

Driver Fatigue and Inclement Weather

Dear NETS Members,

March 23, 2010

Kevin Wright (Union Gas) sent a question concerning *inclement weather and driving fatigue*. Please see Kevin's full question, below.

Page | 1 Responses follow Kevin's question.

Please contact me if you have any questions or suggestions.

Jack Hanley
NETS
Executive Director
jhanley@trafficsafety.org

Question

Driver Fatigue and Inclement Weather Question

What, if any, are your company policies regarding driver fatigue and inclement weather? Please include parameters as applicable such as duration/distance of driving, hours of service, driver sharing, overnight stays, etc.

Kevin Wright
Union Gas
KPWright@uniongas.com

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1	Anonymous	<p style="text-align: center;">Responses</p> <p>Draft Under Consideration</p> <p>3.2.1 Route Planning Reduce your drive time by planning your routes effectively. When possible, plan your business stops in successive order so as to reduce the miles driven. Prior to setting out, consider the following factors that may introduce risk: road condition, journey timing and duration, terrain, weather*, visibility, personal safety/security, traffic density, presence of animals, presence/density of pedestrians, environment, communications (availability), availability of emergency support services along route and footwear to avoid having a slip, trip or fall. *Note: Please use your best judgment and consider postponing your journey to avoid driving in inclement weather.</p> <p>3.1.2 Journey & Break Planning* The following recommendations for maximum driving hours, and non-driving hours are guided by the hours of operation for commercial drivers. The hours that are recommended in this document are generally more conservative than commercial driver regulations. These hours should be considered when planning your workday, and especially when you are planning a long drive. However, you must use your best judgment in their application, and you must consider personal and external factors that impinge upon your ability to drive safely and responsibly.</p> <ul style="list-style-type: none"> ▪ <u>Maximum Daily Driving and Non-Driving Hours</u>: Ten hours. [Note: A regular work period for “non-field” personnel is eight hours.] ▪ <u>Maximum Daily Driving Hours</u>: Eight hours ▪ <u>Maximum Consecutive Hours of Driving</u>: Two hours. Take a break after every two hours of driving. ▪ <u>Minimum Time Off (no driving)</u>: The minimum amount of time off after eight hours of driving should be at least 11 hours. ▪ <u>Breaks</u>: The minimum amount of break time after two consecutive hours of driving should be at least fifteen minutes. <p><u>*The European Union Working Time Directive (WTD) 1993</u>, regards working time as an important area of employment. It seeks to protect employees in the workplace from any adverse health and safety risks, including a number of issues relating to night work. Additional information for night work may be found in Johnson & Johnson Global Health’s guideline, “Surveillance of Night Workers in EMEA.” This guideline offers suggestions that are consistent with the EU directive.</p>
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2	Pfizer/Teri Snow theresa.l.snow@pfizer.com	Tiredness 2.1.1 Driving while fatigued is not permitted by Pfizer. For long trips, drivers should take breaks at least every 2 hours, and make every effort to stop driving for the day by midnight. 2.1.2 Take a break every two hours or sooner if you feel sleepy. Stop for at least 15 minutes and take a 10 minute snooze/nap if you feel sleepy. This is NOT a substitute for a good night's sleep. Only drive on if you feel alert after your nap. 2.1.3 Ensure that you get a good night's sleep before making any long journey. Getting enough sleep is essential to your safety and you should aim to get 7 1/2 continuous hours of sleep a night. 2.1.4 If possible, do not drive between 1 am and 6 am when driving for work purposes. Statistically this is the most dangerous time of the day to drive and your body clock is in 'sleep mode'. If leaving for work before 6 am, make sure your get the suggested rest each night. Weather Related 2.2.2 In rain, snow or sandstorm conditions, increase your following distance to at least 6 seconds and in ice and fog you should aim for a following distance of 12 seconds. In adverse weather conditions it can take you twice as long to stop, spray from the vehicles in front of you will reduce your visibility and your tires could lose their grip causing your vehicle to hydroplane.
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3	GSK/Evelyn Roberts evelyn.j.roberts@gsk.com	<p>GSK treats driving while fatigued the same as driving while impaired. See policy language below. Please remove GSK's name when responding to all.</p> <ul style="list-style-type: none">No driver shall operate any GSK vehicle if alcohol, drugs, medication, illness, or fatigue has impaired his/her ability to do so safely. <p>GSK utilizes the National Safety guidelines below with regard to weather related accidents.</p> <p>Weather Rain, fog, snow, ice, and sleet do not, in themselves, cause accidents. They are the environments to which the driver must adjust. Failure to adjust driving to the existing conditions properly, or failure to postpone driving when conditions are unsafe for travel, should be grounds for deciding the accident was preventable</p>
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4	Merck/Bob Holman robert_holman@merck.com	<p>Driver Impairment - Policy</p> <p>Drivers should consider the potential for impairment (includes but not limited to fatigue management) when planning trips and should plan realistic driving schedules.</p> <p>Impairment - Additional Guidance</p> <p>Drivers are required to consider impairment when planning trips. The following guidelines apply:</p> <ul style="list-style-type: none">Employees must plan realistic driving schedules such that they are rested before departure, and that driving during normal sleeping hours is avoided.Employees should not drive at the end of a work day if the work day extends past 12 hours. Drivers should not drive more than 9 hours in a 12 hour day, and should break every 4.5 hours.Drivers should consider using public or private ground transportation when arriving at a destination after a trip over 12 hours in duration.
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5. ExxonMobil/Tom Bennett

tom.j.bennett@exxonmobil.com

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With respect to Fatigue ...

1.1.1 Planning Business Trips by Car

Driving on company business trips should always be appropriately planned. Planning helps to identify risks that may be encountered and is intended to help ensure adequate measures are taken to develop an alternative to driving. If driving is the best alternative, planning will help ensure rest breaks are planned and the trip is planned to address potential fatigue factors.

To assist travel planning, the Passenger Vehicle Trip Planner and Hazard Assessment Tool has been developed ("Trip Planner," Appendix F).

The Trip Planner is required to be completed by the traveler and reviewed in advance with supervision (or documented in the case of emergencies or last-minute changes and retrospectively reviewed) for the following business driving circumstances:

- Driving on a business trip of five hours or greater in the same day.
- Driving in a country where driving conditions differ significantly from those in the driver's home country (e.g., different side of the road, road sign languages, etc.).

The Trip Planner is recommended for the following business

driving circumstances:

- Driving on business trips of between two and five hours in duration, particularly if the route is unfamiliar or such driving is not routine.
- Driving during times outside of the normal workday for the driver (e.g., late night, early morning).
- If other potential fatigue factors exist (e.g., 'jet-lag', short recovery period since last significant drive, inadequate sleep).

The Trip Planner is not intended for:

- Daily commuting to and from work. (Drivers are encouraged to consider appropriate factors during off-the-job driving, such as

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weather, road conditions, etc.)

Driving trips that are associated with an individual's normal job duties, e.g., a territory manager conducting site visits, or routine field visits by crafts personnel. It is recommended that these drivers periodically review their driving habits and patterns against the criteria in the Tool to ensure they are planning their routine business driving accordingly.

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APPENDIX B – Fatigue and Driving

APPENDIX B – Fatigue and Driving

Driver Fatigue

Studies have shown that driver fatigue is a major contributing factor to vehicle accidents.

The following provides a discussion of driver fatigue, what it is, and its characteristics, its causes and steps that can be taken to reduce its effects.

Fatigue is defined as the body's response to continued physical or mental activity or sleep loss. It is caused by:

- Excessive time on task requiring mental or cognitive work.
- Sleep loss and/or disrupted sleep.
- Displaced biological rhythms.
- Irregular work schedules.
- Poor physical and environmental conditions.

Fatigue is characterized by:

- Diminished ability to do work.
- Decreased ability to detect small changes in the driving environment, e.g., small obstacles in the road.
- Loss of attention.
- Decreased alertness and vigilance.
- Increased time to mentally process information and make decisions.
- Increased reaction time.
- Impaired judgment.
- More variable and less effective vehicle control responses. (Drifting out of the lane, intermittent braking and random variations in speed).
- Confusion.

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Other stressors can promote the onset of fatigue:

- Drugs, both prescription and over-the-counter, that increase drowsiness.
- Alcohol is a sedative that promotes sleep. It can also reduce the quality of sleep.
- Sleep disorders that affect the quality of sleep, e.g., pain producing diseases, stress and breathing difficulties.
- Impaired health conditions.

Studies show that driver fatigue may be a contributing factor in as many as 40% of all vehicle crashes. In early morning hours, the risk of accident increases from between 4 (multi-vehicle) and 13 (single vehicle) times compared with those through the day. The characteristics of drivers who are involved in fatigue related accidents could be summarized as follows:

- Obtained too little sleep during the sleep-period preceding the accident.
- Obtained too little sleep over the 24 hours period preceding the accident.
- Accumulated sleep in a split-sleep pattern, for example, two or more segments of several hours each.
- Worked irregular schedules.
- Did not recognize that they were in need of sleep and believed that they were rested when they were not.
- Rated the quality of their last sleep as good or excellent when it was not.
- Drove at night with a sleep deficit.
- Worked or were involved in job related activities for extended hours and had a fewer number of hours to obtain sleep.
- Were not educated about the factors that can cause fatigue.
- Were compensated in such a way as to encourage extended driving hours.

Steps Drivers Can Take

Following are recommendations for reducing the onset of fatigue. They are divided into those measures that can be implemented by the drivers themselves or their families and those that can be implemented by the Company.

- Ensure that off-duty time is dedicated to obtaining the sleep he or

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she needs rather than using the time to accomplish other duties or responsibilities. This is especially important if on-duty times are pushed to their maximums.

- Get enough sleep. Individuals differ in the amount of sleep they need to function properly. Each driver needs to decide on the proper amount of sleep required and ensure that he or she obtains it.

- Practice good sleep habits. Drivers who work irregular hours should practice good sleep habits such as minimizing disruptive factors in the home, sleeping on a set schedule and ensuring that his or her sleep environment is well designed. Losing as little as 1-2 hours sleep can be critical to the onset of fatigue during the periods of greatest vulnerability: 1:00 a.m. to 8:00 a.m. and 2:00 p.m. to 6:00 p.m.

- Avoid "split-sleep" patterns. If the sleep period is broken into several short segments, the total amount of sleep required is longer than would be required if sleep was obtained in one continuous segment.

- Take a short nap before driving at night. Studies show that napping before the onset of fatigue can be an effective fatigue countermeasure. Naps should be a supplement to one continuous 8-hour sleep period, not a replacement for it.

- Do not rely on the use of drugs designed to counteract the effects of fatigue. Caffeine, for example, is a mild stimulant that has a short-term alerting effect on the body. However, caffeine cannot counteract the effects of sleep loss.

- Take a break from continuous driving every 2-4 hours. Studies have shown that short rest breaks (e.g. 15-minutes every 2-hours) can help fight the onset of fatigue brought about by factors associated with driving such as muscle strain, eyestrain and sitting in one posture for a long period of time.

- Avoid the use of quick fix responses to sudden bouts of fatigue. Many drivers have adopted behaviors to wake them up in the event of sudden onsets of fatigue. They can include opening the window, increasing the volume of the radio, constrained exercises, placing ice on the back of the neck, singing, etc. None of these "remedies" have been shown to be effective in reducing the effects of fatigue over a prolonged period of time.

- Conduct your own check of whether you are driving under the effects of fatigue. Most drivers underestimate their level of fatigue. Ask yourself the following questions:

What was the last town I drove through?

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Has anybody flashed their lights to indicate that I had my high beams on?

Have I had to brake sharply in the last few minutes?

Have I hit the rumble strips on the side of the road?

Have I noticed my vehicle wandering over the lane lines?

Without rechecking, can I correctly remember how many vehicles are present in my right side rearview mirror?

How long ago did I last stop for any reason?

Have any motorists honked their horns recently for a mistake that I made?

Have I shifted in my seat in the last minute?

Have I missed reading a directional sign in the last ten minutes?

If any of the above questions cannot be answered or are answered incorrectly, the driver may be falling under the effects of fatigue. If so, he or she should use any short-term measure that is needed to stay alert and look for the first opportunity to stop the vehicle and take a break.

If drivers discover that they are fatigued they should deliberately increase their eye scanning activity and begin to narrate their driving activities. Each of these actions can alleviate fatigue for a short period, but neither should be considered a long-term fix.

APPENDIX F - Passenger Vehicle Trip Planner

| Name of driver(s): _____ | Date: _____

| This Trip Planner is designed to help identify potential hazards associated with driving |
| for work related purposes and to identify the safest mode of travel. Working through |

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| this planner should help identify the key safety factors associated with the trip and |
| assist in planning appropriate control measures. Remember that even familiar and short |
| routes can become more hazardous if driven after long days or when experiencing fatigue. |
| No destination or business purpose warrants a driver undertaking a journey where unsafe |
| conditions exist. |

| Supervisor Guidance: This trip planner is designed as a screening tool to identify |
| potential hazards associated with the proposed driving trip. It is intended to |
| facilitate a discussion between supervisor and employee to help ensure driving trips are |
| carefully planned, that they include adequate rest breaks, and to help ensure trips are |
| undertaken at an appropriate time of the day and along suitable routes. If the |
| supervisor does not believe the trip can be undertaken safely then alternative |
| transportation must be utilized or the trip rescheduled. |

| Employees

| Employees considering driving on company business shall complete the trip planner if |
| required (see below) and review it with their supervisor. If employees are in doubt as |
| to when the Trip Planner should be completed, they should check with their supervisor. |

| The Trip Planner should be completed in sufficient time so that flight bookings (or |
| other means of public transportation) can be arranged if the driving trip is not deemed |
| appropriate. In case of emergency or last-minute trip changes, when advance review is |
| not possible, employees should complete the Trip Planner before the journey and discuss |
| it with their supervisor retrospectively. |

| Notes:

- | 1. Drivers must have completed the appropriate level of defensive driver training as |
| outlined in the PVMG. |
- | 2. Only vehicles compliant with the requirements as outlined in the PVMG Section 4 shall |
| be considered suitable for the trip. |
- | 3. Employees completing the trip planner must also complete the accompanying vehicle |
| checklist. |

|
| The Trip Planner is required to be completed by the traveler and reviewed in advance by |
| supervision for the following business driving circumstances: |

- | · Driving on a business trip of five hours or greater in the same day. |
- | · Driving in a country where driving conditions differ significantly from those in the |
| driver's home country (e.g., driving on a different side of the road, road sign |
| languages, etc.). |

| The Trip Planner is recommend
| , for the following business
| driving circumstances:
| · Driving on business trip
| between two and five hours in
| duration, particularly if the
| route is unfamiliar or such

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| driving is not routine.

| · Driving during times

| outside of the normal workday

| for the driver (e.g., late

| night, early morning).

| · If other potential fatigue

| factors exist (e.g., jet-lag,

| short recovery period since

| last significant drive,

| inadequate sleep).

|

| The Trip Planner is not

| intended for use under the

| following circumstances:

| · Daily commuting to and

| from work. (Drivers are

| encouraged to consider

| appropriate factors during

| off-the-job driving.)

| · Driving trips that are

| associated with an individual's

| normal job duties, e.g., a

| territory manager conducting

| site visits, or routine field

| visits by crafts personnel.

| It is recommended that these

| drivers periodically review

| their driving habits and

| patterns against the criteria

| in the Trip Planner to help

| ensure they plan their routine

| business driving accordingly.

Factors for review in trip planning	Considerations / Guidelines	Answers
Total expected distance of trip	Include distances of any possible side	_____ Miles (Kilometers)

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(one-way)	trips that will be required.	Supervisor guidance: For long distance
		journeys (e.g., >250 miles or 400km) you
		should carefully consider the factors below
		which may increase the risks of the trip.
		Even trips of significantly less distance may
		not be suitable if other unacceptable hazards
		are identified below.

Total expected time of trip (include time spent in traffic before/after accessing motorways)	Ensure a realistic allowance is made for heavy traffic conditions, particularly if the trip will occur during peak hours. Include time for rest breaks.	_____Hours Detail the planned break times and locations in the trip description area on the last page
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Timing of the trip	Trips should not be planned where they will extend the normal workday by a significant period. For example, commencing an extended trip at the end of a day would be regarded as higher risk and should not be contemplated for fatigue related reasons. Similarly, commencing the day driving at a significantly earlier start time than normal should not be contemplated.	Expected start time of trip _____ Expected finish time of trip _____ Supervisor guidance: Review above times in the context of the employee's normal work hours for potential fatigue factors.
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Fatigue factors	Will you be attending any late night business or social occasions the night before driving? Have you recently traveled such that you may be experiencing some form of 'jet-lag'? Will you be picking up a car at your destination after an overnight or extended flight, during which you may not be able to get adequate rest/sleep? (Generally not recommended).	Circle as appropriate: Yes / No Yes / No Yes / No Supervisor guidance: A Yes answer to these questions indicates potentially higher risk
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Time at destination between arrival and departure	The period of time you spend at your destination can determine the extent to	Circle as appropriate:
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	which you have been able to "recover" from the arrival trip.	Yes / No
	Will you be staying at your destination for a full work-day, including an overnight stay, before your return/departure trip?	Supervisor guidance: A No answer to this question indicates potentially higher risk.

Familiarity with the roads that will be traveled en-route	As a guideline, have you taken this route as a driver in the last 12 months?	Yes / No Supervisor guidance: A No answer to these questions indicates potentially higher risk

Familiarity with the roads at the destination location	Will you be faced with unfamiliar roads and surroundings when you reach the destination town/city? If Yes, will you be driving without a passenger who can navigate or without a conforming GPS unit (Refer to PVMG 2.1.6) so that you can fully concentrate on driving?	Circle as appropriate: Yes / No Yes / No Supervisor guidance: A Yes answer to these questions indicates potentially higher risk.

Identify the potential conditions that may be encountered along the route:	Large portions of single lane dual carriageway (2-lane undivided highway)? Large portions of hilly and/or winding roads, possibly without lighting or guard rails? Areas of dirt or gravel roads? Will you be driving when it is dark? Will you be driving in areas or at times where/when animals could be expected to be on the road (e.g., deer, kangaroos)? Will you be driving when/where there is a risk of adverse weather conditions	Yes / No Yes / No Yes / No Yes / No Yes / No

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	(e.g., ice, snow, extreme heat, high	
	winds)? Review forecast before	Yes / No
	starting out.	
	Will you be crossing any international	Yes / No
	borders where road rules or vehicle	
	conditions differ?	Yes / No
	Will you be out of cell phone contact?	Supervisor guidance: A Yes answer to these
		questions indicates potentially higher risk.
	Are there any known security hazards	
	along the route (e.g., known threat of	
	hold-ups, etc.) (Consider consulting	
	advice.)	

Please refer to the Passenger and Service Vehicle Safety Management Guide (PVMG) Appendix B - "Fatigue and Driving" guidelines when planning a trip.

Trip details:

Starting location: _____ Destination:

Please provide a brief description of the proposed route. List the major roads sufficient for your supervisor to understand your trip. Identify where rest breaks will be taken (recommended at intervals of two hours or less, depending on fatigue and road conditions) and other steps proposed to address any items identified as potentially higher risk. Include a plan for the return journey also. Attach additional pages if required.

Checklist for vehicle compliance against PVMG requirements

Vehicle Registration Number: _____ Vehicle Odometer Reading:
_____ (Miles / Km)

Make / Model of vehicle: _____ Year of manufacture:

Circle Yes/No to indicate vehicle compliance with PVMG requirements

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1. Seat belts front and back (lap and shoulder harness) for all occupants.

Yes / No

2. Frontal impact driver and passenger air bags (front seat). These are in addition to seat belts. Yes / No

3. Weather/terrain-appropriate tires (e.g., all-season, snow, or off-road) of the same construction

(e.g., radial or bias-belted), with minimum 3/32 inch (2.5 mm) tread, on all wheels.

Yes / No

4. Driver side and passenger side mirrors; interior rear-view mirrors.

Yes / No

5. Spare tire, lug wrench and jack properly rated for vehicle's weight.

Yes / No

6. Front and rear turn indicators. Yes / No

7. Four-way flashers (hazard). Yes / No

8. Anti-lock braking systems (ABS)*. Yes / No

9. Daytime running lights or headlights that will be manually turned on while driving. Yes / No

10. High-mount rear brake light. Yes / No

11. Adjustable or fixed head rests which protect the head from whiplash injury (front mandatory; rear desirable) Yes / No

12. A basic radio to receive alerts about severe weather or traffic conditions. Yes / No

13. Laminated safety glass. Yes / No

14. Adequate windshield washers and wipers to keep windshield clear.

Yes / No

15. Adequate ventilation systems to keep windshield and all windows free of fog. Yes / No

16. Station wagons: A cargo barrier is fitted behind the rear seat to prevent objects from the

rear compartment moving in to the passenger compartment. This is also recommended for minivans.

Yes / No/ Not Applicable

17. Safety kit with appropriate equipment: snow brush, ice scraper, cold-weather survival, desert survival, etc. Yes / No

* Where allowed, commercially available and maintainable.