Investigation of properties and management methods of Industrial wastes (case study: Yazd industrial township in Yazd province)

A. Bemani, N. Khorasani, H. Pourdara, and F. Nejadkoorki
1. Senior Expert of Environmental Science, University of Tehran
2. Full professor, Faculty of Natural Resource, University of Tehran
3. Assistant professor, Faculty of civil engineering, University of Yazd
4. Assistant professor, Faculty of Natural Resource, University of Yazd

Industrial wastes management is one of the most proper approaches which connect industry and environment together and produces conjunction between them as well as reducing impacts of industry on environment. In this study, present management of Yazd industrial township in Yazd province has been studied. In order to properly manage and control waste production, questionnaires were used to collect data regarding types, composition of industrial wastes and the methods of waste management used in 117 of the 252 business in the area of study. Industries were classified into 9 classes: food, tire and plastic, chemical, metal, nonmetal mineral, wood, paper, textile and car and mobilizations industries. Collected data were analyzed in SPSS software. Results indicated that wastes components included 32% miscellaneous wastes, 21% metallic wastes, 17% polymerized matters, 7% animal wastes, 5% non organic matters such as sludge, 3.5% organic compounds, 3% chemical matters, 2.5% non organic acids, 2% compounds of toxic metals, 2% wastes of tars, 1.2% filtered matters and 0.8% non organic compounds. 76.8% of wastes were solid, 14.2% liquid and 9% semi solid. Considering the results in this study, none of the industries use suitable methods for maintaining their wastes. In most cases, they were disposed of by dumping and very rarely business resorted to reuse or recycling. In the first step in order to manage wastes in a proper way, it is necessary to constitute a network information of hazardous wastes in industrial management system. It is also recommended that for disposal of wastes which finally must be buried, sitting studies are necessary.

Keywords: Waste management, Industrial waste, Waste properties, Industrial township