ABSTRAK

Nama	: Bimo Anggoro
NIM	: 41619210002
Program Studi	: Teknik Industri
Judul Laporan Magang/Skripsi/Tesis:	Analisis Perawatan Mesin Genset Dengan Metode *Reliability Centered Maintenance* Dan Maintenance *Value Stream Map* Pada Golden Butique Hotel Kemayoran
Pembimbing	: Bethriza Hanum, ST, MT.

Untuk memenuhi harapan konsumen akan kenyamanan di sektor jasa dan pariwisata, penting untuk menambah aset berupa mesin genset yang didesain khusus untuk memenuhi kebutuhan pemasok tenaga listrik cadangan dalam sebuah hotel. Diketahui dalam dua bulan terdapat rata-rata pemadaman listrik di dearah setempat hingga 10 kali dengan interval waktu 2-5 jam, dampak dari pemadaman tersebut mengharuskan mesin genset dapat beroperasi kapanpun saat dibutuhkan. Pada tahun 2020 terdapat 20 kali mesin harus mengalami perawatan di luar perawatan rutin mesin. Maka dari itu pada penelitian ini akan dilakukan penentuan aktifitas perawatan mesin genset agar kerusakan pada mesin dapat diminimalisir dengan pendekatan *Failure Mode Effect Analysis* dan *Realibility Centered Maintenance*. Dari hasil FMEA terhadap 15 komponen mesin genset didapati RPN terbesar adalah filter oli dengan nilai 216 poin, penentuan besarnya nilai RPN berpengaruh terhadap penentuan RCM apakah komponen diganti ataupun diperbaiki. Selanjutnya dari hasil RCM didapati 13 komponen dengan aktifitas perawatan *schedule on condition* dan terdapat 7 komponen *schedule on restoration task*. Hasil dari MVSM pada aktifitas penggantian dan pembersihan komponen mesin genset terdapat *delay* yang terjadi, ini terjadi dikarenakan adanya menunggu sumber daya manusia dan komponen mesin genset. untuk mengatasi *delay* yang terjadi maka dilakukan penjadwalan penggantian dan pembersihan komponen mesin, maka nilai efisiensi penggantian dan pembersihan pada semua komponen mesin genset mengalami peningkatan.

Kata Kunci: *Reliability Centered Maintenance*, Failure Mode Effect Analysis, RPN, MVSM.

ABSTRACT

Name	: Bimo Anggoro
NIM	: 41619210002
Study Program	: Industrial Engineering
Title Thesis Report	: Analisis Perawatan Mesin Genset Dengan Metode *Reliability Centered Maintenance* Dan Maintenance *Value Stream Map* Pada Golden Butique Hotel Kemayoran
Counsellor	: Bethriza Hanum, ST, MT.

To meet consumer expectations for convenience in the service and tourism sectors, it is important to add assets in the form of generator machines specifically designed to meet the needs of backup power suppliers in a hotel. It is known that in two months there are average power outages in the local area up to 10 times with an interval of 2-5 hours, the impact of these outages requires the generator engine to operate whenever needed. In 2020 there were 20 times the machine had to undergo maintenance outside of routine machine maintenance. Therefore, in this study, the determination of generator engine maintenance activities will be carried out so that damage to the engine can be minimized with the approach of Failure Mode Effect Analysis and Realibility Centered Maintenance. From the results of the FMEA on 15 generator engine components, it was found that the largest RPN was the oil filter with a value of 216 points, the determination of the amount of RPN value affected the determination of the RCM whether the components were replaced or repaired. Furthermore, from the RCM results, 13 components were found with schedule on condition maintenance activities and there were 7 components of schedule on restoration tasks. The result of MVSM in the replacement and cleaning activities of generator engine components is that there is a delay that occurs, this occurs due to waiting for human resources and generator engine components. To overcome the delay that occurs, scheduling replacement and cleaning of engine components is carried out, the value of replacement and cleaning efficiency in all generator engine components has increased.

Keywords: Reliability Centered Maintenance, Failure Mode Effect Analysis, RPN, MVSM.