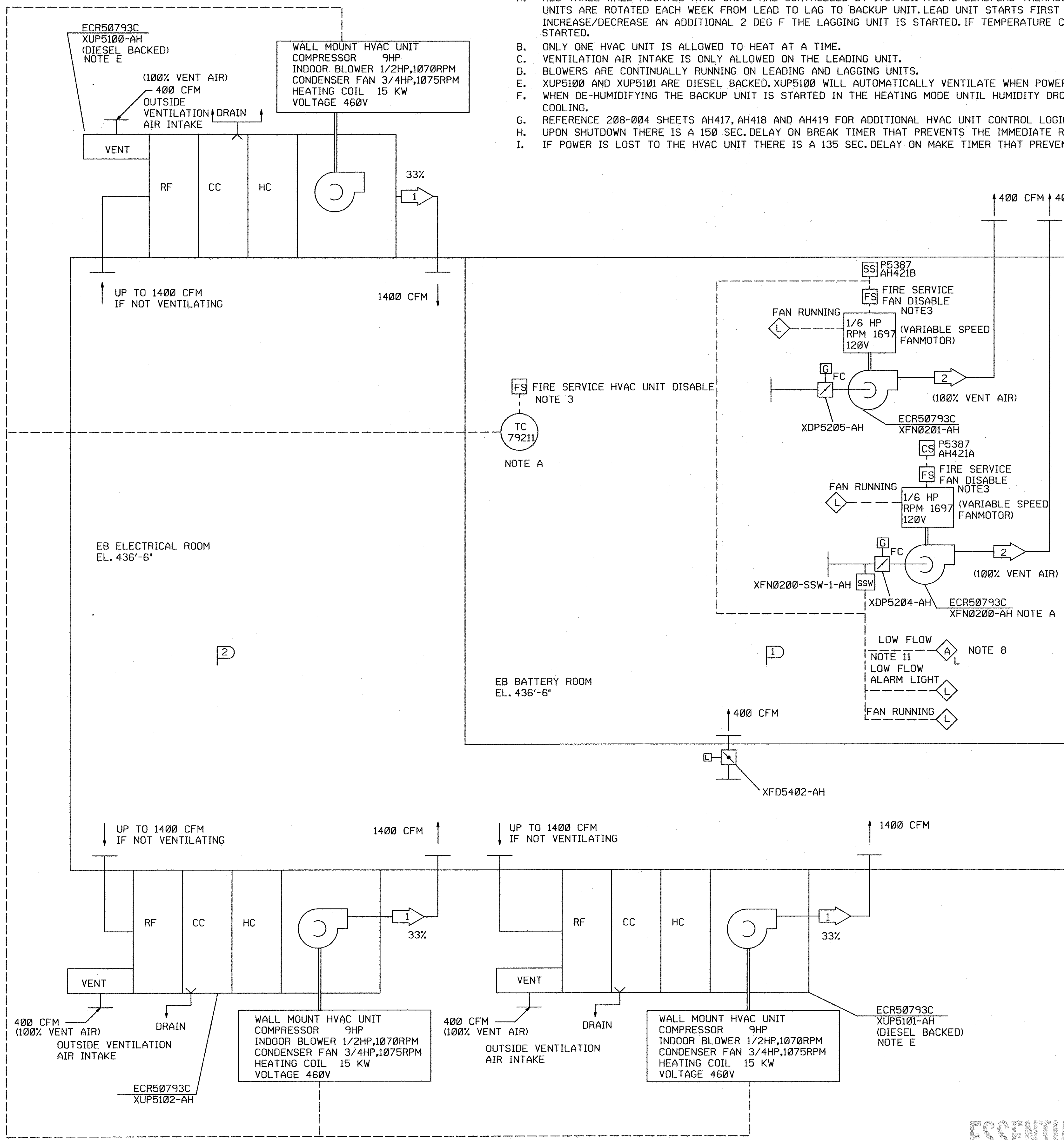


SYSTEM OPERATING DATA NOTE 10

AREA	AIR FLOW CFM	AIR TEMP. ° F
1	1400	45/90
2	400	65/77

HVAC UNIT OPERATION NOTES:

- A. ALL THREE WALL MOUNTED HVAC UNITS ARE CONTROLLED BY ITC79211 (TEC40 LEAD/LAG THERMOSTAT). LEAD LAG CONTROL ALLOWS ALL UNITS TO OPERATE WITH BALANCED RUN TIMES. UNITS ARE ROTATED EACH WEEK FROM LEAD TO LAG TO BACKUP UNIT. LEAD UNIT STARTS FIRST WHEN ROOM TEMP. SETPOINT IS EXCEEDED. IF TEMPERATURE CONTINUES TO INCREASE/DECREASE AN ADDITIONAL 2 DEG F THE LAGGING UNIT IS STARTED. IF TEMPERATURE CONTINUES TO INCREASE/DECREASE YET AN ADDITIONAL 2 DEG F THE BACKUP UNIT IS STARTED.
- B. ONLY ONE HVAC UNIT IS ALLOWED TO HEAT AT A TIME.
- C. VENTILATION AIR INTAKE IS ONLY ALLOWED ON THE LEADING UNIT.
- D. BLOWERS ARE CONTINUALLY RUNNING ON LEADING AND LAGGING UNITS.
- E. XUP5100 AND XUP5101 ARE DIESEL BACKED. XUP5100 WILL AUTOMATICALLY VENTILATE WHEN POWER IS PROVIDED BY DG.
- F. WHEN DE-HUMIDIFYING THE BACKUP UNIT IS STARTED IN THE HEATING MODE UNTIL HUMIDITY DROPS BELOW SETPOINT. DE-HUMIDIFICATION IS DISABLED IF THE LAGGING UNIT IS COOLING.
- G. REFERENCE 208-004 SHEETS AH417, AH418 AND AH419 FOR ADDITIONAL HVAC UNIT CONTROL LOGIC.
- H. UPON SHUTDOWN THERE IS A 150 SEC. DELAY ON BREAK TIMER THAT PREVENTS THE IMMEDIATE RESTART OF THE COMPRESSOR.
- I. IF POWER IS LOST TO THE HVAC UNIT THERE IS A 135 SEC. DELAY ON MAKE TIMER THAT PREVENTS IMMEDIATE RESTART OF THE COMPRESSOR.



GENERAL NOTES:

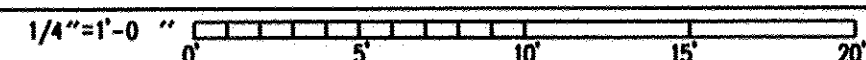
- 1. ONLY XUP5100 AND XUP5101 ARE DIESEL BACKED.
- 2. ALL FANS ARE BACKED BY EB DIESEL GENERATORS.
- 3. IF A FIRE IS DETECTED IN ELECTRICAL OR BATTERY ROOM ALL HVAC UNITS AND VENTILATION FANS ARE STOPPED.
- 4. IF A FIRE IS DETECTED IN DG ROOM ALL FANS ARE STOPPED AND DG IS STOPPED.
- 5. ALL CONTROL RELAYS ARE LOCATED IN XPN5387.
- 6. FAN CONTACTORS ARE LOCATED IN XPN5391.
- 7. BATTERY ROOM DOES NOT HAVE TO BE KEPT BETWEEN 60 AND 77 DEG F AFTER THE BATTERIES HAVE DISCHARGED (AFTER DG HAS STARTED). ACCEPTABLE EMERGENCY TEMPERATURE RANGE INCREASES TO 54-95 DEG F.
- 8. HVAC ALARMS ARE INDICATED ON XPN5387. GENERAL 'EB HVAC TROUBLE ALARM' IS INDICATED ON TEMP MONITORING SYSTEM AND ANNUNCIATED IN MAIN CONTROL ROOM. SEE 208-004 SH. AH422 PAGE C.
- 9. REFERENCE 208-004 SHEETS AH417 THROUGH AH423 FOR HVAC UNIT AND FAN CONTROL LOGIC AS WELL AS ALARMS.
- 10. REFERENCE DC07690-010 ISFSI ELECTRICAL BUILDING HVAC CALCULATION FOR ADDITIONAL INFORMATION.
- 11. LOW AIRFLOW ALARMS HAVE A 20 SECOND ON DELAY TO PREVENT FALSE ALARMS WHEN THE FANS ARE STARTED.

•EMERGENCY CONDITION EXISTS WHEN NORMAL POWER IS LOST AND DG IS PROVIDING POWER

SYSTEM DESIGN DATA

AREA	AIR FLOW CFM	AREA AIR TEMP. ° F	AREA EMERGENCY* AIR TEMP. ° F
2	400	65/75	54/95
1	400	60/77	54/95

NOTE 10



FSAR Figure 9.4-35 SH. 1

SOUTH CAROLINA ELECTRIC & GAS COMPANY
 WRLC, C. SUMNER NUCLEAR STATION
 BUILDING SERVICE SYSTEM FLOW DIAGRAM
 EB HVAC - ELECTRICAL AND BATTERY ROOM

DESIGN ENGINEERING			
NO.	DATE	BY	REVISION
0	2/3/15	JMR	ISSUED PER ECR-50793
1			
2			

ALL SYSTEM COMPONENTS ARE NON-NUCLEAR SAFETY RELATED

DRAWING CLASS LEGIBILITY 1

ESSENTIAL