

UTILIZATION OF USED FOUNDRY SANDS - STATE OF THE KNOWLEDGE REPORT

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Reference: CBU-1992-02

ABSTRACT

This research project is the result of funding made available by the Wisconsin Department of Natural Resources, Madison, WI; the Falk Corporation, Milwaukee, WI; the Badger Mining Corporation, Fairwater, WI; the Maynard Steel Corporation, Milwaukee, WI; the Waupaca Foundry, Waupaca, WI; and, the University of Wisconsin - Milwaukee. This report contains information collected, evaluated, and analyzed from world-wide sources for potential beneficial utilization of used foundry sands. The research objectives of this entire project are to identify potential uses of foundry by-products, access and review current world-wide knowledge, and establish new technology for their large volume utilization for construction materials and other uses for Wisconsin industries.

This report includes Phase I - Literature search and information gathering. It is divided into four main parts. The first part consists of an introduction, foundry processes, materials, and wastes generated. The second part consists of review of waste characterization studies. The third part includes a review of technical feasibility and potential uses of foundry sand, as well as economic implications. The final part of this report consists of a list of references and annotated bibliography relevant to this project.