

## Postprint: Research on Surrounding Rock Tunnel Construction Technology in Railway Engineering Projects Under the Premise of Safety Production

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**Date:** 2025-08-04T18:11:21+00:00

### Abstract

During the construction of surrounding rock tunnels in railway engineering projects, hazards such as rockfall and collapse are prone to occur, potentially leading to safety and quality accidents. Therefore, this paper introduces a safety risk assessment methodology for surrounding rock tunnels in railway engineering projects, employing this approach to conduct risk source identification and risk analysis for tunnel construction, and subsequently presents specific case studies to illustrate the corresponding surrounding rock tunnel construction procedures and risk control measures.

### Full Text

### Preamble

#### Study on Safety-Oriented Construction Technology for Tunnels in Surrounding Rock in Railway Engineering Projects

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**Abstract:** During tunnel construction in surrounding rock for railway engineering projects, hazards such as rockfall and collapse are prone to occur, potentially leading to safety and quality accidents. This paper presents a safety risk assessment methodology for such tunnels, employing it to identify and analyze construction risk sources. Subsequently, specific case studies are introduced to demonstrate corresponding construction techniques and risk control measures.

**Keywords:** railway engineering; surrounding rock tunnel; construction technology

*Note: Figure translations are in progress. See original paper for figures.*

*Source: ChinaXiv — Machine translation. Verify with original.*