

**Fatigue Training/Education Covered Subjects Form 2011 - 2018**

*If your Company uses the classroom training materials from Pipeline Performance Group and/or the managing fatigue calendars and monthly articles, this form documents how the subjects recommended by PHMSA are covered in the training sessions and/or through the monthly articles. The information below is specific to our clients who we trained in 2017 and who use "required reading" of the monthly fatigue articles.*

This form documents how the Company provided fatigue training and education program covers the desired subjects that are stated in the PHMSA CRM regulations, FAQs (6-20-12), and inspection questions (3-1-12). The Company uses classroom fatigue training materials from Pipeline Performance Group. The training participation is documented and each participant receives a completion certificate.

The Company provides a Managing Fatigue calendar annually to Controllers and their families. The Company has required Controllers to read a one page Managing Fatigue article monthly each month since January 2011. The required reading is documented with dates and signatures. Pipeline Performance Group provides the calendars and the monthly articles.

<b>SUBJECT</b>	<b>HOW WAS SUBJECT COVERED IN TRAINING?</b>	<b>HOW WAS SUBJECT COVERED WITH EDUCATIONAL MATERIALS?</b>
1. Fatigue mitigation strategies. 195.446(d)2; 192.631(d)2	Pipeline Performance Group (PPG) training course 2017. Pages 35-48	Pipeline Performance Group (PPG) calendar and articles: 01/11; 12/11; 04/12; 12/12; 01/13; 08/13; 12/13; 05/14; 08/14; 01/15; 03/15; 04/16; 06/16; 01/17; 05/17; 11/17; 01/18
2. How off-duty activities contribute to fatigue. 195.446(d)2; 192.631(d)2	Pipeline Performance Group (PPG) training course 2017. Pages 35-48	PPG calendar and articles: 04/11; 11/11; 01/12; 02/12; 06/12; 01/13; 07/13; 12/14; 11/15; 09/16; 08/17; 10/18
3. Fatigue in terms of time-on-task, circadian, acute, cumulative, chronic, and physical effects.	Pipeline Performance Group (PPG) training course 2017. Page 12	PPG calendar and articles: 09/11; 02/12; 11/12; 08/13; 06/13; 11/14; 08/18
4. Sleep physiology, sleep hygiene and sleep pathologies.	Pipeline Performance Group (PPG) training course 2017. Pages 25-34	PPG calendar and articles: 01/11; 02/11; 06/11; 04/12; 09/12; 10/12; 01/13; 03/13; 06/13; 11/13; 02/14; 03/14; 02/15; 09/15; 10/15; 03/16; 08/16; 03/17
5. Fatigue modeling, including explanations of FAID® results.	Pipeline Performance Group (PPG) training course 2017. Page 54 and FAID® results presentation of shift schedule	PPG calendar and articles: 08/11; 01/12; 10/13; 11/14; 11/16; 02/18
6. Employer-specific policies and procedures related to fatigue management.	Pipeline Performance Group (PPG) training course 2017. Pages 49-50	PPG calendar and articles: 02/12; 11/12; 02/13; 04/18
7. Sleep deprivation effects on work performance.	Pipeline Performance Group (PPG) training course 2017. Pages 3, 6-7, 9, 11	PPG calendar and articles: 01/11; 05/13; 07/11; 01/12; 02/12; 08/12; 01/13; 11/13; 02/14; 09/14; 10/14

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8. Circadian rhythm effects on work performance.	Pipeline Performance Group (PPG) training course 2017. Pages 23-24, 30-31	PPG calendar and articles: 03/11; 07/11; 09/12; 08/13; 01/14; 05/16; 07/17; 08/18
9. Time on task fatigue effects on work performance.	Pipeline Performance Group (PPG) training course 2017. Pages 22-24	PPG calendar and articles: 04/11; 09/11; 09/12; 08/13; 12/13; 08/14; 12/17; 08/18
10. The effects of prescription and over-the-counter drugs on sleep and performance.	Pipeline Performance Group (PPG) training course 2017. Page 47	PPG calendar and articles: 12/11; 05/12; 09/13; 06/14; 12/15; 04/17
11. Uses of prescription sleep aids and alertness aids.	Pipeline Performance Group (PPG) training course 2017. Page 47	PPG calendar and articles: 12/11; 05/12; 09/13; 06/14; 12/15
12. Quantifying the potential contribution of fatigue to incidents and accidents.	Pipeline Performance Group (PPG) training course 2017. Pages 49-50	PPG calendar and articles: 07/12; 08/12; 10/13; 09/18
13. Fatigue effects on highway driving performance, including the risks of drowsy driving.	Pipeline Performance Group (PPG) training course 2017. Pages 8, 15, 20	PPG calendar and articles: 03/12; 05/13; 08/14; 10/15; 04/16A; 02/17; 11/18
14. Actions to be taken when a Controller is identified as being too fatigued to safely control the pipeline.	Pipeline Performance Group (PPG) training course 2017. Page 56	PPG calendar and articles: 06/15; 05/18
15. Managing the disruptive effects of shift-work on sleep and alertness.	Pipeline Performance Group (PPG) training course 2017. Pages 7, 9, 12-15	PPG calendar and articles: 03/11; 07/11; 09/12; 11/12; 01/13; 06/13; 08/13; 02/14; 09/14; 10/14; 03/15; 07/16; 10/16; 06/17
16. Managing health and nutrition for shift workers.	Pipeline Performance Group (PPG) training course 2017. Pages 15-22, 41-46	PPG calendar and articles: 10/11; 12/11; 10/12; 01/13; 04/14; 05/14; 07/14; 04/15; 05/15; 08/15; 02/16; 04/16; 06/16; 09/17; 03/18; 07/18
17. Managing stress/social and family issues relating to shift-work.	Pipeline Performance Group (PPG) training course 2017. Pages 24, 36-37	PPG calendar and articles: 04/11; 05/11; 11/11; 01/12; 06/12; 01/13; 07/13; 12/14; 11/15; 06/17; 12/18
18. Training for recognition of fatigue.	Pipeline Performance Group (PPG) training course 2017. Pages 51-53	PPG calendar and articles: Fatigue Observations Checklist inside cover; 08/11; 08/12; 10/13; 11/14; 06/15; 10/17

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19. Individual-specific employee differences that may impact fatigue	Pipeline Performance Group (PPG) training course 2017. Pages 15-22	PPG calendar and articles: 09/11; 01/12; 05/12; 01/13; 07/15; 06/18
20. Fatigue mitigation strategies, based on the preceding information.	Pipeline Performance Group (PPG) training course 2017. Pages 35-48	PPG calendar and articles: 01/11; 12/11; 04/12; 05/12; 12/12; 08/13; 12/13; 05/14; 08/14; 02/15; 04/15; 08/15; 01/16; 12/16; 05/17; 11/17