

Hazardous Waste Management at Chemistry Section in Dubai Police Forensic Lab

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Abstract : This paper is carried out to investigate the management of hazardous waste in the chemistry section which belongs to Dubai Police forensic laboratory. The chemicals are the main contributor toward the accumulation of hazardous waste in the section. This is due to the requirement to use it in analysis, such as of explosives, drugs, inorganic and fire debris cases. This leads to negative effects on the environment and to the employees' health and safety. The research investigates the quantity of chemicals there, the labels, the storage room and equipment used. The target is to reduce the need for disposal by looking at alternative options, such as elimination, substitution and recycling. The data was collected by interviewing the top managers there who have been working in the lab more than 20 years. Also, data was collected by observing employees and how they carry out experiments. Therefore, a survey was made to assess their knowledge about the hazardous waste. The management of hazardous chemicals in the chemistry section needs to be improved. The main findings illustrate that about 110 bottles of reference substances were going to be disposed of in 2014. These bottles were bought for about 100,000 UAE Dirhams (£17,600). This means that the management of substances purchase is not organised. There is no categorisation programme in place, which makes the waste control very difficult. In addition, the findings show that chemical are segregated according to alphabetical order, whereas the efficient way is to separate them according to their nature and property. In addition, the research suggested technology and experiments to follow to reduce the need for using solvents and chemicals in the sample preparation.

Keywords : control, hazard, laboratories, waste,

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