Abstract

การพัฒนาข้อกำหนดปฏิบัติงานมาตรฐานสำหรับเก็บข้อมูลความเสียหายของรางรถไฟ

Development of standard data collection protocol for damages to steel rail

แหล่งทุน RNS, NSTDA

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Rails, as the heart of the railway system, are subjected to very high service loads and harsh environmental conditions. Then, this component is expected to work safely; therefore, regular lifetime inspections are required to ensure that there is no crack initiation or propagation exceeding a critical length during service life. Although the railway rails are maintained correctly under the maintenance plans, failure of rails still could occur from internal defects, corrosion, or service conditions. Therefore, standard data collection protocol for damaged rails has been set up to collect necessary data and damaged specimen for further failure analysis. With proper and sufficient data, root causes of failure can be identified, and effective predictive and preventive maintenance can be performed.