

ENVIRONMENTAL MANAGEMENT OF UNWANTED/OBSOLETE CHEMICALS IN THE GREATER ACCRA REGION

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ABSTRACT

The study was undertaken to assess the existence of unwanted/obsolete chemicals in the Greater Accra region, the causes, the management practices in place and their likely environmental impacts. The study covered 60 chemicals stores belonging to industries, research and educational institutions. Data was collected through site visits, questionnaire administration, inspection of stores, listing of unwanted/obsolete chemicals, analysis of chemicals and determination of acid fume levels in chemical stores. The results revealed that large quantities of unwanted/obsolete chemicals exist in industries, research and educational institutions. One major factor contributing to the accumulation of the unwanted/obsolete chemicals was poor storage. Other factors were change in technology, research and teaching programmes, large stocks of chemicals and poor store keeping. Although the results showed unwanted/obsolete chemicals were generally being stockpiled, some disposal practices identified included dumping at backyards, municipal waste sites or in the bush, pouring of liquids down the drain, burying and burning. Practices like selling and exchanging of chemicals or giving them out as gift to other institutions were not often used. The current management and disposal practices if not controlled could impact negatively on the environment. The analytical results revealed that chemicals exposed to direct atmospheric conditions could decompose to other products that may be harmful to the environment. Acid fume levels determined in some stores were found to be below both WHO and EPA (Ghana) standards. It is suggested that conditions for the storage of chemicals be improved in industry, research and educational institutions. Refresher training programmes should be held for chemical storekeepers to improve their chemical management skills. A databank of unwanted/obsolete chemicals must be established and proper chemical waste disposal be constructed to aid in the proper management of unwanted/obsolete chemicals.

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