systems generally of the type described in Rule 31(k)(2)(i).

In USPS-ST-49, witness Harahush sponsors those portions of LR-H-89 which present the statistical documentation for the Carrier Cost Systems. This material presents no findings, conclusion, analyses, or output, and thus does not constitute an independent basis to trigger any portions of Rules 31 or 54. Instead, it provides background documentation on the CCS and RCS of the type described in Rule 31(k)(2)(i).

LR-H-105

Study plan:

The objective of this study stated on page 2 is to compile a "profile of containers, packages, and other characteristics of Standard (A) regular rate mail preparation." There were no alternative courses of action so none are described. All major assumptions relating to the study's design and implementation are described in Section II. The results of the study are reported in Tables 5-18 and are described in Sections III through VI. These data were estimated using a sample survey and computer analysis.

Sample Survey Criteria:

Design: The definition of the universe and sampling frame and units are described on page 2 in Section I, Survey Summary. A detailed description of the survey design and the sample selection are found in Section II, Survey Methodology starting on page 2. Statistical confidence of estimates in Tables 5-15 can be found in Tables

D1-D11. Statistical confidence of estimates in Table 16 can be found in the response to AMMA/USPS-LR-H-105-4-b.

Forms: The data collection forms are presented in Appendix C. Survey log forms are found in Appendix B.

Training: Training materials including instructions and example survey forms are found in Appendix A.

Expansion factors: Factors used to expand sample data are described in Section III, Estimation Procedures.

Computer Analysis Criteria:

General Description of the program: A general description of the computer programs used to obtain the various estimates and their standard errors can be found in Appendix E.

Listing of the input and output data: The input and output data are described in Appendix E.

Documentation: All the source code for the computer programs are contained in Appendix F.

Modification to such data made for use in the program: All data checking routines are described in Appendix E.

Input and output variables: The variables in each of the input data files are described in the response to AMMA/USPS-LR-H-105-2.

Input and output file organization: The file format of each of the input data files are described in the response to AMMA/USPS-LR-H-105-2. A list of the files on diskette including the input data, source programs, and output data are found in Appendix E, Section VII.

LR-H-106

In LR-H-106, which is Mail Processing Unit Costs by Shape, witness Smith provides base year and test year mail processing unit costs (or benchmark costs) by cost pool for many or most First-Class, Periodicals, and Standard Mail (A and B) subclasses or CRA categories. H-106 is the source for the First-Class bulk metered letter benchmark, costs used by witnesses Hatfield, USPS-T-25, Seckar, USPS-T-26, and Daniel, USPS-T-29 in developing proportional and fixed adjustments of model costs to the CRA level, and is used by witness Daniel in calculating the First-Class Mail nonstandard surcharge costs (USPS-T-43).

The study plan for this work is discussed in the testimony of witness Smith, USPS-ST-45, and pages I-1 and I-2 of LR-H-106. This analysis is performed using base year and test year attributable costs (and inputs used in the calculation of these

costs) in order to obtain costs by shape. It is a disaggregation of test year mail processing labor costs by shape and cost pool in a manner consistent with the base year and test year cost development. The calculations are footnoted or described to explain how they are done. In addition, the Excel spreadsheets have also been provided to allow a detailed examination of the calculations. There are no statistical studies, econometric studies or computer analyses. This library reference consists of spreadsheets, which are workpapers prepared in compliance with rule 54(o).

The calculations described on pages I-1 and I-2 of H-106 were designed to replicate the base year and test year attributable cost calculations for mail processing costs, except at a more dissaggregated level. These calculations are meant to parallel the calculations by witnesses Alexandrovich, Patelunas and the testimonies that support their work. Specifically, witness Smith starts with the mail processing labor costs by cost pool, as developed by witness Degen in LR-H-146. In part III of LR-H-146, witness Degen has disaggregated these costs by shape. Witness Smith applies to these costs the same adjustments that witness Alexandrovich applies in his WP B-3 and his WP A-2 to the aggregate mail processing labor costs. Witness Smith applies cost reductions and other programs adjustments to individual cost pools as done by witness Patelunas. Witness Smith applies piggyback factors to reflect total mail processing costs, rather than just labor costs, consistent with the development of the test year attributable costs. Witness Smith's final step is a reconciliation with the test year costs of witness Patelunas in order to be consistent.

LR-H-108

LR-H-108 estimates the attributable unit cost of Standard (A) Mail by shape. These estimates are developed by disaggregating Base Year CRA estimates by shape. Most of the analysis is performed in computer spreadsheet program, with additional computer analysis to develop mail volumes by shape. The library reference was designed to document the material required by Commission Rule 31(k)(3) for computer related analyses. The description of the spreadsheet analysis and its underlying assumptions is shown at pages 2 through 5 of the Library Reference. Tables 1-7 of the main body (now incorporated into USPS-T-28 as Exhibit K) contain the results of the analysis and document the sources of data. Machine readable copies of the spreadsheets were included on the CD-ROM accompanying the Library Reference. Each spreadsheet fully documents the sources of data used. Appendix A (which remains in LR-H-108) describes the development of mail volume estimates by shape for Standard (A) Mail. Each program used in the analysis is listed in the order used, with its input and output files, and a description of the processing tasks

performed, at pages A-6 through A-18. The programs are included on the CD-ROM in machine readable form and appear in hardcopy form at pages A-18 through A-176. All input files and final output files are included on the CD-ROM. The data verification and editing procedures are performed by the programs "check3rd.f" and "check3rdb.f" as described at pages A-11 and A-12. Hardcopy of these programs are found at pages A-74 and A-83 respectively.

LR-H-109

Study plan:

The objective of this study is to separate mail processing costs for Standard Mail (A) enhanced carrier route mail into costs for high density/saturation mail and costs for other carrier route mail. The data used in the analysis are available in LR-H-23. A discussion of methodology and assumptions is presented on pages 2-3. There were no alternative courses of action considered. The facts and data upon which conclusions presented in Tables 1-2 are based are listed as input data presented in LR-H-23. These data were estimated using computer analysis.

Computer Analysis Criteria:

General Description of the program: A general description of the process

used for the analysis if found at page 2 of the library reference under the

heading "Analysis", with specific program documentation at Appendix A pages A1-A2.

Processing tasks performed: The processing tasks performed by each program as shown in Appendix A at pages A1-A2.

Listing of the input and output data: The input and output data for each program are documented at pages A1-A2 of Appendix A, and listed in Appendix C.

Documentation: Hard copies of the documented source code is found at Appendix B, and machine readable copies are included on the diskette

accompanying the library reference. Modification to such data made for use in the program: No modifications to the input data were made.

Input and output variables: The variables in each of the input data files are described at Appendix C.

Input and output file organization: The file format of each of the input data files are described at Appendix C.

LR-H-111

In LR-H-111, witness Smith, USPS-ST-46, provides the destination entry cost avoidance estimates for both Periodicals and Standard Mail (A). A clear statement of the study objective is presented on page one of H-111. The discussions presented throughout Sections 3.0 and 4.0 of H-111 detail the study plans for the respective analyses. USPS-ST-46 also provides information on alternatives considered. This study provides all assumptions and facts concerning the data inputs. These are found in Sections 3.0 and 4.0 of LR-H-111, along with the facts, judgments, and estimation techniques upon which the conclusions of this study rely. Appendices A through G present the analyses and associated inputs, carefully documenting the source of the latter. The calculations are footnoted or described to explain how they are done. In addition, the Excel spreadsheets have also been provided to allow a detailed examination of the calculations. The tables and spreadsheets of this library reference are prepared in compliance with rule 54(o).

LR-H-112

The objective of this study, as stated on page 1 of USPS-ST-43, is to update the analysis of additional mail processing costs associated with nonstandard First-Class Mail pieces. A detailed description of the methods used to analyze the data is found in Section II of USPS-ST-43 "Methodology/Analysis". There were no alternative courses of action considered and no new assumptions were made, so none are described. The facts and data upon which the conclusions discussed in Section III. "Results" are based are listed in Section A. "Inputs" in Exhibit A. The source of the cost data was originally USPS LR-H-106 (now USPS-ST-45). The original estimates of the percent of nonstandard pieces by shape were relied upon by the Commission in earlier dockets. The updated percent of nonstandard pieces by shape comes from RPW and mailing statement data which are documented extensively elsewhere in this proceeding (see generally USPS LR-H-38-47). The analysis used to compute the additional costs of nonstandard pieces simply adds and multiplies the above describes inputs, in accordance with the methodology used and accepted in the past (see Docket No. R90-1, USPS LR-F-160). It is neither a statistical study, nor a sample survey, nor an econometric study and the computer analysis is limited to functions performed by a simple calculator, so the criteria of Rule 31(k) are not addressed.

LR-H-113 Productivities & Accept Rates For Mailflow Model

In accordance with Rule 31(k)(3), this document consists of computer program

documentation of SAS computer programs, PRODUCT.FY93.CNTL and PRODUCT.FY96.CNTL, used to develop productivities and accept rates for various processing operations. As explained in the documentation, relevant MODS data are extracted and calculations are performed on this data by the programs to develop the productivities and accept rates. The documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the program and data are also provided.

LR-H-114

Library Reference H-114 disaggregates RPW data to break out delivery confirmation volume into four types of delivery, via: city carriers, rural carriers, box section clerks, and firm holdouts. As such, it is a computer analysis governed by Rule 31(k)(3). The first four pages of the library reference provide the appropriate foundational information.

LR-H-128

In LR-H-128, witness Smith provides the coverage factors used in the letter, card, and flat mail processing cost models developed by witnesses Daniel, USPS-T-29, Hatfield, USPS-T-25, and Seckar, USPS-T-26. Witness Smith's testimony, USPS-ST-45, provides citations to the testimony of the witnesses who use and describe coverage factors. This library reference describes the calculation of the coverage factors, as summarized in the Introduction.

Part I of H-128 provides the information on the computer programs used to compute the ODIS results used in the coverage factor calculations. See also the November 6, 1997, response of witness Smith to AMMA/USPS-ST45-1 and 2 for information on data sources and standard errors for the ODIS data estimates. The appendices to H-128 contain the computer programs. This part of the library reference is a computer analysis which is prepared in compliance with rule 31(k)(3).

Part II of H-128 contains the calculations of the coverage factors using the ODIS data from part I. The calculations are footnoted or described to explain how they are done. In addition, the Excel spreadsheets have also been provided to allow a detailed examination of the calculations. This part of the library reference is a workpaper prepared in compliance with rule 54(o).

LR-H-129

In LR-H-129, witness Smith provides inputs for witnesses Alexandrovich, USPS-T-5, Patelunas, USPS-T-15, and Hume, USPS-T-18, regarding the distribution of DPS savings among classes and categories. This library reference also provides a disaggregation of the test year volume forecasts of witness Tolley, USPS-T-6, to determine volumes by shape. This work is described in USPS-ST-45, and in the summary page for H-129.

The calculations in H-129 are footnoted or described to explain how they are done. In addition, the Excel spreadsheets have also been provided to allow a detailed examination of the calculations. There are no statistical studies, econometric studies or computer analyses. This library reference consists of spreadsheets, which are workpapers prepared in compliance with rule 54(o).

The following is additional explanation for pages II-1 and II-2 of LR-H-129. The purpose of these pages is to adjust the test year model DPS percentages (from witnesses Hatfield, USPS-T-25, and Daniel, USPS-T-29) to reflect the test year city carrier DPS percentages. There are two reasons there is a difference between the overall test year DPS percentage as provided by the mail flow models (by Daniel and Hatfield) and the test year DPS percentage of letter mail for city carriers as provided at pages II-1 and II-2 of H-129. First, DPS is more targeted for city carriers, since they tend to staff the larger delivery offices. Second, all the budgeted savings for DPS or cost reductions for FY97 and FY98 are included for city carriers or cost segments 6 and 7 (see witness Patelunas, USPS-T-15, Exhibit USPS-T-15A. Thus, the calculation of the test-year percentage of DPS for city carriers, shown at pages II-1 and II-2 of LR-H-129, is the amount of DPS implied by the mail flow models minus the amount which is included in the base year volumes for rural carriers. Thus, the aggregate DPS volume for city and rural carriers used by witness Hume, USPS-T-18, is consistent with the overall DPS percentages determined by witnesses Daniel and Hatfield.

An alternative considered in the development of the distribution key for DPS savings contained in page I-1 of LR-H-129, was to use DPS city carrier volumes (column 6) as the distribution key. This was rejected, in favor of using these volumes weighted by the FY93 city carrier letter costs in order to reflect the different DPS savings potential of the classes and subclasses, as shown on page I-1.

LR-H-130

Compliance of LR-H-130 with the Commission's documentation rules was discussed at length during voir dire by counsel for ANM at Tr. 4/1831-35.

LR-H-131

Study plan:

The objective of this study stated on page 2 is "to obtain national estimates of arrival and barcoding profiles for Parcel Post, DBMC, and Special Standard Rate parcels." A detailed description of the methods used to collect the data is found on page 7. There were no alternative courses of action considered and no assumptions were made so none are described. The facts and data upon which conclusions presented in Tables 1-4 are based are listed as input data presented on page 13. These data were estimated using a sample survey and computer analysis.

Sample Survey Criteria:

Design: The definition of the universe and sampling frame and units are described on pages 6-7 under section 2.A. Methodology, Sample Design. A discussion of sampling errors and confidence intervals are in the last paragraph of that section 2.A. on page 8. Section 2.A. describes the method of selecting the sample and the characteristics measured. Responses to UPS/USPS-T29-12a-e and g-k provide further elaboration on the sample design.

-- Forms: The forms used during data collection are presented in Attachment 1. *Training:* A brief discussion of training is found on page 6 of the library reference and is describe further in response for UPS/USPS-T29-12f. *Expansion factors:* Factors for rollups from sample BMC estimates to overall estimates are presented in a Table on page 10. The algorithm is shown in Attachment 3, which was inadvertently omitted from the copy of the library reference filed with the Commission on July 10, and was filed on August 15.

Computer Analysis Criteria:

General Description of the program: A general description of the data analysis performed is found on pages 9 -10 in section C, Data Analysis and The Inflation Process.

Processing tasks performed: In addition to the general description provided on pages 9-10, Section 3 Computer Documentation - BMC Parcel survey on page 11 "describes the procedures and methods used to produce the arrival and barcoding profiles . . ."

Listing of the input and output data: The input data are described in Section

3.B. INPUT DATA on pages 11-12. The output data are presented in Tables 1-4 of the library reference.

Documentation: Hard copies of the documented source coded is provided in Attachment 2.

Modification to such data made for use in the program: Data entry and checks are described on page 8 of the library reference.

Input and output variables: The variables in each of the input data files are described on pages 13-16 in section C, File Formats.

Input and output file organization: The file format of each of the input data files are described on pages 13-16 in section C, File Formats. A list of the files on diskette including the input data, source programs, and output data are found on page 17.

LR-H-132

Study plan:

The objective of this study stated on page 2 is "to refine, expand, and update a study done in 1983 to support parcel post rates requested in Docket No. R84-1." A detailed description of the methods used to collect the data is found on page 2. There were no alternative courses of action considered and no assumptions were made, so none are described. The facts and raw data upon which conclusions presented in Attachment IV and V.D. are based are listed as input data presented in Attachments II and III. The final results were estimated using a sample survey and computer analysis.

Sample Survey Criteria:

Design: Section 1.0. Purpose of the Data Collection describes the method of selecting the sample and the characteristics measured on pages 1-2. *Forms:* The forms used for data collection are presented in Attachment I. *Training:* Detailed instructions were included on the forms. A description of follow-up discussion with field personnel is described on page 2. *Expansion factors:* Factors for rollups from sample BMC estimates to overall estimates are discussed in Section 6.

Computer Analysis Criteria:

Attachments VII.A and B "Documentation of SAS Program used to Process the BMC Productivity Data - Analysis.SAS" pages 340-4 and "Documentation of SAS Program used to Weight the BMC Productivity Data - Sites.SAS" pages 491-500 enumerate

and respond to each of the requirements for Rules 31(k).

LR-H-134

USPS-T-26 together with its supporting documentation in LR-H-134 constitute a general study whose foundational requirements are found in Rule 31(k)(1). As such, the foundational requirements of Rules 31(k) and 54(o) do not apply separately to LR-H-134; however, appropriate foundational information does appear in USPS-T-26.

LR-H-136 Creation of Data File TPANL96.WEIGHT.DISK

In accordance with Rule 31(k)(3), this library reference documents the creation of an input data set used in library references H-137, 138, 139, and 143. The program documented herein extracts data from the FY96 CCS database solely for the purpose of concatenating 4 quarterly data files to form a single data file comprising all data for FY96. The documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. A machine-readable version of the program also is provided. H-30 provided additional documentation of the four quarterly input files, and these four files are provided on CD-ROM accompanying H-28.

LR-H-137 Description of Methods For Estimating Load Time Elasticities For City Carrier Letter Routes

In accordance with Rule 31(k)(3), this library reference documents two SAS programs. The first program calculates FY96 averages for actual and possible delivery variables and the volume variables that are used in the second program. The second program applies these average values, along with other inputs, to calculate elasticities of load time with respect to volumes and deliveries. The documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the programs are also provided, as well as additional input files.

LR-H-138 The Actual Stops Model

In accordance with Rule 31(k)(3), this library reference documents two SAS programs. The first program reads in the data from H-136. It separates these data into three sub-sets, one for each stop type. Then, for each stop type, it sums actual stops, possible stops and volumes by mail subclass over all stops tested on a given route on a given test day. These sums by route/test date are stored in an output file, which is read into the second SAS program. The second program applies econometric models previously used by the Commission to these data to estimate regressions for each stop type. The regressions define actual stops as functions of volumes and possible stops. These regressions are used to calculate elasticities by mail subclass and subclass group for each stop type. The documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the programs are also provided.

The Actual Deliveries Model LR-H-139 In accordance with Rule 31(k)(3), this library reference documents two SAS programs. The first program reads in the data from H-136. It separates these data into two subsets, one for stop type MDR and one for stop type BAM. Then, for each stop type, it sums actual deliveries, possible deliveries and volumes by mail subclass over all stops tested on a given route on a given test day. These sums by route/test date are stored in an output file, which is read into the second SAS program. The second program applies econometric models previously used by the Commission to these data to estimate regressions for each stop type. The regressions define actual deliveries as functions of volumes and possible deliveries. These regressions are used to calculate elasticities by mail subclass and subclass group for each stop type. The documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the programs are also provided.

LR-H-140 Calculation of Fixed Time Per Stop

In accordance with Rule 31(k)(3), this library reference documents a SAS program and an EXCEL workbook. The program reads in the 1985 Load Time test data file from prior cases and creates an output file containing records by stop type for tests of carriers observed loading only one piece of letter mail. The output file is downloaded into the workbook and the workbook presents calculations performed on

the data to estimate fixed time at stop by stop type. The documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the program and workbook are also provided.

LR-H-141 The Quadratic Model For Estimating Running Time Elasticities

In accordance with Rule 31(k)(2), this library reference documents the regressions used to estimate the quadratic running time model described by witness Baron in his testimony. This model, documented by Postal Service witness Colvin in prior cases, is described in witness Baron's testimony, including the relevant economic theory, a complete description of the econometric model, and a complete description of the reasons for each major assumption and specification. The testimony also describes the variables selected and the justifications for their selection, and alternative models. The library reference provides additional documentation, in more detail, of the econometric techniques employed, and of the model, in the form of EXCEL workbooks, and a complete description of the details of each workbook, including formation of the input data matrices used to estimate the regressions, the estimation itself, and the application of the regression parameters to the calculation of running time elasticities. The library reference also provides relevant test statistics.

LR-H-142 The Quadratic Model With Interactions For Estimating Running Time Elasticities

This library reference documents regressions used to estimate the quadratic running time model with interactions described by witness Baron in his testimony. This model, employed by the Commission in prior cases, is described in detail in witness Baron's testimony. The library reference provides additional documentation, in more detail, of the econometric techniques employed by the Commission. The library reference also included two sets of SAS programs which apply the quadratic model with interactions to data found in H-143 and to CATFAT data from prior cases. In accordance with Rule 31(k)(3), the documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the programs are also provided.

LR-H-143 Calculation of Fiscal Year 1996 Average CCS Coverages

This program documents a SAS program which reads in data from 136 and calculates FY96 coverage ratios by stop type within each route group. In accordance with Rule 31(k)(3), the documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. Machine-readable versions of the programs are also provided.

LR-H-144

LR-H-144 presents three studies of variable mail processing cost of Standard Mail (B) parcel post. The first study estimates mail processing costs by IOCS basic function and office type to support the development of DBMC parcel costs. The second study separates mail processing costs for parcel post into operation 07 (acceptance) costs and all other costs. The third study separates window service direct costs into costs for DBMC parcel post and all other parcel post. Because virtually all the information presented in LR-H-144 is developed and manipulated using computer programs, the basic structure of the library reference is designed to cover the material required to be produced in conjunction with computer related analysis by Commission Rule 31(k)(3). A description of the methodology used to estimate costs can be found in the Costs by Basic Function, Costs for Operation 07 and Window Service Costs for DBMC/Non-DDBMC sections. Appendix 1 describes the programs used in the basic function and operation 07 analysis. Appendix 2 describes the programs used in the Window Service Costs analysis. Appendix 3 provides program source code listings. Appendix 4 contains all input and output files.

LR-H-146

LR-H-146 is a multipart library reference presenting material relating to the new methodology proposed to distribute mail processing clerk and mailhandler costs using IOCS and MODS information. Thus, LR-H-146 contains the details of the procedures and results presented by witness Degen in USPS-T-12, which are at the CRA-level of aggregation, and which are incorporated by witness Alexandrovich into his base year costs and rolled-forward into the test year by witness Patelunas. LR-H-146 also contains other types of information coming out of the new methodology for mail processing costs, and is thus used by other witnesses as the source of inputs for some of their cost study analyses. It contains job control language (JCL) and programs listings in hard-copy format, as well as certain machine-readable data files.

Because virtually all of the information presented in LR-H-146 is developed and manipulated using computer programs, the basic structure of each part of the library reference is designed to cover the material required to be produced in conjuction with computer-related analyses by Commission Rule 31(k)(3). The basic structure, repeated throughout the library reference, is to set forth program objectives, programming processing tasks, methods and procedures employed, input data, output data, and source code.

LR-H-151 MLR Survey - Development and Data

This library reference provides documentation of the Motorized Letter Route Survey (MLR), in conformance with the requirements of Rule 31(k)(2). Clearly set out are descriptions of the purpose of the survey, the survey design (including definition of the universe under study), the sampling frame and units, and the methods used to select the sample and conduct the survey. Survey forms used are reproduced and rules followed for data editing are explained.

LR-H-152 SPR Survey - Development and Data

This library reference provides documentation of the Special Purpose Route Survey (SPR), in conformance with the requirements of Rule 31(k)(2). Clearly set out are descriptions of the purpose of the survey, the survey design (including definition of the universe under study), the sampling frame and units, and the methods used to select the sample and conduct the survey. Survey forms used are reproduced and rules followed for data editing are explained.

LR-H-153 Expedited Mail Survey - Development and Data

This library reference provides documentation of the Expedited Mail Survey (EMS), in conformance with the requirements of Rule 31(k)(2). Clearly set out are descriptions of the purpose of the survey, the survey design (including definition of the universe under study), the sampling frame and units, and the methods used to select the sample and conduct the survey. Survey forms used are reproduced and rules followed for data editing are explained.

LR-H-154 LDC24 Survey - Development and Data

This library reference provides documentation of the LDC24 Survey, in conformance with the requirements of Rule 31(k)(2). Clearly set out are descriptions

of the purpose of the survey, the survey design (including definition of the universe under study), the sampling frame and units, and the methods used to select the sample and conduct the survey. Survey formsused are reproduced and rules followed for data editing are explained.

LR-H-155 Express Mail Study

This library reference provides documentation of the Express Mail Study, in conformance with the requirements of Rule 31(k)(2). Clearly set out are descriptions of the purpose of the sample survey, the survey design (including definition of the universe under study), the sampling frame and units, and the methods used to select the sample and conduct the survey. Survey forms used are reproduced and rules followed for data editing are explained. Since computer programs were to analyze the data, the documentation also contains source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization, in accordance with Rule 31(k)(3). Machine-readable versions of the programs are also provided.

LR-H-156 MLR Survey - Programs and Output

This library reference provides additional documentation of the Motorized Letter Route Survey (MLR), in conformance with the requirements of Rule 31(k)(3). Clearly set out is a general description of each program used, program objectives, processing tasks, methods and procedures, documented program code, input data, data file organization, output files and instructions for executing the program code. Machine-readable versions of the program and inputs are also provided.

LR-H-157 SPR Survey - Programs and Output

This library reference provides additional documentation of the Special Purpose Route Survey (SPR), in conformance with the requirements of Rule 31(k)(3). Clearly set out is a general description of each program used, program objectives, processing tasks, methods and procedures, documented program code, input data, data file organization, output files and instructions for executing the program code. Machine-readable versions of the program and inputs are also provided.

LR-H-158 Expedited Mail Survey - Programs and Output

This library reference provides additional documentation of the Expedited Mail Survey (EMS), in conformance with the requirements of Rule 31(k)(3). Clearly set out is a general description of each program used, program objectives, processing tasks, methods and procedures, documented program code, input data, data file organization, output files and instructions for executing the program code. Machine-readable versions of the program and inputs are also provided.

LR-H-159 LDC24 Survey - Programs and Output

This library reference provides additional documentation of the LDC24 Survey, in conformance with the requirements of Rule 31(k)(3). Clearly set out is a general description of each program used, program objectives, processing tasks, methods and procedures, documented program code, input data, data file organization, output files and instructions for executing the program code. Machine-readable versions of the program and inputs are also provided.

LR-H-169

Library Reference H-169 is an engineering study of Flats Sorting Machine model 1000. The information required by Rule 31(k)(1) is provided on the first page of the library reference.

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LR-H-182

Study plan:

The objective of this study is to estimate unit volume variable costs for Standard Mail (A) by weight increment for carrier-route and other bulk mail separately. The primary data used in the analysis are available in LR-H-23 and the Base Year CRA. A discussion of methodology and assumptions is presented on pages 2-3. There were no alternative courses of action considered. The facts and data upon which conclusions presented in Tables 1-6 are based are listed as input data presented in LR-H-23 and the Base Year CRA. These data were estimated using computer and spreadsheet analysis. The spreadsheets used in the analysis were included on the diskette accompanying the Library Reference.

Computer Analysis Criteria:

General Description of the program: A general description of the data analysis used to estimate mail processing costs by weight increment is found in Appendix A, and the analysis used for window service and city carrier in-office costs is

found in Appendix B.

Processing tasks performed: The processing tasks for each program are described in Appendices A and B.

Listing of the input and output data: The input data are described in Appendix A at pages A1-A2, Appendix B at pages B1-B2, and in LR-H-23. Input and output files and file formats are provided in Appendix D.

Documentation: Hard copies of the documented source code are provided in Appendix C.

Modification to such data made for use in the program: No modifications to the input data were made. The programs used contain internal editing procedures to verify the suitability of the tally data for studying weight. These can be found at pages C15-C20 for mail processing, and at pages C24-C25 for window service and city carrier in-office costs.

Input and output variables: The variables in each of the input data files are described at Appendix D.

Input and output file organization: The file format of each of the input data files are described at Appendix D.

LR-H-183

LR-H-183 (revised on 10/16/97) presents the incremental costs of load time used by witness Takis (USPS-T-41) in his estimation of incremental costs of various subclasses and groups of mail. This portion of witness Takis' analysis is computer-based, and the library reference provides hard-copy and machine-readable material cited in Commission Rule 31(k)(3).

LR-H-184

LR-H-184 presents the single subclass ratios used by witness Takis (USPS-T-41) in his estimation of incremental costs of various subclasses and groups of mail. This portion of witness Takis' analysis is computer-based, and the library reference provides hard-copy and machine-readable material cited in Commission Rule 31(k)(3).

LR-H-185

LR-H-185 is an update of the mail characteristics study first presented by witness Degen as part of his testimony (USPS-T-5) in Docket No. MC95-1. (In that case, the associated library reference was LR-PCR-7.) Because the information presented is derived from a sample survey, the short text of the library reference contains most of

the information required by the Commission's rules on survey analyses, Rule 31(k)(2)(i). Other such information is found in Appendix A and B of the library reference. Appendix C is the program and file listing, containing the computer-related information which is the subject of Rule 31(k)(3).

LR-H-188

Library Reference H-188 provides electronic spreadsheets and SAS code that supports the Post Office Box survey discussed in USPS-T-24. As such, the foundational requirements of the Rules are not independently applicable to the library reference, although the material required by Rule 31(k)(3) appear throughout the library reference and its related testimony.

LR-H-189 Documentation of Rural Carrier Cost Development

This library reference consists of a SAS program that reads in a rural carrier data file produced by LR-H-192. The program then calculates volume variabilities for rural evaluated routes and "other" rural routes. In accordance with Rule 31(k)(3), the documentation includes source code listings, descriptions of program objectives, processing tasks, methods and procedures, and data manipulations, as well as input and output data, variable definitions, and data file organization. A machine-readable version of the program is also provided.

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LR-H-190

Study plan:

The objective of this study stated on page 2 is to "produce estimates of mail volume, packages, and containers by package and container presort levels and container type, for barcoded and nonbarcoded flat-shaped (second-class regular rate) mail." There were no alternative courses of action so none are described. All major assumptions relating to the study's design and implementation are described in Section II (Non-CPP) and Section III (CPP). The results of the study are reported in Tables 13-18 and are described in Section IV. The results of this study were estimated using a sample survey and computer analysis.

Sample Survey Criteria:

Design: The definition of the universe and sampling frame and units are described in Section I. A detailed description of the survey design and the sample selection are found in Sections II (Non-CPP) and III (CPP). Statistical confidence of estimates can be found in Appendix D.

Forms: The data collection forms are presented in Appendix C. Survey log forms

are found in Appendix B.

Training: Training materials including instructions and example survey forms are found in Appendix A.

Expansion factors: Factors used to expand sample data are described in Sections II (Non-CPP) and III (CPP).

Computer Analysis Criteria:

General Description of the program: A general description of the computer programs used to obtain the various estimates and their standard errors can be found in Appendix E.

Listing of the input and output data: The input and output data are described in Appendix E.

Documentation: All the source code for the computer programs are contained in Appendix F.

Modification to such data made for use in the program: All data checking routines are described in Appendix E.

Input and output variables: The variables in each of the input data files are described in the source code as found in Appendix F.

Input and output file organization: The file formats of each of the input data files are described in the source code as found in Appendix F.

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LR-H-195

Study plan:

The objective of this study stated on page 2 is to compile a "profile of containers, packages, and other characteristics of Standard (A) nonprofit rate mail preparation." There were no alternative courses of action so none are described. All major assumptions relating to the study's design and implementation are described in Section II. The results of the study are reported in Tables 5-18 and are described in Sections III through VI. These data were estimated using a sample survey and computer analysis.

Sample Survey Criteria:

Design: The definition of the universe and sampling frame and units are described on page 2 in Section I, Survey Summary. A detailed description of the survey design and the sample selection are found in Section II, Survey Methodology starting on page 2. Statistical confidence of estimates in Tables 5-15 can be found in Tables D1-D11.

Forms: The data collection forms are presented in Appendix C. Survey log forms are found in Appendix B.

Training: Training materials including instructions and example survey forms are

found in Appendix A.

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Expansion factors: Factors used to expand sample data are described in Section III, Estimation Procedures.

Computer Analysis Criteria:

General Description of the program: A general description of the computer programs used to obtain the various estimates and their standard errors can be found in Appendix E.

Listing of the input and output data: The input and output data are described in Appendix E.

Documentation: All the source code for the computer programs are contained in Appendix F.

Modification to such data made for use in the program: All data checking routines are described in Appendix E.

Input and output variables: The variables in each of the input data files are identical to those found in LR-H-105. For a description, see the response to AMMA/USPS-LR-H-105-2.

Input and output file organization: The file format of each of the input data files is identical to those found in LR-H-105. For a description, see the response to AMMA/USUS-LR-H-105-2. A list of the files on diskette including the input data, source programs, and output data are found in Appendix E, Section VII.

LR-H-198

LR-H-198 presents the piggyback ratios used by witness Takis (USPS-T-41) in his estimation of incremental costs of various subclasses and groups of mail. This portion of witness Takis' analysis is computer-based, and the library reference provides hard-copy and machine-readable material cited in Commission Rule 31(k)(3).

LR-H-199

LR-H-199 was the original linked electronic version of the workpapers of witness Takis. When those workpapers were revised, a replacement library reference, USPS-LR-H-297 was filed on October 15, 1997, and entered into evidence on October 16 (Tr. 9/4780-81). The electronic linkages in the spreadsheets provide the crossreferences required by Rule 54(o).

LR-H-225 Measuring the Effects of New Deliveries on Load Time

This library reference was produced in response to interrogatory NAA/USPS-

T17-8a. It slightly augments the documentation from LR-H-137 by printing out additional statistics requested by the interrogatory.

LR-H-247, LR-H-254

Library References H-247 and H-254 were provided in response to interrogatories; accordingly, the foundational requirements of the Rules are inapplicable. Notwithstanding, these library references provide sufficient information to permit replication and manipulation of the data provided.

LR-H-289 The Calculation of an Alternative Elasticity in Response to UPS/USPS-T17-14

This library reference was produced in response to interrogatory UPS/USPS-T17-14. It consists of an EXCEL workbook that calculates the aggregate SDR load time elasticity at volumes one percent above the averages used in Mr. Baron's testimony, as required to answer the interrogatory. A machine-readable version of the workbook is included.

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Re: H-77

Appendix One page 1 of 2

GENERAL PIGGYBACK MATRIX BY COMPONENT NUMBERS

BY COMPONENT NUMBERS									
	PIGGYBK6.WK1				-		* C/S 8 *		
Cost		line	+<		> Ciaims &	+—"C/S6427" Chty	+ Vehicle Service	Spec'l. Delivery	++++++
Segmen		no.		Service		Carriers	Drivers	Messengers	Carriers
009.000	-		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	SALARIES								
_	direct	1	35	40	65	43	57	58+59=61	69+70=72
3	overhead	2	36 423			44			
2	guality control	4					1		
2	supervision	5		07	n F	20	675	028	674
2	supervision central mail markup	б	-	, , ,		1 20	0,0		
2	joint supv. clks./maih. & city carriers	7	678/694	678/694	678/694	678/694	i i		i ï
2	general supervision	6		032/523	li –	032/523	{		I A
4	CAG K clerks	Ð					1		
11	equipment maintenance						5.65		- E48
12	mvs personnel			 Subtotal	i Subtobal	1 067 Subtotal] 545 Subtobal	088 Subtotal	548 Subtotal
2	subtotal salaries			030/294	030/294	030/294	030/294	030/294	030/294
3	administrative clerks: gen'l. office & clerical.			422/294	422/294	422/294	422/294	422/294	422/294
11	cleaning and protection						See Note #5(d1).		
11	plant and equipment	16	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).]	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).
18	USPS Protection Force								
	subtotal estimated salaries			Subtotal	Subtotal	Subtotal	Subtotal	Subtotal	Subtotal [
2	employee and labor relations		528/525	528/525	528/525	528/525 	528/525	528/525	528/525
2 3	time and attendance (C/S 2) time and attendance (C/S 3)	20		483/525	483/525 477/525	483/525 477/525	483/525 477/525	483/525 477/525	403/525
3	total estimated salaries	22		Total	477/323 Tota,1	Total	Total	Total	Tota!
	Iolal estimated adjanca minimum		1			1		1 10001	
	BENEFITS		ii	ļ.	ij	l	i i	ļ l	i i
18	workers' compensation (current payment);								(292+487+529+)
	repriced annual leave; holiday leave;								530+023+531+
	Civil Service Retirement, annuitant COLA,								208+071+1435)
	principal, & life Ins; Retiree health benefits			. /433		/433		. /433 453/433	453/433
18	unemployment compensation			453/433 Tota!	453/433 Total	453/433 Total	453/433 Total	1 453/433	453/455 Total
	total estimated benefits	28	OGAI	1 ;0124.	1 10181	∦ ≀onati 11	10040	i iuai	1 100an 1
	OTHER EXPENSES		li		1	1			i t
11	contract cleaners	29	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).	See Note #5(d1).
12	mvs supplies and materials			i · ·	ii ii ii	096	550	097	556
12	mvs vehicle hire				l	105	568	106	I I
13	carfare			ll .	ļ[132		133	
13	driveout	33				141	50 N 46 Vol		
15	Imputed rents fuel and utilities	34	[See Note #5(d2).	(See Note #5(02).	ISee Note #5(d2).	See Note #5(02). See Note #5(01)	See Note #5(02).	See Note #5(02). See Note #5(d1)	See Note #5(d2). -
15 16	supplies and services								See Note #5(d1).
16	equip, maintenance supplies & services			1000 Note # 010 I).	lloce Hole #o(all). II	10000 11010 # 0(01). 			
20	depreciation expenses:	38			ii	li		ii	i i
	mail processing (and other equipment)			1	Ϊ	ĥ	i ·	li l	1
	motor vehicle		K	1	11	Sum 221-225	581	229	582
	building and leasehold (imputed)						See Note #5 d2).		
	Subtotal depreciation expense	42		Subtotal	Subtotal	Subtotal	Subtotal	Subtotal	Subtotal
20	imputed capital interest expense: mail processing (and other equipment)	43 44	<u>11</u>		4) 11	1			
	mail processing land other equipment				H H	incl.	incl.	ll incl.	incl.
•	building and leasehold			ll incl.	incl.	incl.	inci.	incl.	incl.
	subtotal imputed capital interest expense			587/454	587/454	587/454	587/454	587/454	587/454
	total other expenses	46		Total	Total	Total	Total	🛛 Total	Total
			1	1	11		1	1	
ES	TIMATED TOTAL ATTRIBUTABLE COSTS	49	Grand Total	Grand Total	Grand Total	Grand Total	Grand Total	Grand Total	Grand Total
U U U U U U U U U U U U									
	SPACE RELATED	FΔ	1		 \$1	41 11	11 11		
	Square foot basis (1099 represents the tota) Basic distribution key		 [many	040	66	839	n/a	II 58	72
	Direct/appropriate distrib.key			1001	1010	1039	n/a	II 1041	1040
	Employee facilities (1047/947)			jj 40	66	1 256, 257	ji 057	<u> </u> 58+59≈61	69+70=72
	VMF related (1048/090)	54	n/a	n/a	n/a	distrib.key=087	distrib.key=545	distrib.key=088	distrib.key=548
	Office related (1044/944)			11	H	li –	I	[]	
	Rental value basis(1199 represents the total)			1		 	 _/-) E0	1 79
	Basic distribution key			040	66 1110	939 1139	n/a n/a	1 58 1 1141	72 1140
	Direct/appropriate distrib.key Employee facilities (1147/947)			1101 40	66	1 256, 257	li 057	1 58 + 59 = 61	1 69 + 70 = 72
	VMF related (1148/090)			n/a	п/а		distrib.key=545		distrib.key=548
	Office related (1144/944)				í i	1	ii	i í	i î
			ii						
comp	Personnel:		NOTES:						
	C/S 11: Cleaning and protection (074/1099)	62				pplicable; and "incl	" means cost is inc	luded in subtotal.	li li
	(b) C/S 11: Plant and equipment (079/1099) 63 2. Component numbers are represented here.								
(c)	(c) C/S 18; USPS Protection Force (194/1099) 64 3. A siash mark (/) represents the ratio of the numerator and denominator.								
Non-Personnel: I to devise a related distribution key, for example: employee facifities, and VMF costs. III									
(d) C/S 11: Contract job cleaners (081/1099) 65 5 5. Calculated thus:									
	C/S 15: Imputed rents (165/1199)	56			distrib.key # 1 D	K1) = (N1047/D9-	(7) x direct cost c	omponent(s);	ii
(1)	C/S 15: Fuel and utilities (298/1099)	67		rental val.:	distrib.key # 2 (D	K2) = (N1147/D9-	47) x direct cost o	omponent(s) ;	ii ii
(g)	C/S 16: Supplies and services (297/1099)	68	jį (51)				90) x direct cost c		ï
(h) C/S 20: Imputed bldg. deprec. (296/1199) 69 (b2) rental val.: distrib.key # 4 (DK4) = (N1148/D090) x direct cost component(s);						H			
	 (c1) office: sq.fL: distrib.key # 5 (DK5) = (N1044/D944) x direct cost component(s); (c2) rental val.: distrib.key # 6 (DK6) = (N1144/D944) x direct cost component(s); 							h	
			((c2)	rental val.; related space;	авар.кеу # в (О	nco) ≈ (ni1144/U9	wy x unectostic	omponentia);	11
	(d1) sq.ft: using c/s 11: cust & protect: { (a) x DK1} + { (a) x DK3} + { (a) x DK5} + { (a) x D								
			(d2)						
$(d2) \text{rental val.: using c/s 15: imputed rents: } \{(e) \times DK2\} + \{(e) \times DK4\} + \{(e) \times DK6\} + \{(e) \times line 59\}; $									

Re: H-77 Appendix One Page 2 of 2

COMMENTS/NOTES ON THE GENERAL PIGGYBACK MATRIX BY COMPONENT NUMBERS

- Line 7 ratio for each column is multipled by line 1 component costs to estimate the corrsponding functional share of the joint supervision cost.
- Line 12 subtotal is the sum of lines 1 through 11.
- Line 13 ratio is multiplied by each line 12 subtotal to estimate the corresponding functional share of the higher level supervisor costs.
- Line 14 ratio is multiplied by each line 12 subtotal to estimate the corresponding functional share of the administrative clerk costs.
- Line 18 subtotal is the sum of lines 12 through 17.
- Line 19 ratio is multiplied by each line 18 subtotal to estimate the corresponding functional share of the employee and labor relations personnel costs.
- Line 20 ratio is multiplied by each line 18 subtotal to estimate the corresponding functional share of the c/s 2 time and attendance personnel.
- Line 21 ratio is developed in the same manner as line 20 ratio.
- Line 22 is the sum of lines 18 through 21.
- Line 23 through 26 are summed and divided by the total personnel (component 525) to equal a ration to be multiplied by each line 22 subtotal to estimate the corresponding functional share of subtotal benefits.
- Line 27 ratio is multiplied by line 22 subtotal to estimate the corresponding functional share of unemployment compensation costs.
- Line 28 is the sum of lines 26 and 27.
- Line 42 is the sum of lines 39 through 41.
- Line 47 ratio is multiplied by each line 42 subtotal to estimate the corresponding
- functional share of total capitalized interest cost.
- Line 48 is the sum of lines 29 through 37, plus lines 42, and 47.
- Line 49 is the sum of lines 22, 28, and 48.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

Minhy 7 Lorm

Richard T. Cooper

475 L'Enfant Plaza West, S.W. Washington, D.C. 20260–1137 November 26, 1997

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