名誉会員からのメッセージ

Technical Development Prediction: How Far Can We See?

Lucien Coche

I remember, I remember
the house where I was born...
25 years have elapsed since I had the honour of being made a honorary member of ISIJ. 13 years have elapsed since I retired and ceased having an active part in steel industry development.

When reading technical magazines, I am interested to learn about the main fields in which steel industry thchniques are presently progressing. Among them, I could quote

- increasing rates of powder coal injection into blast furnaces, up to and over 200 kg/thm,
- steelmaking processes changed into fusion-reduction processes where, in addition to hot metal and steel scrap, coal and into ore are injected into the bath,
- continuous casting of thinner and thinner slabs,
- endless rolling and finishing operations, which were formerly done coil after coil,
- better shape control of laminated flat products,
- improvements in clean recovery of used steel products.

Remembering which developments I expected in 1971, it seems to me that I thought of those subjects, as possible ideas among many other, but I did not think that they would soon get into industrial practice.

Coal injection experiments had been conducted in various western countries, the conclusions had been fully negative. Nobody in Europe knew that coal injection was current practice in China.

As for steel conversion, only oxygen and lime were injected, and much research work was done about how to inject them. But no industrial experiments were conducted to use converters for reducing iron ore.

Nobody tried to cast thinner slabs than the conventional 250 mm: research was just trying to eliminate defects which restricted continuous casting to a limited number of steel qualities.

Continuous rolling mills had only parallel cylinders, and continuity did not go further than one coil.

Environment problems were not considered as important as now, non-ferrous metals in scraps raised problems only for the quality of steel, not really for water pollution.

So, we were far from having clear views about what steel thchnique development actions would be, 25 years later.

Now, when I think of 1983, my conclusion is quite different: those present fields of development were either already explored, or in projects.

So, it seems to me that our generation has been able to see 13 years ahead, but not 25. What about the present predictions of our younger colleagues? Will they also be true for 13 years, false for 25?

Let us wait for year 2021 to get an answer!

(1996年11月12日受付)