

# **FOUNDRY INDUSTRY BY-PRODUCTS UTILIZATION**

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## **ABSTRACT**

This report identifies various foundry by-product materials and describes their current as well as future potential use options. The foundry by-products materials are formed when the new materials used in the foundry processes lose their desired characteristics for use in the manufacturing process. Two major solid by-products, namely used foundry sand and slag are produced. This report provides an extensive review of the literature on type, nature, and characteristics of foundry by-products and their possible uses in construction materials. Very limited amount of research has been directed toward finding constructive use options of foundry by-products. Various constructive use options for foundry sand include a material for landfill uses as both top soil and final cover, top cover for vegetation of land, embankment fills, foundation fills, a component of concrete mixture, a component of brick mixture, etc. Foundry slags can be used as a replacement for aggregate in underdrain system for dewatering sludges in a dewatering lagoon and as a coarse aggregate in concrete, and other cement-based materials.