10. Safety

HAZARD POTENTIAL CONTROL AT "X" PIG FARM USING THE HIRARC METHOD

A THESIS

Submitted in Partial Fulfilment of the Requirements for the Degree of

Bachelor of Engineering in Industrial Engineering

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INTERNATIONAL INDUSTRIAL ENGINEERING PROGRAM

DEPARTMENT OF INDUSTRIAL ENGINEERING

FACULTY OF INDUSTRIAL TECHNOLOGY

ATMA JAYA UNIVERSITY YOGYAKARTA

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IDENTIFICATION PAGE

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STATEMENT OF ORIGINALITY

I, the undersigned below:

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DEDICATION PAGE

"Sukses berdasarkan hal yang sama dengan prinsip dasar ejakulasi.
Kau mengeluarkan jutaan sperma hanya untuk 1 telur yang bisa dibuahi.
Lebih banyak kau keluarkan, lebih banyak kesempatan akan jadi."

~ Gurion ~

RESEARCH STATEMENT LETTER

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23 Juni 2024

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Peternakan Babi "X"
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Atas kerja sama dan izin yang Bapak/Ibu berikan, kami ucapkan terima kasih.

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Yogyakarta, January 19, 2025

Martona Horas Gurion Tambunan

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ABSTRACT

The Pig Farm “X” is a livestock business located in Yogyakarta that specializes in producing pork. This business focuses on raising pigs from small sizes to full-grown, slaughter-ready conditions. The primary goal of the farm owner is to expand sales, ranging from selling processed products in traditional markets to exporting processed pork to restaurants and other cities. However, the farm faces several operational challenges, including environmental issues, licensing problems, feed supply constraints, and workplace accidents in the barn area. This research specifically addresses the issue of workplace accidents in the barn area.

Several key factors contribute to workplace accidents at this farm, namely human factors, methods, machinery, and the environment. The human factor arises from workers' lack of caution while performing activities in the barn area. The method factor includes the absence of clear occupational safety procedures for barn workers. The machinery factor is linked to the lack of safety standards for the equipment used. Lastly, the environmental factor stems from unsafe working conditions within the workplace.

The results of this study include a reduction in the potential hazard levels experienced by barn workers, particularly during high-risk activities such as cutting, burning, and similar operations. The Critical Success Factor indicating the success of this research is the ability to control the hazards present in certain operations. Before the intervention, some of these hazards were classified as medium, high, or even extreme. After implementation, the potential hazard levels were reduced to low or medium. Additionally, the design outcomes tailored to the needs of this farm include the development of occupational safety signage, the implementation of personal protective equipment (PPE) usage, and the provision of safety induction training for barn workers at the "X" Pig Farm.

Keywords: Potential hazard control, workplace accidents, Hazard Identification, Risk Assessment, and Risk Control (HIRARC)