

## Task Related Fatigue

Pipeline Performance Group, LLC has reached a significant milestone by completing over 200 workload assessments in control rooms since 2011. While the specific purpose of these assessments is to determine whether or not controllers have adequate time to respond to alarms, the method also determines whether or not the workload could contribute to increased controller fatigue and stress.

If the percentages of “Operations Tasks” is higher than the industry workload benchmarks we have developed, we recommend ways to address the reasons for the higher workload. It is important that workload be neither too low nor too high. It would be great, if like in *Goldilocks and The Three Bears*, we could get workload “just right.”

Some of the components of workload that contribute to task related fatigue are the number of tasks, task duration and intensity, mental demand, physical demand, time pressure, required effort, frustration, and performance goals.

Do you remember that task related fatigue was one of the PHMSA Control Room Management (CRM) frequently asked questions (6-20-11)? Question D.10 is, “Should operators consider task-specific fatigue in their mitigation strategies?” The answer to the FAQ was, “Yes. Repeated and/or demanding work causes task-specific fatigue and the need for recovery.”

Other task-specific items in the FAQ included a suggestion that workers have opportunities for rotating from one task to another several times within a shift and that companies should be aware of the effects of “techno stress.” That is an effect of overreliance on automation in control rooms that can result in “fine motor fatigue, visual fatigue, vigilance failures, monotony, and potentially repetitive-stress injuries.”

There are other contributors to task related fatigue that are not often considered. If a person has tasks that require focus and concentration, what are things that could make those tasks harder to accomplish? In a recent Wall St. Journal article “Why You Can’t Concentrate at Work,” the top two complaints from employees were noise and the loss of visual privacy. Control room personnel probably have those complaints.

The article states, “Visual noise, the activity or movement around the edges of an employee’s field of vision, can erode concentration and disrupt analytical thinking or creativity, research shows. While employers have long tried to quiet disruptive sounds in open workspaces, some are now combating visual noise too.”

The Health and Safety Executive of Great Britain issued Management Standards a few years ago to address work-related stress. One of the six risk factors that contribute to stress is “Demands.” Demands include workload, work schedules, and the work environment. The standards include guidance that could be applicable in control rooms where task related fatigue might be causing problems.

Do:

- Allow regular breaks, especially when the work is complex or demanding
- Provide enough time during shift for task completion
- Provide adequate training and resources
- Design jobs that provide stimulation and opportunities for workers to use their skills
- Provide sufficient challenges to keep staff motivated and interested in their work
- Attend to the physical environment – take steps to reduce distractions, disturbance, noise levels, vibration, and dust where possible
- Assess the risk of physical violence and verbal abuse, and deal with it
- If you’re a team-leader – learn to say no to work if your team is already at full capacity

Do not:

- Ask people to do tasks that they are not trained to do
- Encourage staff to take work home with them
- Allocate more work to a person or team unless they have the resources to cope with it
- Contact staff by phone, email, or text outside of working hours

