

**O 14. ENVIRONMENTAL EFFECTS OF COAL COMBUSTION WASTES AND USAGE
AREAS**

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ABSTRACT: Energy demand has been increasing all over the world with the various social and economic developments. Energy sources such as coal, oil and natural gas are widely used around the world in order to fulfil this demand. In our country, the amount of coal use is relatively higher than those of other sources. Therefore, the wastes of coal use cause significant economic and environmental problems. The wastes of coal are usually conveyed to storage sites by water way. After ashes was contacted with water, toxic metals contained in coal ash in the storage sites can be spread in the environment. Many studies have shown that living next to the coal ash storage areas increases the risk of cancer and other diseases. However, such wastes are suitable for recovery and can be used in different sectors. In this study, the general characteristics of these wastes, which are defined as coal combustion products, are evaluated in the studies on disposal methods and recovery. In addition, the possibilities of using these wastes in different industrial activities were investigated. The official regulations in our country and the world was evaluated. As a result, it has been pointed out that waste ash disposed by the existing water transport and storage method carries a risk for the environment and human health, and this method should be abandoned as soon as possible and the implementation of alternative waste ash treatment alternatives and the application of dry storage methods should be encouraged.

Keywords: Coal combustion products, ash, environmental problem