

Fatality Analysis of Maintenance-of-way
Employees and Signalmen



March 9, 2012

Dedication:

The FAMES Committee dedicates its efforts to all roadway workers who have lost their lives in the performance of duty and to the families, loved ones, and coworkers they have left behind.

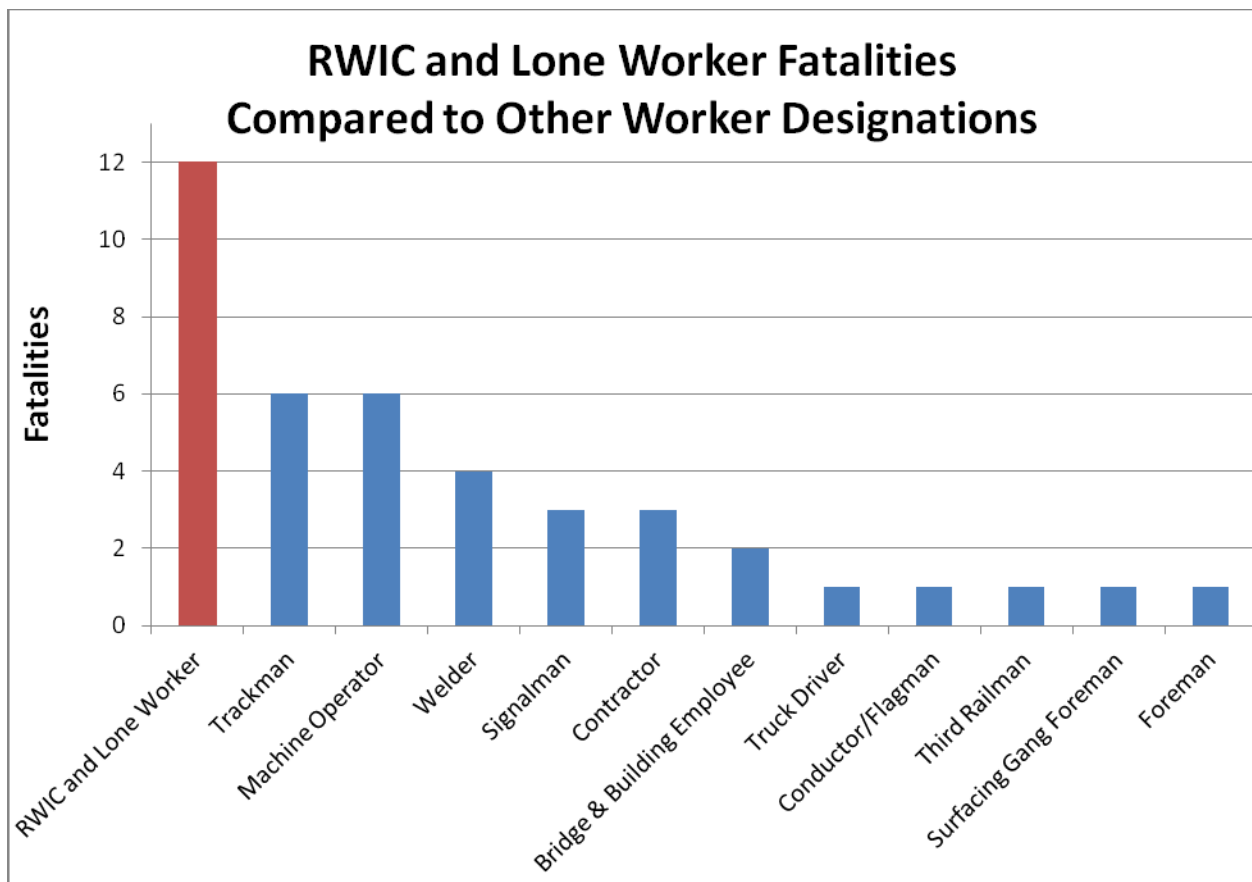
**Fatal Accidents Involving
Roadway
Workers-In-Charge
and
Lone Workers**

Mission Statement:

The Mission of the Fatality Analysis of Maintenance-of-way Employees and Signalmen (FAMES) Committee is to analyze all fatalities and selected related incidents in order to make recommendations to reduce the risk of future occurrences and eliminate fatalities to roadway workers.

Fatal Accidents Involving Roadway Workers-In-Charge and Lone Workers

Following the implementation of the Roadway Worker Protection (RWP) Rule in 1997, there have been a total of 42 fatal RWP accidents, in which 44 roadway workers have perished, as of December 31, 2011. The FAMES Committee was able to obtain data to analyze 39 fatal RWP accidents, which accounted for 41 of the 44 fatalities. The FAMES Committee analysis is based on the available data.

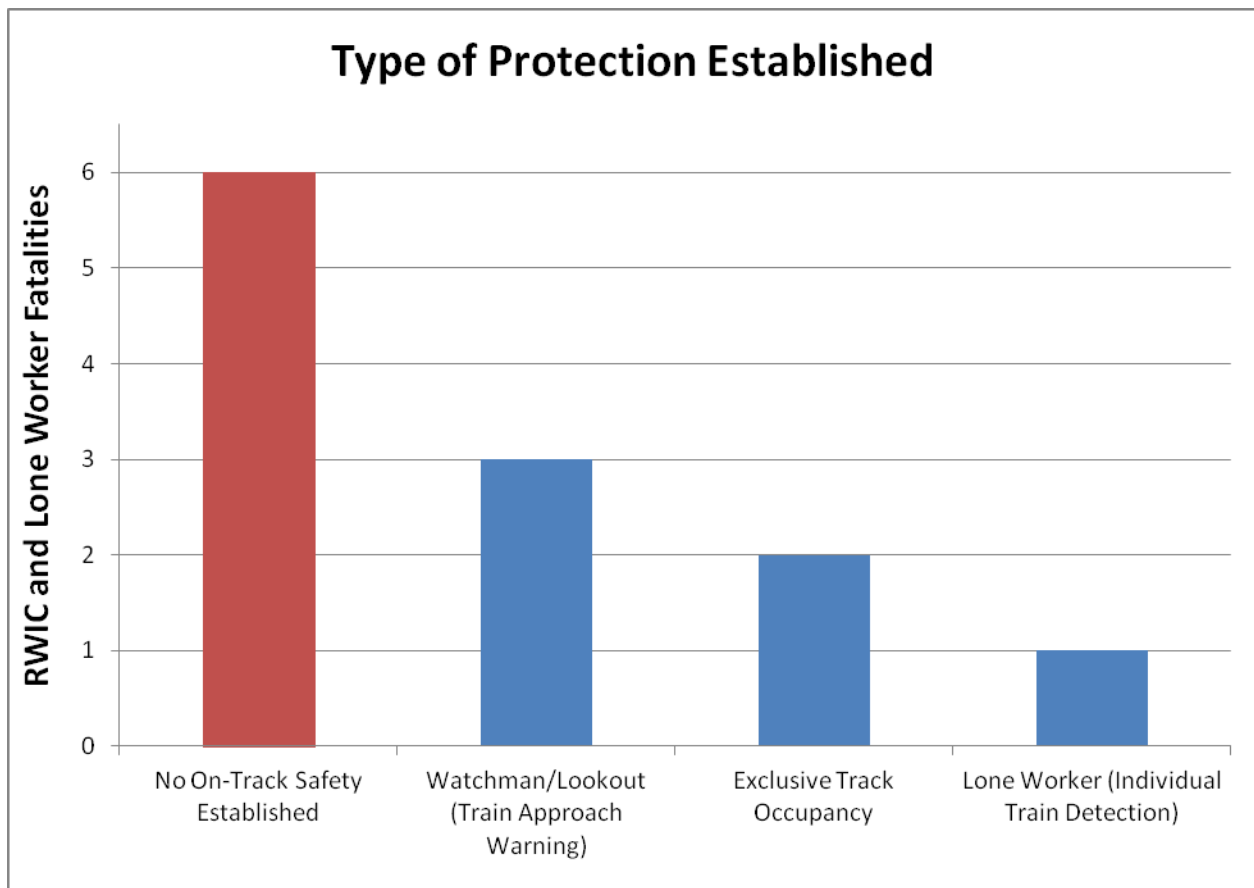


One of the statistics that came from the data reviewed by the FAMES Committee was the high incidence of fatalities that occurred to Roadway Workers-In-Charge (RWIC) and Lone Workers.

For the purpose of this report, RWICs are persons responsible for providing on-track safety for members of a work group. Lone workers are persons responsible for providing on-track safety for themselves while working alone. Both RWICs and Lone Workers must have a higher level of training and qualifications to determine and provide on-track safety; yet as a group, statistics

indicate that RWICs and Lone Workers are at higher risk of fatality than any other roadway worker designation. In the study, 12 fatally injured roadway workers were RWICs or Lone Workers responsible for establishing on-track safety. This represents 29% of the 41 fatalities. In 9 of the 12 fatalities, the RWIC was providing on-track safety for a roadway work group. In 3 of the 12 fatalities, the Lone Worker was responsible for determining and establishing their own on-track safety. One of the 3 Lone Workers was using Individual Train Detection (ITD) at the time of the accident.

These fatalities occurred across multiple forms of On-Track Safety (OTS); however, 6 of these 12 fatalities occurred without any OTS established at the strike location.



In 1 of the 12 fatalities, an RWIC was performing the duties of Watchman/Lookout at the time he was struck and fatally injured. Existing regulations and operating rules are quite clear that the Watchman/Lookout must be properly equipped and perform this critical duty to the exclusion of all other tasks. As with any other Watchman/Lookout assignment, a foreman or supervisor who

assigns himself this duty must understand that no task other than Watchman/Lookout duty is to be performed.

All 12 of the RWIC fatalities occurred on signalized controlled track. In 11 of the 12 cases, an adjacent track was present. Four of the fatalities occurred on an adjacent track where no OTS was established. Train strikes were involved in 9 cases; and the 3 other cases involved strikes with on-track equipment. In 6 of the 12 cases, at least one Roadway Maintenance Machine (RMM) was present. In 6 cases, there was evidence that the on-track safety briefing was not held or was missing critical information.

Analysis indicates that the 12 fatally injured workers were familiar with the tasks being performed and may have been focused on work processes such as detailed inspection, measurement, checking track alignment, trouble-shooting, or observing machine operation. Noise and reduced visibility due to the presence of RMM(s) (e.g., tampers, regulators) or other on-track equipment near the worksite may have interfered with the detection of approaching trains and equipment.

Under each form of protection provided in the RWP Rule (e.g., Individual Train Detection, Watchman/Lookout, Working Limits, Inaccessible Track) there are specific procedures in place to protect the work location and maintain the required level of safety. Although each form of protection varies in how on-track safety is established, without exception on-track safety is required to be established prior to fouling the track to perform work, even for short periods of time.

Recommendations:

- Experience is no substitute for compliance with on-track safety procedures.
- Neither RWICs nor members of a roadway work group (two or more workers engaged in a common task) may use Individual Train Detection as a form of on-track safety on any track.
- If the work requires oversight and supervision from an RWIC, the RWIC must not be assigned or assume the duties of Watchman/Lookout.

- Where an Exclusive Track Occupancy authority exists only for the track being worked on, roadway workers cannot foul an adjacent track without establishing on-track safety.
- On-track safety briefings should emphasize the risks associated with RMM movements and address items such as noise, machine spacing, obstructed visibility, and proper communications whenever roadway workers are working near RMM(s).
- Every roadway worker must make sure that on-track safety is established and understood prior to fouling a track.
- Every roadway worker has a duty to warn other roadway workers and employees fouling an unprotected track to move to the clear.
- Lone Workers may use Individual Train Detection only to perform routine inspection and minor correction work outside the limits of a manual interlocking, a controlled point, or a remote controlled hump yard facility. Lone workers are reminded to use a higher level of on-track safety whenever Individual Train Detection is deemed insufficient.
- Activities which require an RWIC to multi-task can introduce a higher level of distraction. Those activities which may distract the RWIC from his on-track safety responsibilities should be mitigated. Consideration should be given to delegating responsibilities.

The FAMES Committee consists of safety representatives from a cross section of rail labor, railroad management, and federal regulators. FAMES is a continuous improvement process that relies on the candid sharing of available data and the views of its participants. To enable the process, FAMES explicitly refrains from making any findings regarding whether any past or present practice or protocol satisfies any legal duty or standard of care.

The views, opinions, and recommendations contained in this report are those of the FAMES Committee and do not necessarily represent the views, opinions, or recommendations of any specific railroad, labor organization, or governmental agency.
