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### FATIGUE AND SAFETY OF LOCOMOTIVE ENGINEERS & CONDUCTORS QUESTIONNAIRE

#### 1. How old are you?

- **o** Less than 25 years
- **o** 25 to 34 years
- **o** 35 to 44 years
- **o** 45 to 54 years
- **o** 55 to 64 years
- **o** 65 + years

#### 2. What is your gender?

- **o** Male
- **o** Female

#### 3. Are you a:

- **o** Locomotive engineer
- **o** Conductor

### 4. Do you work on a:

- **o** Freight train
- **o** Passenger train

### 5. In total, how long have you worked as a locomotive engineer or conductor?

- **o** \_\_\_\_\_\_ years \_\_\_\_\_ months
- 6. In total, how long have you worked in the rail industry?
  - **o** \_\_\_\_\_ years \_\_\_\_\_ months

### ANSWER THE NEXT SET OF QUESTIONS THINKING ABOUT THE LAST MONTH OF WORK:

**7.** In the LAST MONTH, how many hours per day did you usually work (*i.e.*, sign on to sign off)?

\_\_\_\_\_ hours

8. In the LAST MONTH, how many *days per week* did you usually work?

\_\_\_\_\_ days

- 9. In the LAST MONTH, which category best describes your usual work?
  - **o** Majority of work is at night
  - **o** Majority of work is in the day
  - **o** Regular rotating work (tours of duty switch between day and night on a regular roster)
  - **o** Very irregular work (*i.e.*, *tours of duty have no regular pattern*)
- **10.** In the LAST MONTH, how many times were you called in for work on your days off?

\_\_\_\_\_ number of times called in for work

- **11.** In the LAST MONTH, how much did the start time of your tours of duty vary from day to day?
  - **o** Less than 2 hours
  - **o** 2 hours or more, but less than 4 hours
  - **o** 4 hours or more, but less than 8 hours
  - **o** 8 hours or more

### 12. In the LAST MONTH, how often did your tours of duty change from day work to night work during a one-week period?

- **o** Zero times
- **o** Once
- **o** Twice
- **o** More than two times

13. On average, in the LAST MONTH, how many hours did you sleep per day (*i.e.*, *in a 24-hour period*) during your work week?

\_\_\_\_\_ hours

14. Was this sleep typically during the daytime or nighttime?

- o Day
- 0 Night

The following statements are about your experience of FATIGUE and STRAIN at work OVER THE LAST FEW MONTHS.

Choose from "Strongly Disagree" to "Strongly Agree" which best indicates your response.

### 15. I never have enough time between work shifts to recover my energy completely

Strongly	Disagree	Slightly	Neither Agree	Slightly	Agree	Strongly
Disagree		Disagree	or Disagree	Agree		Agree

### **16.** I usually feel exhausted when I get home from work

Strongly	Disagree	Slightly	Neither Agree	Slightly	Agree	Strongly
Disagree		Disagree	or Disagree	Agree		Agree

### 17. Even if I'm tired from one shift, I'm usually refreshed by the start of the next shift

Strongly	Disagree	Slightly	Neither Agree	Slightly	Agree	Strongly
Disagree		Disagree	or Disagree	Agree		Agree

### 18. I rarely recover my energy fully between work shifts



### 19. Recovering from work fatigue between work shifts isn't a problem for me

Strongly	Disagree	Slightly	Neither Agree	Slightly	Agree	Strongly

Disagree	Disagree	or Disagree	Agree	Agree
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### 20. I'm often still feeling fatigued from one shift by the time I start the next one

Strongly	Disagree	Slightly	Neither Agree	Slightly	Agree	Strongly
Disagree		Disagree	or Disagree	Agree		Agree

### 21. In the LAST MONTH, how did you normally commute from home to work/from work to home? (*Tick main mode of transport*)

- **o** Drive my own car
- **o** Drive my own motorcycle
- **o** Public transportation (train, bus, etc.)
- **o** Car/van pool
- **o** Ride a bicycle
- **o** Walk
- **o** Other

# 22. In the LAST MONTH, if you drove your own car, did you normally commute to/from work alone?

- **o** Usually alone
- **o** Not usually alone
- 0 N/A I didn't drive my own car

### 23. In the LAST MONTH, on how many days during a work week did you commute from home to work?

- **o** 1
- **o** 2
- **o** 3
- **o** 4
- **o** 5
- **o** 6
- **o** 7

### 24. In the LAST MONTH, on days when you commuted to work, how long did it usually take you to get:

- **o** To work from home? \_\_\_\_\_ minutes
- **o** To home from work? \_\_\_\_\_ minutes
- 25. Did you typically make stops or detours during your commute <u>to work from home</u>? (e.g., stop at shops, pick up/drop off children)
  - **o** Yes
  - o No
- 26. Did you typically make stops or detours during your commute <u>to home from work</u>? (e.g., stop at shops, pick up/drop off children)
  - o Yes
  - 0 No
- 27. In the LAST MONTH, approximately how many miles was your commute, one way?

\_\_\_\_\_ miles

### ANSWER THE NEXT SET OF QUESTIONS THINKING ABOUT THE LAST SIX MONTHS OF WORK:

- 28. In the LAST 6 MONTHS, how frequently have you felt too tired to drive home after work?
  - **o** After every tour of duty
  - **o** Several times a week
  - **o** About once a week
  - **o** Once every few weeks
  - **o** Once every couple of months
  - **o** Rarely (i.e., once in 6 months)
  - **o** Never

### 29. In the LAST 6 MONTHS, during your commute <u>to work from home</u> have you: (*Tick all that apply*)

□ Crashed □ Fallen asleep while driving
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Felt drowsy	Pulled over to take a nap
Nearly had a crash	□ Fallen asleep while stopped at a red light
□ Fallen asleep while stopped in traffic	□ Had to have a nap at home before driving to work
Drifted out of the lane of traffic	□ Run off the road in your vehicle

# 30. In the LAST 6 MONTHS, during your commute <u>to home from work</u> have you: *(Tick all that apply)*

Crashed	□ Fallen asleep while driving
Felt drowsy	Pulled over to take a nap
Nearly had a crash	□ Fallen asleep while stopped at a red light
□ Fallen asleep while stopped in traffic	□ Had to have a nap at work before driving home
Drifted out of the lane of traffic	□ Run off the road in your vehicle

# **31.** In the LAST 6 MONTHS, how often have you experienced fatigue while operating a train?

- Every tour of duty
- **o** On most tours of duty
- **o** About half the tours of duty
- **o** Occasionally
- o Rarely
- o Never

### 32. To what degree do you think fatigue impacts your operation of a train?

- 0 No impact
- 0 A minimal impact
- **o** Moderate impact
- **o** A significant impact

# 33. In the LAST 6 MONTHS, when were you most likely to experience fatigue while operating a train? *Tick all that apply*

□ Early morning (3am to 6am)	If I'm feeling bored
□ Morning (6am to 12pm)	□ If I haven't had enough sleep
□ Early afternoon (12pm to 3pm)	□ If I started work really early in the morning
□ Late afternoon (3pm to 6pm)	□ Towards the end of a long tour of duty
□ Evening (6pm to 9pm)	□ If I operate on the same route a few times in a row
□ Night (9pm to 12am)	□ If I started work late in the evening
□ Late night (12am to 3am)	□ After a long commute to work
□ After extended limbo or deadheading time	Other:

# 34. In the LAST 6 MONTHS, how long after the start of your tour of duty were you most likely to feel fatigued?

hours

# 35. In the LAST 6 MONTHS, what factors contributed most to your fatigue at work? *Tick all that apply*

□ Night work	□ Irregular work
Long work hours	Not enough sleep before work
Long commute to work	□ Work starting early morning (i.e., before dawn)
□ Long commute to home	Boredom / monotony
□ Stress	Insufficient rest away from home
□ Not enough time off between work	Poor train cab design
□ Social life during days off	Not enough rest breaks

# **36.** In the LAST 6 MONTHS, have you experienced a fatigue-related safety incident when operating a train?

- **o** Yes
- **o** No

#### 37. If yes, what happened?

- **o** Missed signal
- **o** Crash
- **o** Near miss
- **o** Nodded off while controlling the train
- **o** Missed designated stop
- **o** Late braking for designated stop
- **o** Going too fast
- **o** Other:

#### **38. Did you report the incident?**

- **o** Yes
- **o** No
- **39.** Does your company offer an anonymous reporting system for fatigue-related or safety-related incidents?
  - **o** Yes
  - o No
  - **o** Not sure

40. In the LAST 6 MONTHS, how often do you use each of the following strategies to cope with fatigue when operating a train? (*Rate each strategy separately*)

		1

Listen to music			
Eat or snack while operating train			
Drink caffeine (e.g., coffee, black tea)			
Make additional effort to focus			
Adjust the ventilation (e.g., turn on air con or open window)			
Use over the counter stimulant (e.g., NoDoze)			
Take a quick nap			
Drink energy drinks (e.g., Red Bull, Monster, 5-Hour Energy)			
Talk to conductor or engineer			
Stand while operating train			
Talk on cell phone			
Move body (i.e., walk, stretch, exercise)			
Play games/use apps on cell phone			
Smoke/chew tobacco			

# 41. In your opinion, how effective are the following strategies to reduce fatigue while operating a train (i.e., regardless of whether you use the strategy)? (*Rate each strategy separately*)

Listen to music			
Eat or snack while operating train			
Drink caffeine (e.g., coffee, black tea)			
Make additional effort to focus			
Adjust the ventilation (e.g., turn on air con or open window)			
Use over the counter stimulant (e.g., NoDoze)			
Take a quick nap			
Drink energy drinks (e.g., Red Bull, Monster, 5-Hour Energy)			

Talk to conductor or engineer			
Stand while operating train			
Talk on cell phone			
Move body (i.e., walk, stretch, exercise)			
Play games/use apps on cell phone			
Smoke/chew tobacco			

### 42. Does your company provide you with a computer train line-up?

- **o** Yes
- **0** No
- **o** Not sure

### 43. How reliable is the information provided in the computer train line-up?

- **o** Very reliable
- **o** Somewhat reliable
- **o** Not particularly reliable or unreliable
- **o** Somewhat unreliable
- **o** Very unreliable

# 44. In the LAST MONTH, what percentage of computer train line-ups you received were accurate?

**o** \_\_\_\_\_%

### 45. Does your current company have a fatigue management policy?

- **o** Yes
- **o** No
- **o** Not sure

### 46. Does your current company educate employees about fatigue?

- **o** Yes
- **o** No

**o** Not sure

### 47. How much of a problem is fatigue for YOU PERSONALLY in your job?

- **o** A major problem
- **o** A substantial problem
- **o** A minor problem
- **o** Not a problem at all

# **48.** How much of a problem is fatigue for locomotive engineers and conductors IN GENERAL?

- **o** A major problem
- **o** A substantial problem
- **o** A minor problem
- **o** Not a problem at all

### 49. How well do you believe fatigue is managed in the rail industry?

- **o** Extremely badly
- **o** Quite badly
- o Ok
- 0 Quite well
- Extremely well