

# PROJECT CONTROL DOCUMENT – TRP 9955 / 0406C

**PROJECT TITLE:** Geological Sequestration of CO<sub>2</sub> by Hydrogen Carbonate Formation with Reclaimed Slag

**PROJECT DESCRIPTION:** The objective of the project is to develop and demonstrate a process for sequestering CO<sub>2</sub> from steelmaking in either the Basic Oxygen Furnace (BOF) or the Electric Arc Furnace (EAF) by forming carbonates with the alkaline earth component of used slag for beneficial reuse in other applications. The process will improve the kinetics of the hydrous carbonate formation reaction enabling steelmakers to directly remove CO<sub>2</sub> from the furnace exhaust gas. It is proposed to bring the furnace exhaust stream containing CO<sub>2</sub> in contact with reclaimed steelmaking slag in a reactor that has an environment near unit activity of water resulting in the production of carbonates. The carbonates are suitable for polymer fillers, agricultural and construction applications.

## PRIMARY RESEARCH ORGANIZATION(S):

University of Missouri – Rolla  
Department of Ceramic Engineering  
Rolla, MO

**PRINCIPAL INVESTIGATOR(S):** Dr. Von Richards

**PROJECT PARTICIPANTS:**

Dofasco	Gallatin Steel
Hylsa	Mittal Steel
Ipsco	Nucor
Praxair	Timken Company
US Steel	

**PROJECT DURATION:** 24 Months

**PROJECT START DATE:** 3/17/05

**PROJECT BUDGET (excluding AISI Project Mgmt.):** \$465,184

**TECHNICAL PROJECT MANAGER:** BV Lakshminarayana – AISI Washington, DC

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