ABSTRACT

As the new bioethanol factory which has been developed lately in early 2014 for producing alternative energy to replace gasoline and another non-renewable energy resource which are predicted will be depleted soon, PT. Energi Agro Nusantara has so much potential to grow up. Not only there are many sugar fields and factories which are ready to become supplier of molasses as raw material, but also the demand of bioethanol will increase dramatically as fast as the growth of people’s and government concern about renewable energy resource. Recently, PT. Energi Agro Nusantara only produce 30% of 100 kL bioethanol production capacity per day.

This research objections are assessing the problem and looking for the feasible improvement planning in this factory by using lean thinking concept, then VSM and CIMOSA model is used to capture the actual condition and the effect of improvement. The assessment result indicates that improvement can be done by eliminate the causes of waste which are identified by RCA method and make the supply raw material planning, with OEE as success measurement. The results of this research are showing the causes of waste which can be eliminated are operators lack experience and unsettled machine set up. The elimination of these things and supply raw material planning impacts are increasing OEE for the machines, operation time, and production output.

Key Words: Bioethanol Factory, Manufacture Performance, Lean Thinking, CIMOSA