

July 27, 2001

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SUBJECT: Audit Report - Bulk Fuel Purchase Plan  
(Report Number TR-AR-01-004)

This report presents the results of our assessment of the Postal Service's Bulk Fuel Purchase Plan (Project Number 00NA007TR000). The report responds to concerns expressed by the Chairman of the former Subcommittee on the Postal Service about the Bulk Fuel Purchase Plan. Our objectives were to determine whether the plan is the most effective means of managing diesel fuel costs for the Postal Service, cost avoidance projections were reasonable, and the plan had a negative impact on the highway contractors and ultimately on the carrier-route transportation system.

The audit disclosed that the Postal Service did not implement the most cost effective fuel management plan. Specifically, we determined that the Postal Service could save an additional \$15.9 million over 5 years by bringing the fuel program "in-house." Additionally, the audit disclosed that the Postal Service's cost avoidance estimates were reasonable, and, overall, the Bulk Fuel Purchase Plan has not had a negative impact on highway contractors or the carrier-route transportation system.

We recommended Postal Service management bring the fuel program "in-house" by installing automated integrated fuel tracking systems at Postal Service fuel facilities, directly purchasing fuel from suppliers, and direct highway contractors without fuel facilities to obtain fuel from the Postal Service. Additionally, we recommended the Postal Service install fuel stations at high-volume facilities and establish a centralized fuel management unit. Management's comments and our evaluation of these comments are included in the report.

The Office of Inspector General (OIG) considers recommendations 1 through 5 significant and, therefore, requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the follow-up tracking system until OIG provides written confirmation that the recommendations can be closed.

We appreciate the cooperation and courtesies provided by your staff during the audit. If you have any questions, please contact Maria Longley, acting director, Transportation, at (312) 601-3905, or me, at (703) 248-2300.

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Attachment

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## EXECUTIVE SUMMARY

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### Introduction

This report presents our assessment of the Postal Service's Bulk Fuel Purchase Plan as requested by the Chairman of the former Subcommittee on the Postal Service. The Chairman requested that we review the program to determine if the Bulk Fuel Purchase Plan is the most effective means of managing fuel costs, and if the mandatory inclusion in the Bulk Fuel Purchase Plan would harm smaller highway contractors. Further, the chairman requested we determine if the program had a negative impact on highway contractors, and would adversely affect the Postal Service's carrier-route transportation system. The objectives of our audit were to determine (1) if the Bulk Fuel Purchase Plan is the most effective means of managing diesel fuel costs for the Postal Service, (2) whether the Postal Service's cost avoidance projections were reasonable, and (3) the impact that the Bulk Fuel Purchase Plan had on highway contractors and ultimately on the carrier-route transportation system.

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### Results in Brief

Our audit revealed that the Postal Service did not implement the most cost effective fuel management plan. The Postal Service could save an additional \$15.9 million over 5 years by bringing the fuel program "in-house." Specifically, the Postal Service could save approximately \$13.7 million by purchasing fuel directly and providing it to 60 existing Postal Service fuel facilities for use by highway contractors and Postal Service-owned vehicles. Additionally, the Postal Service could save another \$2.2 million by installing fuel facilities at ten high-volume<sup>1</sup> locations. According to Postal Service managers, such actions had not been implemented because they did not have an automated fuel tracking system or the necessary personnel to support an "in-house" fuel purchase program. In addition, fuel facility managers were reluctant to assume the increased responsibility related to fueling highway contractor-owned vehicles. Furthermore, Postal Service managers previously removed fuel tanks without considering the economic and operational impact related to the Postal Service as a whole. Implementation of

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<sup>1</sup> We considered high-volume to include those locations that use a minimum of one million gallons of diesel fuel per year.

an “in-house” fuel program would allow the Postal Service to negotiate more competitive fuel prices and maximize potential savings.

Our audit further disclosed that the effectiveness of the Postal Service’s Bulk Fuel Purchase Plan is impacted by the absence of a unit dedicated solely to the strategic planning, management, purchase, and distribution of fuel. According to Postal Service management, a centralized unit has not been established because of the decentralized management approach espoused by the Postal Service and management’s lack of attention to the fuel volume purchased or the potential benefits of a centralized program. The decentralized structure and lack of knowledge of industry trends have kept the Postal Service from taking full advantage of fuel saving opportunities.

Additionally, our audit disclosed the Postal Service’s Bulk Fuel Purchase Plan cost avoidance projections were reasonable. Specifically, the Postal Service’s fuel purchase program, which uses highway contractor-owned fuel facilities, should realize the \$18 million in projected cost avoidance.

Overall, the Bulk Fuel Purchase Plan has not had a negative impact on highway contractors or the carrier-route transportation system. While our audit disclosed some individual concerns expressed by the highway contractors, we found the program did not have an adverse effect on contractor satisfaction, delays at host fueler pumps, fuel quality, host fueler indemnification related to nonpayment, or administrative and personnel costs.

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**Summary of  
Recommendations**

We recommend the vice presidents of Purchasing and Materials and Network Operations Management bring the fuel program “in-house” by installing automated integrated fuel tracking systems at Postal Service fuel facilities, directly purchasing fuel from suppliers, and directing highway contractors without fuel facilities to obtain fuel from the Postal Service. Additionally, we recommend the Postal Service install fuel stations at high-volume facilities and establish a centralized fuel management unit.

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**Summary of  
Management's  
Comments**

Management agreed with our findings and recommendations. Specifically management stated they would conduct additional analysis to determine the full financial impact of installing automated integrated fuel tracking systems at each of the 60 locations identified, establish a process for obtaining fuel through direct purchase, and work with Postal Service managers and highway contractor's to transition to a direct fuel environment. Management also stated it would perform cost benefit analysis and, as appropriate, install fuel facilities at high volume Postal Service locations, and perform an analysis to determine final staffing and funding requirements. Management's comments in their entirety are included in Appendix D of this report.

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**Overall Evaluation of  
Management's  
Comments**

Management's comments were generally responsive to our findings and recommendations. However, the cost avoidance associated with recommendation 3 is dependent on implementation of recommendation 1. Therefore, due to the alternate action planned by Postal Service management related to recommendation 1, the analysis results related to installation of the automated integrated fuel tracking system should be provided for our review prior to implementation of recommendation 3. Additionally, in response to a question raised by the Board of Governors relating to recommendation 4, the Postal Service should include in their proposed analysis a feasibility study to determine whether the use of state owned fuel facilities would be more beneficial than installing fuel facilities at high volume Postal Service locations.

## INTRODUCTION

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### Background

The Postal Service uses more than 200 million gallons of diesel fuel per year, making it one of the largest consumers of fuel in the United States. In fiscal year 2000, the Postal Service's highway diesel fuel expense exceeded \$368 million, representing 17.5 percent of the annual amount spent on highway contracts. Historically, the Postal Service has used a number of different approaches to purchase fuel.<sup>2</sup>

In 1998, the Postal Service addressed two major issues related to fuel. The first issue related to compliance with the Environmental Protection Agency's requirement for leak detection and prevention for all underground storage tanks. The second issue dealt with how to minimize the impact of escalating fuel costs to the Postal Service.

In an effort to comply with the Environmental Protection Agency's 1998 requirements, the Postal Service developed policies and guidance related to compliance with federal, state, and local environmental laws governing underground storage tank systems and administration. Additionally, Postal Service area managers were requested to provide recommendations for underground storage tank removal or upgrade in accordance with developed guidance. In an effort to comply with the Environmental Protection Agency's 1998 requirements, the Postal Service removed 114 of 249 vehicle diesel underground storage tanks.

To minimize fuel costs, the Postal Service considered a number of fuel purchasing and delivery strategies that could significantly reduce the cost per gallon of fuel and leverage the Postal Service's purchasing power. The following options were considered:

- Negotiate agreements with major fuel suppliers for the Postal Service and its contract transportation suppliers (host fuelers) to jointly purchase fuel at both retail facilities (for over-the-road operations) and bulk drops to fuel local operations.

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<sup>2</sup> The Postal Service purchases fuel through agreements with the Defense Logistics Agency, local service stations, and contractors for on-site fueling of Postal Service vehicles. In addition, the Postal Service pays a large number of highway contractors and air transportation suppliers for fuel expenses as "pass-through costs."

- Purchase fuel directly for highway contractors and Postal Service vehicle routes originating at or near Postal Service-owned fuel facilities and contract for fuel at highway contractor host fueler facilities.
- Purchase fuel directly and provide it to both highway contractor host fuel facilities and Postal Service-owned fuel facilities.

In November 1998, the Postal Service initiated the first option—the “Bulk Fuel Purchase Plan Pilot.” The intent of the plan was to provide the highest quality fuel at the best price. The pilot program allowed highway contractors with their own fuel storage facilities to become “host fuelers” and to develop independent relationships with fuel suppliers. While the Postal Service did not have direct purchase authority, it served as a conduit for host fuelers by prenegotiating wholesale prices with fuel suppliers. Host fuelers were then able to buy fuel from a sole supplier at a discounted rate and resell it to highway contractors and the Postal Service at prices below prevailing rates in the area. The host fueler received a 7-cent per gallon markup to cover pumping and other expenses.

At a congressional hearing on October 21, 1999,<sup>3</sup> the Postal Service reported fuel pilot program savings of approximately \$6 million.

Additionally, the Postal Service reported,

“The pilot program has demonstrated conclusively that the savings are available and projectable throughout the entire Postal system. As the program is expanded to include 75 percent of the postal contractor diesel fuel gallons purchased, fuel savings will increase from \$6 million to \$18 million per year.”

The Bulk Fuel Purchase Plan Pilot was completed in April 2000. After the review of the pilot plan results, the Postal Service began implementation of the Bulk Fuel Purchase Plan. The Postal Service’s implementation included a phased approach. Specifically, the United

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<sup>3</sup> Hearing before the former Subcommittee on the Postal Service of the Committee on Government Reform, House of Representatives, First Session.



States was divided into five areas. The Postal Service awarded the contract for the first area (the eastern seaboard) on September 21, 2000,<sup>4</sup> with an effective date of November 2000. Solicitations have been obtained for the remaining four areas. However, as of March 21, 2001, the contracts had not been awarded.

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**Objectives, Scope, and Methodology**

The objectives of our audit were to determine:

1. If the Bulk Fuel Purchase Plan is the most effective means of managing diesel fuel costs.
2. Whether the Postal Service's cost avoidance projections were reasonable.
3. If the Bulk Fuel Purchase Plan had a negative impact on the highway contractors and the carrier-route transportation system.

We reviewed documentation for the period 1997 through December 2000 related to planning and implementation of the Bulk Fuel Purchase Plan. Our audit included a review of diesel-operated highway contract routes nationwide. We conducted work at Postal Service Headquarters, the National Mail Transportation Purchasing Office, and the Southwest Area Distribution Network Office.

We obtained evidence through systems/data retrievals, analytical analyses, site visits, surveys, and interviews. We also reviewed applicable laws and regulations. Specifically, to accomplish our objectives, we:

- Reviewed 7,398 of the 7,455 highway contract routes.<sup>5</sup> In analyzing the 7,398 routes, we determined 1,016 routes originated at or near Postal Service fuel facilities and highway contractors who owned their own fuel facilities operated 316 routes. We analyzed the remaining 6,066 highway contract routes to determine the cost effectiveness of installing Postal Service-owned fuel facilities at key locations based on volume.

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<sup>4</sup> Contract Number 483083-01-B-0032.

<sup>5</sup> We excluded the 57 routes in Puerto Rico and the Virgin Islands because the Postal Service did not include them in their Bulk Fuel Purchase Plan.

- Reviewed and analyzed selected data related to diesel operated highway contract routes from the Postal Service Highway Contract Support System, Facilities Management System, and various stand-alone Excel spreadsheets provided by Postal Service personnel. We also interviewed key Postal Service personnel, various highway contractors, independent fuel suppliers, environmental experts, and officials of the National Star Route Mail Contractors' Association.
- Reviewed the following Postal Service guidance: Fleet Management Handbook, PO-701, March 1991; Management Instruction Highway Contracts – Negotiated Service Changes, PO-530-83-5, November 1983; and Management Instruction, Economic Pay Adjustments for Highway and Inland Domestic Water Contracts, PO-530-97-1, April 1997. In addition, we reviewed the Code of Federal Regulations, Title 39, July 2000; and the postmaster general's testimony at the October 21, 1999, Oversight Hearing before the Subcommittee on the Postal Service, House Committee on Government Reform.

This audit was conducted from July 2000 through July 2001 in accordance with generally accepted government auditing standards and included tests of internal controls as were considered necessary under the circumstances. We relied on computer-generated data obtained from the Highway Contract Support System and the Facilities Management System. A general and applications control audit has not been performed on either of these systems. However, we statistically tested individual data elements to source documents to verify data reliability as described in Appendix A.

On the basis of these tests, we believe the computer-generated data was sufficiently reliable to support the opinions, conclusions, and recommendations in this report. We discussed our findings with management officials and included their comments, where appropriate.

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**Prior Audit Coverage**

Our September 30, 1999, report, Removal of Underground Storage Tanks, report number CA-AR-99-002, disclosed that Postal Service management removed compliant underground storage tanks without conducting a cost-benefit analysis and used commercial fueling as an alternative. In addition, the Postal Service did not verify data before it was entered in the Facilities Management Systems-Window and Environmental Management Information System. Management agreed and has taken corrective action to improve the process for validating and ensuring accurate information. Management also agreed to reemphasize and strengthen existing policy outlined in Postal Service management instructions on underground storage tanks when future decisions involve installation, replacement, or removal of tanks.

Our March 31, 1998, report on Fuel Test Implementation and Environmental Compliance, report number CA-MA-98-001, disclosed that the Postal Service did not have written guidelines for testing motor vehicle fuels for quality to ensure compliance with specifications. The Postal Service used a prohibited fuel blend during a regulatory control period. Management agreed and has taken action to implement a quality-testing program and to comply with applicable Environmental Protection Agency laws governing fuel blend regulations.

## AUDIT RESULTS

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### **Bulk Fuel Purchase Plan's Cost Effectiveness**

The Postal Service did not implement the most cost effective fuel management plan. Our audit disclosed that a more cost effective fuel management plan would be for the Postal Service to implement a combination of the current Bulk Fuel Purchase Plan and an "in-house" fuel program. Specifically, we concluded the Postal Service could save \$15.9 million over 5 years by utilizing existing Postal Service-owned fuel facilities and installing fuel facilities at other high-volume locations. These savings would be in addition to the \$18 million cost avoidance already projected by the Postal Service for the Bulk Fuel Purchase Plan.

The Postal Service could eliminate the 7-cent per gallon pumping fee and save \$13.7 million by purchasing fuel directly and providing it to those highway contractors who do not have their own fuel facilities for routes originating at or near a Postal Service fuel facility.<sup>6</sup> To accomplish these savings, the Postal Service would need to install automated fuel tracking systems at each of the 60 identified locations (see Appendix B).<sup>7</sup> In addition, the Postal Service could save another \$2.2 million by installing fuel facilities, with automated fuel tracking systems, at ten high volume locations and requiring highway contractors to obtain fuel from those fuel facilities (see Appendix C).<sup>8</sup>

According to Postal Service personnel, they had not implemented this cost savings approach because the Postal Service did not have an automated fuel tracking system or the personnel necessary to support an "in-house" fuel purchase program. Fuel facility managers were also reluctant to assume the increased responsibility related to fueling highway contractor vehicles.

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<sup>6</sup> This change would allow the continued utilization of contractor-owned fuel storage facilities for those contractors who have their own tanks.

<sup>7</sup> The automated fuel tracking system accounts for fuel usage by various measurement indices, including contract number, contractor, location, type of fuel, brand of fuel, driver, etc. Such a system might use cards, keys, codes, or other identity-confirming mechanisms. The estimated cost is \$15,000 per location.

<sup>8</sup> As addressed in our September 30, 1999, report, Removal of Underground Storage Tanks, report number CA-AR-99-002, the Postal Service needs to install fuel facilities at four of the ten locations because it did not adequately perform or document cost-benefit analyses or consider the economic and operational impact related to the Postal Service as a whole before removing tanks.

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**Centralized Fuel Management Unit**

The Postal Service has not established a centralized unit dedicated to the purchase, distribution, strategic planning, and management of fuel. Our review disclosed that other major fuel consumers,<sup>9</sup> including the Postal Service's major competitors, have a centralized unit responsible for obtaining the best possible fuel pricing. The unit usually includes approximately 12 positions related to accounts payable, internal review, as well as analysts proficient in current fuel trends, hedging, and subscriptions,<sup>10</sup> a contracting specialist, and a manager.

While the Postal Service's current fuel management program includes some of the positions normally associated with a fuel management unit (i.e. contract specialists, an accounts payable clerk, a contracted industry specialist, and management oversight), the decentralized structure and lack of expertise related to industry trends has kept the Postal Service from taking full advantage of fuel saving opportunities. While no specific cause could be identified, Postal Service management stated this condition occurred because of the decentralized management approach espoused by the Postal Service and management's lack of attention to the fuel volume purchased or the potential benefits of a centralized program. Given the significance of the Postal Service's fuel purchases, it is incumbent on the Postal Service to achieve the best fuel pricing and apply industries "best practices," which would include establishment of a centralized unit dedicated to fuel management.

As a result of ongoing discussions with Postal Service officials, including an interim status briefing on January 26, 2001, the Postal Service engaged a public accounting firm on January 31, 2001, to assist in the preparation of a business plan. The Fuel Management Business Plan was issued in March 2001.<sup>11</sup> Among other things, the report supported the need for a centralized fuel management unit.

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<sup>9</sup> Other major fuel consumers included Penske, Ryder Systems Incorporated, and United Parcel Service.

<sup>10</sup> Because of the technical expertise required of the analysts, the Postal Service might need to fill these positions from private industry.

<sup>11</sup> The Fuel Management Business Plan was based on data developed by the Postal Service and conclusions reached within National Mail Transportation Purchasing.

Implementation of an “in-house” fuel program and a centralized fuel management unit would allow the Postal Service to negotiate a more competitive fuel price and maximize potential savings. Furthermore, an “in-house” fuel program would lessen the competitive advantage achieved by the larger highway contractors, who have their own fuel facilities, by eliminating the 7-cent per gallon markup currently paid by the smaller highway contractors.

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**Recommendation**

We offer the following recommendations:

The vice president of Purchasing and Materials and the vice president of Network Operations Management should:

1. Require the installation of an automated integrated fuel tracking system at each of the 60 locations identified.

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**Management's  
Comments**

Management agreed with our finding and recommendation. They stated they would conduct an analysis to determine the full financial impact versus benefits of installing the automated integrated fuel tracking system. The expected completion date for the analysis is August 31, 2001.

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**Evaluation of  
Management's  
Comments**

Management's comments were generally responsive to our findings and recommendations. However, because the cost avoidance calculated in Appendix B of this report is dependent on the automated integrated fuel tracking system installation, we request they provide for our review proposed analysis results related to the installation of the automated integrated fuel tracking system prior to implementation of recommendation 3. Further, personnel costs associated with using Postal Service employees or contract personnel to provide fuel to highway contractors instead of installing an automated fuel tracking system would negate any potential savings, associated with using Postal Service fuel facilities, indicated in recommendation 3.

<b>Recommendation</b>	2. Establish a process for obtaining fuel through direct purchase to maximize fuel savings for Postal Service and highway contract vehicles.
<b>Management's Comments</b>	Management agreed with our finding and recommendation. They stated they would work with their suppliers and Postal Service managers to transition to a direct fuel-purchasing environment. The expected completion date is March 29, 2002.
<b>Evaluation of Management's Comments</b>	Management's comments were responsive to our finding and recommendation. We believe the actions taken and planned should correct the issues identified in our report.
<b>Recommendation</b>	3. Direct highway contractors who do not have their own fuel facilities and whose routes originate at or near a Postal Service fuel facility to obtain fuel at that facility.
<b>Management's Comments</b>	Management agreed with our finding and recommendation. They stated they would work with their suppliers to develop additional consensus and make the change to fuel highway contractors at Postal Service fuel facilities. The expected completion date is November 28, 2001.
<b>Evaluation of Management's Comments</b>	Management's comments were responsive to our finding and recommendation. We believe the actions taken and planned should correct the issues identified in our report.
<b>Recommendation</b>	4. Perform cost benefit analyses and, as appropriate, install fuel facilities at high volume Postal Service locations.
<b>Management's Comments</b>	Management agreed with our finding and recommendation. They stated they would perform additional analysis to determine the needed data to support a Decision Analysis Report and management approval. The expected completion date for the additional analysis is January 25, 2002.
<b>Evaluation of Management's Comments</b>	Management's comments were generally responsive to our findings and recommendations. However, due to an issue raised by the Postal Service's Board of Governors related to

recommendation 4, to meet the intent of this recommendation the Postal Service should include in its proposed analysis a feasibility study. This study should determine whether the use of state owned fuel facilities would be more beneficial then installing fuel facilities at high volume Postal Service locations.

<b>Recommendation</b>	5. Establish a centralized fuel management unit dedicated to obtaining optimum fuel pricing.
<b>Management's Comments</b>	Management agreed with our finding and recommendation. They stated they would perform additional analysis to determine final staffing and funding requirements. Additionally, Postal Service stated staffing and funding of this unit will be subject to management review and determined by the resources available at the conclusion of the analysis. The expected completion date for the analysis is August 29, 2001.
<b>Evaluation of Management's Comments</b>	Management's comments were responsive to our finding and recommendation. We believe the actions taken and planned should correct the issues identified in our report.



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**Projected Fuel Cost Avoidance**

Our audit disclosed the Postal Service's projected fuel cost avoidance of \$18 million was reasonable.<sup>12</sup> While the Postal Service did not initially maintain adequate documentation to validate actual fuel prices and associated savings, during the audit, the Postal Service developed a savings calculation methodology that reasonably approximates its fuel cost avoidance. The methodology involves comparing diesel fuel prices listed by major fuel indices to fuel contract costs, adjusted for inflation. Fuel cost savings computed using this methodology were 12-cents per gallon.<sup>13</sup> Based on our conclusion that the Postal Service's projected fuel cost avoidance was reasonable, no recommendations are necessary.

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<sup>12</sup> The \$18 million fuel cost avoidance was calculated by multiplying 200 million gallons of fuel times 12-cents per gallon times 75 percent of highway contractors. We assumed that annual diesel fuel consumption would remain constant and the Bulk Fuel Purchase Plan would achieve 75 percent participation.

<sup>13</sup> While implementation of the Bulk Fuel Purchase Plan would result in a 12-cent per gallon fuel cost avoidance, it may not result in an actual 12-cent per gallon overall savings to the Postal Service. Since the Postal Service allowed highway contractors to realign contract costs prior to contract renewal, an undeterminable amount of potential savings may be offset by an increase in highway contractor operational costs.

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**Impact on Highway Contractors**

The Bulk Fuel Purchase Plan has not had a negative impact on highway contractors. As previously mentioned, the Chairman of the former Subcommittee on the Postal Service was concerned that the Bulk Fuel Purchase Plan may have a negative impact on highway contractors and adversely affect the carrier-route transportation system. To address his concerns, we performed work in the following areas:

- Highway Contractor Satisfaction – We surveyed all 30 highway contractors who participated in the Bulk Fuel Purchase Plan Pilot. Of the 30 highway contractors surveyed, 24 stated they had not been harmed by participation in the Bulk Fuel Purchase Plan. Additionally, 21 of 30 contractors interviewed believed the Postal Service should have a bulk fuel purchase program. Although highway contractors expressed overall satisfaction with the Bulk Fuel Purchase Plan, a number of contractors expressed concerns related to two issues--adjustment reimbursement delays and increased administrative cost associated with weekly fuel billings and payments. Specifically:
  - Discussions with Postal Service personnel confirmed highway contractors' concerns regarding adjustment reimbursement delays. Our review disclosed an adjustment payment backlog of up to 8 months. The backlog occurred primarily due to systems problems and emphasis on other Postal Service priorities. During the audit, Postal Service personnel took action to correct the systems problems and to reduce the backlog.
  - Prior to our audit, the Postal Service recognized the burden weekly fuel payments were having on highway contractors. Therefore, while the host fuelers continued weekly billings, the highway contractors were only required to pay monthly.
- Delays at Host Fueler Pumps – We visited the initial pilot program site on two occasions and did not identify any backlog at that location. Further, we performed a week-

long fuel pump activity analysis at two of the three<sup>14</sup> pilot program locations. Our analyses disclosed no backlog. Further, only one of the highway contractors surveyed expressed a concern related to fuel pumping delays.

- **Fuel Quality** – On August 14, 2000, the Postal Service was notified by two highway contractors that the fuel obtained from the host fueler contained water. The Postal Service took immediate action to have the fuel tested. On August 23, 2000, the Postal Service received the requested fuel quality report that stated the contractor was unable to detect the presence of water at the host fueler facility. Despite the lack of an identified problem, on February 12, 2001, the Postal Service had fuel filter separators installed to ensure the continued quality of fuel at this location. While there is always a potential to receive bad fuel, we found no reason to believe host fuelers were at any higher risk than retail fuel operations. Further, we concluded that actions taken by the Postal Service were timely and appropriate.
- **Host Fueler Indemnification** – Concerns were expressed regarding recourse available to host fuelers if highway contractors default on fuel payments. Since the contract between the Postal Service and highway contractors provides for remedy to the host fueler, we concluded the risk to the host fuelers was minimal. Specifically, the contract allows the Postal Service to deduct the amount of the overdue payment plus any late charges, interest charges, and Postal Service administrative costs from the contractor's compensation in the event the contractor's payment is not made in a timely manner.
- **Administrative and Personnel Costs** – The congressman's concern was that highway contractors "may be required to fuel the vehicles of others participating in the program." Additionally, the Bulk Fuel Purchase Plan "may require additional personnel and administrative costs in order to accommodate increased fueling operations and management of the program." Our review disclosed participation, as a host fueler, was voluntary. Furthermore, to cover the additional

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<sup>14</sup> Fuel pump activity reports were received from the Dallas, Texas, and Jacksonville, Florida, locations. However, the Memphis, Tennessee, host fueler did not provide the fuel pump activity analysis despite repeated requests.

personnel and administrative costs associated with being a host fueler, the Postal Service established a pumping fee of 7-cents per gallon payable to the host fueler. The Postal Service continues to review this fee for adequacy and to make adjustments where appropriate.

While our review disclosed some individual concerns expressed by the highway contractors related to participation in the Bulk Fuel Purchase Plan, our review did not disclose an adverse effect on the carrier-route transportation system overall. As a result, no recommendations are required.

## **APPENDIX A**

### **DATA RELIABILITY METHODOLOGY**

#### **Purpose and Limitations of the Sampling**

The bulk fuel audit involved the use of two Postal Service databases, for which the audit team tested the data reliability. We emphasize that this testing pertains only to the items specific to the bulk fuel audit and should in no way be interpreted as an overall reliability assessment of either database.

#### **Definition of the Universe Tested**

The universe being tested for data reliability consisted of information in two separate databases: the Facilities Management System and the Highway Contract Support System. The Financial Management System database contained 97 Postal Service-owned diesel fuel facilities with capacity exceeding 8,000 gallons, which constituted the universe for the Financial Management System data reliability testing. The Highway Contract Support System data universe contained 7,455 highway contract route identification numbers; those highway contract route identification numbers affected 71,067 records. The databases were not tested in their entirety; only specific fields containing information pertaining to the audit were tested.

#### **Sample Design**

The testing of the Financial Management System database included all 97 facilities in the audit universe and consisted of contacting the facilities to verify the accuracy of the facility address. Six facilities no longer had fuel tanks and were eliminated from the review. Three street address errors and 12 ZIP Code errors were found and corrected. Therefore, the Financial Management System data used for this audit is considered reliable; this should not be interpreted as an overall assessment of the Financial Management System data reliability.

The testing of the Highway Contract Support System database used a simple random sample design. The team used the Excel "randbetween" function to make a simple random selection of 149 highway contract route identification numbers, to provide a maximum of a 5 percent risk of over-reliance on the reliability of the database. This sample size was based on a desired error rate of less than 5 percent and auditor expectations of a low number of errors in the data elements of interest to the audit.

***Statistical Projections of the Sample Data for the Highway Contract Support System Reliability Test***

Low error rates occurred in the sample. Because of the low error rates, we could not use the normal approximation to the binomial to determine the precision of the projection. We instead analyzed the sample results, for each of three separate data elements, using the hypergeometric adaptation of the binomial attribute table for controls testing, found in the General Accounting Office's Financial Audit Manual.

For each of the three Highway Contract Support System data elements considered pertinent to the audit, the team found two errors in the sample. Based on projection of the sample results, we project that there is 5 percent risk that up to 4.2 percent of the highway contract route identification numbers contain errors in the pertinent data elements. We are, therefore, 95 percent certain that no more than 4.2 percent of the highway contract route identification numbers in the Highway Contract Support System database contain errors in the data elements examined.

## APPENDIX B

### USING POSTAL SERVICE FUEL FACILITIES TO FUEL HIGHWAY CONTRACTOR VEHICLES

#### Savings Methodology

1. Potential Savings — \$13.7 million over 5 years
2. Methodology
  - a. Routes, Fuel Facilities, Pumping Fee, and Gallons
    - i. We identified 1,016 highway contract routes for contractors that had no fuel facilities and for routes that originate at or near (within 3 miles) Postal Service fuel facilities.
    - ii. The 1,016 routes involve 60 Postal Service diesel fuel facilities.
    - iii. We assumed a 7-cent per gallon pumping fee.
    - iv. There were 41,651,366 gallons of diesel fuel contracted annually for the 1,016 highway contract routes.
  - b. Fixed Costs
    - i. Card Key System (60 locations x \$15,000) = \$900,000
    - ii. Additional Administrative Costs
      1. Normal Maintenance – None, existing facility
      2. Environmental Liability – None, existing facility
      3. Personnel – None, existing facility
  - c. Savings Calculation
    - i. 41,651,356 gallons x \$.07 pumping fee = \$2,915,595 per year
    - ii. \$2,915,595 x 5 years = \$14,577,975 savings
    - iii. \$14,577,975 savings - \$900,000 card key = \$13,677,975 net savings

## APPENDIX B

### USING POSTAL SERVICE FUEL FACILITIES TO FUEL HIGHWAY CONTRACTOR VEHICLES

#### Highway Contract Routes (HCR) that Originate at or Near Postal Service Fuel Facilities

HEADOUT	CITY	STATE	TOTAL GALLONS	TOTAL HCR	TOTAL FUEL FACILITIES
PHOENIX P&DC	PHOENIX	AZ	168,221.00	1	1
BELL	BELL	CA	1,383,356.52	27	1
FRESNO P&DC	FRESNO	CA	345,806.00	14	1
LONG BEACH P&DC	LONG BEACH	CA	200,552.00	11	1
LOS ANGELES P&DC	LOS ANGELES	CA	837,518.00	12	1
OAKLAND P&DC	OAKLAND	CA	975,034.40	20	1
OXNARD P&DC	OXNARD	CA	280,105.00	14	1
SAN FRANCISCO BMC	RICHMOND	CA	1,344,278.99	17	1
SAN DIEGO P&DC	SAN DIEGO	CA	713,873.00	18	1
SAN FRANCISCO P&DC	SAN FRANCISCO	CA	332,993.00	5	1
SANTA CLARITA P&DC	SANTA CLARITA	CA	955,167.60	24	1
DENVER BMC	DENVER	CO	1,917,612.55	16	1
STAMFORD P&DC	STAMFORD	CT	71,363.60	2	1
ATLANTA P&DC	ATLANTA	GA	1,345,795.14	28	1
NORTH METRO P&DC	DULUTH	GA	130,621.51	2	1
SOUTH SUBURBAN P&DC	BEDFORD PARK	IL	370,888.94	21	1
CAROL STREAM P&DC	CAROL STREAM	IL	285,089.65	7	1
O'HARE AMC	CHICAGO	IL	301,851.40	15	2
GARY P&DC	GARY	IN	818,380.92	19	1
INDIANAPOLIS P&DC	INDIANAPOLIS	IN	933,225.90	22	1
SOUTH BEND P&DC (S)	SOUTH BEND	IN	339,736.94	16	1
KANSAS CITY BMC	KANSAS CITY	KS	1,389,191.41	25	1
LOUISVILLE P&DC	LOUISVILLE	KY	1,296,705.70	32	1
SPRINGFIELD BMC	SPRINGFIELD	MA	774,280.94	20	1
BALTIMORE P&DC	BALTIMORE	MD	665,503.61	13	1
WASHINGTON DC BMC	CAPITOL HEIGHTS	MD	215,194.50	4	1
SUBURBAN ANNEX	GAITHERSBURG	MD	90,716.30	2	1
DETROIT BMC	ALLEN PARK	MI	1,390,838.52	23	1
ROYAL OAK P&DC	TROY	MI	585,225.00	18	1
TWIN CITIES METRO HUB	MINNEAPOLIS	MN	328,712.50	6	1
ST LOUIS BMC	ST LOUIS	MO	2,539,947.67	9	1
RALEIGH P&DC	RALEIGH	NC	1,131,836.65	30	1
SOUTH JERSEY P&DC	BELLMAWR	NJ	639,037.06	27	1



HEADOUT	CITY	STATE	TOTAL GALLONS	TOTAL HCR	TOTAL FUEL FACILITIES
NEW JERSEY INTL & BMC	JERSEY CITY	NJ	1,547,371.81	28	1
DOMINICK DANIELS P&DC	KEARNY	NJ	351,135.11	10	1
PATERSON P&DC	PATERSON	NJ	160,274.90	10	1
LAS VEGAS P&DC	LAS VEGAS	NV	798,271.00	16	1
BROOKLYN P&DC	BROOKLYN	NY	13,864.00	1	1
BUFFALO P&DC	BUFFALO	NY	1,175,670.00	39	1
WESTERN NASSAU P&DC	GARDEN CITY	NY	9,827.00	1	1
MID ISLAND P&DC	MELVILLE	NY	85,705.00	3	1
ROCHESTER	ROCHESTER	NY	368,359.00	17	1
SYRACUSE AMF	SYRACUSE	NY	4,114.00	1	1
CLEVELAND P&DC	CLEVELAND	OH	1,110,819.00	32	1
COLUMBUS P&DC	COLUMBUS	OH	1,239,106.10	56	1
DAYTON METRO	DAYTON	OH	390,246.00	20	1
TOLEDO P&DC	TOLEDO	OH	423,912.00	27	1
PORTLAND P&DC	PORTLAND	OR	946,333.00	30	1
SOUTHEASTERN P&DC	DEVON	PA	578,152.97	36	1
HARRISBURG	HARRISBURG	PA	804,047.60	12	1
PHILADELPHIA BMC	PHILADELPHIA	PA	2,867,718.18	38	2
READING P&DC	READING	PA	472,760.00	19	1
SCRANTON P&DC	SCRANTON	PA	236,327.00	5	1
PROVIDENCE P&DC	PROVIDENCE	RI	516,093.50	18	1
STATE NEWSPAPER	COLUMBIA	SC	350,279.00	1	1
DULLES P&DC	DULLES	VA	910,599.96	19	1
RICHMOND P&DC	RICHMOND	VA	1,004,638.34	20	1
TOTAL			41,651,356.39	1016	60

## APPENDIX C

### FUEL FACILITY INSTALLATION-SAVINGS METHODOLOGY

FACILITY	TOTAL HCR GALLONS PER LINE	PUMP FEE SAVINGS (\$.07)	TOTAL POSTAL SERVICE VEHICLE GALLONS PER LINE	PUMP FEE SAVINGS (\$.07)	TOTAL SAVINGS HCR & PVS 1st YEAR	TOTAL SAVINGS OVER 5 YEARS (Undiscounted)
Chicago Metro Service Hub	1,064,633	74,524	15,788	1,105		
Southeast HASP	1,275,749	89,302	-	-		
Des Moines BMC	1,397,734	97,841	20,707	1,449		
Indianapolis Air Hub	1,407,462	98,522	18,000	1,260		
Jacksonville P&DC	1,683,077	117,815	294,886	20,642		
St Paul BMC	1,698,998	118,930	28,619	2,003		
Greensboro BMC	1,656,949	115,986	32,335	2,263		
Dallas BMC	2,487,096	174,097	608,560	42,599		
Cincinnati BMC*	1,423,332	99,633	70,593	4,942		
Chicago BMC*	1,554,078	108,785	73,858	5,170		
<b>TOTAL</b>	<b>15,649,108</b>	<b>\$ 1,095,438**</b>	<b>1,163,346</b>	<b>\$ 81,434**</b>	<b>\$ 1,176,872</b>	<b>\$6,100,043</b>

\*Postal Service facilities that have fuel tanks; however, tank capacity would not be sufficient to accommodate increased volume.

\*\*Variations were due to rounding.

## APPENDIX C

### FUEL FACILITY INSTALATION SAVINGS METHODOLOGY

BULK FUEL PURCHASE PLAN							
Net Cash Flow Analysis for Installation of Fuel Facilities at Ten High Volume Locations							
FISCAL YEAR	2002	2003	2004	2005	2006	2007	TOTAL
PROJECT YEAR	0	1	2	3	4	5	
I. CAPITAL INVESTMENT							
Fuel Tanks Installation	-\$1,717,300						-\$1,717,300
Card Key	-\$149,690						-\$149,690
Pump Cost	-\$172,000						-\$172,000
Island Cost	-\$15,000						-\$15,000
Canopy Costs	-\$400,000						-\$400,000
TOTAL CAPITAL INVESTMENT	-\$2,453,990						-\$2,453,990
II. EXPENSE INVESTMENT							0
III. OPERATING VARIANCES							
Leak Detection System (escalated 1.8%)		-\$8,000	-\$8,144	-\$8,291	-\$8,440	-\$8,592	-\$41,466
Leak Testing System (escalated 1.8%)		-\$1,200	-\$1,222	-\$1,244	-\$1,266	-\$1,289	-\$6,220
Replace leak detection probe (escalated 1.8%)		-\$10,000	-\$10,180	-\$10,363	-\$10,550	-\$10,740	-\$51,833
Labor Cost (escalated 3.0%)		-\$246,080	-\$253,463	-\$261,067	-\$268,899	-\$276,966	-\$1,306,475
Cost avoidance (escalated 1.8%)		\$1,176,872	\$1,198,055	\$1,219,620	\$1,241,547	\$1,263,922	\$6,100,043
TOTAL OPERATING VARIANCES		\$911,591	\$925,047	\$938,656	\$952,419	\$966,336	\$4,694,050
IV. NET CASH FLOW	-\$2,453,990	\$911,591	\$925,047	\$938,656	\$952,419	\$963,336	\$2,240,060
V. RETURN ON INVESTMENT		26.1%					
VI. NET PRESENT VALUE DISCOUNTED AT 7.5%	-\$2,453,990	\$847,992	\$800,473	\$755,581	\$713,172	\$673,110	\$1,336,338
DECISION ANALYSIS REPORT (DAR) FACTORS - effective April 21, 2000							
A. DISCOUNT RATE		7.5%			Net Cash Flow		\$2,240,060
B. ESCALATION FACTORS					Net Present Value		\$1,336,338
Postal Service work hour rate		3.0%			ROI		26.1%
All other costs		1.8%					

## APPENDIX D. MANAGEMENT'S COMMENTS

NATIONAL MAIL TRANSPORTATION PURCHASING



June 28, 2001

DEBRA S. RITT

THRU: KEITH STRANGE  
PAUL VOGEL

KS 6/28/01  
OK 6/28/01

SUBJECT: Transmittal of Draft Audit Report - Bulk Fuel Purchase Plan  
(Report Number TR-AR-01-DRAFT)

This is written in response to the recommendations contained in the subject report dated May 22. The report identifies a series of issues and projected savings that can be achieved through the implementation of a corporate fuel management program.

The following information is submitted in response to recommendations outlined in the draft OIG audit report:

### **Recommendations to the Vice President, Purchasing and Materials**

#### Recommendation Number 1:

Require the installation of an automated integrated fuel tracking system at each of the 60 locations identified.

#### Management Comments:

We agree with this recommendation and, therefore, will conduct additional analysis to determine the full financial impact versus benefits. The expected completion date for the analysis is August 31, 2001.

#### Recommendation Number 2:

Establish a process for obtaining fuel through direct purchase to maximize fuel savings for Postal Service and highway contract vehicles.

#### Management Comments:

We agree with this recommendation. We will work with our suppliers and Postal managers to transition to a direct fuel-purchasing environment. The expected completion date is March 29, 2002.

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Recommendation Number 3:

Direct highway contractors who do not have their own fuel facilities and whose routes originate at or near a Postal Service fuel facility to obtain fuel at that facility.

Management Comments:

We agree with this recommendation. We will work with our suppliers to develop additional consensus and make this change. The expected completion date is November 28, 2001.

Recommendation Number 4:

Perform cost benefit analyses and, as appropriate, install fuel facilities at high volume Postal Service locations.

Management Comments:

We agree with this recommendation and will perform additional analysis to determine the needed data to support a Decision Analysis Report and management approval to implement this recommendation. The expected completion date for the additional analysis is January 25, 2002.

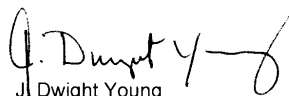
Recommendation Number 5:

Establish a centralized fuel management unit dedicated to obtaining optimum fuel pricing.

Management Comments:

We agree with this recommendation and will perform additional analysis to determine final staffing and funding requirements. The expected completion date for this analysis is August 29, 2001. The staffing and funding of this unit will be subject to management review and determined by the resources available at the conclusion of the analysis.

We appreciate the value added by this team.



J. Dwight Young  
Manager  
National Mail Transportation Purchasing