

**DEMONSTRATION OF MANUFACTURING TECHNOLOGY FOR CONCRETE
AND CLSM UTILIZING WOOD ASH FROM WISCONSIN**

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ABSTRACT

This interim report presents the work carried out during the second year of this project. Report contains the details of the technology transfer seminar and construction demonstration and cost/benefit analysis of using wood ash in concrete and CLSM.

Significant efforts were made to transfer the technology for the use of wood ash in concrete and CLSM to the engineering community; including industrial, government agencies, concrete construction industries. A technology transfer seminar and construction demonstration was conducted on September 27, 2001 in Rothschild, Wis. The title of the seminar was "Workshop and Construction Demonstration for Use of Wood Ash in Concrete and Flowable Slurry." A total of 26 people attended the seminar. The Speakers for this seminar were Tarun R. Naik of UWM-CBU, Bruce W. Ramme of We Energies, and Michael Miller of the Wisconsin DNR. Speakers presented information on the use of flowable slurry and concrete incorporating wood ash and fly ash, as well as on environmental issues and regulations. The seminar consisted of a half day of presentations followed by a construction demonstration of the placement of concrete containing wood ash for a storage area pavement slab and flowable slurry containing wood ash for the pavement base course.

Cost/benefit analysis of using wood ash in concrete and CLSM was carried out. Calculations revealed that each year in Wisconsin, approximately 120,000 to 500,000 US dollars could be saved by using only 5 to 12% wood ash as a part of the total cementitious materials in concrete, and approximately 650,000 to 5.8 million US dollars by using wood ash content between approximately 12 and 90 % as a part of flowable CLSM materials.