

Identification, classification and management of industrial waste in Kavir steel complex according to the Bazel convention and RCRA

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Abstract

Introduction: Requiring industries for implementing industrial waste management programs and planning for proper waste disposal is essential in order to achieve sustainable development. Therefore, industrial waste management program was done in Kavir Steel Complex, in Aran va Bidgol region to identify and classify industrial waste and also to present solutions for improving waste management. In this complex, production process is hot rolling steel and the product is rebar.

Material and Method: The preset study was conducted in Kavir Steel Complex. Following survey of production process and sources of waste, the type and volume of produced waste were identified and measured during 3 months. Then, the classification of wastes was done according to the Bazel Convention and Resource Conservation and Recovery Act (RCRA), and finally new industrial & health solid waste management program was presented.

Result: Considering the volume, industrial waste of production process in Kavir Steel Complex was between 130 to 180 grams per each ton of rebar. Main industrial waste included oxide of steel billet, industrial sludge, used oil and lubricant which were classified according to the RCRA: 8 materials with T code, 1 with C code, 5 with I code and 3 materials with C code.

Conclusion: The results revealed that the most amount of industrial waste in Kavir Steel Complex is the waste of steel billet and industrial sludge, and more than 90% of Kavir steel industrial waste were reused and recycled inside or outside of this complex. It is recommended that used oil to be transport and maintain in the safe containers.

Keywords: *Bazel Convention, Hot Rolling Industry, Industrial Waste Management, Kavir Steel Complex, Resource Conservation and Recovery Act*

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