

Management of Hazardous Waste at Construction Site

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Abstract: *Waste management is an important part of the urban infrastructure as it ensures the protection of the environment and of human health. It is not only a technical environmental issue, but also a highly political one. Waste management is closely related to a number of issues such as urban lifestyles, resource consumption patterns, jobs and income levels, and other socio-economic and cultural factors. One characteristic feature of sustainable waste management is that it is achieved by using the technical, organizational, and financial resources available in a particular locality. The waste management situation in the countries around the world is by no means uniform. It is easy to forget that the category of countries that are now 'fine-tuning' their waste management systems is a minority. Construction and demolition waste management is becoming increasingly important on construction sites as landfill space in India is rapidly depleting and waste management costs are rising. Due to these factors waste management plans are seen as a good response to minimizing waste on site and this thesis aims to investigate how to implement such a plan on a practical case study as well as investigating the legislation regarding construction and demolition waste along with market availability for the reuse of the waste. Main contractor surveys were also carried out in order to gain a better understanding of current attitudes within the industry and these surveys are analyzed. A survey was also carried out among sub-contractors but this survey has not been used for this thesis as the study is on-going. This research concentrates on the possible waste management strategies which a company can use to successfully implement good practice waste management. The initial research found that the construction and demolition waste topic is a worldwide issue with research being compiled constantly in order to help contractors implement successful waste management strategies. The initial stage of research involved a review of the legislation, theories and studies related to construction and demolition waste management. This research revealed that while good practice waste management is challenging, it is an achievable goal. Typically, the implementation of waste minimization techniques requires three basic components; waste minimization during the design stage, source reduction and recycling. Waste minimization during the design stage has huge potential to impact positively on waste minimization as it is during this stage that some of the major decisions are made such as the form of the building. Source reduction helps avoid waste generation while recycling helps to conserve natural resources and prevents wasted materials from entering the waste stream. There is huge potential for the minimization of construction waste which arises through both design and the construction process. In order to reduce wastage rates, it is important to focus on both issues. The most important factor for on-site waste management is the on-site segregation of the waste. If this process fails then it becomes difficult for the waste to be recycled. At the outset this will take some extra time and training of the construction staff but once the segregation habits are established the waste segregation on site can be done at a small or no additional cost.*

Keywords: Waste.

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