

ABSTRAK

KAJIAN POTENSI RISIKO KECELAKAAN PADA STASIUN LRT PALEMBANG BERDASARKAN PENDEKATAN MANAJEMEN RISIKO

Oleh

RAHMA INDAH RINDIANI

LRT Palembang merupakan sarana transportasi massal yang sangat penting sehingga keamanan dan keselamatan pengguna maupun pekerja harus diprioritaskan. Penelitian bertujuan untuk meneliti pelaksanaan manajemen risiko dengan mengetahui potensi risiko kecelakaan pada sarana dan prasarana, mengetahui tingkatan level risiko kecelakaan berdasarkan *Fault Tree Analysis* Kuantitatif, dan membantu mengurangi potensi risikonya. Penelitian ini melakukan survey kuisisioner pada 325 penumpang dan operator di stasiun maupun di dalam kereta. Kuisisioner berisi 14 variabel risiko yang dikelompokkan berdasarkan identifikasi risiko. Data hasil penelitian pertama dikelompokkan berdasarkan tingkatan risikonya dengan metode *Risk Breakdown Structure* lalu metode *Fishbone* untuk menganalisis penyebab potensial dari risiko masalah tertentu. Kemudian dilakukan diskusi dengan 3 orang ahli untuk mengkonfirmasi perhitungan penelitian berdasarkan metode *Expert Judgement* dan dihasilkan nilai 4 (Layak Digunakan) pada penilaiannya. Selanjutnya, metode *Fault Tree Analysis* Kuantitatif untuk menganalisis penyebab kegagalan atau kerusakan terhadap keselamatan konsumen dan operator hingga didapatkan hasil risiko Tergelincir 1.56%, Tersengat Listrik 1.34%, Tertabrak 1.41%, dan Tertimpa Alat atau Barang 0.64%, persentase *Top Event* sebesar 4,94% dalam satu tahun.

Kata kunci : LRT Palembang, manajemen risiko, *fault tree analysis*, *expert judgement*

ABSTRACT

ASSESSMENT OF POTENTIAL ACCIDENT RISKS AT LRT PALEMBANG STATION BASED ON MANAGEMENT APPROACH

By

RAHMA INDAH RINDIANI

LRT Palembang is a very important means of mass transportation so that the security and safety of users and workers must be prioritized. The research aims to examine the implementation of risk management by knowing the potential risk of accidents in facilities and infrastructure, knowing the level of risk of accidents based on Quantitative Fault Tree Analysis, and helping to reduce potential risks. This research conducted a questionnaire survey on 325 passengers and operators at the station and on the train. The questionnaire contains 14 risk variables that are grouped based on risk identification. The research data was first grouped based on the level of risk with the Risk Breakdown Structure method and then the Fishbone method to analyze the potential causes of the risk of certain problems. Then discussions were held with 3 experts to confirm the research calculations based on the Expert Judgement method and resulted in a score of 4 (Worth Using) in the assessment. Furthermore, the Quantitative Fault Tree Analysis method to analyze the causes of failure or damage to the safety of consumers and operators to obtain the results of the risk of Slipping 1.56%, Electric Shock 1.34%, Hit 1.41%, and Falling on Tools or Goods 0.64%, the percentage of Top Event is 4.94% in one year.

Keywords : LRT Palembang, risk management, fault tree analysis, expert judgement