Penilaian Risiko Kesehatan Berdasarkan Task Analysis pada Aktivitas Well Services Industri Pengeboran Minyak Bumi di PT X Tahun 2019 = Health Risk Assessment Based on Task Analysis Well Services Activities of the Petroleum Drilling Industry PT X 2019

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Abstrak

Tesis ini membahas mengenai penilaian risiko kesehatan berdasarkan task analysis pada aktivitas well services industri pengeboran minyak bumi di PT X Tahun 2019. Penelitian ini adalah penelitian semikuantitatif dengan desain deskriptif berdasarkan HRA model PT Pertamina (2018) berdasarkan factor tingkat pajanan dan tingkat. Langkah awal yang dilakukan adalah dengan mengidentifikasi aktivitas well services berdasarkan task yang ada pada SOP dan JSA, walkthrough survey dan menilai risiko. Berdasarkan penilaian risiko kesehatan didapatkan tingkat risiko tinggi (high) untuk bahaya bising terhadap SEG floorman, driller, derrickman, dan mechanic dan bahaya ergonomi terhadap SEG floorman, driller, derrickman, dan operator dozer. PT AB dan PT CD perlu melakukan pengendalian tambahan terhadap bahaya bising dan bahaya ergonomi antara lain: Hearing Loss Prevention Program (HLPP), audit terhadap SOP & peralatan, melakukan pengukuran dosis personal bahaya bising, pembatasan jam kerja, pengukuran audiometri, melakukan supervisi dilapangan terhadap pengunaan earplug, pengunaan double earplug & earmuff, melakukan sosialisasi bahaya bising secara konsisten, menyediakan perancah (scafolding) pada aktivitas nipple up & nipple down horse head, melakukan pelatihan posisi tubuh yang ergonomi serta menambahkan Ergonomic Postur Assessment sebagai salah satu item dalam pemeriksaan kesehatan berkala. Bahaya gas H2S terhadap SEG floorman, driller dan derrickman dan bahaya gas CO terhadap SEG mechanic mendapatkan tingkat risiko medium, sehingga perlu dilakukan pemantauan implementasi pengendalian yang sudah ada serta pengendalian tambahan secara konsisten. Selanjutnya bahaya getaran mendapatkan tingkat risiko low terhadap SEG mechanic dan bahaya gas O2 terhadap SEG floorman, driller, derrickman, mechanic dan operator Dozer mendapatkan tingkat risiko very low, oleh karena itu PT AB dan PT CD melalui HES departemen perlu melakukan monitoring secara berkala dan konsisten terhadap impelementasi pengendalian yang sudah ada. Selain itu hasil penelitian ini juga menyarankan bahwa identifikasi potensi bahaya lainnya seperti pencahayan, radiasi gamma, heat stress, welding fume, bahaya biologi dan bahaya psikososial pada pekerjaan well services berdasarkan task analysis.
.....This thesis discusses the health risk assessment based on task analysis on the well services activities of the petroleum drilling industry at PT X 2019. This research is a semiquantitative study with a descriptive design based on the HRA model of PT Pertamina (2018) bases factor exposure level and hazard level. The first step is to identify performed the task well services based on SOP and JSA, walkthrough survey and risk assessment. Based on the health risk assessment, there is a high risk level for noise hazards to similar exposure group (SEG) floorman, driller, derrickman, and mechanic and ergonomic hazards to floorman, driller, derrickman, and dozer operators. PT AB and PT CD need to conduct additional controls for noise hazards and ergonomic hazards, including: Hearing Loss Prevention Program, auditing SOPs & equipment, measuring personal dose of noise hazards, limiting working hours, audiometric measurements, conducting field supervision of the use of earplugs, using double earplugs and earmuffs, disseminating noise hazards

consistently, providing scaffolding for Nipple Up and Nipple Down Horse Head activities, conducting ergonomic body position training, and adding Ergonomic Posture Assessment as an item in periodic health checks. The hazard of H2S gas to the SEG floorman, driller and derrickman and the danger of CO gas to the SEG mechanic has a medium level of risk, it is necessary to monitor the implementation of existing controls as well as additional controls consistently. Furthermore, the vibration hazard gets a low risk level for the SEG mechanic and the danger of O2 gas against the SEG floorman, driller, derrickman, mechanic and Dozer operators get a very low risk level, therefore PT AB and PT CD through the HES department need to monitor regularly and consistently the implementation of existing controls. In addition, the results of this study also suggest that the identification of other potential hazards such as lighting, gamma radiation, heat stress, welding fume, biological hazards and psychosocial hazards in well-service work based on task analysis.