

### Fatigue related motor vehicle collisions

Prepared by AEE Corporate Safety

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The "Big Orange Bridge," a local icon near AEE's Nelson, British Columbia office in Western Canada

#### **Today's presentation**



- What can occur: a true story
- The facts
- Actions to reduce the risk
- Research
- Final points

Sign in the Australian Outback amec

## Dangers of nodding off at the wheel – true story\*



Another fatigue-related fatality, crossing the centre line and colliding with truck flatbed.

- Heavy equipment operator just finished a 12-hour work shift after a long stretch of consecutive work days.
- Decided to drive home to spend a long weekend with his young family.
  - Home was a 10-hour drive away; he began driving at 9 a.m.
- 20 minutes from home, driver drove off a straight stretch of road, vehicle rolled down a slope and the driver was killed.
- Driver hadn't slept for at least 22 hours.

\*AMEC was providing quality management services on this project—our staff personally knew the deceased



#### **Fatigue related collisions: The facts**

- <u>20%</u> of collisions are caused by drivers falling asleep at the wheel.
- Most sleep-related motor vehicle collisions occur from <u>2-4 a.m.</u> with another peak at <u>2-4 p.m.</u>
- Sleep related accidents are <u>three times more likely</u> to result in serious injury or death than other road accidents
  - Drowsy drivers do not brake to try to prevent an accident so the impact is worse.
- Most early morning collisions involve young men.
  - Why? Young men feel invulnerable and undertake long overnight drives due to social or peer pressures.
- We drive millions of kilometres and miles as part of our work, often on less-than-ideal driving surfaces.

#### **More facts**

- It may not just be you who is tired
  - 25% of long distance drivers admitted to falling asleep in a recent year.
- Taking certain medications and then driving can be deadly.
  - Antihistamine users account for 2% of all fatal collisions.
- Most fatigue related collisions occur when the driver has been awake for more than eighteen hours.



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- Sleep apnea, a medical condition which can result in "micro-sleeps", is a fairly common condition. Recognize if you are at risk!
  - Sufferers are seven times more likely to have a collision when driving.

# What can we do to counter fatigue related motor vehicle collisions?

- Obvious point: Do not drive when you are feeling sleepy!
- Know your limitations and learn to recognize the behaviours that may indicate you are becoming sleepy.
  - Avoid putting yourself at risk to begin with. Set up your work to avoid driving when fatigued.
- Should you feel drowsy, pull over at the first opportunity and have a fifteen-minute nap.
- Short term measures such as opening the window, turning the stereo up or taking brief exercise are found to deliver <u>at best</u> one or two minutes respite from drowsy condition.
- If it is late and you are becoming tired, pull over and check into a hotel or motel.
  - This is a justifiable project expense and a small cost for AMEC!

#### Research

- "Sleepiness Detectors"
  - Devices which emit an audible or visual alarm when the driver is showing the first signs of drowsiness are now being investigated by the major car manufacturers.
- Variable message signs on motorways displaying tiredness warning signs
- Rumble strips on shoulders and centre line.
- More rest and recreation areas along motorways and trunk roads.
- Design practices such as artworks, landscaping and other engineering features to alleviate monotony.
- Workplace safety programs are beginning to address the risks of fatigue (AMEC's does!)
  - Employers are adding work-related road safety plans for all vehicle drivers on company time
  - Setting realistic work schedules and targets and monitoring the hours worked.



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#### **Final points**

- The best response resides within you.
  - Recognize the risk and signs of becoming sleepy and act on them
  - Accept the need for rest
- Drivers who are involved in fatigue related collisions face serious consequences.
  - In one jurisdiction causing death by dangerous driving can carry a prison sentence of up to 10 years and an unlimited fine (UK).
- Include potential for drowsiness and fatigue as part of your Job Hazard Analysis.
  - Develop strategy to reduce or eliminate the possibility of a fatigue related motor vehicle collision.



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Who can act to reduce the collision risk? Look in the mirror!

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