



U.S. Department of
Transportation

Federal Railroad
Administration

**Railroad Safety Advisory Committee Task Statement:
Rail Failure Working Group**

Task No.: 12-01

Date initially presented to the RSAC: September 27, 2012

Purpose: To consider specific improvements to the Track Safety Standards (TSS) or other responsive actions designed to monitor rail life and reduce the adverse risks of rail failures.

Background: Under Task No. 08-03, the Track Standards Working Group recently addressed the effect of rail head wear, surface conditions and other relevant factors on the acquisition and interpretation of internal rail flaw test results.

Description: Review and understand:

- Railroad engineering instructions concerning rail performance management.
- The factors that influence rail life.
- The impact of train dynamics on rail.
- The effects of head wear on rail strength and structural integrity.
- The effects of rolling contact fatigue on rail and how it can impact rail defect development.

Issues requiring specific report:

- Determine whether current industry rail head wear management systems are adequate or should be standardized.
- Identify an approach to establish the state of understanding of issues related to rail performance utilizing known experts in the field of rail research. Determine methods to improve the effectiveness and efficiency of rail performance management and rail life extension, and provide recommendations as necessary.
- Specifically, determine whether, and if so how, rail life and performance management can be improved to reduce the rate of worn-rail failures and related derailments.
- Determine whether new approaches to rail head wear limits should be developed and/or formally standardized.
- Evaluate whether methods for non-destructive rail inspections can be improved in terms of inspection effectiveness and efficiency.

Establish following working group: Rail Failure Working Group

Target Dates: Report recommendations to the Committee by March 2014.

Disposition: Accepted

Accepted Date: September 27, 2012