

Safety Corner

What is a System Safety Program Plan?

System safety is primarily a management tool stressing systematic hazard identification and elimination or control of associated risks to a level acceptable to the managing activity through planning and an effective use of resources within the constraints of time, cost, and operational effectiveness. The success of system safety as a functioning and productive discipline depends on a structured system safety program with definitive statements of safety objectives, responsibilities, expectations, and requirements to provide assurance of a healthy system and operation. In the US, many industries have adopted the use of System Safety Program Plan (SSPP) to formalize the process in a written document.

It can be said that an SSPP is the core of a modern system safety management program as it provides a roadmap of achieving the program objective, to understand operational and contractual requirements, to ensure and track actions and activities, to coordinate all activities and parties – particularly with other activities and management, to ensure commitment from all personnel including management, supervisors and workers, and to outline the system safety management requirements that will provide and demonstrate the necessary proof of safety.

While there is no universal standard of what an SSPP should contain, the Manual for the Development of Rail Transit System Safety Program Plan developed by the American Public Transportation Association (www.apta.com) provides a checklist with the following elements for a sound SSPP:

Policy Statement and Authority for the SSPP	Description of Purpose of the SSPP	Stated Goals for the SSPP
Identifiable and Attainable Objectives	System Description and Organizational Structure	SSPP Control and Update Procedures
Hazard Identification and Resolution Process	Accident and Incident Reporting and Investigation	Maintenance Audits and Inspections
Facilities Inspections	Internal Safety Audit Process	Rule and Procedures Review
Training and Certification	Emergency Response Planning, Coordination and Training	System Modification Review and Approval Process
Review and Audit	Inter-departmental and Interagency Coordination	Drug and Alcohol Abuse Programs
Safety Data Acquisition and Analysis	Hazardous Materials Programs	Configuration Management
Employee Safety Program	Procurement	Security

Although the APTA manual is intended for rail transportation industry, its contents can be applied to almost all industries with minor adjustment.

An SSPP must be treated as a “living” document that continues to grow and change with the application agency and its services, and it must be reviewed and updated periodically to ensure that current commitments to safety are reflected. While managers can produce a grandiose SSPP but note must be taken that top management must wholeheartedly endorse the plan; otherwise, the plan can create more problems that it is intended to resolve.

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