Lukens Steel, Coatsville, PA

Steel Division of Lukens, Inc, a plate steel producer.

The 1800 was utilized as an operator guide control system in the electric furnace area of Lukens Steel. Specifically it controlled electrical power demand, four electric furnaces (guide control), Test Analysis Laboratory, Scrap Bay, plus data collection/report generation. It was the first of its kind. The 1800 replaced an IBM 1710, and used MPX. It had 1000 digital inputs, 100 digital outputs, 150 interrupts on 12 levels.   It was replaced in 1986.

This machine operated in a very hostile environment for more than seventeen years (it was located on the Melt Shop floor.) Its performance has been outstanding and will be difficult to match by any other machine.

Summary. The 1800 was ahead of its time. We have found that it is doing things that the 'new' state-or-the-are systems are not capable of or are not doing. Our entire application was controlled with 48K memory and three 1.5MB disk drives. One DEC 11/44 (2MB) could assume about 50% of the same application – pool problems. Therefore we migrated to three DEC Vax/750s. *Edward E. Scott*

Reynolds Aluminum, Sheffield, AL, Corpus Cristi, TX, and Hamburg, Germany

IBM 1800s installed in aluminum reductions plants performing real-time control (using DDC). The 1800 replaced an IBM 1710 system. Originally it ran as a TSX machine, and later in MPX. Its users did not thing it was a 'user friendly' machine. After the control of the process was stabilized, it continued to pickup off line processing. The 1442 card reader was always a pain, and the 1443 printer destroyed a number of type bars in its time. Modcomp II computers were installed after IBM deserted the business.

The aluminum reduction plant has an ugly environment; off high voltage, currents, magnetic fields, abrasive dust, and corrosive gas. In addition, the process has insufficient instrumentation. Since real arithmetic was slow, we learned to minimize it in programs. We did make seven months runs without losing control! *Claude Wilson*