

## **PART II - PRIMARY SYSTEMS INFORMATION**

### **2. DIRECT DIGITAL CONTROL SYSTEM**

#### **1. Operation**

##### **d. Emergency Operating Instructions:**

- (1) DDC System Failure: The DDC system consists of the Workstation Computer, the Global Controller and DDC Panels. If the Workstation Computer fails, the control systems can still operate independently, using local Direct Digital Control (DDC) Panels. If any DDC Panel fails, the control systems can still operate independently, using local DDC panels, without the benefit of the workstation computer or the rest of the DDC system. If any DDC panel has failed, then the systems that are fed from this panel may still operate independently by placing the manual override switches, located on the DCP panel, in the hand position for manual operation. The system safety controls shall continue to function in the Manual Mode of Operation. Independent systems may be operated manually without benefit of the DDC system by placing selected systems Hand-off-auto switches, located on the starter in each room where the equipment is located, to the "Hand" position.
  - (2) Smoke Detectors/Fire Alarm Shutdown: Any smoke detector sensing smoke shall signal the fire alarm panel and shall stop the air handling unit and interlocked fans that serve the alarm area and close all dampers. The air-handling unit may be restarted manually from the fire alarm control panel by the fire department or approved personnel. When "all clear" signal is received from the fire alarm control panel, all smoke detectors are automatically reset, dampers will go to normal operating position and the air-handling units will start.
  - (3) Loss of Normal Building Power: If the building normal electrical power is lost, the DDC system has a battery backup that can protect the memory up to 60 days. All HVAC equipment operation is lost during this time.
  - (4) See below for HVAC system Emergency Operating Instructions for integrated HVAC system.
- (a) System Start Sequence Procedure: The system start sequence shall be initiated through the DDC system.