

Barriers to practice of non-hazardous solid waste minimization by industries in Malaysia

ABSTRACT

The practice of waste minimization plays a significant role in sustainable development as the most acceptable method in the waste management hierarchy. This paper is a case study research on industrial non-hazardous wastes generated from different industrial activities in one of the major Malaysian industrial areas. This study is aimed at identifying the barriers of waste minimization practices in Malaysian industries. The combination of quantitative and qualitative methods were applied in the study through the use of a structured questionnaire prepared on Likert scale and semi-structured interviews with respondents across thirty (30) factories. Data collected through the questionnaire was analyzed using software and severity index tool. Findings reveal the barriers faced in practicing waste minimization by industries include the lack of time for separation of waste, absence of guidelines, regulations and limited accurate knowledge with severity index range of $62.5 \leq SI < 87.5$, which were considered to be serious issues. Through the application of suitable educational and awareness programs for industrial stakeholders, an effective waste minimization practice can be achieved.

Keyword: Industrial solid wastes; Waste minimization; Barriers; Severity index