ABSTRAK

Ahmad Syarif Wiyanto. IDENTIFIKASI *HUMAN ERROR* DAN KELELAHAN KERJA PADA DIVISI *PLANT* DI UNIT 9 PT XYZ. Dibimbing oleh Dr. Ir. Lovely Lady, S.T., M.T. dan Ani Umyati, S.T., M.T.

PT XYZ adalah suatu perusahaan yang bergerak dibidang penambangan bahan galian golongan C berupa batuan andesit dan dituntut memenuhi kebutuhan konsumen hampir setiap hari. Tuntutan yang tinggi menimbulkan kecelakaan kerja, sehingga pada umumnya kelelahan pekerja disebabkan lingkungan dari divisi plant yang berbahaya sehingga menimbulkan human error dan kelelahan kerja. Penelitian ini bertujuan untuk mengidentifikasi task/tugas, mengidentifikasi human error, mengklasifikasikan tingkat kekerapan dan kekritisan, mengetahui kelelahan kerja, serta membuat usulan perbaikan berdasarkan permasalahan yang terjadi di divisi plant. Identifikasi human error dilakukan menggunakan metode SHERPA (Systematic Human Error Reduction and Prediction Approach) serta pengukuran kelelahan kerja menggunakan metode IFRC (Industrial Fatique Research Committee). Berdasarkan hasil penelitian diketahui task/tugas pada plant A2 yaitu dimulai dari persiapan kerja, menyalakan daya mesin plant A2, menyalakan tombol oli, menyalakan tombol cone crusher, menyalakan tombol conveyor, memeriksa mesin ayakan, mengoperasikan dan mengamati jalannya seluruh mesin plant A2. Kekerapan dan kekritisan kejadian paling tinggi pada plant A2 adalah, salah mengoperasikan tombol mesin A2 (secondary), kurang teliti dalam mengamati jalannya mesin A2 (secondary), kurang penguasaan/kehandalan dalam menjalankan mesin A2 (secondary). Besar kelelahan di plant A2 secara umum adalah pre-test sebesar 71,71 ± 12,92 kategori sedang, post-test I didapatkan sebesar 75,71 ± 11,03 kategori sedang dan post-test II sebesar 71,43 ± 12,18 kategori sedang. Usulan perbaikan yang diberikan adalah diberi display operasi di dekat tombol serta pelatihan praktik dan materi mengenai pengoperasian mesin plant A2, melakukan pelatihan terhadap operator terkait pemahaman mesin sektor A2, melakukan pelatihan secara praktik dan materi terhadap operator terkait pengoperasian mesin sektor A2.

Kata Kunci*: Human Error, Metode SHERPA, Kelelahan Kerja, Metode IFRC*

ABSTRACT

Ahmad Syarif Wiyanto. IDENTIFICATION OF HUMAN ERRORS AND WORK FATIGUE IN PLANT DIVISIONS IN UNIT 9 PT XYZ. Guided by Dr. Ir. Lovely Lady, S.T., M.T. and Ani Umyati, S.T., M.T.

PT XYZ is a company engaged in mining of group C excavated materials in the form of andesite rocks and is required to meet the needs of consumers almost every day. High demands cause work accidents, so that in general the worker's fatigue is caused by the environment of the plant division which is dangerous, causing human error and work fatigue. This study aims to identify tasks / tasks, identify human error, classify the level of frequency and criticality, find out work fatigue, and make improvement suggestions based on the problems that occur in the plant division. Human error identification was carried out using the SHERPA (Systematic Human Error Reduction and Prediction Approach) method and measurement of work fatigue using the IFRC method (Industrial Fatique Research Committee). Based on the results of the research, it is known that the task / task at A2 plant is starting from work preparation, turning on the power of the A2 plant engine, turning on the oil button, turning on the cone crusher button, turning on the conveyor button, checking the sieve machine, operating and observing the entire A2 plant machine. The highest frequency and criticality of events at A2 plant is, incorrectly operating A2 engine button (secondary), less careful in observing A2 (secondary) engine running, lacking mastery / reliability in running A2 (secondary) engine. The amount of fatigue at A2 plant in general is the pre-test of 71.71 ± 12.92 medium category, post-test I is 75.71 ± 11.03 medium and post-test II category is 71.43 ± 12.18 medium category. The proposed improvement is given an operational display near the button and practical and material training on the operation of the A2 plant machine, training operators regarding understanding the A2 sector machinery, conducting training in practice and material on operators related to the operation of the A2 sector machinery.

Keywords*: Human Error, SHERPA Method, Work Fatigue, IFRC Method*