

# **Veolia Launches Distraction Study with Industry Leaders and Scholars Elsmore and Parasuraman to lead U.S DOT-Sponsored Program**

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Veolia Transportation, the global transportation management firm, announced today that George Elsmore, a senior railroad official from the company, would lead an ongoing study on engineer distraction conducted at the Volpe Institute of Transportation Studies in Massachusetts. Academic expert, Dr. Raja Parasuraman, from George Mason University, will join Elsmore, to study workplace cognitive distractions that result in attentional errors and accidents. Elsmore has moved from his position heading rail safety for Veolia because of the importance of this work.

The study, sponsored by the U.S. Department of Transportation's Federal Railroad Administration, was awarded to Veolia in June 2011 to assess the factors contributing to the distraction of locomotive engineers during passenger rail service operations, and to develop a rigorous training program focused on techniques to mitigate distraction. The project supports the shared commitment of the U.S. Department of Transportation and Veolia to find ways the industry can, in all modes of transportation, reduce accidents and violations related to distracted drivers/operators. The FRA will fund \$250,000 for Veolia to conduct the study which will provide rail operators with a comprehensive training program focused on steps locomotive engineers can use to maintain attention and focus while operating a train.

Parasuraman, a professor of psychology at George Mason University and director of the Graduate Program in Human Factors and Applied Cognition, will assist Veolia in testing participants in the study and in providing the FRA with a final report at the study's conclusion. Alion Science & Technology will design the software for the study, in collaboration with Parasuraman, Veolia, and officials from the Volpe Center. Locomotive engineers based in Boston and represented by the Brotherhood of Locomotive Engineers and Trainmen will participate in the study.

Combined with the expertise of Parasuraman, Elsmore will provide the study with an operational background critical to prevent future distraction related accidents. Elsmore, former vice president of rail safety and compliance for Veolia, will lead the critical study after decades of experience in the railroad industry at the state and federal level.

"The safety of our passengers is of paramount importance to our operations throughout the company," stated Mark Joseph, ceo of Veolia Transportation. "George Elsmore's contribution to this important distraction study adds a ground level component to the issue of locomotive operations and how it affects engineers. Every day, a locomotive engineer is responsible for carrying passengers

through a maze of signals, crossovers, and switches, consequently, the engineer's focus and attention must be fully engaged and focused as he or she carries passengers to their daily destinations," Joseph commented. "Seeking ways to assist engineers maintain attention and not be distracted is critical," he continued.

The Veolia study will be conducted in two phases: The first phase will include a select pool of locomotive engineers operating in front of a locomotive simulator within the Volpe Center at the Cab Technology Integration Lab (CTIL) where each engineer will conduct a regular work session as they would on a normal workday. The CTIL will generate conditions each engineer would confront as part of operating a passenger locomotive and will include various settings under varying weather and operating conditions. The engineers will be put through a number of scenarios that will attempt to distract the engineer from operating the locomotive. Changes in engineer performance, physical condition and focus will be compiled and tabulated.

A training program will be then be developed based upon the results from the first phase of the study. During the second phase of the study locomotive engineers again will be put through a number of scenarios that will attempt to distract them from operating the locomotive, as they were in the first study. Then they will receive the training, and the scenarios will be replicated to determine the effect of the training program. At the conclusion of both phases, test results will be compiled and analyzed by Parasuraman, and a final report and Veolia will submit conclusions of the study to the FRA.

"When locomotive engineers or other operators who perform the same tasks over and over again, for a given period of time," commented Parasuraman, "the monotony of the tasks may cause mistakes." He continued, "Steps need to be taken to break up the monotony so we can reduce attention-related errors in the transportation workplace. This study is an opportunity to determine what steps work best in the conditions locomotive engineers operate in every day."

"We are supportive of this project and proud to be involved in this important issue. We want to provide all our members with effective techniques for improving situational awareness and fighting distraction, and believe that the results of this study and training program will deliver useful tools to them," said Paul Chaput, president of the Brotherhood of Local Engineers and Trainmen, Division 57, Boston.

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