PREFACE

POSTAL SERVICE LIBRARY REFERENCE USPS-LR-N2012-1/11

TRANSPORTATION NETWORK ANALYSIS SPREADSHEETS RELATED TO USPS-T-6

This Category 2 library reference provides analyses conducted by or under the direction of Postal Service witness Cheryl D. Martin (USPS-T-6). This library reference has one file in its root folder: Transportation Spreadsheets LR. This Excel workbook contains the following spreadsheets:

1. Plant to Plant Transportation Summary
2. Plant to Plant Trips
3. Plant to Post Office - Operating Miles Reductions
4. Air Transportation Volume Diversion Summary
5. Air Transportation Volume Diversion Data

Description of Analyses Contained in this Library Reference

1. Plant to Plant Transportation Analysis

The Plant to Plant Transportation Summary spreadsheet shows the total number of highway contract route (HCR) transportation trips evaluated for the purpose of determining the total number of plant-to-plant trips that could be eliminated in the rationalized mail processing environment. The data are based on transportation schedules that were obtained from the Transportation Contract Support System (TCSS) database. Each HCR route consists of a series of trips. "Total Trips" is defined as the sum total of all trips reviewed for the purposes of the testimony of witness Martin (USPS-T-6). "Potential Trips Eliminated" identifies the total number of trips considered for elimination.

The Plant to Plant Trips spreadsheet contains the following information on each trip evaluated for the purposes of the Direct Testimony of Cheryl D. Martin on Behalf of the United States Postal Service (USPS-T- 6): trip number, frequency of operation, origin, destination and stops contained in the schedule, and total operating miles. This information was obtained from HCR transportation schedules.

Each schedule is assigned an identification number ("HCR ID"). In these schedules, each trip is assigned an identification number ("Trip No.") that is used for internal purposes such as determining the direction of a trip and the class(es) of mail on a trip. The "Trip Frequency (Annual)" column shows how many times the trip is scheduled on an annual basis. The "Trip Purpose" column identifies the mail class(es) carried on each trip.

The “Utilization” column contains information that shows, on average, how much available capacity is utilized on specific trips. Transportation utilization data were obtained from the Transportation Information Management Evaluation System (TIMES) and are current as of October 2011. The criteria used to determine trip elimination are based on changes in the rationalized network such as decreased transportation activity between plants, diversion of mail to air transportation, or low utilization.

2. Plant to Post Office Analysis

The Plant to Post Office spreadsheet summarizes data from the transportation portion of fourteen (14) Area Mail Processing (AMP) proposals that were received from the field and evaluated by my office. Each proposal includes transportation worksheets that compare current and proposed annual miles. The worksheets also include an evaluation of HCRs with mileage changes (increases or decreases) based on proposed changes in mail flow. The transportation portions of AMP proposals also identify opportunities to eliminate trips with low utilization.

3. Calculating the First-Class Mail Volume Diversion to Air Transportation: Spreadsheets “Air Transportation Volume Diversion Summary” and “Air Transportation Volume Diversion Data”

As explained in the testimony of witness Martin (USPS-T- 6) at 14-15, mail will be required at destination by 8 a.m. on the day prior to delivery. This requirement decreases the surface transportation window by 10 hours and limits the distance that mail can travel on ground transportation. As a result, some mail that currently moves on surface transportation will need to be diverted to air transportation to ensure timely delivery.

The spreadsheets “Air Transportation Volume Diversion Summary” and “Air Transportation Volume Diversion Data” contain the calculations that determine the volume the Postal Service plans to divert from surface to air transportation in the rationalized network. This analysis relies on information contained in the Origin Destination Information System (ODIS). ODIS contains piece-specific information on the mail volume that travels between origin and destination three-digit ZIP Code pairs. To establish the total volume between an origin plant and a destination plant, the volume for each three-digit ZIP Code is assigned to a specific plant, thereby enabling the Postal Service to determine the amount of mail volume between each origin-destination plant pair.

To estimate the increase in First-Class Mail volume that will be diverted from surface to air transportation, the current First-Class Mail transportation mode matrix was compared with the hypothetical transportation mode matrix contained in USPS-LR-

N2012-1/8, sponsored by witness Williams (USPS-T-1). Determining the hypothetical transportation mode matrix required identifying those origin/destination plant pairs in which the distance between them exceeds 24 hours of ground transportation;[1] when that occurs, the associated mail volumes will be diverted to air transportation so as to arrive at the destination within the narrower transportation window. As a result, overall air transportation volume will increase. Also identified are those pairs for which certain First-Class Mail will be diverted from air to surface transportation after plant consolidations shrink the surface transportation time between origin and destination plants. Finally, those pairs that will experience no change in transportation mode are identified. The change in volume among these sets of pairs is summed to provide the net volume that will be diverted from surface to air. Total piece volume diverted from surface to air is converted to weight (pounds) using Revenue, Weight and Piece (RPW) statistics as identified in the spreadsheet.

In the Air Transportation Volume Diversion Data spreadsheet, the column "NFCM" shows the service standards for First Class Mail under review in this docket. The table shows a breakdown, by origin/destination pairs, of the current mode of transportation and the proposed mode of transportation as a result of the service standard changes.

[1] As information, the distance between an origin-destination pair is calculated using a maximum driving speed of 46.5 MPH and a maximum number of hours (24) for travel between plants to determine the mode of transportation. Time zones are taken into account when determining total transit time.