Abstract

Draft Development for Inspection and Maintenance Standards for

Northern Rail Track with High Slope (Phase 1)

Source of Fund	Integration plan of transportation and logistics development 2566
Collaborative agency	State Railway of Thailand
Duration	1 Year (1 January 2023 – 31 December 2023)
Project leader	Panadda Sheppard
Co-researchers	MTEC's research team
	NECTEC's research team
	Komsanti Chokethawai, Chiang Mai University
	Chanon Bunon, Rajamangala University of Technology Isan
	Phongsak Runkratok, Rajamangala University of Technology Isan

Rail head maintenance in the Northern part of Thailand where many damages occur due to the high slope and tight curve nature of the landscape is carried out as per its current condition. The high frequency of the out-of-schedule maintenance implicates the level of service the State Railway of Thailand is able to provide. This means an interuption in local rail services, delays and other safety implication that may occur from damaged rails. It is therefore important that the root cause of the rail failure is studied in order to improve the maintenance techniques in order to increase the efficiency of the rail maintenance and hence improve the service quality of railway in Thailand.

Under phase 1 of the project under the same name which was funded in year 2023, essential data and information has been prepared. This includes structures and properties of rails used in the northern part of Thailand, corrosion rate of rail and fastener, failure characteristics of rail and technical information of the current technique for rail head maintenance. Moreover, a digital platform for data collection specific to the failure of rail has been constructed with an aim to improve the completeness of data. These are some of the required information that will lead to a better rail maintenance guideline.