

Safety First

The role of Controllers is vitally important to the safe and efficient operation of pipelines. Due to the high risk nature of these jobs, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has established the Control Room Management (CRM) regulations (49 CFR Parts 192 and 195) which specify safety requirements for Controllers, control rooms and SCADA systems used to remotely monitor and control pipeline operations. Because fatigue can contribute significantly to Controller performance, PHMSA has outlined specific requirements for pipeline operators in the area of fatigue management. We often use the term, “fit for duty” to describe a person’s physical, mental and emotional health or readiness to perform the job at hand. How do you evaluate and determine your own fitness for duty, or that of a coworker?

The CRM regulations stipulate that companies shall provide training for Controllers and supervisors in recognizing the effects of fatigue. In our classroom and computer-based training courses, we provide several methods for recognizing the signs of fatigue. The difficulty is in recognizing the effects of fatigue before they lead to a lapse in situation awareness and/or impaired performance. Another difficulty is taking appropriate actions when you recognize fatigue in others.

We incorporate a ‘Fatigue Observations Checklist’ in our annual Managing Fatigue calendar to provide indicators that supervisors and coworkers can use in control rooms or other work locations. It contains a range of fatigue descriptions from “highly alert” to “dangerously fatigued.” The checklist is below and is one of many tools that you might use to help identify signs of fatigue. Having fatigue countermeasures available when fatigue strikes (e.g., exercise equipment, snacks, caffeine in moderation, conversations with others, etc.) is a good plan.

There is no regulatory stipulation about what actions to take if and when one recognizes the effects of fatigue, but the purpose of the fatigue mitigation section of the CRM rule is to reduce the risk associated with Controller fatigue. What is your responsibility if you see someone reporting to their shift severely fatigued or otherwise unfit for duty? Maybe they are yawning

excessively, struggling to stay awake, visibly inattentive to the shift turnover, unresponsive to conversation, or even asleep? When you are on shift, what responsibility do you have to ensure that everyone on duty is alert and engaged in his or her individual tasks? If you are a supervisor, what actions will you take when you recognize an employee is fatigued?

Your company’s fatigue management plan should contain, but not be limited to, guidance to help manage maximum hours of service limits, time off requirements between shifts and what to do if someone is too fatigued to work safely. The requirements may include notifying a supervisor, completing a fatigue self-reporting form and/or arranging for a relief Controller to assume responsibility for the fatigued Controller.

From a personal perspective, Controllers must take proper care to schedule sleep and create for themselves the opportunity to achieve a sufficient quantity of good, restful sleep. From a control room team perspective, Controllers and supervisors can be vigilant in evaluating the fitness-for-duty of incoming Controllers. Assuming responsibility of the Controller role is serious business. If something doesn’t look or feel right, say or do something!



FATIGUE OBSERVATIONS CHECKLIST



Use this **Fatigue Observations Checklist** to monitor yourself and your coworkers for signs of fatigue at the beginning of the shift and at times during the shift when fatigue is likely to affect you. Use fatigue countermeasures that work for you when necessary.

1

Highly Alert: Active, energetic, alert, wide awake, attentive

2

Alert: Functioning at high levels, if not at peak levels

3

Relaxed: Aware, but relaxed; responsive, but not fully alert

4

Mildly Fatigued: Eyes tired, long eye blinks, difficulty focusing vision, yawning, trouble understanding instructions, clumsy, errors in speech, difficult to stay awake

5

Very Fatigued: Not fighting sleep, longer eye blinks (>2 seconds), slurred speech, trouble holding conversation, forgetful

6

Dangerously Fatigued: Little or no activity, fixed staring, microsleeps, head nods forward, strong desire to sleep, visibly asleep, snoring

Individuals with ratings of 5 and 6 should NOT be on duty; Individuals with ratings of 4 should take a break from the console.