ABSTRAK

Proyek konstruksi memiliki tingkat risiko yang tinggi terhadap keselamatan dan kesehatan kerja, termasuk pada pekerjaan penanganan Sistem Penyediaan Air Minum (SPAM) pasca bencana. Penelitian ini bertujuan untuk mengidentifikasi potensi bahaya, menganalisis tingkat risiko, serta menentukan pengendalian risiko pada pekerjaan penanganan SPAM pasca bencana di PDAM Gunung Panggilun Kota Padang. Metode yang digunakan adalah Hazard Identification, Risk Assessment and Determining Control (HIRADC). Pengumpulan data dilakukan melalui kuesioner, observasi lapangan, wawancara, dan studi literatur dengan melibatkan 30 responden. Identifikasi bahaya dilakukan pada dua lingkup pekerjaan utama, yaitu pekerjaan Instalasi Pengolahan Air (IPA) dan pekerjaan INTAKE. Hasil penelitian menunjukkan adanya beberapa potensi bahaya, antara lain bahaya mekanik seperti terjepit, terpotong dan tertimpa alat berat, bahaya fisik dan kimia berupa paparan debu, uap cat, kebisingan dan sengatan listrik, bahaya ergonomi, serta bahaya lingkungan seperti cuaca ekstrem dan longsoran dinding galian. Hasil penilaian risiko menunjukkan nilai indeks risiko berkisar antara 1,225 hingga 3,670 dan seluruhnya termasuk dalam kategori risiko rendah. Pengendalian risiko dilakukan melalui pengendalian administratif, rekayasa teknis, serta penggunaan alat pelindung diri (APD). Penerapan HIRADC diharapkan dapat membantu meningkatkan pengendalian risiko dan mencegah kecelakaan kerja pada pelaksanaan pekerjaan SPAM pasca bencana di Kota Padang.

Kata kunci: Manajemen Risiko, K3, HIRADC, SPAM, PDAM, Kota Padang.

ABSTRACT

Construction projects have a high level of risk to occupational health and safety, including work related to post-disaster Water Supply System (SPAM) management. This study aims to identify potential hazards, assess risk levels, and determine risk control measures for post-disaster SPAM management work at PDAM Gunung Panggilun, Padang City. The method used in this study is Hazard Identification, Risk Assessment and Determining Control (HIRADC). Data were collected through questionnaires, field observations, interviews, and literature studies involving 30 respondents. Hazard identification was conducted in two main work scopes, namely Water Treatment Plant (IPA) and INTAKE works. The results identified several potential hazards, including mechanical hazards such as being trapped, cut, and struck by heavy equipment; physical and chemical hazards such as exposure to dust, paint fumes, noise, and electric shock; ergonomic hazards; and environmental hazards such as extreme weather and excavation wall collapse. The risk assessment results showed that the risk index ranged from 1.225 to 3.670, with all identified risks categorized as low risk. Risk controls were implemented through administrative controls, engineering controls, and the use of Personal Protective Equipment (PPE). The implementation of HIRADC is expected to improve risk control and prevent occupational accidents during post-disaster SPAM management work in Padang City.

Keywords*: Risk Management, Occupational Health and Safety, HIRADC, SPAM, PDAM, Padang City.*