

PROJECT CONTROL DOCUMENT – TRP 9941 / 0402Y

PROJECT TITLE: New Process for Hot Metal Production at Low Fuel Rate – Phase 1

PROJECT DESCRIPTION: The object of this research is to develop a coal-based and coke-free ironmaking process based on the Paired Straight Hearth (PSH) furnace concept developed and laboratory demonstrated under TRP 9810 in 2002. This technology has the potential to change the current ironmaking process into a simpler, more energy efficient, environmentally-friendly, coal-based (as opposed to coke-based) process. Phase 1 is the preliminary engineering phase. Pilot plant scale designs will be developed including process and mechanical designs, plant arrangement designs, and computer models of the furnace and reduction processes. An economic evaluation will also be performed estimating the final design, construction and operation costs for the pilot plant.

PRIMARY RESEARCH ORGANIZATION(S):

McMaster University
Department of Materials Science & Engineering
Hamilton, Ontario, Canada

PRINCIPAL INVESTIGATOR(S): Dr. W-K Lu

PROJECT PARTICIPANTS: Dofasco Inc
INMETCO
US Steel
Mittal USA

PROJECT DURATION: 15 Months

PROJECT START DATE: 11/18/04

PROJECT BUDGET (excluding AISI Project Mgmt.): \$83,600

TECHNICAL PROJECT MANAGER: Bill Obenchain – AISI Washington

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