



Memorandum

To: Gordon Hutchinson, Acting Chief Financial Officer

From: David R. Warren
Assistant Inspector General, Audits

A handwritten signature in black ink that reads "David R. Warren".

Date: February 15, 2012

Subject: *On-Time-Performance Incentives: Inaccurate Invoices Were Paid Due to Weaknesses in Amtrak's Invoice-Review Process*
(Audit Report No. OIG-A-2012-004)

Enclosed is our final report entitled, *On-Time-Performance Incentives: Inaccurate Invoices Were Paid Due to Weaknesses in Amtrak's Invoice-Review Process*. This report provides the results of our audit of charges incurred by BNSF for Amtrak trains operating over its tracks. BNSF billed nearly \$55 million for operating Amtrak trains over its rail lines from May 2002 through June 2006. This report contains a recommendation that you collect the over \$9.1 million in overpayments we identified. We conducted this audit because of previously identified control weaknesses and the significant amount of money Amtrak expends to use BNSF tracks. This report is part of a series of Office of Inspector General (OIG) audits of Amtrak's payments to host railroads.

The objectives of our audit were to (1) determine whether BNSF Railway complied with the operating agreement in calculating on-time-performance incentives invoiced to Amtrak from May 2002 through June 2006, and (2) evaluate the adequacy of Amtrak's controls and processes for reviewing on-time-performance incentive invoices.

Your response to our draft report can be found in Appendix V of the report.

We appreciate the courtesies and cooperation that Amtrak representatives extended to us during the course of this review. If you have any questions, please contact me (David

Warren, (David.Warren@amtrakoi.gov) 202 906-4742, or Dan Krueger, Senior Director, (Daniel.Krueger@amtrakoi.gov) 312 383-5303).

cc: DJ Stadtler, Acting Vice President, Operations
Paul Vilter, Assistant Vice President, Host Railroads
William Herrmann, Managing Deputy General Counsel
Jessica Scritchfield, Senior Director, Internal Controls/Audit

Enclosure

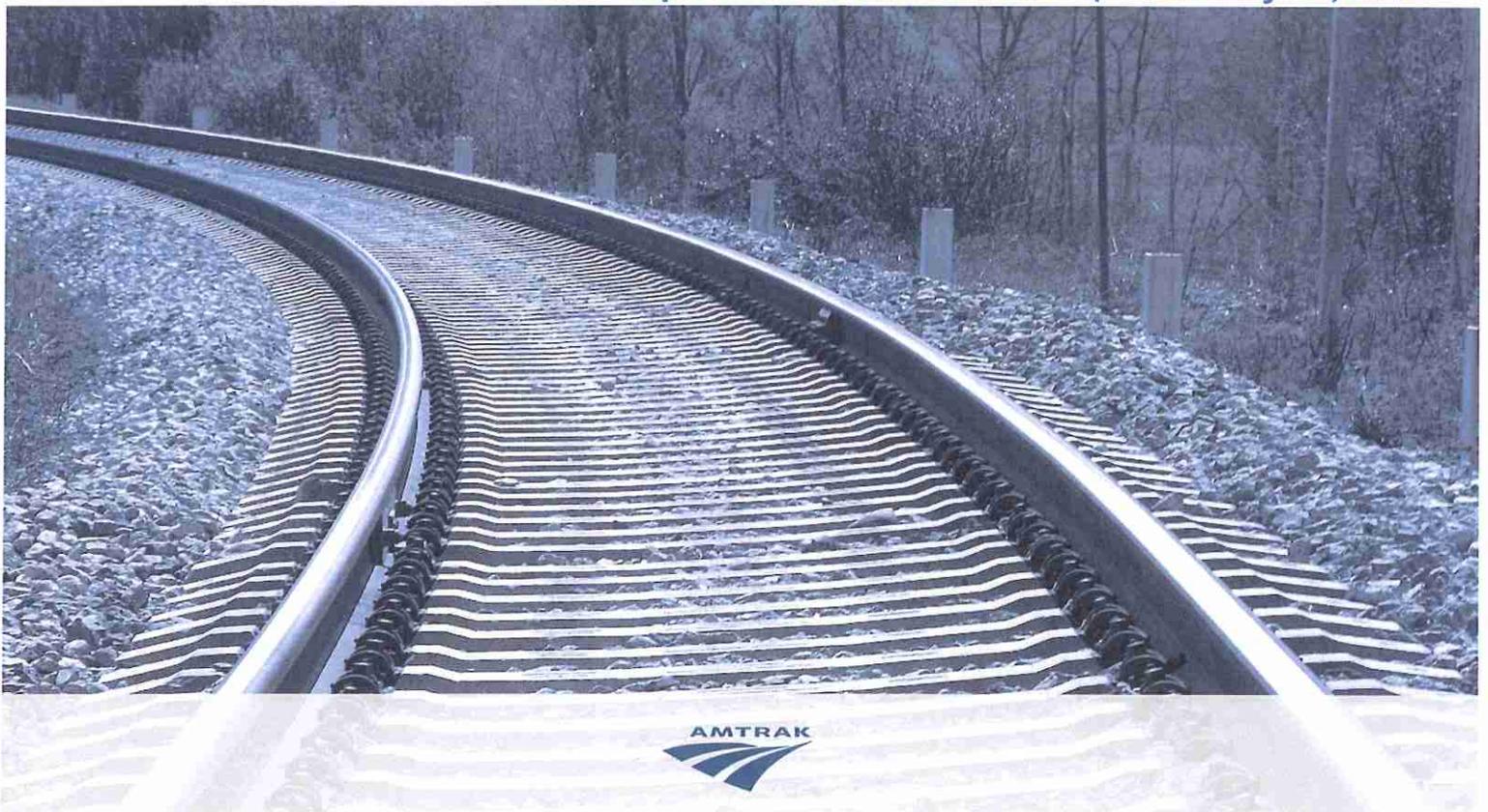


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ON-TIME-PERFORMANCE INCENTIVES:

Inaccurate Invoices Were Paid Due to Weaknesses in
Amtrak's Invoice-Review Process

Audit Report No. OIG-A-2012-004 | February 15, 2012





Office of Inspector General



Memorandum

To: Gordon Hutchinson, Acting Chief Financial Officer

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The Amtrak Office of Inspector General (OIG) conducted this audit because of previously identified control weaknesses and the significant dollars associated with Amtrak's on-time-performance incentive payments. Under an operating agreement with BNSF Railway, Amtrak pays them incentives to facilitate the on-time-performance of Amtrak trains. This report is part of a series of OIG audits of Amtrak's on-time-performance incentive payments.

The objectives of this audit were to (1) determine whether BNSF Railway complied with the operating agreement in calculating on-time-performance incentives invoiced to Amtrak from May 2002 through June 2006, and (2) evaluate the adequacy of Amtrak's controls and processes for reviewing on-time-performance incentive invoices. For a detailed discussion of our audit scope and methodology, see Appendix I.

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SUMMARY OF RESULTS

BNSF inconsistently or inappropriately applied provisions of the operating agreement with Amtrak, causing invoices to be overstated. Our review of 50 months of BNSF incentive invoices from May 2002 through June 2006 found that BNSF overbilled Amtrak \$9,151,451, almost 17 percent of the nearly \$55 million on-time performance (OTP) incentives invoiced and paid. See Appendix II for a summary of our analysis. In each of the 50 monthly invoices submitted to Amtrak, BNSF applied operating agreement performance payment and penalty provisions inconsistently or inappropriately.

The billing errors went undetected because, as previously reported,¹ Amtrak did not have in place an adequate review process during that period. Amtrak is, however, making progress in developing its capabilities for reviewing host railroad invoices and addressing our prior recommendations. For example, Amtrak established the Host Railroad Invoice Administration group, which is reviewing select invoices using a limited set of factors. The Law Department is also working to negotiate settlements on overpayments that we previously identified. Amtrak plans to further improve the invoice review process through several initiatives, including developing policies and procedures for reviewing all invoices, creating job aids to facilitate invoice processing, and collecting outstanding overpayments identified in prior audit reports. While Amtrak continues to make progress in developing policies and procedures, training, and invoice reviews, the company has not yet implemented all of our recommendations.

Over time, our office has identified approximately \$36 million in overpayments and potential recoveries for audit periods ranging between 1993 and 2006, including over \$9.1 million identified in this report. The \$36 million includes at least \$5.7 million in overpayments that have already been collected.

We are encouraged by the progress that has been made and the plans that are in place for further action. Accordingly, we are not making any new recommendations for improving invoice-review capabilities at this time. However, we do recommend that

¹ *On-Time-Performance Incentives: Inaccurate Invoices were Paid Due to Longstanding Weaknesses in Amtrak's Invoice-Review Process* (OIG Audit Report 403-2010, April 21, 2011).

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Amtrak's Chief Financial Officer take action to recover the \$9,151,451 that Amtrak overpaid BNSF.

In commenting on a draft of this report, Amtrak's management stated it concurred with the recommendation to take action to recover amounts with respect to overpayments made to BNSF. Management committed to have the Managing Deputy General Counsel, on behalf of Amtrak's Transportation and Finance departments, pursue any amounts that are recoverable under the law and within the terms of the agreement.

OPERATING AGREEMENT

The Rail Passenger Service Act of 1970 created the National Railroad Passenger Corporation, commonly known as Amtrak, to operate a national rail passenger system. The Act allowed Amtrak to contract with host railroads "for the use of tracks and other facilities and the provision of services on such terms and conditions as the parties may agree."

Effective September 1, 1996, Amtrak entered into an operating agreement with the Burlington Northern Railroad Company and the Atchison, Topeka and Santa Fe Railway Company. The Burlington Northern and Santa Fe Railway was formed in December 1996 as these two railways merged. In January 2005, the Burlington Northern and Santa Fe Railway was renamed BNSF Railway.

The operating agreement was developed between Amtrak and BNSF to serve as a basis for determining costs associated with the services, equipment, and facilities provided to Amtrak. The agreement includes incentives to encourage BNSF to facilitate Amtrak passenger train on-time operations.² The incentives relate to mutually agreed-upon running times between established checkpoints³ during a passenger train trip. Generally, service performance payments and related incentives are calculated using

² When an Amtrak train operates on tracks owned or operated by BNSF, the host's dispatching center has sole control over the Amtrak train's movement.

³ A checkpoint is a term used in an operating agreement to identify the initial starting point and endpoint of a trip or partial segment of a trip, used to calculate on-time-performance incentives. There may be up to [REDACTED] checkpoints on a long-distance train route such as the *Empire Builder* which travels between Minneapolis and Seattle or Portland, splitting at Spokane. Conversely, a route from Ft. Worth to Oklahoma City has only [REDACTED]

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provisions described in the operating agreement (appendix V of the agreement—*Performance Payments and Penalties*).

Under the September 1996 operating agreement, Amtrak trains are permitted to operate on BNSF routes. Table 1 summarizes the BNSF routes used by Amtrak trains.

Table 1. BNSF Routes Used by Amtrak Trains under the Operating Agreement, May 2002–June 2006

Amtrak Route Name	Train Numbers	BNSF Route	Number of Checkpoints
Empire Builder	7, 27, 8, 28	Minneapolis–Seattle	
Southwest Chief	3, 4	Chicago–Los Angeles	
California Zephyr	5, 6	Chicago–Denver	
Coast Starlight	11, 14	Seattle–Portland, OR	
Cascades	500, 501, 503, 506–510, 513, 516, 517	Seattle–Portland, OR and Vancouver, WA	
Texas Eagle	21, 22	Ft. Worth–Opal Junction, TX	
Illinois Zephyr	347, 348	Chicago–Quincy, IL	
Sunset Limited	1, 2	Live Oak, LA–Iowa Junction, LA	
Pacific Surfliners	500 series, 700 series ^a	Soto, CA–Fullerton Junction, CA	
San Joaquins	701–704, 711–718	Bakersfield, CA–Port Chicago, CA	
Heartland Flyer	821, 822	Oklahoma City–Ft. Worth	

^a The Pacific Surfliner route included 31 trains.

Source: Amendment Agreement Change Record to the 1996 operating agreement and Amtrak System Timetable dated April 24, 2006

The agreement authorizes BNSF to present monthly invoices for the services provided to Amtrak. The agreement includes article V, section 5.1 (c), which gives BNSF the right to bill for additional payments for schedule adherence.⁴ The agreement also authorizes on-time-performance (OTP) incentive payments and penalties.

Performance payments will be paid for a train at each performance checkpoint where the train attains an on-time performance greater than █% during a month.

Performance penalties will be assessed against the train at performance checkpoints where the on-time performance is less than █% during a month.

⁴ Schedule adherence refers to the ability of the host railroad to facilitate an Amtrak passenger train's on-time operation, defined as a train that operates within the run time specified in the operating agreement, plus the aggregate amount of time of other excused delays (tolerances).

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The operating agreement (appendix V) sets forth the specific criteria, generally referred to as tolerances,⁵ to be used to determine a train's on-time-performance percentage. The operating agreement also shows how the provisions should be applied and how the OTP incentives should be calculated. For purposes of calculating OTP incentives, a train is considered on time if it completes its trip between checkpoints in the number of minutes (or fewer) shown in table 1 of appendix V plus the aggregate amount of time of other tolerances listed (see Appendix IV of this report for table 1 of appendix V of the operating agreement and Appendix III for the criteria we used for OTP incentive analysis of tolerances).

During the audit period, the group responsible for reviewing and approving payment of monthly host railroad invoices reported to the Vice President of Transportation. In October 2010, this group—now called the Host Railroad Invoice Administration group—was moved, and now reports to the Chief Financial Officer.

Amtrak also pays BNSF to prepare and provide it with an OTP report showing its calculations for each Amtrak train's monthly on-time operating performance. These summary reports show the total number of trains operated by Amtrak, total number of trains that arrived on time, the monthly on-time percentage, and the incentive payment amount. BNSF determines the monthly on-time percentage by dividing the number of days the train arrived on time at the checkpoint by the number of days the train operated to the checkpoint. BNSF submits a bill to Amtrak for incentive payments based on this analysis. See Appendix II for a summary of our analysis.

Many Billing Errors Went Undetected

The department responsible for reviewing host railroad invoices performed only a cursory review of BNSF invoices before paying them. During its review, if Amtrak disagreed with any portion of the invoice, it made adjustments to the invoice and reduced or increased the payment by the amount of the error. Table 2 shows that from May 2002 through June 2006, Amtrak made adjustments to BNSF invoices for seven of the 50 months reviewed, saving Amtrak \$41,533. While Amtrak did detect over \$40,000

⁵ Tolerances are allowances given to the host railroad for delay minutes that permit an Amtrak train to be late at a checkpoint and still be considered on time so the host railroad can earn performance incentives.

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in overbilling by BNSF over 50 months, it did not detect over \$9.1 million in overbillings during the same period. See Appendix II for a summary of our analysis.

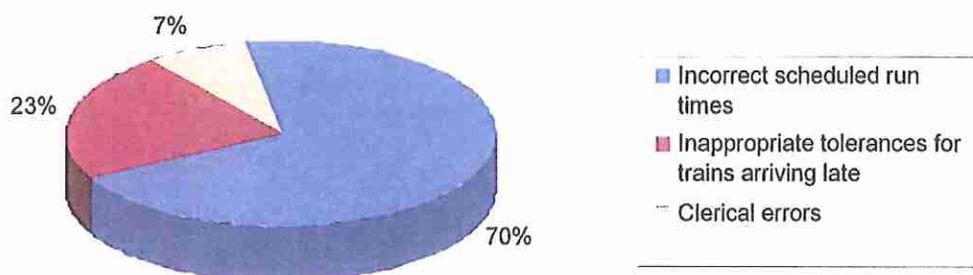
Month	Increased (Reduced) Invoice
January 2003	(\$3,976)
August 2003	(8,208)
September 2003	(8,218)
October 2003	(19,521)
January 2004	20,276
February 2005	(21,447)
September 2005	(439)
Total	(\$41,533)
<i>Source: Amtrak OIG analysis of BNSF and Amtrak data for the period May 1, 2002 through June 30, 2006</i>	

As shown in Figure 1, the inaccurate invoices resulted from three categories of calculation errors: (1) incorrect scheduled run times, (2) claims for inappropriate tolerances for trains arriving late, and (3) clerical errors. The following sections discuss the three error categories based on the percentage of total occurrences (not the amount overbilled).⁶

⁶ The amount overbilled for an individual error category could not be determined in all instances for two reasons: First, more than one error category resulted in making the train late; therefore, we could not determine which error category was responsible for the overcharges. Second, the BNSF invoices contained enough errors to result in an OTP percentage below █ percent for the month. Performance payments are not earned for OTP below █ percent based on the operating agreement. In this scenario, it is not possible to determine which days were responsible for the overcharges.

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**Figure 1. Three Error Categories by Percentage of Occurrences,
 May 2002–June 2006**



Source: Amtrak OIG analysis of BNSF and Amtrak data for the period May 1, 2002 through June 30, 2006

Invoices Contained Incorrect Scheduled Run Times

BNSF used scheduled run times other than those contained in the signed amendment agreement changes (AACs); this practice caused about 70 percent of the errors. The September 1996 operating agreement, appendix V, item A—*Performance Calculation* states:

For purposes of this Appendix V, the scheduled arrival time at a checkpoint on the BNSF for a particular train shall be determined by adding the amount of Scheduled Time From Origin⁷ for that train shown in Table 1 to the scheduled departure time for such train from the Origin point on the BNSF identified in Table 1.

We calculated the OTP incentives based on the scheduled run time from the signed AACs effective April 29, 2002 through April 24, 2006. The run time inaccuracies in the BNSF invoices are detailed in Table 3. As shown below, these run time errors were not identified for up to 2 years during the audit period.

⁷ The scheduled time from origin is also referred to as the scheduled run time and is equal to the amount of time (in minutes) it takes for the train to travel between checkpoints.

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Table 3. Inaccurate Run Times, November 2002–June 2006
 (in minutes)

Train Name	Train Number	Route	Run Time per BNSF Invoice	Run Time per AAC	Variance in Minutes	Time Period Variance Resulted in Overstated Invoices
Texas Eagle	21	Fort Worth–Opal Junction, TX	█	█	10	Nov 2002–Sep 2003
	22	Opal Junction, TX–Fort Worth	█	█	12	Nov 2002–Sep 2003
Heartland Flyer	821, 822	Oklahoma City–Fort Worth Fort Worth–Oklahoma City	█	█	8	Jan 2004–Jun 2006
Coast Starlight	11	Seattle–Portland, OR	█	█	16	Jul 2004–Jun 2006
Cascades	513	Bellingham, WA–Seattle	█	█	5	Jul 2003–Oct 2003
	500, 501, 503, 506-508	Portland, OR–Seattle	█	█	23	Jul 2004–Jun 2006
	509	Seattle–Portland, OR	█	█	26	Jul 2004–Jun 2006
	516	Seattle–Bellingham, WA	█	█	5	Jul 2004–Jun 2006
	701	Bakersfield, CA–Stockton, CA	█	█	14	Jul 2004–Apr 2005
San Joaquins	703	Bakersfield, CA–Stockton, CA	█	█	14	Jul 2004–Apr 2005
	711	Bakersfield, CA–Port Chicago, CA	█	█	11	Jul 2004–Apr 2005
	713	Bakersfield, CA–Port Chicago, CA	█	█	10	Jul 2004–Apr 2005
	715	Bakersfield, CA–Port Chicago, CA	█	█	6	Jul 2004–Apr 2005
	717	Bakersfield, CA–Port Chicago, CA	█	█	13	Jul 2004–Apr 2005

Source: Amendment Agreement Changes to the 1996 operating agreement and Amtrak OIG analysis of BNSF and Amtrak data for the period November 1, 2002 through June 30, 2006

Table 4 illustrates four examples of the dollar impact⁸ of using inaccurate run times. These examples show the impact one error can have on invoices.

Table 4. Examples of the Dollar Impact of Using Inaccurate Run Times, June 2006 (in minutes)

Train Number	Run Time per BNSF Invoice	Run Time per AAC	Variance (Minutes)	Invoice Overstatement Amount
11	█	█	16	\$14,334
506	█	█	23	27,076
509	█	█	26	29,702
822	█	█	8	16,390

Source: Amtrak OIG analysis of BNSF and Amtrak data, effective as of June 2006

⁸ The amount of overstatement in the invoice could be determined for these four trains because the inappropriate scheduled run time was the only error category affecting the OTP incentives for the trains during this month.

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We concluded that BNSF used incorrect run times for two reasons: it failed to adjust the invoice based on changes made to new AACs and, more commonly, it erroneously added the number of minutes shown in the "Additional Recov. Time" (ART) column in appendix V, table 1, of the AAC to the scheduled run time.

According to the senior director of Amtrak's Host Railroad Department on January 4, 2011, ART should not be considered as an addition to the scheduled run time, and this column is not to be used for OTP calculations. The column is there to show that a change was made to the scheduled run time, but the changes were already reflected in the run time shown in the "Scheduled Time From Origin" column.

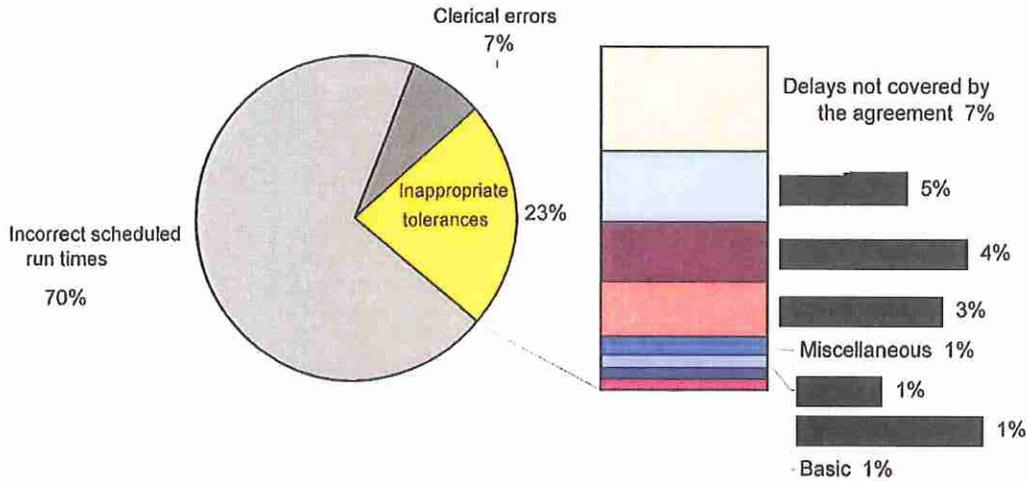
The run time errors went undetected by Amtrak due to weaknesses in its invoice-review process.

Invoices Contained Claims for Inappropriate Tolerances for Trains Arriving Late

For about 23 percent of the errors, BNSF claimed inappropriate tolerances for trains arriving late. Tolerances are allowances given to the host railroad for delay minutes incurred by Amtrak trains but that still allow the host railroad to earn performance incentives. Figure 2 details the error categories for invoices claiming inappropriate tolerances.

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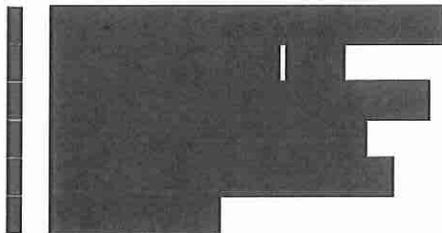
Figure 2. Error Categories for Invoices Claiming Inappropriate Tolerances, May 2002–June 2006



^a Station dwell is defined as the number of minutes the train is stopped at the station, usually for loading or unloading passengers, crew, or baggage.

Source: Amtrak OIG analysis of BNSF and Amtrak data for the period May 1, 2002 to June 30, 2006

BNSF claimed tolerances for delays that were not allowed by the operating agreement. The most recent invoices reviewed, January through June 2006, contained the following claimed tolerances that were not contained in the operating agreement:



⁹ The Code of Federal Regulations (49 CFR Part 238.5) defines a private car as rail rolling equipment that is used only for excursion, recreational, or private transportation purposes. A private car is not a passenger car.

¹⁰ If the tracks are not aligned in the direction of the Amtrak train’s route, the Amtrak train crew must stop the train and line a switch.

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For example, for Train 3 on February 1, 2006, BNSF's invoice showed a [REDACTED]-minute tolerance for [REDACTED]. However, the operating agreement does not list this situation in appendix V and it does not allow a tolerance for delays attributable to [REDACTED]. The [REDACTED]-minute tolerance should not have been used and the correct calculation showed the train arrived at the checkpoint 32 minutes late. This invoice error resulted in an overpayment of over \$10,000.

In another example, for Train 4 on March 25, 2006, BNSF's invoice showed a [REDACTED]-minute tolerance for [REDACTED]. Appendix V does not allow a tolerance for delays attributable to [REDACTED]. The [REDACTED]-minute tolerance should not have been used, and the correct calculation showed the train arrived at the checkpoint 8 minutes late. This invoice error resulted in an overpayment of over \$9,000.

BNSF's claims for inappropriate tolerances went undetected because of Amtrak's inadequate invoice-review process. Amtrak should not allow claims for tolerances that are not contained in the agreement because the scheduled run times contained in the signed AACs include [REDACTED] [REDACTED] are referred to as recovery time; i.e., to recover the minutes of delay encountered during the trip. According to Amtrak's Director of Scheduling, recovery time is generally [REDACTED].

Appendix V of the agreement states "There will be no other allowable delays or tolerance in determining whether a train is on-time or late." Therefore, based on the agreement, we identified these claims for tolerances as errors resulting in overpayments.

Additionally, BNSF invoices contained inappropriate [REDACTED] tolerances. According to appendix V of the agreement, BNSF is allowed to claim [REDACTED]

[REDACTED] It also states [REDACTED]

¹¹ Pure run time is the amount of time required to operate the train at authorized track speeds without delay, including acceleration and deceleration for curves or station stops, from one checkpoint to the next.

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We calculated the allowed [redacted] tolerance for a segment between checkpoints using the net amount of time the actual [redacted] times exceeded the allowed [redacted] time less any early arrival time. We found instances in which BNSF did not net the amount of time and in which it failed to deduct time for early arrival.

For example, for Train 5 on April 29, 2006, BNSF's invoice showed an [redacted]-minute tolerance for a station stop at Ottumwa, IA. The train was scheduled to arrive in Ottumwa at 6:37 p.m.; however, it arrived at 6:30 p.m., 7 minutes early. The train departed the station at 6:47 p.m. for a total [redacted] minutes. As shown in Table 5, we calculated an allowed [redacted] [redacted] This error resulted in an overpayment of almost \$7,000 to BNSF.

**Table 5. Example of a [redacted] Calculation Error
 (Train 5, April 29, 2006)**

Station	Scheduled Arrival Time (p.m.)	Actual Arrival Time (p.m.)	Departure Time (p.m.)	(in minutes)			OIG-Determined Allowed	Invoice Showed & BNSF Claimed
Ottumwa, IA	6:37	6:30	6:47	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

^b [redacted] are detailed in appendix V, table 2, of the operating agreement.

Source: Amtrak OIG analysis of BNSF and Amtrak data

Invoices Contained Clerical Errors

Clerical errors caused about 7 percent of the overstated invoice errors. The most common type of clerical error, about 5 percent of the total, was BNSF's using the incorrect checkpoint performance rate¹² to calculate performance payments. BNSF also calculated the OTP incentive payments based on incorrect train arrival and departure times.

In May 2006, BNSF's invoice for Train 7 at Spokane showed that OTP incentive payments were calculated based on the checkpoint performance rate of \$ [redacted]. We calculated the performance payments based on the checkpoint performance rate of \$ [redacted], as indicated in the applicable AAC. As shown in Table 6, BNSF used the

¹² The checkpoint performance rate is also referred to as the trip performance rate in appendix V, table 1 (as shown in Appendix IV of this report). These rates are used to calculate OTP performance payments.

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checkpoint performance rate effective July 1, 2005 to calculate the May 2006 performance payment, instead of the rate effective May 1, 2006. This error was made in three of the four segments for Train 7, resulting in overpayments of almost \$12,000.

**Table 6. From Appendix V, Table 1, Train 7
 From the AAC effective April 24, 2006**

Train No	Origin	Arrival Time	Departure Time	Scheduled Time From Origin	Trip Performance Rate (TPR) eff 7/1/05 (\$)	TPR Effective 5/1/06 for Extended Summer Schedules (\$)
7/27	Minneapolis	8:31	8:51			
		17:17	17:22			
		1:40	2:15			
		10:20	2:45			
		10:25				

Source: Appendix V, table 1 of the AAC effective April 24, 2006

In another example, on April 16, 2006, BNSF inaccurately calculated the on-time-performance for Train 517 based on the train's arrival in Seattle at 2023 hours (8:23 p.m.). The Amtrak Delay Report for this train shows it arriving in Seattle at 2223 hours (10:23 p.m.). The accurate calculation would have used the 2223 hours arrival time, showing the train as late.

PROGRESS BEING MADE TO DEVELOP A PROCESS FOR THOROUGHLY REVIEWING INVOICES

Weaknesses in the invoice-review process have been long-standing, but over the last year, Amtrak has made progress in addressing the issue. Weaknesses in oversight and controls for reviewing invoices were the main causes of overpayments to BNSF. In August 2008, we pointed out¹³ that Amtrak's management controls over the review of invoices were inadequate and ineffective, and that host railroads had consistently overbilled Amtrak. We made recommendations to improve Amtrak's invoice-review process. Since March 2010, we have reported that Amtrak overpaid three host railroads

¹³ Host RRCA & Operations Management Controls (OIG Audit Report 401-2008, August 21, 2008).

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for OTP incentives.¹⁴ In all three reports, we concluded that the company had not taken adequate steps to improve its management controls and review process for these invoices. In response to the March 2010 report, Amtrak agreed to apply additional resources and establish a process to thoroughly review invoices for OTP incentives and other costs before making payments. It also provided us with a plan showing tasks to be completed, with milestone dates. The invoice-review process was to be completed by December 31, 2010, but the original milestone dates were not met. Amtrak revised its goal and expected improvements to the invoice-review process to be complete by the end of December 2011. However, that goal was also not met.

These missed milestones are not without other progress. Over the last year, Amtrak has made progress in addressing our recommendations. The Law Department is actively working to negotiate settlements on overpayments we identified. The Host Railroad Invoice Administration group was established and has started reviewing selected invoices using a limited set of factors, which are documented in eTrax.¹⁵ In at least one case, the group has withheld payment on an invoice where errors were identified. Also, according to a senior director in the Finance Department, a policy and procedures manual for the Host Railroad Invoice Administration group is currently being drafted. Further, Finance Department officials continue to work with the IT Department to develop reports to facilitate the review and have met with us to discuss business practices for reviewing invoices. Additional activities include creating an e-mail box for streamlined routing of communications, invoices, and supporting documentation; and developing a monthly invoice-review checklist detailing invoice-review procedures.

To fully address our prior recommendations, Amtrak has committed to improving its process to perform complete and thorough reviews of all host railroad invoices prior to approving them for payment. Specifically, Amtrak plans to develop policies and procedures for reviewing all invoices, create job aids detailing audit procedures and required supporting documentation to facilitate invoice processing, level out responsibilities among Host Railroad Invoice Administration officers, cross-train

¹⁴ *CSX On-Time-Performance Incentives: Inaccurate Invoices and Lack of Amtrak Management Review Lead to Overpayment* (OIG Audit Report 406-2005, March 30, 2010); *BNSF On-Time-Performance Incentives: Inaccurate Invoices and Lack of Amtrak Management Review Lead to Overpayments* (OIG Audit Report 407-2003, September 24, 2010); and *On-Time-Performance Incentives: Inaccurate Invoices were Paid Due to Longstanding Weaknesses in Amtrak's Invoice-Review Process* (OIG Audit Report 403-2010, April 21, 2011).

¹⁵ eTrax is a software system, used by Amtrak, to document the receipt, approval, and payment of invoices.

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officers, develop a training program, and take action to collect the outstanding overpayments identified in prior audit reports. The senior director informed us that a major hurdle that Amtrak deals with is that the contract agreement and amendment agreement changes are not up to date.

Over time, we have identified approximately \$36 million in overpayments and potential recoveries for audit periods ranging between 1993 and 2006, including over \$9.1 million in this report. The \$36 million includes at least \$5.7 million in overpayments that have already been collected. This significant amount of overpayments affects Amtrak's cash flow and ability to effectively manage its activities. Further, these funds, had they been available, might have been used in other areas or to reduce reliance on federal subsidies.

CONCLUSIONS

Amtrak made over \$9 million in overpayments on invoices reviewed during this audit. This occurred due to weaknesses in the invoice-review process. However, over the last year, Amtrak has made progress in improving its capabilities for reviewing host railroad invoices. Until these process improvements are completed and successfully implemented, the company remains at risk of making overpayments that negatively impact its cash flow and that cause the company time and resources to recover. Consequently, Amtrak's continued focus on improving and developing its full capabilities remains key. We are encouraged by the progress that has been made and the plans that are in place for further actions. Accordingly, we are not making any new recommendations for improving invoice-review capabilities at this time. We will continue to monitor Amtrak's progress in this area.

RECOMMENDATION

We recommend that Amtrak's Chief Financial Officer take action to recover the \$9,151,451 that Amtrak overpaid BNSF Railway in OTP incentives.

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MANAGEMENT COMMENTS AND OIG RESPONSE

In commenting on a draft of this report, management agreed with our recommendation and committed to tasking the Managing Deputy General Counsel, on behalf of Amtrak's Transportation and Finance Departments, with pursuing any amounts that are recoverable under the law and within the terms of the operating agreement between Amtrak and BNSF. We support this approach. Additionally, we made technical changes to this final report to incorporate the most recent information on progress in improving the invoice-review process.

Amtrak's letter commenting on the draft report is reprinted as Appendix V.

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Appendix I

SCOPE AND METHODOLOGY

This report provides the results of an Amtrak OIG review to (1) determine whether BNSF Railway complied with the operating agreement in calculating on-time-performance incentives invoiced to Amtrak from May 2002 through June 2006, and (2) evaluate the adequacy of Amtrak's controls and processes for reviewing on-time-performance incentive invoices. We conducted this audit between September 2007 and December 2011 in Chicago and Washington, D.C. We provided a draft of this report to Amtrak management on April 28, 2011, and requested a written response within 30 calendar days. Amtrak requested and we approved extensions to the comment period to avoid any negative impact on ongoing negotiations for overpayments that we identified in a previous audit report issued in September 2010, *BNSF On-Time-Performance Incentives*, report number 407-2003. Also during that time, we updated our information on progress in improving the invoice-review process.

To determine whether BNSF complied with the operating agreement in calculating on-time-performance incentives, we reviewed the operating agreement and its amendments, focusing on sections that relate to the billing of OTP incentive payments. We also obtained Amtrak delay reports for analysis of OTP incentives claimed, reviewed the detailed support of OTP invoices submitted to Amtrak, and compared Amtrak delay reports with BNSF OTP detail data, including departure and arrival times, tolerances claimed, delay minutes, and reasons for delays. Further, we compared OTP invoices with all available supporting documentation and compared the checkpoint performance rate used to calculate OTP incentive payments with the applicable AAC. Lastly, we calculated the overbilled and/or underbilled amounts resulting from inaccurate BNSF invoices and communicated with host railroad groups for interpretation of agreement provisions.

The audited amount totaled nearly \$55 million in OTP incentives billed to Amtrak for the 50-month audit period from May 1, 2002 through June 30, 2006. The operating agreement that was applicable during the audit period was effective September 1, 1996. The agreement was further amended through Amendment Agreement Changes. We reviewed and used this agreement as the basis for determining the

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accuracy and validity of BNSF's monthly invoices for OTP incentives and to verify the compliance of BNSF invoices with appendix V of the operating agreement with Amtrak.

To evaluate the adequacy of Amtrak's controls and processes for reviewing on-time-performance incentive invoices, we reviewed our prior audit reports 407-2003 (regarding OTP incentive payments) and 401-2008 (regarding management's internal controls), reviewed adjustments to BNSF invoices made by Amtrak, and communicated with a senior director in the Finance Department to obtain an update on progress made in reviewing the bills before payment.

Our work was performed in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Use of Computer-processed Data

To achieve the assignment's objective, we used computer-processed data contained in Amtrak's electronic records of BNSF invoices. To test the validity of the data, we compared Amtrak's electronic data with BNSF's hard-copy invoices. We also compared total amounts paid on the electronic invoices against the total amounts paid in Amtrak's accounts-payable system for all 50 sample months. The data in the accounts payable system were not verified, but we consider the data sufficiently reliable for purposes of the audit objective. Based on these tests, we conclude that the data are sufficiently reliable to be used in meeting the assignment's objective.

Internal Controls

As discussed in the report, we updated Amtrak's progress in improving its controls and processes in its review of monthly invoices. However, we did not review BNSF's internal control structure; rather, we performed and relied on substantive testing to determine the dollar amount attributable to errors invoiced by BNSF. In addition, we did not assess Amtrak's internal controls in its monthly invoice reviews; however, our analysis indicated that weaknesses still exist.

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Prior Audit Review

We reviewed the following prior OIG audit reports, which identified control weaknesses and significant dollars associated with Amtrak's on-time-performance incentive payments. We used information from those reports in conducting our analysis of issues.

On-Time-Performance Incentives: Inaccurate Invoices were Paid Due to Longstanding Weaknesses in Amtrak's Invoice-Review Process (Amtrak OIG Audit Report No. 403-2010, April 21, 2011). Over \$500,000 in overpayments found.

BNSF On-Time-Performance Incentives: Inaccurate Invoices and Lack of Amtrak Management Review Lead to Overpayments (Amtrak OIG Audit Report No. 407-2003, September 24, 2010). Over \$1 million in overpayments found.

CSX On-Time-Performance Incentives: Inaccurate Invoices and Lack of Amtrak Management Review Lead to Overpayments (Amtrak OIG Audit Report No. 406-2005, March 30, 2010). Over \$20 million in overpayments found.

Host RRCA & Operations Management Controls (Amtrak OIG Audit Report No. 401-2008, August 21, 2008).

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Appendix II

***OIG Analysis of Monthly BNSF Invoices,
 May 2002–June 2006***

Year	Month	Amtrak-paid Amount	OIG-determined Correct Amount	Over-paid Amount	
2002	May	\$1,653,875	\$1,566,116	\$87,759	
	Jun	1,395,273	1,326,878	68,395	
	Jul	1,450,204	1,377,117	73,087	
	Aug	1,353,148	1,257,693	95,455	
	Sep	1,639,409	1,592,590	46,819	
	Oct	2,018,588	1,989,236	29,352	
	Nov	1,591,396	1,520,855	70,541	
	Dec	1,666,784	1,580,911	85,873	
	2003	Jan	1,773,808	1,729,030	44,778
		Feb	1,538,603	1,455,410	83,193
		Mar	1,374,583	1,269,456	105,127
		Apr	1,281,131	1,202,188	78,943
May		1,567,752	1,539,802	27,950	
Jun		1,381,163	1,348,833	32,330	
Jul		1,037,921	914,211	123,710	
Aug		1,040,770	836,269	204,501	
Sep		1,272,450	1,202,982	69,468	
Oct		1,118,004	1,019,146	98,858	
Nov		699,167	596,766	102,401	
Dec		1,099,311	995,205	104,106	
2004	Jan	543,617	456,662	86,955	
	Feb	776,710	676,476	100,234	
	Mar	1,128,028	1,042,475	85,553	
	Apr	1,428,329	1,365,247	63,082	
	May	1,183,145	608,836	574,309	
	Jun	873,040	575,522	297,518	
	Jul	828,353	548,882	279,471	
	Aug	661,546	371,330	290,216	
	Sep	1,380,638	1,163,039	217,599	
	Oct	1,553,913	1,189,758	364,155	
	Nov	1,261,868	786,186	475,682	
	Dec	1,315,886	837,611	478,275	

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Year	Month	Amtrak-paid Amount	OIG-determined Correct Amount	Over-paid Amount
2005	Jan	782,367	460,427	321,940
	Feb	876,492	584,129	292,363
	Mar	621,937	278,173	343,764
	Apr	805,622	495,212	310,410
	May	1,159,887	1,013,668	146,219
	Jun	1,219,472	1,075,238	144,234
	Jul	868,669	732,253	136,416
	Aug	585,618	407,622	177,996
	Sep	977,145	766,230	210,915
	Oct	894,564	750,807	143,757
	Nov	469,834	341,489	128,345
	Dec	588,512	410,750	177,762
2006	Jan	805,139	573,695	231,444
	Feb	269,526	61,618	207,908
	Mar	724,996	564,677	160,319
	Apr	881,064	535,514	345,550
	May	1,024,938	637,777	387,161
	Jun	543,557	204,304	339,253
Total		\$54,987,752	\$45,836,301	\$9,151,451

Source: Amtrak OIG analysis of BNSF and Amtrak data for the period May 1, 2002 through June 30, 2006

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Appendix III

TOLERANCES

We used the following criteria from the performance payments and penalties provision of the operating agreement to calculate OTP incentives for Amtrak trains operating over BNSF routes:

Tolerance	Description
(a)	A basic tolerance ¹⁶ at each checkpoint.
(b)	The amount of time a train [REDACTED] For purpose of this provision, [REDACTED]
(c)	The net amount of time by [REDACTED] [REDACTED] The amount of time [REDACTED]
(d)	The amount of time by which [REDACTED]
	(1) The amount of time a train [REDACTED]
	(2) The amount of time a train [REDACTED]
	(3) The amount of time a train [REDACTED]
	(4) The amount of time a train [REDACTED]
(e)	The amount of time specified in appendix V, table 4, [REDACTED]

¹⁶ Basic tolerance is generally [REDACTED] or [REDACTED] minutes as specified in appendix V., table 1 of the operating agreement.

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(f)	[REDACTED] the amount of time [REDACTED]
(g)	The amount of time, [REDACTED]
(h)	[REDACTED] the amount of time [REDACTED]
(i)	[REDACTED] the amount of time [REDACTED]
(j)	The amount of time [REDACTED]
(k)	The amount of [REDACTED]
For purposes of items (b) through (k) above, [REDACTED]	
There will be no other allowable delays or tolerance in determining whether a train is on-time or late, except as provided in [REDACTED]	

Source: BNSF's Operating Agreement with Amtrak, September 1, 1996, and subsequent Amendment Agreement Change records from September 1, 1996, through April 24, 2006

¹⁷ Appendix V, item 2, refers to maintenance of way work. It allows BNSF to purchase up to [REDACTED] minutes in additional tolerances at a checkpoint in return for [REDACTED]

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Appendix IV

TABLE 1, APPENDIX V, OF THE OPERATING AGREEMENT
(PAGE 1)

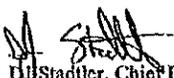
BNSF
Appendix V, Table 1
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Train No	Departure Time	Arrival Time	Checkpoints	Scheduled		Recovery Time	Basic	Additional	Allowed	Trip(s) (1/25)	TPR Effective	Item 10
				Departure Time	From							
	Origin			Time	Origin	Base	Recovery	(App V/E)	Days	(%)	Schedule	Train Miles
3												
4												
6												
6												
707												
26												
8												
11												
14												
21												
22												
347												
348												

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Appendix V

COMMENTS FROM AMTRAK'S FORMER CHIEF FINANCIAL OFFICER

<p>NATIONAL RAILROAD PASSENGER CORPORATION 60 Massachusetts Ave., N.E., Washington DC 20002</p>	
<p>Memo</p>	
<p>Date August 26, 2011</p>	<p>From  DJ Stadler, Chief Financial Officer</p>
<p>To David Warren, Assistant Inspector General, Audits</p>	<p>Department Finance</p>
	<p>Subject On-Time Performance Incentives</p>
	<p>cc Richard Phelps, Vice President, Transportation Paul Vilter, Assistant Vice President, Host Railroads William Herrmann, Managing Deputy General Counsel Jessica Scritchfield, Senior Director, Internal Controls Audit</p>
<p>This letter is in response to the Office of Inspector General's ("OIG") draft audit report number 401-2010 "On-Time Performance Incentives: Inaccurate Invoices Were Paid Due to Longstanding Weaknesses in Amtrak's Invoice-Review Process," dated April 28, 2011.</p> <p>In response to the draft report, Management concurs with the OIG's recommendation to take action to recover amounts with respect to overpaid on-time performance payment incentives and is currently reviewing and analyzing OIG's records on which the findings of the draft report are based. With this information, the Managing Deputy General Counsel, on behalf of Amtrak's Transportation and Finance Departments, will pursue any amounts that are recoverable under the law and within the terms of the applicable September 1, 1996 Operating Agreement between Amtrak and BNSF, as amended.</p> <p>Management remains strongly committed to improving the company's invoice review process and has completed several stages of a very significant project. Due to the size and scope of the required project, an exact timeline or governing completion date has not been determined. However, Management is aware of the importance of the subject improvements.</p> <p>In continuation of Amtrak's move to enhance organizational support of its host railroads billing operations, in addition to the March 2009 realignment of the Host Railroads Group to the Transportation Department, a new Host Railroads Contract Compliance group has since been added to Transportation. Further, a Host Railroads Invoice Administration group ("HRR Invoice Administration") has been added to the Finance Department as a dedicated resource to overseeing the improvement effort. Reinforcing the separation of all of these duties associated with Amtrak's host rail operations will facilitate a more effective invoice review process.</p>	

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To date, all of the following have been accomplished under Amtrak's invoice-review process improvement plan:

- Contracted with outside information technology consultant to review Amtrak's current review process
- Hired two additional Host Railroad Invoice Administration Officers
- Hired a Host Railroad Invoice Administration Manager
- Created a separate on-time performance penalty general ledger account for financial reporting
- Defined payment process for entry into Amtrak's general billing system during the month-end close and reduced non-entry time to one day
- Documented Amtrak's Special Relief Request Policy
- Gained access to all Authorization Notice (AN) logs
- Updated summary of periodic cost index increases by Host Railroads to facilitate review and approval of invoices and accrued expenses
- Created a Host Railroad Invoice Administration e-mail box for streamlined routing of communications, invoices and supporting documentation
- Strengthened policies relating to submission of supporting documentation and communicated such to Host Railroads
- Developed a monthly invoice audit checklist detailing audit procedures and required supporting documentation to facilitate accurate invoice processing.
- Increased scope of each railroad invoice audit

The following represents additional steps scheduled into Amtrak's plan for an improved invoice-review process:

- Develop policies and procedures for reviewing all invoices to include increased focus on on-time performance incentives, incremental track maintenance, special trains, relief requests, special work requiring authorization notices, etc.
- Level out responsibilities between Host Railroad Invoice Administration Officers, cross-train Officers, and develop and execute an Officer training program
- Create job aids detailing audit procedures and required supporting documentation to facilitate invoice processing
- Develop electronic reports to allow comparison and analyses of on-time performance, mileage, and checkpoint data
- Re-evaluate current operating agreements and execute agreement amendment changes, as appropriate, to clarify certain contract provisions
- Make ANs an electronic process

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Appendix VI

ABBREVIATIONS

AAC	amendment agreement change
BNSF	BNSF Railway
CA	California
IA	Iowa
IL	Illinois
LA	Louisiana
OIG	Office of Inspector General
OR	Oregon
OTP	on-time-performance
TPR	trip performance rate
TX	Texas
WA	Washington

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Appendix VII

OIG TEAM MEMBERS

David R. Warren	Assistant Inspector General, Audits
Dan Krueger	Senior Director, Audits
Jana Brodsky	Senior Auditor
Satish Parikh	Senior Auditor
Raymond Zhang	Senior Auditor
Rich Bohne	Audit Manager

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OIG MISSION AND CONTACT INFORMATION

Amtrak OIG's Mission	<p>The Amtrak OIG's mission is to</p> <ul style="list-style-type: none"> ▪ conduct and supervise independent and objective audits, inspections, evaluations, and investigations relating to agency programs and operations; ▪ promote economy, effectiveness, and efficiency within Amtrak; ▪ prevent and detect fraud, waste, and abuse in Amtrak's programs and operations; ▪ review security and safety policies and programs; and ▪ review and make recommendations regarding existing and proposed legislation and regulations relating to Amtrak's programs and operations.
Obtaining Copies of OIG Reports and Testimony	Available at our website: www.amtrakoig.gov .
To Report Fraud, Waste, and Abuse	<p>Report suspicious or illegal activities to the OIG Hotline (you can remain anonymous):</p> <p>Web: www.amtrakoig.gov/hotline Phone: 800-468-5469</p>
Congressional and Public Affairs	<p>E. Bret Coulson, Senior Director Congressional and Public Affairs</p> <p>Mail: Amtrak OIG 10 G Street, N.E., 3W-300 Washington, D.C. 20002</p> <p>Phone: 202.906.4134 Email: bret.coulson@amtrakoig.gov</p>