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INDEPENDENT STATE AUDITOR'S REPORT ON CERTAIN ACTIVITIES OF THE MASSACHUSETTS BAY TRANSPORTATION AUTHORITY'S COMMUTER RAIL OPERATIONS JULY 1, 2003 TO JUNE 30, 2009

OFFICIAL AUDIT REPORT

JANUARY 18, 2011

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In March 2002, the Massachusetts Bay Transportation Authority (MBTA) began a procurement process to competitively bid the commuter rail contract for service beginning on July 1, 2003. The MBTA published a Request for Letters of Interest to which 16 companies responded. The MBTA issued these 16 companies a Request for Qualifications, of which only four responded by the April 2002 deadline. Request for Proposals (RFPs) were then sent to the following four companies deemed qualified bidders: Amtrak, Transit America, Boston & Maine Corporation, and Massachusetts Bay Commuter Railroad Company LLC (MBCR). MBCR is a consortium of three companies: Veolia Transportation, Bombardier, and Alternate Concepts, Inc. Alternate Concepts is a Boston-based consulting and transportation management company; Bombardier, a Canadian company, manufactures rail equipment, including 40% of the current MBTA coach fleet; and Veolia Transportation operates over 700 local and regional rail transport systems worldwide.

In December 2002, the MBTA's Board of Directors authorized the execution of an Operating Agreement for commuter rail operations services for the five-year period July 1, 2003 to June 30, 2008 with MBCR for an amount not to exceed $1,072,194,212 ($1,050,080,812 for basic services plus $22,113,400 for Greenbush Line service).

Our review of the MBTA was conducted to determine the overall effectiveness of the MBTA's awarding and oversight of the contract with MBCR to operate and maintain the MBTA's commuter rail system. Specifically, we reviewed the RFP process utilized by the MBTA in the awarding of this contract and reviewed the MBTA's management controls in place to ensure that: (1) MBCR is adhering to contract requirements for on-time performance, vehicle maintenance, track maintenance, and safety standards; (2) the MBTA is adequately monitoring the activities of MBCR and ensuring that contract requirements are being adhered to; and (3) the MBTA is assessing and collecting all contractual liquidated damages for nonperformance.

In order for the MBTA to expedite commuter rail capital improvement projects and other projects beyond the basic requirements, as well as retaining the discretion to direct the contractor, MBCR, to perform certain remedial or maintenance work as needed, the MBTA under Sections 18 and 21 of the MBCR contract, may assign Force Account work to be performed by MBCR employees. According to Section 18.1 of the original contract, MBCR shall perform Force Account work by using available contractor personnel and others as may be necessary, at no additional cost to the MBTA, provided that doing so does not interfere with the performance of other basic services under the Operating Agreement.

However, Amendment No. 4 to the Service Agreement, which was approved by the MBTA on October 25, 2005, adversely affected the MBTA and rewarded MBCR by allowing double-billing of straight-time wages and benefits for Force Account work, once under the basic services agreement and secondly as part of a Force Account work order, which is expressly forbidden under the terms of the original contract. We calculate that MBCR double-billed the MBTA $11.2 million for straight-time Force Account labor during fiscal years 2004 through 2008. Moreover, we estimate that MBCR will earn an additional $30 million for Force Account work of up to $150 million for proposed fiscal years 2009 to 2011 Rail Capital Improvements.

2. INADEQUATE OVERSIGHT OF CONTRACTOR ACTIVITIES AND INCENTIVES GRANTED TO MBCR HAS COST THE MBTA OVER $2.5 MILLION 18

Our review of the MBTA's five-year Operating Agreement with MBCR revealed a number of deficiencies in the oversight and management of this contract. The following areas were of particular concern regarding the costs incurred to operate the MBTA's commuter rail system, as well as the need for constant oversight by management to ensure that all contractor duties and responsibilities are being met. The following contract issues are areas that should be addressed or that require additional oversight and enforcement:

a. Questionable Revenue Growth Incentive Payments Totaling $1.7 Million 19

Under Section 20 of the original Operating Agreement, the MBTA established a "Revenue Growth Incentive" to be paid to MBCR in the event that the actual income for commuter rail fares exceeds that of the prior year by at least 3%. In addition to sharing 20% to 40% of all qualified increases in revenue directly with MBCR, the MBTA also agreed to pay an additional 10% of these increased fare revenues into a Service Improvement Deposit Account to be used for initiatives outside the scope of services of the contract that are designed to improve fare collection, customer service, or on-time performance.

We question the necessity for such an incentive to reward MBCR when any increase in revenue could be due to many factors outside its control, such as increases in gasoline prices or the improved automated fare collection system paid for by the MBTA. Moreover, any increases in revenue due to improvements for on-time performance or customer service are already paid for in the basic services agreement.

MBTA records indicate that during fiscal year 2009, MBCR received $1.7 million in Revenue Growth Incentive payments. Finally, we noted that under this amendment fare revenue increases are automatically presumed to be the result of MBCR's outstanding performance; yet revenue decreases result in no penalties being imposed on MBCR unless the MBTA's Director of Railroad Operations can cite specific acts or omissions by MBCR that caused the decline in actual revenues.

Under the terms of the Operating Agreement, MBCR is allowed to charge an 8% management fee for all approved Force Account Project Initiatives (PIs). However, we noted that included in some of these approved PIs are provisions to allow the payment of a management fee for the purchase of items that could just as easily be purchased directly by the MBTA and then assigned to MBCR for use in performing its contractual duties. We identified $296,000 in fees paid to MBCR to purchase $3.7 million of vehicles and equipment on behalf of the MBTA. Moreover, we noted that MBCR may charge an additional 2% management fee for all bulk purchases, including locomotive fuel, ballast, ties, and rails, and 8% for the purchase of all non-bulk materials.

Our review of purchases of Force Account materials for fiscal years 2006 through 2008 revealed that MBCR classified only $120,548, or 1.4%, as bulk materials, with a markup of 2%, while designating $8,437,802, or 98.6%, as non-bulk materials, with a markup of 8% added to these purchases. However, our examination of supporting documentation for Force Account material purchases for two randomly selected months (January 2006 and September 2006) revealed that many items were misclassified as non-bulk and billed at the higher 8% markup. As a result of possible misclassification of these materials and the MBTA's failure to properly monitor the accuracy and reasonableness of these materials markups, MBCR may have received as much as $506,000, or 6%, more in improper markups for bulk items purchased during this three-year period.

The original Operating Agreement between the MBTA and MBCR contained various performance standards that MBCR was required to meet regarding on-time performance, rolling stock capacity and maintenance, and customer service and facility cleanliness. To ensure that MBCR met these performance standards, Section 22 of the contract provided for monetary penalties that would be assessed by the MBTA whenever MBCR failed to meet these minimum operating standards. Some examples of these non-performance penalties, per occurrence, include: peak-time late/cancelled trains ($500/$2,000), station cleaning ($500), employee performance ($500), mechanical defects ($500), and handicapped accessibility compliance ($1,000). However, amendments to the contract substantially reduced, waived, and capped penalties to be paid by MBCR for poor on-time performance and contract noncompliance by as much as 80% per incident. As a result, by eliminating, reducing, reallocating, and placing monthly caps on penalties, the MBTA rewarded MBCR by as much as $42.9 million in uncollected and waived penalties for contract nonperformance reported by MBCR from January 1, 2004 to June 30, 2008. Moreover, the practice of continually amending the contractual performance requirements to reward operational inadequacies of MBCR sends the wrong message as to the price MBCR will ultimately pay, if any, for failing to fully earn its $1 billion contract fee.

INTRODUCTION

Background

The Massachusetts Bay Authority (MBTA) has been subsidizing and maintaining the Greater Boston commuter rail system since the early 1960s. Major portions of the commuter rail system's rights-of-way and rolling stock were purchased by the MBTA from Conrail in the 1970s. During the 1960s and 1970s, Conrail (on the South Shore) and the Boston and Maine Railroad (on the North Shore) owned and operated their respective systems. By 1979 both the North Shore and South Shore systems were under the control of Boston and Maine Railroad, which continued to operate the commuter rail service under contract with the MBTA through 1986. Effective January 1, 1987, Amtrak began providing commuter rail service under a cost plus overhead and profit contract with the MBTA. This contract was subsequently renewed every year until 1995, when Amtrak began operation of the commuter rail system under a negotiated fixed priced contract with the MBTA. The term of this contract was three years with two one-year options. This contract was issued as a sole-source, no-bid contract because at that time the MBTA believed that a transition to a new contractor would be a disruptive undertaking that could adversely affect the quality of its commuter rail service.

The Federal Transit Administration (FTA) requires that transit systems, such as the MBTA, which receive federal assistance, competitively procure all major contracts. In order to ensure that taxpayers and riders receive the best service at the lowest cost, the FTA requires that commuter rail services be bid at least once every five years. To comply with the FTA's competitive procurement requirement, in 1998 the MBTA attempted to competitively bid its commuter rail contract. The MBTA decided to divide its commuter rail service into three major components: mechanical (including train cleaning and maintenance), train transportation, and engineering services. By separating the commuter rail operation into these components, the MBTA felt it encouraged more competitive bids from applicants who were experts in their respective fields of operation. Accordingly, a Request for Proposals (RFP) was issued in May 1998. The first contract bid was for mechanical services and was subsequently awarded to the low bidder, Bay State Transit Services (Bay State), a joint venture of Boise Locomotive Company and Herzog Transit Services Inc., in September 1999.

However, before this contract service could be implemented, Amtrak rail unions obtained an injunction preventing the recruitment and hiring of Amtrak mechanical employees. The impetus for the injunction was that Bay State only planned to retain 415 of the then-current 552 Amtrak mechanical employees. Under 49 United States Code (USC) 33(b) (formerly Section 13c of the federal Urban Mass Transportation Act of 1964), certain rights and protections (including the rehiring of existing employees at the same rate of pay for six years) were afforded to all these Amtrak mechanical employees. In December 1999, the FTA questioned Bay State's and the MBTA's contractual compliance with certain terms of 49 USC 33(b) and together with the federal Department of Labor, advised the MBTA that it would be deemed ineligible to receive future federal assistance grants if this labor issue was not resolved.

Ultimately, the MBTA was unable to reverse or modify the FTA's decision and on May 26, 2000 the MBTA requested and received a waiver of the five-year contract limitation to allow for a three-year extension to its existing contract with Amtrak. In June 2000, the FTA conditionally approved the contract extension with the understanding that the MBTA would revise its future commuter rail contract solicitation package to ensure compliance with 49 USC 33(b). The cost of the three-year extension for all three components was approximately $476 million. During this contract extension period, the MBTA paid to Amtrak approximately $23.7 million annually for Force Account work, outside fuel, commuter rail maintenance facilities usage, and performance incentives. This $23.7 million did not include additional MBTA costs for environmental contracts of $1.7 million, station cleaning of $783,000, utilities of $216,000, employment taxes, and insurance of $1,660,000. However, these additional internal costs were part of the 2002 RFP.

2002 Request for Proposals

In March 2002, the MBTA began a procurement process to competitively bid the commuter rail contract for service beginning on July 1, 2003. The MBTA published a Request for Letters of Interest, to which 16 companies responded. The MBTA subsequently issued these 16 companies a Request for Qualifications, of which only four responded by the April 2002 deadline. RFPs were then sent to these four companies deemed qualified bidders: Amtrak, Transit America, Boston and Maine Corporation, and Massachusetts Bay Commuter Railroad Company, LLC (MBCR). MBCR is a consortium of three companies: Alternate Concepts Inc., Bombardier, and Veolia Transportation. Alternate Concepts is a Boston-based consulting and transportation management company;

Bombardier, a Canadian company, manufactures rail equipment, including 40% of the current MBTA coach fleet; and Veolia operates over 700 local and regional rail transport systems worldwide.

The RFP contained two parts: a technical proposal and a cost proposal. The cost proposal for commuter rail services for the period July 1 2003 to June 30, 2008 was to include the following requirements:

- Base services (mechanical, transportation, engineering and straight–time Force Account)
- Insurance coverage
- Commuter rail management information system
- Environmental scope of services
- Payments of all utilities, including those currently paid by MBTA
- Engineering scope of services, including fencing, grade crossing renewal, track and tie replacement, and bridge and track inspection
- Mechanical scope of services
- Hiring of information and ticket clerks at Back Bay, South Station, and North Station
- Direct hiring of dispatchers for the South Side operations
- Hiring maintenance personnel for the Attleboro Line Station

On July 20, 2002, Amtrak notified the MBTA that it was withdrawing from the solicitation for bid process because the proposed contract terms posed too great a risk for Amtrak to bear.

On October 11, 2002, the MBTA received cost and technical proposals from the remaining three bidders. The RFP selection process was based on a 100-point system with up to 65 points that could be earned for the technical portion of the bid proposal, and up to 35 points that could be earned for the lowest-cost proposal. The selection committee and technical advisory committee interviewed the bidders in October and scored the technical proposals on November 8, 2002.

After initially reviewing the cost proposals it was deemed that Transit America's bid submission was noncompliant because it omitted the issues of costs of insurance, bonding, and profit margin required by the RFP guidelines, and it was disqualified from the final selection. On November 20, 2002, the MBTA's Legal Counsel and Railroad Operations representatives rated the remaining two bidders.

The following table presents the final scoring for bidders for this RFP:

COMMUTER RAIL SERVICES PROCUREMENT 2003
SELECTION COMMITTEE TECHNICAL AND COST PROPOSAL SCORES

	Technical Score (65 Max)	Cost Score (35 Max)	Total
MBCR	56.082	35	91.082
Transit America	53.458	Noncompliant	Disqualified
Boston and Maine	35.026	18.5	53.526

The total cost proposals submitted by these bidders were as follows:

	Average Annual Cost	Total Five-Year Cost
Transit America	$192,714,916	$ 963,574,580
MBCR	$210,016,162	$1,050,080,810
Boston and Maine	$397,942,583	$1,989,712,915

The following chart depicts the cost submittal by MBCR, the winning bidder:

	Annual Fixed Price (Excludes Force Account)	Special Trains	Snow Removal Overtime	Rights of Way	Total
Year 1	$ 206,047,608	$102,000	$ 750,000	$100,000	$ 206,999,608
Year 2	209,146,487	104,040	750,000	100,000	210,100,527
Year 3	205,454,792	106,121	750,000	100,000	206,410,913
Year 4	209,230,267	108,243	750,000	100,000	210,188,510
Year 5	215,420,846	110,408	750,000	100,000	216,381,254
Totals	$1,045,300,000	$530,812	$3,750,000	$500,000	$1,050,080,812

In addition, the following pricing was submitted as additional costs to operate the Greenbush Line when construction was completed:

Greenbush Service Year Three	$ 7,035,940
Greenbush Service Year Four	7,302,332
Greenbush Service Year Five	7,775,128
Total	$22,113,400

In December 2002, the MBTA Board of Directors authorized the Operating Agreement for commuter rail services for the five-year period July 1, 2003 to June 30, 2008 with MBCR for an amount not to exceed $1,072,194,212 ($1,050,080,812 for basic services plus $22,113,400 for Greenbush Service). The board simultaneously approved an additional $15 million to MBCR for a six and one-half month period for Mobilization Services for a grand total of projected commuter rail costs of $1,087,194,212.

Mobilization Services

The Mobilization Services Agreement was executed on January 10, 2003 and was made to prepare MBCR for the undertaking of the Operating Agreement dated July 1, 2003 to June 30, 2008. The scope of the Mobilization Services included the following:

- Preparing for the commencement of Operating Agreement services necessary to establish a seamless transition from Amtrak to MBCR
- Preparing required reporting system
- Developing commuter rail Management Information System
- Assembling commuter rail workforce and administrative staff
- Developing procedures and internal guidelines
- Transitioning facilities and equipment from Amtrak
- Transferring environmental permits
- Performing all other requirements of the contract and exhibits

Revenue Incentives

The contract terms agreed to by the MBTA and MBCR included certain performance and revenue incentives that could be realized by MBCR in addition to the approximately $1 billion that would be earned under the basic services portion of the contract. Specifically, under Section 20.2 of the agreement, MBCR is entitled to receive revenue growth incentive payments if actual revenues for any given agreement year exceeds the revenue target for that year. The revenue growth incentive payment is calculated at 50% of the excess of actual to targeted commuter rail revenues.

The revenue growth target for fiscal year 2004 (year one) was based on the actual revenue of fiscal year plus 3%. For subsequent contract years, the revenue target shall be the greater of (a) the prior agreement year's revenue target plus 3% or (b) the prior agreement year's actual revenue plus 3%.

Furthermore, fare increases require that the revenue target set for each fiscal year be adjusted according to the increase. Accordingly, the MBTA did in fact raise fares in 2004 and therefore an adjustment was made to the target revenue for the first agreement year.

Scope of Services

The MBTA contracted with MBCR to provide engineering, mechanical, transportation, dispatching, environmental, administrative and finance, and customer service related to the operation of the MBTA commuter rail system. At the start of the contract on July 1, 2003, the MBTA had approximately 648 miles of commuter rail track and 125 commuter rail stations with over 26,000 parking spaces. The MBTA owns 83 locomotives, 270 single-car coaches, and 107 double-decker cars. The MBTA also owns two dispatching centers (one at South Station and the other in Somerville) and a commuter rail repair facility located in Somerville. Additionally, the MBTA owns various buildings, rights-of-way railroad and non-railroad real estate, non-revenue vehicles, and various rail lines.

Under the Operating Agreement, MBCR, by using the above MBTA-owned infrastructure and equipment, was to provide the following services:

- Improve the quality of commuter rail service, including on-time performance and the provision of accurate, timely, and effective customer service
- Minimize MBTA capital costs
- Develop operating plans that meet service requirements
- Maximize revenue collection
- Use innovative practices, procedures, or methods to deliver services
- Adopt operational goals and objectives
- Make available additional corporate goals and objectives
- Implement the workforce and labor obligations of the Operating Agreement

- Hire and train qualified employees required for the Operating Agreement services

MBCR would provide the management and administrative support for the above-mentioned Operating Agreement services. In accordance with the previously mentioned FTA decision regarding 49 USC 33(b), all maintenance and commuter rail crews were to be hired from the existing workforce under the prior Amtrak contract. In summary, MBCR would provide the new management and administrative personnel while the operations personnel would remain the same. In essence, the Operating Agreement between the MBTA and MBCR was therefore a performance-based management contract.

Force Account

Under the terms of the MBCR/MBTA contract, any work performed on the service/support property and equipment that falls outside of the Annual Fixed Price Contract Agreement is considered Force Account labor, which is generally capital improvement work. Some categories of the Force Account work include the following:

- Special track work
- Grade crossing upgrades above and beyond the Annual Fixed Price Contract Agreement
- Bridge renewal
- Culverts and drainage upgrades above and beyond the Annual Fixed Price Contract Agreement
- Pipe crossings, overhead crossings
- Building modification
- Temporary stations
- Relocation of stations
- Signal design and upgrades
- Flagging service

The rationale for the Force Account was that the MBTA, rather than hire outside contractors to complete capital rail projects, could utilize the experienced Amtrak/MBCR workforce to expedite these tasks with the least impact on commuter rail service.

MBCR was allowed to charge for all materials and equipment for tasks performed outside of the Annual Fixed Price Contract Agreement. However, all regular hourly labor incurred was not considered an additional charge. Therefore, only overtime labor incurred in the completion of a Force Account item was deemed chargeable. In addition, it was agreed that MBCR was required to use and could not charge for using MBTA-owned equipment and support property to complete its Force Account tasks. As a management fee for chargeable Force Account work, MBCR was allowed a 2% fee on bulk items such as rail and fuel and an 8% fee on non-bulk items such as customized tools and equipment used in the completion of its tasks, and these items were to be procured in accordance with established MBTA purchasing and bidding guidelines.

Penalties

In accordance with Section 22 and Exhibit 10 (Penalties) of the Operating Agreement, the MBTA is entitled to assess monthly penalties against MBCR to ensure performance standards and goals. Any penalties assessed to MBCR are to be deducted from MBCR's monthly invoice for basic services. However, under the terms of the original Operating Agreement, the MBTA agreed to waive all penalties incurred by MBCR during the first six months of the Operating Agreement (July 1, 2003 to December 31, 2003) in order to allow MBCR a learning curve or "break-in" period. The MBTA also agreed to not assess penalties for the first 18 months of the Operating Agreement for penalties resulting from defects in the service property, service equipment, or support property discovered during the joint audit of all rolling stock, equipment, and facilities performed prior to the start of the contract. In addition, the MBTA agreed to cap the total amount of penalties for the first 24-month period of the contract (January 1, 2004 to December 31, 2005) at $62,500 per month and a cumulative cap for the 24-month period of $1,500,000. Starting on January 1, 2006, the monthly cap was increased to $250,000 and the cumulative cap for calendar year 2006 was increased to $3 million.

Similarly, for calendar year 2007, if the MBTA charged the MBCR the maximum monthly cap for 13 months or more, then the maximum cap would be set at $333,333 per month with a cumulative total of $6,000,000 to be assessed for the 18-month period ended June 30, 2008.

Eligible penalties to be assessed encompassed the following four main areas:

1. On-Time Performance and Cancelled Trains

Trains arriving more than four minutes and 59 seconds late at their final destination stop would be fined $100 for peak-hour (rush-hour) trains and $50 for off-peak (non-rush-hour) trains. Cancelled trains or late trains arriving 35 minutes or more past schedule would each be penalized $500 for peak trains and $250 for off-peak trains.

2. Customer Service Compliance

Included penalties for deficiencies in station cleaning ($500), accessibility/ADA ($1,000), employee performance ($500), staffing ($500), fuel shortages ($1,000), and dirty coaches ($750).

3. Special Assessment Penalties

Included penalties for violation of rules and regulations ($1,000), failure to submit required reports ($500), non-performance of environmental services ($1,000), non-preparation of operating rules ($10,000), safety and reliability ($750), speed restriction and track outages ($750), and improper procedures, practices, and repairs ($750).

4. Mechanical Assessments

For each train trip not meeting minimum mechanical scope of services, penalties would be assessed at $250 for each peak train unavailable and $50 for each off-peak train unavailable.

Extensions of the Original MBTA/MBCR Commuter Rail Operating Agreement

The original five-year MBTA/MBCR Operating Agreement for the period July 1, 2003 to June 30, 2008 allowed the MBTA to extend the Operating Agreement for up to an additional five years in two increments: one two-year option and one three-year option. This extension period was made possible by the FTA's Circular 4220.1E, effective June 2003, which allowed the MBTA to offer contracts with options greater than five years, as long as sound business practices were used in the awarding of the original contract.

On December 10, 2007, the MBTA Board of Directors voted to execute a three-year extension to the MBTA/MBCR commuter rail Operating Agreement for $738 million, or an average of $246 million annually. This extension began on July 1, 2008 and is scheduled to end on June 30, 2011.

On January 6, 2010, the MBTA Board of Directors voted to extend the commuter rail contract with MBCR for an additional two years beginning on July 1, 2011 and ending on June 30, 2013. The total cost of this two-year extension is currently set at $576.9 million, or approximately $288.5 million annually. Included in this amount are $14.2 million for rolling stock heavy maintenance and $3 million for additional Force Account services to be performed by MBCR, in addition to the basic services amount of $559.7 million.

Contract Change Orders and Amendments

The regulations of the MBTA's Board of Directors grant the General Manager the authority to approve, without prior authorization from the board, the issuance of contract change orders and extra work orders resulting from any contract or agreement that was previously authorized by the board or the General Manager, in a total amount not to exceed $500,000 or 7% above the base contract price, whichever is greater. Moreover, the General Manager must report to the board all change orders he has approved that do not require prior authorization from the board, no later than the next scheduled meeting. The regulations are explicit that "The board grants this Authority to the General Manager solely to provide flexibility in day to day operations…and not to grant blanket authorization to the General Manager to approve any and all transactions up to $500,000." However, in reviewing the six amendments that were made to the MBTA's original commuter rail contract and subsequent extensions, we noted that four of these amendments were not submitted to the board for prior approval, since no dollar values were established by the MBTA for the effects of these changes to the contract terms, and therefore the $500,000 level for prior board approval was technically not met. Yet, our review and analysis of the actual financial impact to the MBTA resulting from these contract changes indicated that three of these four amendments should have been presented to the board for prior review and approval, since the actual financial impact to the MBTA for each of these three amendments greatly exceeded this $500,000 limit.

The actual additional costs incurred by the MBTA as a result these contract amendments are presented in the Audit Results section of our report.

Audit Scope, Objectives, and Methodology

Our audit, which covered the period July 1, 2003 to June 30, 2009, was conducted in accordance with applicable generally accepted government auditing standards for performance audits. The objectives of this audit were to review and evaluate the awarding and oversight of the MBTA's contract with MBCR to operate and maintain the MBTA's commuter rail system. Specifically, we reviewed whether: (1) MBCR is adhering to contract requirements for on-time performance, vehicle maintenance, track maintenance, and safety standards; (2) the MBTA is adequately monitoring the activities of MBCR and ensuring that contract requirements are being adhered to; and (3) the MBTA is assessing and collecting all contractual liquidated damages for non-performance.

Our methodology included a review and evaluation of the MBTA's system of internal controls for contract monitoring; processing of contract payments; billings for Force Account labor for track and property maintenance and special projects; bidding requirements for extra work orders; and amendments to contract provisions during the audit period. In addition, we reviewed the procurement process utilized by the MBTA in the awarding of this contract. Finally, we interviewed responsible MBTA officials who oversee the operational activities of MBCR.

Our review indicated that, except as noted in the Audit Results section of this report, the MBTA had adequate internal controls over the activities of its commuter rail contractor and complied with applicable laws, rules, and regulations for the areas tested.

AUDIT RESULTS

1. MBTA AMENDMENT TO COMMUTER RAIL CONTRACT FOR FORCE ACCOUNT LABOR HAS INCREASED MBCR REVENUES BY $11.2 MILLION AND POSSIBLY AS MUCH AS $41.2 MILLION BY CONTRACT EXPIRATION

In order for the Massachusetts Bay Transportation Authority (MBTA) to expedite commuter rail capital improvement projects and other projects beyond the basic contract requirements of its Operating Agreement with the Massachusetts Bay Commuter Railroad Company (MBCR), as well as retain the discretion to direct MBCR to perform certain remedial or maintenance work as needed, the MBTA under Sections 18 and 21 of the MBCR contract, may assign Force Account work[1] to be performed by MBCR employees.

According to the MBTA, the rationale for using Force Account work for both necessary maintenance and capital improvement projects was that these projects could be completed with the least amount of impact to commuter rail service and in the fastest manner possible by using the experienced MBCR workforce. This approach has been utilized by the MBTA during this ongoing contract while foregoing potential costs savings that might have been realized had a competitive bid process been utilized to procure these services.

During the five-year period July 1, 2003 to June 30, 2008, the MBTA approved approximately $70 million in Force Account work projects with MBCR. Some examples of these Force Account projects include:

- Reconstruction of the Route 140 bridge, Franklin
- Fairmount Station reconstruction
- Flag work - Orange Line
- Purchase of 100 snow blowers
- Window replacement program
- Fairmount Line rehabilitation
- Rail replacements
- Green Line railroad tie replacements

[1] Force Account work is work performed under contract that is billed as time and material.

According to Section 18.1 of the original contract, MBCR shall perform Force Account work by use of available MBCR personnel and others as may be necessary, at no additional cost to the MBTA, provided that doing so does not interfere with the performance of other basic services of the Operating Agreement.

To prevent double billing of Force Account work, first under the basic services portion of the contract, and secondly under a Force Account extra work order, Exhibit 9 of the original Operating Agreement states, in part:

> *For Contractor Personnel that are engaged full-time in providing the Agreement Services, the Direct Costs for labor, (incurred in the performance of Force Account projects) shall include the costs of labor salaries and wages only for overtime, if any, incurred directly for the provision of Force Account Work and Service Changes.*

However, Amendment No. 4 to the Operating Agreement, which was approved by the MBTA on October 25, 2005, allowed double billing of straight time wages and benefits for Force Account work, once under the basic services agreement and second as part of a Force Account work order that was expressly forbidden under the terms of the original contract. The MBTA's stated justification for approving this contract amendment was to "clarify billing parameters for force account work, account for attrition of workforce inherited from Amtrak, and reduce allowable billings for equipment used by MBCR." As previously stated, Force Account personnel straight time wages and benefits are included in, and paid monthly, under the basic Annual Agreement Services Contract. Originally, if personnel working during straight time hours were shifted to Force Account work, no additional labor costs could be billed to the MBTA, since these labor costs were already reimbursed to MBCR each month under the Annual Agreement Services Contract. However, Amendment No. 4 created a five-year phase-out of this double-billing prohibition by allowing MBCR to double bill for wages and fringe benefits for straight-time hours that exceeded certain annual limits, as follows:

July 1, 2003 to June 30, 2004	$1,350,738
July 1, 2004 to June 30, 2005	900,492
July 1, 2005 to June 30, 2006	600,328
July 1, 2006 to June 30, 2007	375,205
July 1, 2007 and thereafter	0
Total	$3,226,763

During fiscal years 2004 through 2008, MBCR charged the MBTA the following amounts for Force Account work:

	Operations		Administration							Total Force Account
FY	Wages	Benefits	Salary	Benefits	Subtotal	Non-Bulk Material	Bulk Material	Equipment	8% Mgmt	Charges
2004	$ 684,144	$ 328,389	$ 171,965	$ 82,543	$ 1,267,041	$ 201,085	0	$ 516,140	$ 158,741	$ 2,143,007
2005	959,333	491,312	207,013	106,094	1,763,752	190,834	10,070	811,621	222,102	2,998,379
2006	1,827,469	824,921	204,026	100,227	2,956,643	1,510,086	83,931	642,401	415,445	5,608,506
2007	3,761,833	1,532,017	620,945	318,428	6,233,223	6,535,797	26,547	3,330,252	1,290,066	17,415,885
2008	6,156,899	2,428,612	751,647	405,647	9,742,805	13,461,091	414,600	6,112,465	2,378,477	32,109,438
Total	$13,389,678	$5,605,251	$1,955,596	$1,012,939	$21,963,464	$21,898,893	$535,148	$11,412,879	$4,464,831	$60,275,215

Our review of Force Account charges found that 62% of total Force Account wages and salaries were composed of straight-time hours and 38% were composed of overtime hours. Using these proportions for the above fiscal years, we calculated that Amendment No. 4 to the Operating Agreement allowed MBCR to double bill the MBTA $11.2 million for straight-time Force Account labor, as follows:

FY	Wages/Salary Benefits Total	Straight-Time Wages/Salary 62%	Amendment No. 4	Subtotal	8% Management Fee	Total Straight-Time
2004	$1,267,041	$ 785,565	$ (1,350,738)	$ (565,173)	$ (45,214)	$ (610,387)
2005	1,763,752	1,093,526	(900,492)	$ 193,034	15,443	208,477
2006	2,956,643	1,833,119	(600,328)	1,232,791	98,623	1,331,414
2007	6,233,223	3,864,598	(375,205)	3,489,393	279,151	3,768,544
2008	9,742,805	6,040,539	0	6,040.539	483,243	6,523,782
Total	$21,963,464	$13,617,347	$ (3,226,763)	$10,390,584	$831,246	$11,221,830

Since this approved Amendment No. 4 allows for full double-payment of all straight-time wages and benefits incurred under Force Account work billed beginning July 1, 2007 and thereafter for the duration of the contract, using the same methodology and wages and salaries apportionment, we further estimate that MBCR will earn an additional $30 million for future planned Force Account work. These payments would result from double billing resulting from up to $150 million of proposed fiscal years 2009 to 2011 Rail Capital Improvements noted in Amendment No. 5 to the contract dated June 26, 2008. Moreover, the second extension to this contract dated January 6, 2010 provides for $14.2 million of Force Account work for heavy maintenance and replacement of component parts for the MBTA's commuter rail locomotives and coaches. Finally, this amendment also includes an additional $3 million to the annual fixed price of the contract to fund 12 new positions at MBCR for the administration of this anticipated increase in future Force Account work.

The failure of the MBTA to enforce the original terms of its contract for commuter rail services with MBCR allowed this practice of double billing to occur.

Recommendation

The MBTA should notify MBCR that, pending the reinstatement of the original contract language prohibiting the double billing of force account labor, all approved and planned non-emergency Force Account projects will be suspended. Furthermore, if the MBTA is unable to secure the needed amendment to the contract, it should postpone all non-emergency Force Account work orders and begin the process of offering this work through solicitations for competitive bids from outside companies. Moreover, the MBTA's board should require that a comprehensive financial analysis of the effects of all future proposed contract amendments be performed to determine whether the $500,000 limit for prior board review and approval is warranted. In addition, the MBTA should refrain from approving any future contract amendments that allow contractors to double-bill the MBTA for work performed

Auditee's Response

Force Account Labor Costs: Amendment No. 4 to the Agreement

The Draft Report misconstrues the intent of certain provisions of the original Agreement, and omits the MBTA's rationale for Amendment Four. Force account work, also called "extra work," is a standard feature of railroad operating agreements, and is fully consistent with Federal Transit Administration regulations. Force account work is work outside of the scope of a publicly-bid operating contract, but which is best performed by the operating contractor due to that contractor's control of the railroad, work equipment, and railroad employees. Generally, the operating contractor can perform force account work at a lower cost and with greater operational efficiency than a third party, thus providing savings to the MBTA on the costs of labor, equipment, flagging, management personnel and other resources.

The Agreement between the MBTA and MBCR recognized that the MBTA would generally be required to pay MBCR outside of the Annual Fixed Price for force account work, since that work is beyond the scope of the base services. However, the Agreement required MBCR to utilize available base services personnel and equipment for force account work when it could do so without a negative impact on the base services, in order to lower the additional costs of force account work. The Draft Report criticizes certain changes to the

Original Agreement that the MBTA made to clarify allowable force account costs. This criticism is misplaced. As described in more detail below, the Agreement, as amended, required MBCR to perform, at no cost to the MBTA, more than $3.2 million worth of work that was beyond the scope of the Agreement.

a. Amendment Four Did Not Allow Double-Billing, But Rather Clarified Acceptable Force Account Project Costs

Due to federal labor protection obligations, the MBTA required the successful bidder for the Original Agreement to hire Amtrak's entire workforce. That workforce included some employees who Amtrak had assigned to its force account work unit and would be excess of the personnel required to staff the base services. Since the costs of those employees would be included in the contractor's Annual Fixed Price, the MBTA included provisions in the Agreement that prohibited MBCR from including in force account project costs the costs of employees who worked full-time in the provision of the Agreement's based scope of work.

As the Agreement term progressed, the application of the force account billing provision became the subject of dispute between the MBTA and MBCR. Although MBCR was required to inherit Amtrak's workforce, the Agreement allowed MBCR to reduce staffing levels during the term of the Agreement, without adjustment to the Annual Fixed Price; in fact, MBCR's bid price assumed that it would be able to reduce its workforce during the term. MBCR's workforce did in fact evolve, based both on attrition of inherited employees and new hiring by MBCR. According to MBCR, 59 employees left the company between July 1, 2003 and August 9, 2004, but MBCR hired 113 employees during that period, and its workforce, both based scope employees and employees assigned to force account work, has continued to increase. Due to the fixed price nature of the Agreement, the MBTA does not pay for new employees assigned to the base scope.

As MBCR's inherited workforce shrank by attrition, the rationale for the billing provisions in early contract years – that MBCR had inherited more employees than it needed to perform the base Agreement scope and thus could perform some force account work at no additional cost to the MBTA – became less clear. Furthermore, identifying which employees were included within the Annual Fixed Price became more difficult as the workforce evolved, and the prohibition on charging straight time to force account projects was no longer an effective way of enforcing the Original Agreement's goal. That provision would have necessitated that MBCR staff force account projects inefficiently, by using only overtime, at greater cost to the MBTA, or by hiring a segregated force account project workforce.

Also, the amount of force account work that the MBTA directed MBCR to perform increased significantly from the MBTA's projections at the time the Agreement was drafted. While the MBTA did, at the commencement of the Agreement, expect MBCR to perform small force account projects by assigning Agreement Services personnel without compromising the base operations, the increase in force account work made that expectation less realistic.

Recognizing the factors described above, and to resolve the continuing disputes regarding the application of the original language, Amendment Four allowed MBCR to charge for certain straight time hours, while simultaneously clarifying the tracking and billing of force account labor and other expenses such as vehicle costs. The amendment created a declining force account credit, in an amount of $1,350,738 for the first

Agreement year, down to $0 in the fifth year, in a total amount of $3,226,763. The force account credit was calculated to correspond to the expected attrition of force account personnel MBCR was required to inherit from Amtrak. The addition of staff to perform force account work during construction seasons at straight time rates allowed MBCR to use those forces (avoiding expensive recruiting, hiring, training and turnover costs) during non-construction seasons for snow removal and other functions, allowing for the more efficient employment of personnel, which reduced force account project costs for the MBTA.

b. Amendment Four Did Not Increase MBCR Revenues by $11.2 Million

Amendment Four did not result in increased revenues of $11.2 million, nor did it allow for "double-billing" by MBCR as the Draft Report concludes. As noted above, because of the difficulties involved in separation Agreement Services personnel costs from force account personnel costs as MBCR's workforce evolved, at the time of Amendment Four the methodology for separating base scope personnel from force account personnel was very much a matter of dispute between the MBTA and MBCR.

The $11.2 million figure in the Draft Report is erroneous and misleading. The Draft Report uses straight time vs. overtime as the basis for calculating "revenue" gained by MBCR through Amendment Four. This methodology assumes that if Amendment Four had not been adopted on October 25, 2005, MBCR would have staffed force account projects in a manner that prevented the company from being reimbursed for the costs of performing work outside the scope of the Agreement. MBCR's position was that the Annual Fixed Price did not include the straight time personnel costs that MBCR sought to use for force account projects. If the Parties had not agreed to Amendment Four, and the MBTA had continued to disallow straight time on force account work, MBCR would have staffed its force account projects differently, by utilizing overtime or hiring separate force account personnel. In other words, MBCR would not have performed $11.2 million worth of force account work for free, without the ability to seek reimbursement from the MBTA.

As shown by the second table on page 14 of the Draft Report, Amendment Four clarified the expectations of the parties, and required MBCR to perform, at no cost to the MBTA, more than $3.2 million of work that was outside the scope of the Agreement. For the period from FY 2004 through the first four months of FY 2006, when Amendment Four was adopted, the force account credit covered nearly all of the straight time wages charges to force account projects by MBCR up until that date. After the adoption of the amendment, MBCR staffed force account projects to use straight time wages. The alternative was not for MBCR to perform the work for free as straight time, but rather than to staff force account projects less efficiently, at greater cost to the MBTA. The conclusion that Amendment Four provided MBCR with $11.2 million in new revenue, by allowing MBCR to "double-bill," is erroneous.

For all of the reasons set forth above, the reinstatement of the original force account provisions is not practical and would have little benefit to the MBTA given the complexities of applying the original provisions to the changed workforce at this point in the Agreement. The MBTA agrees with the Draft Report's conclusion that comprehensive financial analyses of all contract amendments should continue to be performed to determine whether the financial impact exceeds the $500,000 threshold for MBTA Board approval under the MBTA's regulations. We note, however, that Amendment Four was not an expenditure of funds requiring approval of the MBTA Board. Furthermore, all *commuter rail force account projects exceeding $500,000 have been, and will continue to be, independently presented to the Board for approval.*

Auditor's Reply

Contrary to the MBTA's statements, our presentation of the manner in which the Force Account staffing and charges under this contract were misapplied is both accurate and fair. We remind the MBTA that under the original contract terms the existing force account staff was to be used for both necessary maintenance as well as capital projects. Allowing the contractor to re-characterize the composition of the budgeted workforce to the detriment of the MBTA's maintenance needs in order to the benefit the contractor's operations needs was unjustified.

Also, the net effect of Amendment No. 4 did not gain the MBTA $3.2 million in "free work" outside the scope of the contract, but rather it simply forced the contractor to abide by the original terms of the contract for an additional $3.2 million in previously paid for labor, and thereafter opened the door to unlimited double billing for Force Account labor for the duration of the contract. Indeed, a letter from the MBTA's former Director of Railroad Operations dated June 29, 2004 to MBCR supports our position when a request for an additional $880,000 of Force Account costs was denied. The MBTA's Director reminded MBCR that:

"…MBCR is obligated to use the resources provided for the performance of Agreement Services, including personnel and equipment, in the performance of Force Account Work, at no additional cost to the MBTA, whenever possible. The purpose of this provision ….is to prevent MBCR from billing the MBTA for labor and equipment costs as part of the Annual Fixed Price and again as Force Account Work. Therefore, MBCR is not entitled to bill the MBTA for any straight-time labor costs of Annual Fixed Price employees associated with what the MBCR identifies as Force Account Work."

We concur with the MBTA's position on this matter at that time, and again recommend that it disallow this practice of double billing; amend the contract back to the original terms; and failing that, suspend all non-emergency force account work orders and begin the process of offering this work through solicitation for competitive bids from outside companies.

2. INADEQUATE OVERSIGHT OF CONTRACTOR ACTIVITIES AND INCENTIVES GRANTED TO MBCR HAS COST THE MBTA OVER $2.5 MILLION

Our review of the MBTA five-year Operating Agreement with MBCR revealed a number of deficiencies in the oversight and management of this contract. The following areas were of particular concern considering the costs incurred to operate the MBTA's commuter rail system, as well as need for constant oversight by management to ensure that all contractor duties and responsibilities are being met. The following contract issues are areas that should be addressed or that require additional oversight and enforcement:

a. Questionable Revenue Growth Incentive Payments Totaling $1.7 Million

Under Section 20 of the original Operating Agreement, the MBTA established a "Revenue Growth Incentive" to be paid to MBCR in the event that the actual income for commuter rail fares exceeds that of the prior year by at least 3%. In addition to sharing 20% to 40% of all qualified increases in revenue directly with MBCR, the MBTA also agreed to pay an additional 10% of these increased fare revenues into a Service Improvement Deposit Account to be used for initiatives outside the scope of services of the contract that are designed to improve fare collection, customer service, or on-time performance. Amendment No. 5 to the original contract, dated June 26, 2008, established the most recent agreed-upon split of increased fare revenues between the parties, as follows:

Revenue Target	Service Improvement Account Deposit	Percentage Paid to MBCR
Greater than prior year's actual revenue and less than 3%	10%	0%
3.00% - 3.99%	10%	20%
4.00 – 4.99%	10%	30%
5.00% or higher	10%	40%

The staff summary submitted to the MBTA board for approval of this amendment to the contract cited the need to "create strong incentives to improve on-time performance and revenue collection" by MBCR as the reasons for approving this amendment to the contract.

We question the necessity for such an incentive to reward MBCR when any increase in revenue could be due to many factors outside its control, such as increases in gasoline prices or the improved revenue collections that would result upon implementation on the commuter rail system of the automated fare collection system paid for by the MBTA. Moreover, any increases in revenue due to improvements for on-time performance or customer service are already paid for in the basic services agreement. Furthermore, future fare increases will certainly lead to disagreements over the calculation of revenue growth and any incentives due MBCR. Indeed, we noted that prior to fiscal year 2006, MBCR was not entitled to a revenue incentive payment. However, after the MBTA increased fares in 2006, the MBTA mistakenly calculated that a revenue incentive payment was owed to MBCR in the amount of $2,040,220. The MBTA issued a half payment of $1,020,110, pending the results of an audit of the revenues and growth incentives earned. However, the results of that audit disclosed that the calculated $2 million earned incentive payment was in error and that no revenue incentive was earned by MBCR. MBCR reimbursed this $1 million overpayment to the MBTA on August 31, 2008. Subsequently, MBTA records indicate that during fiscal year 2009, MBCR received $1.7 million in Revenue Growth Incentive payments. Finally, we noted that under this amendment fare revenues increases are automatically presumed to be the result of MBCR's outstanding performance; however, revenue decreases result in no penalty being imposed on MBCR unless the MBTA's Director of Railroad Operations can cite specific acts or omissions by MBCR that caused the decline in actual revenues.

b. Questionable Management Fees Totaling $800,000 Paid for Force Account Purchases

As previously mentioned, under the terms of the Operating Agreement, MBCR is allowed to charge an 8% management fee for all approved Force Account Project Initiatives (PIs). However, we noted that included in some of these approved PIs are provisions to allow the payment of a management fee for the purchase of items that could be just as easily purchased directly by the MBTA and then assigned to MBCR for use in performing its contractual duties. The following are some examples of questionable approved purchases and the additional costs incurred by the MBTA for allowing MBCR to make these purchases:

Item	Purchase Amount	Maximum Management Fee Incurred
Specialty Vehicles	$3,000,000	$240,000
Software Revisions	$500,000	$40,000
Handheld Communicators	$200,000	$16,000

Stronger controls over these types of purchases would ensure that competitive bids were obtained and thus could have saved the MBTA at least 8% on the purchase price of these items, or approximately $296,000.

In addition to these cited unnecessary fees paid to MBCR, Section 21.4 (b) of the Operating Agreement entitles MBCR to receive an additional markup on the price paid for materials used for Force Account projects. Specifically, MBCR may charge an additional 2% for all bulk purchases, including locomotive fuel, ballast, ties, and rails, and 8% for the purchase of all non-bulk materials. However, the contract does not specifically define what is to be considered a non-bulk item.

Our review of purchases of Force Account materials for fiscal years 2006 through 2008 revealed that MBCR classified only $120,548, or 1.4%, as bulk materials, with a markup of 2%, but designated $8,437,802, or 98.6%, as non-bulk materials, with a markup of 8% added to these purchases. However, when we examined the supporting documentation for Force Account material purchases for two randomly selected months (January 2006 and September 2006), both invoices showed zero bulk purchases made. However, we noted many items misclassified and billed at the higher 8% markup as non-bulk items such as the following:

90,000 Train Schedules
500 Linear Feet of Guard-Rail
400 Shoulder Tie Plates
2,500 Linear Feet of Wire

As a result of possible misclassification of these materials and the MBTA's failure to properly monitor the accuracy and reasonableness of these materials markups, MBCR may have received as much as $506,000, or 6% more in improper markups for bulk items purchased during this three-year period.

Recommendation

In order to ensure that all contractor responsibilities under any future commuter rail contract are being met and that the taxpayers' interests are being adequately safeguarded, the MBTA should:

- Refrain from granting any future revenue and performance incentives that reward the contractor for simply fulfilling his duties under the basic services portion of the contract and similarly enforce all penalties for nonperformance that are allowed under the contract.

- Discontinue the practice of allowing the contractor to effect purchases on behalf of the MBTA for contract-related purposes and then markup the cost of these purchases to the MBTA by an additional 8%.

- Adopt the policy that all future materials purchases made by MBCR for Force Account initiatives will be designated as bulk items and only eligible for a 2% markup. Any specialty item that cannot be purchased in bulk should be purchased directly by the MBTA and credited as paid under the work order to avoid this unnecessary 8% markup for misclassified items.

Auditee's Response

Revenue Growth Incentive Payment

The Draft Report criticizes the revenue growth incentive included within the Agreement, but the report's conclusions appear to rest on factual errors and a lack of context. The report questions whether MBCR should earn incentives for increased revenue collection "when any increases in revenue could be due to many factors outside its control, such as increases in gasoline prices or the improved automated fare collection." This conclusion is faulty.

Although the Agreement's revenue collection incentive program does account for fare increases and service additions, no incentive program could account for all of the factors that might affect ridership and thus revenue, such as the effect of gasoline prices on public transportation usage. The report also criticizes the MBTA for not penalizing the contractor for revenue decreases – although it concedes that the MBTA does have the ability to penalize for actions leading to decreased revenue.

The Agreement contains revenue collection incentive provisions which were designed to address one of the major problems with the previous commuter rail operating agreement with Amtrak: Amtrak was responsible for collecting revenue, but had no incentive to devote personnel and other resources to revenue collection, since it turned all revenue over to the MBTA. The MBTA fielded continuous complaints from riders about Amtrak's failure to check tickets or collect revenue. The current Agreement was designed to provide the contractor with an incentive to implement programs to maximize revenue, and the provisions have worked, creating benefits for both the MBTA and MBCR. In light of the incentive, MBCR has implemented various initiatives to increase revenue, such as the Buy Before You Board Program, the purchase and use of ultraviolet flashlights to detect non-valid tickets, [and] periodic "revenue blitzes" using extra conductors to check all passengers fares. These efforts, in addition to increased focus on a day-to-day basis have led to increased revenue for the MBTA and the investment of a portion of that revenue into the service through the Service Improvement Deposit Account.

Management Fees for Force Account Materials Purchases

The Draft Report cites $800,000 in "questionable" management fees on force account projects performed by MBCR. The Original Agreement made a distinction between "bulk materials" used in force account projects, for which MBCR could charge only a 2% management fee, and other materials, for which MBCR is permitted to charge a 8% fee. These fees are designed to compensate the contractor for the administrative services required to procure materials required for the projects, and are well below the rates charged on change orders and other contracts for other public construction projects in the Commonwealth.

The MBTA monitors bulk versus non-bulk management fees on a monthly basis and frequently does not pay for billed non-bulk fees. The MBTA will make a determination as to whether the materials listed in those quantities, are properly considered "bulk materials" in the railroad industry and subject to the 2% fee. However, the Draft Report incorrectly extrapolates from these spot findings to arrive at an erroneous estimate of

$506,000 in improper management fees. The MBTA will continue to monitor MBCR's classification of materials purchases, and will make all materials purchases subject to a 2% mark-up in the next commuter rail operating agreement.

The MBTA intends to implement several of the Draft Report's recommendations regarding Contractor oversight. The MBTA will continue to ensure that MBCR competitively bids subcontracts as required by the Agreement and MBTA policies, and will require that materials purchased by MBCR are subject to the 2% management fee whenever possible and appropriate, or are procured by the MBTA separately to avoid such fee.

Auditor's Reply

We reiterate that to offer a financial incentive to the contractor to simply perform one of the most basic duties under this billion dollar contract is unwarranted. Indeed, MBCR acknowledged this fact in a cover letter to its bid submission to the MBTA dated October 11, 2002, stating that it "had assembled a team and developed an approach that will maximize the collection of passenger revenue." Therefore, we recommend that the MBTA refrain from granting any future revenue incentives that reward the contractor for simply fulfilling his duties under the basic services portion of the contract.

Also, we remind the MBTA that our projections for the potential cost of these misclassifications of bulk versus non-bulk purchases were qualified by stating that it could be as much as $506,000, and not definitively that number. Therefore, we continue to urge the MBTA to be more vigilant in its review of management fees for materials purchases to ensure that they are both reasonable, accurate, and in accordance with the contract terms.

Finally, we commend the MBTA for its stated intention to implement several of our recommendations to improve its oversight of the MBCR's activities.

3. MBTA REWARDED MBCR WITH $42.9 MILLION IN REDUCED OR WAIVED PENALTIES FOR CONTRACT NONPERFORMANCE

The original Operating Agreement between the MBTA and MBCR contained various performance standards that MBCR was required to meet regarding on-time performance, rolling stock capacity and maintenance, and customer service and facilities cleanliness. To ensure that MBCR met these performance standards, Section 22 of the contract provided for monetary penalties that would be assessed by the MBTA whenever MBCR failed to meet these minimum operating standards. Some examples of these non-performance penalties, per occurrence, include: peak-time late/cancelled trains ($500/$2,000), station cleaning ($500), employee performance ($500), mechanical defects ($500) and handicapped accessibility compliance ($1,000).

Accordingly, at the outset of the contract, the MBTA granted MBCR a six-month grace period from July 1 2003 to December 31, 2003, when penalties were not assessed for all categories of violations of contract noncompliance in order to allow MBCR to obtain a learning curve for operations as well as perform needed maintenance on the train fleet cited by MBCR's unilateral review of the equipment at turnover. Thereafter, beginning January 1, 2004 and for the duration of the contract through June 30, 2008, the MBTA, under the terms of the original contract, could assess MBCR no more than $1.5 million for the period January 1, 2004 through December 31, 2005, and up to $2 million per year thereafter for all contract violations as incurred.

However, on April 2, 2004, the MBTA approved amendment No. 1 to the commuter rail contract, "in order to incentivize Contractor performance throughout each Agreement Year," and amended Section 22 (Penalties) of the contract. In addition to the original penalty caps of $1.5 million per year for the period ended December 31, 2005 and $2 million per year thereafter, this amendment established allocations of these penalty caps into the following three categories, each with their own sub-cap: (1) 45% for On-time Performance; (2) 35% for Capacity; and (3) 20% for Customer Service/Compliance. These sub-caps further limited the penalty amounts that MBCR could incur for its most frequent offenses, which are late or cancelled trains. For example, the maximum penalties that could be assessed for late or cancelled trains were now limited to a maximum of 45% of the total monthly caps of $62,500, or $28,125 per month, for 2005 and 45% of the total monthly cap of $166,666, or $75,000 per month, for 2006. Therefore, the most that MBCR could now be penalized for late and cancelled trains, regardless of how many instances, was now further capped at $337,500 per year for 2005 ($28,125 x 12 months) and $900,000 ($75,000 x 12 months) for 2006 and thereafter until contract expiration.

The MBTA again agreed to amend the penalty section of the contract with MBCR on April 26, 2005. This Amendment No. 3 further reduced the On-Time Performance allocation by one-third from 45% down to 30%, while retaining the other two allocations of 35% and 20% for Capacity and Customer Service, respectively. In addition, the MBTA suspended the imposition of fines for 10 different categories of fines ranging from $10,000 per incident for Rule Book violations to $1,000 per incident for temporary speed restrictions and track outages beyond the

MBTA-approved schedule. Finally, this amendment raised the penalty cap to $3 million for calendar year 2006, or $250,000 monthly. Thereafter, the monthly cap was raised to $333,333 and the cumulative penalty cap for the 18-month period ended June 30, 2008 was increased to $6 million. However, with the reduction of the allocation percentage for On-Time Performance, the monthly maximum for late or cancelled trains remained at $75,000, while the monthly maximum penalties for Capacity increased to $87,500 and maximum monthly Customer Service fines increased to $50,000 through December 31, 2006.

The net effect of this amendment to the penalties section of the contract was to effectively reduce the per-incident fines incurred for the most common violations by as much as 75% to 80%. For example, the penalty for cancelled peak trains was reduced from $2,000 to $500; late peak trains was reduced from $500 to $100; cancelled off-peak trains was reduced from $1,000 to $250; and late off-peak trains was reduced from $250 to $50.

Ultimately, by eliminating, reducing, reallocating, and placing monthly caps on penalties, the MBTA rewarded MBCR by as much as $42.9 million in uncollected and waived penalties for contract nonperformance reported by MBCR from January 1, 2004 to June 30, 2008. A breakdown of penalties forgiven by the MBTA due to amendments and the original penalty caps follows:

Fiscal Year	Revised Initial Penalties Assessed	Actual MBCR Penalties Paid	Penalties Forgiven
2004 (Jan. – June)	$10,432,875	$375,000	$10,057,875
2005	15,744,750	750,000	14,994,750
2006	8,136,500	1,243,700	6,892,800
2007	5,328,000	1,972,116	3,355,884
2008	9,952,900	2,386,112	7,566,788
Total	$49,595,025	$6,726,928	$42,868,097

Finally, the practice of continually amending the performance requirements of the contract to unjustly reward the operational inadequacies of MBCR sends the wrong message as to the price MBCR will ultimately pay, if any, for failing to fully earn its $1 billion contract fee.

Recommendation

The MBTA should restore the penalties that were contained in the original service contract signed by the MBTA and MBCR. Furthermore, the MBTA should resolve to assess and collect all penalty assessments due to reduce the structural deficit it currently operates under. Finally, for any new commuter rail contract issued by the MBTA, the penalties to be imposed for contract noncompliance should be fully collected to demonstrate to all future commuter rail operators, and to the riding public, that the MBTA intends to hold its commuter rail contractor fully accountable for all service violations and contract noncompliance.

Auditee's Response

Revision of Penalty Structure

By omitting the context and rationale for the changes agreed to by the MBTA and MBCR with respect to the Agreement's penalty structure, the Draft Report's conclusions are misleading and alters the report's conclusions by approximately $25.5 million.

Penalty Caps in Original Agreement

The Draft Report correctly describes the six-month penalty grace period set forth in Section 22.1 of the Agreement. The Original Agreement established a penalty cap of $1.5 million for the twenty-four month period from January 1, 2004 through December 31, 2005, and a penalty cap of $2 million for each 12-month period for the reminder of the term. See Original Agreement, Section 22.1. Accordingly, the amount of the initial penalty caps for each year of the Original Agreement was as follows:

Time Period	Provisions for Penalty Cap in Original Agreement
July – December 2003	$0 – Grace Period
Jan 2004 – December 2005	$1.5 M
Jan – December 2006	$2M
Jan – December 2007	$2M
Jan – June 2008 (50% of 12 month cap of $2M)	$1M
Total	$6.5M

The First Amendment left the annual caps in place, but established additional monthly and categorical penalty caps that were designed to better incentivize MBCR's performance.

The MBTA disputes the Draft Report's conclusion that the amendments to the Agreement resulted in any "penalties forgiven," for the reasons set forth below. But independent of any other problems with the Draft Report's methodology and conclusions, its failure to account for the penalty caps in the Original Agreement overstates the report's *conclusions by approximately $25.5 million, since the amendments to the penalty structure did not change the annual caps for the first two and a half years of the Agreement.*

Without Amendment, the Penalty Cap Escalation Would Have Had Economic Consequences Far More Severe than the MBTA or MBCR Anticipated

In drafting the original Agreement, the MBTA crafted a penalty framework that, to our knowledge, was more rigorous and extensive than existed in any other commuter rail operating agreement. The penalty framework was designed not to create savings for the MBTA by imposing draconian penalties, but rather to promote first-rate service for the MBTA's customers. The MBTA intended the Agreement to establish commercially reasonable performance penalties that its contractor could avoid with efficient development of resources.

Although the original penalty structure was based on a thorough analysis of projected performance, the scope of the penalty scheme, when applied to a complex commuter rail system with shifting resources and conditions, would have resulted in drastically higher penalties during the second half of the original five-year Agreement term than the MBTA had intended. At the outset of the Agreement, the MB TA calculated that MBCR would incur penalties ranging from $375,000 in the first Agreement year to $2,500,000 in year five, for total penalty payments of $7,341,300. Actual penalty payments, after the two amendments to the penalty structure, totaled $6,726,928, which is 92% of the MBTA's projections.

Without the Third Amendment, MBCR's penalties would have far exceeded the MBTA's internal projections and the Parties' commercially reasonable expectations. Prior to that amendment, the Agreement contained a provision stating that if the MBTA assessed penalties in excess of the penalty caps for two consecutive years, the cap would be increased for subsequent years by the average amount of the excess in those two previous years. If the original cap escalation provision had remained in place, the penalty cap for each 12-month period from January 1, 2006 – December 31, 2006, would have been approximately $17,279,180. At the time of the Third Amendment, MBCR and the MBTA were concerned that a cap of that amount would have threatened MBCR's financial solvency; MBCR's insolvency would in turn have caused a major disruption to the MBTA's commuter rail service as the MBTA took steps to replace MBCR. We note that MBCR's cost proposal specified a profit of approximately $12 million for each of the final three years of the five-year term.

Furthermore, the amendments to the penalty structure were necessary to account for certain changed conditions in the commuter rail operation unrelated to MBCR's performance, which made avoidance of penalties more difficult than anticipated. For example, the MBTA's cancelation of its planned acquisition of 20 locomotives left MBCR with a fleet older than expected. Based on information provided to bidders during the procurement, MBCR expected the procurement of that service equipment, and based its bid (which included amounts for expected penalties) on a fleet that included newer equipment. Given the unexpected age and condition of the commuter rail fleet due to the postponement of the procurement, MBCR's ability to avoid penalties for on-time performance and other metrics decreased, and justified changes to the penalty structure.

In recognition of these factors, the MBTA and MBCR agreed to revise the Agreement with a Third Amendment, dated April 26, 2005, which replaced the cap escalation provision with (1) a fixed annual penalty cap of $3 million for calendar year 2006, increased from

$2 million in the then-current Agreement; (2) a cap of $6 million for the period from January 1, 2007 through June 30, 2008 if MBCR incurred a certain amount of penalties in calendar years 2005 and 2006, and a cap of $3 million, escalated by an inflation index, per 12-month period if MBCR was penalized less during that period. The revised cap was better calibrated to positively affect MBCR's performance, and in fact resulted in penalty payments in the final two years of the initial Agreement term that on average exceeded the fixed $2 million cap in place in the original Agreement.

Auditor's Reply

Contrary to the MBTA's assertions, our conclusions regarding the effects of its continual dilution of the penalties that could be assessed to the MBCR for nonperformance are accurate and fair. We reiterate that the net result of the MBTA's decisions to amend the penalties twice, once by creating allocations and sub-caps of the existing penalty caps, and again by eliminating some penalties and by reducing other per incident fines that could be assessed by as much as 75% to 80%, as well as further reducing the allocations for on-time performance, was that the MBTA rewarded MBCR with approximately $42.9 million in reduced and waived penalties.

The MBTA's claim that our estimate of waived penalties is overstated is incorrect since our methodology was to use the original eligible fines, per incident, that were to be assessed under the contract, subject to the original caps. The MBTA's figure is calculated by using the revised; reduced; allocated; and sub-capped penalty amounts that resulted from its amendments to the contract and applying these new contractually reduced amounts to the penalties actually collected.

Finally, the MBTA's assertion that to impose the penalties contained in the original contract would have meant the financial ruin of the MBCR are exaggerated since the gross penalties, if collected, would have amounted to less than 4.3% of the total payments received under its $1 billion contract with the MBTA.