

Japan watching

China to buy \$300 million steel plant from Japan

Japan Iron and Steel Monthly for November 1972 reports that the Republic of China has "placed a formal inquiry for purchase" of a steelmaking plant worth an estimated \$300 million from Japan, according to sources close to the Sino-Japanese trade situation.

The plant—which represents the first industrial plant export deal between the two countries since diplomatic relations were restored last fall—will have an annual capacity of 3 million tons. The contract will be awarded to two steelmakers, Nippon Steel and Kawasaki Steel, and is considered a sure thing.

While some details of the Chinese offer to buy are as yet unconfirmed, it is said to include hot and cold strip mills, galvanizing and tinning lines, and electrical sheet equipment.

Nippon Kokan has a very good month

Nippon Kokan announced that its Fukuyama Works became the world's first single shop to produce more than one million metric tons of crude steel in one month—December 1972.

Sumitomo to invest \$60 million in pollution controls

Sumitomo Metal Industries Co., Ltd., a leading iron and steel manufacturer, has announced the investment of \$60 million for pollution control equipment for the current fiscal year. This will bring their total investment in pollution control equipment to about 14% of total investments made during the year.

Crude oil: a blast furnace fuel?

Nippon Steel Corp. announced that a test is now scheduled for the No. 4 blast furnace (1,540 cu m) at the Kukioka Works, involving the direct feeding of crude oil into the blast furnace. The test will start mid-1973 and be carried on for about one year. The volume of crude oil to be added directly to the furnace will total about 100,000 kiloliters (26.4 million gallons).

Nippon Steel has run small tests of a similar nature in the past. Earlier tests of this sort have shown it was possible to switch from heavy oil injection to crude oil injection and also proved the safety features of such injection. The coming test is basically planned to investigate the economic feasibility of the direct injection of various rates of crude oil in actual commercial operation of a medium sized blast furnace.

Aluminum and copper production set new records

For the month of October 1972 production of primary aluminum in Japan reached 86,604 metric tons, a new monthly record. Production of electrolytic copper also set a new all-time Japanese record of 71,147 metric tons, 3.8% over the previous record.

The production increases are not uniform nor in all metals. Production of lead, zinc, nickel, and some other nonferrous metals suffered further declines. Tin showed the poorest production rate of all metals, followed closely by mercury. These two had production rates of approximately 80% of the previous monthly level.

Large inventory continues to plague titanium sponge makers

Both production and shipment of titanium sponge in Japan was at record levels during September 1972 but the industry is still plagued by inventories some 2.5 times the monthly production rate. Production is limited to only two manufacturers with a combined output in September of 405,938 kilograms. Shipments exceeded production at 492,549 kg but the combined inventory reported stood at 1,039,158 kilograms.

Japanese steel in the Common Market

Japanese steel product exports to European Common Market nations in the first six months of 1972 jumped 86.2% over the same period of 1971 to 700,000, according to the Japanese Iron and Steel Institute. The Japanese market share in the EEC is only 4.2%, the Institute said. Exports to Britain totaled 222,000 tons, up 119.8% and boosting the Japanese share in that country's steel imports to 13.5 percent.

Mitsubishi will move two Tokyo plants

Mitsubishi Steel Mfg. Co. plans to acquire a tract of land in Koriyama, Fukushima Prefecture, sources say, for two of its factories that are to be moved out of Tokyo. The move stems from pollution problems that cannot be overcome in the existing locations.

Pollution control can be profitable

Kawasaki Steel Corp., Tokyo, has developed a process which makes pollution control profitable by reclaiming palm oil and fatty acid out of the polluted waste water that flows out of a cold-reduction mill.

To reclaim palm oil, the process uses sulfuric acid and removes such impure elements as iron powder, iron oxide and iron fatty acid from the waste palm oil. Caustic soda is used as a neutralizing agent. Required capital investment is less than \$170,000.

According to Kawasaki, resultant cost savings and cash earnings easily pay back the initial capital outlays in the first year of operation.

The process has been in service since 1965 at the Chiba Works' six-stand cold-reduction mill.

Once used that way, this mix of water and palm oil cannot be recycled into the mill because of its exceedingly high fat content. Nor can it be dumped into the sea or rivers, since such pollution of water is certain to cause a serious public nuisance.

This poses a disposal problem. A solution is to separate fat from the water and resolve it into harmless substances that can be safely jettisoned. This conventional approach is, however, costly, and inevitably runs into another tantalizing problem of how to get rid of the fat residuum that defies all known chemical treatments.

Kawasaki Steel's new process provides a breakthrough. It first skims oil out of the water, mixes it with sulfuric acid to eliminate impurities through ensuing chemical reactions, and finally converts it into high-grade palm oil through the addition of caustic soda. The waste palm oil, which contains too much fat to be amenable to this reclamation process, is distilled into fatty acid.

Scar-removing hot grinding system for slabs

The Engineering, Machinery, & Foundry Div. of Nippon Steel, in conjunction with Noritake Co., Ltd., has developed an on-line, hot grinding system that removes scars as deep as one inch from ordinary steel slabs at temperatures of up to 1,472° Fahrenheit. Test runs conducted at the slabbing mill of the Kimitsu Works have shown excellent results.

The hot grinding system compares favorably with conventional cold scarfing methods under which scars are removed manually with a hand torch. The system consists of a primary cooler, hot grinder, slab turner, secondary cooler, dust collector, and slab transfer equipment. ■