

ABSTRAK

Belum adanya cara pemanfaatan limbah Pb Foil mengakibatkan penumpukan limbah Pb Foil di laboratorium LM sebanyak 21,7 kg pada tahun 2021 serta mengacu pada PerMen LHK NOMOR P.12/MENLHK/SETJEN/PLB.3/5/2020 Tentang Penyimpanan Limbah Bahan Berbahaya Dan Beracun serta data penggunaan bahan kimia di Laboratorium LM maka perlu adanya pengolahan limbah Pb Foil di Laboratorium LM dengan tujuan tidak adanya limbah Pb Foil yang menumpuk melebihi 365 hari. Penelitian dengan judul "Menurunkan Jumlah Limbah Pb Foil Dengan Cara Recycle Limbah Pb Foil Pada Metode Fire Assay Di Laboratorium PT.Antam Tbk. UBPP Logam Mulia", memiliki rumusan masalah bagaimana fungsi Pb Foil pada proses analisis metode Fire Assay di LM, bagaimana proses recycle limbah Pb Foil dan berapa besar Pb Foil hasil recycle dapat digunakan kembali untuk analisis. Penelitian ini menggunakan metode penelitian experimental dengan melakukan investigasi dari suatu masalah kemudian membuat desain untuk pemecahan masalah dan meminimalisir atau menghilangkan penyebab masalah (kejadian). Setelah melakukan beberapa percobaan didapatkan hasil diantaranya (1) Pb Foil merupakan timbal yang berbentuk lembaran yang didalamnya terkandung logam Pb sebesar 99,95%. (2) Dalam proses recycle ada beberapa standar yang dijadikan acuan diantaranya : berat setiap peleburan Pb Foil maksimal 600 ± 10 gram, waktu peleburan 30 detik, ketebalan Pb kurang dari 10 mm, kandungan Pb dalam Pb Foil recycle diatas 90 %

dan tidak ada kandungan emas dan perak didalamnya (3) Kemampuan proses recycle Pb foil adalah 95,19%. Dari 21,7 kg Pb Foil yang tidak digunakan dapat di recycle sebanyak 20,66 kg dan sisa 1,04 kg akan dilebur kembali pada proses recycle berikutnya.

Kata Kunci : Pb Foil, Recycle, Experimental, Fire Assay.

ABSTRACT

The absence of a way to utilize Pb Foil waste has resulted in the accumulation of Pb Foil waste in the LM laboratory as much as 21.7 kg in 2021 and refers to the PerMen LHK NOMOR P.12/MENLHK/SETJEN/PLB.3/5/2020 concerning Storage Hazardous and Toxic Waste and data on the use of chemicals in the LM Laboratory. it is necessary to treat Pb Foil waste at the LM Laboratory with the aim of not having Pb Foil waste that accumulates for more than 365 days. The research entitled "Reducing the Amount of Pb Foil Waste By Recycling Pb Foil Waste In Fire Assay Method At PT.Antam Tbk. UBPP Logam Mulia Laboratory", has a problem formulation of how the Pb Foil function in the Fire Assay method analysis process in LM, how to recycle Pb Foil waste and how much Pb Foil can be reused for analysis. This study uses experimental research methods with investigating a problem then making a design for solving the problem and minimizing or eliminating the cause of the problem (event). After conducting several experiments,

the results obtained include (1) Pb Foil is a sheet-shaped lead which contains 99,95% Pb metal. (2) In the recycling process, several standards are used as references including: the maximum weight of each melting of Pb Foil is 600 ± 10 grams, smelting time is 30 seconds, Pb thickness is less than 10 mm, Pb content in Pb Foil recycle is above 90% and there is no content. gold and silver in it (3) The ability to recycle Pb foil is 95.19%. Of the 21.7 kg of unused Pb Foil, 20.66 kg can be recycled and the remaining 1.04 kg will be melted down in the next recycling process.

Keywords: Pb Foil, Recycle, Experimental, Fire Assay.