

## Chairman's Summary — 3rd Session, Section 3

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by W.H. MAGRUDER\*

First, as a general comment, I feel as though we have had increasingly better sessions, because of a greater amount of participation from the various bodies, and it is this type of participation, and the addition of friendly discussion, that makes a conference such as this truly worth while.

The first paper in the third session of Section 3, which was presented by Mr King, gave a very good and well-detailed description of the electric smelting furnaces in Southern Africa. I admire him for his visual presentation of facts that cannot be presented in writing. He has done an extremely good job of detailing information that most of us in the industry would like to see, regarding ferro-alloy facilities and other electric-furnace facilities. It is an extremely good pattern that we may be able to follow on a world-wide basis. One point that I would like to make reference to in his contribution is the relative size of the South African industry; Mr Coyle indicated that it was a significant industry, and, in fact, it is. We're talking of close to 1 million kVA here in South Africa alone, and that is about one-third of the total kVA rating of the United States ferro-alloy and calcium carbide industries combined. When you speak in terms of an additional 500 000 kVA over the next two or three years, that is somewhat staggering, and yet it isn't quite as mind-boggling as it might seem when you look at the projected future growth of the ferro-alloy industry and the electric-smelting industry. I hope to touch on that a little later. However, all in all, it was an extremely good account of the facilities here

in South Africa, and my thanks and the thanks of your fellow delegates to you, Mr King.

The second paper was likewise an extremely good one. It was presented by Mr Yamagishi, of Nippon Kokan, and, as an operator, I find it extremely pleasant that a very classic and detailed research-and-development effort has really demonstrated quite clearly the types of things that we have been living with over the years. In a sense, the desire for a lumpy ore and high temperature to produce a low-carbon or high-carbon ferrochromium and charge chromium is borne out extremely well.

We had many comments and questions on the paper, and, if you will remember, there are a number of questions that were asked and will have to be answered in the proceedings of the conference. Again, an extremely well-prepared paper, a very good piece of work, and my congratulations and those of your fellow delegates.

The final paper, by Mr Meintjes, again had extremely good participation in terms of the two discussions that were presented in conjunction with it. I personally have always had a little difficulty in understanding electrical engineering fully, and, as an operator, I have come to glean two significant facts: one is that, in the event of the first failure, you can continue to operate when you have shunt capacitors, and the other is that, beyond full load, the electrodes will tend to run deeper; and to me both of these are big plusses, and I would be inclined to agree with Mr Meintjes that the choice of shunt connection is to be preferred.

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