**Operating Console:** Located in the Control Room on the plant floor. The console has a keyboard and monitor attached. Its purpose is for user interface to the infrared paper dryers and supporting system.

**Operating Computer:** Takes in the readings from the size press and calendar moisture sensors, as well as any input from the operating console. The Operating Computer calculates the power number indicating how much power is needed for each zone and passes it through the RS-485 Communications Board to the Power Computer.

**RS-485 Communications Board:** Coordinates communication between the Operating Computer and the Power Computer. Divides the communication from 1 line to 2 lines with 9 pins to connect to the motherboard of the power computer.

**Power Computer:** Takes in the power number from the Operating Computer via the RS-485 Communication Board. Calculates and controls the order and pattern of the lamp zones. Consists of the following parts:

- **Motherboard:** Provides a connection for the incoming RS-485 Communications Board, as well as the other internal CPU and Digital Trigger Cards.

- **CPU Card:** Acts as a control between each of the Digital Trigger Cards.

- **Digital Trigger Card:** Stores the bit pattern matrix for the firing order of the zones. Ultimately controls the firing of the zones.

- **Power Supply:** Provides power to the Power Computer.

- **Pass Through Board:** Connects to 2 of the existing Digital Trigger Cards via ribbon cables. Also connects to the Phase Monitor Unit (PMU). Outputs to the Gate Drivers.

- **PLC Interlock Computer:** Provides information for interlocks from various sensors.

- **Phase Monitor Unit (PMU):** Monitors the phase of the power for the lamps. Provides information on when to fire the Digital Trigger Cards and the zones.

- **Gate Drivers:** Act as a control for the Thyristors.

- **Thyristors:** Fire the lamp zones.

**Power Control Cabinet:** Consists of the 7 cabinets that house all the pieces from the RS-485 Communications Board through the Thyristors. The center cabinet (PCC1) houses everything except the Gate Drivers and Thyristors, which are located in cabinets PCC1a-PCC1c to the left and PCC1d-PCC1f on the right. Each side is driven by a separate Pass Through Board and controls the odd and even zones, respectively.