

**STUDI MITIGASI RISIKO PEKERJAAN *ERECTION*
GIRDER PADA PROYEK PEMBANGUNAN
JALAN TOL SOLO - YOGYAKARTA -
NYIA KULON PROGO
SEKSI II PAKET 2.1**

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ABSTRAK

Pekerjaan *erection girder* merupakan salah satu pekerjaan konstruksi yang memiliki tingkat risiko tinggi karena melibatkan pengangkatan material berat, pekerjaan pada ketinggian, serta penggunaan *launching gantry*. Penelitian ini bertujuan untuk mengidentifikasi potensi bahaya dan risiko, menilai tingkat risiko awal, menentukan pengendalian risiko dan risiko sisa, serta membandingkan dokumen Identifikasi Bahaya, Penilaian Risiko, Penentuan Pengendalian Risiko, dan Peluang (IBPRP) PT. Daya Mulia Turangga dengan IBPRP hasil penelitian. Penelitian dilaksanakan pada pekerjaan *erection girder* STA 43+170 - STA 43+212 (P38S - P39S) Proyek Pembangunan Jalan Tol Solo - Yogyakarta - NYIA Kulon Progo Seksi II Paket 2.1 menggunakan metode penelitian deskriptif kuantitatif. Data diperoleh melalui observasi lapangan, studi dokumen, dan dokumentasi lapangan. Hasil penelitian mengidentifikasi 48 potensi bahaya yang menghasilkan 58 risiko, terdiri atas 43,1% risiko besar dan 56,9% risiko sedang sebelum pengendalian. Setelah diterapkan pengendalian risiko awal dan pengendalian lanjutan, seluruh risiko berhasil diturunkan menjadi 100% risiko kecil. Hasil perbandingan menunjukkan bahwa IBPRP hasil penelitian memiliki tingkat rincian yang lebih tinggi karena identifikasi bahaya, penilaian risiko, pengendalian risiko, dan penilaian risiko sisa dilakukan pada setiap tahapan pekerjaan *erection girder*.

Kata Kunci: *erection girder, launching gantry, mitigasi risiko, IBPRP.*

ABSTRACT

Girder erection is one of the construction activities with a high level of risk because it involves heavy material lifting, work at height, and the use of a launching gantry. This study aims to identify potential hazards and risks, assess the initial risk level, determine risk control measures and residual risks, and compare the Hazard Identification, Risk Assessment, Risk Control, and Opportunity (IBPRP) document prepared by PT Daya Mulia Turangga with the IBPRP developed in this study. The research was conducted on the girder erection work at STA 43+170 - STA 43+212 (P38S - P39S) of the Solo - Yogyakarta - NYIA Kulon Progo Toll Road Construction Project, Section II Package 2.1, using a quantitative descriptive research method. Data were collected through field observations, document review, and field documentation. The results identified 48 potential hazards, resulting in 58 identified risks, consisting of 43.1% high-risk and 56.9% medium-risk categories before the implementation of control measures. After the implementation of initial and additional risk control measures, all risks were successfully reduced, resulting in 100% low residual risk. The comparison results indicate that the IBPRP developed in this study provides a higher level of detail, as hazard identification, risk assessment, risk control measures, and residual risk assessment were carried out for each stage of the girder erection work.

Keywords: erection girder, launching gantry, risk mitigation, IBPRP.