STUDI PENERAPAN PRODUKSI BERSIH DI INDUSTRI KIMIA (*SULFAMIC ACID*)

Study of The Application of Clean Production in The Chemical Industry (*Sulfamic Acid*)

Dierga Ayu Frasesa
Program Teknik Lingkungan, Fakultas Teknik, Universitas Sahid Jakarta
*email: dierga_ayu@yahoo.com

ABSTRAK

Perkembangan industri kimia adalah mutlak untuk pembangunan demi kesejahteraan dan kemakmuran bangsa, namun di pihak lain penggunaan dan pengelolaan bahan kimia sering membawa dampak negative. Untuk itu perlu adanya upaya yang dilakukan untuk mewujudkan kegiatan industri yang berwawasan lingkungan. Upaya yang dapat dilakukan adalah dengan menerapkan produksi bersih. Berdasarkan *input* dan *output* proses produksi *Sulfamic Acid*, terdapat 4 potensi produksi bersih pada proses pembuatan *Sulfamic Acid* yaitu: *Reuse loss product* pada H_2SO_4 20% yang dihasilkan, *Recycle cyclone* pada proses *Fluid bed dryer*, *Reduce waste gas*, dan *Good Housekeeping*. Penerapan produksi bersih ini selain memberikan dampak positif bagi lingkungan ternyata memiliki manfaat ekonomi bagi perusahaan, yaitu: manfaat ekonomi *Reuse Loss Product* adalah Rp. 772.612,5 Kg/*batch* dengan persentase efisiensi 98.74% dan manfaat ekonomi *Recycle cyclone* adalah Rp 7.512.480 (*cyclone* kasar) dan Rp 4.981.680 (*cyclone* halus).
Kata kunci: Produksi Bersih, *Reuse, Recycle, Reduce, Good Housekeeping*

ABSTRACT

The development of the chemical industry is absolutely for development for the welfare and prosperity of the nation, but on the other hand the use and management of chemicals often has a negative impact. For this reason, efforts need to be made to realize environmentally sound industrial activities. The effort that can be made is to implement clean production. Based on the input and output of Sulfamic Acid production process, there are 4 potentials of clean production in the process of making Sulfamic Acid, namely: Reuse loss product on 20% H2SO4 produced, Recycle cyclone in Fluid bed dryer process, Reduce waste gas, and Good Housekeeping. The application of clean production in addition to providing a positive impact on the environment turns out to have economic benefits for the company, namely: economic benefits of the Reuse Loss Product is Rp. 772,612.5 Kg / batch with an efficiency percentage of 98.74% and the economic benefits of the Recycle cyclone are Rp 7,512,480 (crude cyclone) and Rp 4,981,680 (fine cyclone).
Keywords: Clean Production, Reuse, Recycle, Reduce, Good Housekeeping