Government
of Alberta ■

Alberta Railway

Safety

Management

System

April 30, 2010

Safety Management System Guideline for Alberta Railways

Safety Management System Introduction

Since the coming into force of the *Railway (Alberta) Act* on September 2002 there has been an exponential increase in the number of railway operating approvals issued in Alberta.

To ensure future sustainability of safe public, industrial and heritage railway operations in Alberta, the Dangerous Goods and Rail Safety branch decided the current inspection model had to be reviewed for effectiveness. The conclusion was, to provide effective oversight required a change from the current inspection model to that of an audit model. At that point it was decided a Safety Management System (SMS) should be introduced.

The concept of a Safety Management System (SMS) is not new, other regulatory bodies in Canada such as Transport Canada require companies in the marine, rail and air modes to have a SMS as part of their operating approvals. Provincially, British Columbia and Saskatchewan also require railways under their jurisdiction to have an SMS.

The *Railway (Alberta) Act,* Railway Regulations AR 177/2002 Part 1 section 4 (iv) authorizes the Railway Administrator, at his direction, to require all provincial railways to submit a SMS and plans as part of the requirement of general operating approval prior to commencement or continuation of a railway. This requirement has been there since the Act came into force in September 2002 however, it has not been enacted until now.

Over the last four months approximately 80 individuals from companies that have a railway component as part of their operation operators have been consulted to solicit their comments, as a result we believe the SMS will benefit industry ensuring safe railway operations.

Overview

The purpose of a SMS is to provide a systematic way to control risk and to provide assurance that the system is effective and provides for a high level of safety.

In some cases, this will require a culture change to ensure the SMS is effective. With a good culture, processes and structure that are directed toward the realization of potential opportunities can lead to the effective management of adverse effects on the safety of people and property.

To ensure the end result is robust, effective and will enhance railway safety it is important to develop an SMS with the participation of both management and employee. It is also equally important to involve employees in ongoing risk management, compliance auditing, and general operating procedures.

In order to ensure the proper development of the SMS, a railway operator must understand what is required by the railway regulations governing their operation and then compare this with their railway operation. From this a detailed plan must be developed and documented using the SMS guideline contained in this document.

NOTE: The SMS plan is not intended to replace or include any requirements of the Alberta Occupational Health and Safety Regulations.

Application

A railway, as part of their operating approval, must submit a SMS plan to the Railway Administrator for acceptance. The Railway Administrator or his designate will review the SMS plan to ensure the content is applicable and relevant to the requirements of a SMS plan. The Railway Administrator or his designate may request the applicant to make changes, additions or deletions to the plan prior to it being deemed acceptable.

Application Timeline

New railways must submit a SMS plan and have received acceptance of the plan from the Railway Administrator prior to receiving authority to operate.

Railways with existing operating approvals must submit a SMS plan to the Railway Administrator on or before April 01, 2011.

Safety Management System Plan Documentation

To facilitate acceptance, the SMS plan should be submitted electronically using MS Word to railsafety@gov.ab.ca with your company name and the letters "SMS" in the subject line of the email.

In addition the SMS plan must be retained on site readily and easily available to company railway staff and to a Railway Safety Officer upon request.

Operating Approvals Renewals - SMS

Future operating approval renewals will require the submission of a current company SMS with the renewal application. Submission of the SMS and operating renewal must be done 60 days prior to expiration of the operating approval.

Amendments by the Operator

Amendments may be made by the industrial railway from time to time to provide for safe operations, however, changes must not adversely affect the safety of the railway operation and must be in keeping with the intent of the SMS. If, in the opinion of the Railway Administrator, the amendments are not acceptable, the railway must make changes to ensure acceptability.

Safety Management System Plan Confidentiality

SMS plans are public documents and can be requested under the Freedom of Information Privacy (FOIP) Act, Any confidential material or information may, on written request of the railway, and with the Railway Administrator's approval, be held confidential to the extent permitted by the FOIP Act.

The personal information that you provide in the safety management system plan is collected under the authority of Section 33(c) of the *Freedom of Information and Protection of Privacy Act (RSA 2000)*. The information will be used for the purpose of administering the Rail Safety Program. If you have any questions about the collection of this information, please contact the Manager, Rail Safety, Dangerous Goods and Rail Safety Branch, Alberta Transportation at 780-415-6147 or toll free at 310-0000 and at the prompt dial 780-415-6147

Safety Management System Components

In order to ensure a clear understanding of what is required in a SMS submission the following has been developed. The sections are marked A to M that must be used to identify each subject matter in MS Word SMS document.

Exceptions:

- Sections L and M are only required for companies that utilize either a locomotive or self propelled car mover to switch rail equipment.

- The general operating instruction can be submitted in a separate MS Word document

Note: An SMS will vary in size and is dependant on the complexity of the railway operation, however, each submission must contain relevant information for each section and must reflect the nature and scale of the operation.

The Safety Management System Guideline Document

Start with the:

Cover Sheet – Company Overview:

- Describe the companies railway operation, key points would include:

    o 24 hour emergency contact phone number
    o Name of service provider
    o Average number of employees in the railway operation
    o Number of switches / turnouts
    o Number of Locomotives and type
    o Number of Rail Car Movers and manufacture name
    o What products are transloaded, if they include dangerous goods name the Classes
    o Number of cars moved annually
    o Map of the rail yard
    o Location of the rail yard / plant
    o Longitude and latitude of the road entrance into the rail yard

- If a third party is utilized to conduct railway operations for the company, state the name of the contractor and the third parties responsibilities.

- If a contractor is employed, state the position in the company responsible for oversight and how compliance is monitored and what documentation is used to show proof

Table of Contents

- Each section must be labelled starting with A and then through to M

- Each section must also note starting page number and date of coming into force

Section "A" Safety Policy – Safety Targets – Rail Safety Initiatives

- Note what the company safety policy is

- State what the company railway safety targets are, these targets are operational occurrences and not occupational health and safety (OH&S) related to employees. The OH&S regulations are outside the scope of the railway regulations and the railway SMS

- State what railway safety initiatives the company has currently and planned i.e.
  - Safety meetings
  - Tail gate meetings
  - Permits
  - Rail contractor orientations
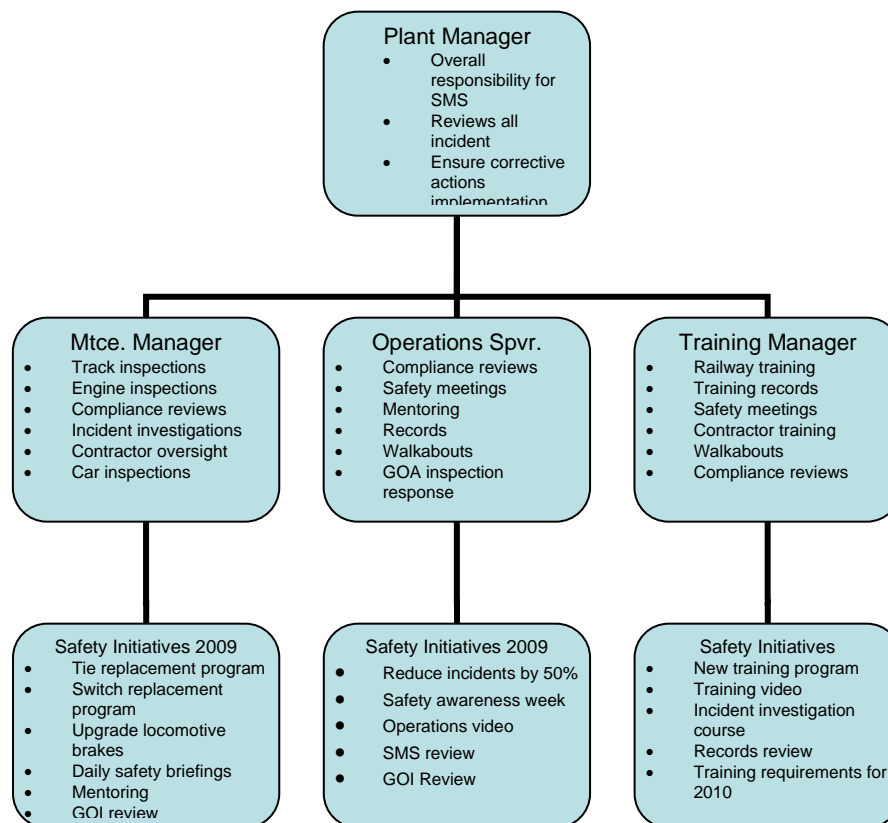 - Safety advisory bulletins

Note: The Company must be able to show proof to verify the above noted initiatives

Section "B" Organization Chart

Include an organization chart that outlines the positions responsible for the railway operations and the various railway components, do not include other duties, describe railway responsibilities only

State, as a separate note, what company position (change agent) has the overall responsibility for the development, implementing and ensuring currency of the SMS

Organization Chart Example

Plant Manager
- Overall responsibility for SMS
- Reviews all incident
- Ensure corrective actions implementation

Mtce. Manager
- Track inspections
- Engine inspections
- Compliance reviews
- Incident investigations
- Contractor oversight
- Car inspections

Operations Spvr.
- Compliance reviews
- Safety meetings
- Mentoring
- Records
- Walkabouts
- GOA inspection response

Training Manager
- Railway training
- Training records
- Safety meetings
- Contractor training
- Walkabouts
- Compliance reviews

Safety Initiatives 2009
- Tie replacement program
- Switch replacement program
- Upgrade locomotive brakes
- Daily safety briefings
- Mentoring
- GOI review

Safety Initiatives 2009
- Reduce incidents by 50%
- Safety awareness week
- Operations video
- SMS review
- GOI Review

Safety Initiatives
- New training program
- Training video
- Incident investigation course
- Records review
- Training requirements for 2010

Section "C" Employee & Management Involvement

- State how the employees and management worked together in the development and review of the SMS, general operating instructions (GOI), occurrence investigations and safety in general

- Describe how safety deficiencies are captured and addressed

- Describe the methods of how risk and safety are communicated

Section "D" Risk Assessment & Control

You must conduct a risk assessment of the rail as part of the SMS

- State how the risk assessment was conducted

- State what change management process is in place to facilitate a rail process / instruction change

- Provide a copy of the risk assessment using a three column assessment or equivalent i.e.

Risk Assessment for Company ABC		
Identify the risk	*What could happen?*	*What is the mitigation strategy?*
Cars roll onto mainline	Unintended collision with service provider rail traffic	Install a derail, develop instructions and train staff
Locomotive left running unattended outside of secure area	Unauthorized person moves unit and collides with dangerous good cars	Locomotive left running must have brakes applied, cab doors locked, reverser handle removed from cab, instructions developed and staff trained
Track wide gauge	derailment	Inspections

Section "E" Compliance

Compliance monitoring is a key element to ensure the safety of employees, guests and equipment. The SMS plan must contain a strong and robust segment that ensures compliance monitoring is periodically conducted by all levels of management and staff.

Compliance monitoring must be a defined process that will ensure continuity of application. All compliance reviews must be documented to verify compliance.

- State the company position(s) that are responsible for railway compliance

- Describe:

  o Methods and documentation used to ensure the company is and remains in compliance with the Alberta railway regulations

  o How, when and documentation used to monitor general operating procedure compliance

  o How, when and documentation used to monitor SMS

  o When applicable, how, when and documentation used to monitor passenger safety handling rules (passenger operations only)

- How, when and documentation used to conduct railway related audits on training, medical and inspections records

Section "F" Training

- State how railway training is conducted in the company i.e. in-house or third party

  - If training is conducted with an in-house resource you must be able to show proof the person is competent as per the definition in the Alberta Railway Regulations and the employee qualifications standards are met

  - If a third party provides railway training, you must be able to show proof that competency was verified to ensure the person is competent as per the definition in the Alberta railway regulations and the employee qualifications standards are met

- State the company policy and method used, reference the re-examination of railway employees in comparison to the Alberta railway employee qualifications standards

- State the policy and procedures used to ensure third party contractors are appropriately trained on your companies general operating instructions (GOI)

- List what type of railway training is given for each job function relating to the railway operation as per the Alberta railway employee qualifications standards

- Describe the type of training is given to persons responsible for occurrence investigation and how competency is determined

- Describe what information employees have been given regarding SMS

Section "G" Inspections

- List all of the railway inspection(s) and frequency which are required to be conducted by the Alberta railway regulations and whether they are by the company or a third party i.e.

  - Track, inspected once a month with a minimum of a 20 day interval from the last inspection – conducted by competent company personnel
  - Locomotive, annual, 90 day maintenance and 45 day safety inspection and daily safety inspections – conducted by a competent 3rd party – ABC Loco Repairs
  - Rolling stock, safety inspection immediately on arrival – company personnel
  - Ground resistance check, once per year – conducted by the plant electrician
  - Automated crossing inspected once per month, lights checked once a week – conducted by a 3rd party – Crossman Industries

Note: you must be able to show proof during an audit that the inspections were conducted

Section "H" Occurrence Investigation

- Describe the competencies the investigator must have to be deemed competent by the company

- State positions in the company that will participate in an occurrence investigation

- State the position in the company responsible for the completion of the Alberta Transportation occurrence report within 30 days of the occurrence

- State the position in the company that is responsible for implementing corrective action

- State the position in the company that has the authority to initiate corrective action

- Describe the process used to ensure management approved corrective actions have been completed

Section "I" Railway Emergency Procedures

- State what position in the company is responsible for immediate reporting of a rail occurrence to the Alberta Coordination and Information Center as per the *Railway (Alberta) Act*

- State the process to be followed in the event the service providers track is fowled or negatively effect a service providers train operations / crews

  - Note: The rail service providers rail traffic coordinator (RTC) should be notified immediately, RTC is in direct contact with the trains and has the ability to stop a train

- State the other emergency agencies that would be notified

- State how the emergency notification process is communicated to staff

- Include any other relevant railway emergency procedure

- State the 24 hour emergency number for your company

Section "J" Documentation

- Describe the systems used for each component of the SMS, the location and method of access either electronic or other i.e

  - Training records for rail employees are retained electronically in the PAL system
  - Track inspection records are retained by the area supervisor in a paper format
  - Locomotive inspections are completed by a third party (show name) and retained in the maintenance supervisors office
  - SMS, GOI, Inspections, Training, audits (internal) are retained in the operations managers office
  - Automated crossing inspections are retained at the crossing in the switch gear bungalow
  - Occurrence investigations are retained in the operations supervisors office in a paper format

Section "K" General Operating Instructions (GOI)

Every company is required to have a GOI for their rail operation. The GOI content will vary by complexity of the railway operation but must accurately give rail employees proper instruction to allow for a safe operation.

A copy of the company GOI can be submitted as a separate document or as part of the continuous SMS document.

Note: The GOI must contain railway instructions only, product transfer instructions are not to be included in the GOI.

Section "L" Medicals

Every operator of a locomotive or self propelled rail car mover shall have undergone a medical to attest to fitness to operate as required by the railway medical rules for position critical to safety.

- State the medical policy in place and the frequency of medicals

- List the medical requirements a medical practitioner will test for

Section "M" Maintenance Responsibility of an Operator

A railway operator is responsible for the inspection and repair of all locomotives and self propelled rail car movers to ensure safe operation. All components, appurtenances and control apparatuses of all locomotives and self propelled rail car movers must be designed and maintained to perform their intended function.

For locomotives the following is required to be submitted with the SMS:

- Pneumatic brake maintenance plan

- Annual maintenance check plan

- 90 day maintenance check plan

- Daily:

    o safety inspection pre-use check sheet

    o Safety control device instruction check sheet

    o Brake test instruction check sheet

For self propelled rail car movers the following is required to be submitted with the SMS:

- A statement that the unit is maintained to the manufactures specifications and instructions
- Daily:

    o safety inspection pre-use check sheet

    o Safety control device instruction check sheet

    o Brake test instruction check sheet

SAFETY MANAGEMENT SYSTEM GUIDELINE WORKSHEET

(Used to track the development of the SMS and to note any subsequent changes made to the sections over time)

SECTION	SECTION DESCRIPTOR / CHANGES	STATUS	PAGE #	DATE AMENDED
Cover	Cover sheet with company information			
A	Safety Policy			
B	Organization chart			
C	Employee – Management involvement			
D	Risk Assessment			
E	Compliance monitoring			
F	Training			
G	Inspections			
H	Occurrence investigations			
I	Emergency procedures			
J	Documentation			
K	General Operating Instructions			
L	Medicals			
M	Maintenance responsibilities			