

**MATERIAL RECOVERY AND THE EFFECTIVENESS OF 3R'S  
IMPLEMENTATION AT PULAU BURUNG SANITARY  
LANDFILL: A CASE STUDY**

By


**KHAIRUNNISA AFZAN BINTI AMIHAMZAH**

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## DECLARATION

I Khairunnisa Afzan Binti Amihamzah, 2003355620 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

  
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30 NOV 2006

## ACKNOWLEDGEMENT

In The Name of Allah, The Most Gracious and The Most Merciful the Dispenser of Grace, Salam to Nabi Muhammad S.A.W

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## ABSTRACT

Solid waste is any garbage, sludge, or other discarded material resulting from industrial, commercial and residential activity. The aim of this study is to determine material recovery and effectiveness of 3R's implementation at Pulau Burung sanitary landfill. To achieve this objective, the composition of solid waste was determined. The domestic waste was quartered until it is reached about 10 kg. Then the process of manual sorting was begun according to its type. The entire sample was taken to laboratory to determine wet mass and dry mass. The result of valuable material can be determined by the sorting process and laboratory study. Interview was done to determine the material recovery in Pulau Burung sanitary landfill. It is divided into 4 categories which are plastic (hard), plastic (soft), paper and aluminum. The observation to see the effectiveness of 3R's implementation was successfully done within 4 weeks. Results indicated that textile give the highest value on density and moisture content while rubber, leather and glass give the lowest value for this two parameter. In total chemical composition, the food waste has the largest value of the carbon is 7.66 kg. The largest total energy content is plastic which is 29097.04 kJ. The plastic has the highest total weight which is 8.11 kg and by interview the value of plastic (hard) is RM12.89. There must have parties which can in charge to manage the waste properly to avoid the waste is wasted. It is also will protect the environment from problem associated.

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