DOCUMENTATION OF WASTE MANAGEMENT PRACTICES OF DIFFERENT SLAUGHTERHOUSES IN SELECTED AREAS IN CAVITE

THESIS

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ABSTRACT

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The study was conducted from July 2014 to February 2015 to document the existing waste management practices of slaughterhouses that are classified under Class A and Class AA in selected areas in Cavite. Specifically, it aimed to: determine the extent of compliance with PAES 411 and NMIS standards of selected Class A and Class AA slaughterhouses in Cavite; document the existing operational procedures and waste management practices observed; estimate the volume of waste produced by the slaughterhouse; and determine the use of the waste products from slaughterhouses.

Four different slaughterhouses have been observed, two slaughterhouses each for class A and class AA. The slaughterhouses were chosen according to availability and based on the list of the National Meat Inspection Service. Each slaughterhouse was surveyed to know their facilities, water consumptions, waste products and waste management. After observation, the slaughterhouses were compared to the Philippine Agricultural Engineering Standards.

For class A, the slaughterhouses in Tanza and Indang were observed. They both have lairage, scalding bath, water source, evisceration area, dehiding and dehairing area gut removal room, and meat inspector office. They are both near the public market of their municipality which is not the proper site for slaughterhouses. The wastes that they produced are hair, hoof, wastewater from cleaning and scalding bath, and manure from lairage and intestines. In terms of functional requirements, the level of compliance to PAES 411

by the Tanza Municipal Slaughterhouse was 94 percent while the Indang Municipal Abattoir was 65 percent.

For class AA, GMA Abattoir and Trece Martires City Slaughterhouse were observed. They both produce waste products such as hair, hoof, manure and wastewater. Trece Martires City Slaughterhouse is now constructing a biogas plant to operate in May or June 2015. The slaughterhouse in GMA is planning to have a biogas plant. The GMA Abattoir has wastewater facility that includes sedimentation tank and wastewater filter. In terms of functional requirements, the GMA Abattoir and Trece Martires City Slaughterhouse have both 67.74 percent level of compliance to PAES 411.

TABLE OF CONTENTS

LIST OF TABLES

LIST FIGURES

LIST OF APPENDIX FIGURES

LIST OF APPENDICES

DOCUMENTATION OF WASTE MANAGEMENT PRACTICES OF DIFFERENT SLAUGHTERHOUSES IN SELECTED AREAS IN CAVITE

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INTRODUCTION

Nature is able to cope with certain amounts of waste via a variety of natural cleaning mechanisms. However, if the concentration of waste products increases, nature's mechanisms become overburdened and pollution problem starts to occur. Usually, small scale home processing activities produce relatively small amounts of waste and wastewater. Nature can cope with these. Yet as a consequence of the increasing emphasis on large scale production considerably greater amounts of waste will be produced and steps will have to be taken to keep this production at acceptable levels (FAO, 2015).

The larger the scale, the more it becomes difficult to survey. The checking of waste production is a problematic undertaking and special efforts are needed to find out where in the production process waste is produced. Only after environmental considerations had become important, efforts were made to solve this problem (FAO, 2015).