

Division Headquarters
April 3, 1968

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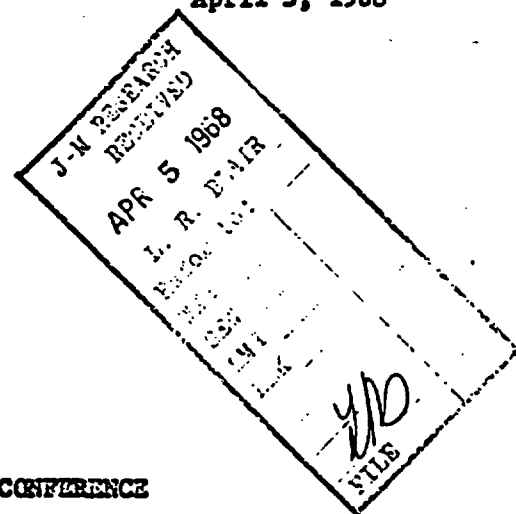
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TRIP REPORT

THE METALLURGICAL SOCIETY OF AIME

51ST NATIONAL OPEN HEARTH AND BASIC STEEL CONFERENCE

27TH IRON MAKING CONFERENCE

APRIL 1 THROUGH 3, 1968

ATLANTIC CITY

As you know from my trip report of 3-25-68, that we were advised that week by friends at United States Steel Corporation that a paper would be presented at subject meeting which was, in effect, critical of rigid, block-type insulations, namely, SUPEREX 1900, which the author called the standard insulation in blast furnace stoves. The author's contention is that a compressible type of insulation is required to absorb the increased expansion of the stove refractories brought about by the higher, hot blast temperatures that the stoves are now being designed to produce.

I attended the presentation of this paper and the comments which followed it. From the comments of the author, it was obvious that he was not too sure of his ground when questioned about the resiliency of Mineral Wool block after heating. After the meeting I met with Mr. Debenham, Chief Research Engineer - Refractories, and his assistant, John Topping; Bill Knepper, Chief Staff Engineer - Blast Furnace and Agglomeration, and Earl Sieger, Superintendent Blast Furnaces, Fairless Works, all of U. S. Steel Corporation. These men were all in general agreement that the answer to these expansion problems was not to replace SUPEREX with Mineral Wool block but, were in agreement that something had to be done to solve this serious problem.

Since U.S. Steel is in the final design stages with the Arthur G. McKee Company of Cleveland on a new blast furnace for their South Works, they are very anxious for our help in solving this problem.

After discussions with many of our people who have had experience in this area, it is our feeling that a combination material could provide the necessary compression and resilience without sacrificing the superior integrity of SUPEREX. In an effort to give U.S. Steel something to consider quickly, last week we had Dr. Blair's people put together two samples of a combination of



SUPREX 1900 (2 inches) and 1 inch of 1000° SPIN-GLAS. I showed this sample to the U.S. Steel people and they were quite enthusiastic, and requested that we prepare additional samples for their testing and evaluation and asked that we advise them as soon as possible if we could produce such a product, and at what price. They would also like us to evaluate the material in a panel, in an effort to duplicate this service. I will prepare an SSR to cover these tests and discuss our ability to produce such a product on an SPPI basis with all concerned.

In addition to meeting with the U.S. Steel people, I had an occasion to discuss just briefly this matter with several other people from Jones & Laughlin Steel Corporation and Bethlehem Steel Corporation, and all generally felt that the paper presented some good new information but, felt that the solutions needed further work and investigation. Therefore, I think it is imperative that as soon as our position can be better established, that we contact all the key people with the various steel companies with regard to blast furnace stove design, so that we can protect and hopefully improve our position in this business.

Concerning this meeting generally, it was as always heavily attended by all of the key people in this part of the steel industry from all over the world. The entertainment was also very heavy by all major refractory manufacturers and, also, by many who we don't generally consider major suppliers but apparently they are. For instance, our Pittsburgh distributor, who is now also a manufacturer and contractor, had a large entertainment suite with entertainment in the evenings. Ferro Engineering Division, Exmet, Fosco and several other relatively small "hot top" people all had entertainment suites and/or luncheons or dinners on one or more days. Babcock & Wilcox had a suite along with their Bailey Motor Division, but none of the other insulation manufacturers had advertised suites. I did see Mr. Jack Conry, President of International Vermiculite, however, and he was entertaining.

Although we used to have people active in this Society, to my knowledge we no longer have anyone in it and I think we should correct this as soon as possible. I would think we should have someone in Pittsburgh join, and possibly also in Chicago, so that we can have contact and keep up with developments in this part of the steel industry.

J. A. Campbell, Jr.