

General Fatigue Management Plan

for

Canadian Pacific

and the

Teamsters Canada Rail Conference

Operating Employees

Introduction:

This Fatigue Management Plan (the 'FMP') has been developed pursuant to the requirements of Section 6 of the "Work/Rest Rules for Operating Employees" (the 'Rules') and the Railway Safety Act, incorporating the guidance provided from the "RAC Work/Rest Rules Interpretation Document" (the "Interpretation Document") and the Transport Canada - Fatigue Management Plans - Requirements and Assessment Guidelines.

Canadian Pacific ("the Company" or "CP") and the Teamsters Canada Rail Conference (the "TCRC") have outlined the goals of the FMP, roles & responsibilities and its' application. Responsibility for the establishment, maintenance and monitoring of working conditions that will allow operating employees¹ adequate rest between tours of duty and to help sustain alertness throughout the on-duty period is shared jointly between the Company and the TCRC. Subject to compliance with applicable regulatory requirements, the Company and the TCRC will jointly be responsible for changes to this FMP in the future.

Pursuant to Section 6.2.4 of the Rules, specific operating plans must be in place to address fatigue of operating employees when operating in work train service, in emergency situations and where operating employees are more than 64 hours on duty in a 7 day period. Such specific fatigue management plans have been jointly developed and filed in accordance with the Rules. This general FMP details the following points, as outlined in Section 6.2.2 of the Rules and is not intended to be an exhaustive list.

- 1) Education and training
- 2) Scheduling practices
- 3) Dealing with emergencies
- 4) Alertness strategies
- 5) Rest environments
- 6) Implementation policies
- 7) Evaluation of FMPs and crew management effectiveness

¹ "Operating employee(s)" referred to in this document are employee(s) in positions set out in the definition of Operating Employee contained in the Rules.

OPERATING EMPLOYEES FATIGUE MANAGEMENT PLAN

OBJECTIVES

- Recognizing industry best practices, minimize employee fatigue and thereby improve the operational task performance and safety of employees and operations in accordance with Transport Canada rules and guidelines on Fatigue Management.
- Impact positively on the work/family balance and quality of life of all CP operating employees.

STRATEGY OVERVIEW

We will achieve solutions through:

1. Promoting awareness of the impact of fatigue on human performance, and striving to reduce the effects of fatigue in all CP operations.
2. A work environment that allows for the effective implementation of fatigue counter measures.
3. A combination of corporate and individual responsibility and empowerment to manage fatigue.

Roles & Responsibilities

Role of the TCRC/Management Leadership:

Lead the development, implementation, monitoring and sustainability of the FMP. Provide decision-making and coaching for the overall process. Ensure the ongoing focus and support of their organizations and assist in the resolve of any problem areas in the establishment, maintenance and monitoring of the process.

Role of the TCRC General Committees of Adjustment & Legislative Department, and the Field Operations General Managers:

To ensure that the FMP satisfies Employee, Company and TCRC concerns as well as deals with unique territorial conditions.

Role of Industrial Relations:

Support the FMP, working closely with Management and The TCRC to facilitate agreements or processes as required. Provide insight on labour related issues at CP and/or on other railways as applicable.

Role of Safety, Environment and Regulatory:

Working in conjunction with TCRC Legislative Department, provide input and insight as to the regulatory and safety impacts or potential impacts affecting the FMP. Ensure that appropriate safety management systems risk assessments are conducted on major operational changes that may affect employee fatigue. Also in conjunction with TCRC Legislative Departments, discuss related issues with outside third parties (i.e. regulator) as appropriate.

Role of Front Line Managers & TCRC Representatives:

Support the rollout, sustainability and compliance with the FMP and offer recommendations for improvement to the FMP.

Role of Operating Employees:

To manage their rest within the time frames provided by the Work/Rest Rules in a way that will enable them to report for duty in a rested condition.

Role of the CP Field Operations/Transportation Department:

To provide operating employees with the most accurate lineups and information possible, in order that they can manage their rest in a way that will enable them to report for duty in a rested condition. To actively track the accuracy of train lineups and information on an ongoing basis and take corrective action as needed. In addition, the department will continue to manage crews in a manner consistent with the collective agreement(s).

Application

The Work/Rest Rules for Operating Employees are intended to cover those employees physically involved in the operation or switching of trains, engines and equipment in any class of service.

Employee classifications that fall within the scope of these rules at CP are:

- Locomotive Engineer
- Conductor
- Commuter Rail Service Employees
- Brakeman
- Yard Foreman
- Yard Helper
- Yard Service Employee
- Yard Service Helper
- Switchtender

In addition to the foregoing, any person who performs the duties of an operating employee is deemed to be an operating employee while they are performing those duties, such as, Company Officers, contractors or third parties.

Section 1 - Education and Training

Awareness, through education and training, is the foundation of an effective and successful *Fatigue Management* program. Fatigue Management, like safety, must be a way of life.

The Company will provide fatigue management training to all new operating employees during the conductor training program.

All operating employees will receive training and/or educational materials covering the following subjects related to fatigue management:

- Sleep Hygiene
- Body Clock
- Sleep Disorders
- Sleep & Performance
- Diet Health & Lifestyle
- Definitions of Fatigue & Alertness
- Stress Management
- Various Sleep Schedules
- Countermeasures
- Individual and Age Differences

Sleep Hygiene will address the factors that influence a person's readiness to obtain sleep, factors affecting sleep quality, and factors affecting duration of sleep.

Material on the **Body Clock** will cover the circadian cycle and rhythms, including the arousal and recovery cycles that accompany the body clock, and also how this will affect sleep and sleep propensity, including work performance and alertness.

Sleep disorders will identify disorders such as Sleep Apnea and others to ensure employees are aware of the relationship between sleep disorders and operational deficiencies in performance that can accompany those disorders. The importance of employees ensuring that possible sleep disorders are identified and treated by their doctors will also be covered.

Sleep and Performance will cover the critical relationship between sleep and performance. Employees need to understand that a lack of sleep is directly and linearly associated with a decrease in performance - cognitive performance and work performance. Material covered will include specific levels and cut-offs that need to be adhered to and beyond which it is clear that they have exceeded the likely levels of optimal performance. It also needs to be understood that hours of service guidelines and rules are typically designed not to create optimal levels of performance but to mark the line beyond which it is unsafe to operate equipment.

Diet & Lifestyle and their effect on sleep and sleep quality will also be covered. In particular, employees will be informed as to how various foods and food groups that are consumed at key times can affect the body's readiness for sleep.

Definitions of sleep and alertness will also be covered to ensure employees understand the differences between physical fatigue that might come from muscular exertion and fatigue that is associated with sleep loss. Typically fatigue in the transportation industry refers to the lack of alertness and attention that is associated with decrements in cognitive performance, resulting from insufficient sleep.

Stress Management will be included in the material because of the relationship between the presence of stress and the potential for sleep disruption. Employees need to understand that persons who are experiencing high levels of stress can experience either lack of sleep, early awakening, or sometimes even excessive sleep.

Sleep Schedules that are typical in the rail industry and the effects that they will have on performance will be covered, including the types of schedules that lead to the development of a sleep debt over time.

The general topic of **Countermeasures** will also be included in the program. The typical countermeasures include but are not limited to: napping, sleeping, exercise, activity, short breaks, judicious use of caffeine, and preventative anchor sleep. Material will cover various alternatives and the strengths and weaknesses of each to help employees make informed decisions. By learning about the stimulating effects of various countermeasures, employees will also learn when not to use them in order to maximize the likelihood of obtaining adequate sleep during rest periods.

Individual Differences and age differences will also be covered. For the most part, on average people need about eight hours of sleep per night or 24-hour period. Employees will be exposed to this concept so that they can come to monitor their own typical sleep needs and understand their schedules so as to appropriately manage their needs for restorative and recuperative sleep. Material will also cover the fact that sleeping habits and sleep needs change as a person ages. For example, they are likely to have increasing difficulty actually sleeping a full eight hours at one time and may need to take recovery naps to address this.

Section 2 – Scheduling Practices

Operating Employee Work Scheduling practices must support the following objectives:

- operating employees commencing duty have had and utilized the opportunity to report for duty rested and alert;
- alertness can be sustained throughout the on-duty period;
- operating employees are permitted to meet their personal need; such as the need to ensure that an employee's current standard of living is maintained and their earnings potential is protected through the regulation of maximum monthly mileages;
- the Company is permitted to meet its' service objectives.

As per the Rules, the maximum continuous on-duty time for a single tour of duty is 12 hours, except work train service for which the maximum duty time is 16 hours. CP has established specific fatigue management plans to address situations where the maximum permissible time on duty is exceeded in an emergency situation, and for work train service.

The potential for fatigue when working between the hours of 0000 and 0600 is recognized.

The Company and the TCRC have a variety of scheduling and work/rest practices currently available to them that support fatigue management objectives. Some of these practices are already in use and others will be reviewed to determine if they can be implemented in appropriate areas in order to meet the objectives of this FMP. These include, but aren't limited to, assigned and unassigned service with regular rest days and/or leave of absences; rest provisions at the home and away from home terminal; time pools, and bid packs. These options may be implemented based on the number of operating employees required, and the territory operated over, traffic density, patterns and operating times.

Other scientifically based scheduling options for reducing fatigue that meet the goals of this FMP and the objectives of employee work scheduling practices may be established subject to review and approval by the Company and the TCRC.

Additionally, operating employees who work more than one tour of duty without resetting their 18 hour clock are afforded the opportunity to be involved in a decision to accept a subsequent tour of duty, based on their fitness at the time, in accordance with collective agreement provisions in force.

Operating employees in road service working a subsequent tour of duty, who do not take rest, will be provided the option to take a break of up to 45 minutes off-duty between consecutive working tours of duty, where the combined on-duty time will exceed 12 hours.

Such a break is recommended in order to avoid "off and on" situations, which for all practical purposes would have operating employees in road service working up to 18 continuous hours on-duty time. The break should be such that the operating employees are

completely relieved of operating responsibilities, are off the equipment and are at a location which allows for a meal or coffee. In passenger service, this could include taking a break on the train in a service car.

Section 3 – Dealing with Emergencies

The importance of managing fatigue during emergencies, service interruptions and other unusual operating conditions must be recognized.

As defined in the Work Rest Rules, “Emergency” means a sudden or unforeseen situation where injury or harm has been sustained, or could reasonably be sustained to employee(s), passenger(s), the public or the environment such as those involving a casualty or unavoidable accident, an Act of God, severe storms, major earthquakes, washouts, derailments or where there has been a delay resulting from a cause not known to the railway company at the time operating employees leave the terminal and which could not have been foreseen.

A Specific Fatigue Management Plan for Emergency Situations has been developed to address emergency situations, and should also be referred to.

Notwithstanding that this section on unusual operating conditions applies in circumstances where crews may work over 12 hours, rest provisions in the applicable collective agreement remain in effect.

Declaration of an Emergency Situation, as defined by the Rule, will be the responsibility of the Superintendent Transportation. Only crews directly impacted by this emergency situation, that cannot be relieved, or crews that are immediately required to perform duties related to the emergency situation, will be required to work in excess of 12 hours. Crews so required, will be relieved of duty at the first available opportunity.

In certain circumstances, locomotives may be removed from the train to expedite movement to a change off location when handling the train would otherwise significantly delay transit time of the operating employee to the change off location.

In all cases, consideration will be given to minimizing the likelihood that persons in emergencies will be expected to perform safety-sensitive tasks or duties if they have been awake for long periods of time, or been deprived of sleep. Employees and supervisors will strive to minimize the risk of fatigue for persons performing emergency duties, and special consideration will be given to minimizing risk when emergency work takes place between the hours of 0000 and 0600.

Other crews who may be affected by an emergency situation will be notified by the use of Voice Response Unit (VRU) or other such similar means of the existence of the emergency in order that they may properly plan to be rested for the upcoming work event.

A declaration of emergency report must be filed with Transport Canada and a copy provided to the TCRC, as soon as possible, but not later than 48 hours following, when an

operating employee operates under an emergency situation in excess of the maximum duty times permitted under the Rules.

The definition of emergency, and the process for declaration and reporting, will be clearly communicated to all managers and employees who may be involved with emergency situations.

Crews involved in unusual operating conditions will be advised of the circumstances in order to enable napping during downtime.

Section 4 – Alertness Strategies

It is recognized that fatigue management strategies can be utilized to improve job alertness.

It is also recognized that the most effective technique is to obtain sleep.

The Company and the TCRC recognize and agree that a napping policy is a countermeasure to address issues of fatigue. Pursuant to the Interpretation Document, napping facilities in terminals are intended to allow operating employees to rest as they wait for trains or prior to driving home at the end of a trip. Operating employees in assigned service who are working regularly assigned tours of duty are not normally considered to be in this classification of employees, however the parties also recognize that there are individual circumstances that may play a part in an employee's need to utilize an opportunity to nap. Such circumstances, for example, include an employee doubling in yard service or a spare board employee being called for spare turns in different classes of service or varying shifts. The parties agree that napping policies developed and implemented will be primarily intended for road service.

Implement a napping policy for crews based on but not restricted to the following points:

Opportunity Nap (Initial Terminal)

- To minimize fatigue of operating employees in road service, if the train is delayed and there are no other duties to perform upon reporting for duty, an employee may take an opportunity nap.

Opportunity Nap (En route)

- To minimize fatigue of operating employees in unassigned or work train service, providing that there are no other duties to perform, an employee may take an opportunity nap.

In all cases, napping periods will not exceed a defined duration.

The Company and the TCRC will research and evaluate other alertness countermeasures with the intention of implementing if and when deemed appropriate. They will also review local operating practices that may have an impact on alertness.

For example, short breaks with some light exercise can restore alertness for a brief period. Selective and appropriate use of natural stimulants is also a possibility. Checklists to stay alert, and communication strategies should also be considered.

Recommended and approved alertness strategies, along with appropriate utilization, will be covered in educational materials.

CP has an established Cab Committee composed of management and TCRC representatives that addresses issues pertaining to locomotive cabs, including design issues related to fatigue management, such as light, sound, temperature and seating. Specific issues pertaining to fatigue management in cabs may be raised through that committee.

Section 5 - Rest Environment

The key to restorative sleep is the quality of the rest environment as well as the opportunity use the rest environment.

REST HOUSES

CP currently has a rigorous process in place, in conjunction with committees mandated by collective agreement, to evaluate and improve rest facilities in order to bring them up to standards consistent with scientifically developed fatigue management principles; such as, but not limited to, soundproofing, blackout curtains, temperature controls, white noise generators, etc. These facilities will continue to be assessed and, where necessary, improved based upon those scientific standards. Separate standards are being established for renovations to current rest houses, construction of new rest houses, and for third party facilities. These standards are subject to federal and provincial building codes, other applicable regulations as well as collective agreement provisions and will be modified as deemed necessary and as agreed upon by the Company and the TCRC.

It will also be ensured that appropriate wake-up and do not disturb processes are in place that prevent operating employees from being unnecessarily disturbed when sleeping.

Local bunkhouse committees will be given the opportunity to provide recommendations to the Company and the TCRC concerning the priority of changes and improvements pertaining to rest facilities.

NAPPING FACILITIES

To enable operating employees covered by this FMP to take advantage of opportunities to nap, napping facilities will be provided where deemed appropriate by the Company and the TCRC. The napping facility will be close to booking-in rooms and will be suitably equipped to enable operating employees to nap undisturbed.

HOME REST ENVIRONMENT

As part of the training and education program, information will be provided to operating employees concerning optimizing their home rest environment.

Section 6 – Implementation Policies

Management, employees and the TCRC at CP are committed to the implementation of this FMP.

The risk of fatigue will be managed by applying the components of this FMP.

The risk of fatigue will be assessed through regular review using fatigue modeling, scheduling tools or other scientific means to examine the likelihood of a schedule or condition for creating or developing fatigue levels that might not be considered optimal, or that creates conditions that are sub-optimal.

General and local implementation of this FMP will be handled by the individuals occupying the positions set out in the Roles and Responsibilities section of this FMP.

Copies of this FMP will be available to all CP managers and employees.

Section 7 – Evaluation of the FMP and Crew Management Effectiveness

The long-term success of the FMP depends upon ongoing measurement and review.

The ongoing effectiveness of the Fatigue Management Program will be measured and monitored by the Company and the TCRC.

Appropriate measurements and metrics will be identified that will be captured to facilitate the evaluation of the FMP.

As per the Implementation Policy, the FMP will be evaluated in part by regular review using fatigue modeling, scheduling tools or other scientific means to examine the likelihood of a schedule or condition for creating or developing fatigue levels that might not be considered optimal, or that creates conditions that are sub-optimal.

Evaluation will also include other possible metrics such as self-reported levels of fatigue and other behavioural indicators, the amount of rest booked, total number of hours on duty, average start times and average discrepancy between posted start times and actual start times, such as line-up accuracy reports.

Accident and incident analysis will continue to examine whether fatigue was a factor. If it is suspected that fatigue may be a contributing factor in an occurrence, investigations into such occurrences will focus on establishing a connection between any unsafe act or decision which may have led to the accident and the fatigue state of the operating employees involved. The primary purpose of this focus will be to ensure that if the fatigue state of the operating employees involved is a contributing factor in the occurrence that the procedures in place at that location are reviewed to ensure that they are meeting the objectives and goals as set out in the FMP and in the Rules.

It is understood that none of the indicators viewed in isolation are necessarily determinative, so a systematic review of gathered data, in consultation with management and the TCRC, will be conducted to determine whether the data does in fact relate to a problematic situation.

Outside experts or scientists familiar with the science of sleep and fatigue, who can help evaluate the FMP or offer their opinion as to the adequacy of suggested fatigue countermeasures for the operating environment, may also be consulted on whether the FMP or specific measures are adequate to address the risk of fatigue in the workplace.