U.S. Department
of Transportation

**Federal Railroad
Administration**

SAFETY ASSURANCE AND COMPLIANCE PROGRAM (SACP)

ACCOMPLISHMENTS FOR CY 2000

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TABLE OF CONTENTS

FEDERAL RAILROAD ADMINISTRATION
SAFETY ASSURANCE AND COMPLIANCE PROGRAM
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I. Executive Summary

Background

The Federal Railroad Administration (FRA) ensures the safety of the Nation's railroad industry through the promulgation of safety regulations and the on-site monitoring of railroad operations. The FRA directs 400 Federal inspectors in 37 offices and 160 State inspectors from 30 States who oversee more than 660railroads with more than 255,000 employees, 220,000 miles of track with 254,000 highway-rail grade crossings, 100,000 railroad bridges, 1.3 million freight cars, 20,000 freight locomotives, and 8,880 passenger locomotives, coaches, and self-powered coaches. The rapid growth of new railroads and traffic gains in recent years has increased demands on monitoring railroad industry compliance with safety regulations covering track, equipment, signals, the transportation of hazardous materials, and operating practices. Because of the limited number of Federal and State inspectors, the efficient use of these resources is critical.

The Agency traditionally relied upon site-specific inspections that focused on regulatory compliance as the primary means of safety oversight. While railroad safety had improved steadily since 1978, FRA was frustrated by the slow pace of progress. In addition, rail traffic has grown more than 50 percent since 1986. This dramatic increase significantly taxed FRA's resources and slowed the pace of safety improvements. In 1994, FRA responded to a Presidential Directive to "reinvent government" by developing a new approach to safety oversight, known as the Safety Assurance and Compliance Program (SACP).

The SACP is radically innovative because it brings a systems-analysis approach to safety oversight, provides a vehicle for the Agency to address safety issues outside the realm of regulation, and reduces the adversarial relationship that often exists between the regulator and the regulated community. Through SACP, railroad labor and management have engaged in collaborative partnerships with FRA to help identify and solve problems related to rail safety.

FRA's SACP augments traditional site-specific inspections and team inspections to help reach the Agency's performance goals. Only 5 to10 percent of FRA's resource time is allocated to SACP projects. Therefore, SACP efforts are not solely responsible for achieving the Agency's performance objectives. However, because SACP examinations look for root causes of systemic railroad problems, their success can have far reaching affects on railroad safety. For example, a site-specific inspection of a railroad signal malfunction may result in a repair order for that specific signal. A SACP multi-discipline inspection of the same railroad may uncover a systemic problem that could lead to repair orders for several hundred railroad signals.

The initial SACP used a team of FRA field and headquarters safety specialists, under the direction of a project manager, to conduct coordinated safety assessments of an entire railroad's operations. This included an historical analysis of all accident and inspection data over the most recent five-year period to determine historical trends, and large-scale site inspections in all railroad inspection disciplines to gain a firsthand look at current conditions. Also, "listening sessions" were held with railroad employees, union representatives, supervisors and managers—those most intimately involved in railroad safety to learn about their safety concerns. To foster cooperation, FRA exercised enforcement discretion regarding safety violations that are voluntarily disclosed through this process. From the information gathered, the FRA team identified systemic safety problems, which may include issues that are not subject to Federal safety regulations, and made recommendations to address root causes of the problems. FRA's findings and recommendations were presented to rail management and rail labor leaders in "Senior Management Meetings" to ensure that safety problems were brought to the attention of the company's decision makers. The railroad developed a Safety Action Plan (SAP), usually in conjunction with labor and FRA, that provided detailed corrective actions and a schedule for implementation. The FRA team monitored the implementation of the SAP and its effectiveness in solving problems.

SACP - Evolutionary Process

Since its inception, SACP has evolved. When SACP was first initiated, FRA envisioned only one type of SACP examination: the audit model. In actual use, SACP has been adopted to a variety of different environments and management cultures. Over time, FRA has identified many positive aspects of the program–what works well and what needs improvement. For example, the identification and correction of the root causes that involved employee-fatigue management (a major safety concern) and internal-process changes on the largest railroads did not lend themselves to an audit-type project.

This experience and innovative leadership by FRA, State partners, railroad management, and labor organizations resulted in gradual shifts and changes in the application of SACP. The cumulative effect was to significantly add to the depth of SACP and to the adoption of "best practices approach" to solving problems–options for correcting safety issues and program processes. The experience also helped to identify areas where changes were needed to improve the overall effectiveness of SACP.

Recent "FRA Customer" surveys show enthusiastic support for SACP. Rail labor and management agree on the safety improvement benefits of the program. While FRA continues to use the original "audit model" process for small railroads or specific facilities, a different kind of SACP review—the ongoing partnership—has become the norm for the larger railroads. Using this process with the larger railroads, FRA hopes to institutionalize the "best practices" approach and to continue to make improvements to increase effectiveness.

Systems Approach - Rectifying the Root Cause

The SACP has resulted in a more efficient handling of safety problems. For example, by using the "systems" approach to safety, a malfunctioning train signal at a specific location was traced to a software design error in the central dispatching system. In identifying and rectifying the root cause of the problem, SACP corrected potential signal problems at 400 other locations throughout the system.

Benefit of Partnership - Addressing Safety Concerns Where No Regulations Exist

By fostering collaborative partnerships, FRA has gained the cooperation of rail labor and management in addressing safety-critical issues in areas where no regulations exist. For example, a SACP investigation of a series of highway-rail grade crossing signal failures revealed inadequate training of the signal maintenance forces as the root cause. Despite the lack of regulations, mandating signal maintenance employee training, SACP participation persuaded the railroad to develop a training course for more than 140 signal employees. The result was a 60 percent decline in crossing-signal failures.

Partnership Success Story - Switching Operations Fatality Analysis (SOFA) Working Group

To eliminate train and engine service employee fatalities, FRA and 13 representatives from rail labor and management (the SOFA Working Group) conducted a detailed fact-finding review and analysis of 72 train and engine service employee fatalities that occurred between 1992 and 1998. The Working Group examined whether trends or patterns could be found, to identify "best practices," and, if possible, formulate recommendations for the entire industry based on the findings.

The SOFA Task Force published its findings in October 1999. Through the SACP process, each railroad is implementing the recommendations that benefit its safety program. The SOFA report provided specific recommendations: to improve the protection for employees adjusting draw bars or installing end-of-train devices and for employees who were being injured by equipment from other trains on adjacent tracks; to improve crew communication; and to improve the training of less experienced employees. In addition, factors contributing to SOFA accidents were identified and evaluated, and database improvements were suggested to provide a broader range of information for analysis.