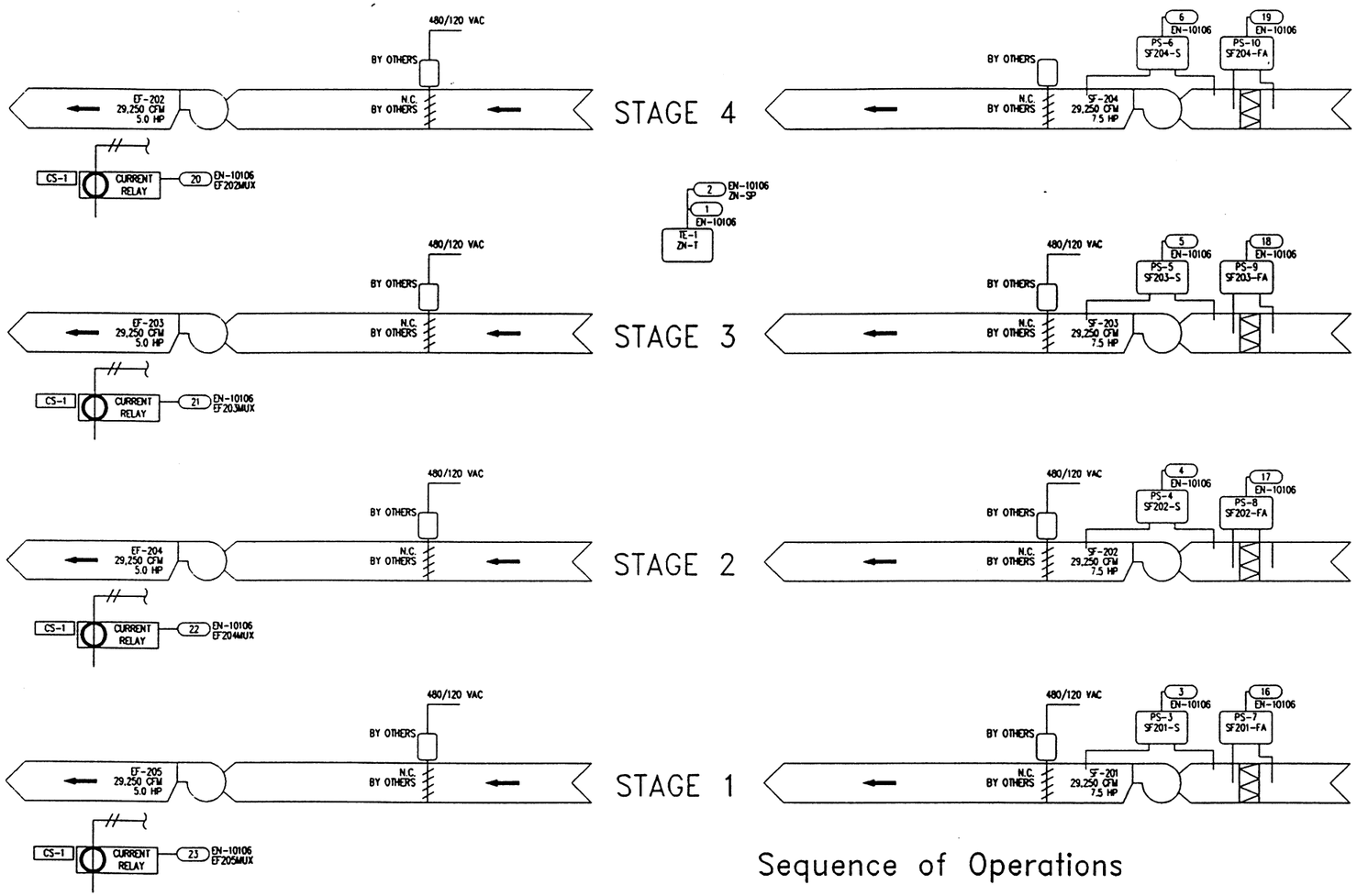
Supply Fans, SF-201-204 and Exhaust Fans, EF-202-205 Flow Diagram



Control System Termination

BAY	TERM	FM	DEVICE	REFERENCE DETAIL
** ENCLOSURE: EN-10106				
AI	AI1	----	TE-1	A-RTD-2TWIST-L
AI	AI4	----	PS-14	A-RTD-2TWIST-L
AI	AI5	----	PS-12	A-RTD-2TWIST-L
AI	AI6	----	PS-13	A-RTD-2TWIST-L
AI	AI7	----	PS-14	A-RTD-2TWIST-L
AI	AI8	----	TE-1	A-VDC-BF-2TWIST-L
BI	BI1	----	PS-7	A-BIN-2TWIST-L-I
BI	BI2	----	PS-8	A-BIN-2TWIST-L-I
BI	BI3	----	PS-9	A-BIN-2TWIST-L-I
BI	BI4	----	PS-10	A-BIN-2TWIST-L-I
BI	BI5	----	PS-3	A-BIN-2TWIST-L-I
BI	BI6	----	PS-4	A-BIN-2TWIST-L-I
BI	BI7	----	PS-5	A-BIN-2TWIST-L-I
BI	BI8	----	PS-6	A-BIN-2TWIST-L-I

NOTES:

1. TC INSTALLATION CONTACTOR TO WIRE DAMPER MOTORS INTO EXHAUST FAN TERMINATION BOX.

Sequence of Operations

SYSTEM: Supply and Exhaust Fans, Constant Volume

CONFIGURATION: Room Control, Four(4) Stages of Exhaust Cooling

CONTROL HARDWARE: AS-AHU100

Cooling Stage Sequencing

The digital ASC controller, EN-10106 will stage Supply Fans, SF-201 - SF-204 in sequence to maintain a space temperature setpoint of 75 F.(Adj.) Exhaust Fans, EF-202 - EF-205 will be interlocked with its respective supply fan through an auxiliary contact on the supply fan motor starter.

The Supply and exhaust fans will be staged in the following sequence:

Stage 1 SF-201 and EF-205
Stage 2 SF-202 and EF-204
Stage 3 SF-203 and EF-203
Stage 4 SF-204 and EF-202

Differential pressure switches, PS-7-PS-10 will close in the event that the pressure drop accross the supply fan filters exceeds .8 IN WG(adj.) and an alarm will be sent to the ICS network, indicating the filter's condition.

Power Fail Restart

The power fail restart will delay the startup of the digital controller for 1 minute after a power failure for controller reset condition. This logic will hold the controller in the sutdown mode until the restart timer has expired.

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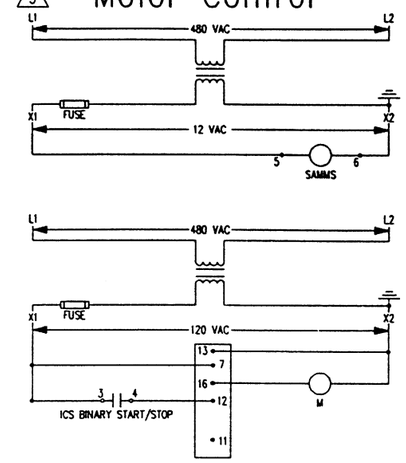
FIELD MATERIAL

DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
PS-3-PS-10	8	P32AF-2C	SENSITIVE DIFF PRES CTL
	16	FTG18A-600R	REMOTE MTD PROBE
TE-1	1	TE-6100-960	SENSOR, ROOM, VERT MT.
	1	T-4000-2139	COVER PLAS HRZ CONC NO-T
4 CS-1	4	705-NO	CURRENT SWITCH-VERIS

3 Motor Control



CABLE/DEVICE SCHEDULE

CABLE NUMBER	CONTROL DEVICE	CONTROLLED DEVICE
8	XX-1	SF-201
10	XX-1	SF-202
12	XX-1	SF-203
14	XX-1	SF-204
CBL	SF-201 AUX1	EF-202
CBL	SF-202 AUX1	EF-203
CBL	SF-203 AUX1	EF-204
CBL	SF-204 AUX1	EF-205

FILE: EF-210
DCODE: 19930628.1538

REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
		AS BUILTS		06/28/93	DCS
	3	GENERAL		07/08/92	SF
	2	GENERAL		03/25/92	SF

SALES ENGR	PROJECT MGR	APPL. ENGR	DRAWN		APPROVED	
JP	SF	DCS	BY SF	DATE 11/22/91	BY	DATE

DRAWING TITLE
Supply Fans, SF-202-SF-204
Exhaust Fans, EF-202-EF-204
Flow Diagram and Equipment
Locations Serving Room B100

PROJECT
The Argonne National Labs
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CONTRACT NUMBER 91390-0009

DRAWING NUMBER 91-9-B-06A