

## **Intercity Rail Vehicle Maintenance and Overhaul Report Fiscal Year 2009/10**

Item 2660-001-0046 of the Supplemental Report of the Budget Act of 2008 requires the California Department of Transportation to report annually to the Legislature on the maintenance and overhaul work performed and planned for the fleet of state-owned rail vehicles.

The total amount requested for rail equipment maintenance and overhaul in the proposed Fiscal Year (FY) 2009/10 budget is \$13,210,357. This figure represents a one-time increase of \$7,399,364 over the annual baseline equipment overhaul budget of \$5,810,993.

The proposed budget is based on the following scheduled overhaul costs:

Coach and cab cars:	\$6,876,498
Surfliner Car overhaul	
Exterior repaint	
Heating Ventilation and Air Conditioning overhaul	
Passenger information system	
Replace Defective Systems on California Cars	
Food service cars:	\$744,994
Interior refit	
Chiller replacement	
Locomotives:	\$4,496,865
F59PHI Overhaul	
Oversight Support (equipment overhaul program):	\$1,092,000
Consultant support	
Staff costs	
Travel costs	

Rail equipment scheduled overhaul activities are determined by equipment manufacturer recommendations, Federal Railroad Administration (FRA) requirements, and accepted industry standards for maintaining rail equipment. Planned equipment maintenance and overhaul is required in order to protect the State's investment in rail rolling stock, and to maintain equipment reliability and availability for revenue service. Failure to maintain the rolling stock per the recommended schedule will increase maintenance and operating costs due to component failures, and result in increased equipment being withheld from service.

The major rail equipment overhaul activities scheduled for FY 2009/10 includes:

**Surfliner Car Overhaul** – The 22-car Surfliner fleet was purchased in 2001/02. Periodic maintenance requires regular overhaul every eight years. To maintain equipment reliability and availability, and comply with FRA guidelines that ensure passenger safety, the Surfliner car fleet is scheduled for a complete overhaul starting in FY 2009/10.

**F59PHI Locomotive Overhaul** – The locomotive rebuild program will maintain reliability by performing overhaul activities as prescribed by the locomotive manufacturer and accepted rail industry standard for an eight-year locomotive overhaul cycle. This overhaul program will replace and upgrade worn and marginal engines, main generators, running gear and related equipment, extending the useful life of this locomotive fleet for another eight years.

**Exterior Repaint** – The rail car fleet needs periodic repainting due to the deteriorating effects of age, weathering, and other damage from debris and accidents. Repainting of rail cars is contracted separately from scheduled overhaul contracts. Repainting the cars will extend the useful life of the cars by application of a protective coat of paint, and will bring the exterior of the cars up to current standards for high-visibility safety striping and decals.

**Food Service Car Interior Refit** – The interior fabrics and floor materials on the 14 California Food Service Cars are worn and in need of replacement. These worn materials increase maintenance costs, as it is more labor-intensive to clean cars with worn interiors, and present a shabby and unappealing appearance to passengers. This interior refit will replace fabrics such as seat upholstery, wainscot fabric and carpet, and will install new flooring in vestibules, passageways and toilet rooms.

Activities begun in FY 2008/09 and partially funded with proposed FY 2009/10 funds include:

**Heating Ventilation and Air Conditioning (HVAC) Overhaul** – The recommended overhaul cycle for HVAC systems is every six years. The last periodic overhaul of the HVAC system was in the 2000/01 year. The refrigerant currently used in the HVAC units will be withdrawn from the market by the Environmental Protection Agency in 2012, so the units will have to be rebuilt to the new system requirements. The current systems are unreliable and have exceeded their useful life.

**On-Board Passenger Information System** – The Passenger Information System is an on board electronic messaging system that transmits information to passengers about train routes, scheduled stops, passenger safety and other related information. The existing system is no longer compliant with the requirements of the Americans with Disabilities Act (ADA). The new system is capable of visual and audible dissemination of passenger information per ADA and FRA regulations, and is also expandable to include wireless Internet and electronic purchasing of tickets and food service.

**Food Storage Chiller Replacement** – Perishable food sold on trains must be stored at Food & Drug Administration mandated temperatures to prevent spoilage. The food storage chillers on the 14 California Food Service Cars are unreliable and have exceeded their useful life.

Replacement of the chiller units is more cost-effective than rebuilding the existing units, and will reduce food condemnation costs. New chiller systems will have design upgrades to improve efficiency and maintainability.

Replace Defective Systems on California Cars – Substandard work performed by the original California Car overhaul contractor resulted in incomplete and problematic work that needs repair or replacement. The funds will finish incomplete work and correct deficiencies on safety-related systems such as doors and wheelchair lifts. Failure to complete this overhaul work will reduce equipment reliability, increase costs of maintenance and operation, and potentially cause equipment to be removed from service due to safety concerns.

Attachment A includes expenditures for the prior three fiscal years and progress statements. Attachment B lists the estimated future costs for the next five fiscal years. Attachment C lists current outstanding equipment overhaul contracts, including the name of the contractor, the description of activities, the value of the contract, the amount paid to date, and the percent of work completed.

Attachments:

- (1) Maintenance/Overhaul Activity Prior Fiscal Year Costs – Attachment A
- (2) Maintenance/Overhaul Activity Estimated Future Fiscal Year Costs – Attachment B
- (3) Maintenance/Overhaul Activity Outstanding Contracts – Attachment C

**Maintenance / Overhaul Activity  
Prior Fiscal Years Costs  
Attachment A**

Purpose	FY 2005-06	FY 2006-07	FY 2007-08	Fiscal Year Expenditures 2005-06 thru 2007-08	Progress
Head End Power Generator (powers car utilities)	\$131,000	\$1,250,000	\$1,065,831	\$2,446,831	Completed 12 Head End Power Overhauls
Overhaul GE Locomotives			\$2,361,044	\$2,361,044	One Locomotive Overhauled
Interior Overhaul			\$7,400	\$7,400	Material Purchasing in Progress
California Car Overhaul - Siemens 65 Cars	\$8,902,555			\$8,902,555	Completed 65 Car Overhaul
Equipment Overhaul/Oversight Support	\$600,000	\$1,100,000	\$1,000,000	\$2,700,000	Continuous Engineering Oversight
<b>Total</b>	<b>\$9,633,555</b>	<b>\$2,350,000</b>	<b>\$4,434,275</b>	<b>\$16,417,830</b>	

Attachment A includes expenditures for the prior three years as required by Item 2660-001-0046 of the Supplemental Report of the 2008 Budget Act.

**Maintenance / Overhaul Activity  
Estimated Future Fical Year Costs  
Attachment B**

Purpose	2008-09	2009-10	2010-11	2011-12	2012-13	Fiscal Year Estimated Budget 2008-09 thru 2012-13
Interior Overhaul	\$1,000,000					\$1,000,000
Replace Defective Systems on California Cars	\$8,000,000	\$4,000,000				\$12,000,000
Oversight Support	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
On-board Passenger Information System	\$1,362,906	\$3,000,000	\$2,637,094	\$2,600,000		\$9,600,000
Surfliner 8 Year Overhaul (22 Cars)		\$4,600,000	\$9,000,000	\$2,400,000		\$16,000,000
F59 Locomotive Overhaul (15 Units)		\$3,000,000	\$3,000,000	\$10,500,000		\$16,500,000
Repaint Cars (88 Cars)		\$1,000,000	\$2,333,000			\$3,333,000
Replace Food Service Chillers (14 Cars)	\$650,000	\$100,000				\$750,000
Food Service Interior (14 Cars)		\$750,000				\$750,000
Overhaul HVAC ( 88 Cars)	\$1,222,496	\$2,000,000	\$2,500,000	\$1,777,504		\$7,500,000
California Car 8 Year Overhaul (66 Cars)					\$18,425,795	\$18,425,795
<b>Total</b>	<b>\$12,635,402</b>	<b>\$18,850,000</b>	<b>\$19,870,094</b>	<b>\$17,077,504</b>	<b>\$18,825,795</b>	<b>\$87,258,795</b>

Attachment B shows estimated project workload costs for the five fiscal years shown, projects are expected to be funded on cash flow basis.

**Maintenance / Overhaul Activity**  
**Outstanding Contracts**  
**Attachment C**

<b>Contract No.</b>	<b>Contractor</b>	<b>Activity</b>	<b>Value</b>	<b>Paid To Date</b>	<b>Work Completed</b>
75A0243	Peterson Power	Head End Power Generator (powers the cars)	\$2,446,831	\$880,138	75%
75A0260	PB America	Equipment Overhaul/Oversight Support	\$5,500,000	\$711,810	15%
PR62214	Kustom Seating	Seat Replacement	\$3,255,260	\$0	0%
75A0247	Amtrak	Overhaul GE locomotives (2)	\$2,361,044	\$0	0%
75A0248	Amtrak	Interior Overhaul	\$7,000,000	\$1,063	1%
75A0249	Amtrak	Superliner Rebuilds (2)	\$1,500,000	\$1,180,522	100%
75A0250	Amtrak	Superliner Rebuilds (5)	\$5,257,496	\$1,051,500	60%
<b>Total</b>			<b>\$27,320,631</b>	<b>\$3,824,833</b>	