OUTSIDE AIR REQUIREMENTS (BASED ON 2012 INTERNATIONAL MECHANICAL CODE AND ASHRAE 62)

UNIT SERVING ZONE	ZONE NAME	PEOPLE OUTDOOR AIRFLOW Rp(CFM/person)	AREAL OUTDOOR AIRFLOW Ra(CFM/SQF)	OCCUPANT DENSITY #/1000SQF	OCCUPANT LOAD Pz(PERSON)	OCCUPIED AREA Az(SQF)	EFFECTIVENESS Ez	OSA(CFM) TOTAL REQUIRED	OSA(CFM) ACTUAL	AIR CHANGE RATE (ACH)	NOTES
AHU-4 / SF-2	OPERATING GALLERY	0	0.06	0	0	5,780	1	347	6,000/11,000	5.2/9.4	1
EF-2A / EF-2B	CIRCULATION / PLATFORM / CLEARWELL	0	0.06	0	0	10,000	1	600	10,000/20,000	1.5/3	1
SF-1	COMPRESSOR / HVAC ROOM	0	0.06	0	0	4,500	1	270	10,200	7	1
AHU-2A / AHU-2B	ELECTRICAL ROOM	0	0.06	0	0	1,440	1	86	6,000	13	1
AHU-1 / EF-1	FILTER PRESS ROOM	0	0.06	0	0	2,903	1	174	7,000	7	1
AHU-3 / EF-3	CHEMICAL DISTRIBUTION ROOM	0	0.06	0	0	4,300	1	258	4,300	3	1
EF-5	FIRE RISER ROOM	0	0.06	0	0	95	1	6	175	1	1
AHU-5	SAMPLE PREP ROOM	5	0.06	5	1	242	1	21	325	8	
AHU-6	CONTROL ROOM	5	0.06	5	1	235	1	20	50	1	
EF-8	STORAGE SOILED GEAR	5	0.06	2	0	50	1	4	100	12	
EF-4	RESTROOM	–	–	–	–	75	–	50/75	75	6	2
EF-6	HVAC ROOM	0	0.06	0	0	113	1	7	260	12	1

NOTES:
1. SPACES ARE CONSIDERED NORMALLY UNOCCUPIED. VENTILATION FOR OCCUPANTS IS NOT CODE REQUIRED.
2. AIR FLOW BASED ON INTERMITTENTLY OPERATED EXHAUST FAN.

AIR FLOW TABLE
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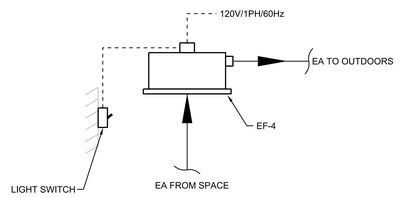
GENERAL NOTES

1. REFER TO SHEET H941002-F-0016 FOR SEQUENCE OF OPERATION.
2. FLOW IMBALANCE WILL BE PICKED UP THROUGH INFILITRATION

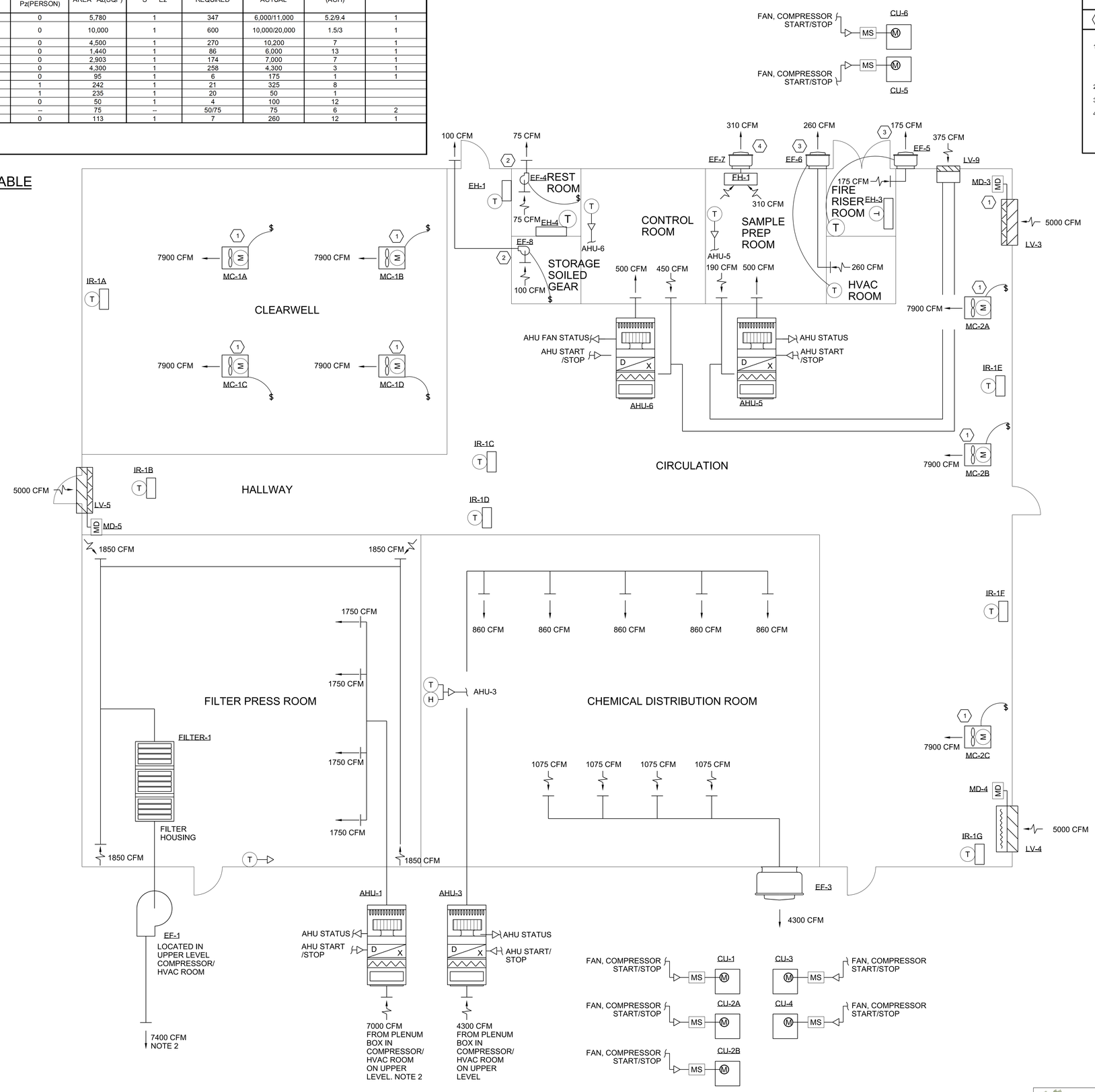
SHEET KEYNOTES

1. MAN COOLERS STARTED AND STOPPED MANUALLY BY INDIVIDUAL WALL SWITCHES. SWITCHES PROVIDED UNDER ELECTRICAL, MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION WITH OTHER TRADES.
2. FAN CONTROLLED BY INDIVIDUAL WALL SWITCH.
3. FAN CONTROLLED BY LINE VOLTAGE THERMOSTAT.
4. FAN CONTROLLED BY FUME HOOD CONTROLLER.



CONTROL SEQUENCE
1. WHEN LIGHT SWITCH IS ACTIVATED EF-4 TO RUN CONTINUOUSLY
2 WHEN LIGHT SWITCH IS DEACTIVATED EF-4 TO SHUT DOWN

1 BATHROOM FAN (EF-4) CONTROL DIAGRAM
NTS



1 LOWER LEVEL AIR FLOW DIAGRAM
NTS

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PART	REV	DESCRIPTION	DRW	CHKR	DE	DVR	DM	DATE
	Ø	ISSUED FOR CONSTRUCTION	JP	JM	FM		LE	06/2017

REVISION OR ISSUE PURPOSE — REVISION APPROVALS (PE, DATE) — SQUAD CHECK (WE, AR, CV, ST, HV, EM, FP, PD, EE, IE, M, NP)

RPE: THEODORE J. PIERCE, REGISTERED ENGINEER, STATE OF TENNESSEE, No. 107139, COMMERCE — 03 JUL 2017

DRW	J PIGMAN	06/16/17
CHKR	J McMURREN	06/16/17
DE	M FULLS	06/16/17
DVR		
DM	L ELLIS	06/16/17
PE	Teresa J. Pierce, P.E.	

REV. DATE — DRAWING APPROVALS — DATE

UCOR URS | CH2M Oak Ridge LLC

OF200 Mercury Treatment Facility
Designed by URS|CH2M Oak Ridge LLC (UCOR) for the Department of Energy
Oak Ridge Office of Environmental Management
under U. S. Government contract DE-SC-0004645

Y-12 National Security Complex managed and operated by Consolidated Nuclear Security, LLC for the Department of Energy under U.S. Government contract DE-NA0001942
« Oak Ridge, Tennessee »

PROJECT NAME: OF200 MERCURY TREATMENT FACILITY

HVAC TREATMENT FACILITY LOWER LEVEL AIR FLOW DIAGRAM

USE	DISC	DT	DC	CM	SYSTEM	STAT	SIZE	BLDG	FL	CLASS
3	H	A	S	NC	FAC	AR	E	9410-02	X	U

SH.	OF	TYPE		PART	REV
1	1	DD	H941002-F-0014	000	0

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