National Transportation Safety Board
Washington, D.C. 20594

Office of the Chairman

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Ms. Stacey L. Gerard
Acting Deputy Administrator
Pipeline and Hazardous Materials
Safety Administration
400 7th Street, S.W., Suite 8410
Washington, D.C. 20590

Dear Ms. Gerard:

Thank you for your November 4, 2004, letter updating the National Transportation Safety Board regarding action being taken to implement Safety Recommendations P-98-30 and P-99-12, stated below. Safety Recommendation P-98-30 was issued to the Pipeline and Hazardous Materials Safety Administration (PHMSA) as a result of the Safety Board's investigation of the June 26, 1996, pipeline rupture and release of fuel oil at Fork Shoals, South Carolina. Safety Recommendation P-99-12 was issued as a result of the Board's 1999 report, *Evaluation of U.S. Department of Transportation Efforts in the 1990s to Address Operator Fatigue*. Both recommendations are on the Board's "Most Wanted" list of transportation safety improvements and were discussed at the Board's November 4, 2004, Sunshine meeting on the Most Wanted list.

P-98-30

> Assess the potential safety risks associated with rotating pipeline controller shifts and establish industry guidelines for the development and implementation of pipeline controller work schedules that reduce the likelihood of accidents attributable to controller fatigue.

P-99-12

> Establish within 2 years scientifically based hours-of-service regulations that set limits on hours of service, provide predictable work and rest schedules, and consider circadian rhythms and human sleep and rest requirements.

The pipeline industry remains the only transportation mode that has no hours-of-service regulations. In 2002, the Safety Board was advised that PHMSA was tasking the Volpe National Transportation Systems Center to develop information about work-rest cycles, fatigue measurement, and fatigue management for pipeline controllers. According to PHMSA, this project determined that there was very little information available to assess the extent of fatigue issues in pipeline transportation or to provide industry and labor with tools and techniques to manage any problems.

The Safety Board reviewed materials from the Volpe project submitted by PHMSA. Its statement of work lists three objectives including (1) a poll of industry and labor on their current scheduling practices, (2) a meeting with PHMSA, Safety Board, and Volpe staff regarding proposed responses to Board recommendations, and (3) preparation of a full field data collection activity to understand and manage fatigue in the pipeline industry. The documents submitted on the Volpe project suggest only the first objective was accomplished. The Board notes that had the third objective been completed as outlined in its statement of work, PHMSA would have better information with which to assess the extent of fatigue issues in pipeline transportation, and to establish industry guidelines to reduce the likelihood of accidents attributable to controller fatigue.

The Safety Board notes that PHMSA's review of its accident records did not indicate that controller fatigue was a contributor to pipeline accidents. We do not find this outcome surprising because there are certain limits to PHMSA's pipeline accident database regarding fatigue data. The issue of fatigue is not directly solicited in the questions for the database. In addition, the reports are generally self-reported and require companies to collect fatigue data in their investigation and then report it to PHMSA.

The Safety Board notes that PHMSA has contracted with Battelle Memorial Institute (Battelle) for a project titled, *Human Factors Analysis of Pipeline Monitoring and Control Operations*. As part of this project, Battelle plans to discuss with Safety Board staff the overall reasoning and issues underlying the Board's fatigue recommendations; to date this contact has not been initiated. Although supportive of efforts to better understand how human factors can adversely affect the safety of pipeline monitoring and control operators, the Board is concerned that the project will only result in laying the groundwork "for assessing the need for further regulatory action." This project is not expected to be completed until October 2006, more that 8 years after the first fatigue safety recommendation was issued to PHMSA.

Because PHMSA continues to assess the fatigue issue in pipeline safety, Safety Recommendations P-98-30 and P-99-12 remain classified "Open—Acceptable Response." However, because the pipeline industry is the only mode of transportation without hours-of-service regulations, and because more than 7 years have elapsed since these recommendations were issued, the Safety Board strongly encourages PHMSA to commit to taking action soon, beyond investigations and studies, to address fatigue in the pipeline industry. Without such action, the Board may have no alternative than to reclassify these recommendations to an unacceptable status. We would appreciate receiving periodic updates on these initiatives as they near completion.

Thank you for your commitment to pipeline safety.

Sincerely,

Mark V. Rosenker
Acting Chairman

cc: Ms. Linda Lawson, Director
Office of Safety, Energy, and Environment
Office of Transportation Policy