



GENERAL NOTES					
1- ALL FLOW RATES ARE IN L/S.					
2- THIS SCHEMATIC IS INTENDED FOR AIR FLOW BALANCING SCHEME.					
3- FIRE DAMPER ARE MOTORIZED TYPE AND WILL BE OPERATED VIA F&G PANEL COMMANDS.					
4- EXHAUST FANS TO RUN CONTINUOUSLY AND INTERLOCKED WITH AHUS.					
5- TWO AIR COOLED CONDENSING UNIT (ACCU) (ONE STANDBY) WILL SUPPLY THE CONDITIONED AIR FOR INSIDE BUILDING.					
6- DIFFERENTIAL PRESSURE SWITCH (DPS) ARE CONSIDERED FOR SPU'S ACROSS FILTER SECTION (BY UNIT MANUFACTURER) AND SET TO ALARM AT SET POINT DIFFERENTIAL PRESSURE A SIGNAL SHALL BE SENT TO PKG CONTROL & ELECTRICAL PANEL TO ALARM. IN ADDITION TWO (DPS) ARE CONSIDERED ACROSS FANS TO MONITOR FAN FAILURE. A SIGNAL SHALL BE SENT TO PKG CONTROL & ELECTRICAL PANEL TO ALARM AND AUTOMATIC CHANGEOVER TO OTHER STANDBY UNIT.					
7- A COOLING THERMOSTAT WITH CHANGE-OVER SWITCH SHALL BE CONSIDERED ON RETURN DUCT TO CONTROL THE UNIT COMPRESSORS DOWN TO MAINTAIN THE INSIDE CONDITION TEMPERATURE.					
8- WHENEVER THE PKG CONTROL & ELECTRICAL PANEL RECEIVED A SIGNAL FROM FIRE & GAS MONITORING SYSTEM, THE WHOLE SYSTEM MUST SHUT DOWN AND ALL ASSOCIATED MOTORIZED DAMPERS SHALL RETURN TO 100% CLOSED POSITION. IN ADDITION, HVAC SYSTEM STATUS SIGNAL SHALL SEND TO F&G SYSTEM VIA PKG CONTROL & ELECTRICAL PANEL.					
9- ALL REFRIGERANT PIPE SIZES AND REQUIRED COMPONENTS TO BE VERIFIED AND FINALIZED BY VENDOR.					
10- EACH COMPRESSOR SHALL BE EQUIPPED WITH MINIMUM 4 STEP UNLOADING VALVE.					
11- #1 REFERS TO HVAC SYSTEM STATUS SIGNAL TO F&G SYSTEM.					
12- #2 REFERS TO UNIT INTERLOCKED WITH CORRESPONDING MOTORIZED DAMPER AND COMPLETE SHUT DOWN AND AUTOMATIC CHANGEOVER TO OTHER STANDBY UNIT.					
13- THE MOTORIZED DAMPERS ON FRESH, RETURN DUCTS ARE PROPORTIONAL TYPE. THE MOTORIZED DAMPERS ON SUPPLY AND EXHAUST DUCTS ARE OPEN/CLOSE TYPE.					
14- FLAMMABLE GAS DETECTOR (FGD) AND TOXIC GAS DETECTOR (TGD) ARE CONSIDERED AT THE FRESH AIR INTAKE OF AHUS.					
15- THE BATTERY ROOM EXHAUST FAN MUST BE EXPLOSION PROOF TYPE (EEx d-IC-T3).					
16- LIQUID INJECTION FOR COMPRESSORS SHALL BE CONSIDERED.					
17- HVAC CONTROL PANEL AND CONTROL SYSTEM WILL BE DESIGNED BY VENDOR. COMMUNICATION BETWEEN HVAC CONTROL SYSTEM AND FCS CONTROL SYSTEM AND RELATED SIGNALING SHALL BE CONSIDERED BY VENDOR BASED ON THE REQUIREMENTS THAT MENTIONED IN "SPECIFICATION FOR HVAC CONTROLS" DOCUMENT.					
18- ALL EXHAUST FANS EXCEPT BATTERY ROOM, SHALL BE EQUIPPED WITH BACKRAFT DAMPER.					
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REFERENCE DOCUMENTS			DOC. NO.		
HVAC DESIGN CRITERIA			LRP-TNA-HV-99-SPC-0001		
PROCESS CONTROL BUILDING NO.03 HVAC CALCULATION			LRP-TNA-HV-15-CAL-0001		
PROCESS CONTROL BUILDING NO.03 HVAC EQUIPMENT DATA SHEETS			LRP-TNA-HV-19-DSH-0002		
LEGEND					
AC	ACCUMULATOR	COMP	COMPRESSOR	H/O/A	HANDY-OFF-AUTOMATIC
MD	MOTORIZED DAMPER	HLT	HIGH LIMIT THERMOSTAT	PS	DIFFERENTIAL PRESSURE SWITCH
RA	RETURN AIR	FS	FLOW SWITCH	SW	SWITCH
SA	SUPPLY AIR	XL	VOLUME DAMPER	RL	RUNNING LAMP
EA	EXHAUST AIR	HLT	HIGH LIMIT THERMOSTAT	DPS	DIFFERENTIAL PRESSURE SWITCH
VD	VOLUME DAMPER	SPU	SPLIT PACKAGED UNIT	S/D	SHUT DOWN
TYP.	TYPICAL	MFD	MOTORIZED FIRE DAMPER	ACC	AIR COOLED CONDENSER
CC	COOLING COIL	ACC	AIR COOLED CONDENSER	EH	ELECTRICAL HEATER
COMD	COMMAND	EH	ELECTRICAL HEATER		
FA	FRESH AIR				
FD	FIRE DAMPER				
M	MOTOR				
EF	EXHAUST FAN				
TE	TEMPERATURE ELEMENT	—HC—	REFRIGERANT HOT GAS LINE		
TC	TEMPERATURE CONTROLLER	—LL—	REFRIGERANT LIQUID LINE		
PB	PUSH BUTTON	—SUC—	REFRIGERANT SUCCTION LINE		
O/O	ON/OFF	EH	ELECTRICAL HEATER		
F&G	FIRE/GAS SYSTEM				
S/D	SHUT DOWN				
DPT	DIFFERENTIAL PRESSURE TRANSMITTER				
CO ₂	CO ₂ SENSOR				
KEY PLAN					

