PROJECT CONTROL DOCUMENT – TRP 9945 / 0423Y

PROJECT TITLE: CFD Modeling for High Rate Pulverized Coal Injection (PCI) to Blast Furnaces

PROJECT DESCRIPTION: The objective of the project is to develop a state-of-the-art computational fluid dynamics (CFD) model of pulverized coal injection (PCI) into the blast furnace (BF). High rate PCI into the BF is an effective technique to overcome the productivity barrier of coke reliance in ironmaking. Increasing the amount of coal injected into the BF is currently limited by a lack of knowledge of some issues related to the process. Due to the difficulty in measuring effects in the active BF, CFD has been identified as an advanced technology to provide such knowledge.

PRIMARY RESEARCH ORGANIZATION(S):

Purdue University - Calumet
Department of Mechanical Engineering
Hammond, IN 46323

PRINCIPAL INVESTIGATOR(S): Dr. Chenn Zhou

PROJECT PARTICIPANTS:
Dofasco
Mittal USA
Stelco Inc
Union Gas.
US Steel

PROJECT DURATION: 24 Months

PROJECT START DATE: 5/10/05

PROJECT BUDGET (excluding AISI Project Mgmt.): $440,872

TECHNICAL PROJECT MANAGER: W. Obenchain – AISI, Washington DC

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