

ABSTRAK

PT. Agro Raya Mas merupakan suatu perusahaan yang bergerak dibidang *Refinery* dan memiliki beberapa area produksi salah satunya *Blowing*. *Blowing* merupakan area kerja untuk memproduksi jerigen sebagai kemasan untuk produk minyak (olein) di PT. Agro Raya Mas. Proses produksi pada area *Blowing* yaitu, *crushing*, *mixing* dan *Moulding* (20L dan 5L). Pada area kerja *Crusher*, posisi operator dalam keadaan membungkuk dan berdiri dalam waktu yang lama. Pada area kerja *Mixer*, posisi operator dalam keadaan membungkuk dan berdiri dalam waktu yang lama, selain itu juga operator mengangkat beban yang berat. Dan untuk area kerja *Moulding*, posisi operator dalam keadaan berdiri dan lengan yang menekuk dan dilakukan berulang kali dalam waktu yang lama. Semua area kerja tersebut memiliki risiko terjadinya *Musculoskeletal Disorders*. Tujuan dari penelitian ini untuk menilai tingkat keluhan *Musculoskeletal Disorders* dengan metode *Nordic Body Map* (NBM) serta menilai tingkat risiko pekerja berdasarkan metode *Quick Exposure Check* (QEC). Berdasarkan metode NBM diperoleh nilai 66,67% pada kelompok Sangat Sakit (SS) yaitu pada leher bagian atas, kelompok Sakit (S) dengan persentase tertinggi yaitu pada bagian punggung, pergelangan tangan kanan dan tangan kanan. Persentase tertinggi kelompok Agak Sakit (AS) sebesar 83,33% pada bagian bokong, siku kanan dan lengan kanan bawah. Sedangkan kelompok Tidak Sakit (TS) yaitu pada bagian pergelangan tangan kiri sebesar 83,33%. Berdasarkan hasil metode QEC, pada area kerja *Crusher* diperoleh nilai *Exposure Score* faktor punggung dengan skor 38 tergolong *Very High Exposure Level*, faktor Bahu/Lengan dengan skor 46 tergolong *High Exposure Level*, faktor pergelangan tangan/tangan sebesar 46 tergolong *Very High Exposure Level*, faktor leher sebesar 16 tergolong *Very High Exposure Level*. Pada area kerja *Mixer*, faktor punggung dengan skor 42 tergolong *Very High Exposure Level*, faktor Bahu/Lengan dengan skor 48 tergolong *Very High Exposure Level*, faktor pergelangan tangan/tangan sebesar 46 tergolong *Very High Exposure Level*, faktor leher sebesar 16 tergolong *Very High Exposure Level*. Pada area kerja *Moulding* 20L, faktor punggung dengan skor 28 tergolong *High Exposure Level*, faktor Bahu/Lengan dengan skor 36 tergolong *High Exposure Level*, faktor pergelangan tangan/tangan sebesar 32 tergolong *High Exposure Level*, faktor leher sebesar 18 tergolong *Very High Exposure Level*. Pada area kerja *Moulding* 5L, faktor punggung dengan skor 28 tergolong *High Exposure Level*, faktor Bahu/Lengan dengan skor 40 tergolong *High Exposure Level*, faktor pergelangan tangan/tangan sebesar 32 tergolong *High Exposure Level*, faktor leher sebesar 18 tergolong *Very High Exposure Level*. Sedangkan *Exposure Level* masing-masing sebesar 90%, 94%, 70% dan 73% yang menunjukkan bahwa perlu dilakukan penelitian dan perubahan secepatnya.

Kata Kunci : *Nordic Body Map* (NBM), *Quick Exposure Check* (QEC), Postur kerja

ABSTRACT

PT. Agro Raya Mas is a company engaged in the refinery business and has several production areas, one of which is Blowing. Blowing is a work area for producing jerry cans as packaging for oil (olein) products at PT. Agro Raya Mas. The production process in the Blowing area consists of crushing, mixing, and molding (20L and 5L). In the Crusher work area, operators are required to bend over and stand for long periods of time. In the Mixer work area, operators are in a bent position and stand for long periods of time, in addition to lifting heavy loads. And in the Molding work area, operators are in a standing position with their arms bent and perform repetitive movements for long periods of time. All of these work areas carry the risk of musculoskeletal disorders. The purpose of this study was to assess the level of musculoskeletal disorder complaints using the Nordic Body Map (NBM) method and to assess the level of risk to workers using the Quick Exposure Check (QEC) method. Based on the NBM method, a value of 66.67% was obtained in the Very Painful (VP) group, namely in the upper neck, while the Painful (P) group had the highest percentage in the back, right wrist, and right hand. The highest percentage for the Moderately Painful (MP) group was 83.33% in the buttocks, right elbow, and lower right arm. Meanwhile, the Not Painful (NP) group was 83.33% in the left wrist. Based on the QEC method results, in the Crusher work area, the Exposure Score for the back factor was 38, which is classified as a Very High Exposure Level, the Shoulder/Arm factor was 46, which is classified as a High Exposure Level, the Wrist/Hand factor was 46, which is classified as a Very High Exposure Level, and the Neck factor was 16, which is classified as a Very High Exposure Level. In the Mixer work area, the back factor with a score of 42 is classified as Very High Exposure Level, the Shoulder/Arm factor with a score of 48 is classified as Very High Exposure Level, the wrist/hand factor of 46 is classified as Very High Exposure Level, and the neck factor of 16 is classified as Very High Exposure Level. In the Muolding 20L work area, the back factor with a score of 28 is classified as High Exposure Level, the Shoulder/Arm factor with a score of 36 is classified as High Exposure Level, the wrist/hand factor of 32 is classified as High Exposure Level, and the neck factor of 18 is classified as Very High Exposure Level. In the Moulding 5L work area, the back factor with a score of 28 is classified as High Exposure Level, the Shoulder/Arm factor with a score of 40 is classified as High Exposure Level, the wrist/hand factor with a score of 32 is classified as High Exposure Level, and the neck factor with a score of 18 is classified as Very High Exposure Level. Meanwhile, the Exposure Levels are 90%, 94%, 70%, and 73%, respectively, indicating that research and changes need to be made as soon as possible.

Keywords: *Nordic Body Map (NBM), Quick Exposure Check (QEC), Work posture*