

IDENTIFYING AND OPTIMIZING VARIOUS TECHNIQUES IN THE GENERATION OF BIOGAS IN A GROWING ECONOMY

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ABSTRACT

Biogas as a source of power has continually gained strides considering the various benefit derived from the used of the said biogas. This review outlined various sources of production of the biogas and the economic importance as compared to other sources of power. Biogas can be generated from animal waste and plants, the amount of Biogas that can be generated from these renewal materials were reviewed. The safety aspect as it concerns the production of the Biogas was also elaborated and preventive measure to ensure there was no hazard during production. Operating parameters were considered such as microorganisms, total solid content, temperature, pH, retention time, organic loading rate, mixing of feed materials, inhibition and toxicity, additional succulent plant and algae because for adequate Production of Biogas were needed to maintain some certain constraints to achieve the maximum production. These various operating parameters were for an adequate biogas production to be achieved and all the operating parameters must be taken into cognizance. Finally the uniqueness of biogas was revealed and this paper has shown that biogas can easily be generated because of the availability of the raw materials required and the technical know on how to get the biogas generated, hence the acquisition is for the adoption.

Keywords: Biogas Generation, Growing Economy, Biodigester Designs, Cow Dung, Operating Parameters.