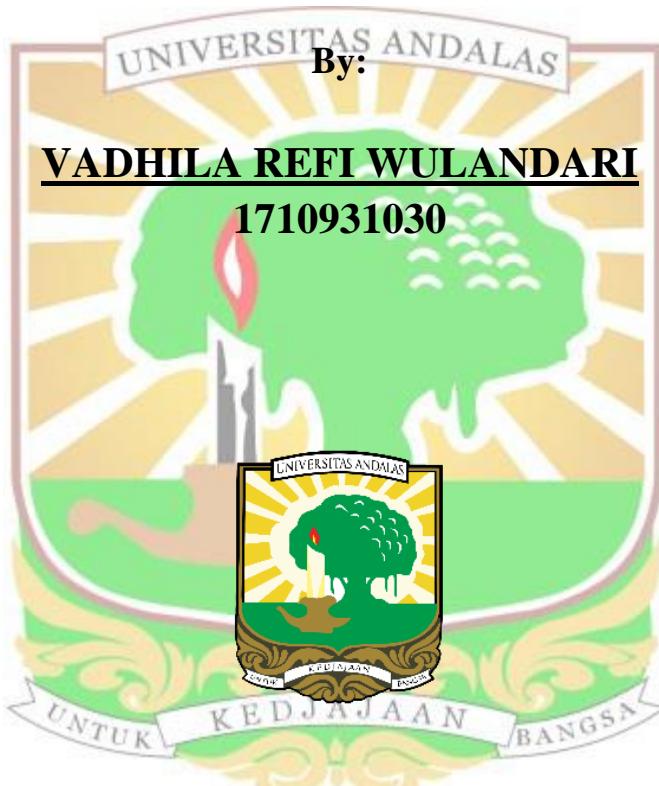


**DESIGN OF GOOD MANUFACTURING PRACTICES  
(GMP) AND SANITATION STANDARD OPERATING  
PROCEDURE (SSOP) DOCUMENTS IN TEACHING  
INDUSTRY GAMBIER ANDALAS UNIVERSITY**

**FINAL PROJECT REPORT**

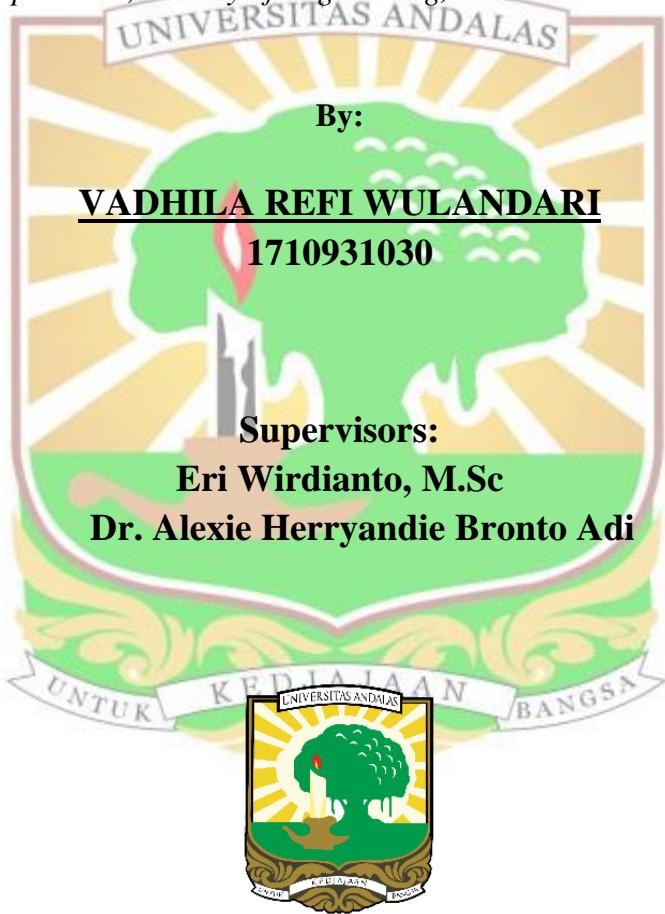


**DEPARTMENT OF INDUSTRIAL ENGINEERING  
FACULTY OF ENGINEERING  
ANDALAS UNIVERSITY  
PADANG  
2021**

**DESIGN OF GOOD MANUFACTURING PRACTICES (GMP)  
AND SANITATION STANDARD OPERATING PROCEDURE  
(SSOP) DOCUMENTS IN TEACHING INDUSTRY GAMBIER  
ANDALAS UNIVERSITY**

**FINAL PROJECT REPORT**

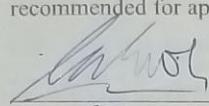
*As a requirement for finishing the Degree Program in Industrial Engineering  
Department, Faculty of Engineering, Andalas University*



**DEPARTMENT OF INDUSTRIAL ENGINEERING  
FACULTY OF ENGINEERING  
ANDALAS UNIVERSITY  
PADANG  
2021**

## APPROVAL PAGE

This final project entitled “**Design of Good Manufacturing Practices (GMP) and Sanitation Standard Operating Procedure (SSOP) Documents in Teaching Industry Gambier Andalas University**” prepared and submitted by **Vadhila Refi Wulandari** in partial fulfillment of the requirements for the degree of **Bachelor of Engineering** (Major in Industrial Engineering), has been examined and hereby recommended for approval and acceptance.

  
Date: 18/08/2021

**Eri Wirdianto, M.Sc**  
NIP. 197309211999031001  
Supervisor

Date: 18/08/2021

**Dr. Alexie Herrvandie Bronto Adi**  
NIP. 196507102000031001  
Co-Supervisor

PANEL OF EXAMINERS  
Approved by the Committee on Final Project Examination

09/08/2021  
Final Project Examination Date

**Reinny Patrisina, Ph.D**  
NIP. 197610022002122002  
Chair

**Prima Fithri, M.T**  
NIP. 198506282012122003  
Member

Accepted and approved in particular fulfillments for the degree of **Bachelor of Engineering** (Major in Industrial Engineering)

Date: 18/08/2021

**Reinny Patrisina, Ph.D**  
NIP. 197610022002122002  
Chair of Industrial Engineering  
Undergraduate Program

Date: 18/08/2021

**Feri Afrinaldi, Ph.D**  
NIP. 198209202006041002  
Chair of Industrial Engineering Department

## **ACKNOWLEDGEMENT**

Alhamdulillahirabbil'alamin, all praises and gratitude uttered to Allah SWT who has bestowed His mercy and grace, so that the author can complete this Final Project to fulfill one of the requirements of Bachelor's degree in Department of Industrial Engineering, Faculty of Engineering, Universitas Andalas entitled **“Design Of Good Manufacturing Practices (GMP) and Sanitation Standard Operating Procedure (SSOP) Documents In Teaching Industry Gambier Andalas University”**

This final project would not be completed without the supports obtained from many people. Therefore, I would like to express my sincere appreciation and deep gratitude to:

1. Mr. Eri Wirdianto, M.Sc and Mr. Dr. Alexie Herryandie Bronto Adi, as my supervisors of final project for the supervision, advice, and support during the writing and complete this final project.
2. Mrs. Reinny Patrisina, Ph.D, and Mrs. Prima Fithri, M.T as my final project examiners for the critics and suggestion to complete my final project.
3. The Teaching Industry Gambier Andalas University who has provided assistance in the form of data and information related to this Final Project.
4. My family who always pray and give encouragement in completing this final project.
5. All friends who always give support and encouragement in completing this final project.

Finally, the author hope this Final Project will be beneficial to the author itself and reader.

Padang, August 2021

Author

## ABSTRACT

Teaching Industry Gambier Andalas University is a unit under the Science Techno Park of Andalas University and is located in the Andalas University medicinal plant garden area. Founded in mid-2019, Teaching Industry Gambier Andalas University has been developed to produce gambier derivative products, namely catechins with a 90% content and gambier tea derived from gambier leaves. As a unit that will produce food and pharmaceutical products, Teaching Industry must ensure that the products produced are of high quality and safe and meet the product certification requirements from BPOM. One of them is by implementing a documented program of basic requirements for GMP and SSOP. However, currently TIG does not yet have the GMP and SSOP implementation documents. This study aims to design GMP and SSOP documents consisting of SOPs, Work Instructions, and Recording Forms.

Document design begins with a review of the implementation of GMP and SSOP at TIG. The next stage is the identification of business and production processes, details of activities, the person in charge of activities through the preparation of the RACI Matrix and mapping of the documented aspects of GMP. The mapping was carried out based on the guidelines for Good Manufacturing Practices for Food Production (CPPOB) and Good Manufacturing Practices for Active Pharmaceutical Ingredients (CPBAOB). Mapping aspects of the GMP guidelines resulted in 10 documented aspects. The documented aspects are then combined with aspects in the SSOP. The final stage is the identification of document requirements for TIG activities that require documents based on documented aspects of GMP and SSOP.

The results of this study are in the form of documents required by TIG based on TIG activities, GMP, and SSOP guidelines. The designed documents consist of SOPs, Work Instructions, and Record Forms covering production, facilities, and employees. The details of the document are 7 SOPs, 13 Work Instructions, and 17 recording forms.

**Keywords:** BPOM, Catechins, Gambier Tea, Good Manufacturing Practices, Sanitation Standard Operating Procedures.

## ABSTRAK

*Teaching Industry Gambir Universitas Andalas merupakan unit yang berada di bawah Science Techno Park Universitas Andalas dan berlokasi di kawasan kebun tanaman obat Universitas Andalas. Didirikan pada pertengahan tahun 2019, teaching Industry Universitas Andalas telah dikembangkan untuk menghasilkan produk turunan gambir yaitu katekin dengan kadar 90% dan teh gambir yang berasal dari daun gambir. Sebagai unit yang akan menghasilkan produk pangan dan farmasi, Teaching Industry harus memastikan bahwa produk yang dihasilkan tersebut berkualitas dan terjaga keamanannya serta memenuhi persyaratan sertifikasi produk dari BPOM. Salah satunya dengan menerapkan program persyaratan dasar GMP dan SSOP yang terdokumentasi. Namun, saat ini TIG belum memiliki dokumen penerapan GMP dan SSOP tersebut. Penelitian ini bertujuan untuk merancang dokumen GMP dan SSOP yang terdiri atas SOP, Instruksi Kerja, dan Formulir Rekaman.*

*Perancangan dokumen diawali dengan tinjauan penerapan GMP dan SSOP di TIG. Tahap selanjutnya ialah identifikasi proses bisnis dan produksi, rincian aktivitas, penanggung jawab aktivitas melalui penyusunan RACI Matrix dan pemetaan aspek terdokumentasi GMP. Pemetaan dilakukan berdasarkan pedoman Cara Produksi Pangan Olahan yang Baik (CPPOB) dan Cara Pembuatan Bahan Baku Aktif Obat yang Baik (CPBAOB). Pemetaan aspek pedoman GMP menghasilkan 10 aspek terdokumentasi. Aspek terdokumentasi tersebut kemudian dilakukan penggabungan dengan aspek pada SSOP. Tahap akhir ialah identifikasi kebutuhan dokumen untuk aktivitas TIG yang membutuhkan dokumen berdasarkan aspek terdokumentasi GMP dan SSOP.*

*Hasil penelitian ini berupa rancangan dokumen yang dibutuhkan oleh TIG berdasarkan aktivitas TIG dan panduan GMP dan SSOP. Dokumen yang dirancang terdiri atas SOP, Instruksi Kerja, dan Formulir Rekaman yang mencakup produksi, fasilitas, serta karyawan. Rincian dari dokumen tersebut ialah 8 SOP, 13 Instruksi Kerja, dan 17 Formulir rekaman.*

**Kata Kunci :** BPOM, Good Manufacturing Practices, Katekin Gambir, Sanitation Standard Operating Procedures, Teh Gambir.