A001

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SUBJECT: SIZE: 443

Forwards addl drawings for systematic eval prog (SEP) in response to 780626 request.

Proprietary drawings will be provided under separate cover. [redacted] oversize drawings in

Central Files. Topics discussed incl ESF Switch over & engineered safety features.

SEE RPT SHELF. { ENCLOSURE 1 : DRAWINGS, "ELEMENTARY WIRING DRAWINGS"
ENCL 2: "INDEX TO DRAWINGS ENCL.

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NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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FROM: US NRC/TIDC/Distribution Services Branch

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Michael Collins

cc: DSB Files

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ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. [illegible]

[illegible]
VICE PRESIDENT

[illegible]

November 22, 1978

Director of Nuclear Reactor Regulation
Attention: Mr. Dennis L. Ziemann, Chief
Operating Reactors Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Drawings for SEP; Topics VI-7.B, VII-1.A, and VII-2
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Ziemann:

In response to your request of June 26, 1978, please find enclosed additional drawings for Ginna Station. Enclosure 1 to this letter lists a number of drawings which are being provided in response to your request. Some of the drawings which you requested are proprietary to Westinghouse, as noted on Enclosure 1, and so will be provided under separate cover. Enclosure 2 to this letter is an index to the elementary wiring diagrams which are included in this response. Seven copies of the nonproprietary drawings are being provided.

Although we had discussed with members of your Staff our providing an index for all Ginna Station drawings, we do not believe it would be useful to you due to its great volume. The drawings provided with our letter of September 12, 1978, those being provided in this transmittal and those proprietary drawings being supplied under separate cover should satisfy your requirements. If there are drawings for additional topic reviews that you require or if you desire assistance in finding specific information in drawings already provided, please contact us.

In your letter of October 26, 1978, questions were raised concerning three SEP topics.

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A001(LTR)
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DRWGS TO
LIST

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1. Topic VI-7.B ESF Switchover From Injection to Recirculation Mode (Automatic ECCS Realignment)

Schematics for the automatic controllers used (if any) to perform the changeover.

Response: Ginna does not have automatic ECCS realignment and therefore there are no automatic controllers.

2. Topic VII-1.A Isolation of Reactor Protection System From Non-Safety Systems, Including Qualification of Isolation Devices

Drawings and schematics which show:

A. How the Reactor Protection System gets its input signals.

B. How the other system inputs are isolated from the Reactor Protection System inputs..

Response: The following schematics and drawings provide the requested information.

110E053 Sheets 2 through 9
882D612 Sheets 1 through 8 and 10 through 15
110E059 Sheets 1 thorugh 6
110E074 Sheets 1 thorugh 5
Foxboro BD Series Sheets 2 through 19

Aditional information may be found in Section 7.2.1 of the FSAR.

Drawings of the 882D612 and 110E059 series contain proprietary information and are being sent under separate cover.

3. Topic VII-2 Engineered Safety Features (ESF) System Logic and Design

A list of the diesel generator loads which are to be supplied under various conditions, including:

A. Normal operation, including normal shutdown

B. LOCA

C. Other emergency situations

Details of automatic load sequencing system or equipment (if any).

Response:

A. During normal operation, including normal shutdown, the diesels are in a standby condition and no loads are supplied. A loss of offsite power during normal operation is not a normal condition and is covered under response C.

B. Details of diesel loading following a LOCA are found in Section 8.2.3 of the FSAR. Listed below is the specific equipment which is retained on the bus or automatically sequenced onto the bus. Specific loads for these pieces of equipment are given in FSAR Table 8.2-1. Other equipment which may be loaded onto the bus following an accident is also listed.

Loads for other selected major equipment are also provided in FSAR Table 8.2-1. Additional equipment could be added to the bus, at the discretion of the operator while assuring at all times that the diesel is not overloaded by such action.

	Diesel 1A		Diesel 1B
Retained Load Auto sequenced	MCC 1C		MCC 1D
	SIP 1A		SIP 1B
	SIP 1C	or	SIP 1C
	RHR 1A		RHR 1B
	SW 1A or 1C		SW 1B or 1D
	Cont. Fan 1A		Cont. Fan 1B
	Cont. Fan 1D		Cont. Fan 1C
	AFWP 1A		AFWP 1B
	Cont. Spray 1A		Cont. Spray 1B
Potential Manual Loads	MCC 1A		MCC 1B
	Comp Cooling 1A		Comp Cooling 1B
	Battery Charger		Battery Charger
	SW 1A or 1C		SW 1B or 1D
	Instr. Air Comp. 1A		Instr. Air Comp. 1C
	Service Air Comp.		

Details of the automatic sequencing are shown in FSAR Figure 8.2-4.

C. In the event of a loss of offsite power without a safety injection signal, the loads below are loaded automatically onto the diesel. The service water pumps have timed delays before being added to the diesel so that the maximum starting load is an auxiliary feedwater pump and component cooling water pump. Specific loads may be determined from Table 8.2-1. Other equipment may be placed on the diesel by the operator.

Diesel 1A	Diesel 1B
MCC 1C	MCC 1D
SW 1A or 1C	SW 1B or 1D
AFWP 1A	AFWP 1B
Comp Cooling 1A	Comp Cooling 1B

We note that the Staff is presently reviewing the Ginna undervoltage protection system. We expect some modifications to that system to be implemented following Staff approval.

Very truly yours,

L.D. White, Jr.

Enclosure 1

Drawings referenced in November 28, 1978 response to information requests for SEP topics VI-7.B, VII-1.A and VII-2.

110E053 Sheets 2 through 9
882D612 Sheets 1 through 8 and 10 through 15 (Proprietary)
110E059 Sheets 1 through 6 (Proprietary)
Foxboro BD Series Sheets 2 through 19
110E074 Sheets 1 through 5
10905 Sheets 1 through 437 (Some of these drawings are of the 499B425 series which has been superceded by the 10905 series.)

PLANT ITEM NO.	TITLE	NO.	REV.
	INDEX	1	
	INDEX	2	
	INDEX	3	
	INDEX	4	
	INDEX	5	
		6	
	LEGEND	7	
	SYMBOLS	8	
	SYMBOLS	9	
	SWITCH DEVELOPMENT	10	
	SWITCH DEVELOPMENT	11	
	SWITCH DEVELOPMENT	12	
	SWITCH DEVELOPMENT	13	
	SWITCH DEVELOPMENT	14	
27/11A & 81/11A	UNDERVOLTAGE & UNDERFREQUENCY SCHEME BUS 11A	15	
27/11B & 81/11B	UNDERVOLTAGE & UNDERFREQUENCY SCHEME BUS 11B	16	
27/12A & 27/12B	UNDERVOLTAGE SCHEME BUS 12A & 12B	17	
51/50 & 50G	TRANS. FEEDER RELAY SCHEME	18	
51/50 & 50G	MOTOR RELAY SCHEME	19	
52/BTA-A	4.16KV BUS TIE 11A to 12A	20	
52/BTB-B	4.16KV BUS TIE 11B TO 12B	21	
52/BTA-B	4.16KV BUS TIE 11A TO 11B	22	
52/11A	4.16KV BUS SUPPLY 11A	23	
52/11B	4.16KV BUS SUPPLY 11B	24	
52/12A	4.16KV BUS SUPPLY 12A	25	
52/12B	4.16KV BUS SUPPLY 12B	26	
52/14SS & 16SS	STA. SERV. TRANS. NO. 14 & 16	27	
52/13SS & 15SS	STA. SERV. TRANS. NO. 13 & 15	28	
52/17SS & 18SS	STA. SERV. TRANS. NO. 17 & 18	29	
52/FP1A & FP1B	STEAM GEN. FEEDWATER PUMP NO. 1A & 1B	30	
52/CWP1A & CWP1B	CIRCULATING WATER PUMP NO. 1A & 1B	31	
52/CP1A	CONDENSATE PUMP NO. 1A	32	
52/CP1B	CONDENSATE PUMP NO. 1B	33	
52/CP1C	CONDENSATE PUMP NO. 1C	34	
52/HDP1A & HDP1B	HEATER DRAIN PUMP NO. 1A & 1B	35	
52/EF1A & EF1B	REACTOR AUX. BLDG. MAIN EXHAUST FAN NO. 1A & 1B	36	
52/RCP1A & RCP1B	REACTOR COOLANT PUMP NO. 1A & 1B	37	
52	SPARE FEEDER BUS 11A	38	
52	FUTURE FEEDER BUS 12A	39	
52	FUTURE FEEDER BUS 11B	40	
	BRUSHLESS EXCITATION SCHEME FOR SYN. MOTOR	41	
86/BU	GEN. BACKUP LOCKOUT RELAY-(SHEETS 1 and 2)	42	
86/P & 86X	GEN. PRIM. & AUX. LOCKOUT RELAYS (SHEETS 1 and 2)	43	
86/11A & 86/11B	BUS 11A & 11B DIFF. LOCKOUT RELAYS	44	
86/12A & 86/12B	BUS 12A & 12B DIFF. LOCKOUT RELAYS	45	
86/12T & 86/34.5	TRANS. NO. 12 & 34.5KV BUS DIFF. LOCKOUT RELAYS	46	
	CIRCULATING WATER PUMP AUX. TRIP	47	
273,274/11A&273,274/11B	4KV BUS 11A & 11B UNDERVOLTAGE	48	
25	SYNCHRO VERIFIER SCHEME	49	
64	480V GROUND DETECTOR SCHEME	50	
27/13	UNDERVOLTAGE SCHEME BUS 13	51	
27/14	UNDERVOLTAGE SCHEME BUS 14	52	
27/15	UNDERVOLTAGE SCHEME BUS 15	53	
27/16	UNDERVOLTAGE SCHEME BUS 16	54	
27/17 & 27/18	UNDERVOLTAGE SCHEME BUS 17 & 18	55	
27B/14	UNDERVOLTAGE SCHEME BUS 14	56	
27B/16	UNDERVOLTAGE SCHEME BUS 16	57	
27B/17, 27B/18	UNDERVOLTAGE SCHEME BUS 17 & 18	58	
83	DC CONTROL POWER TRANSFER	59	
52/BT14-13	480V BUS TIE 14 TO 13	60	
52/BT16-15	480V BUS TIE 16 TO 15	61	
52/BT16-14	480V BUS TIE 16 TO 14	62	
52/BT17-18	480V BUS TIE 17 TO 18	63	
52/13, 15	480V BUS SUPPLY 13 & 15	64	
52/14	480V BUS SUPPLY 14	65	
52/16	480V BUS SUPPLY 16	66	
52/17	480V BUS SUPPLY 17	67	
52/18	480V BUS SUPPLY 18	68	
		69	
52/MG1A, 1B	ROD DRIVE M-G SET 1A & 1B	70	
52/CHP1A, 1B 1C	CHARGING PUMP 1A, 1B & 1C	71	
52/CCP1A, 1B	COMPONENT COOLING PUMP 1A & 1B	72	
52/SIP1A, 1B	SAFETY INJECTION PUMP 1A & 1B	73	
52/SIP1C1	SAFETY INJECTION PUMP 1C1	74	
52/SIP1C2	SAFETY INJECTION PUMP 1C2	75	
52/MAFP1A	MOTOR DRIVEN AUX. FEEDWATER PUMP 1A	76	
52/MAFP1B	MOTOR DRIVEN AUX. FEEDWATER PUMP 1B	77	
52/RHRP1A	RESIDUAL HEAT REMOVAL PUMP 1A & 1B	78	
52/CSP1A, 1B	CONTAINMENT SPRAY PUMP 1A & 1B	79	
52/FP	FIRE PUMP	80	
52/SWP1A, 1C	SERVICE WATER PUMP 1A & 1C	81	
52/SWP1B, 1D	SERVICE WATER PUMP 1B & 1D	82	
52/IAC1A, 1B, 1C	INSTRUMENT AIR COMPRESSOR 1A, 1B & 1C (SHEETS 1 & 2)	83	
52/SAC	STATION SERVICE AIR COMPRESSOR	84	
52/CC1A, 1B	CHILLER COMPRESSOR 1A & 1B	85	
52/SAHU	AUX. BLDG. SUPPLY AIR HDLG. UNIT	86	
52/LT1A	LIGHTING TRANSFORMER 1A	87	
52/LT1B	LIGHTING TRANSFORMER 1B	88	
52/PHCG	PRESS. HTR. CONT. GROUP	89	

THIS DWG SUPERCEDES WESTINGHOUSE DWG NO. 4998425-1

ORIGINAL

REV.		
1		
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P.E.I. engr.		
6/15/68 date		

50-244

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Enclosure 2

RETURN TO REGULATORY DOCKET FILES

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ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM	TRACED	APPROVED
No. 10905-1	INDEX	CHECKED	FOLDER NO.
		ENG.	JOB NO.

PLANT ITEM NO.	TITLE	SHEET NO.	REV.
52/PHBG----------	PRESSURIZER HEATER BACKUP-GROUP----------	90	
52/IH1A, 1B, 1C, 1D	INTAKE HEATER 1A, 1B, 1C & 1D----------	91	
52/TRC----------	TURBINE ROOM CRANE----------	92	
52/APS1A, 1B-------	GEN. TRANS. AUX. POWER SUPPLY 1A & 1B----------	93	
52/CF1A, 1C--------	CONTAINMENT FAN 1A & 1C----------	94	
52/CF1B, 1D--------	CONTAINMENT FAN 1B & 1D----------	95	
52/CRSF1A, 1B------	CONTROL ROD SHROUD FAN 1A & 1B----------	96	
52/MCC1A,1B,1E,1F--	MOTOR CONTROL CENTER 1A, 1B, 1E, & 1F----------	97	
52/MCC1C, 1D-------	MOTOR CONTROL CENTER 1C & 1D----------	98	
52/MCC1G1----------	MOTOR CONTROL CENTER 1G1----------	99	
52/MCC1G2----------	MOTOR CONTROL CENTER 1G2----------	100	
52/EG1A1-----------	EMERGENCY GEN. 1A BUS 14----------	101	
52/EG1B1-----------	EMERGENCY GEN. 1B BUS 16----------	102	
52/EG1A2-----------	EMERGENCY GEN. 1A BUS 18----------	103	
52/EG1B2-----------	EMERGENCY GEN. 1B BUS 17----------	104	
52/SPARE-----------	SPARE FEEDER BUS 13 & 15----------	105	
52/SPARE-----------	SPARE FEEDER BUS 13 & 15----------	106	
52/FUTURE----------	FUTURE FEEDER BUS 13 & 15----------	107	
52/SPARE-----------	SPARE FEEDER BUS 14 & 16----------	108	
52/SPARE-----------	SPARE FEEDER BUS 14 & 16----------	109	
52/FUTURE----------	FUTURE FEEDER BUS 14 & 16----------	110	
52/FUTURE----------	FUTURE FEEDER BUS 17 & 18----------	111	
	AUX. BUILDING EXHAUST FAN 1G----------	112	
		113	
	TURBINE TRIP AUX. RELAYS----------	114	
	TURBINE SOLENOID CONTROL----------	115	
	115KV AUX. RELAYS----------	116	
42/BABTP-----------	BORIC ACID BATCH TANK TRANSFER PUMP----------	117	
	MCC 1D & 1C LOAD SHEDDING NON-SAFEGUARDS----------	118	
42/PGMP------------	AUXILIARY BLDG. AIR VENT PART. & GAS MONIT. PUMP------	119	
42/BATH1A, 1B------	BORIC ACID TANK 1A & 1B HEATERS----------	120	
42/BATP1A, 1B------	BORIC ACID TRANSFER PUMP 1A & 1B----------	121	
42/CDTP------------	CHEMICAL DRAIN TANK PUMP----------	122	C
42/CHTH------------	CONCENTRATE HOLDING TANK HEATER----------	123	
42/HTP1A, 1B-------	CONCENTRATE HOLD. TANK TRANS. PUMPS 1A & 1B----------	124	
42/CAPMP-----------	CONTAINMENT AIR PARTICULATE MONITOR PUMP----------	125	
42/SFP1A, 1B-------	GAS STRIPPER FEED PUMP 1A & 1B----------	126	
42/LP--------------	LAUNDRY PUMP----------	127	
42/MTDP------------	MONITOR TANK DISCHARGE PUMP----------	128	
42/OLP1A, 1B-------	RCP OIL LIFT PUMP 1A & 1B----------	129	
42/CDP1A, 1B-------	REACTOR COOLANT DRAIN PUMP 1A & 1B----------	130	
42/RMWP1A, 1B------	REACTOR MAKEUP WATER PUMP 1A & 1B----------	131	
42/RP--------------	RECIRCULATION PUMP----------	132	
42/RWPP------------	REFUELING WATER PURIFICATION PUMP----------	133	
42/SFPP------------	SPENT FUEL PIT PUMP----------	134	
42/SFPSP-----------	SPENT FUEL PIT SKIMMER PUMP----------	135	
42/STP1A, 1B-------	SUMP TANK PUMPS 1A & 1B----------	136	
42/WCP1A, 1B-------	WASTE CONDENSATE PUMPS 1A & 1B----------	137	
42/WEFP------------	WASTE EVAPORATOR FEED PUMP----------	138	
42/WGC1A, 1B-------	WASTE GAS COMPRESSOR 1A & 1B----------	139	
42/HP--------------	HYDROSTAT PUMP----------	140	
42/RCC-------------	RCC CHANGE FIXTURE HOIST DR.----------	141	
42/AMS1A, 1B-------	DIESEL START AIR COMP. 1A & 1B----------	142	
42/LMS1A, 1B-------	DIESEL GEN. PRE. LUBE PUMPS 1A & 1B----------	143	
42/JHC1A, 1B-------	DIESEL GEN. JACKET WATER HEATERS 1A & 1B----------	144	
42/LHC1A, 1B-------	DIESEL GEN. LUBE OIL HEATERS 1A & 1B----------	145	
42/DSF1A1,1A2,1B1,1B2—	DIESEL ROOM SUPPLY FANS 1A1, 1A2, 1B1 & 1B2----------	146	
42/DGCVSP1A, 1B----	DIESEL GEN. CABLE VAULT SUMP PUMP 1A & 1B----------	147	
94/RM18------------	TRIPPING RELAY FROM RM18 (TRIP 42/LP,42/MTDP,42/WCP1A,1B)	148	
	NEUTRALIZING TANK PUMP	149	
42/DSP-------------	DE-SUPERHEATER PUMP----------	150	
42/TGP-------------	TURNING GEAR OIL PUMP----------	151	
42/TG--------------	TURNING GEAR----------	152	
42/EHP1A-----------	EH SUPPLY PUMP 1A----------	153	
42/EHP1B-----------	EH SUPPLY PUMP 1B----------	154	
42/VP1A------------	VACUUM PRIMING PUMP 1A----------	155	
42/VP1B------------	VACUUM PRIMING PUMP 1B----------	156	
42/SOB-------------	SEAL OIL BACK-UP PUMP----------	157	
42/SOPA------------	GENERATOR AIR SIDE SEAL OIL PUMP----------	158	
42/BTP-------------	BLOWDOWN TRANSFER PUMP----------	159	
42/CWSP1A, 1B------	CHILLED WATER SUPPLY PUMP 1A & 1B----------	160	
42/FBP-------------	FIRE SERVICE BOOSTER PUMP----------	161	
42/BFP1A, 1B-------	HEATING BOILER-BOILER FEED PUMP 1A & 1B----------	162	
42/OER-------------	VAP. EXT. TURBINE OIL RESVR.----------	163	
42/LTP-------------	LUBE OIL TRANSFER PUMP----------	164	
42/FAP1A1, 1A2-----	STEAM GEN. FW PUMP AUX. OIL PUMP 1A1 & 1A2----------	165	
42/FAP1B1, 1B2-----	STEAM GEN. FW PUMP AUX. OIL PUMP 1B1 & 1B2----------	166	
42/DTP1A, 1B-------	DIESEL FUEL OIL TRANSFER PUMPS 1A & 1B----------	167	
42/IBSP------------	INTERMEDIATE BLDG. SUMP PUMP----------	168	
42/MAFP1AOP, 1BOP--	MOT. DVN. AUX. FW PUMP OIL PUMP 1A & 1B----------	169	
42/TAFPACOP--------	TURB. DVN. AUX. FW PUMP A. C. OIL PUMP----------	170	
42/SOPH------------	GENERATOR HYDROGEN SIDE SEAL OIL PUMP----------	171	
42/LOP-------------	LUBE OIL PURIFIER CIRCULATING OIL PUMP----------	172	
42/OEG-------------	GEN. OIL DRAIN VAP. EXT. PUMP----------	173	
42/HWSP------------	RADIATION HOT WATER SUPPLY PUMP----------	174	
42/TSM1A1,1A2,1B1,1B2—	TRAVELLING SCREENS MOTOR 1A1, 1A2, 1B1 & 1B2----------	175	
42/FSP1A, 1B-------	FEED PUMP SEAL DRAIN PUMP 1A & 1B----------	176	
	NOT APPLICABLE - VOIDED----------	177	
42/CAS-------------	CONDENSER PIT AUX. SUMP PUMP----------	178	

THIS DWG. IS PROCESS WESTINGHOUSE DWG. NO. 4998425-2

	NEW ELEM. DRAWING	
ORIGINAL	DEV.	2
	1	
drawn by	DH.	A.F.
CWD	N/A	1-12-77
DES. DIV.	4/14/77	4/14/77
	4/14/77	4/14/77
	4/14/77	9/6/77
	4/14/77	11/1/77

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1 ELEMENTARY WIRING DIAGRAM INDEX	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT		TRACED			APPROVED
No. 10905-2		CHECKED			FOLDER NO.
		ENGR.			JOB NO.

Enclosure 2

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 4998425-3

PLANT ITEM NO.	TITLE	SHEET NO.	REV.
42/CRCP1A, 1B------	CONT. RM. CDSTE. RTN. PUMP 1A & 1B----------	179	
42/VSP1A, 1B-------	VAPOR CONTAINER SUMP PUMP 1A & 1B----------	180	
42/CMS-------------	CONDENSER PIT MAIN SUMP PUMP----------	181	
42/CS--------------	CONDENSATE PIT SUMP PUMP----------	182	
42/ASP1A, 1B-------	AUX. BLDG. SUMP PUMP 1A & 1B----------	183	
42/ABCP1A, 1B------	AUX. BLDG. H & V CDSTE. RTN. PUMPS 1A & 1B----------	184	
42/NSCP1A, 1B------	AUX. BLDG. NSSS CDSTE. RTN. PUMPS 1A & 1B----------	185	
42/IBCP1A, 1B------	INT. BLDG. H & V CDSTE. RTN. PUMPS 1A & 1B----------	186	
42/SBCP1A, 1B------	SERV. BLDG. H & V CDSTE. RTN. PUMPS 1A & 1B----------	187	
42/GCF1A, 1B-------	GENERATOR BUS PRESSURE FAN 1A & 1B----------	188	
42/ABEF1E----------	AUX. BLDG. EXH. FAN 1E----------	189	
42/IEF1A, 1B-------	INTERMEDIATE BLDG. EXH. FAN 1A & 1B----------	190	
42/SBAHU1A, 1C-----	SERV. BLDG. AIR HANDLING UNIT 1A & 1C----------	191	
42/SBAHU1B---------	SERV. BLDG. AIR HANDLING UNIT 1B----------	192	
42/SBAHU1D---------	SERV. BLDG. AIR HANDLING UNIT 1D----------	193	
42/SBAHU1E---------	SERV. BLDG. AIR HANDLING UNIT 1E----------	194	
42/SBRAF1A, 1B-----	SERV. BLDG. RETURN AIR FAN 1A & 1B----------	195	
42/CRAH------------	CONTROL ROOM AIR HANDLING UNIT----------	196	
42/ABEF1D----------	AUX. BLDG. EXH. FAN 1D----------	197	
42/CRF-------------	CONTROL ROOM RETURN AIR FAN----------	198	
42/CAF1A, 1B-------	CONTROL ACCESS AREA EXH. FAN 1A & 1B----------	199	
42/IEF1C-----------	INTERMEDIATE BLDG. EXH. FAN 1C----------	200	
42/ABEF1C----------	AUX. BLDG. EXH. FAN 1C (DECON. PIT & SP. FUEL PIT)---	201	
42/CFEF1A, 1B------	AUX. BLDG. CHARCOAL FILT. FAN 1A & 1B----------	202	
42/GEF-------------	GLAND STM. COND. AIR EXH. FAN----------	203	
	NOT APPLICABLE - VOIDED----------	204	
42/RAH1A, 1B-------	RELAY ROOM AIR HDLG. UNIT 1A & 1B----------	205	
42/SBBEF1A, 1B-----	SERV. BLDG. BSMT. EXH. FAN 1A & 1B----------	206	
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ORIGINAL	
drawn by DH	
CKD Rev 6/1/76	
resp engr Grace 6/1/76	
MGR'T Ted 6/1/76	
date 6/1/76	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM INDEX	TRACED			APPROVED
No. 10905-3		CHECKED			FOLDER NO.
		ENGR.			JOB NO.

Enclosure 2

THIS DWG. PERCCOES WESTINGHOUSE DWG. NO. 4998425-4

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ORIGINAL	DEV.
drawn by	D.H.
ck'd	WJB
recd. onit.	[illegible]
[illegible]	[illegible]
date	4/12/74

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT

No. 10905-4 A

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1

ELEMENTARY WIRING DIAGRAM

INDEX

	BY	DATE	
DRAWN			SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENGR.			JOB NO.

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REV.					
ORIGINAL					
DH drawn by					
NJA ckd					
6/14/72 resp. engr.					
6/14/72 mgr.					
6/14/72 date					

Enclosure 2

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM	TRACED			APPROVED
NO. 10905-5	INDEX	CHECKED			FOLDER NO.
		ENG.			JOB NO.

LEGEND

DEVICE NUMBERS (REF. ASA C37.2-19561)

DEV. NO. FUNCTION

1. MASTER ELEMENT CONTROL SWITCH
2. TIME DELAY STARTING OR CLOSING RELAY
4. MASTER CONTACTOR
20. ELECTRIC OPERATED VALVE
21. DISTANCE RELAY
23. TEMPERATURE CONTROL DEVICE
25. SYNCHRONIZING OR SYNCHRONISM - CHECK DEVICE
27. UNDERVOLTAGE RELAY
32. DIRECTIONAL POWER RELAY
33. POSITION SWITCH (SEE SWITCH DEVELOPMENT)
40. FIELD RELAY
41. FIELD CIRCUIT BREAKER
42. MOTOR STARTER
43. MANUAL TRANSFER OR SELECTOR DEVICE
44. UNIT SEQUENCE STARTING RELAY
46. REVERSE - PHASE OR PHASE - BALANCE CURRENT RELAY
47. PHASE SEQUENCE VOLTAGE RELAY
48. INCOMPLETE SEQUENCE RELAY
49. THERMAL OVERLOAD DEVICE
50. OVERCURRENT RELAY - INSTANTANEOUS
51. OVERCURRENT RELAY - TIME DELAY
52. AC CIRCUIT BREAKER OR CONTACTOR
55. POWER FACTOR RELAY
59. OVERVOLTAGE RELAY
60. VOLTAGE BALANCE RELAY
62. TIME DELAY STOPPING OR OPENING RELAY
63 LIQUID OR GAS PRESSURE RELAY
64. GROUND PROTECTIVE RELAY
69. PERMISSIVE CONTROL DEVICE
71. LIQUID OR GAS LEVEL RELAY
72. DC CIRCUIT BREAKER OR CONTACTOR
74. ALARM OR BELL RELAY
80. LIQUID OR GAS FLOW RELAY
81. FREQUENCY RELAY
83. AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY
85. CARRIER OR PILOT WIRE RECEIVER RELAY
86. LOCKOUT RELAY
87. DIFFERENTIAL CURRENT RELAY
90. REGULATING DEVICE

95. CENTRIFUGAL ACTION SWITCH

X, Y, Z } AUXILIARY RELAYS

H TRUCK OPERATED CELL SWITCH SHOWN FOR BREAKER IN TEST POSITION

S MECH. OPERATED CELL SWITCH SHOWN FOR BREAKER IN OPEN POSITION

ALM. SW. - ALARM SWITCH CONTACTS OPERATED WHEN BREAKER IS TRIPPED AUTOMATICALLY BY ONE OF THE FOLLOWING ATTACHMENTS: SERIES OVERLOADS, UNDERVOLTAGE OR REVERSE CURRENT TRIP. CONTACTS DO NOT OPERATE WHEN BREAKER IS TRIPPED MANUALLY OR BY THE SHUNT TRIP. CONTACTS SHOWN IN THE RESET POSITION. THE ALARM SWITCH SHALL BE RESET MANUALLY BY ENERGIZING THE SHUNT TRIP COIL.

LO-LOCKOUT COIL PREVENTS BREAKER FROM BEING CLOSED UNLESS IT IS ENERGIZED AFTER BREAKER IS CLOSED. "LO" COIL MAY BE DEENERGIZED WITHOUT TRIPPING BREAKER.

TBS-TRIP BAR SW. OPENS WHEN TRIP BAR IS ACTUATED

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425 SHT 7, (REV. 2)

REV.								
ORIGINAL								
DRAWN BY	Gebhardt							
CHK'D.	RHM	7.11.33						
ENG'R	ACR							
DISC. MGR.	ACM							
DATE	6/4/35							

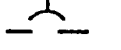
DRAWN BY DATE
TRACED
CHECKED
SCALE
APPROVED
FOLDER NO.
JOB NO.

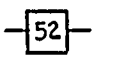
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No 10905-7

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1

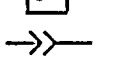
LEGEND

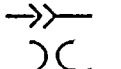
ONE LINE DIAG. ONLY (E = ELECT. OPER. M = MANUALLY OPER)


AIR CIRCUIT BREAKER 600V AND BELOW



AIR CIRCUIT BREAKER 2400V AND ABOVE

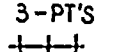

DISCONNECT DEVICE


POTENTIAL TRANS. (NUMBER INDICATES QUANTITY)

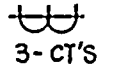
3 - PT'S

CURRENT TRANS. (NUMBER INDICATES QUANTITY)

3 - CT'S


CURRENT TRANS. BUSHING TYPE

3 - CT'S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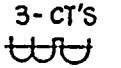
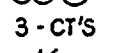
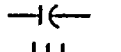

LIGHTNING ARRESTOR


GROUND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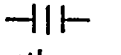
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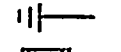
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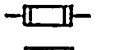
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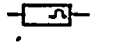
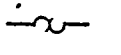
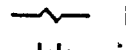

BATTERY


CONNECTION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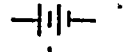
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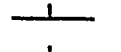
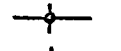
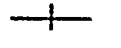
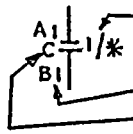

TERMINAL BLOCK AND NUMBER


CONTACT OPEN


CONTACT CLOSED

CONTACTS OF AUXILIARY RELAYS, AUXILIARY SWITCHES, PRESSURE SWITCHES, ETC. ARE SHOWN FOR OPEN, OFF, DE-ENERGIZED OR DE-ACTUATED CONDITION OF MAIN DEVICE.

BREAKER CONTROL SWITCH AT SWGR C=CLOSE T=TRIP



MASTER CONTROL/PLANT ITEM OR EQUIPMENT NO.

MASTER CONTROL SWITCH

TERMINAL NUMBER

DENOTES CONTACT CLOSED IN POSITION SHOWN

C = CLOSE OR START

T = TRIP

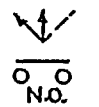
O = OFF (NEUTRAL) OR OPEN IN CASE OF VALVE

CTO = CLOSE, TRIP, OFF (NEUTRAL)

SC = SLIP CLOSE

ST = SLIP TRIP

PO = PULL-OUT



OT2 SELECTOR SWITCH

CONTACT IS AS SHOWN WHEN OPERATOR IS IN POSITION SHOWN BY ARROWS. WHEN OPERATOR IS IN DOTTED POSITION CONTACT CHANGES TO OPPOSITE THAT SHOWN

REV.		DRAWN BY	CHK'D	ENG'R	DISC. MGR	DATE
	ORIGINAL	Eckhoff 10/19/74	ZHM 4/14/75	PCH	EJM	6/4/75

DRAWN BY | DATE | SCALE ~

TRACED | APPROVED

CHECKED | FOLDER NO.

ENGR. | JOB NO.

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425, SHT. 8 (REV. 1)

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

SYMBOLS

No. 10905-8

LIMIT SWITCH ac, ao, bc, bo

TORQUE SWITCH tc, to

KNIFE SWITCH

PUSHBUTTON

N.C. N.O.

TEST SWITCH

RECTIFIER - ARROW INDICATED DIRECTION OF FLOW

RHEOSTAT OR VARIABLE RESISTOR

HORN

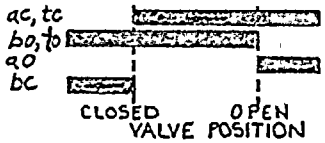
BELL

SWITCH
AS = AMMETER SWITCH. VS = VOLTMETER SWITCH
SS = SYNCHRONIZING SWITCH. 43 = TRANSFER SWITCH

INDICATING METER
A = AMMETER. V = VOLTMETER. W = WATTMETER. WH = WATTHOUR METER.
VAR = VARMETER. S = SYNCHROSCOPE. TI = TEMPERATURE INDICATOR.
F = FREQUENCY METER. VARH = VARHOUR METER

INDICATING LIGHT
A = AMBER. B = BLUE. C = CLEAR. G = GREEN. R = RED. W = WHITE.

(33) VALVE LIMIT & TORQUE SW



51 CO — RELAY
INSIDE NUMBER REFERS TO DEVICE NUMBER. OUTSIDE NUMBER INDICATES NUMBER OF RELAYS, OUTSIDE LETTERS INDICATES TYPE OF RELAY

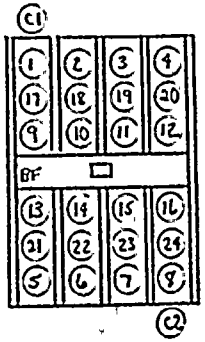
100 — MOTOR
NUMBER INSIDE OF CIRCLE INDICATES HORSEPOWER RATING

GENERATOR

* PLANT ITEM OR EQUIPMENT NUMBER

* * INTERLOCK OR AUTO CONTROL CONTACT

( ) – PREFIX WIRE WITH CELL UNIT NUMBER.
PARENTHESIS NOT TO BE USED WITH WIRE DESIGNATION.



WESTINGHOUSE
TYPE BF RELAY
(FRONT VIEW)
SUPPLIED WITH UNNUMBERED TERMINALS. NUMBERS ASSIGNED FOR TERMINAL LOCATION PURPOSES ONLY.

THIS DRAWING, SUPERCEDES WESTINGHOUSE DRAWING 499B425 SHT 9

REV						
ORIGINAL						
DRAWN BY						
CHK'D						
ENG'R						
DIV. SUPT. MGR.						
DATE						
4-6-76						

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.
No. 10905-9

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT No 1
SYMBOLS

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

FIG NO 1

CONTACT	POSITION				
	PULL OUT	TRIP	OFF AFTER TRIP	OFF AFTER CLOSE	CLOSE
A11-B11	X	X			
A12-B12			X	X	
A1-B1					X
A5-A6	X	X	X		
A6-A7				X	X
B5-B6	X	X	X		
B6-B7				X	X
C11-D11	X	X			
C12-D12			X	X	
C1-D1					X
C5-C6	X	X	X		
C6-C7				X	X
D5-D6	X	X	X		
D6-D7				X	X
E12-E1	X				
F12-F1		X	X	X	X
E6-E7	X				
F6-F7		X	X	X	X

TYPE W2 CS S#508A162 G01
(3 POSITION SPRING RETURN TO OFF)

FIG NO 3

CONTACT	POSITION	
	CLOSE	OPEN
A11-B11		X
A12-B12	X	
A1-B1		X
A5-B5		X
A6-B6	X	
A7-B7		X
C11-D11		X
C12-D12	X	
C1-D1		X
C5-D5		X
C6-D6	X	
C7-D7		X

TYPE W2 C.S.
S#505A622 G01
(MAINTAINED)

FIG NO 2

CONTACT	POSITION		
	1A1 1B1	OFF	1A2 1B2
A11-B11	X		
A12-B12		X	
A1-B1			X
A5-B5	X		
A6-B6		X	
A7-B7			X
C11-D11	X		
C12-D12		X	
C1-D1			X
C5-D5	X		
C6-D6		X	
C7-D7			X

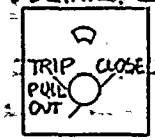
TYPE W2 C.S.
S#505A612G01
(MAINTAINED)

FIG. NO. 4

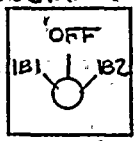
CONTACT	POSITION		
	BUS14 BUS16	OFF	BUS18 BUS17
A11-B11	X		
A12-B12		X	
A1-B1			X
A5-B5	X		
A6-B6		X	
A7-B7			X
C11-D11	X		
C12-D12		X	
C1-D1			X
C5-D5	X		
C6-D6		X	
C7-D7			X

TYPE W2 S.S.
S#505A756G02

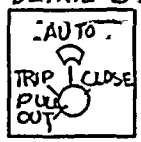
DETAIL "A"



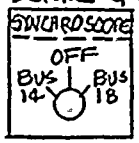
DETAIL "F"



DETAIL "B"



DETAIL "G"



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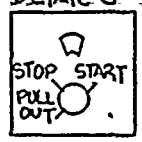
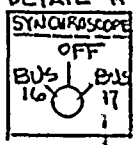


DETAIL "H"



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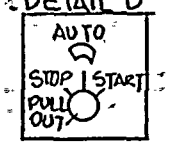
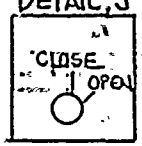


DETAIL "J"



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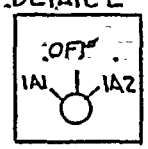
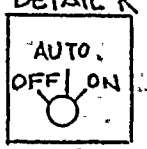


DETAIL "K"



SWITCH	FIG NO.	F.P. DETAIL
1/11A	1	A
1/11B	1	A
1/12A	1	A
1/12B	1	A
1/BTA-A	1	B
1/BTA-B	1	A
1/BTB-B	1	B
1/12SS	1	A
1/14SS	1	A
1/15SS	1	A
1/16SS	1	A
1/17SS	1	A
1/18SS	1	A
1/CWP1A	1	C
1/CWP1B	1	C
1/HDP1A	1	C
1/HDP1B	1	C
1/FP1A	1	C
1/FP1B	1	C
1/RCP1A	1	C
1/RCP1B	1	C
1/14	1	A
1/16	1	A
1/17	1	A
1/18	1	A
1/BT 14-13	1	A
1/BT 16-15	1	A
1/MG1A	1	C
1/MG1B	1	C
1/EAC1A	1	C
1/EAC1B	1	C
1/MCC1A	1	A
1/MCC1B	1	A
1/MCC1C	1	A
1/MCC1D	1	A
1/MCC1E	1	A
1/MCC1F	1	A
1/MCC1G1	1	A
1/MCC1G2	1	A
1/CRSF1A	1	D
1/CRSF1B	1	D
1/SAC	1	C
1/EG1A1	1	B
1/CRAH	1	C
1/PCE1A	1	C
1/PCE1B	1	C
1/PSE1A	1	C
1/PSE1B	1	C
1/CFE	1	C
1/RCE1A	1	D
1/RCE1B	1	D
1/VCAF1A	1	C
1/VCAF1B	1	C

SWITCH	FIG NO.	F.P. DETAIL
1/EG1A2	1	B
1/EG1B1	1	B
1/EG1B2	1	B
1/SIP1A	1	D
1/SIP1B	1	D
1/SIP1C1	1	D
1/SIP1C2	1	D
1/CSP1A	1	D
1/CSP1B	1	D
1/RHRP1A	1	D
1/RHRP1B	1	D
1/CHP1A	1	C
1/CHP1B	1	C
1/CHP1C	1	C
1/PHCG	1	A
1/SWP1A	1	D
1/SWP1B	1	D
1/SWP1C	1	D
1/SWP1D	1	D
1/BATP1A	1	D
1/BATP1B	1	D
1/HTP1A	1	C
1/HTP1B	1	C
1/SFP1A	1	C
1/SFP1B	1	C
1/MTDP	1	C
1/OLP1A	1	C
1/OLP1B	1	C
1/CDP1A	1	D
1/CDP1B	1	D
1/MWP1A	1	D
1/MWP1B	1	D
1/STP1A	1	D
1/STP1B	1	D
1/WGC1A	1	D
1/WGC1B	1	D
1/TGP	1	D
1/EHP1A	1	D
1/EHP1B	1	D
1/TAFP-ALOP	1	C
1/WSP1A	1	D
1/WSP1B	1	D
1/ASP1A	1	D
1/ASP1B	1	D
1/FAP1A1A2	2	E
1/FAP1B1B2	2	F
1/TDV	3	J
SS/14-16	4	J
SS/16-17	4	H
1/FB1	1	D
1/EG1A-CONT	1	D
1/EG1B-CONT	1	D

NOTE-THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SH 10.

REV.	DATE	BY
1	9/22/76	GJF

ORIGINAL

DRAWN BY GJF | CK'D Ron Bielitz | RESP. ENG Ron Bielitz | ENG. MGR 9E2 Wilbur | DATE 9/22/76

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING

ROBERT EMMETT GINNA NUCLEAR
POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM

DRAWN | TRACED | CHECKED | DATE | BY | SCALE — | APPROVED | FOLDER NO. | JOB NO.

CONTACT	POSITION			
	P	C	A	O
	11	11	12	1
A11-B11	X	X		
A12-B12			X	
A1-B1				X
A5-B5	X	X		
A6-B6			X	
A7-B7				X
C12-C1	X			
D12-D1		X	X	X
C6-C7	X			
D6-D7		X	X	X

TYPE W2 #508A135G01
SPRING RETURN TO AUTO FROM CLOSE AND OPEN PULL TO LOCK IN CLOSE POSITION.

DETAIL "A"

SWITCH	FIG. NO.	F.P. DET.
1/TAFSV-1A	1	A
1/TAFSV-1B	1	A

ELEMENTARY WIRING DIAGRAM
SWITCH DEVELOPMENT

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA.
SCALE
JOB NO.
DRAWING NO. 10905-10A
REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL	DH.	1-19-38	Ams	1/21/38	Bwb 1/21/38	1/21/38

FIG. NO. 1

CONTACT	POSITION						
	PULL	TRIP	—	OFF AFTER TRIP	OFF AFTER CLOSE	—	CLOSE
A11-B11	X	X					
A12-B12				X	X		
A1-B1							X
A5-B5	X	X					
A6-B6				X	X		
A7-B7							X
C11-D11	X	X					
C12-D12				X	X		
C1-D1							X
C5-C6	X	X	X	X			
C6-C7					X	X	X
D5-D6	X	X	X	X			
D6-D7					X	X	X
G11-F11	X	X					
E12-F12				X	X		
E1-F1							X
E5-E6	X	X	X	X			
E6-E7					X	X	X
F5-F6	X	X	X	X			
F6-F7					X	X	X
G11-H11	X	X					
G12-H12				X	X		
G1-H1							X
G5-G6	X	X	X	X			
G6-G7					X	X	X
H5-H6	X	X	X	X			
H6-H7					X	X	X
I11-J11	X	X	X				
I12-J12			X	X	X	X	
I1-J1						X	X
I5-J5	X	X	X				
I6-J6			X	X	X	X	
I7-J7						X	X
K12-K1	X						
L12-L1		X	X	X	X	X	X
K6K7	X						
L6-L7		X	X	X	X	X	X

TYPE "W2" C5" SH 787A938 G01
(3 POSITION SPRING RETURN TO OFF)
FIG NO 2

CONTACT	POSITION	
	OFF	ON
A11-B11		X
A12-B12	X	
A1-B1		X
A5-B5		X
A6-B6	X	
A7-B7		X

TYPE "W2" 5" 505A755G01
KEY 505A755G02

FIG. NO. 3

CONTACT	POSITION				
	PULL	TRIP	OFF AFTER TRIP	OFF AFTER CLOSE	CLOSE
A11-B11	X	X			
A12-B12			X	X	
A1-B1					X
A5-B5	X	X			
A6-B6			X	X	
A7-B7					X
Q1-D11	X	X			
C12-D12			X	X	
C1-D1					X
C5-C6	X	X	X		
C6-C7				X	X
D5-D6	X	X	X		
D6-D7				X	X
E11-F11	X	X			
E12-F12			X	X	
E1-F1					X
E5-E6	X	X	X		
E6-E7				X	X
F5-F6	X	X	X		
F6-F7				X	X
G11-H11	X	X			
G12-H12			X	X	
G1-H1					X
G5-G6	X	X	X		
G6-G7				X	X
H5-H6	X	X	X		
H6-H7				X	X
I12-I1	X				
J12-J1		X	X	X	X
I6-I7	X				
J6-J7		X	X	X	X

TYPE W2 5" 505A389G01
(SPRING RETURN TO OFF)
FIG. NO. 4

CONTACT	POSITION				
	OFF	—	AUTO	—	ON
A11-B11	X				
A12-B12			X		
A1-B1					X
A5-B5	X				
A6-B6			X		
A7-B7					X
C11-D11	X	X			
C12-D12		X	X	X	
C1-D1				X	X
C5-D5	X	X			
C6-D6		X	X	X	
C7-D7				X	X

TYPE "W2" 5" 787A939G01
(MAINTAINED)

FIG. NO. 5

CONTACT	POSITION			
	PULL TRIP	TRIP	OFF	CLOSE
A11-B11	X	X		
A12-B12			X	
A1-B1				X
A5-B5	X	X		
A6-B6			X	
A7-B7				X

TYPE W2" 5" 505A713G04
(SPRING RETURN TO OFF)

FIG. NO. 6

CONTACT	POSITION			
	OFF	A	B	C
A11-B11		X		
A12-B12			X	
A1-B1				X
A5-B5		X		
A6-B6			X	
A7-B7				X

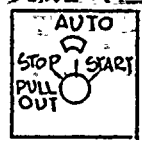
TYPE W2" 5" 505A702G04

FIG. NO. 7

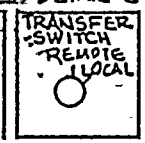
CONTACT	POSITION	
	R	L
A11-B11		X
A12-B12	X	
A1-B1		X
A5-B5		X
A6-B6	X	
A7-B7		X
C11-D11	X	
C12-D12		X
C1-D1	X	
C5-D5	X	
C6-D6		X
C7-D7	X	

TYPE W2" 5" 505A221G01
(MAINTAINED)

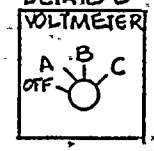
DETAIL "A"



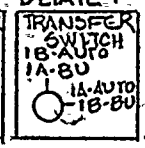
DETAIL "E"



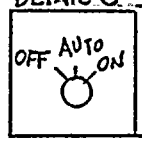
DETAIL "B"



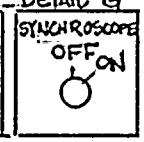
DETAIL "F"



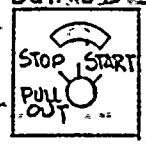
DETAIL "C"



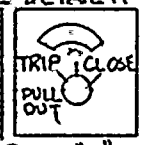
DETAIL "G"



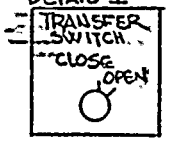
DETAIL "D"



DETAIL "H"



DETAIL "I"



SWITCH	FIG NO	FP DETAIL
1/CP1A	1	A
1/CP1B	1	A
1/CP1C	1	A
1/EF1A	1	D
1/EF1B	1	D
1/CCP1A	1	A
1/CCP1B	1	A
1/13	3	H
1/15	3	H
1/BT16-14	3	H
1/BT17-18	3	H
1/SAHU	1	A
1/CF1A	3	A
1/CF1B	3	A
1/CF1C	3	A
1/CF1D	3	A
1/MAFP1A	3	A
1/MAFP1B	3	A
1/SOB	3	A
1/EOP	3	D
1/FAOP1A	3	D
1/FAOP1B	3	D
1/TADC	3	D
1/PHBG	4	C
43/MAFP1A	7	E
43/MAFP1B	7	E
43/CHP1A	7	E
43/CHP1B	7	E
43/CHP1C	7	E
43/BATP1A	7	E
43/BATP1B	7	E
43/STP	7	E
SS	2	G
CS	5	H
VS	6	B
43/200A	7	E
43/200B	7	E
43/200C	7	E
43/SWP1A	7	E
43/SWP1B	7	E
43/SWP1C	7	E
43/SWP1D	7	E
43/CF1A	7	E
43/CF1B	7	E
43/CF1C	7	E
43/CF1D	7	E
43/TDB	7	E
43/EG1A	7	E
43/EG1B	7	E

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SH. 11

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING

ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM

DRAWN	BY	DATE	SCALE	—
TRACED			APPROVED	
CHECKED			FOLDER NO.	
ENG.			JOB NO.	

REV.		O.F.H.				
ORIGINAL		GJF	Rmy 6/11/76	RGA 6/11/76	JEA 6/10/76	6/4/76
		DRAWN BY	CK'D	RESP MGR	ENGR MGR	DATE
			Rmy 6/16/76	RGA 6/22/76	JEA	7/23/76

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 499B425 SH12 REV. 5

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE OT2M	NO	NO
2ND BLOCK TYPE OT2N	NC (SEE NOTE 2)	NC

AUTO CLOSE OPEN

OPERATOR- OT2S6
3-POSITION
MAINTAINED

DEV.- A

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO
2ND BLOCK TYPE-OT2N	NC	NC

AUTO CLOSE OPEN

OPERATOR- OT2S6
3-POSITION
MAINTAINED

DEV.- B

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) ROTATED 180° TYPE-OT2A	NC	NO
2ND BLOCK TYPE-OT2A	NO	NC

AUTO CLOSE OPEN

OPERATOR-OT2V6
3-POSITION
SPRING RETURN
TO AUTO (SEE NOTE 1)

DEV- C

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO
2ND BLOCK TYPE-OT2N	NC	NC

AUTO TRIP CLOSE

OPERATOR-OT2S6
3-POSITION
MAINTAINED

DEV- D

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2A	NO	NC

CLOSE OPEN

OPERATOR-OT2S1
2-POSITION
MAINTAINED

DEV- E

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2A	NO	NC

CLOSE OPEN

OPERATOR-OT2S1
2-POSITION
MAINTAINED

DEV-F

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2A	NO	NC

CLOSE OPEN

OPERATOR-OT2S1
2-POSITION
MAINTAINED

DEV- G

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) ROTATED 180° TYPE-OT2A	NC	NO

STOP START

OPERATOR-OT2V6
3-POSITION
SPRING RETURN
TO NEUTRAL

DEV-H

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST. BLOCK (FRONT) TYPE-OT2-M	NO	NO
2ND BLOCK TYPE-OT2-N	NC	NC
3RD. BLOCK TYPE-OT2-N	NC	NC

AUTO CLOSE OPEN

OPERATOR -OT2S6
3 POSITION
MAINTAINED ON

DEV-I

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST. BLOCK (FRONT) TYPE-OT2M	NO	NO
2ND BLOCK TYPE - OT2M	NO	NO
3RD BLOCK TYPE - OT2N	NC	NC
4TH BLOCK TYPE-OT2N	NC	NC

AUX. WITH DET

OPERATOR OT2S6
3 - POSITION
MAINTAINED

DEV-J-J-

NOTE:
1. CMIT WORD AUTO FROM N.P. FCR FIG. 1-5-7-13 SHEETS 278 - 280 - 284 - 286 - 305 - 276
2. VALVE LCY-112 SH. 270 ONLY.

REV	⚠	Dmi 7/6/76	DFH 7-9-76	RFA 7-11-76	JED	7/11/76
ORIGINAL		GJT	DLG 7/9/75	RFA	JED	4/1/74
		DRAWN BY	CK'D	REGR ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT ENGINEERING — NO. 10905-12 /1

ROBERT E. GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SWITCH DEVELOPMENT

DRAWN | DATE | BY | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO
2ND BLOCK (FRONT) TYPE-OT2M	NO	NO
3RD BLOCK TYPE-OT2A	NO	NC

CLOSE OPEN

OPERATOR - OT2S1
2 POSITION
MAINTAINED

DEV - J

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO

STOP START

OPERATOR OT2S1
2 POSITION
MAINTAINED

DEV - N

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO

OFF CLOSE RUN

OPERATOR OT2S6M
3 POSITION
MAINTAINED

DEV - U

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) ROTATED 180° TYPE-OT2A	NC	NO
2ND BLOCK TYPE-OT2A	NO	NC

AUTO CLOSE OPEN

OPERATOR - OT2V6
3 - POSITION
SPRING RETURN TO
AUTO (See Note 1)

DEV - K

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO
2ND BLOCK TYPE-OT2N	NC	NC

AUTO STOP START

OPERATOR OT2S6M
3 POSITION
MAINTAINED

DEV - R

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO

OFF AUTO

OPERATOR OT2S1
2 POSITION
MAINTAINED

DEV - X

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) ROTATED 180° TYPE-OT2A	NC	NO

AUTO OFF MAN.

OPERATOR OT2S6
3 POSITION
MAINTAINED

DEV - L

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE OT2A	M U M D	D M U M
2ND BLOCK TYPE OT2A	M U M D	D M U M

AUTO OFF H L

OPERATOR OT2S11A
4 POSITION
MAINTAINED

DEV - S

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE-OT2M	NO	NO
2ND BLOCK TYPE OT2A	NO	NO

OFF
1A | 1B

OPERATOR OT2S6
3 POSITION
MAINTAINED

DEV - M

CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE OT2A	NO	NC
2ND BLOCK TYPE OT2A	NO	NC
3RD BLOCK TYPE OT2A	NO	NC

STOP START

OPERATOR OT2S1
2 POSITION
MAINTAINED

DEV - T

NOTE-1 - OMIT WORD "AUTO" FROM NAMEPLATE FOR FIG.6, SH. 285

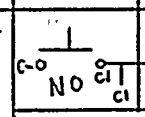
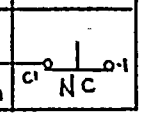
REV.						
ORIGINAL	N.J.A.	R.H.M. 4/14/75	ACK	RCM	6/4/75	
	DRAWN BY	CHK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT. ENGINEERING

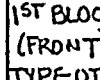
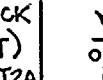
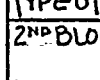
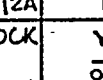
ROBERT EMMETT GINNA NUCLEAR STATION UNIT
ELEMENTARY WIRING DIAGRAM
SWITCH DEVELOPMENT

This Drawing Supercedes Westinghouse Dwg. 4998425 Sheet 13, Rev. 8

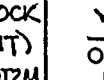
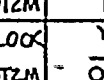
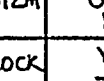
DRAWN N.J.A. DATE 6-24 — SCALE NONE — APPROVED — FOLDER NO. — JOB NO.
TRACED — CHECKED — SUP.

OPERATOR	CAT NO	NAME PLATE	START PB	STOP PB
NO-PB	OT2B1B	START		
NC-PB	OT2B2D	STOP		
(COLOR) LIGHT	OT2FF2	125 VDC		
BOX-SINGLE	OT2P01			
BOX-DOUBLE	OT2P02			
BOX-TRIPLE	OT2P03			
COVER-SINGLE	OT2S01			
COVER-DOUBLE	OT2S02			
COVER-TRIPLE	OT2S03			

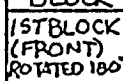
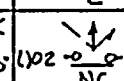
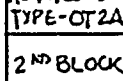
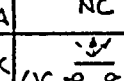
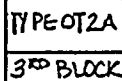
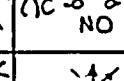
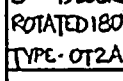
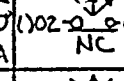
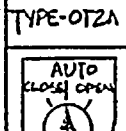
DEV.-P

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2A		
2ND BLOCK TYPE-OT2A		
	OPERATOR OT2S1 2 POSITION MAINTAINED	

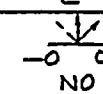
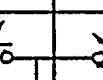
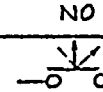
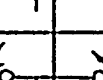
DEV.-W

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE-OT2M		
2ND BLOCK TYPE-OT2M		
3RD BLOCK TYPE-OT2A		
	OPERATOR-OT2S1 2 POSITION MAINTAINED	

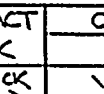
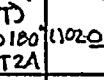
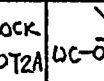
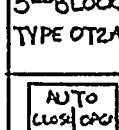
DEV.-Y

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) ROTATED 180° TYPE-OT2A		
2ND BLOCK TYPE-OT2A		
3RD BLOCK ROTATED 180° TYPE-OT2A		
4TH BLOCK TYPE-OT2A		
	OPERATOR-OT2V6 3 POSITION SPRING RETURN TO AUTO	

DEV-Z

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE OT2A		
2ND BLOCK TYPE OT2A		
	3-POSITION SPRING RETURN TO NEUTRAL OT2V6 OPERATOR	

DEV. AA

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) ROTATED 180° TYPE OT2A		
2ND BLOCK TYPE-OT2A		
3RD BLOCK TYPE OT2A		
	OPERATOR-OT2V6 3-POSITION SPRING RETURN TO AUTO	

DEV. BB

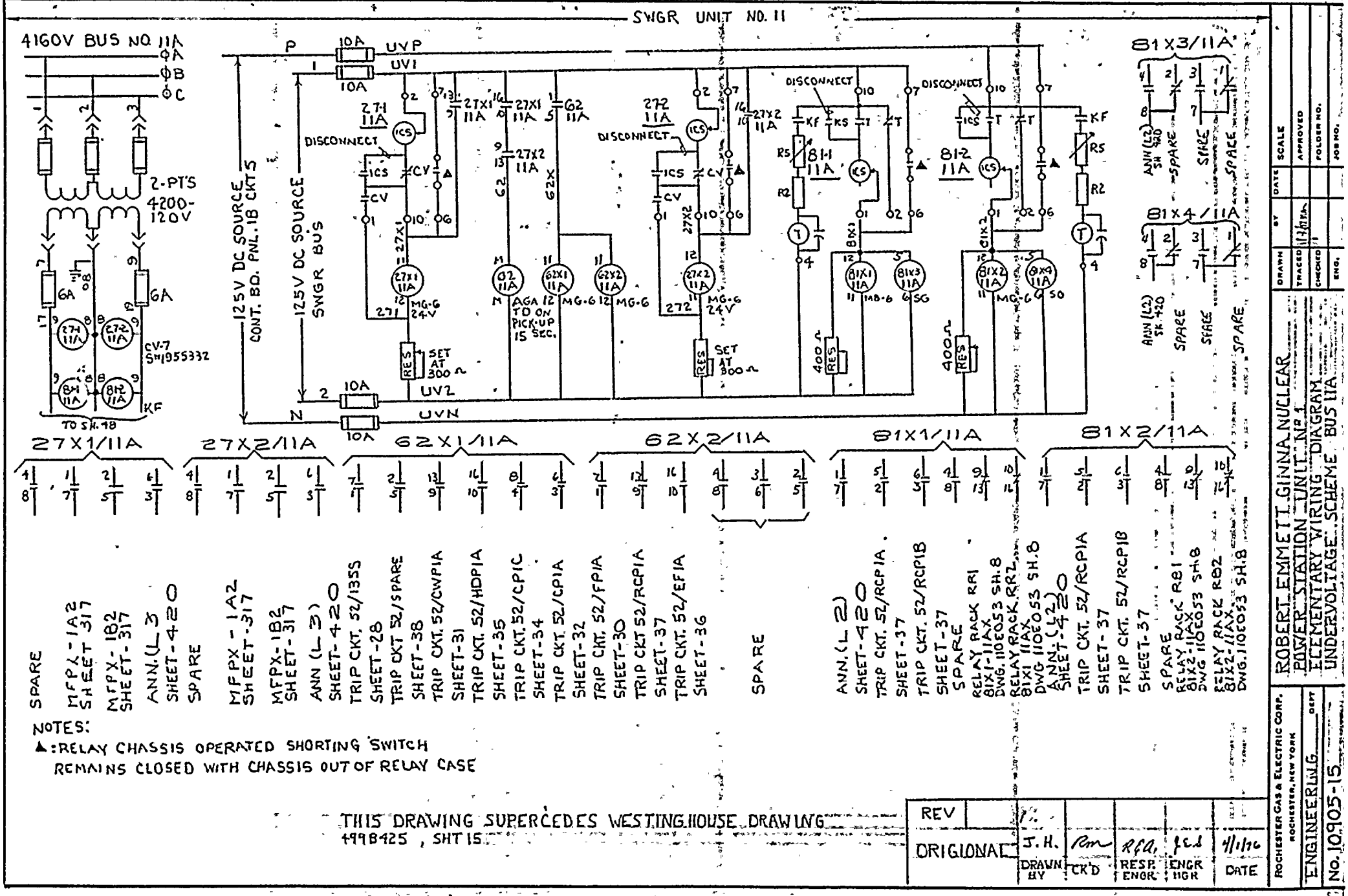
NOTE- THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING N0599B425 SH.14 REV.4

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO 1
ELEMENTARY WIRING DIAGRAM
SUBSTATION 1A DIESEL GENERATOR

REV						
ORIGINAL		GJF	DLG. 4/17/75	RGd.	JEL	4/11/74
		DRAWN BY	CK'D	RECD ENGR	ENGR MGR	DATE

DRAWN | BY | DATE | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT ENGINEERING
No. 10905-14



NOTES:

▲: RELAY CHASSIS OPERATED SHORTING SWITCH REMAINS CLOSED WITH CHASSIS OUT OF RELAY CASE

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 1998425, SHT 15

REV						
ORIGIONAL	J.H.		RGA	JCS	4/1/76
	DRAWN BY	CK'D	RESP. ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM UNDERVOLTAGE SCHEME BUS 11A

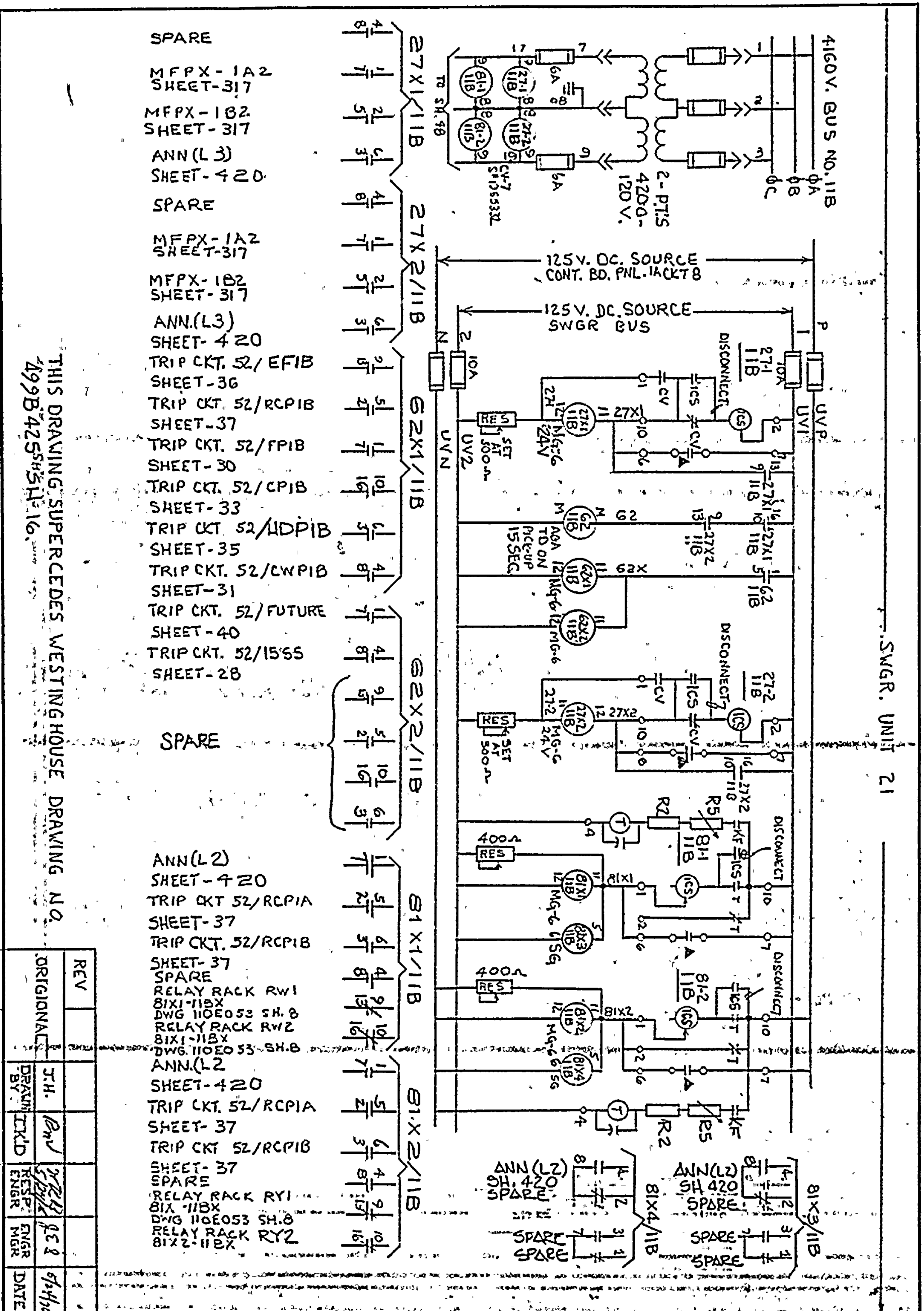
DRAWN | BY | DATE | SCALE

TRACED | APPROVED

CHECKED | FOLDER NO.

ENG. | JOB NO.

No. 10905-15



THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 499B425 SH. 16.

REV	
ORIGINAL	
DRAWN BY	J.H.
CK'D	
RESP. ENGR	
ENGR MGR	
DATE	6/24/70

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

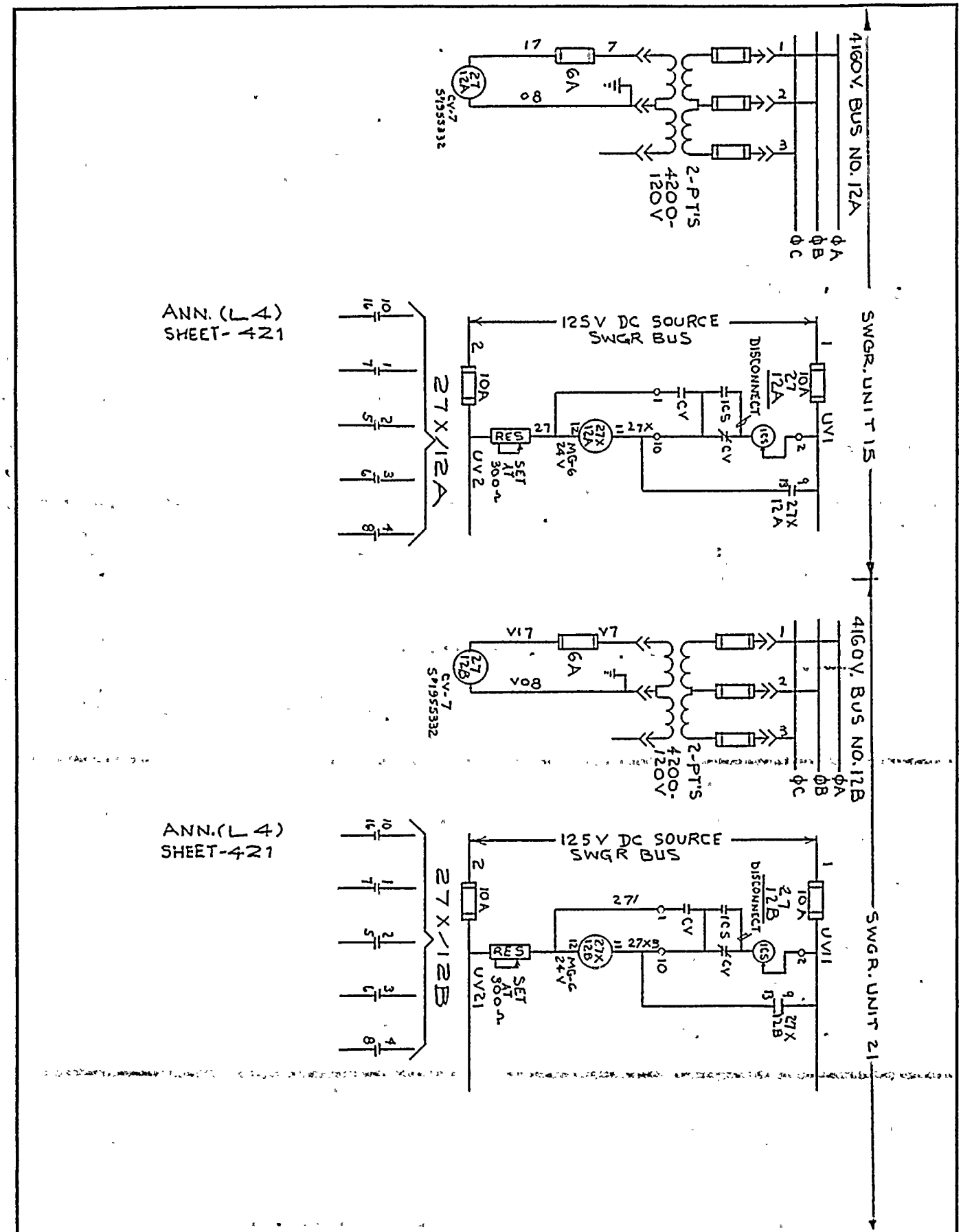
ENGINEERING DEPT

NO. 10905-16

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT Nº 1
ELEMENTARY WIRING DIAGRAM
UNDERVOLTAGE SCHEME BUSS 11B

	BY	DATE
DRAWN		
TRACED		
CHECKED		
ENG.		

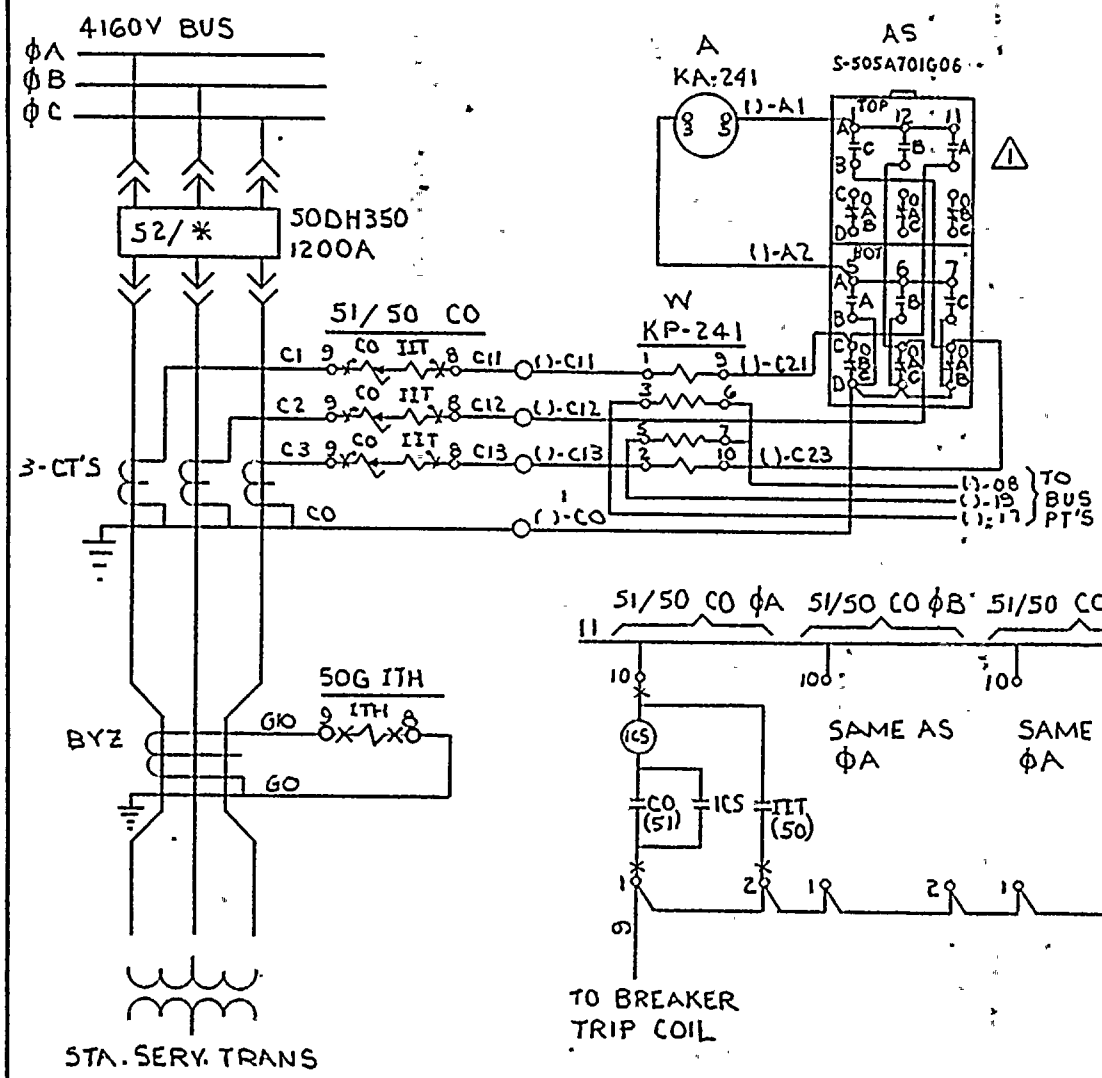
SCALE
APPROVED
FOLDER NO.
JOB NO.



REV						
ORIGINAL	J.H.			JEL	4/13/76	
	DRAWN BY	CK'D	RESP. ENGR.	ENGR. MGR.	DATE	

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. Nº 499B425, SHT. 17

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT Nº 1 ELEMENTARY WIRING DIAGRAM UNDERVOLTAGE SCHEME BUS 12A, 12B	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT		TRACED			APPROVED
NO. 10005-17		CHECKED			FOLDER NO.
		ENG.			MRNO.



N.P. (F.V.)

AMMETER OFF A B C

X INDICATES CONTACTS CLOSED IN POSITION SHOWN

CONT	POSITION								
	OFF	-	A	-	-	B	-	-	C
A11-B11		X	X	X					
A12-B12					X	X	X		
A1-B1								X	X
A5-B5		X	X	X					
A6-B6					X	X	X		
A7-B7								X	X
C11-D11	X	X		X	X	X	X	X	X
C12-D12	X	X	X	X	X		X	X	X
C1-D1	X	X	X	X	X	X	X	X	
C5-D5	X	X		X	X	X	X	X	X
C6-D6	X	X	X	X	X		X	X	X
C7-D7	X	X	X	X	X	X	X	X	

NOTES :

* — 1355, 1455, 1555 1655, 1755 and 1855

THIS DWG. SUPERCEDES WESTINGHOUSE DWG Nº 499B425-SHT 18

REV	⚠					
ORIGINAL	J.H	RMW	R&Q.	JES	4/1/76	
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE	

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT Nº 1

ELEMENTARY WIRING DIAGRAM

TRANS FEEDER RELAY SCHEME

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

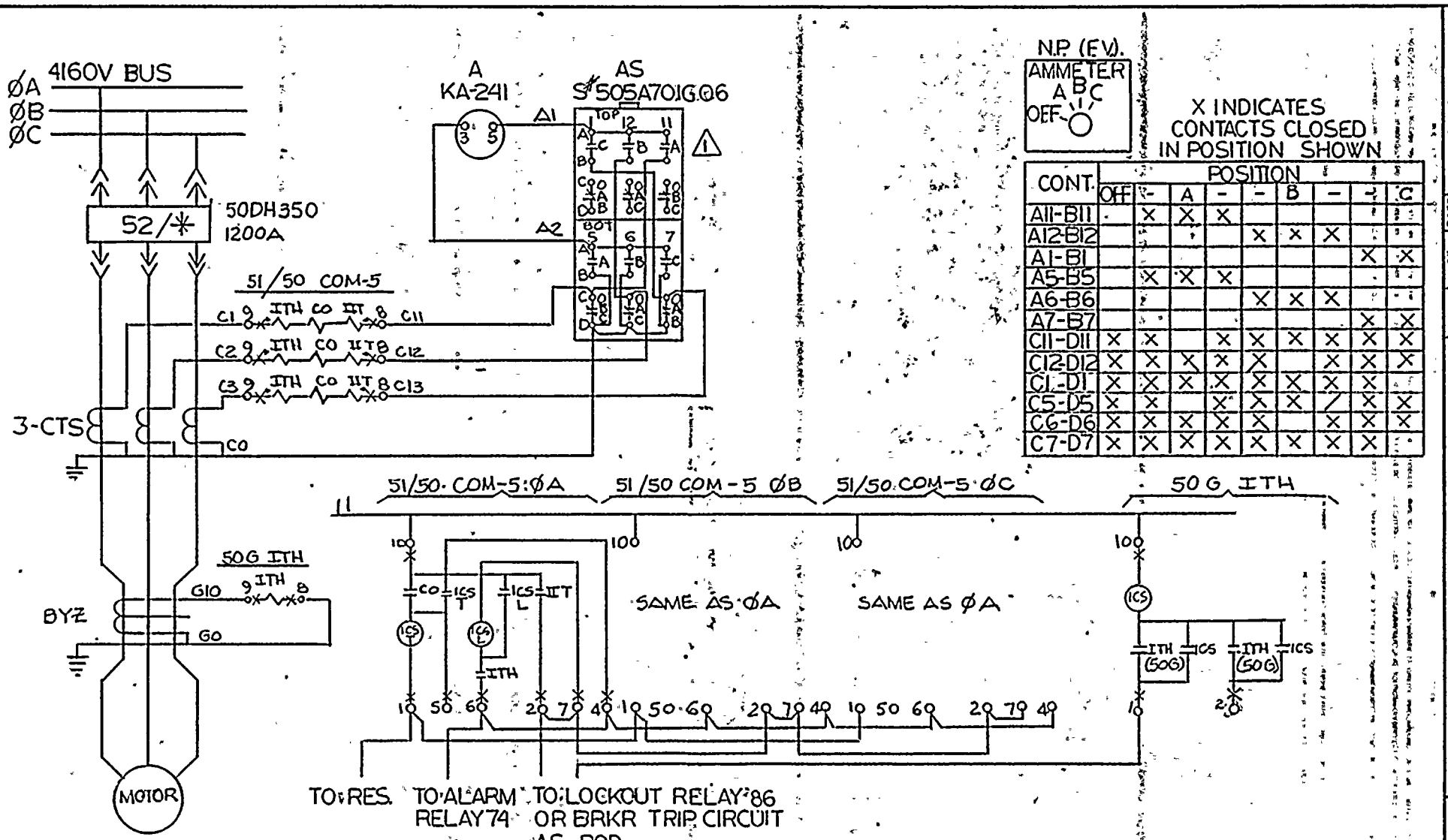
DRAWN BY | DATE | SCALE

TRACED | APPROVED

CHECKED | FOLDER NO.

ENG. | JOB NO.

NO. 10905-18 ⚠



N.P. (F.V.)

AMMETER A B C OFF

X INDICATES CONTACTS CLOSED IN POSITION SHOWN

CONT.	POSITION								
	OFF	-	A	-	-	B	-	-	C
A11-B11		X	X	X					
A12-B12					X	X	X		
A1-B1								X	X
A5-B5		X	X	X					
A6-B6					X	X	X		
A7-B7								X	X
C11-D11	X	X		X	X	X	X	X	X
C12-D12	X	X	X	X	X		X	X	X
C1-D1	X	X	X	X	X	X	X	X	
C5-D5	X	X		X	X	X		X	X
C6-D6	X	X	X	X	X		X	X	X
C7-D7	X	X	X	X	X	X	X	X	

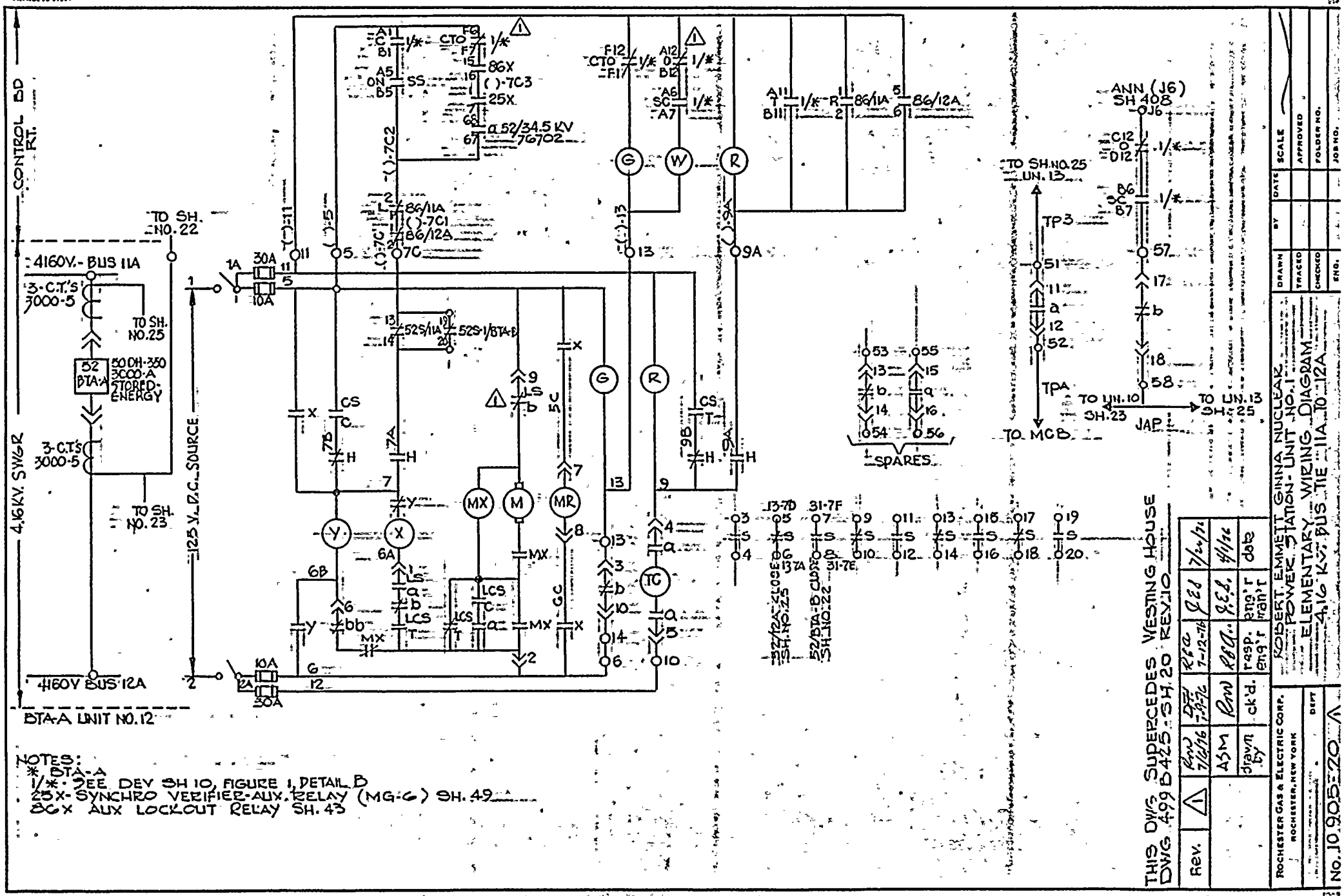
REV	1	
ORIGINAL		
DRAWN BY	RMW 7-6-76	
CK'D	RMW 7-9-76	
RESP ENG'R	R.G.A. 7-12-76	
ENG'R MGR	J.E.S.	
DATE	7/16/76	4/1/76

THIS DRAWING SUPERSEDES WESTINGHOUSE DWG# 499B425 SHEET 19

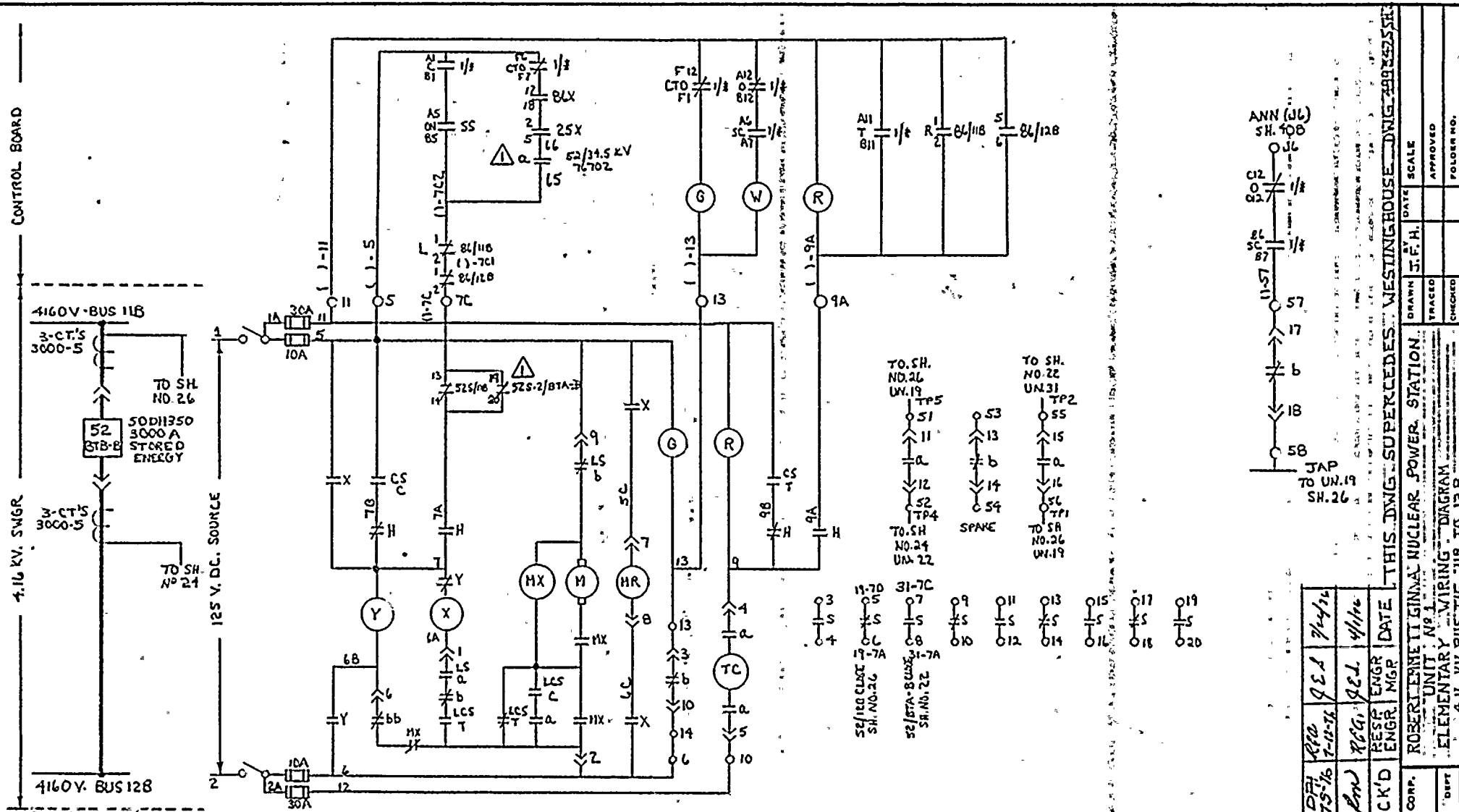
ROBERT EMMETT GINNA NUCLEAR - POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR RELAY SCHEME

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT.
NO. 10005-10

DATE | BY | SCALE NONE
DRAWN | TRACED | CHECKED | ENG.
APPROVED
FOLDER NO.
JOB NO.



NOTES:
* BTA-A
1/* - SEE DEV SH 10, FIGURE 1, DETAIL B
25X - SYNCHRO VERIFIER-AUX. RELAY (MG-G) SH. 49
86X AUX LOCKOUT RELAY SH. 43



NOTES:

- ✱-BTB-B
- 1/✱ SEE DEV SH. 10, FIGURE 1, DETAIL B
- 25X - SYNCHRO VERIFIER-AUX. RELAY (MG-6) SH 49
- 86X - AUX. LOCKOUT RELAY - SH 43.

REV.		DRAWN BY	C'K'D	RESP. ENGR.	ENGR MGR	DATE
ORIGINAL		10-17-75				

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

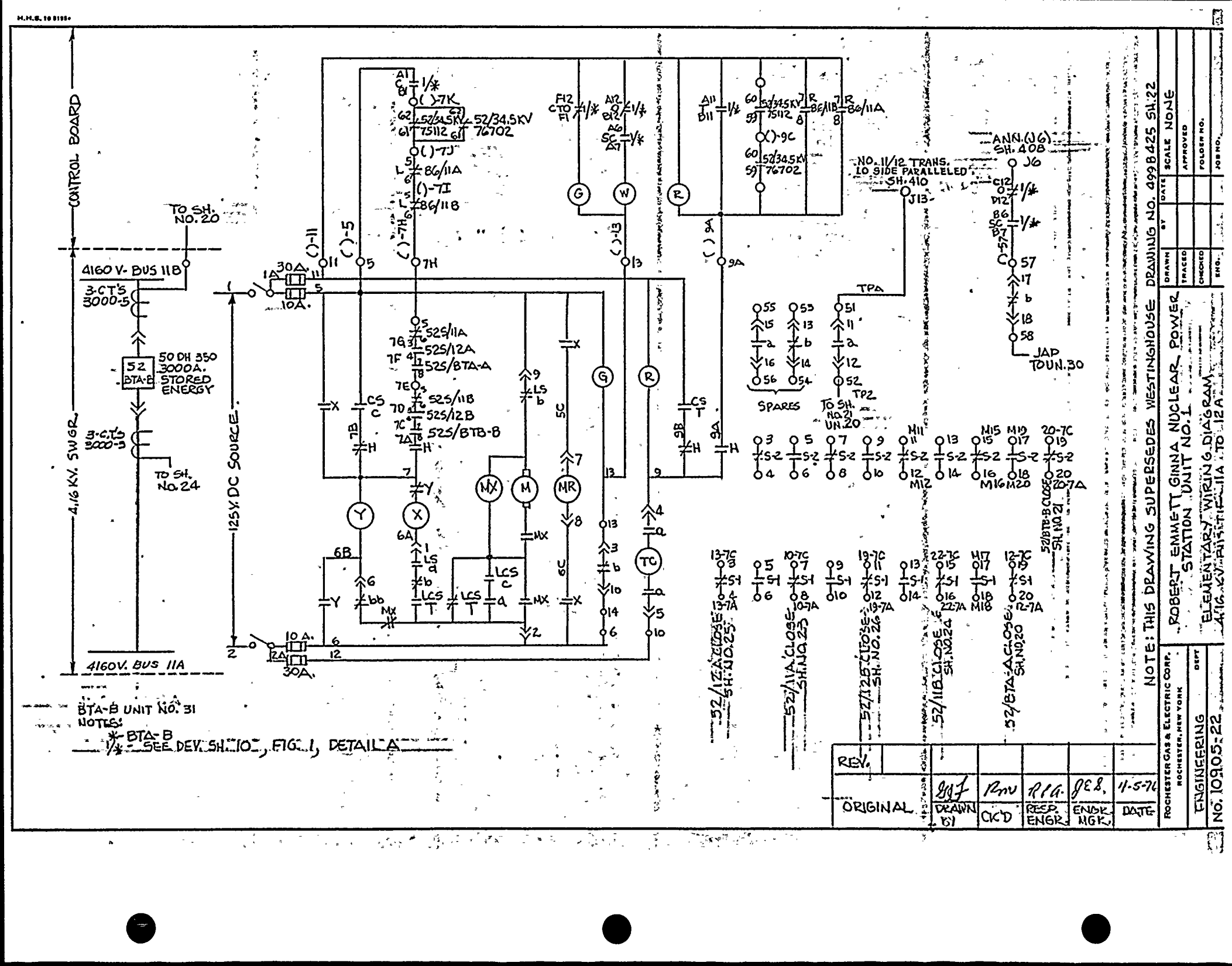
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1

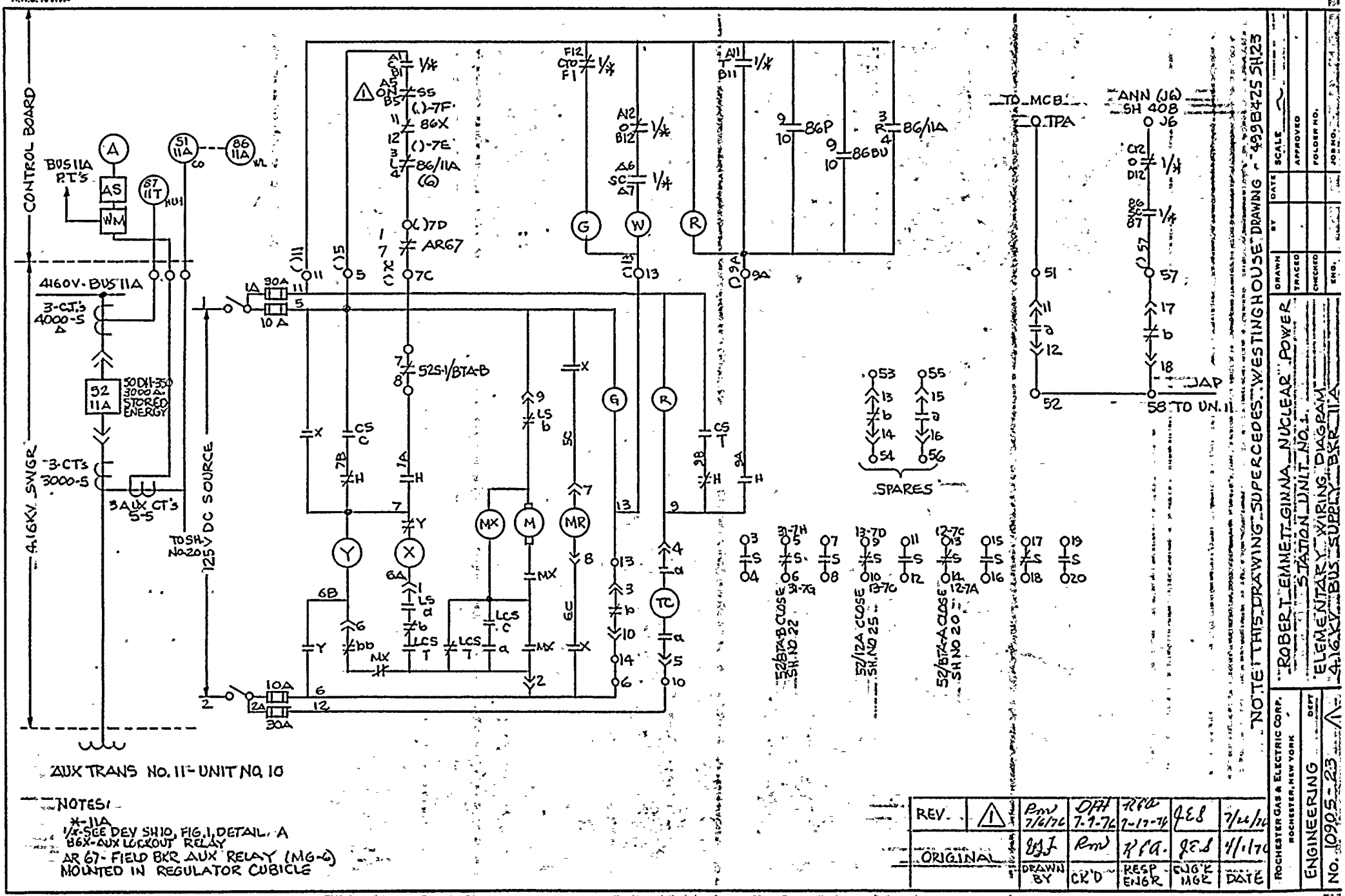
ELEMENTARY WIRING DIAGRAM 4.16 KV. BUS TIE 11B TO 12B

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 298X525SH1

	BY	DATE	SCALE
DRAWN	J.F.H.		
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

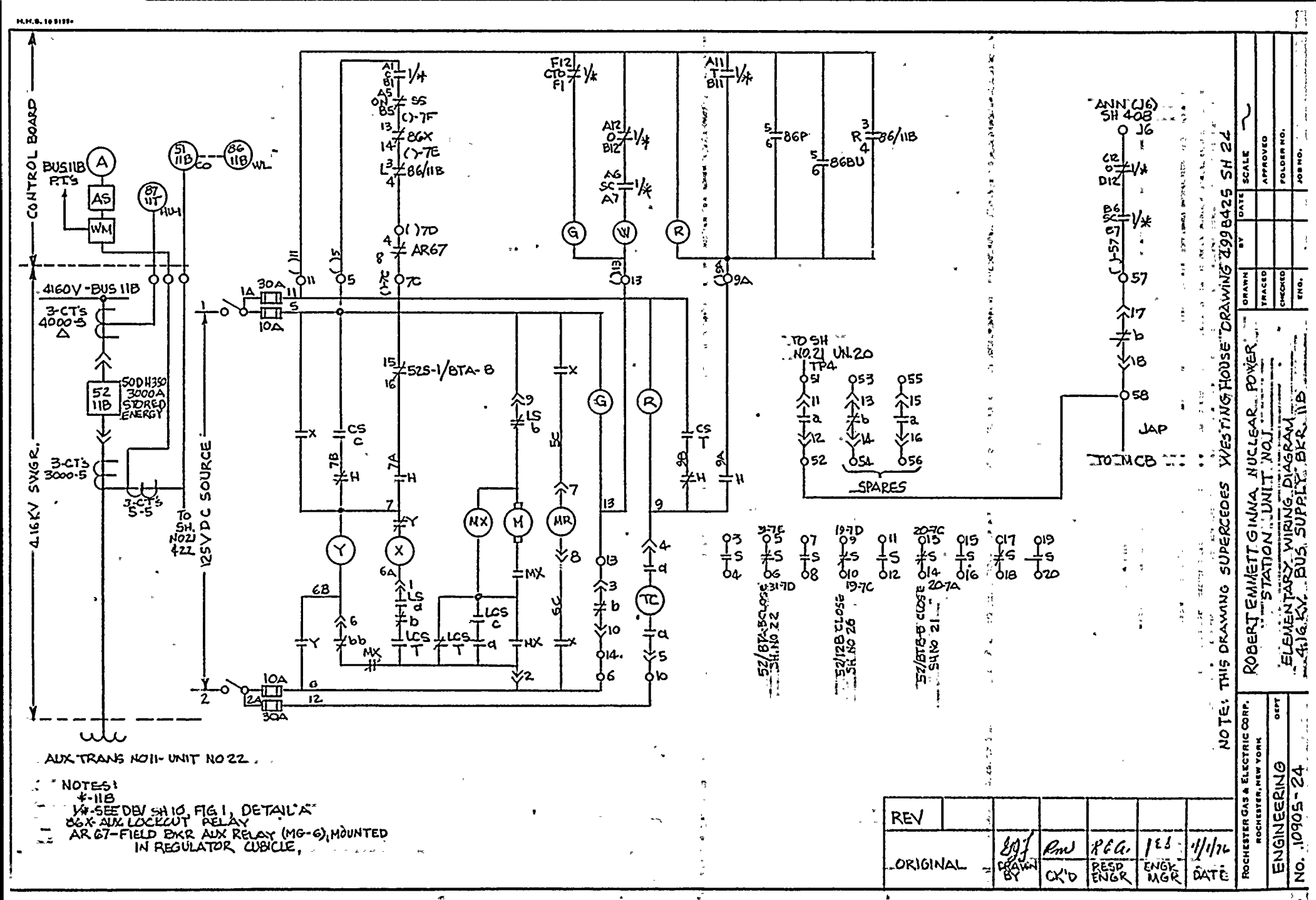
NO. 10905-21


CONTROL BOARD
4.16 KV. SWGR.
125V. DC SOURCE
TO SH. NO. 20
4160 V- BUS 11B
3-CT'S 3000-5
52 BTA-B
50 DH 350 3000A. STORED ENERGY
3-CT'S 3000-5
TO SH. NO. 24
4160V. BUS 11A
BTA-B UNIT NO. 31
NOTES:
1/* BTA-B SEE DEV. SH. 10, FIG. 1, DETAIL A
52/34.5KV 75112
52/34.5KV 76702
NO. 11/12 TRANS. LO SIDE PARALLELED SH. 410
ANN.(J6) SH. 408
TPA
TPB
SPARES
TO SH. NO. 21 UN. 20
JAP TO UN. 30
52/BTB-B CLOSE SH. NO 21
52/12A CLOSE SH. NO. 25
52/11A CLOSE SH. NO 23
52/12B CLOSE SH. NO. 26
52/11B CLOSE SH. NO 24
52/BTA-A CLOSE SH. NO 20
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH. 22
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM 4160 KV SWITCHGEAR UNIT 12A
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-22
ORIGINAL
DRAWN BJ
CK'D
RESP. ENGR.
ENGR. MGR.
DATE 1-5-72
SCALE NONE
FOLDER NO.
JOB NO.



NOTES:

*-11A
1/4-SEE DEV SH 10, FIG. 1, DETAIL A
86X-AUX LOCKOUT RELAY
AR 67-FIELD BKR AUX RELAY (MG-C)
MOUNTED IN REGULATOR CUBICLE



NOTES:
- *-11B
- W-SEE DBV SH 10, FIG 1, DETAIL "A"
- 86X-AUX LOCKOUT RELAY
- AR 67-FIELD BKR AUX RELAY (MG-6), MOUNTED IN REGULATOR CUBICLE,

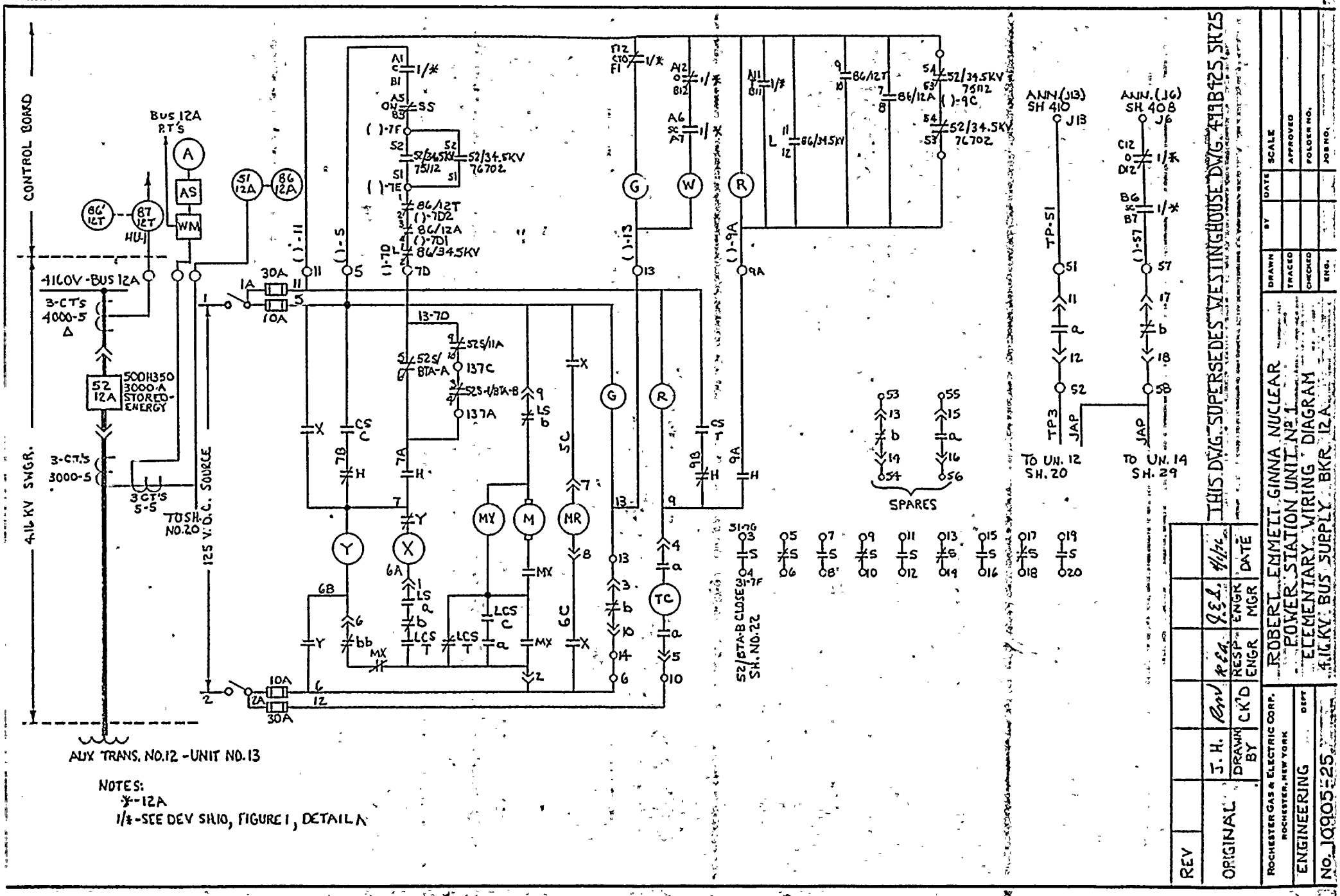
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE "DRAWING 299B425 SH 24"

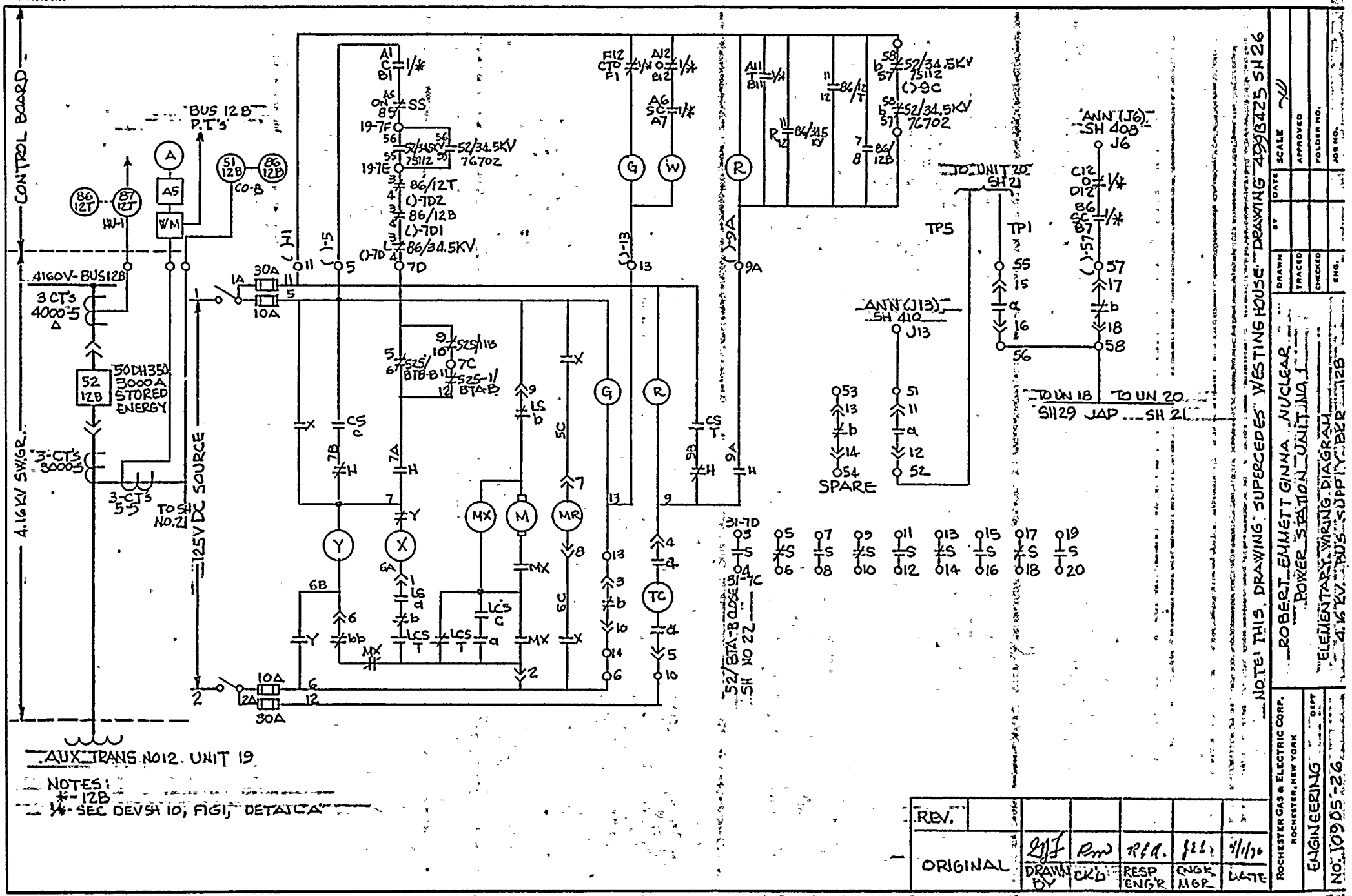
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
4.16 KV BUS SUPPLY BKR. 11B

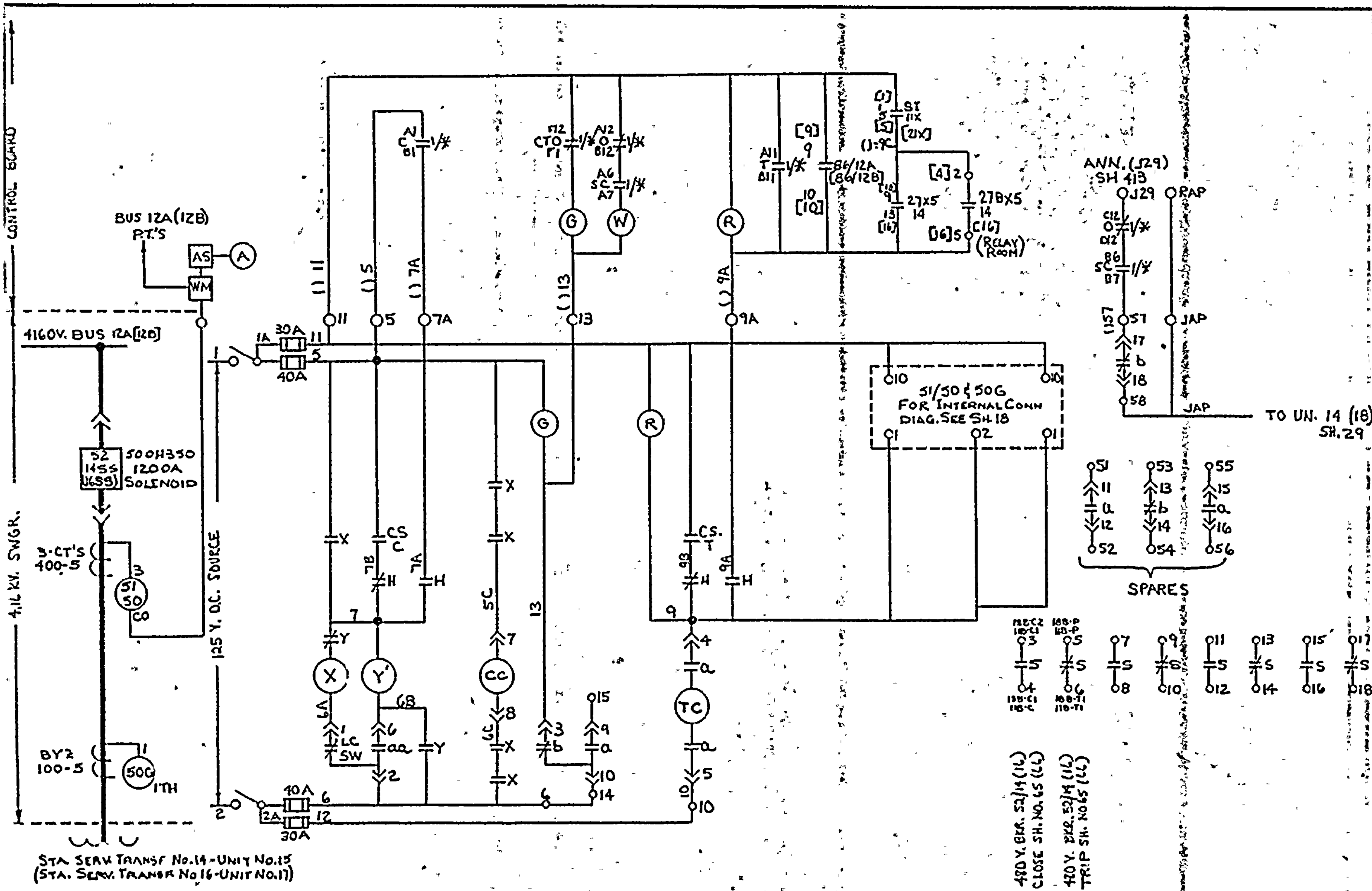
REV						
ORIGINAL		EJJ DRAWN BY	RMJ CK'D	R.E.G. RESP ENGR	J.E.S. ENGR MGR	11/1/72 DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905-24

DRAWN BY | DATE | SCALE
TRACED | | APPROVED
CHECKED | | FOLDER NO.
ENG. | | JOB NO.


CONTROL BOARD
4.16 KV SWGR.
BUS 12A P.T.'S
A
AS
WM
HU-1
86/12T
87/12T
51/12A
86/12A
4160V-BUS 12A
3-CT'S 4000-5 Δ
52/12A
5001350 3000-A STORED-ENERGY
3-CT'S 3000-5
3CT'S 5-5
TO SH. NO. 20
125 V.D.C. SOURCE
30A
1A
10A
2A
AUX TRANS. NO. 12 - UNIT NO. 13
52/34.5KV 75112
52/34.5KV 76702
86/12T
86/12A
86/34.5KV
SS
52S/11A
52S/BTA-A
52S-1/BTA-B
137C
137A
X
Y
MY
M
MR
MX
LCS
LS
CS
TC
G
W
R
52/BTA-B CLOSE SH. NO. 22
SPARES
ANN. (J13) SH 410
ANN. (J6) SH 408
TP-51
TP3
JAP
TO UN. 12 SH. 20
TO UN. 14 SH. 29
NOTES:
*-12A
1/*-SEE DEV SH 10, FIGURE 1, DETAIL A
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425, SH 25
ORIGINAL
REV
J. H.
DRAWN BY
CK'D
RESP. ENGR
R.E.L.
ENGR MGR
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
4.16 KV. BUS SUPPLY BKR. 12A
DRAWN
BY
DATE
SCALE
TRACED
APPROVED
CHECKED
FOLDER NO.
ENG.
JOB NO.
No. 10905-25


CONTROL BOARD
4.16KV SWGR.
BUS 12B P.T.'s
4160V-BUS12B
3 CT's 4000-5 A
52 12B
50DH350 3000A STORED ENERGY
3-CT's 3000-5
3-CT's 5 U1
TO SH NO. 21
125V DC SOURCE
AUX TRANS NO12 UNIT 19
ANN (J6) SH 408 J6
ANN (J13) SH 410 J13
TO UNIT 20 SH 21
TO UN 18
TO UN 20
SH 29 JAP
SH 2L
SPARE
52/BTA-B CLOSE SH NO 22
NOTE! THIS DRAWING SUPERCEDES WESTING HOUSE DRAWING 4998425 SH 26
NOTES:
*-12B
1/4-SEC DEVSN 10, FIG1, DETAIL A
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
4.16 KV BUS SUPPLY BKR 12B
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
DRAWN BY
SCALE
APPROVED
TRACED
CHECKED
FOLDER NO.
JOB NO.
ENG.
REV.
ORIGINAL
DRAWN BY
CK'D
RESP ENG'R
ENGR MGR
DATE
4/1/74
NO. 10905-26



NOTES:
*-14SS OR 16SS
V*-SEE DEV SH 10, FIGURE 1, DETAIL A
ST11X [ST21X] DWG 110E059 SH 3

REV		DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE
	"ORIGIONAL"	J.F.H.				

THIS DWG SUP-RCEDES WESTINGHOUSE DWG NO. 499B425 SH.27

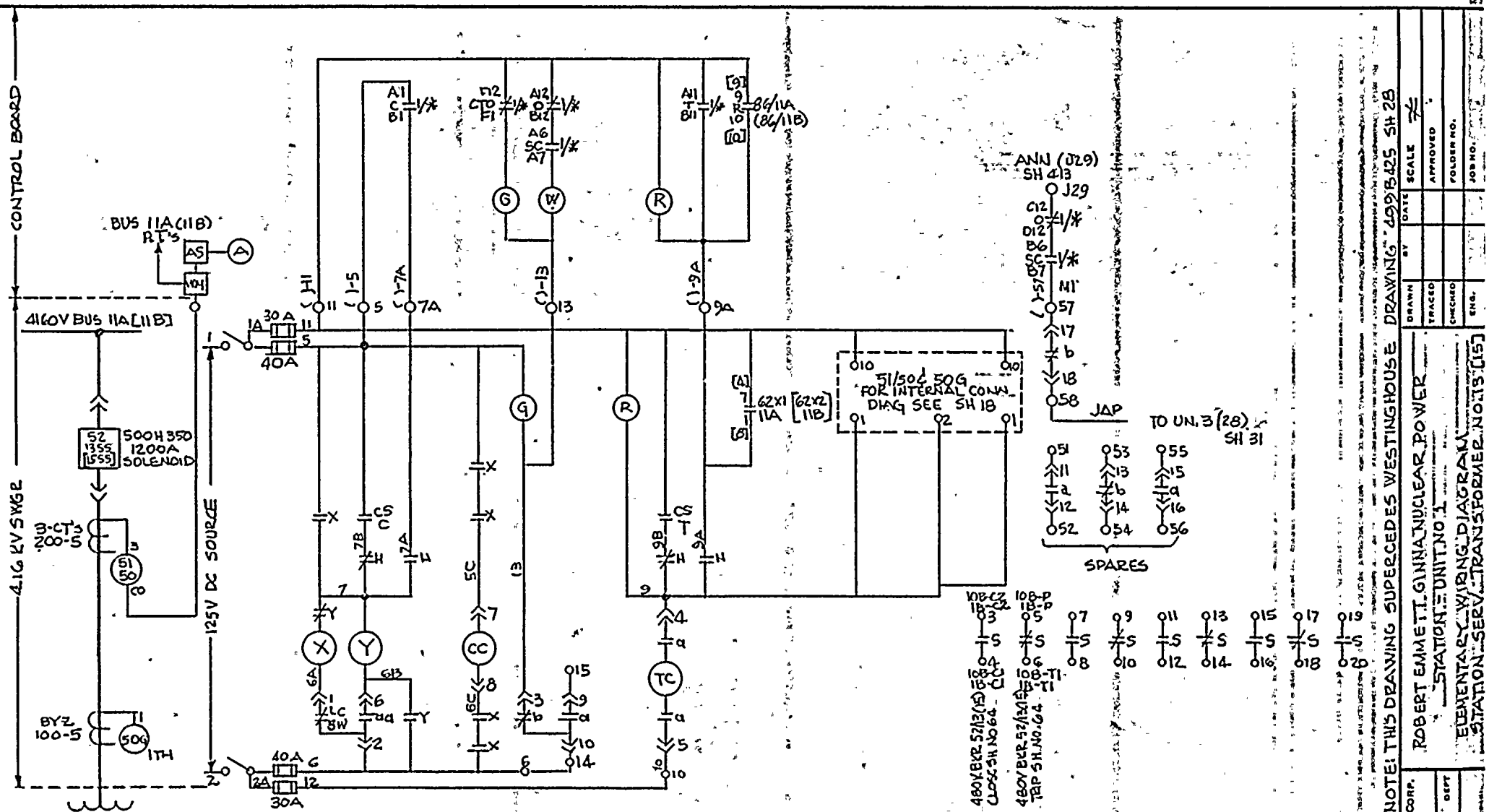
ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
STA. SERV. TRANSF. NO.14 (NO.16)

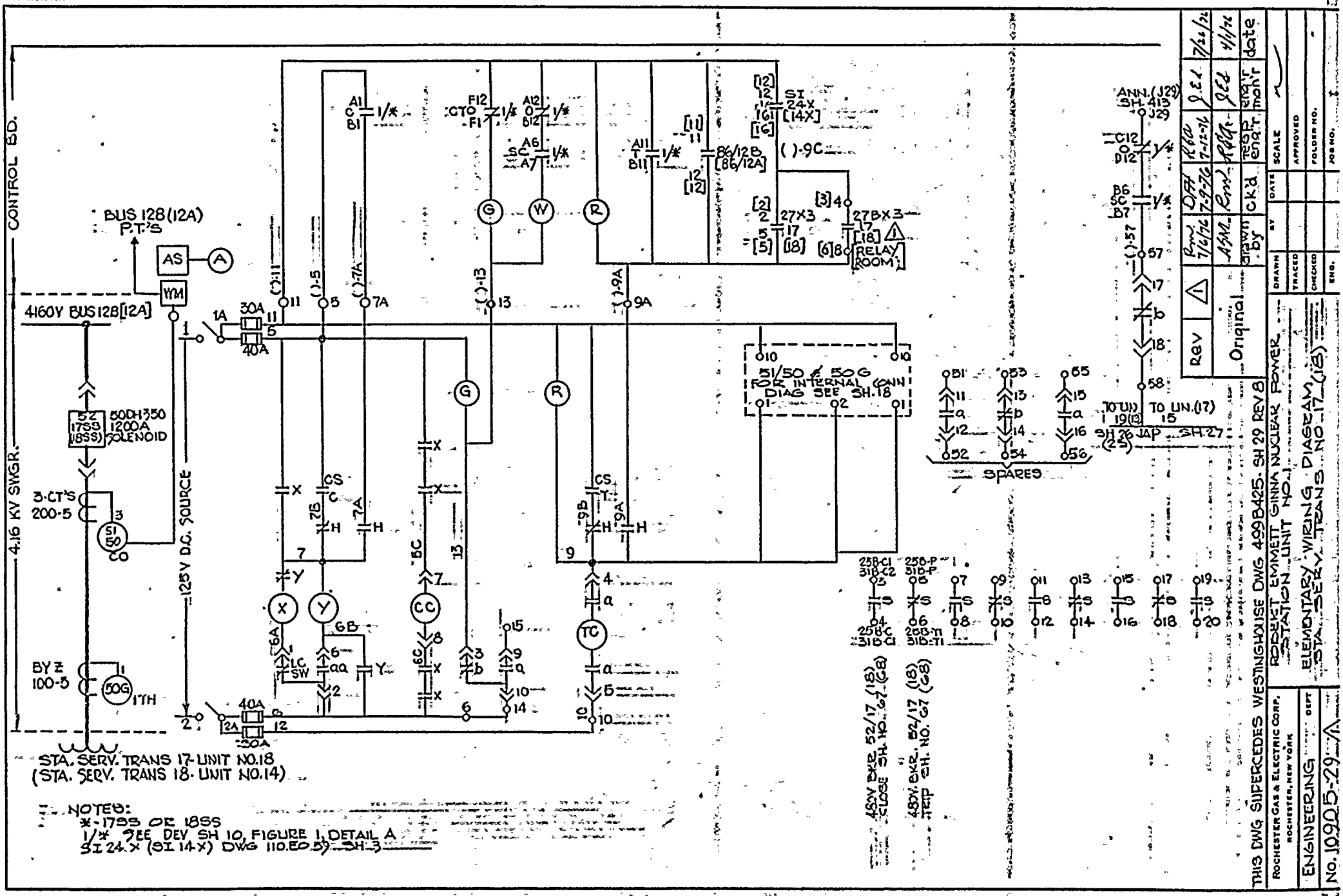
DRAWN J.H.

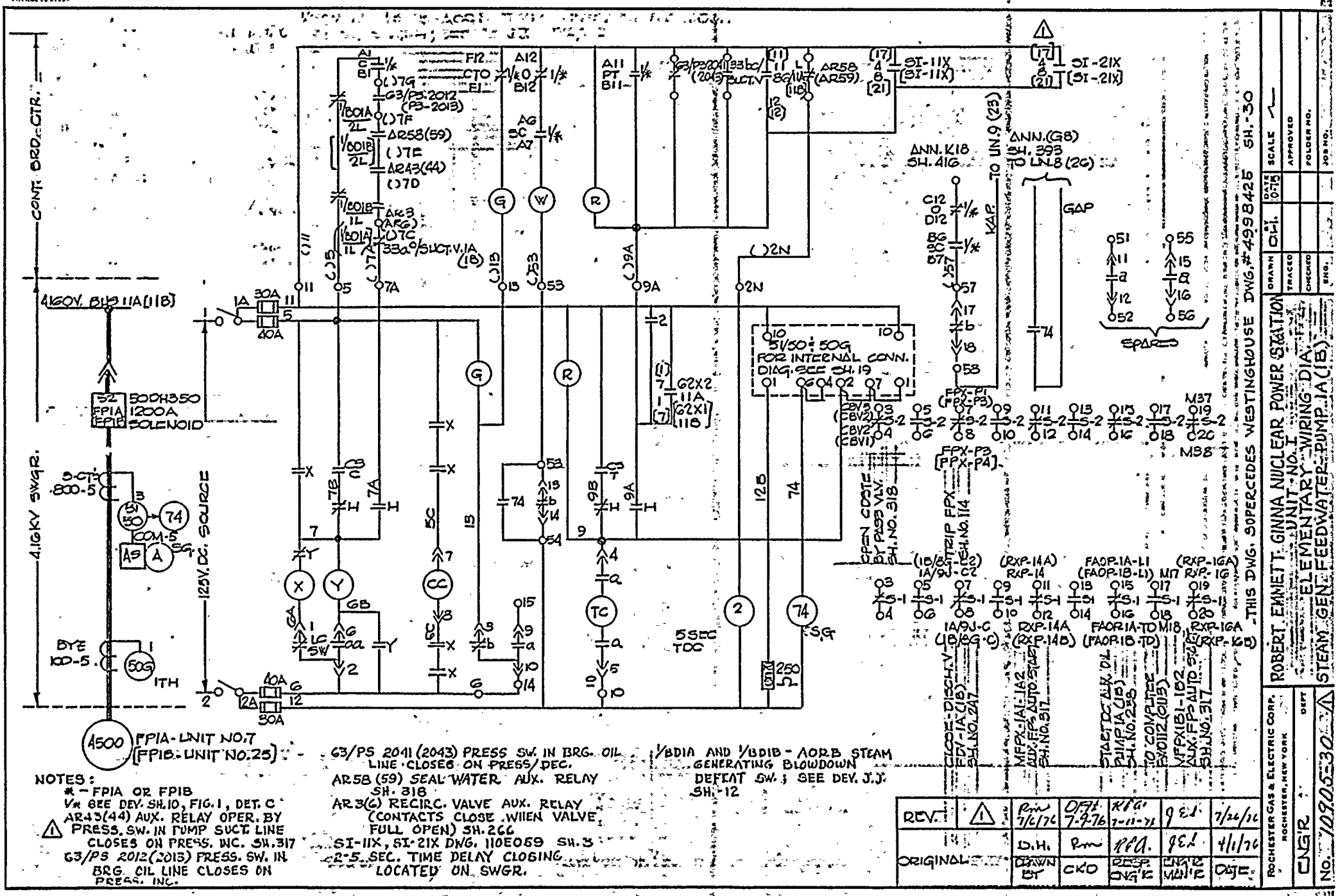
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT

No. 10905-27


CONTROL BOARD
BUS 11A (11B) PT's
4160V BUS 11A (11B)
4.16 KV SWGR
125V DC SOURCE
52 1355 1555 500H 350 1200A SOLENOID
3-CT's 200-5
BYZ 100-5
51/50 1TH
50G
51/50G FOR INTERNAL CONN. DIAG SEE SH 18
62X1 11A (62X2 11B)
ANN (J29) SH 413
J29
JAP
TO UN. 3 (28) SH 31
SPARES
108-CZ
108-P
108-T1
480V BKR 52/13(15) CLOSE SH NO 64
480V BKR 52/13(15) TRIP SH NO 64
1A 30A 40A
2A 40A 30A
STA SERV. TRANS NO. 13-UNIT NO. 1
(STA SERV. TRANS. NO. 15-UNIT NO. 30)
NOTES;
1365 OR 1565
SEE DEV. SH 10, FIG. 1, DETAIL "A"
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B825 SH 28
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
STATION SERV. TRANSFORMER NO. 13 (15)
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 109825-28
REV. ORIGINAL
DRAWN BY
CK'D
RESP ENGR
ENGR MGR.
DATE 4/1/72
DRAWN BY DATE
TRACED
CHECKED
ENG.
SCALE
APPROVED
FOLDER NO.
JOB NO.


4.16 KV SWGR. — CONTROL BD.
BUS 128(12A) P.T.'S
4160Y BUS 128[12A]
125V D.C. SOURCE
52 1755 (1855) 50DH350 1200A SOLENOID
3-CT'S 200-5
BYZ 100-5
STA. SERV. TRANS 17-UNIT NO.18
(STA. SERV. TRANS 18-UNIT NO.14)
51/50 & 50G FOR INTERNAL GRN DIAG SEE SH.18
SPARES
TO UN.(17) SH 26 (25)
TO UN.(17) SH.27
ANN. (J29) SH. 413
RELAY ROOM
52/17 (18) (68) CLOSE SH. NO. 97
52/17 (18) (68) TRIP SH. NO. 97
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM STA. SERV. TRANS NO. 17 (18)
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-29
THIS DWG SUPERCEDES WESTINGHOUSE DWG 499B425-SH 29 REV 8
Rev
Original
drawn by
ckd
engr
engr mgr
date
7/24/72
4/1/71



NOTES:

* - FPIA OR FPIB

V# SEE DEV. SH. 10, FIG. 1, DET. C

⚠1 AR43(44) AUX. RELAY OPER. BY PRESS. SW. IN PUMP SUCT. LINE CLOSES ON PRESS. INC. SH. 317

G3/PS 2012 (2013) PRESS. SW. IN BRG. OIL LINE CLOSES ON PRESS. INC.

G3/PS 2041 (2043) PRESS SW. IN BRG. OIL LINE CLOSES ON PRESS/DEC.

AR58 (59) SEAL WATER AUX. RELAY SH. 318

AR3(G) RECIRC. VALVE AUX. RELAY (CONTACTS CLOSE WHEN VALVE FULL OPEN) SH. 266

SI-11X, SI-21X DWG. 110E059 SH. 3

2-5 SEC. TIME DELAY CLOSING LOCATED ON SWGR.

1/BD1A AND 1/BD1B - AOR B STEAM GENERATING BLOWDOWN DEFEAT SW.; SEE DEV. J.J. SH. 12

REV.	⚠1					
		RMW 7/6/76	OFT 7-9-76	KFA 7-11-76	GEL	7/26/76
ORIGINAL		D.H.	RMW	KFA	GEL	4/1/76
		DRAWN BY	CKD	RESP. ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ENGR

No. 1098530 ⚠1

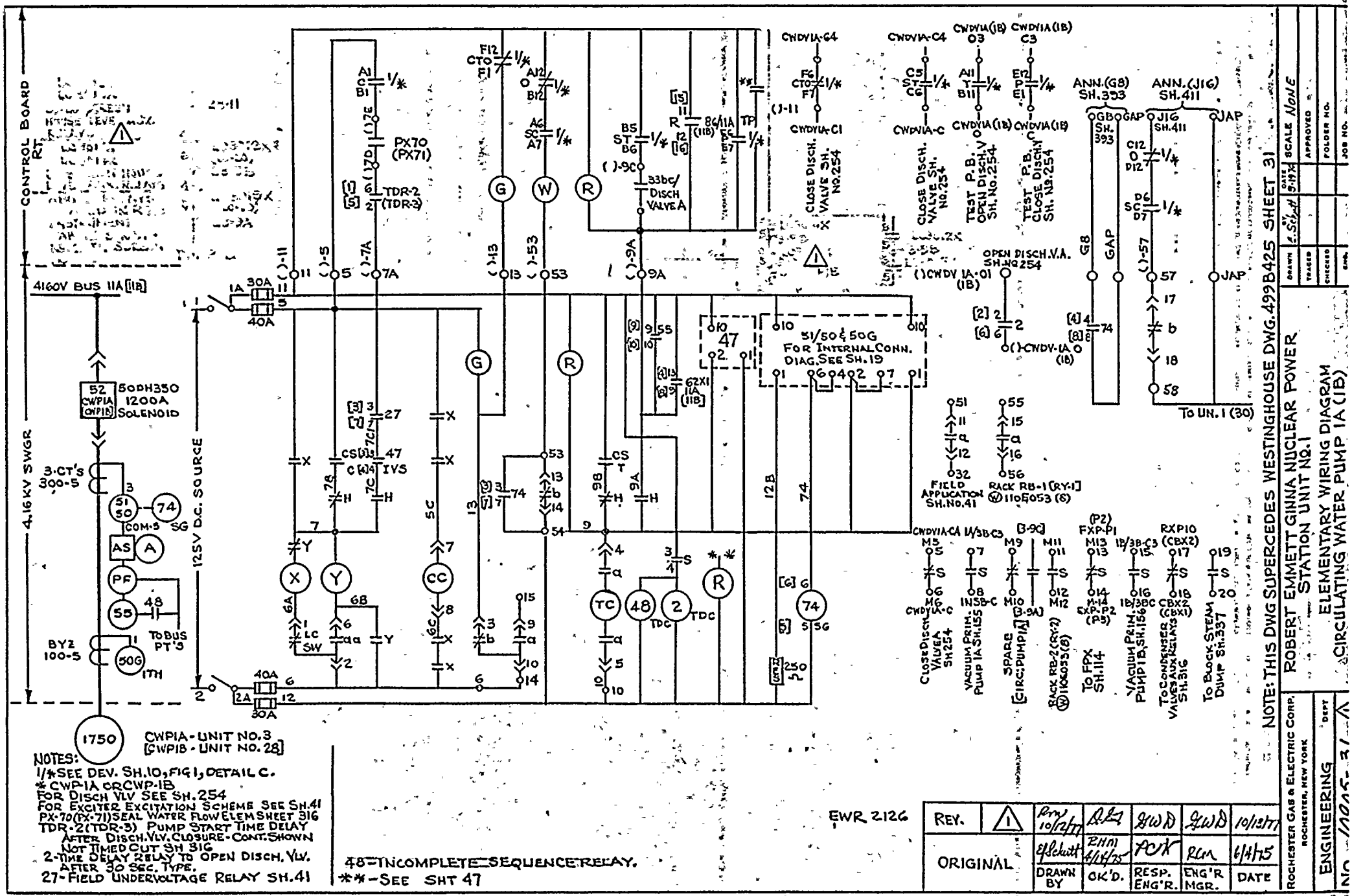
ROBERT EMMETT GINNA NUCLEAR POWER STATION

ELEMENTARY WIRING DIA.

STEAM GEN. FEEDWATER PUMP 1A (1B)

DRAWN	D.H.	DATE 10-75	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENGR.			JOB NO.

SH. -30



NOTES:
1/* SEE DEV. SH.10, FIG 1, DETAIL C.
* CWP-1A OR CWP-1B
FOR DISCH VLV SEE SH. 254
FOR EXCITER EXCITATION SCHEME SEE SH.41
PX-70 (PX-71) SEAL WATER FLOW ELEM SHEET 316
TDR-2 (TDR-3) PUMP START TIME DELAY AFTER DISCH. VLV. CLOSURE - CONT. SHOWN NOT TIMED CUT SH 316
2-TIME DELAY RELAY TO OPEN DISCH. VLV. AFTER 30 SEC. TYPE.
27-FIELD UNDERVOLTAGE RELAY SH.41

48-INCOMPLETE SEQUENCE RELAY.
**-SEE SHT 47

EWR 2126

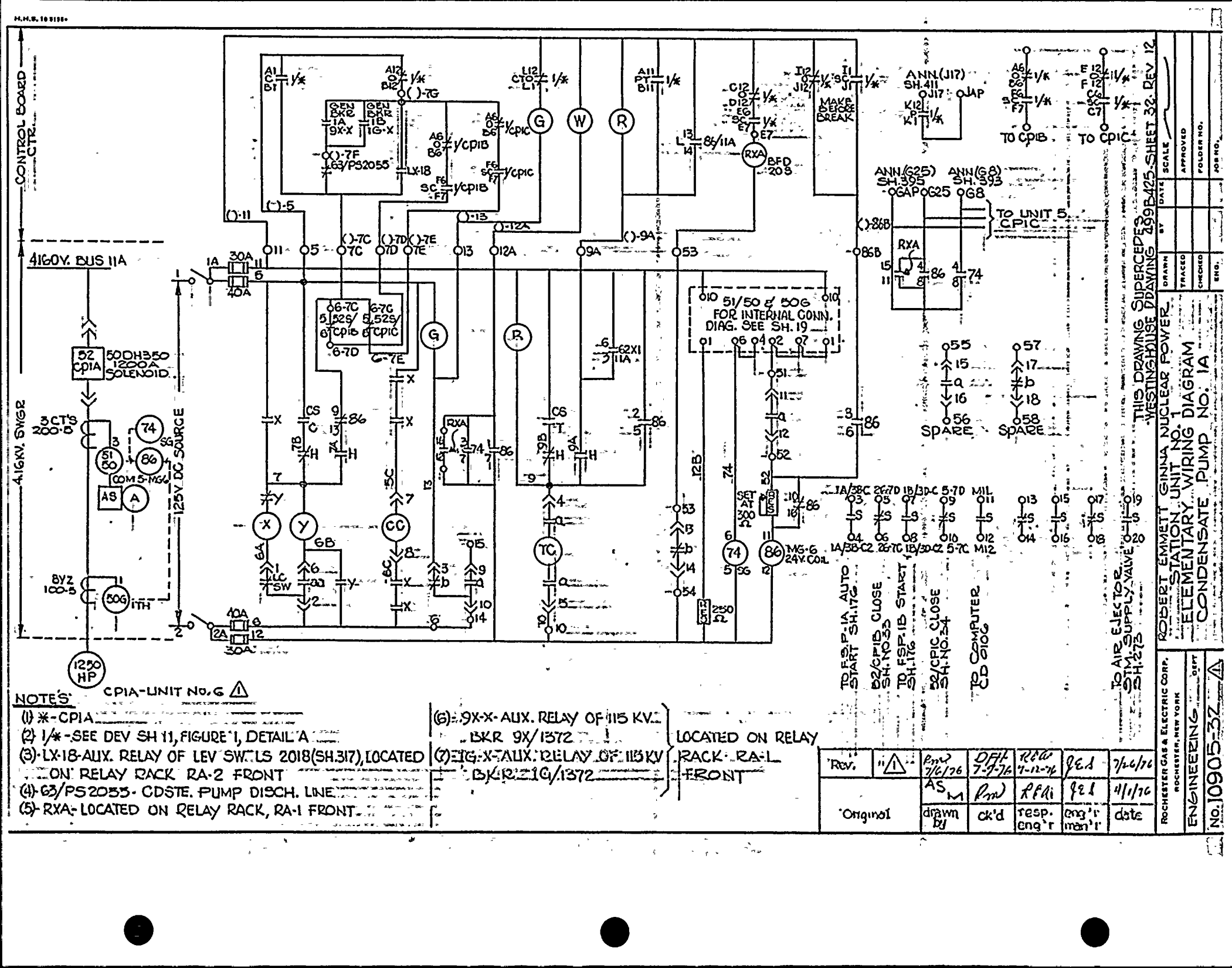
REV.	1	Rmy 10/12/77	RAL	GWD	GWD	10/13/77
ORIGINAL		E.P. Schutt	ZHN 4/14/75	RCK	RLM	6/4/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

NOTE: THIS DWG SUPERCEDES WESTINGHOUSE DWG. 499B425 SHEET 31

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
CIRCULATING WATER PUMP 1A (1B)

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

DRAWN E.P.Schutt DATE 9-1-74 SCALE NONE
TRACED
CHECKED
APPROVED
FOLDER NO.
JOB NO.



NOTES:

(1) *-CP1A

(2) 1/*-SEE DEV SH 11, FIGURE 1, DETAIL A

(3) LX-18-AUX. RELAY OF LEV SW. LS 2018(SH.317), LOCATED ON RELAY RACK RA-2 FRONT

(4) 63/PS2055- CDSTE. PUMP DISCH. LINE

(5) RXA- LOCATED ON RELAY RACK, RA-1 FRONT

(6) 9X-X- AUX. RELAY OF 115 KV BKR 9X/1372

(7) 1G-X- AUX. RELAY OF 115 KV BKR 1G/1372

(6) & (7) LOCATED ON RELAY RACK RA-1 FRONT

Rev.						
Original	1 ⚠	PMV 7/6/76	OFH 7-7-76	REW 7-12-76	JGL	7/16/76
		AS M	PMV	RFH	JGL	8/1/76
		drawn by	ck'd	resp. eng'r	eng'r man'r	date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT. ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONDENSATE PUMP NO. 1A

DRAWN | DATE | BY | SCALE | APPROVED | TRACED | FOLDER NO. | CHECKED | JOB NO. | ENG.

No. 10905-32 ⚠

NOTE:
1. * - CP1B
2. 1/* - SEE DEV. SH.11, FIGURE 1, DETAIL A
3. LX-18 - AUX. RELAY OF LEV SW. 2018(SH.317), LOCATED ON RELAY RACK-RA-2 FRONT
4. G3/PS 2056BCDSTE. PUMP DISCH LINE
5. RXB - LOCATED ON RELAY RACK-RA-1 FRONT
6. 9X-X - AUX. RELAY OF 115KV BKR. 9X/1372 } LOCATED ON RELAY RACK RA-1 FRONT
7. 1G-X - AUX. RELAY OF 115KV BKR. 1G/1372 }

Rev.	⚠	Rev 7/6/76	Dft'd 7-9-76	Rev 7-14-76	G.E.I.	7/26/76
Original		AS_M drawn by	Rev'd ck'd.	R.F.A. resp. eng'r	G.E.I. eng'r mgr	4/1/76 date

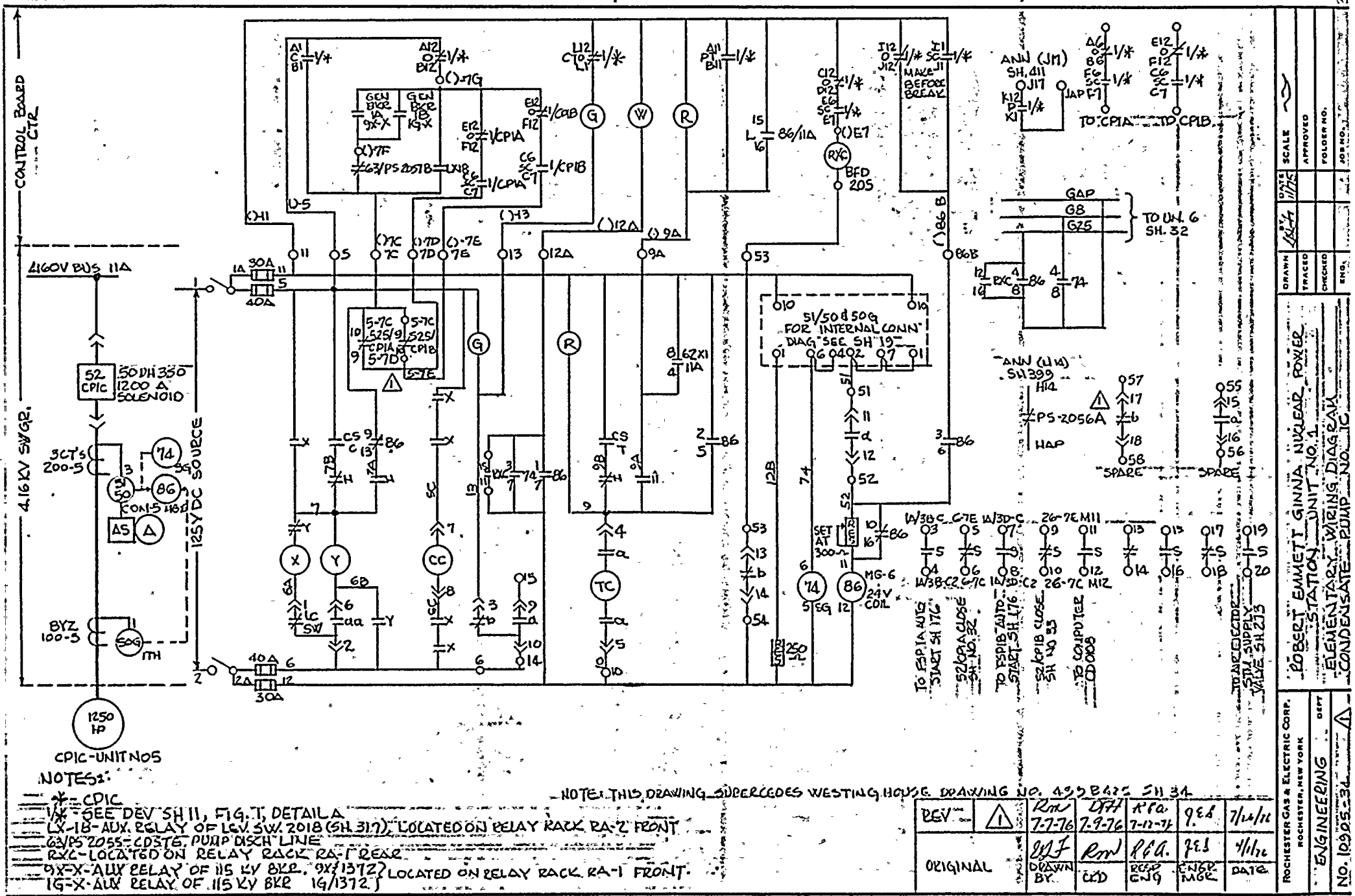
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM CONDENSATE PUMP NO. 1B

DRAWN | DATE | BY | SCALE | APPROVED | TRACED | FOLDER NO. | CHECKED | JOB NO. | ENG.

No. 10905-533 ⚠1



NOTES:

* = CPIC

1/* = SEE DEV SH 11, FIG. 1, DETAIL A

LX-1B-AUX. RELAY OF LGV. SW. 2018 (SH. 317), LOCATED ON RELAY RACK RA-2 FRONT

63/PS 2055 = CDST6, PUMP DISCH LINE

RXC-LOCATED ON RELAY RACK RA-1 REAR

9X-X-AUX RELAY OF 115 KV BKR. 9X/1372 } LOCATED ON RELAY RACK RA-1 FRONT.

1G-X-AUX RELAY OF 115 KV BKR 1G/1372 }

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 499B422 SH 34

REV		RMW	DFH	R.F.A.	J.E.S.	7/14/76
	1	7-7-76	7-9-76	7-12-74		
ORIGINAL		DRAWN BY:	CKD	RECD ENG	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM CONDENSATE PUMP NO. 1C

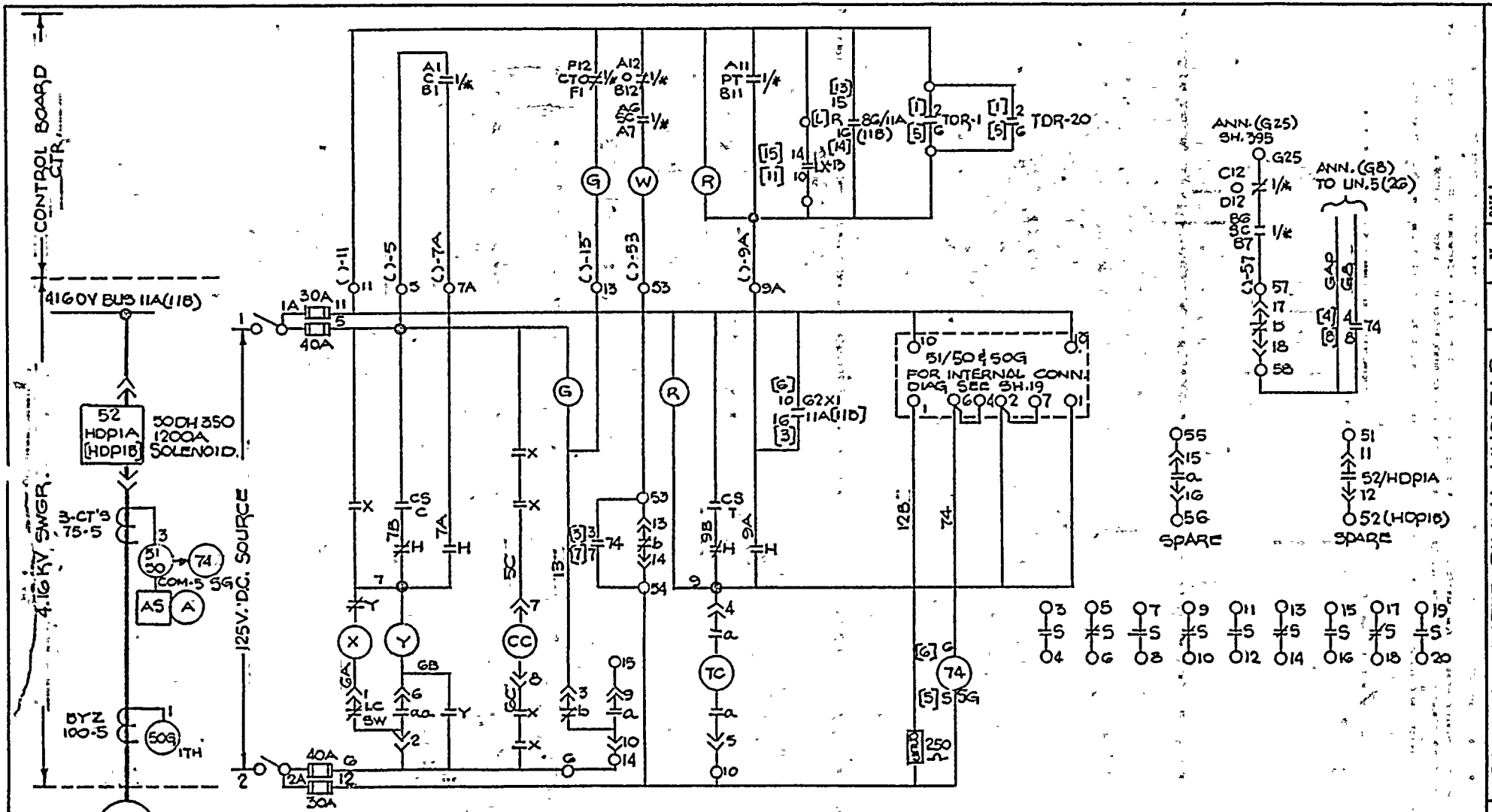
DRAWN | DATE 1/1/75 | SCALE | APPROVED

TRACED | FOLDER NO.

CHECKED | JOB NO.

ENG.

NO. 10905-34



NOTES:
*-HDP1A OR HDP1B
1/*-SEE DEV. SH.10, FIGURE 1, DETAIL C
LX-13 AUX. RELAY HTR. DRAIN TANK LEVEL (SH. 317)
TOR1-TIME DELAY RELAY RECIRC. VALVE OPEN (SH. 317)
TOR20-TIME DELAY RELAY RECIRC. VALVE CLOSED (SH. 317)

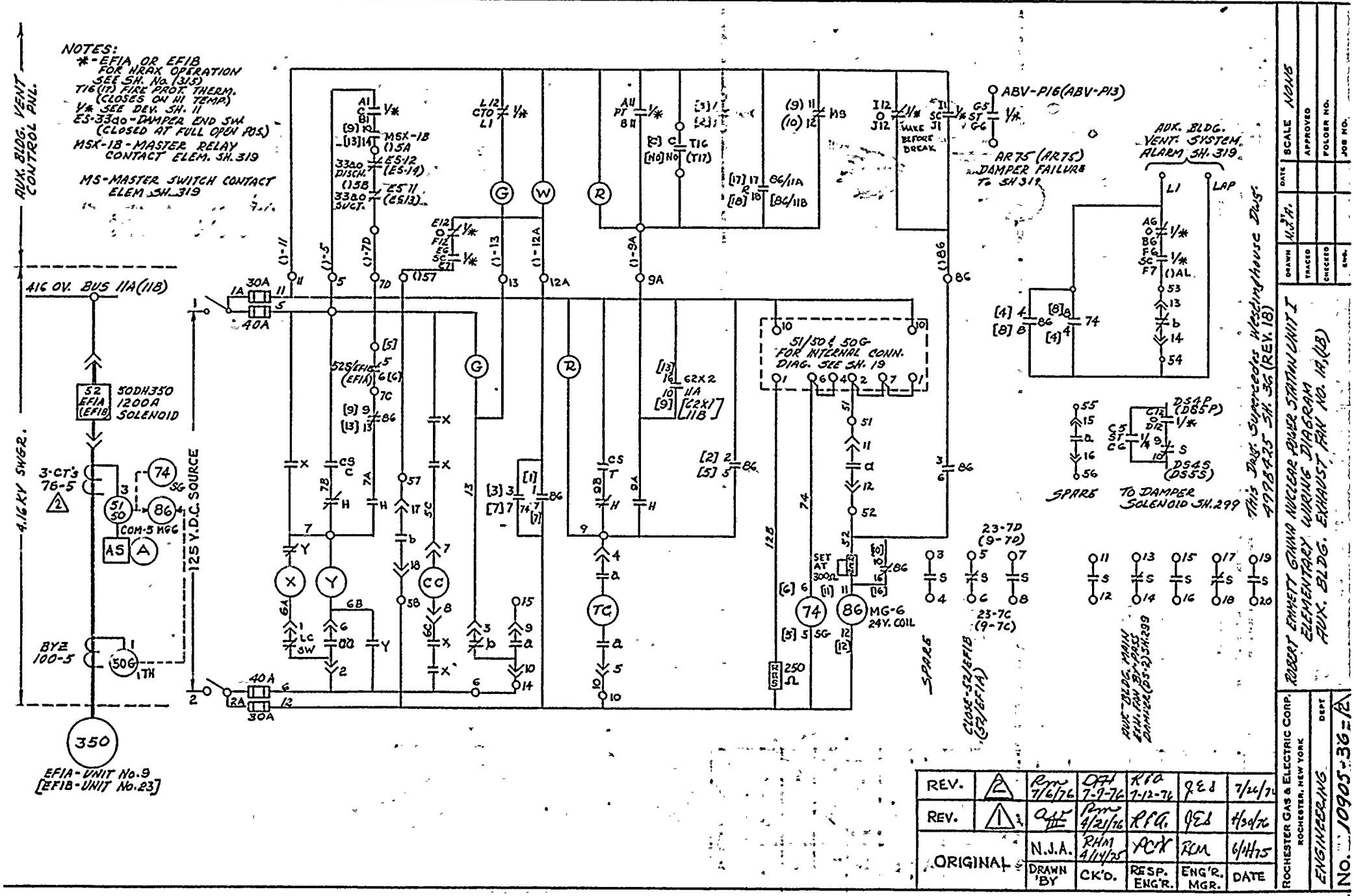
THIS DWG SUPERSEDES WESTINGHOUSE DWG. #499B425 SH. 35

REV.	⚠	DFT.	Rvw	RSA	JEL	9/23/74
		DFT. 2-7-72	Rvw 6/10/74	RSA 6/10/74	JEL 6/10/74	
ORIGINAL		DRAWN BY	CK'D	RESD ENG'R	ENG'R MG'R	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENG'R DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM

DRAWN | BY | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
JOB NO. 1000-53R



This Dwg. supersedes Westinghouse Dwg. 4778425 Sh. 3G (REV. 18)

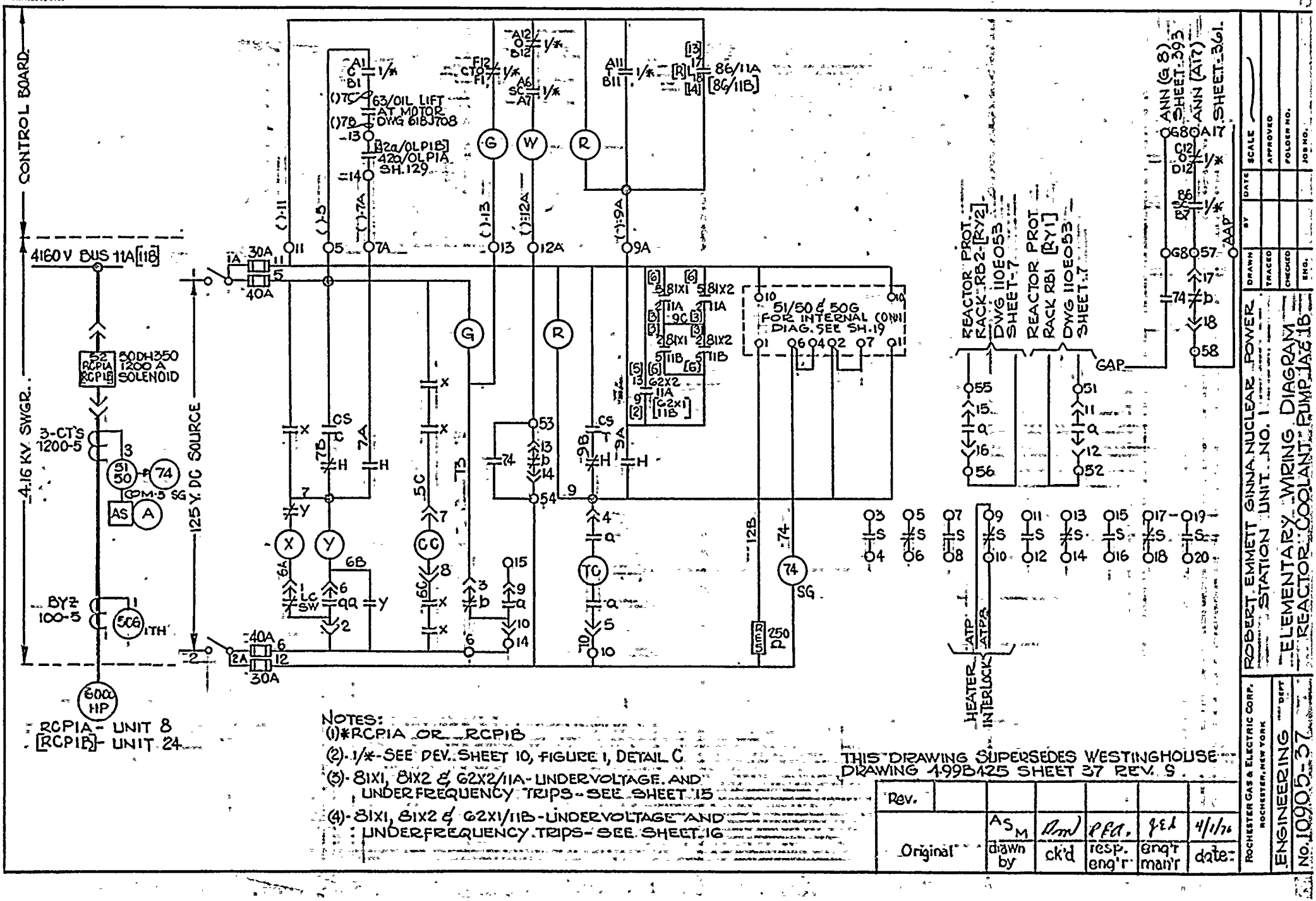
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT I
ELEMENTARY WIRING DIAGRAM
AUX. BLDG. EXHAUST FAN No. 11A (1B)

REV.						
REV.	2	RMM 7/6/76	OFH 7-2-76	RFG 7-12-74	JEB	7/21/76
REV.	1	OFH	RMM 4/21/76	RFG	JEB	4/30/76
ORIGINAL		N.J.A.	RHM 4/14/75	ACK	RCM	6/11/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING

DRAWN N.J.A. | DATE | SCALE NONE
TRACED | | APPROVED
CHECKED | | FOLDER NO.
ENG'R. | | JOB NO.

No. 10905-36-12



NOTES:
(1) *RCP1A OR RCP1B
(2) -1/*- SEE DEV. SHEET 10, FIGURE 1, DETAIL C
(3) - 81X1, 81X2 & G2X2/11A - UNDERVOLTAGE AND UNDERFREQUENCY TRIPS - SEE SHEET 15
(4) - 81X1, 81X2 & G2X1/11B - UNDERVOLTAGE AND UNDERFREQUENCY TRIPS - SEE SHEET 16

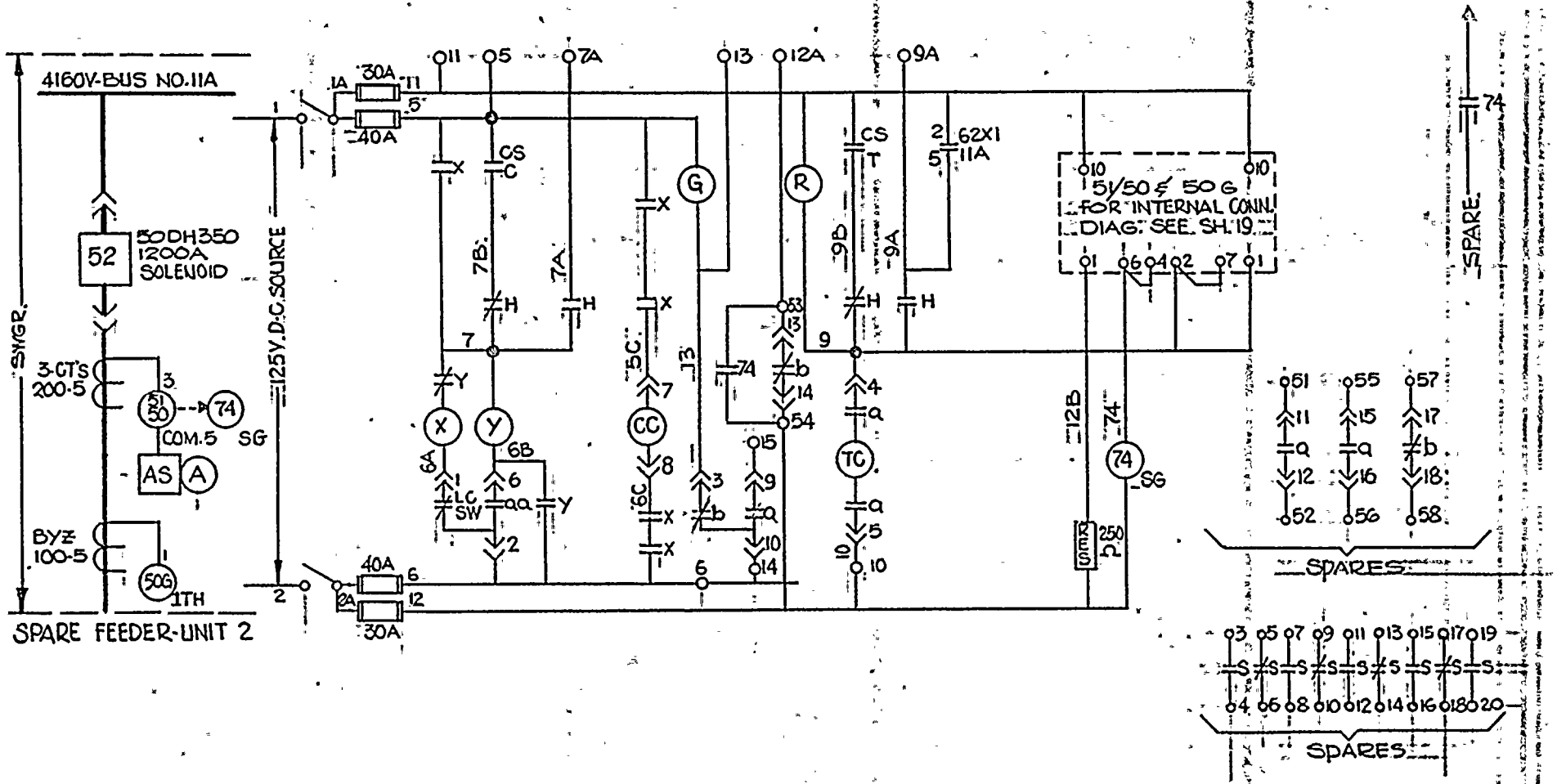
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 4-99B425 SHEET 37 REV. S

Rev.						
Original		AS M drawn by	RMJ ck'd	PFA resp. eng'r	JEL eng'r man'r	4/1/74 date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-37

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
"ELEMENTARY WIRING DIAGRAM REACTOR COOLANT PUMP 1A" 1B

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SHEET 38 REVISION 4.

Rev.						
Original		WSm	PMW	R.F.A.	G&L	4/1/76
		drawn by	ck'd	resp. eng'r	eng'r-mgr	date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

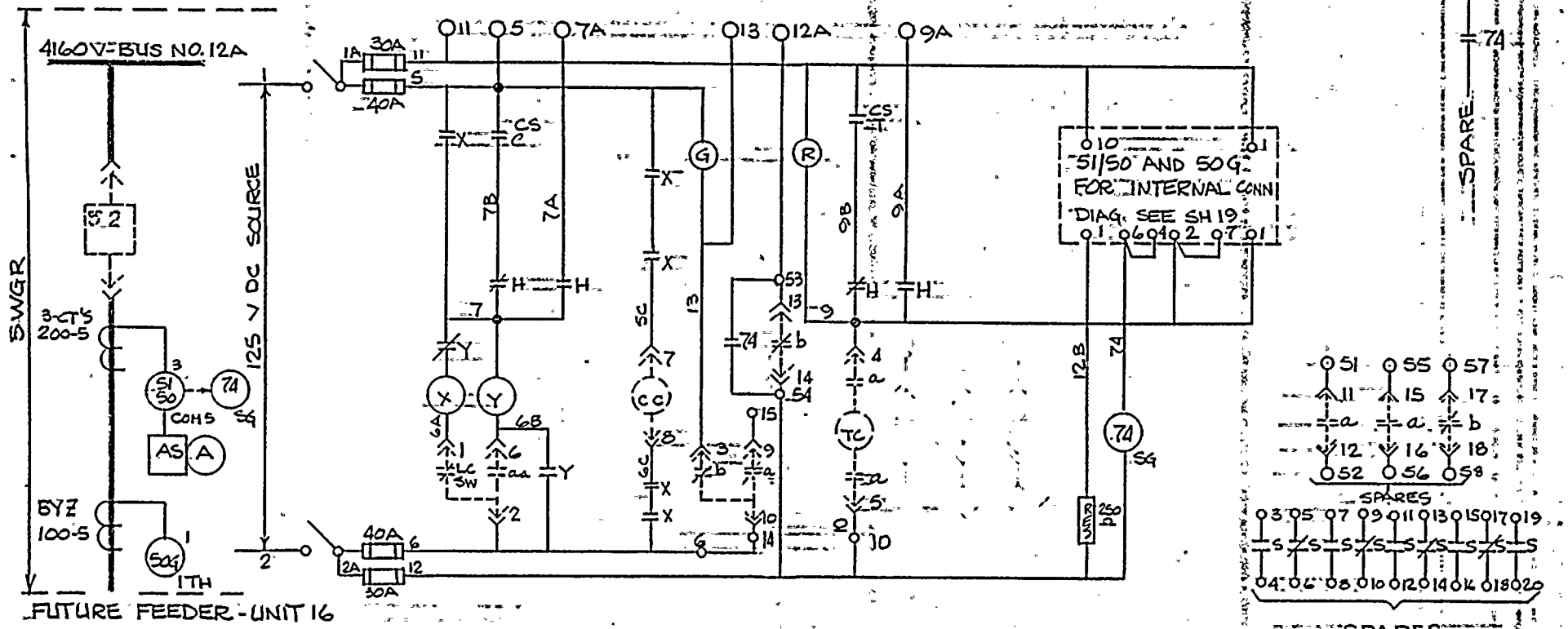
No. 10905-38

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

SPARE FEEDER BUS 11A

	BY	DATE	SCALE
DRAWN			
TRACED			APPROVED
CHECKED			FOLDER NO.
ENGR.			JOB NO.



THIS DWG. SUPERSEDES W. DWG. 4998425 SH 39

REV.	1					
	RMW 7/6/76	DAH 7-9-76	RFG 7-12-74	JEL	7/12/76
ORIGINAL	AJVIII	RMW	RFG.	JEL	4/1/76
	DWN BY	CK'D	RESP. ENG.	ENGR MGR	DATE

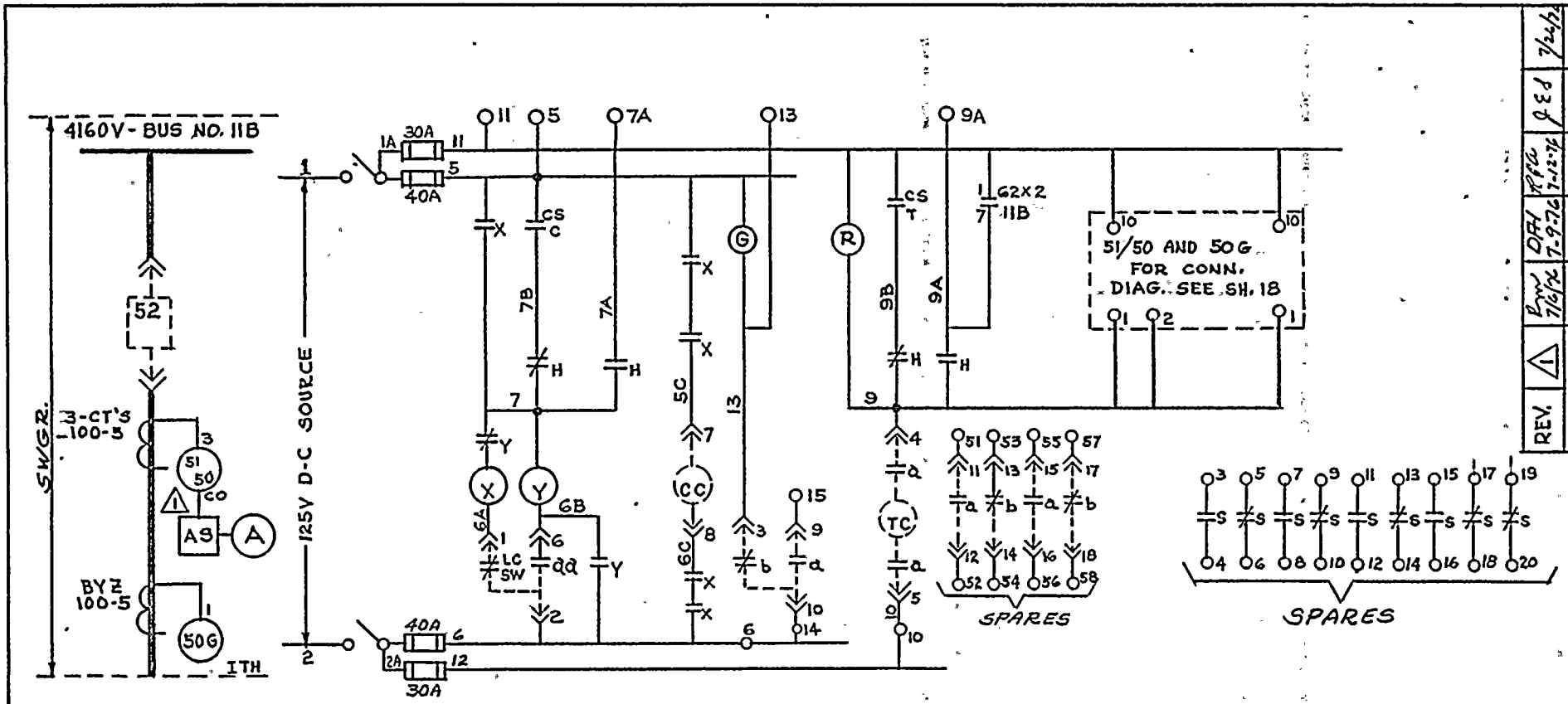
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1

ELEMENTARY WIRING DIAGRAM FUTURE FEEDER BUS 12A

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

DRAWING NO. 33013-2051



REV.		DRAWN BY	DATE
ORIGINAL		N.S.A.	7/6/72
		CK'D.	7-9-76
		RESP. ENGR.	7-12-76
		ENGR. MGR.	7/12/76
		DATE	7/24/72

DRAWN J.N. DATE
TRACED
CHECKED
APPROVED
SCALE
FOLDER NO.
JOB NO.

THIS DWG. SUPERCEDES WESTINGHOUSE DWG 499B425, SH. 40

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

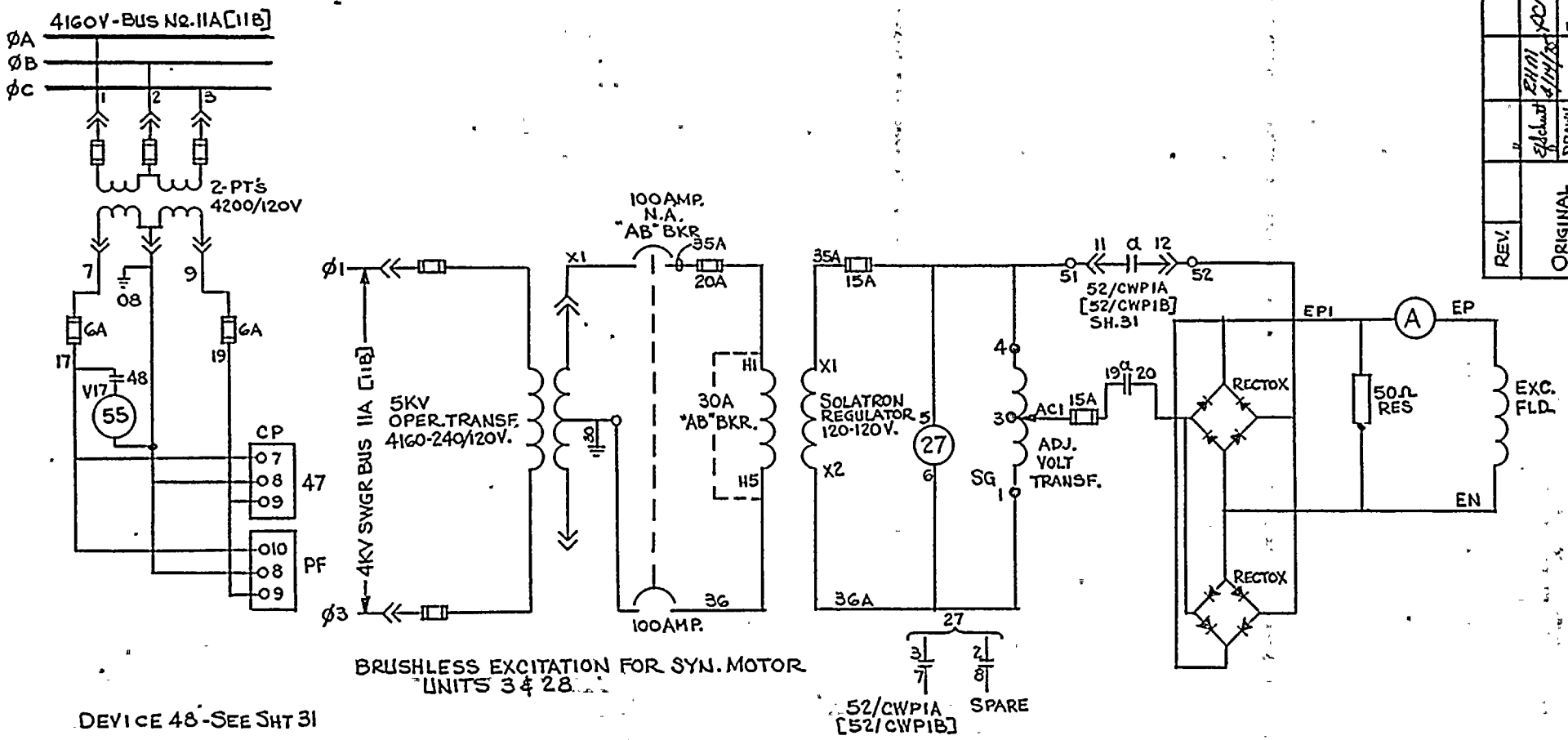
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT 1

ELEMENTARY WIRING DIAGRAM

FUTURE FEEDER BUS 11B

NO. 10B425-40



BRUSHLESS EXCITATION FOR SYN. MOTOR
UNITS 3 & 28

DEVICE 48 - SEE SHT 31

REV.		DRAWN BY	DATE	DRAWN	DATE 6/74
ORIGINAL		Oik'd	ENG'R	DISC. MGR.	SCALE NONE
					APPROVED
					FOLDER NO.
					JOB NO.

THIS DRAWING SUPERCEDES WESTINGHOUSE DWG 499B425, SHT. 41, (REV. 4).

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT No. 1

BRUSHLESS EXCITATION FOR SYN. MTR.

No 15905-41

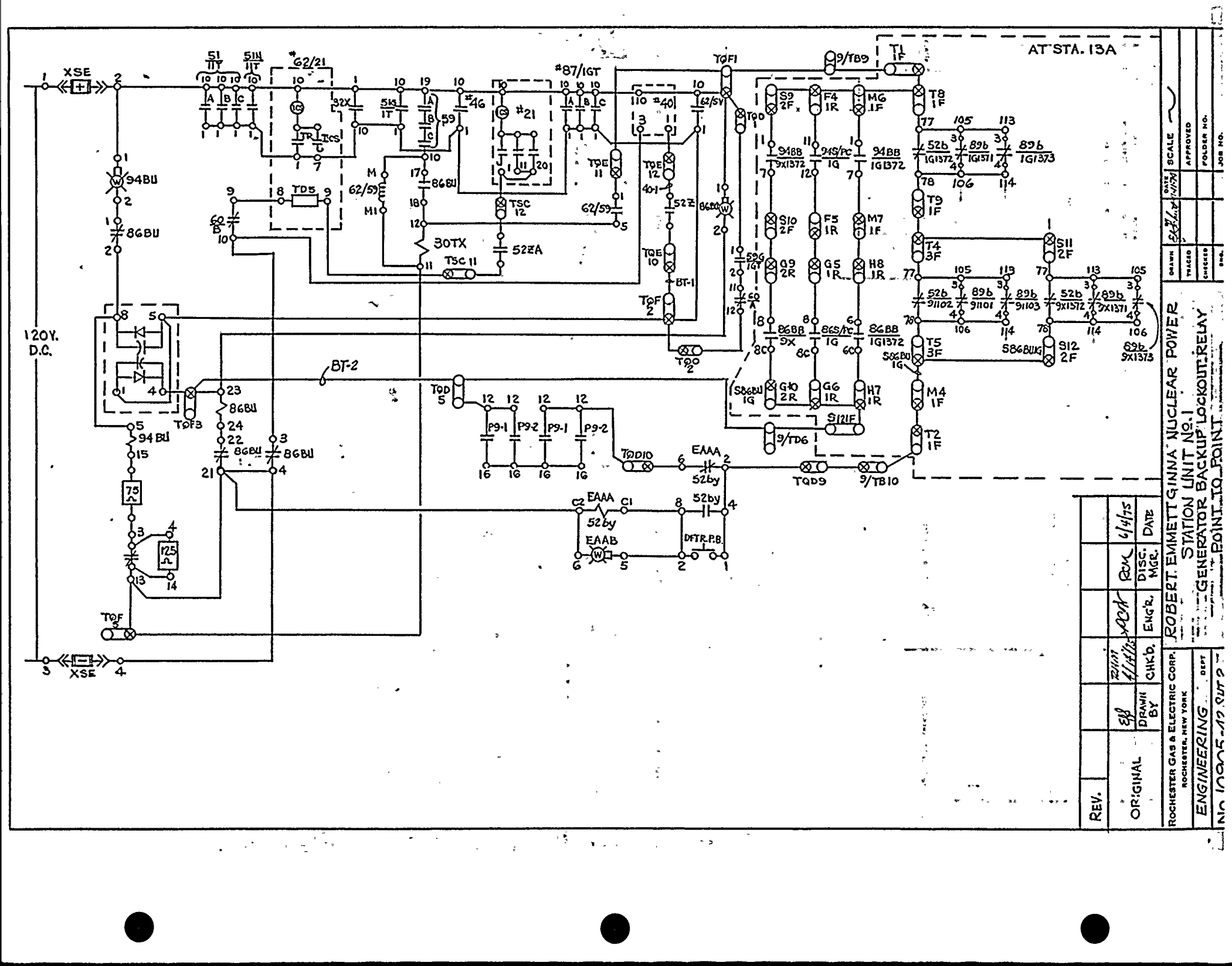
THIS DWG SUPERCEDES WESTINGHOUSE DWG 499B425, REV. 8 SHEET 42

REV.						
ORIGINAL	ANSLEGO	EAM 4/14/75	PCR	RCM	6/11/75
	DRAWN BY	CHK'D.	ENG'R	DISC. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
GENERATOR BACKUP LOCKOUT RELAY

SCALE | APPROVED | FOLDER NO. | JOB NO.
DRAWN | TRACED | CHECKED | ENG.



REV.		ORIGINAL	DRAWN BY	CHK'D.	ENG'R.	DISC. MGR.	DATE
			EJB	4/14/75	[illegible]	RCM	6/4/75

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

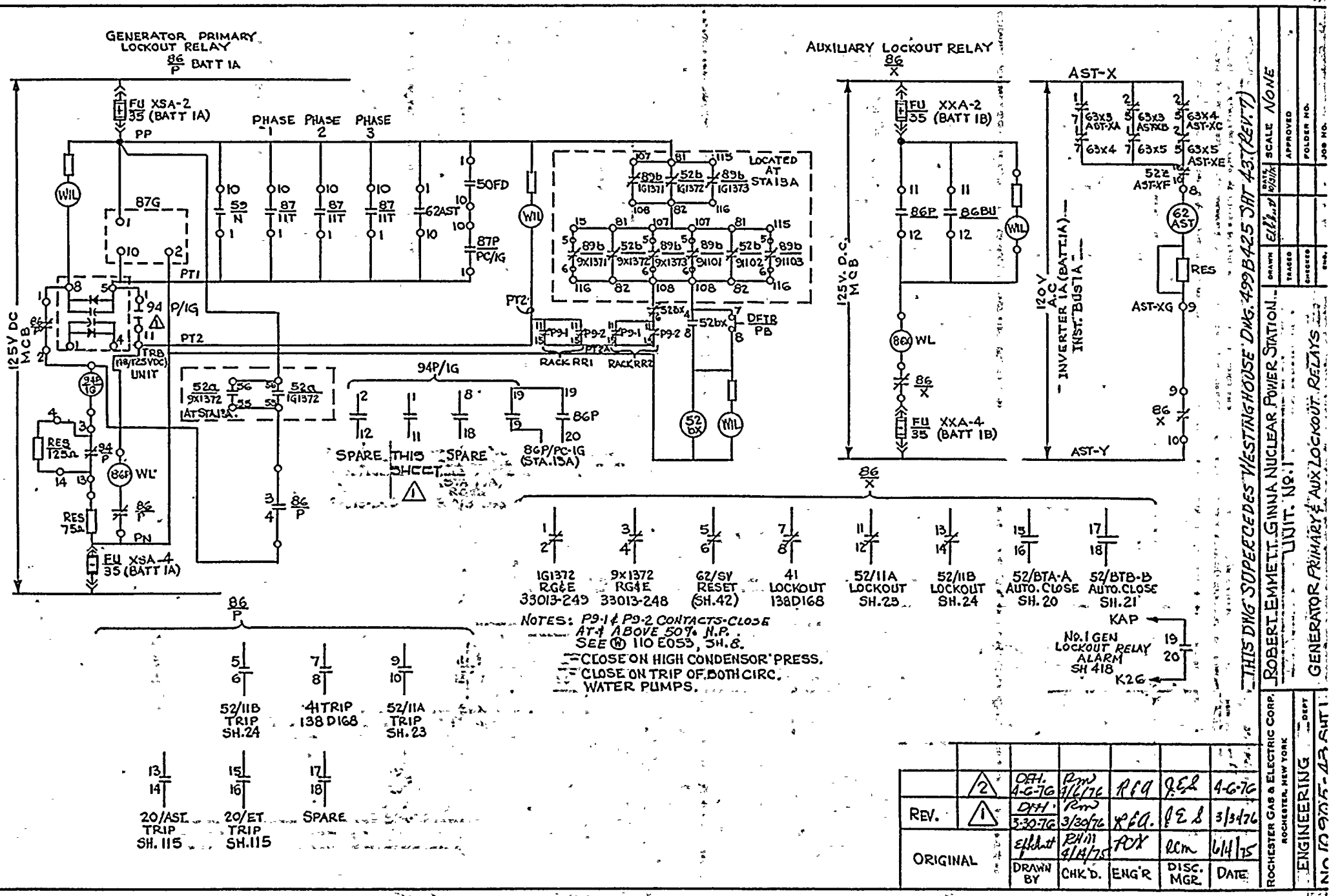
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

GENERATOR BACKUP LOCKOUT RELAY

POINT TO POINT

DRAWN | TRACED | CHECKED | DATE

SCALE | APPROVED | FOLDER NO. | JOB NO.



	2	DFH. 4-6-76	RPM 4/6/76	REG	REG	4-6-76
REV.	1	DFH. 3-30-76	RPM 3/30/76	REG.	REG	3/31/76
ORIGINAL		Effhutt	RPM 1/14/75	ROK	RCM	1/14/75
		DRAWN BY	CHK'D.	ENG'R	DISC. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — ENGINEERING DEPT

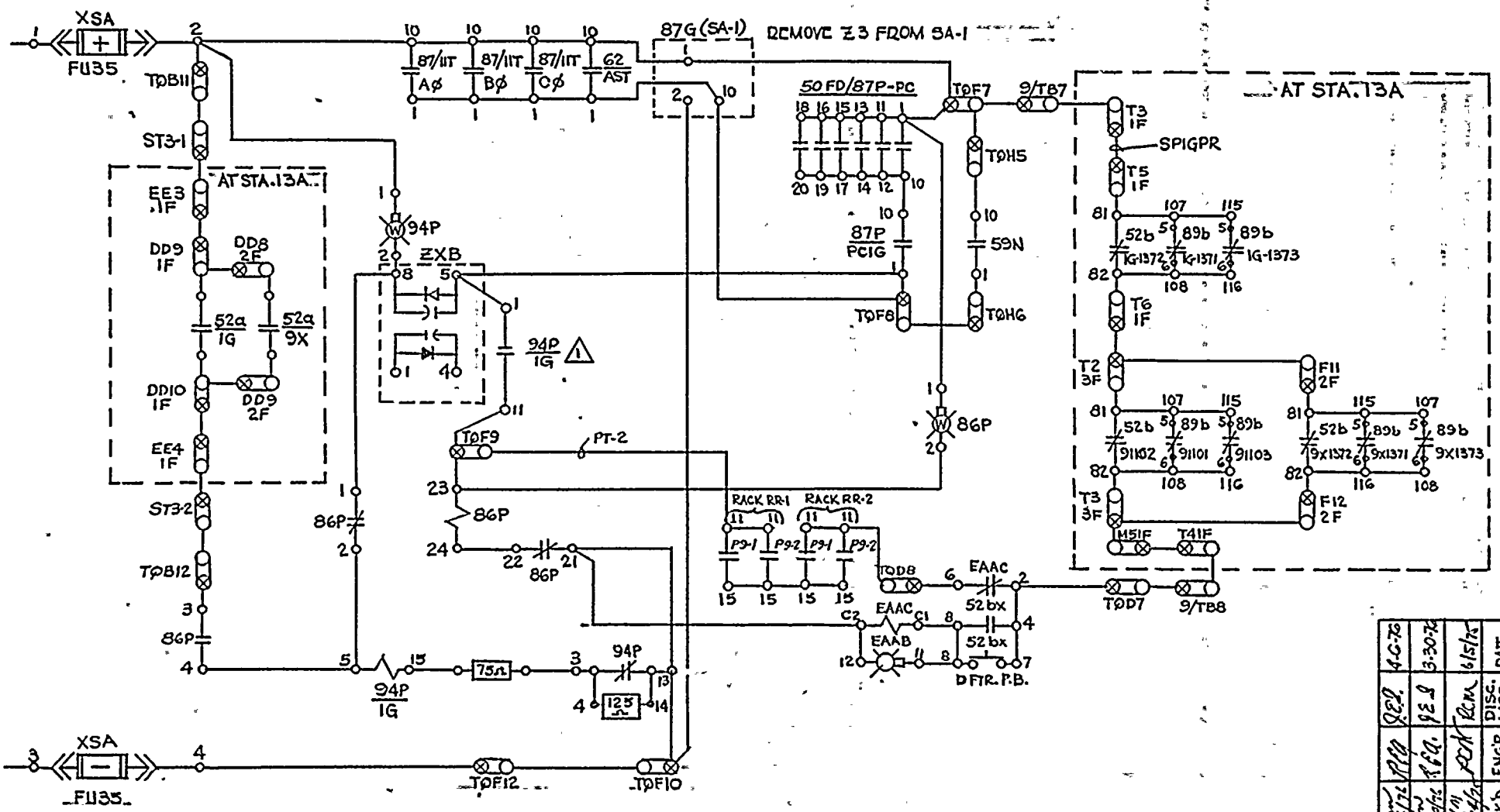
THIS DWG SUPERCEDES WESTINGHOUSE DWG. 499B425 SHT 43 (REV. 7)

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

GENERATOR PRIMARY & AUX LOCKOUT RELAYS

DRAWN EHL 8/20/74 — TRACED — CHECKED — ENGR — APPROVED — SCALE NONE — FOLDER NO. — JOB NO.

NO 10 CFR-43 APT 1



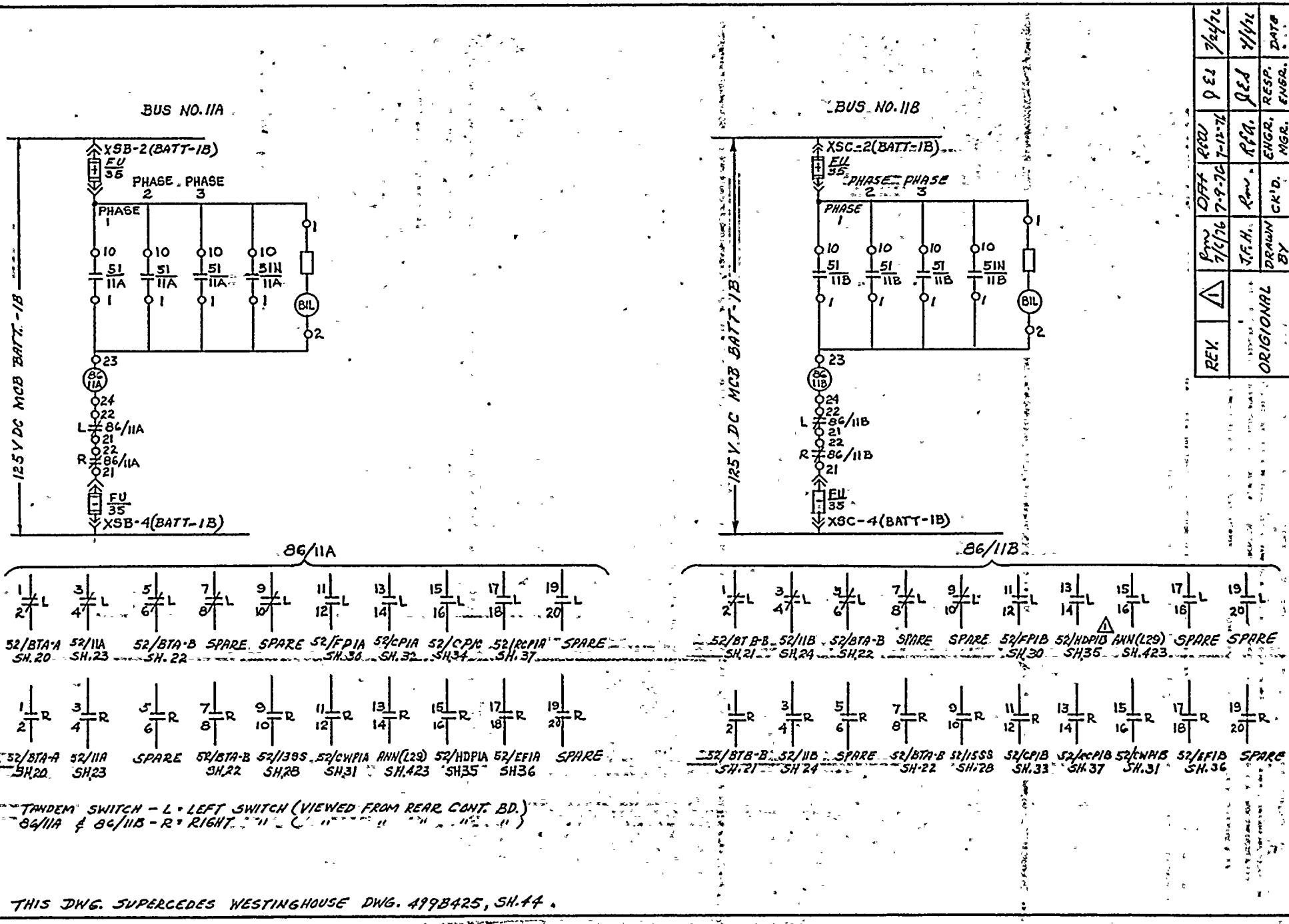
REV.			DRAWN BY	CHK'D	ENGR	DISC. MGR.	DATE
	GPH 4-6-76	ORIGINAL					
1	OFT 3-30-76						
2	GPH 4-6-76						

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
GENERATOR PRIMARY LOCKOUT RELAY
POINT TO POINT

DRAWN | DATE 11-5-74 | SCALE NONE
TRACED | APPROVED
SUBMITTED | FOLDER NO.
DWG. | JOB NO.

NO 10005-ARCHIT2



TANDEM SWITCH - L = LEFT SWITCH (VIEWED FROM REAR CONT. BD.)
86/11A & 86/11B - R = RIGHT " " " " " " " ")

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 4998425, SH. 44.

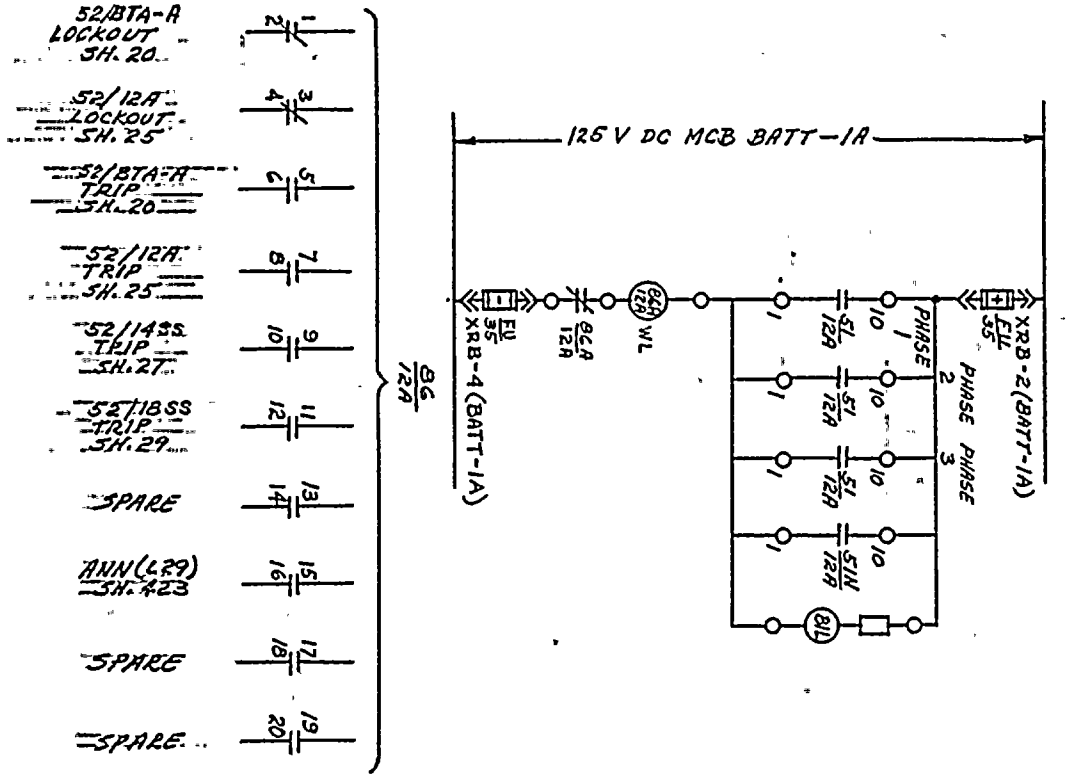
REV.		DRAWN BY	CK'D.	ENGR. MGR.	RESP. ENGR.	DATE
	ORIGINAL	J.F.H.	R.W.	R.F.A.	J.E.D.	7/6/76
1		R.W. 7/6/76	DFT 7-9-76	R.F.A. 7-12-76	J.E.D.	7/9/76

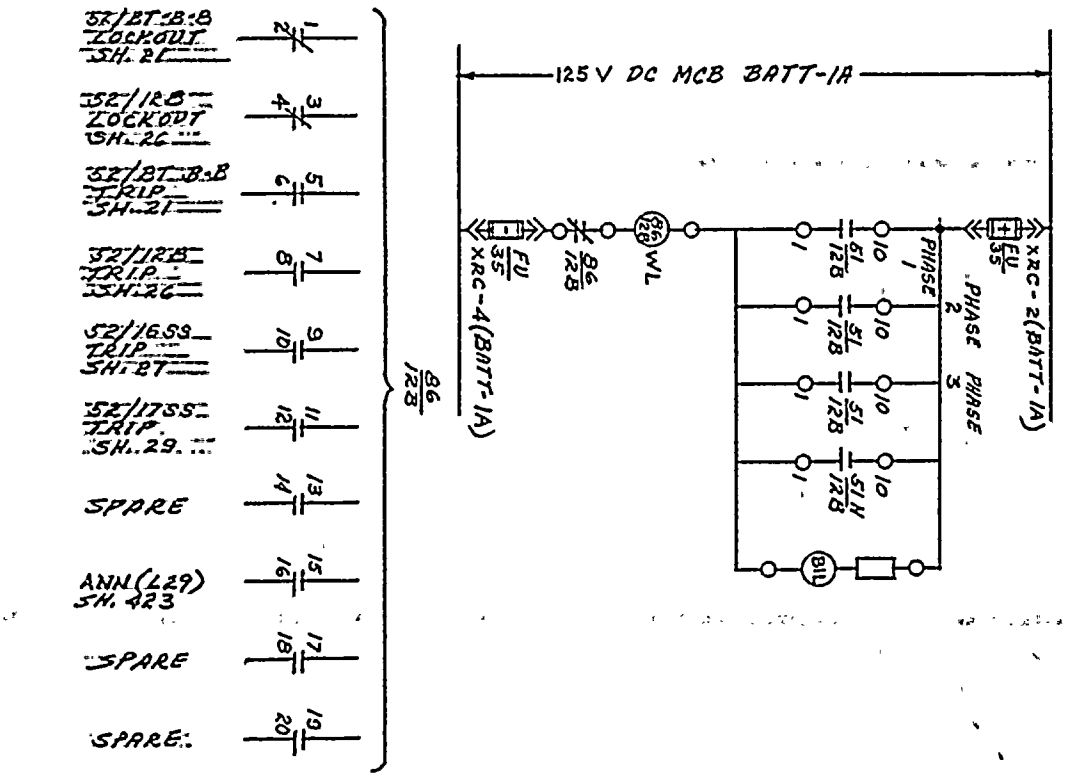
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
NO. 11A & 11B BUS DIFF. LOCKOUT RELAYS

DRAWN | BY NJFA | DATE
TRACED
CHECKED
SCALE
APPROVED
FOLDER NO.
JOB NO.

NO. 11004-44

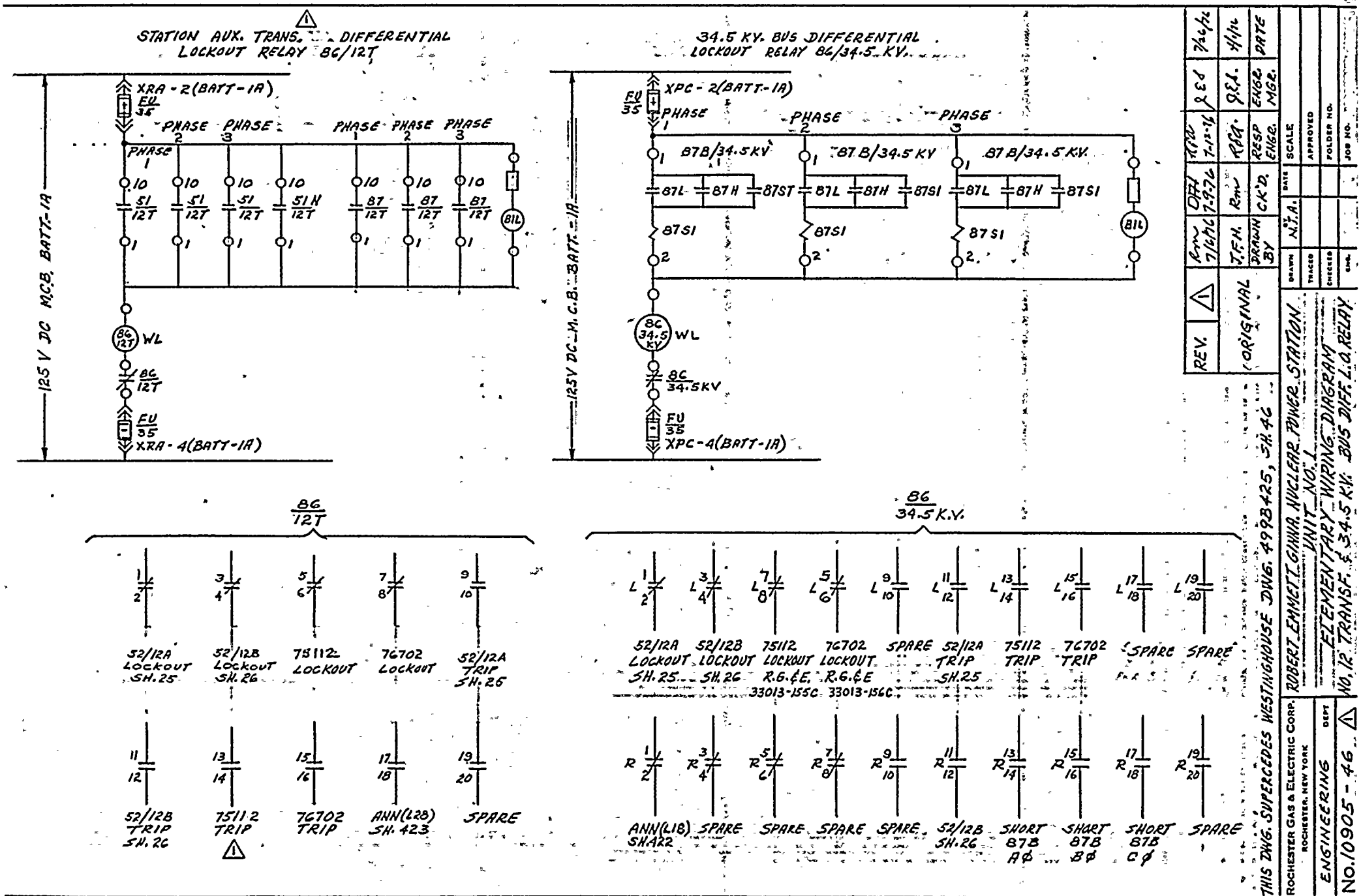




REV.						
ORIGIONAL	N.J.A.	Rmi	RBG	JEB	4/1/76
	DRAWN BY	CK'D.	RESP ENGR.	ENGR. MGR.	DATE

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425, SH. 45

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1	DRAWN	J.H.	DATE	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM NO. 12A & 12B BUS DIFF. LOCKOUT RELAYS	TRACED			APPROVED
No. 10905-45		CHECKED			FOLDER NO.
		ENG.			JOB NO.



REV.		DRAWN	CHECKED	TRACED	SCALE	FOLDER NO.
	ORIGINAL	J.F.H. 7/16/76	CK'D. R.M.W. 7.29.76	R.M.W. 7-13-76	RESP. ENGR. R.G.I. & E.S.	ENGR. MGR. 4/1/76

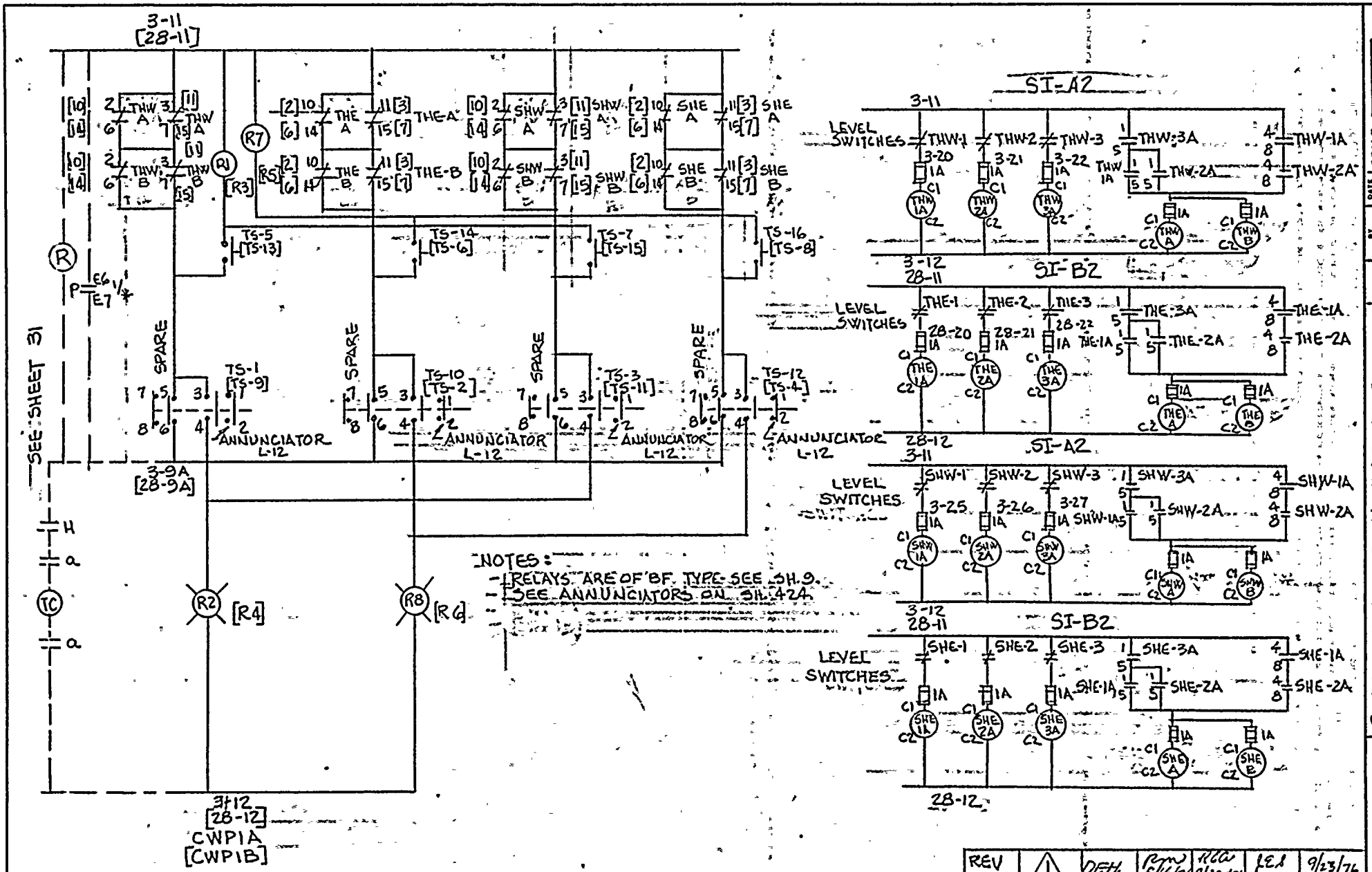
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT. ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM NO. 12 TRANSF. & 34.5 KV. BUS DIFF. & A RELAY

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 4928425, SH. 46

No. 10905 - 46

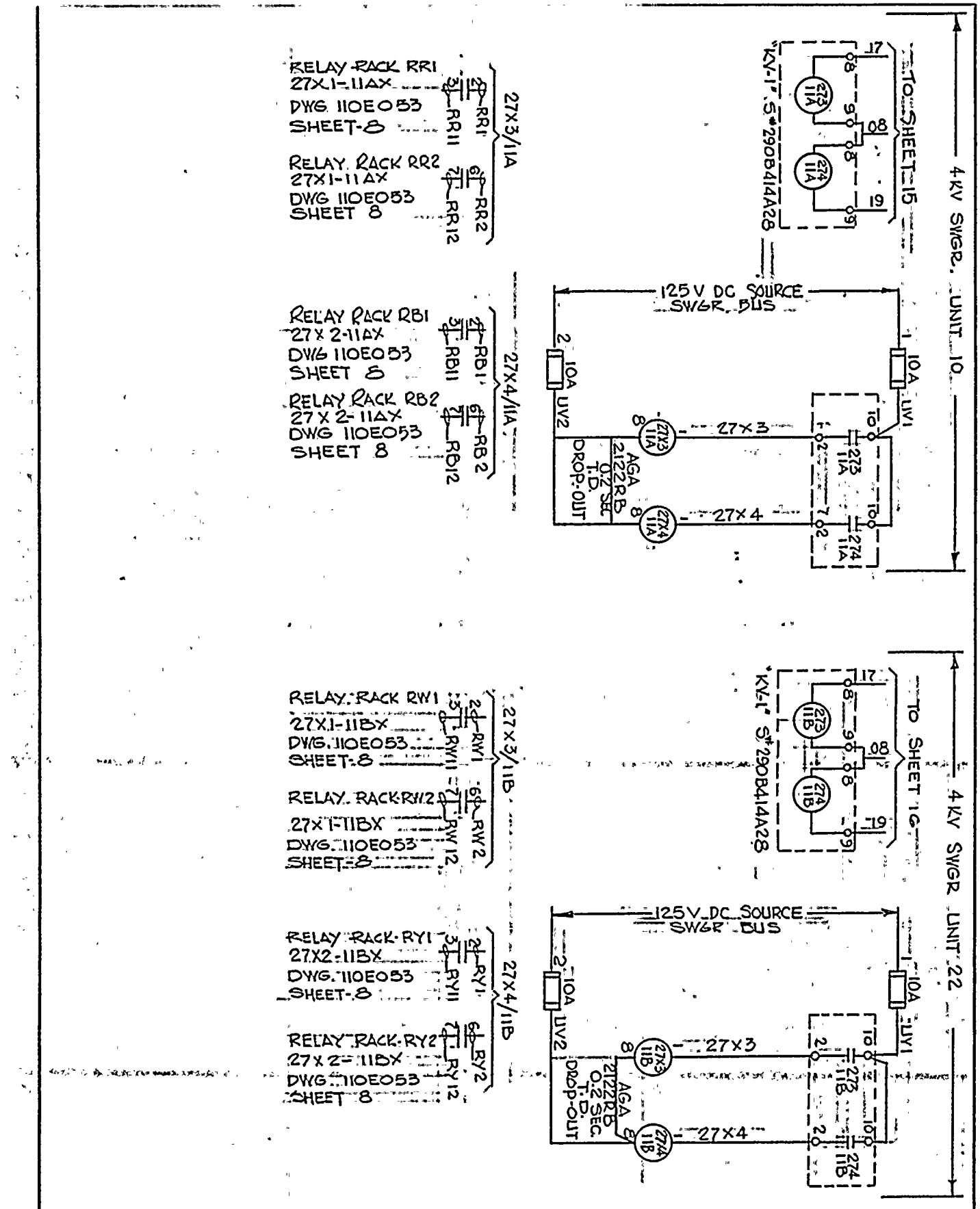


REV	1	DFH	6/16/76	9/22/76	FEA	9/23/76
ORIGINAL		GJF	6/11/76	6/11/76	FEA	6/2/76
		DRAWN BY	CK'D	RESP ENG'R	ENGR MGR	DATE

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

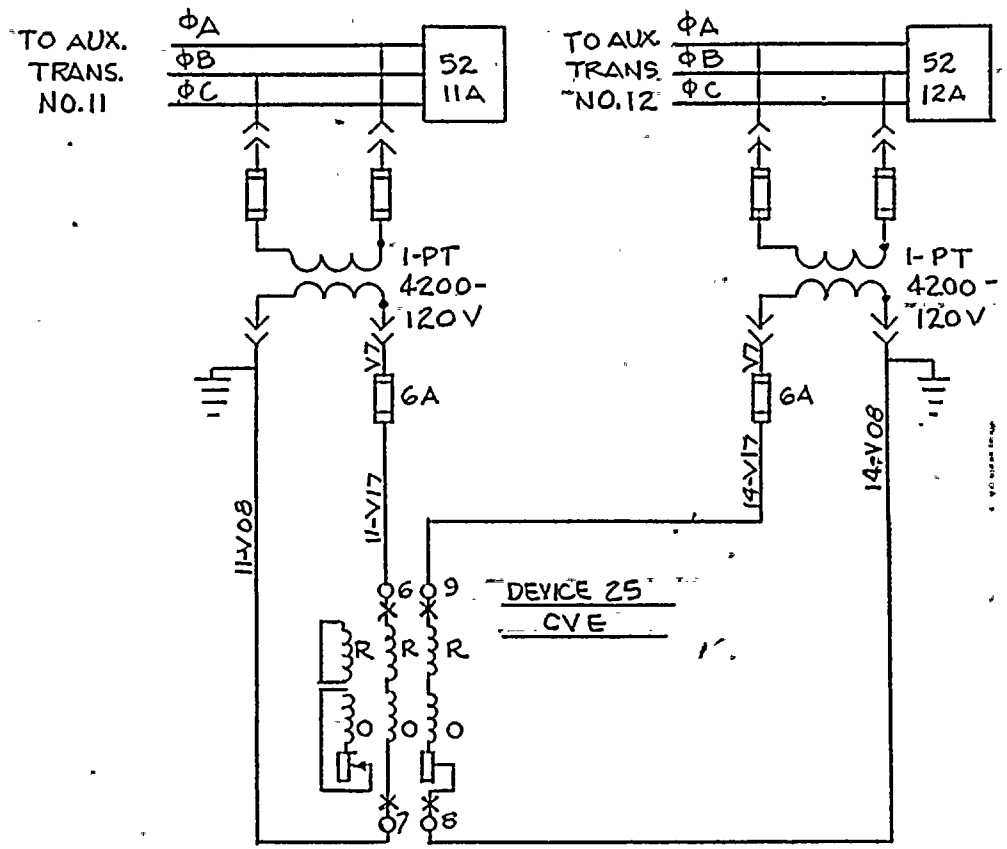
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH.47

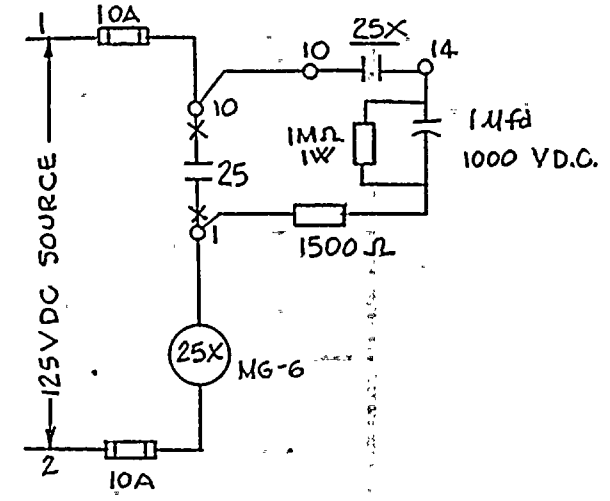


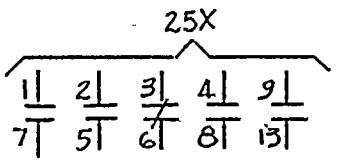
THIS DWG SUPERCEDES WESTINGHOUSE DWG 498B 425 - SHEET 48

Rev						
	1	GEH	RWL	RGA	JEL	4-27-76
		RSM	RWL	RGA	JES	4-6-76
Original		drawn by	ck'd	resp. eng'r	eng'r man'r	date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR PWR. STATION UNIT NO. 1	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM.	TRACED			APPROVED
No. 10905-48 1	4 KV BUS UNDER VOLTAGE	CHECKED			FOLDER NO.
		ENG.			JOB NO.







CLOSE CIRCUIT 52/BTA-A SH-20
CLOSE CIRCUIT 52/BTB-B SH.-21
ANN. (JS)
SHEET 407
SPARE
SPARE

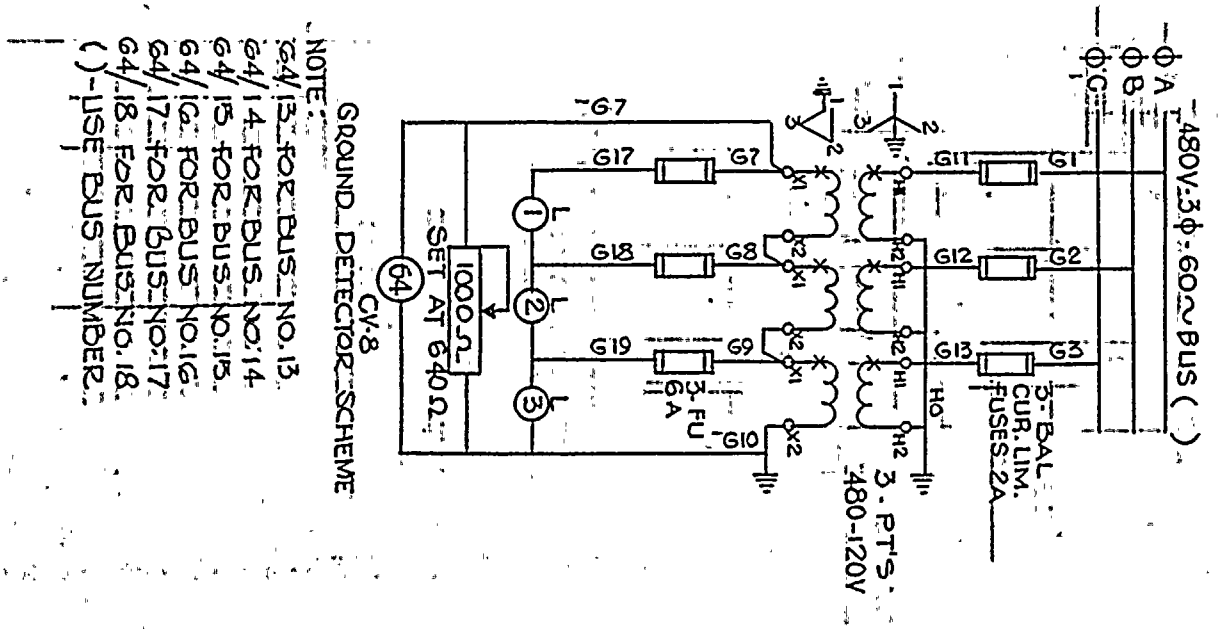
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE No. 499B425 SH.49

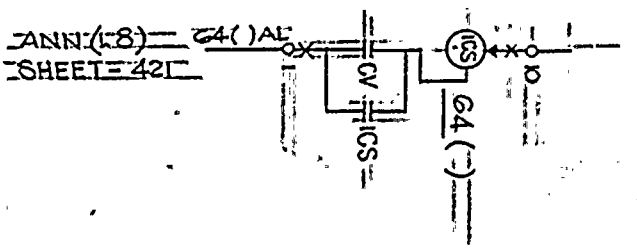
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO 1
ELEMENTARY WIRING DIAGRAM
SYNCHRO-VERIFIER SCHEME

REV.						
ORIGINAL	GJF	RWM	REA 4-8-76	JES	4-8-72
	DRAWN BY	CK'D	RESP ENGR.	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-49

DRAWN BY | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.





1 2 3 4 5 6

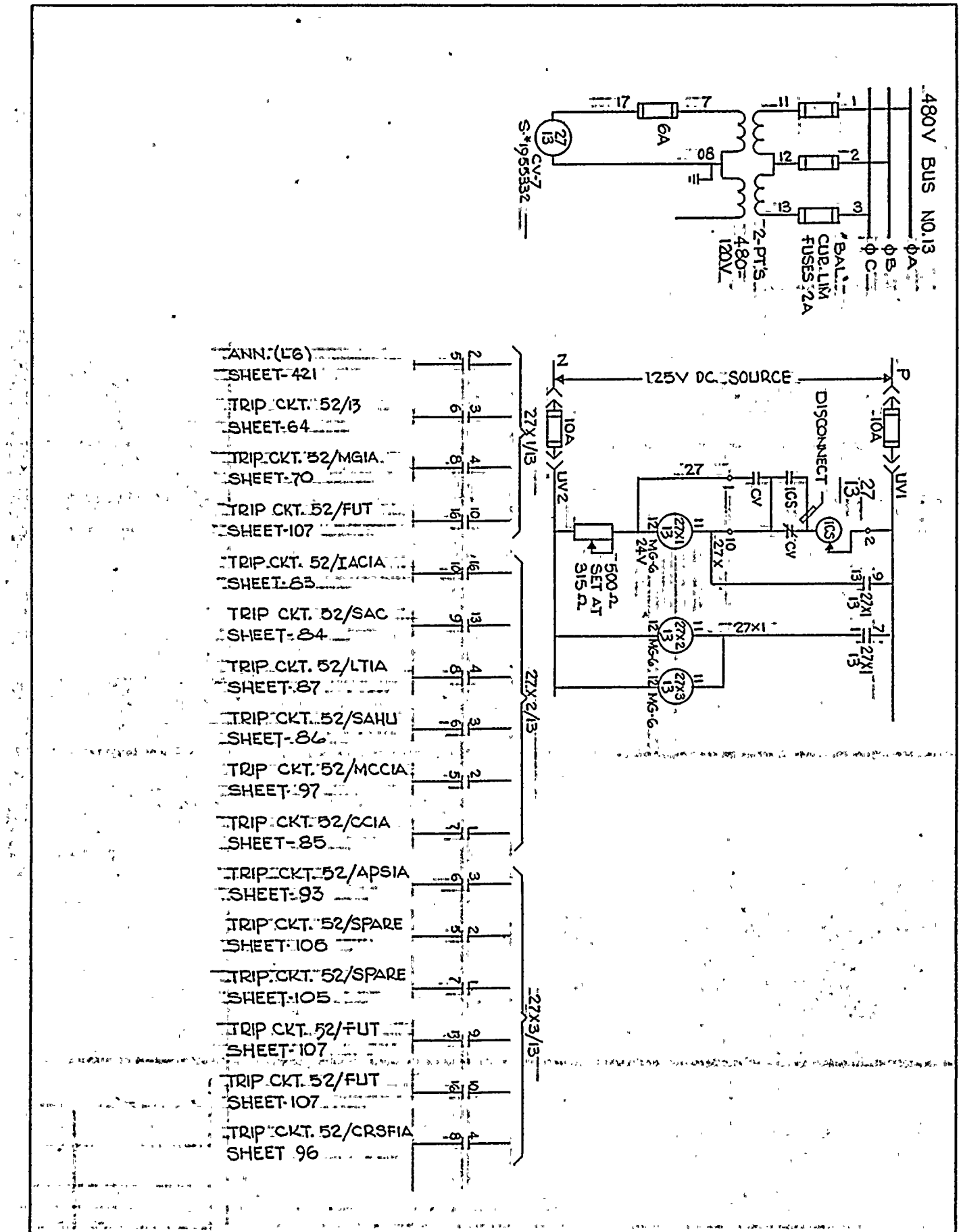
Rev.						
Original	ASM drawn by	RMW ck'd.	RGA 4-8-74 resp. eng'r.	JES eng'r. mah'r	4-8-74 date	THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SHEET 50 REV 3

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT
No. 10905-50

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAG.
480 V GROUND DET. SCHEME

	BY	DATE	
DRAWN			SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



REV.						
ORIGINAL		R. McLeod	RHM 4/14/75	RCN	RCM	6/4/75
		DRAWN BY	CHK'D.	ENG'R.	DISC. MGR.	DATE

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499 B425, SHT 51, REV. 4

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT

NO. 10005-51

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO.

UNDERVOLTAGE SCHEME BUS 13

DRAWN R. McLeod 4/14/75 | TRACED | CHECKED | DESIGN

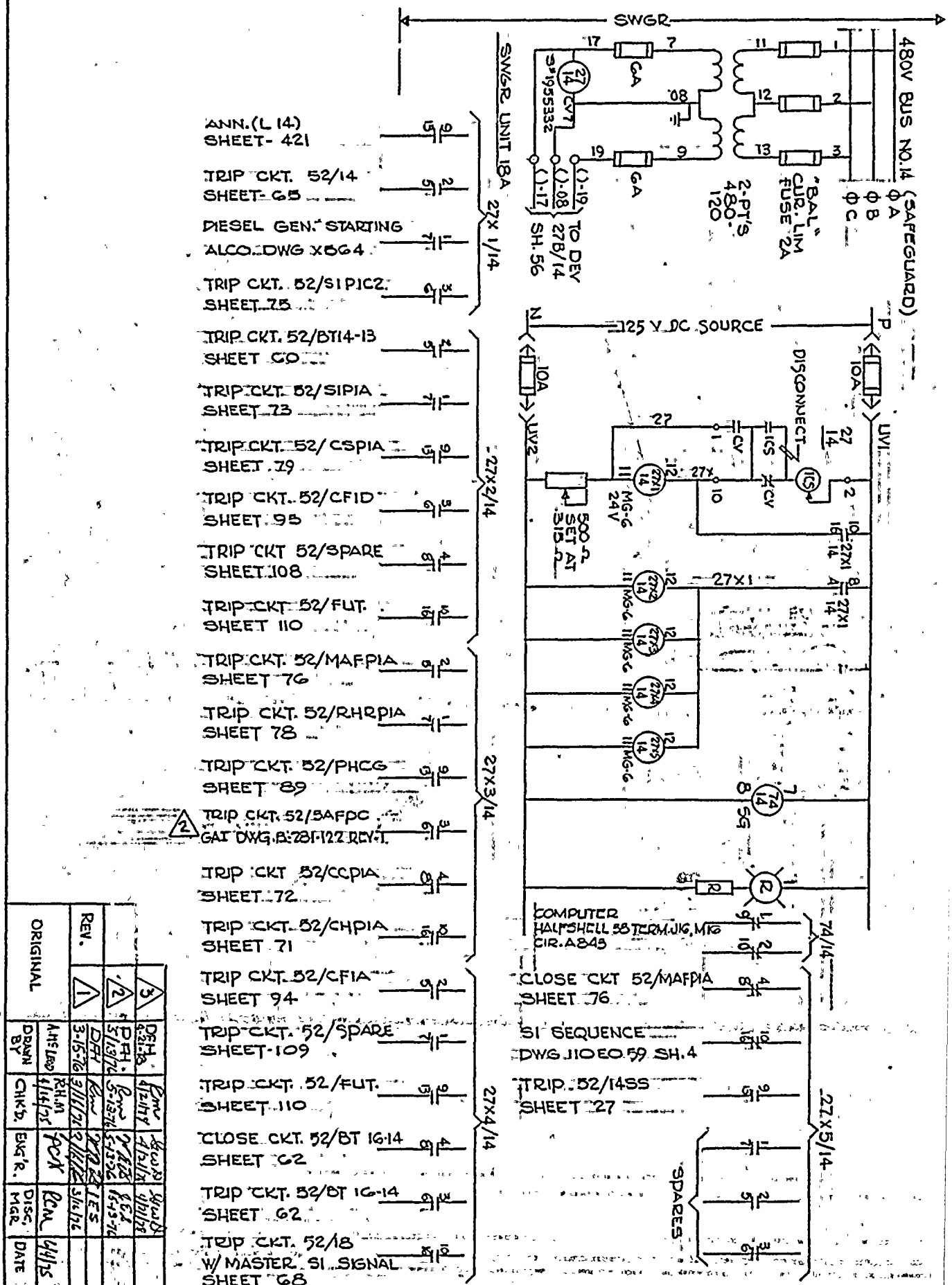
SCALE

APPROVED

FOLDER NO.

JOB NO.

THIS DWG SUPERCEDES WESTINGHOUSE DWG. 4998427 REV. 6 SHEET 52

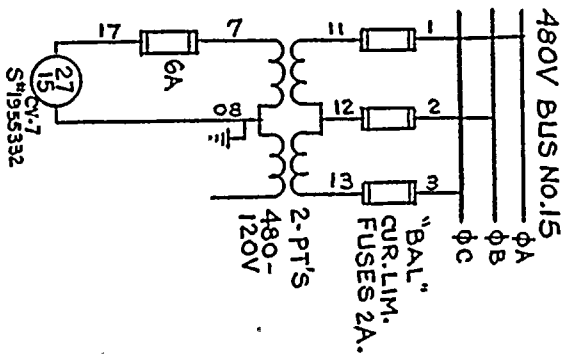


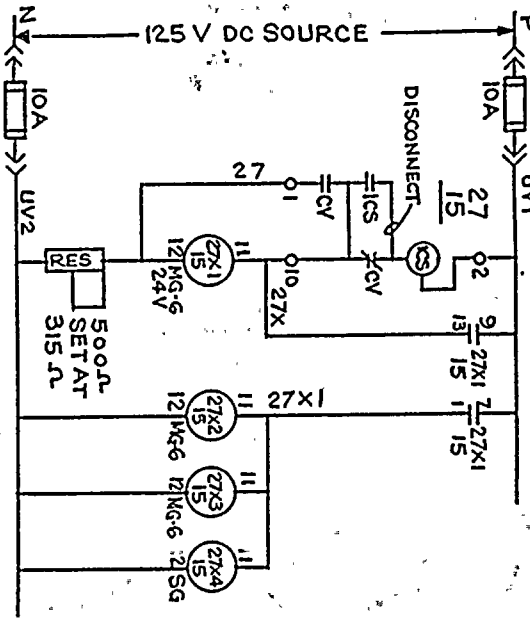
	REV.		
ORIGINAL	1	2	3
DRAWN BY	A. HISLOP 4-14-75	DFT 3-15-76	DFT 5/18/76
CHK'D.	R.H.M. 4/14/75	RHM 5/11/76	RHM 5/18/76
ENG'R.	PCK	PCK 5/11/76	PCK 5/18/76
DISC. MGR.	RCM	RCM 5/11/76	RCM 5/18/76
DATE	4/14/75		

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-52 /3\

ROBERT EMMETT GINNA NUCLEAR POWER STATION
UNIT NO. 1
UNDERVOLTAGE SCHEME BUS 14

	BY	DATE	
DRAWN	T.M. Lee	6/2/76	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.





ANN. (L22) SHEET-122 — 2/5

TRIP CKT. 52/CRSFIB SHEET-96 — 3/6

TRIP CKT. 52/MGIB SHEET-70 — 10/16

TRIP CKT. 52/IACIB SHEET-88 — 4/8

27X1/15

TRIP CKT. 52/MCCIF SHEET-97 — 8/16

TRIP CKT. 52/TRC SHEET-92 — 4/8

TRIP CKT. 52/FUT SHEET-107 — 3/6

TRIP CKT. 52/LTIB SHEET-88 — 2/5

TRIP CKT. 52/CCIB SHEET-85 — 1/7

TRIP CKT. 52/APSIB SHEET-93 — 9/13

27X2/15

TRIP CKT. 52/MCCIB SHEET-97 — 8/16

TRIP CKT. 52/IACIC SHEET-105 — 4/8

TRIP CKT. 52/SPARE SHEET-106 — 3/6

TRIP CKT. 52/FUT SHEET-107 — 2/5

TRIP CKT. 52/FUT SHEET-107 — 1/7

TRIP CKT. 52/MCCIE SHEET-97 — 9/13

27X3/15

TRIP CKT. 52/15 SHEET-64 — 4/6

SPARE — 3/5

27X4/15

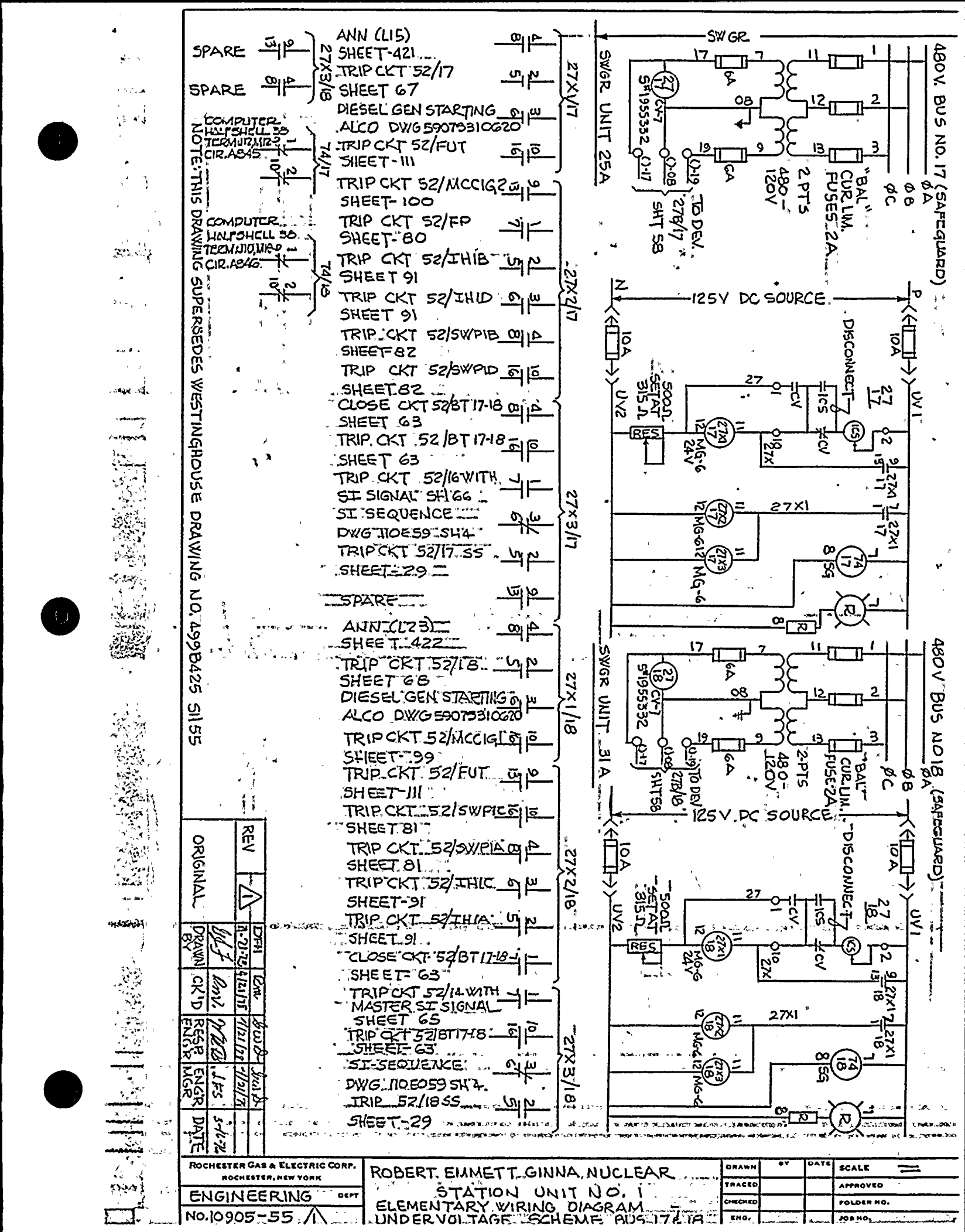
REV.						
ORIGINAL	EJKlatt	R.H.M. 4/14/75	KCR	RCM	6/4/75
	DRAWN BY	CHK'D.	ENG'R.	DISC. MGR.	DATE

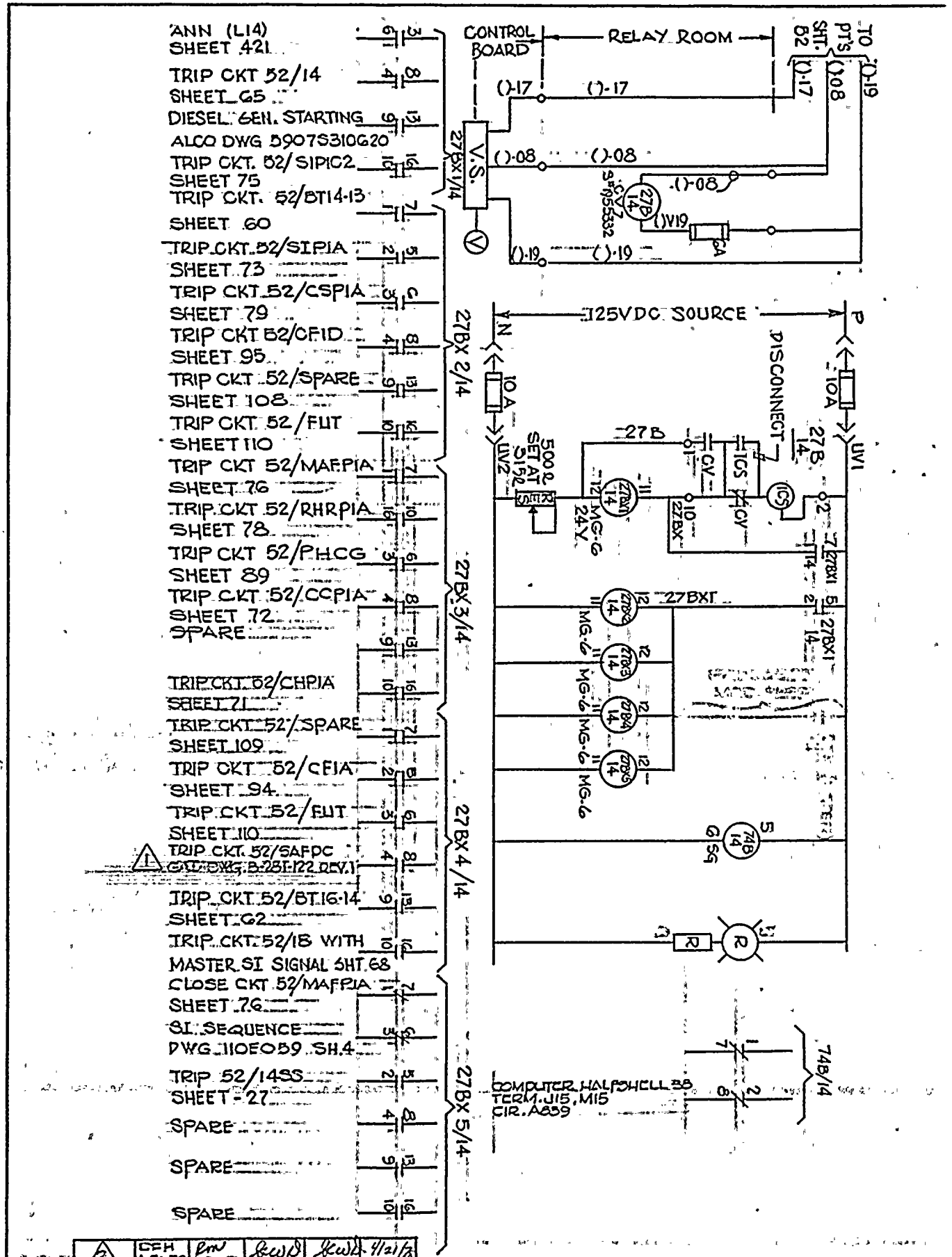
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT 53, SAME TITLE (REV. 6)

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1	DRAWN EJKlatt 9/9/74	SCALE ~
ENGINEERING DEPT	UNDERVOLTAGE SCHEME BUS 15	TRACED	APPROVED
No. 10905-53		CHECKED	FOLDER NO.
		ENG.	JOB NO.

REV.			
ORIGINAL	1	2	3
		ECN 1488	
DRAWN BY	A. Nielsen 3-15-76	DFH 5/13/76	DFH 4-21-78
CHK'D.	RHM 4/14/76	[illegible] 5/13/76	[illegible] 4-21-78
ENG'R.	PCM	[illegible] 5/13/76	[illegible] 4-21-78
DISC. MGR.	RCM	[illegible] 5/14/76	[illegible] 4-21-78
DATE	4/14/75		4/24/78

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1	DRAWN	SCALE
ENGINEERING DEPT	UNDER VOLTAGE SCHEME BUS 16	TRACED	APPROVED
No. 10905-54 (3)		CHECKED	FOLDER NO.
		ENG.	JOB NO.


480V. BUS NO. 17 (SAFEGUARD)
SWGR UNIT 25A
SWGR
ØA
ØB
ØC
"BAL" CUR. LIM. FUSES 2A
2 PTS 480-120V
TO DEV. 27B/17 SHT 58
125V DC SOURCE
DISCONNECT
10A
UV1
UV2
500Ω SETAT 315 Ω
RES
MG-6 24V
27X1
27X2
27X3
MG-6
480V BUS NO 18 (SAFEGUARD)
SWGR UNIT 31A
TO DEV 27B/18 SHT 58
ANN (L15)
SHEET-421
TRIP CKT 52/17
SHEET 67
DIESEL GEN STARTING
ALCO DWG 5907331062G
TRIP CKT 52/FUT
SHEET-111
TRIP CKT 52/MCC1G2
SHEET-100
TRIP CKT 52/FP
SHEET-80
TRIP CKT 52/1H1B
SHEET 91
TRIP CKT 52/1H1D
SHEET 91
TRIP CKT 52/SWP1B
SHEET 82
TRIP CKT 52/SWP1D
SHEET 82
CLOSE CKT 52/BT 17-18
SHEET 63
TRIP CKT 52/BT 17-18
SHEET 63
TRIP CKT 52/16 WITH SI SIGNAL SH 66
SI SEQUENCE DWG 110E59 SH 4
TRIP CKT 52/17 SS
SHEET-29
SPARE
ANN (L23)
SHEET 422
TRIP CKT 52/18
SHEET 68
DIESEL GEN STARTING
ALCO DWG 5907331062G
TRIP CKT 52/MCC1G1
SHEET-99
TRIP CKT 52/FUT
SHEET-111
TRIP CKT 52/SWP1C
SHEET 81
TRIP CKT 52/SWP1A
SHEET 81
TRIP CKT 52/1H1C
SHEET-91
TRIP CKT 52/1H1A
SHEET 91
CLOSE CKT 52/BT 17-18
SHEET 63
TRIP CKT 52/14 WITH MASTER SI SIGNAL
SHEET 65
TRIP CKT 52/BT 17-18
SHEET 63
SI SEQUENCE
DWG 110E059 SH 4
TRIP 52/18 SS
SHEET-29
SPARE
SPARE
27X3/18
COMPUTER HALFSHELL 38 TERMINATING CIR. A845
COMPUTER HALFSHELL 38 TERMINATING CIR. A846
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH 55
ORIGINAL
REV
DRAWN BY
CK'D
RESP. ENGR
ENGR MGR
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-55
ROBERT EMMETT GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
UNDERVOLTAGE SCHEME BUS 17 & 18
DRAWN
BY
DATE
SCALE
TRACED
APPROVED
CHECKED
FOLDER NO.
ENG.
JOB NO.



Rev.						
	2	CEH 4-21-78	RMW 4-21-78	RWD	JEW	4/21/78
	1	DEH 5-13-74	RMW 5/13/74	MRB 5/13/74	JES 5/15/74	
Original		drawn by: GSH	ck'd RMW	resp eng'r MRB	eng'r man'r JES	date 3-16-74

EWR 1488

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SHEET 56 REV. 4

ROCHESTER GAS & ELECTRIC CORP. / ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1	DRAWN	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM	TRACED	APPROVED
NO. 10905-56 / 2	UNDERVOLTAGE SCHEME BUS #14	CHECKED	FOLDER NO.
		ENG.	JOB NO.

NOTE- THIS DWG SUPERSEDES WESTINGHOUSE DWG. #4998425-SH.57

ANN.(L7)
SHEET 421
TRIP CKT. 52/1G
SHEET 66
DIESELGEN STARTING
ALCO DWG. 5907S910G20
TRIP CKT. 52/S1P1B
SHEET 73
TRIP CKT 52/BT1G-15
SHEET-61
TRIP CKT 52/BT1G-14
SHEET-62
TRIP CKT 52/S1P1C1
SHEET-74
TRIP CKT 52/03P1B
SHEET-79
TRIP CKT 52/CF1B
SHEET-95
TRIP CKT. 52/CF1C
SHEET-94
TRIP CKT. 52/FUT
SHEET 110
TRIP CKT 52/MAFP1B
SHEET 77
TRIP CKT 52/RHRP1B
SHEET-78
TRIP CKT 52/CHP1B
SHEET-71
TRIP CKT 52/CHP1C
SHEET-71
TRIP CKT. 52/PHBG
SHEET-90
TRIP CKT. 52/CCP1B
SHEET-72
SI SEQUENCE
DWG. 110E059 SH. 4
TRIP CKT. 52/SPARE
SHEET 108
TRIP CKT. 52/SPARE
SHEET 109
TRIP CKT. 52/FUT.
SHEET. 110
TRIP CKT. 52/SAFDD
GAI DWG. 6-28F-125 REV. 1
CLOSE CKT. 52/MAFP1B
SHEET-77
SPARE
TRIP CKT. 52/1T WITH
MASTER SI SIGNAL SHT 67
TRIP 52/1GSS
SHEET-27
SPARE
SPARE

27BX1/1G
27BX2/1G
27BX3/1G
27BX4/1G
27BX5/1G

CONTROL BOARD → RELAY ROOM
TO PTS SHT. 54
V.S.
CR7 S/N 1955332
27B 1G
GA
125V DC SOURCE
10A
DISCONNECT
27B
CV
ICS CV
500A SET AT 315A
UV1
UV2
27BX
MG-G 24V
27BX1
27BX2
27BX3
27BX4
27BX5
74B 1G 5G
R

COMPUTER HALFSHELL 38
TERM. J13, M13
CIR. A840
74/BIG

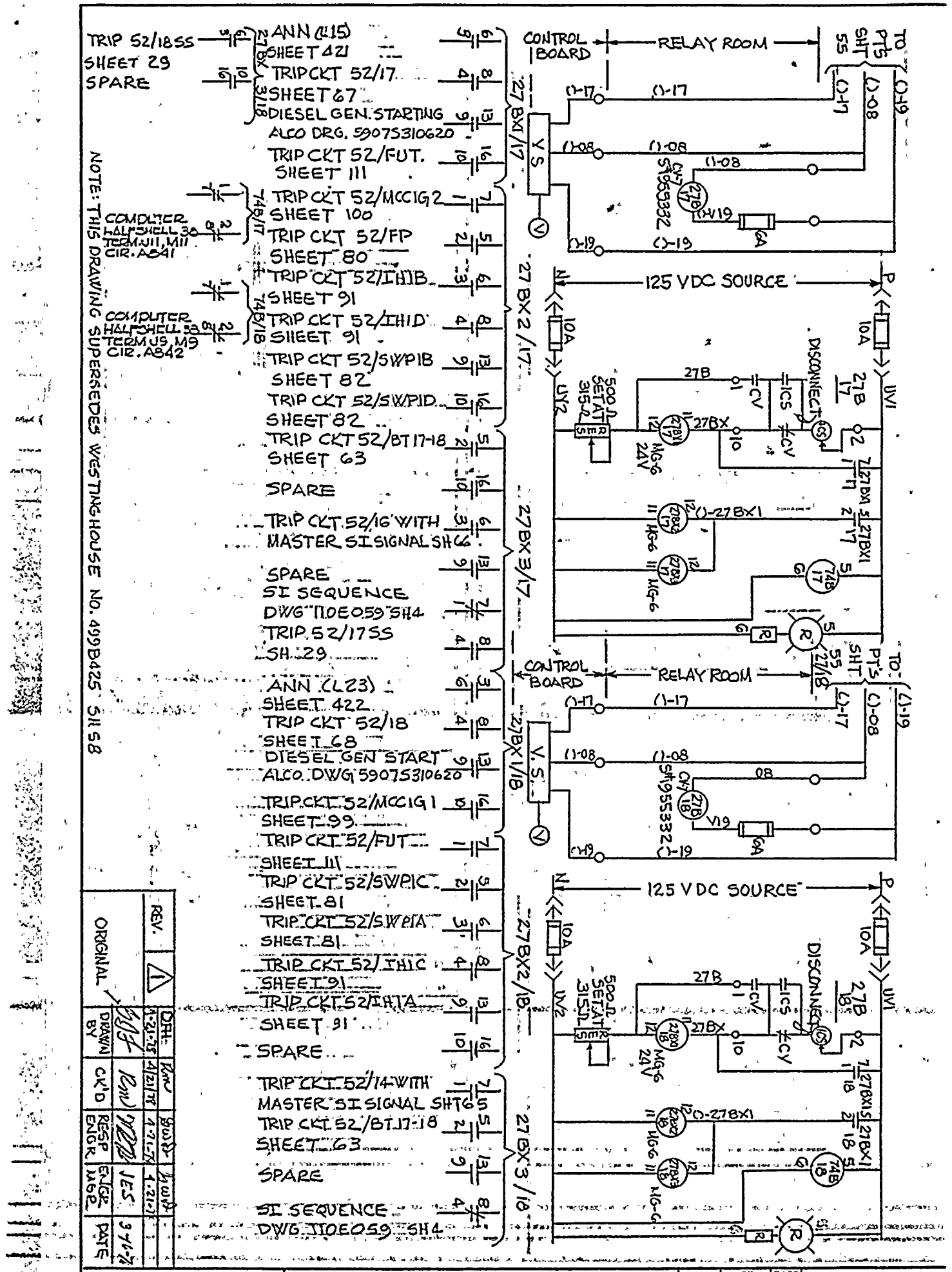
REV.		DRN	CHK'D	ENG'R	MGR.	DATE
ORIGINAL	2	DRH 4-21-78				
	1	D.H. 5-15-78				
D.H. DRAWN BY						3-16-78

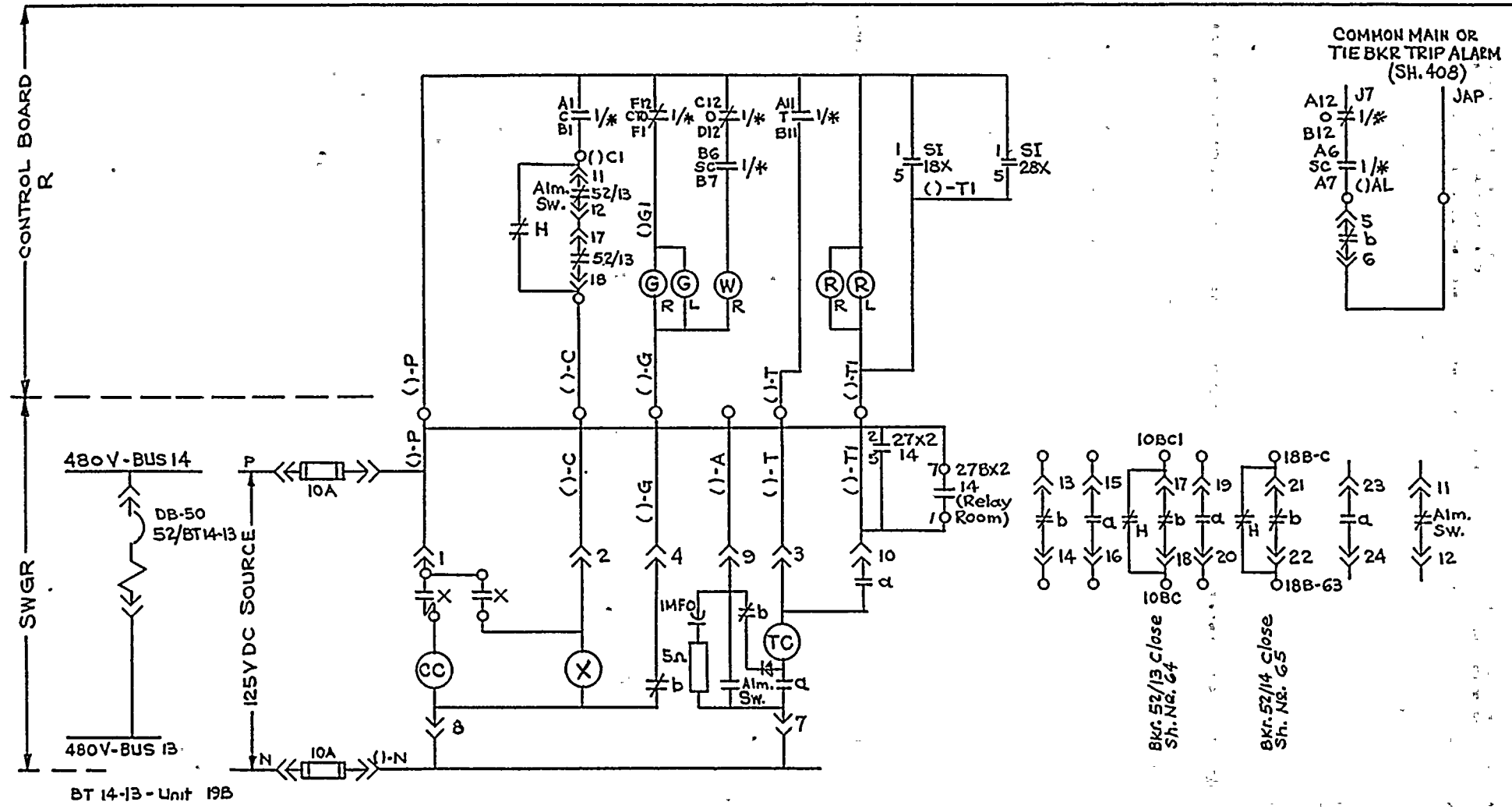
EWR 1423

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGR. DEPT
No. 10905-57 /2

ROBERT EMMETT GINNA STA. UNIT NO. 1
ELEM. WIRING DIA. UNDER VOLTAGE SCHEME BUS #1G

	BY	DATE	
DRAWN	D.H.	10-77	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.


TRIP 52/18SS
SHEET 29
SPARE
ANN (L15)
SHEET 421
TRIP CKT 52/17
SHEET 67
DIESEL GEN. STARTING
ALCO DRG. 5907S310620
TRIP CKT 52/FUT.
SHEET 111
TRIP CKT 52/MCC1G2
SHEET 100
TRIP CKT 52/FP
SHEET 80
TRIP CKT 52/1H1B
SHEET 91
TRIP CKT 52/1H1D
SHEET 91
TRIP CKT 52/SWP1B
SHEET 82
TRIP CKT 52/SWP1D
SHEET 82
TRIP CKT 52/BT17-18
SHEET 63
SPARE
TRIP CKT 52/16 WITH
MASTER SI SIGNAL SH 6
SPARE
SI SEQUENCE
DWG 11DE059 SH4
TRIP 52/17SS
SH 29
ANN (L23)
SHEET 422
TRIP CKT 52/18
SHEET 68
DIESEL GEN START
ALCO DWG 5907S310620
TRIP CKT 52/MCC1G1
SHEET 99
TRIP CKT 52/FUT
SHEET 111
TRIP CKT 52/SWP1C
SHEET 81
TRIP CKT 52/SWP1A
SHEET 81
TRIP CKT 52/1H1C
SHEET 91
TRIP CKT 52/1H1A
SHEET 91
SPARE
TRIP CKT 52/14 WITH
MASTER SI SIGNAL SH 6
TRIP CKT 52/BT17-18
SHEET 63
SPARE
SI SEQUENCE
DWG 11DE059 SH4
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE NO. 499B425 SH 58
COMPUTER HALFSHELL 30 TERM J11, M11 CIR. A841
COMPUTER HALFSHELL 58 TERM J9, M9 CIR. A842
27BX1/17
27BX2/17
27BX3/17
27BX1/18
27BX2/18
27BX3/18
V.S.
CONTROL BOARD
RELAY ROOM
TO PT's SHT 55
125 VDC SOURCE
10A
UV1
UV2
27B
27BX
MG-6 24V
500Ω SETATR 315-2
DISCONNECTS
CV
ICS
CY-7 S1955332
V19
6A
74B
SHT 55 27/18
ORIGINAL
REV.
DRAWN BY
CK'D
RESP ENGR
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
UNDERVOLTAGE SCHEME BUS 17 & 18
DRAWN
TRACED
CHECKED
ENG.
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.



NOTES:
*-BT 14-13
1/*-SEE DEV SH.10
L= LEFT SECTION-MCB
R= RIGHT SECTION-MCB
SI18X, SI28X
DWG. 110E059 SH. 3

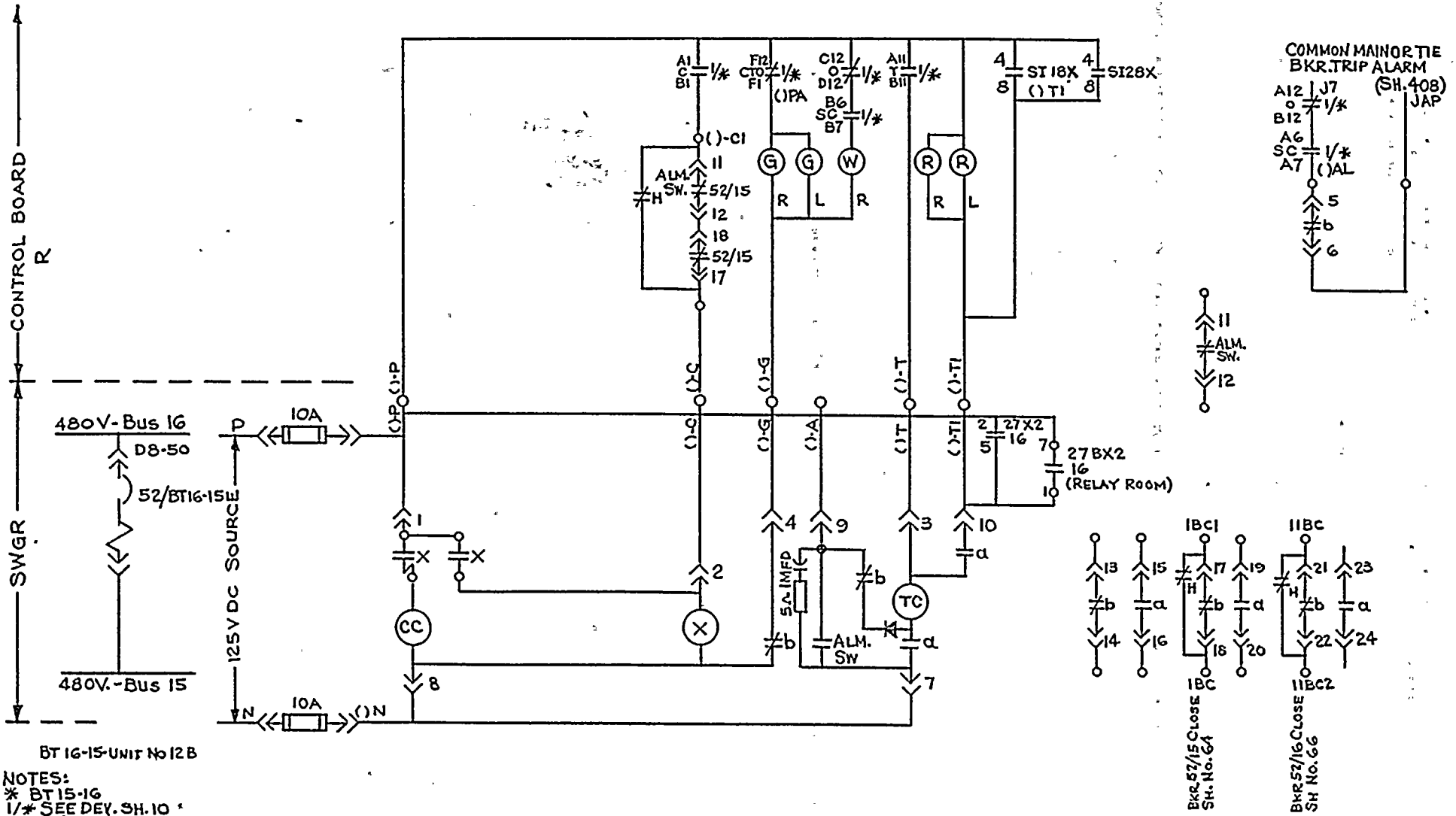
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-REV. 7 (SH. 60)

REV.						
ORIGINAL	EJSchutt	RHM 4/14/75	PCK	RLM	6/11/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10995-40

DRAWN EJSchutt 3/20/74 SCALE NONE
TRACED
CHECKED
ENG.
APPROVED
FOLDER NO.
JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
480V BUS TIE 14 TO 13



NOTES:
* BT 15-16
1/* SEE DEV. SH. 10 *
L- LEFT SECTION-MCB
R- RIGHT SECTION-MCB
SI18X, SI28X-DWG. 1110E059 SH. 3

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425, SHT. G1 (REV. 7)

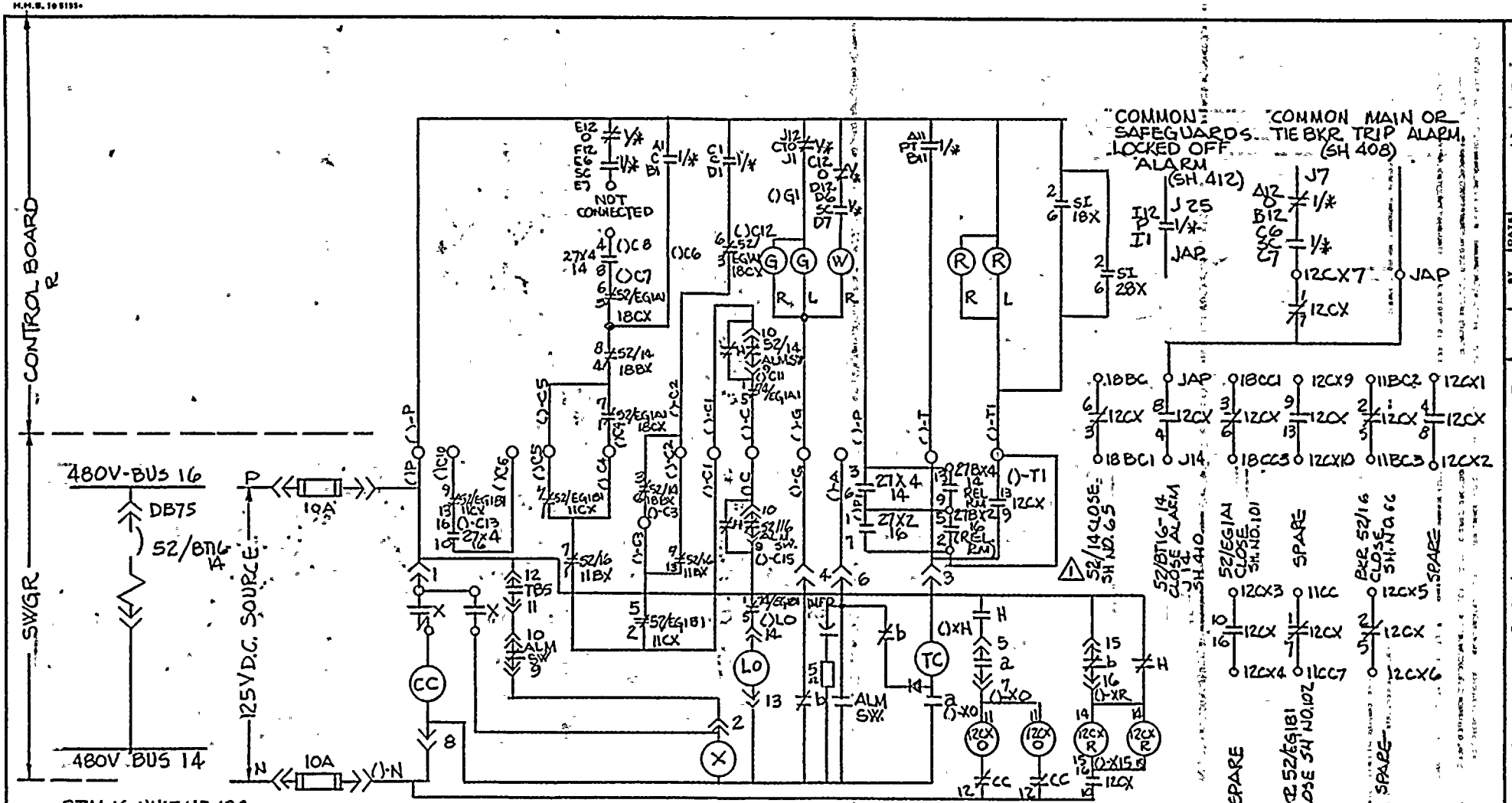
REV.						
ORIGINAL		E.J. Schatt	R.H.M. 4/14/75	PCN	Rcm	6/4/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM.
480V BUS TIE 16 TO 15

DRAWN E.J. Schatt 2/27/74 | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG'R | JOB NO.

No. 110E-41



NOTES:
*BT 16-14
TBS-TRIP BAR SW (OPER. BY LO)
Y*-SEE DEV. OH. 11, FIG 3, DETAIL H
L-LEFT SECTION MCB
R-RIGHT SECTION MCB
SI 18X, SI 28X - DWG 110E059 SH 3

REV.	⚠					
		RMW 7/6/76	DTH 7-9-76	RFA 1-11-77	JEB	7/24/72
ORIGINAL			RMW	RFA 4-5-76	JEB 4-8-76	11/25/75
		DRAWN BY	CK'D	REGR. ENG'R	ENGR. MGR.	DATE

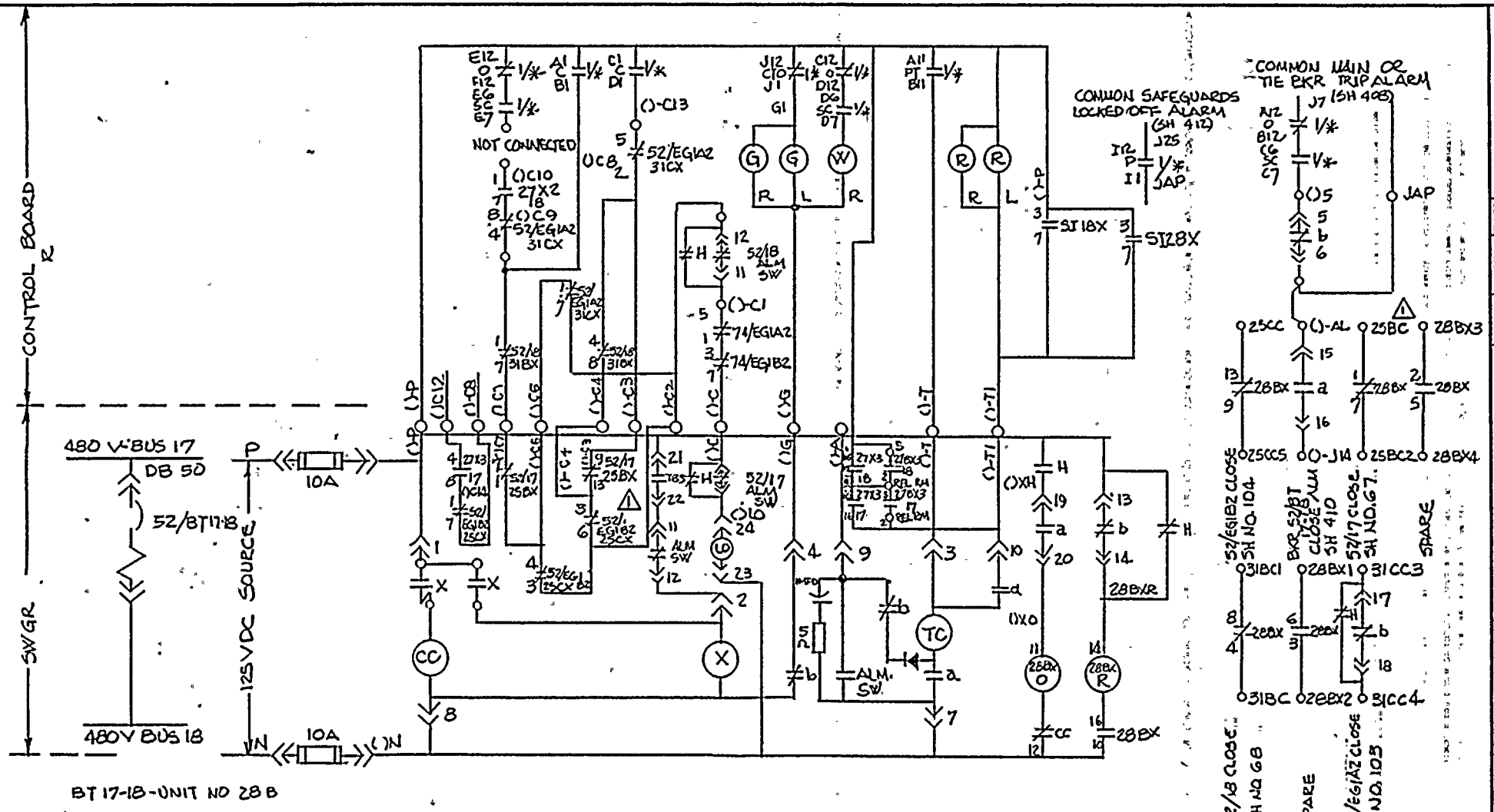
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO. 1
SECONDARY WIRING DIAGRAM
480 VOLT BUS TIE 16 TO 14

DRAWN | DATE | BY | SCALE NONE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.

NO. 10905-62 ⚠

NOTE: THIS DRAWING SUPERSEDES WESTING HOUSE DRAWING 499 B425 SH. 62



NOTE'S:
*BT 17-18
TBS-TRIP BAR SW. (OPERATED BY LO)
1/*- SEE DEV. SH 11, FIG. 3, DETAIL H
L - LEFT SECTION MCB
R - RIGHT SECTION MCB
SI18, SI28, DWG. 110E059 SH. 3

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH 63

REV.		DRAWN BY	CK'D	RESP ENG'R	ENG'R MGR	DATE
	1	PSW 7-9-76	DFH 7-9-76	RFA 7-12-76	RFA	7/26/76
ORIGINAL		GJF	RMW	RFA 4-5-76	RFA 4-5-76	12/15

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING
NO. 10905-63

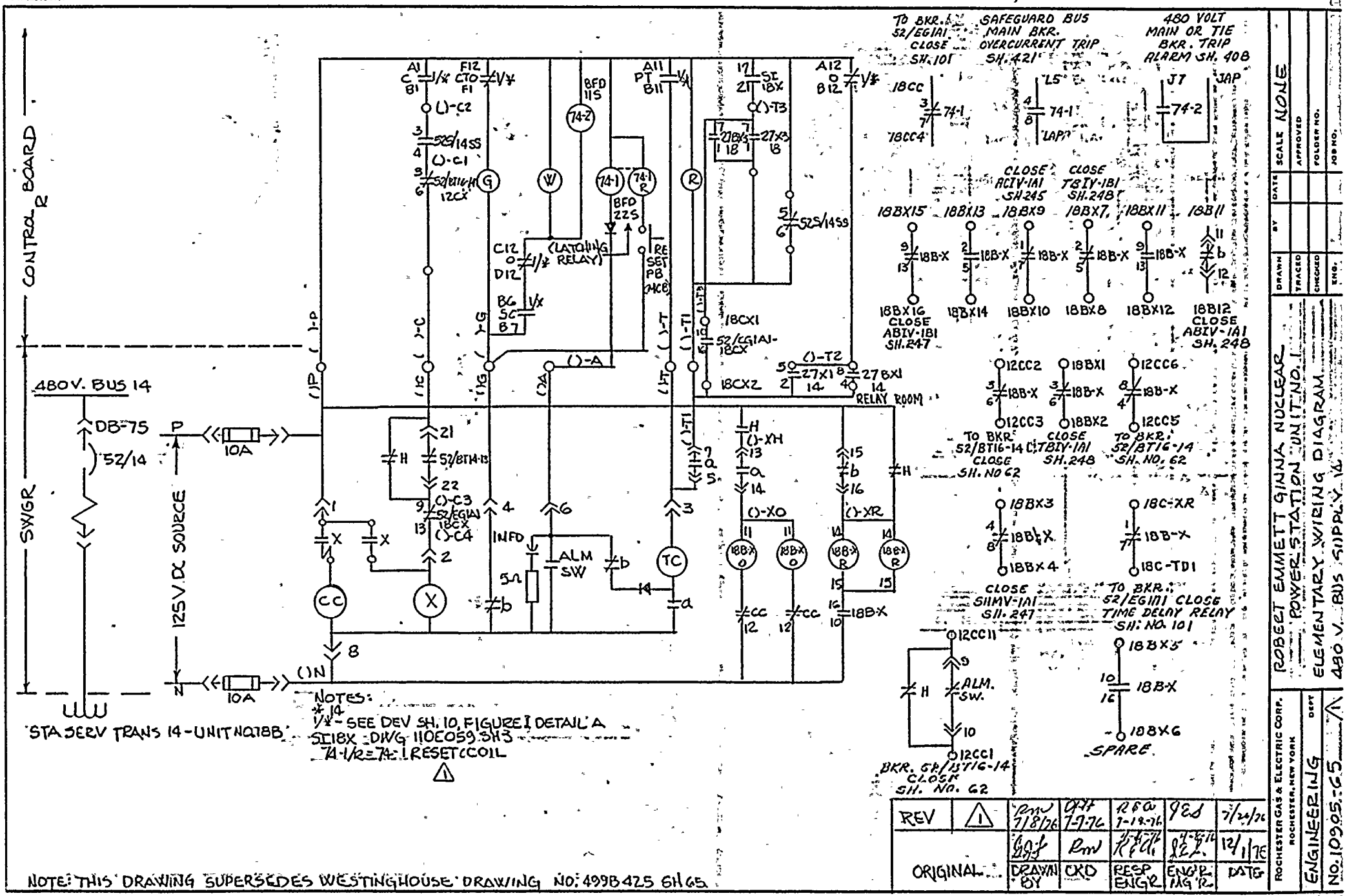
DRAWN | BY | DATE | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
480 V. BUS TIE 17 TO 18

NOTES:
*-13 OR 15
1/*-SEE DEV. SH.11, FIGURE 3, DETAIL H

REV.						
	Original	GSH drawn by	RW ck'd	RGG 4-8-76 eng'r	GFS engr mgr	4-8-76 date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM 480 V. BUS SUPPLY 13 & 15
DRAWN | BY | DATE | SCALE
TRACED | CHECKED | FOLDER NO.
ENG'R | JOB NO.
No. 10905-64



REV	1	RMW 7/18/76	GHF 7-9-76	RBA 7-19-76	PED	7/24/76
		GHF	RMW	RBA	PED	12/1/76
ORIGINAL...		DRAWN BY	CKD	RESP ENGR	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT ENGINEERING

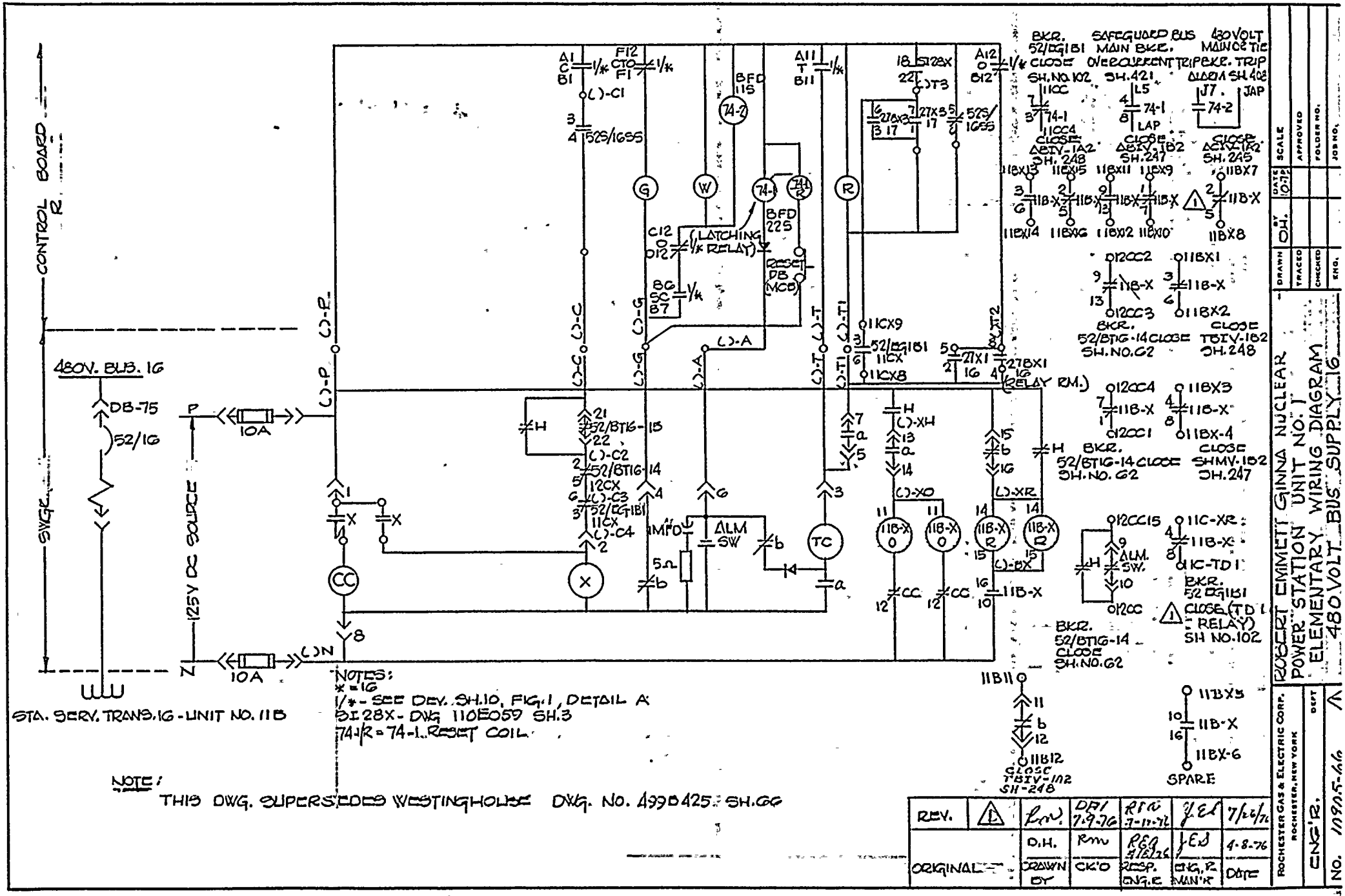
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

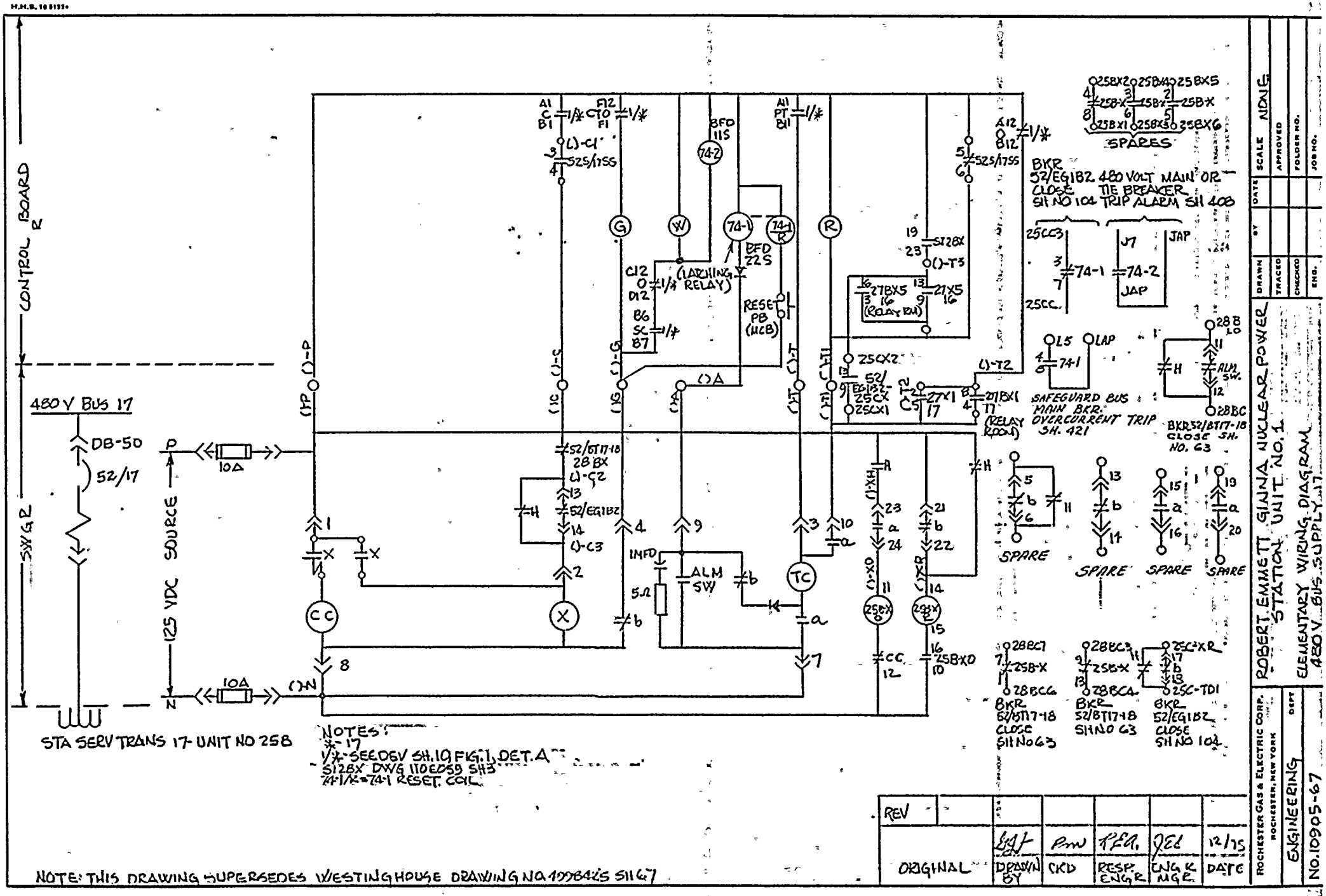
ELEMENTARY WIRING DIAGRAM 480 V. BUS SUPPLY 14

SCALE NONE | DRAWN | DATE | BY | APPROVED | TRACED | FOLDER NO. | CHECKED | JOB NO. | ENG.

NO. 10905-GS

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 6H65


CONTROL BOARD 2
480V. BUS 16
DB-75
52/16
SWGR.
125V DC SOURCE
10A
10A
STA. SERV. TRANS. 16 - UNIT NO. 11B
BKR. 52/BG1B1 MAIN BKR. CLOSE
SAFEGUARD BUS 480 VOLT MAIN & TIE OVERCURRENT TRIP
SH. NO. 102
SH. 421
SH. 402
74-1
74-2
LAP
CLOSE 52/BTIG-14 SH. NO. G2
CLOSE TBIV-1B2 SH. 248
CLOSE TBIV-1A2 SH. 247
CLOSE TBIV-1K2 SH. 245
BKR. 52/BTIG-14 CLOSE SH. NO. G2
CLOSE SHMV-1B2 SH. 247
BKR. 52/BG1B1 CLOSE (TD RELAY) SH NO. 102
BKR. 52/BTIG-14 CLOSE SH. NO. G2
CLOSE TBIV-1N2 SH-248
SPARE
(LATCHING RELAY)
RESET DB (MCO)
BFD 225
BFD 115
ALM SW
MFO
TC
(RELAY RM.)
NOTES:
* = 16
1/* - SEE DEV. SH. 10, FIG. 1, DETAIL A
SI 28X - DWG 110E059 SH. 3
74-1/R = 74-1 RESET COIL
NOTE:
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. NO. 499B425 SH. GG
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
480 VOLT BUS SUPPLY 16
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENG'R.
DEPT
DRAWN
TRACED
CHECKED
ENG.
DATE 10-72
BY D.H.
SCALE
APPROVED
FOLDER NO.
JOB NO.
NO. 1190E-66
REV. 1
ORIGINAL
D.H. DRAWN BY
RMW CK'D
RFA 3-11-76 RESP. ENG'R
YES ENG'R MAN'R
7/26/76 DATE
4-8-76



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 1998425 S11467

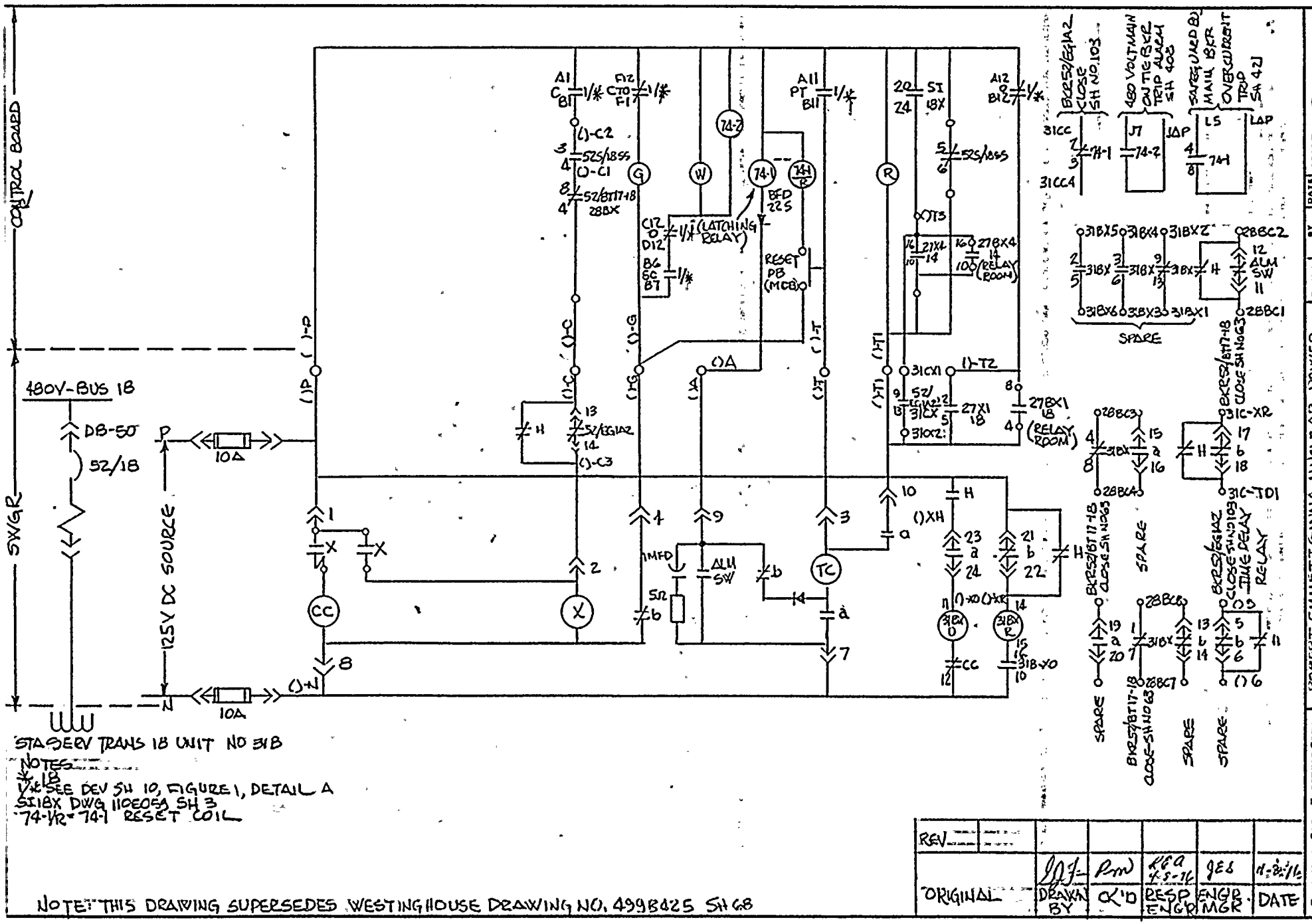
REV						
ORIGINAL		BAT	PMW	RFA	JEL	12/15
		DRAWN BY	CKD	RESP. ENGR	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT ENGINEERING — NO. 10905-67

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

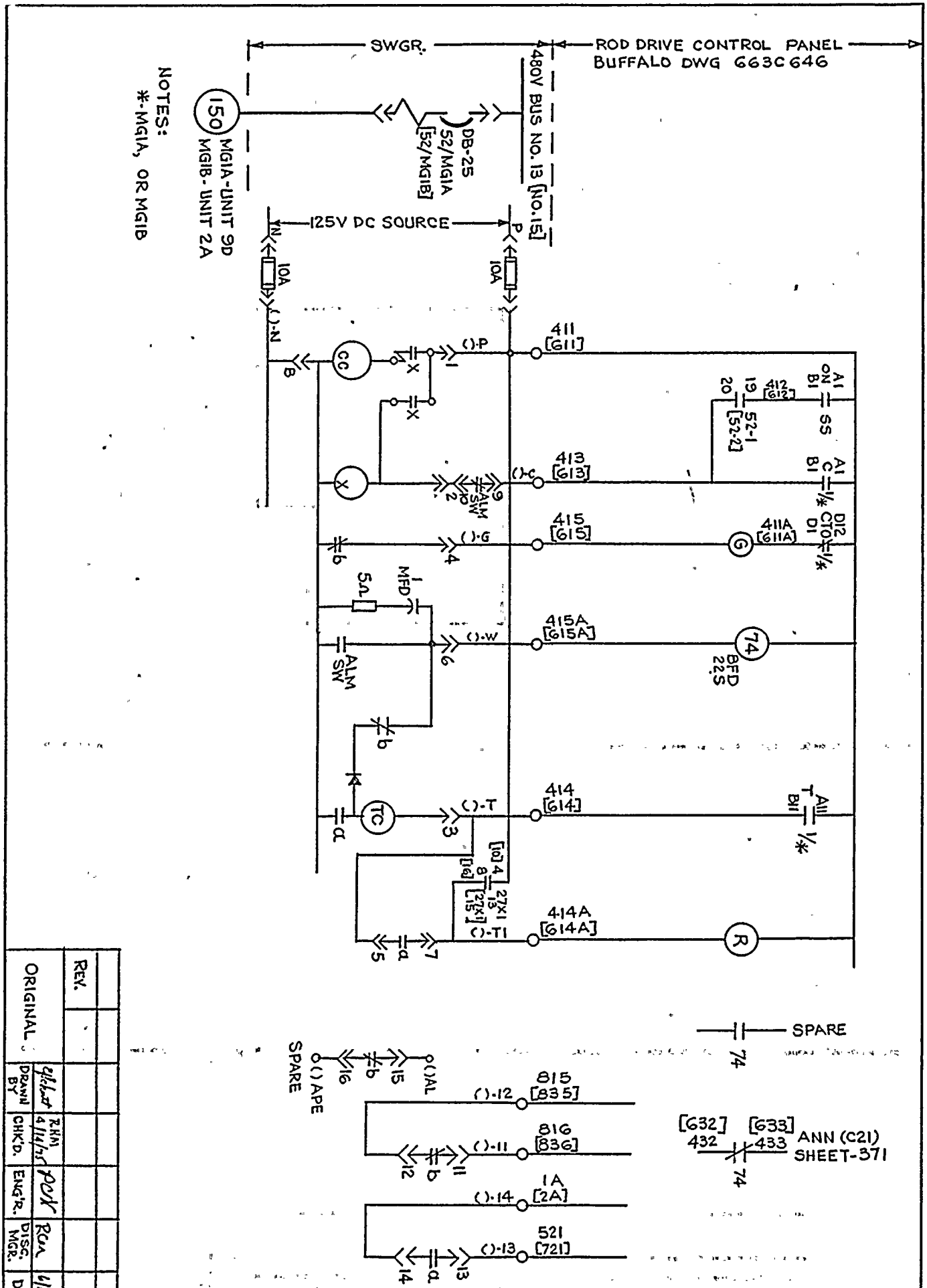
ELEMENTARY WIRING DIAGRAM 480 V. BUS SUPPLY

DRAWN | BY | DATE | SCALE NONE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.



NOTES:
1* SEE DEV SH 10, FIGURE 1, DETAIL A
SI1BX DWG 1106E05A SH 3
74-1/R - 74-1 RESET COIL

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH 68

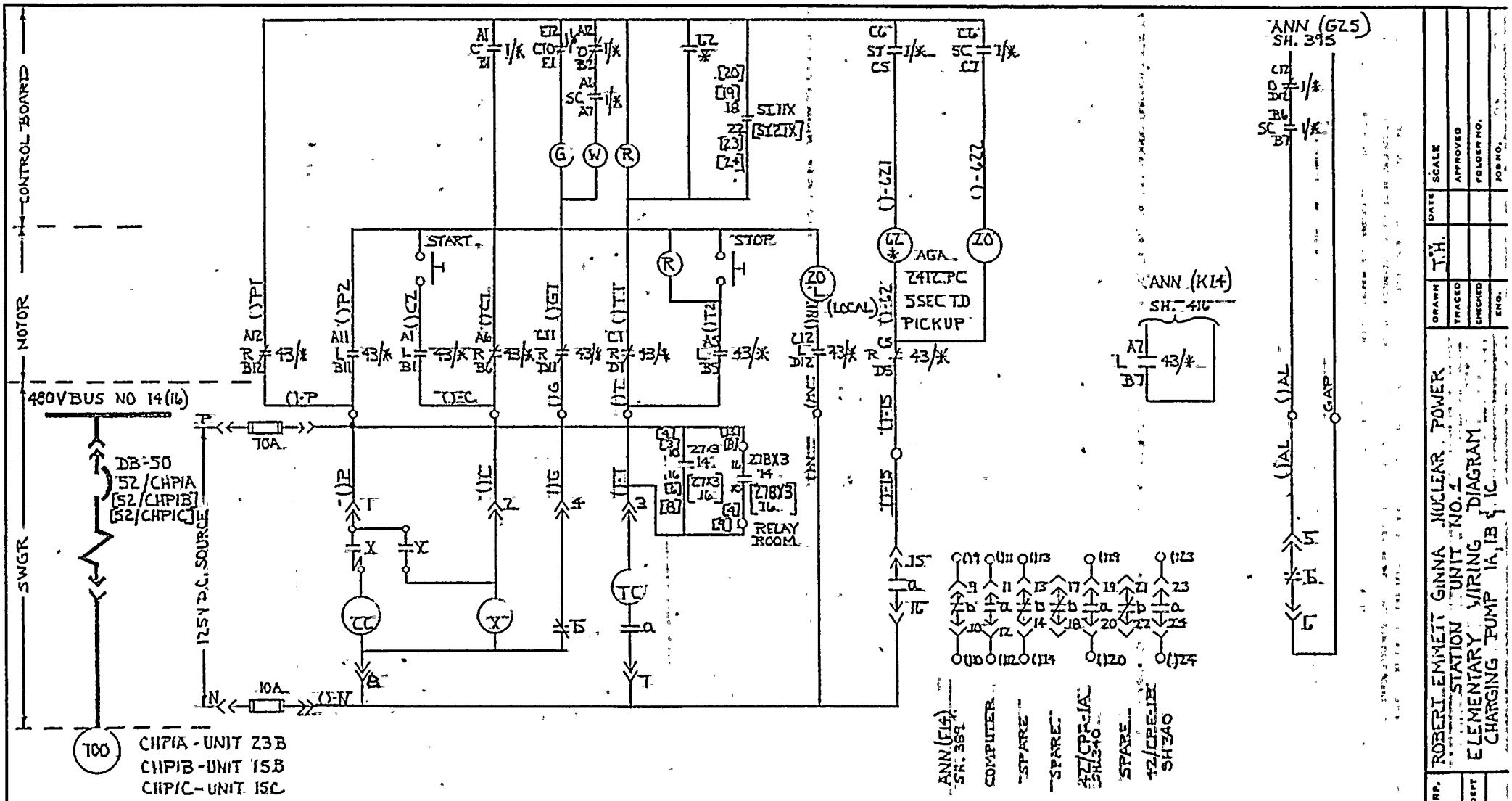


NOTES:
*-MG1A, OR MG1B

ORIGINAL	REV.		
DRAWN BY	Gilbert		
CHK'D.	RMN 4/14/75		
ENG'R.	POK		
DISC. MGR.	RCA		
DATE	4/14/75		

THIS DWG SUPERCEDES WESTINGHOUSE DWG. 499B425 (REV. 6) SH. 10

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1	DRAWN	SCALE NONE
ENGINEERING DEPT		TRACED	APPROVED
NO. 10905-70	ROD DRIVE MOTOR GEN SET 1A & 1B	CHECKED	FOLDER NO.
		ENG.	JOB NO.



NOTES:

*-CHP1A, CHP1B, OR CHP1C

43/* SEE DEV. SHEET 11, FIG. 7, DETAIL E

1/* SEE DEV. SHEET 10, FIG. 1, DETAIL C

S11IX, S12IX DWG. 1106059, SH. 3

20L-SOL. VALVE FOR LOCAL SPEED CONTROL

THIS DWG SUPERCEDES WESTINGHOUSE DWG. NO. 499B425, SHEET 71

REV						
ORIGICNAL	J.F.H		REG 4-8-76	928	4-8-76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

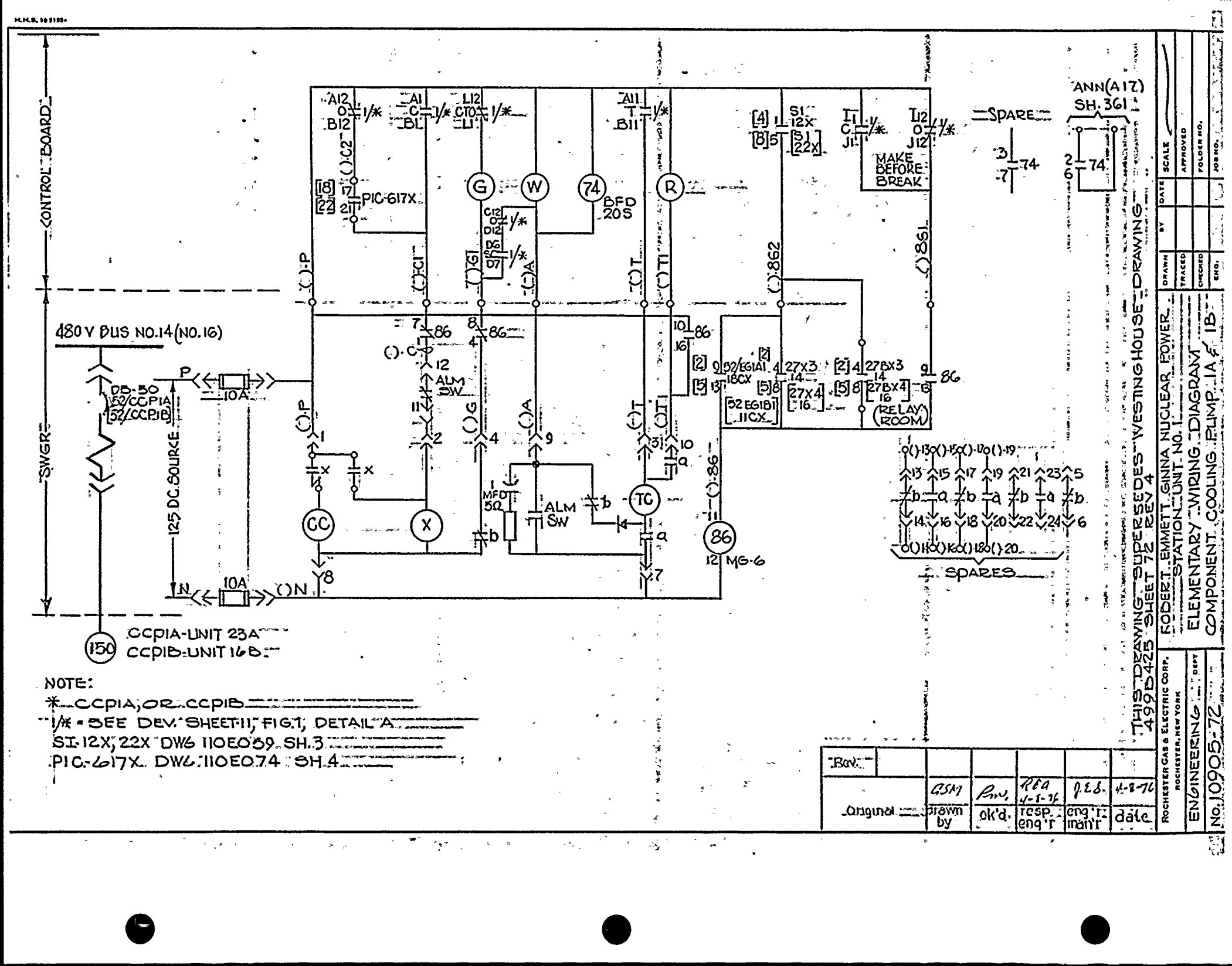
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

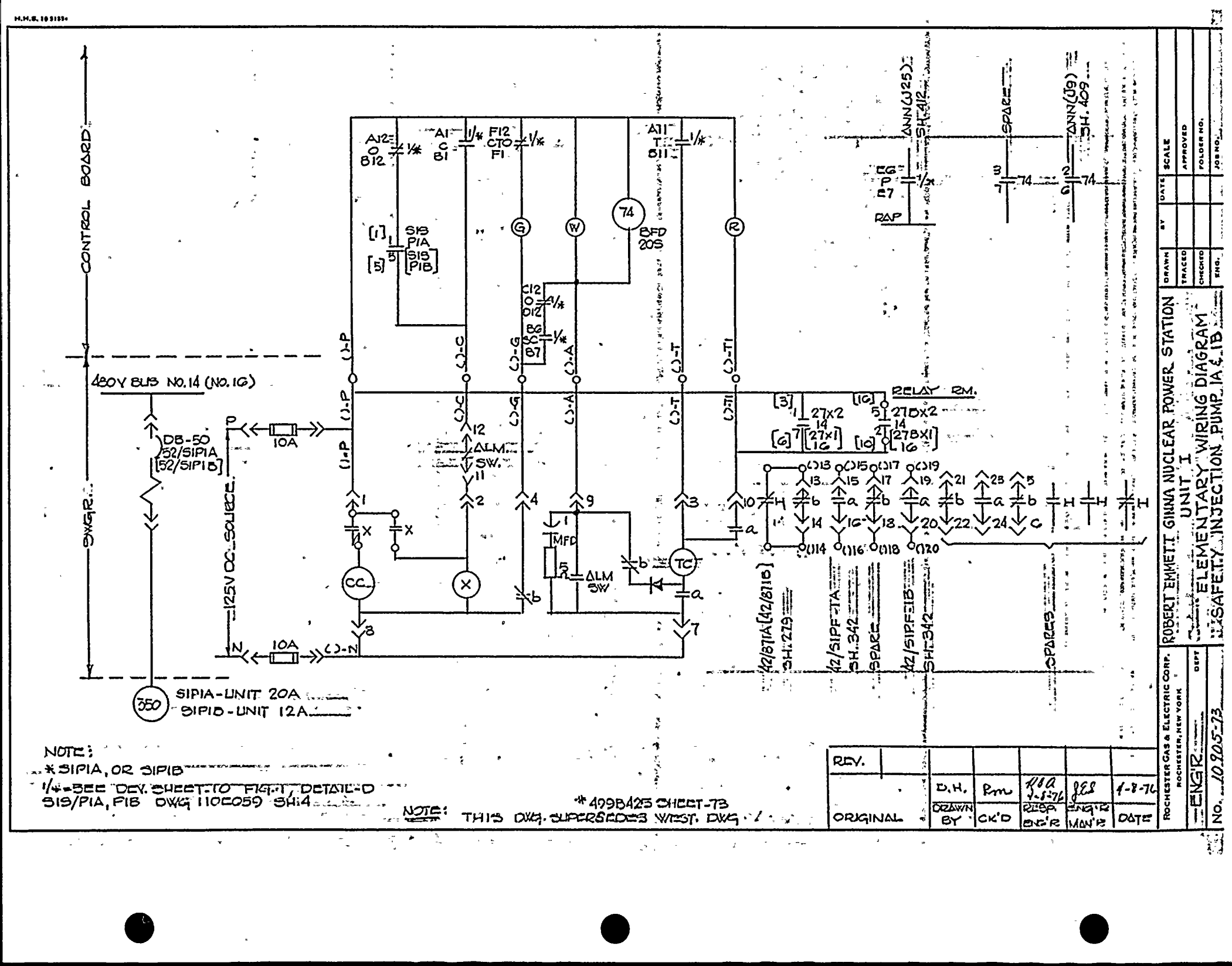
ELEMENTARY WIRING DIAGRAM

CHARGING PUMP 1A, 1B & 1C

DRAWN T.Y.H. | TRACED | CHECKED | ENG. | DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.

No. 10905-71


CONTROL BOARD
SWGR
480 V BUS NO.14 (NO.16)
DB-50
52/CCP1A
52/CCP1B
125 DC SOURCE
10A
P
N
150
CCP1A-UNIT 23A
CCP1B-UNIT 16B
A12
B12
A1
B1
L12
L1
A11
B11
PIC-617X
BFD 20S
MFD 50
ALM SW
CC
X
TC
86
12 MG-6
S1 12X
S1 22X
I1
J1
I2
J2
MAKE BEFORE BREAK
SPARE
ANN(A17) SH. 361
52 EG1A1 18CX
52 EG1B1 11CX
27X3
27X4
27BX3
27BX4
RELAY ROOM
SPARES
NOTE:
* CCP1A, OR CCP1B
1/* - SEE DEV. SHEET 11, FIG. 1, DETAIL A
S1 12X, 22X DWG 110E059 SH. 3
PIC-617X DWG 110E074 SH. 4
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499D425 SHEET 72 REV 4
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
COMPONENT COOLING PUMP 1A & 1B
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-72
Original
GSM
drawn by
P.W.
ok'd.
REA 4-5-76
resp. eng'r
Q.E.B.
eng'r in mgr
4-8-76
date
DRAWN
TRACED
CHECKED
ENG.
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.



NOTE:
*SIPIA, OR SIPIB
1/4-SEE DEV. SHEET-10 FIG-1, DETAIL-D
SIB/PIA, PIB DWG 1100059 SH.4

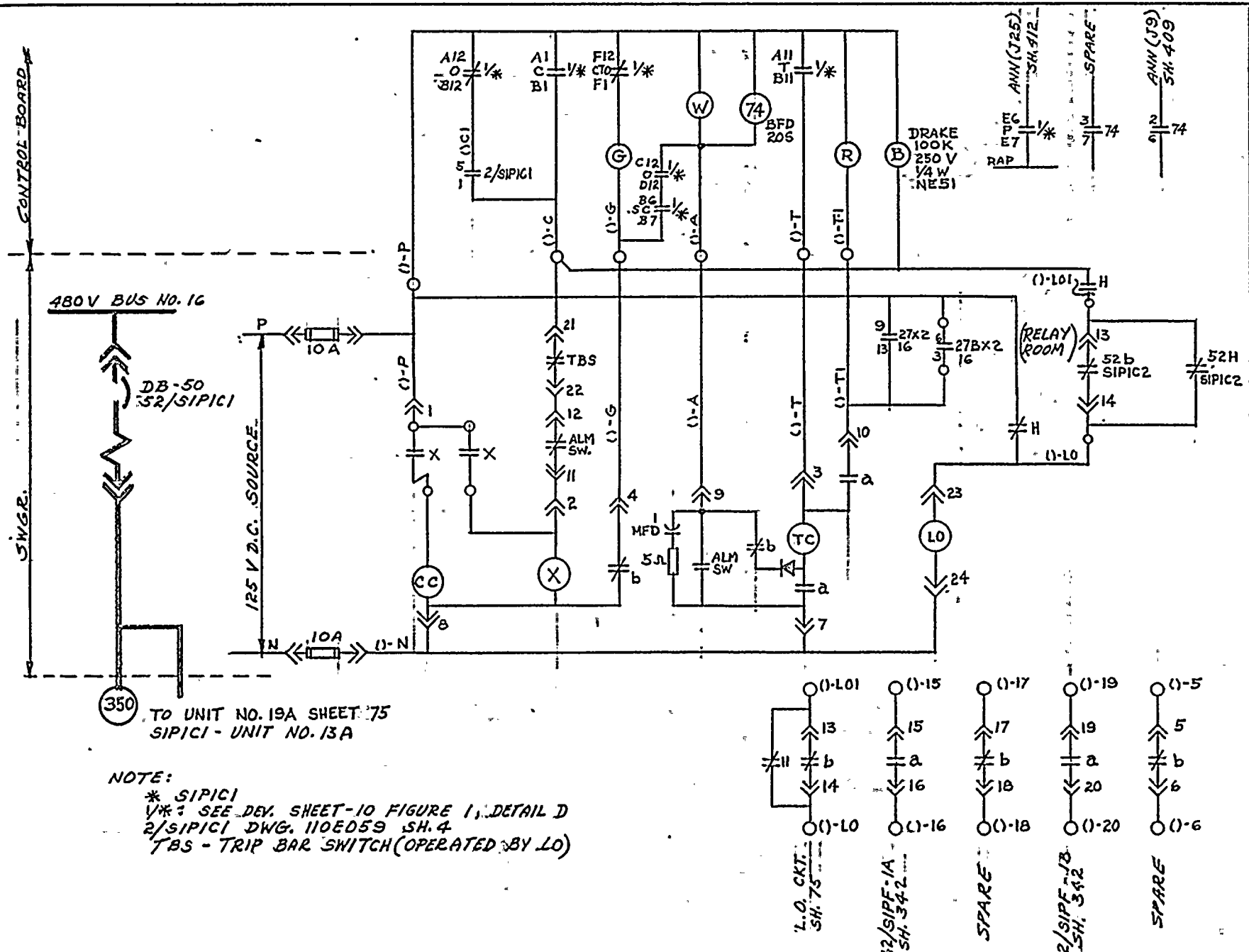
NOTE: THIS DWG. SUPERSEDES WEST. DWG. *4098425 SHEET-73

REV.						
ORIGINAL	D.H. DRAWN BY	PMW CK'D	HBA 7-5-74 RESP. ENG'R	JES ENG'R MAN'R	1-8-74 DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT. ENGR
NO. 10205-23

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT I
ELEMENTARY WIRING DIAGRAM
SAFETY INJECTION PUMP 1A & 1B

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:
* SIPIC1
V*: SEE DEV. SHEET-10 FIGURE 1, DETAIL D
2/SIPIC1 DWG. 1106059 SH. 4
TBS - TRIP BAR SWITCH (OPERATED BY LO)

REV.		DRAWN	N.T.A.	DATE	4-1-74
		TRACED		SCALE	~
		CHECKED		APPROVED	
ORIGINAL	N.T.A. RMV	ENG.		FOLDER NO.	
	DESIGN BY	CK'D.	RBA	RESP. ENGR.	GEL
				ENGR. MGR.	
				DATE	
				JOB NO.	

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 4998425 SH. 74

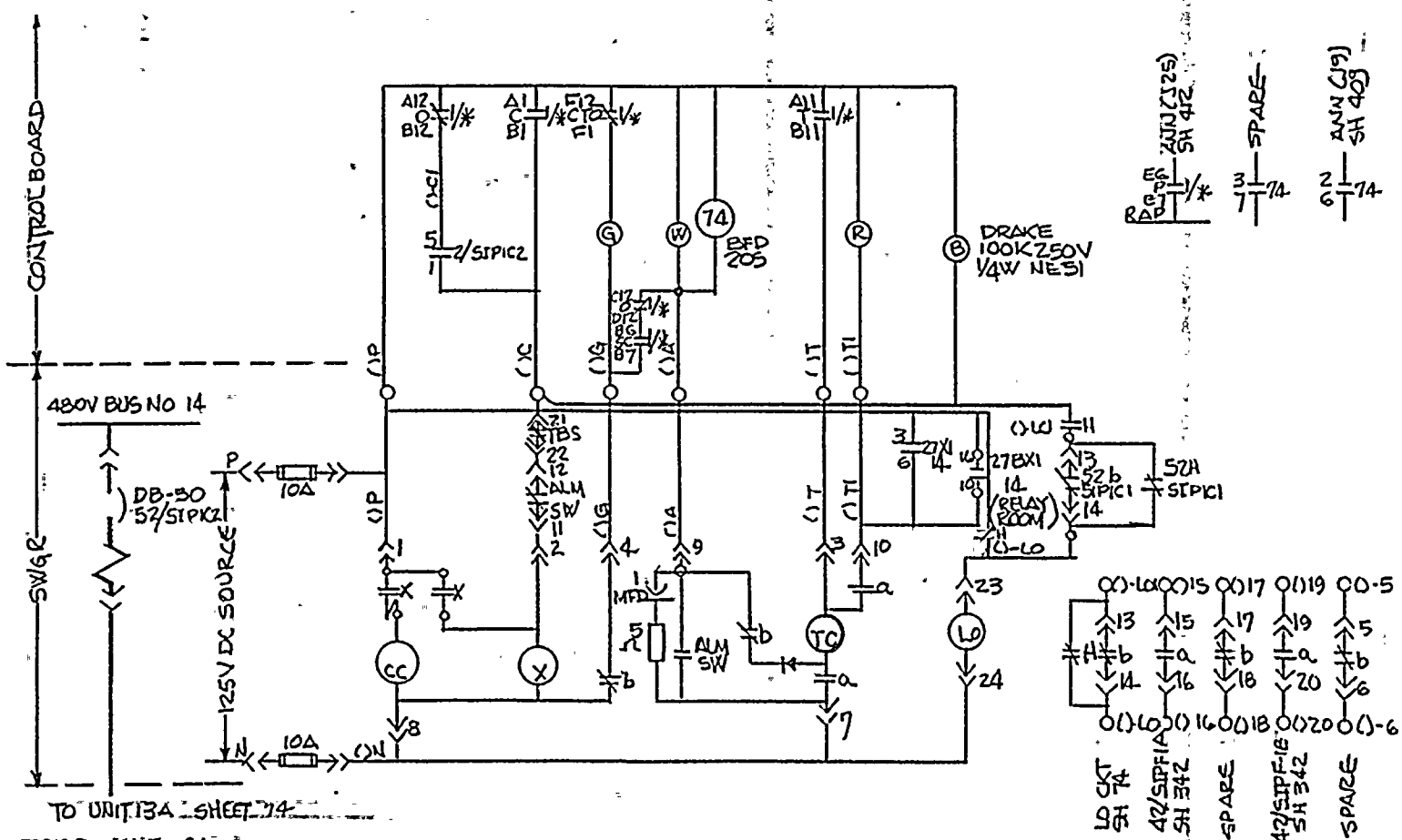
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1

ELEMENTARY WIRING DIAGRAM
SAFETY INJECTION PUMP 1C1

NO. 10005-74



NOTE:
*-SIPIC2
1/*-SEE DEV SHEET 10, FIGURE 1, DETAIL D
2/SIPIC2 DWG 11OE059 SH 4
TBS-TRIP BAR SWITCH (OPERATED BY LO)

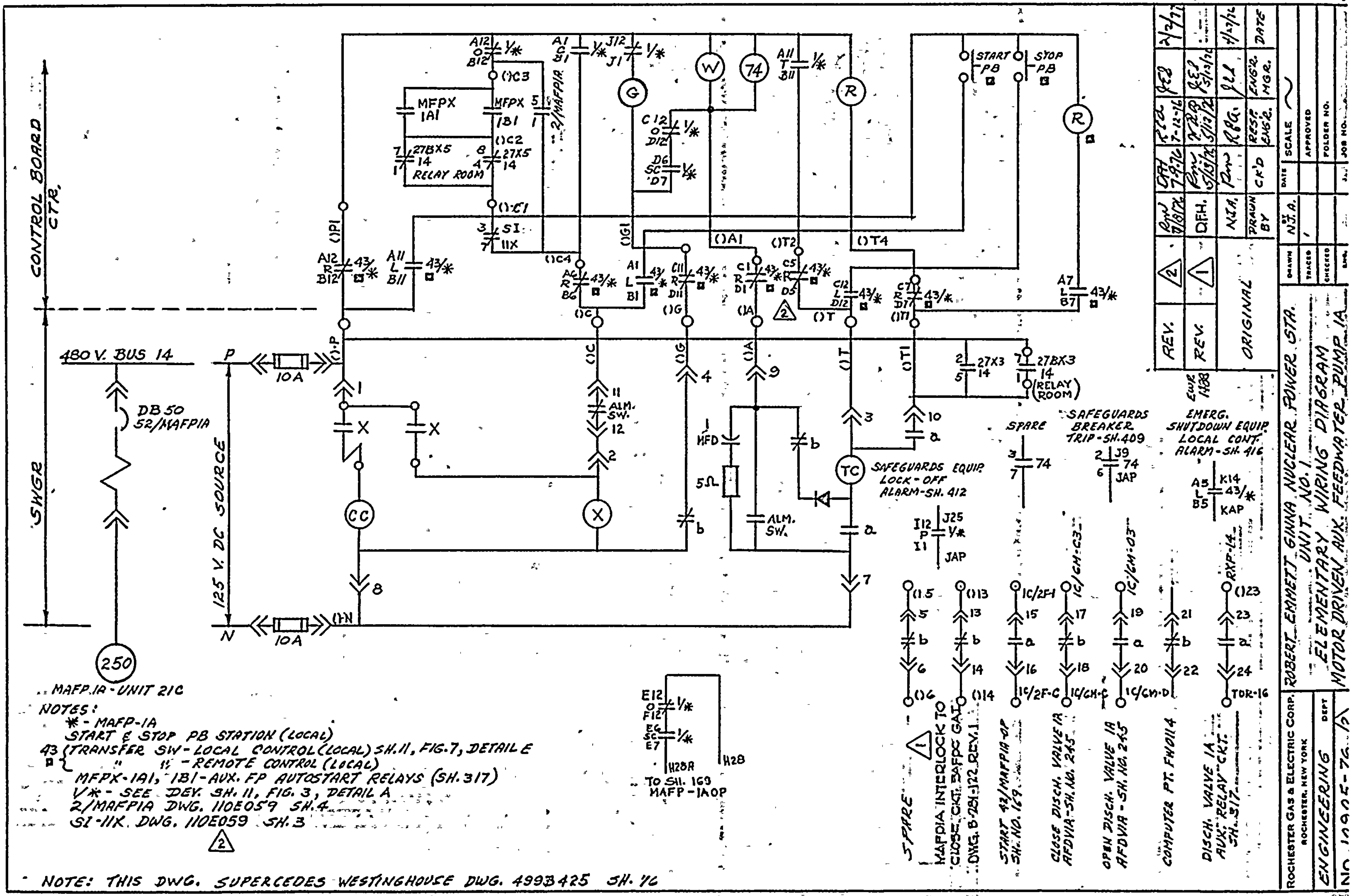
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 498B425 SH 175.

REV						
ORIGINAL		DRAWN BY	CK'D	RESP. ENGR	ENGR MGR	DATE
				4-8-76		4-8-76

DRAWN | BY | DATE | SCALE NONE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENGR. | | | JOB NO.

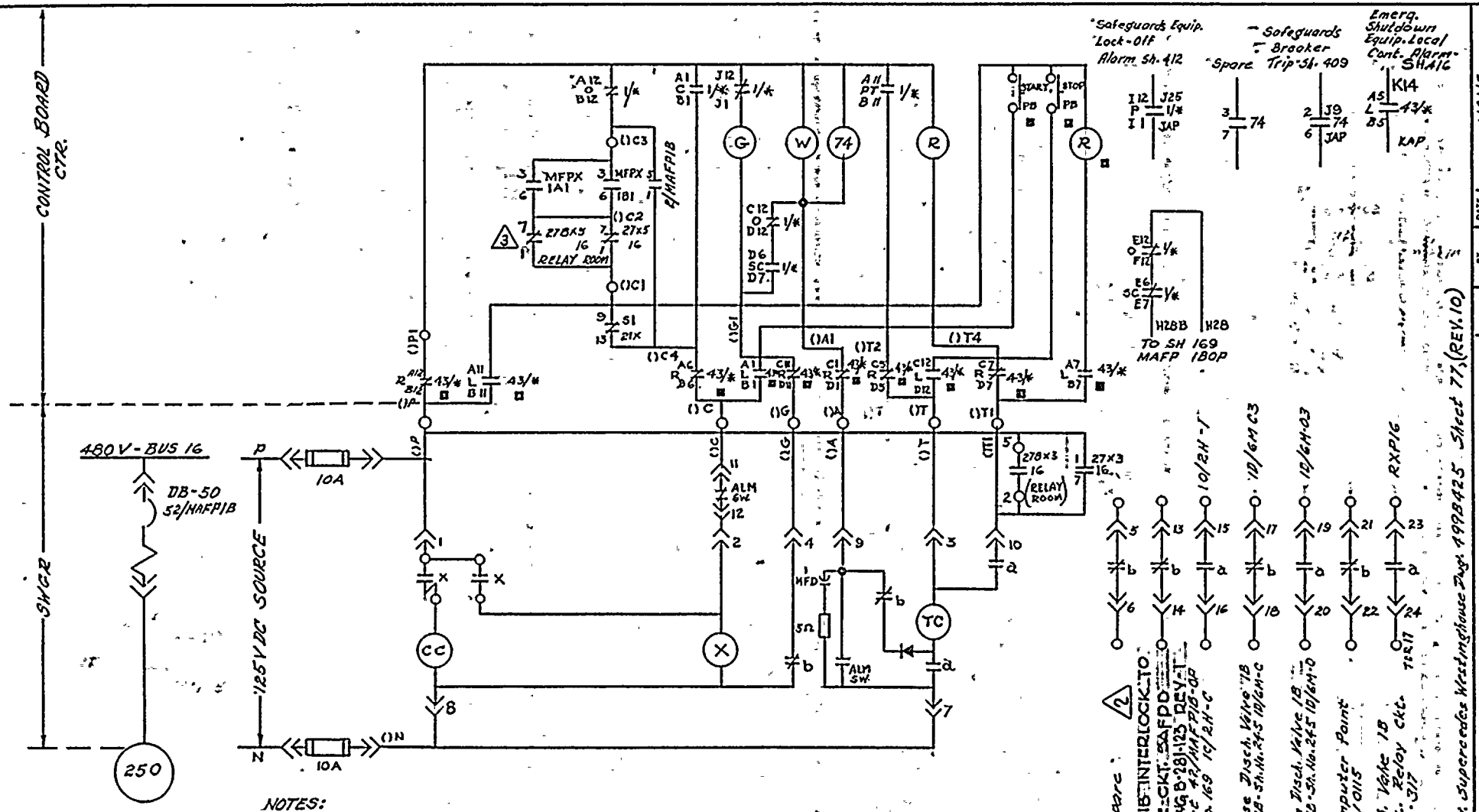
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING
NO. 10905-75

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM SAFETY INJECTION PUMP 1C2



NOTES:
* - MAFP-1A
START & STOP PB STATION (LOCAL)
43 {TRANSFER SW - LOCAL CONTROL (LOCAL) SH. 11, FIG. 7, DETAIL E
" " - REMOTE CONTROL (LOCAL)
MFPX-1A1, 1B1 - AUX. FP AUTOSTART RELAYS (SH. 317)
V* - SEE DEV. SH. 11, FIG. 3, DETAIL A
2/MAFP1A DWG. 110E059 SH. 4
SI-11X DWG. 110E059 SH. 3

NOTE: THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 4993425 SH. 16



REV.						
	3	Rm 7/8/76	ORH 7-9-76	R&a 7-12-76	GEL	7/14/76
EWR 1488	2	D.F.H.	Rm 6/13/76	W.R.D. 5/13/76	JEL 5/13/76	" "
	1	G.J.E.	Rm 5/15/76	R&a 4-5-76	GEL	4-8-76
ORIGINAL		N.J.A.	RHM 4/14/75	ACK	RCM	6/4/75
		DRAWN BY	CK'D	RESP. ENG'R.	ENG'R. MGR.	DATE

This Dwg. Supercedes Westinghouse Dwg. 4998425 Sheet 77 (REV. 10)

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT
ELEMENTARY WIRING DIAGRAM
MOTOR DRIVEN AUX.-FEEDWATER PUMP 1B

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING

DRAWN | K.J.A. | DATE 6/74 | SCALE NONE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.

NO. 1005E-77A

NOTE:
*-RHRPIA, OR RHRPIB
1/* - SEE DEV SHEET-10, FIG 1, DETAIL D
2/RHRPIA 2/RHRPIB DWG 11DE059 SH 4

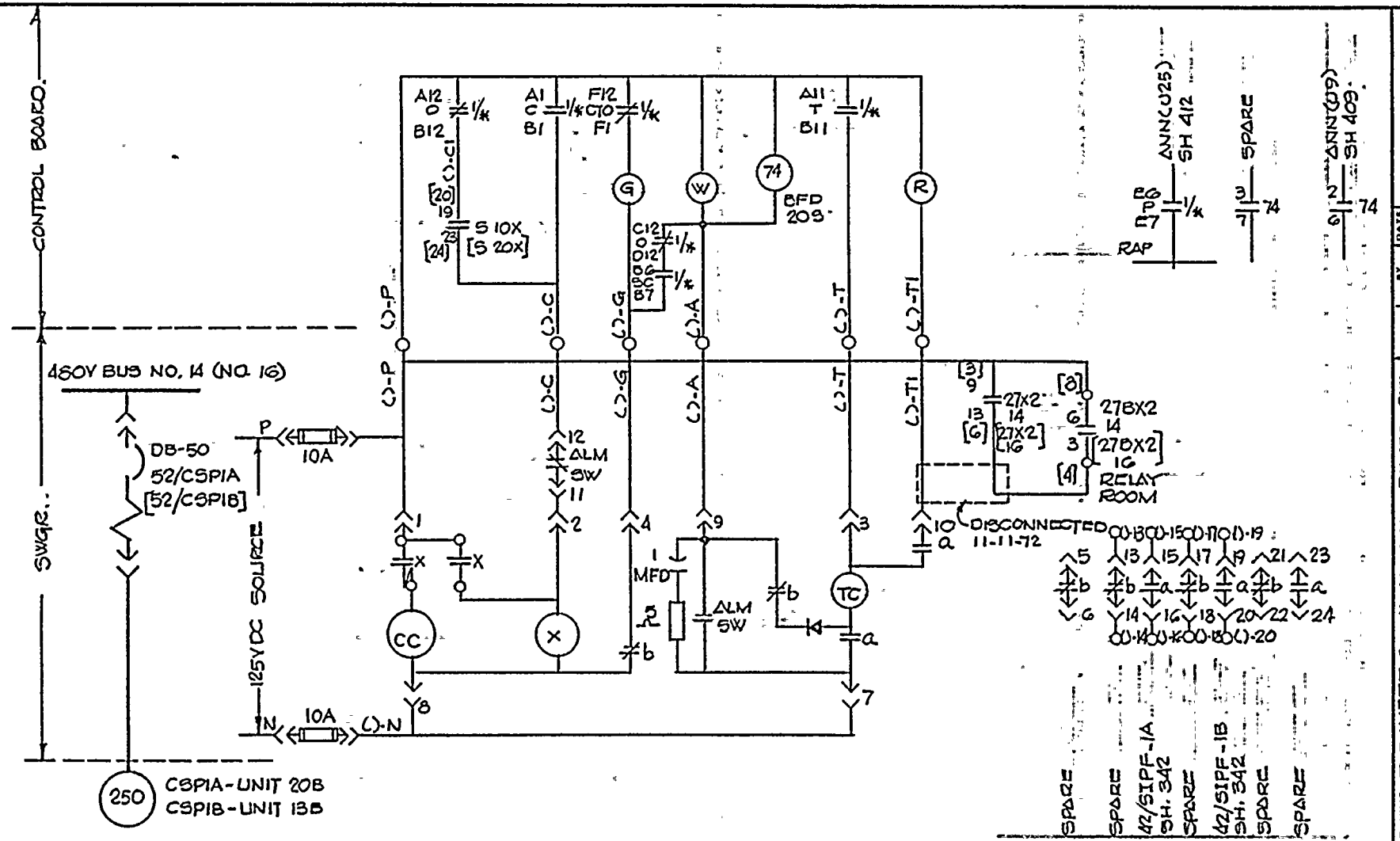
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH 78

REV.	⚠	RM 7/8/76	DTH 7-9-76	RFA 7-13-74	GES	7/16/76
ORIGINAL		GJF	RW	RAD 7-15-74	GEL	11-8-74
		DRAWN BY	CK'D	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905 SH 78 ⚠

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
RESIDUAL HEAT REMOVAL PUMP 1A & 1B

DRAWN GJF DATE
TRACED
CHECKED
ENG.
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.



NOTE:

*-CSP1A OR CSP1B

1/4 - SEE DEV. SHEET 10 FIG. 1, DETAIL-D

S10X, S20X DWG 1105059 SH.5

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. NO. 4995425 SH. 79

REV.						
ORIGINAL	AJV II	RW	RFG 4-5-74	JEG	4-8-74
	DRAWN BY	CK'D	RECOM. ENG'R.	ENG'R MAN'R	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

No. 1090.5-79

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1

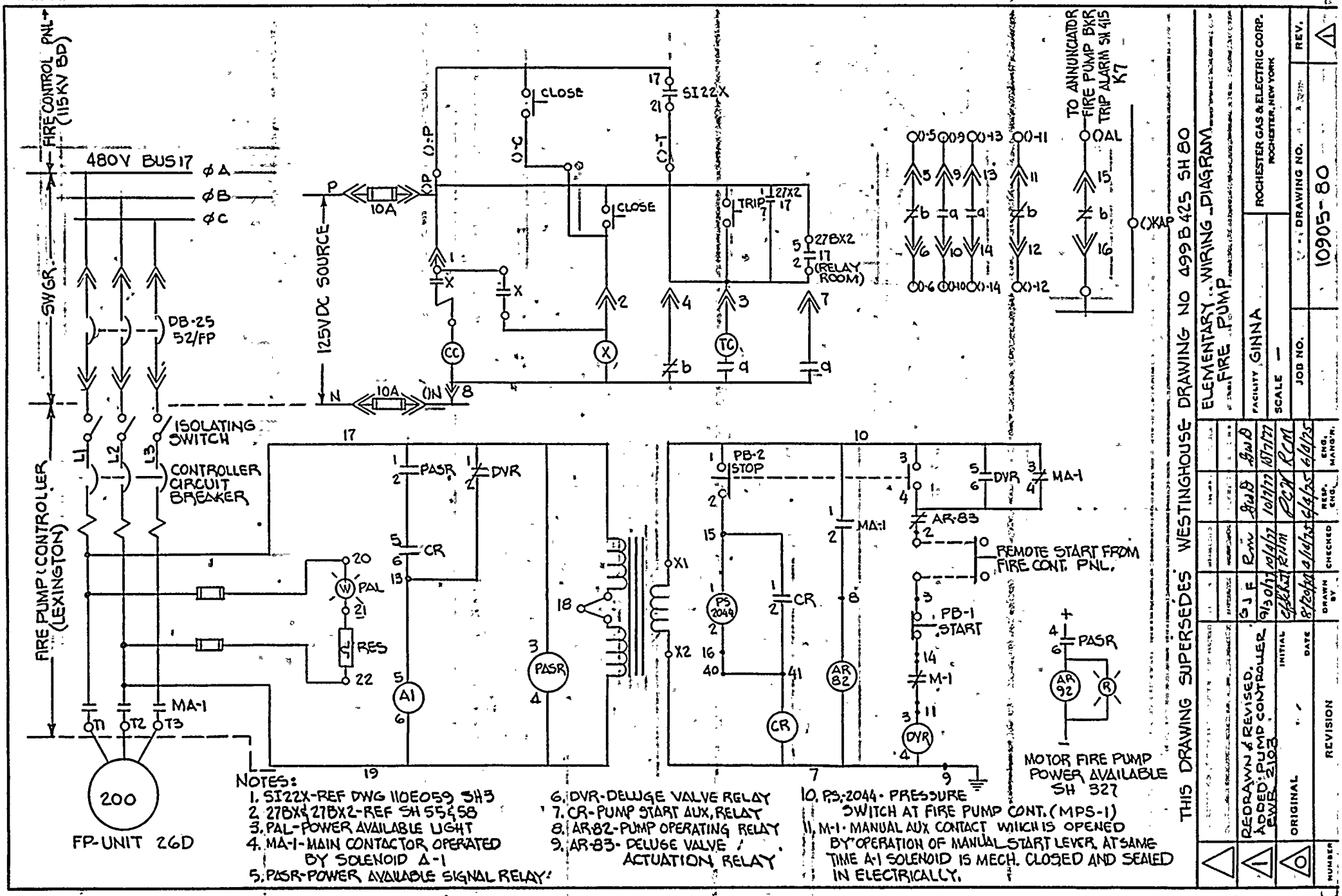
ELEMENTARY WIRING DIAGRAM CONTAINMENT SPRAY PUMP 1A & 1B

DRAWN DH. DATE 10-74 SCALE

TRACED APPROVED

CHECKED FOLDER NO.

ENG. JOB NO.



NOTES:
1. SI22X-REF DWG 110E059 SH3
2. 27BX & 27BX2-REF SH 55 & 58
3. PAL-POWER AVAILABLE LIGHT
4. MA-1-MAIN CONTACTOR OPERATED BY SOLENOID A-1
5. PASR-POWER AVAILABLE SIGNAL RELAY
6. DVR-DELUGE VALVE RELAY
7. CR-PUMP START AUX. RELAY
8. AR-82-PUMP OPERATING RELAY
9. AR-83-DELUGE VALVE ACTUATION RELAY
10. PS-2044-PRESSURE SWITCH AT FIRE PUMP CONT. (MPS-1)
11. M-1-MANUAL AUX CONTACT WHICH IS OPENED BY OPERATION OF MANUAL START LEVER AT SAME TIME A-1 SOLENOID IS MECH. CLOSED AND SEALED IN ELECTRICALLY.

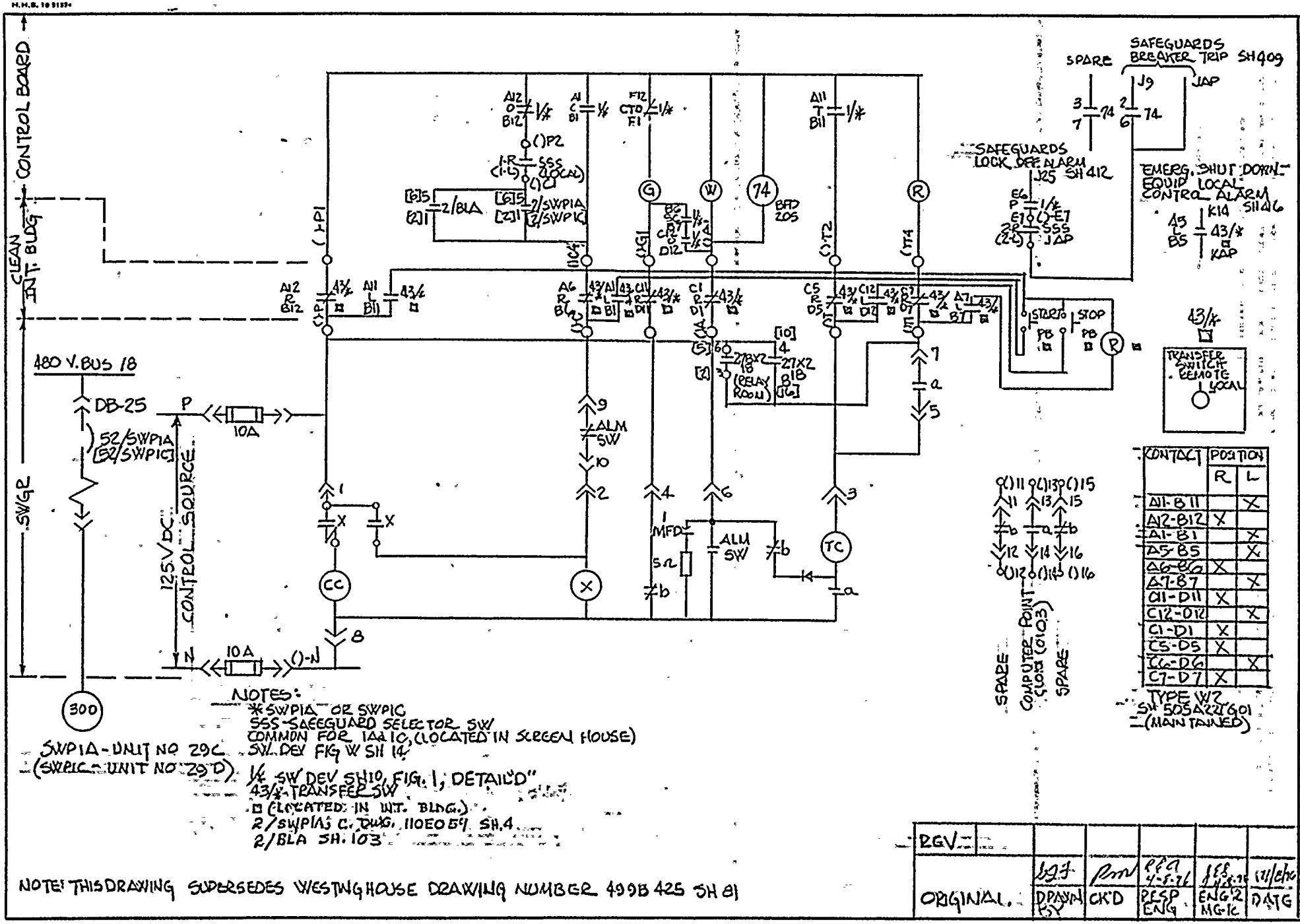
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 499B425 SH 80

ELEMENTARY - WIRING DIAGRAM
FIRE PUMP

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA
SCALE —
JOB NO.
DRAWING NO. 10905-80

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
1	REDRAWN & REVISED. ADDED: PUMP CONTROLLER EWR 2103	EWR	9/30/77	SJF	RMW	RCM	RCM
0	ORIGINAL		8/26/76				



NOTES:
* SWPIA OR SWPIC
SSS-SAFEGUARD SELECTOR SW COMMON FOR 1A & 1C, (LOCATED IN SCREEN HOUSE)
SWPIA - UNIT NO 29C SW. DEV FIG W SH 14
(SWPIC - UNIT NO 29D) 1/4 SW DEV SH 10, FIG. 1, DETAIL "D"
43/* TRANSFER SW
□ (LOCATED IN WT. BLDG.)
2/SWPIA & C. DWG. 1106E054 SH. 4
2/BLA SH. 103

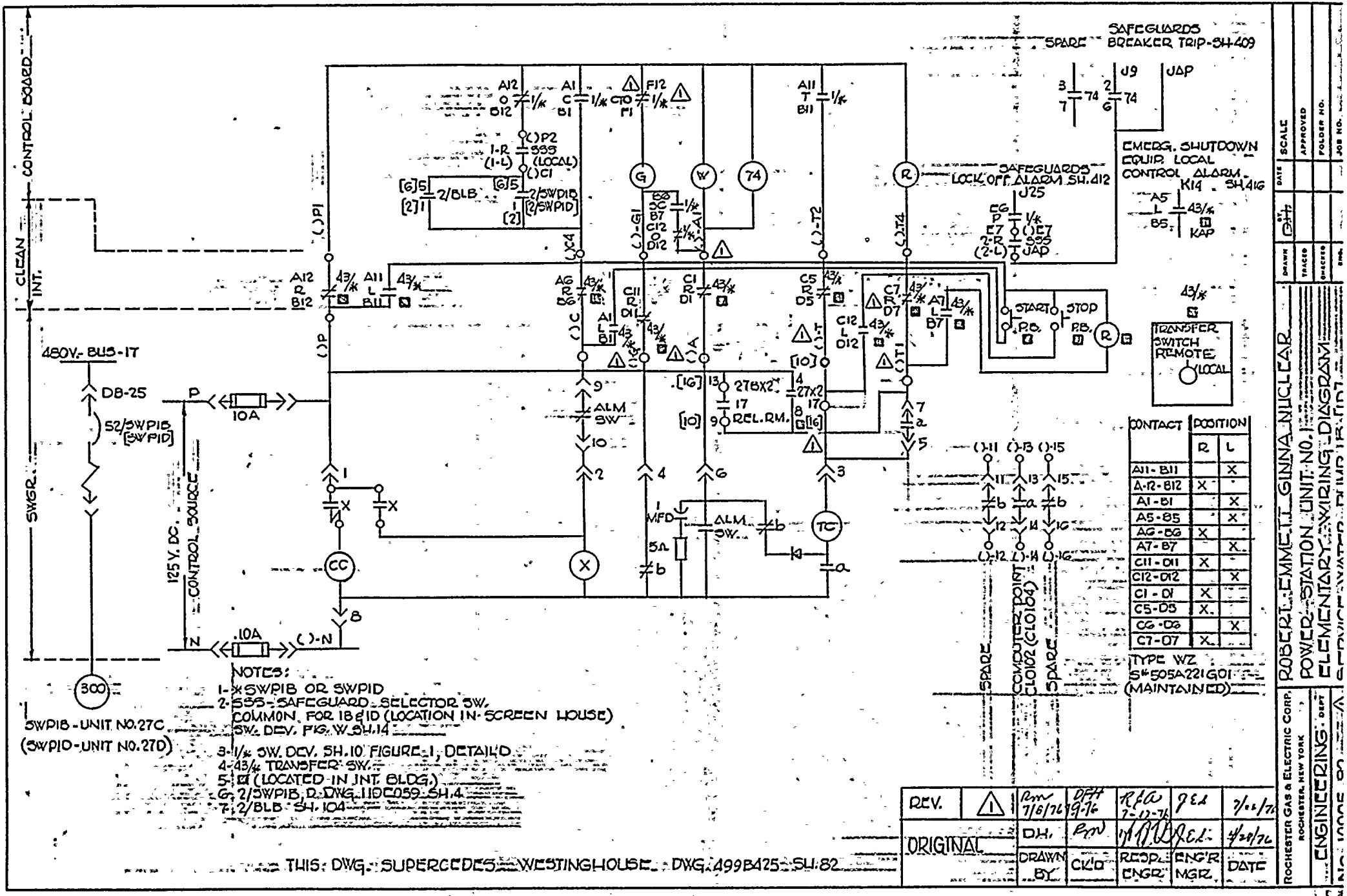
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B 425 SH 81

REV.						
ORIGINAL.	DRAWN BY	CK'D	RESP ENG	ENG'R MG-IC	DATE
	bgf	Rm	RCA 4-5-76	JEE 4/6/76	12/6/76

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING NO. 10905-81

EBERT, EMMETT, GINNA NUCLEAR POWER STATION UNIT NO 1
ELEMENTARY WIRING DIAGRAM SERVICE WATER PUMP 1A (1C)

DRAWN | BY | DATE | SCALE 2"
TRACED | CHECKED | APPROVED
ENG. | FOLDER NO. | JOB NO.



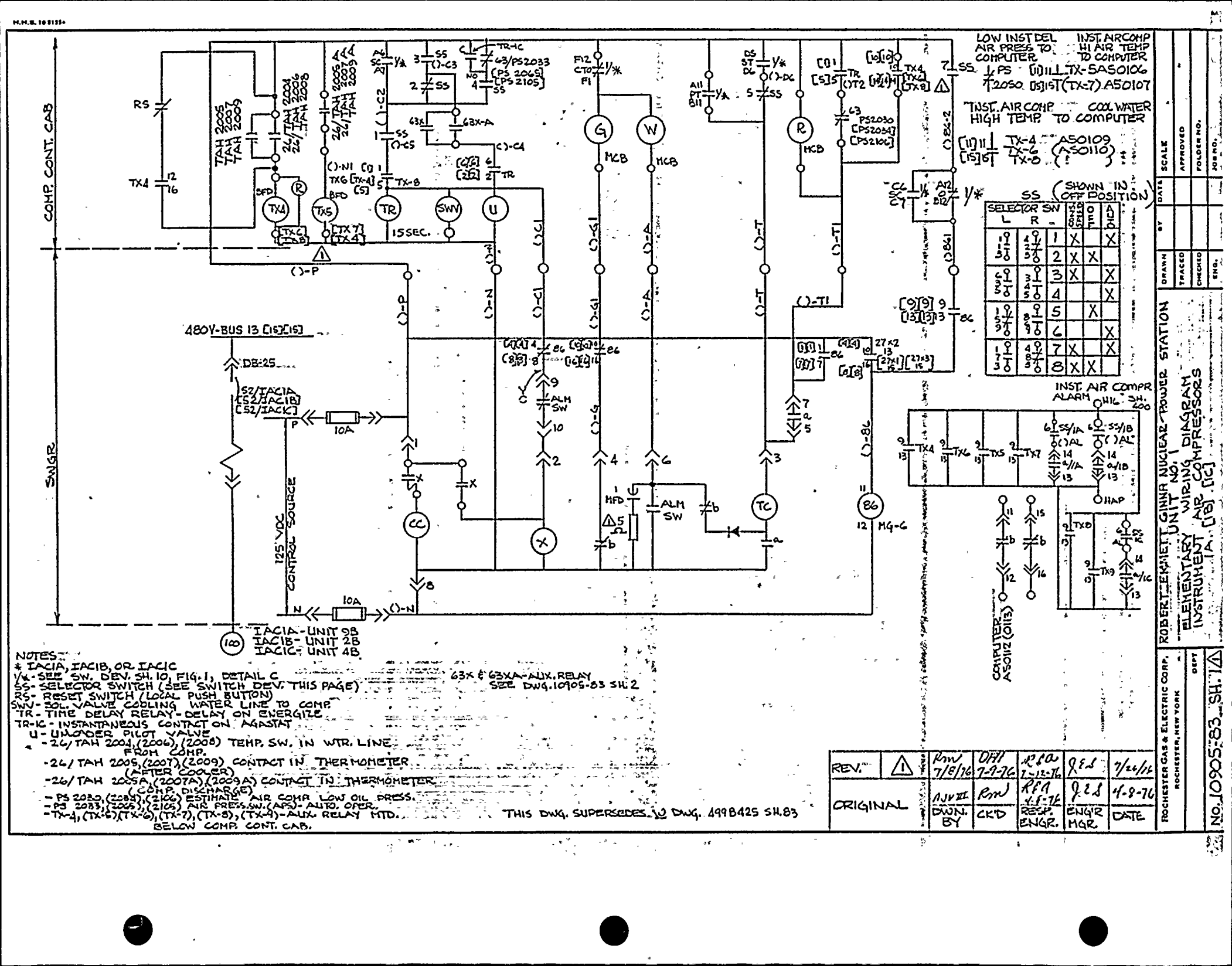
NOTES:

1- ⊠ SWPIB OR SWPID
2- 555 - SAFEGUARD SELECTOR SW. COMMON FOR 1B & 1D (LOCATION IN SCREEN HOUSE) SW. DEV. FIG. W SH. 14
3- 1/4 SW. DEV. SH. 10 FIGURE 1, DETAIL D
4- 43/4 TRANSFER SW.
5- ⊠ (LOCATED IN JNT. BLDG.)
6- 2/SWPIB, D. DWG. 11DC059 SH. 4
7- 2/BLB SH. 104

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425 SH. 82

REV.	⚠	RMW 7/8/76	DFH 9-9-76	RFA 7-12-76	JEA	7/22/76
ORIGINAL		DH.	RMW			4/28/76
		DRAWN BY	CK'D	RESP. ENGR.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT.
ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DRAWN | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

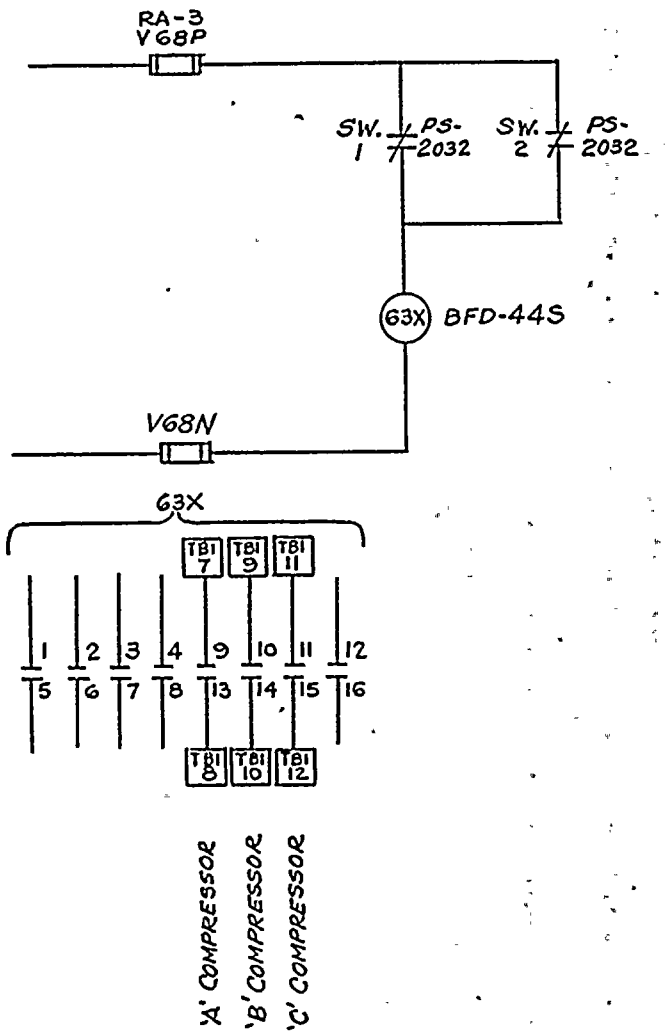


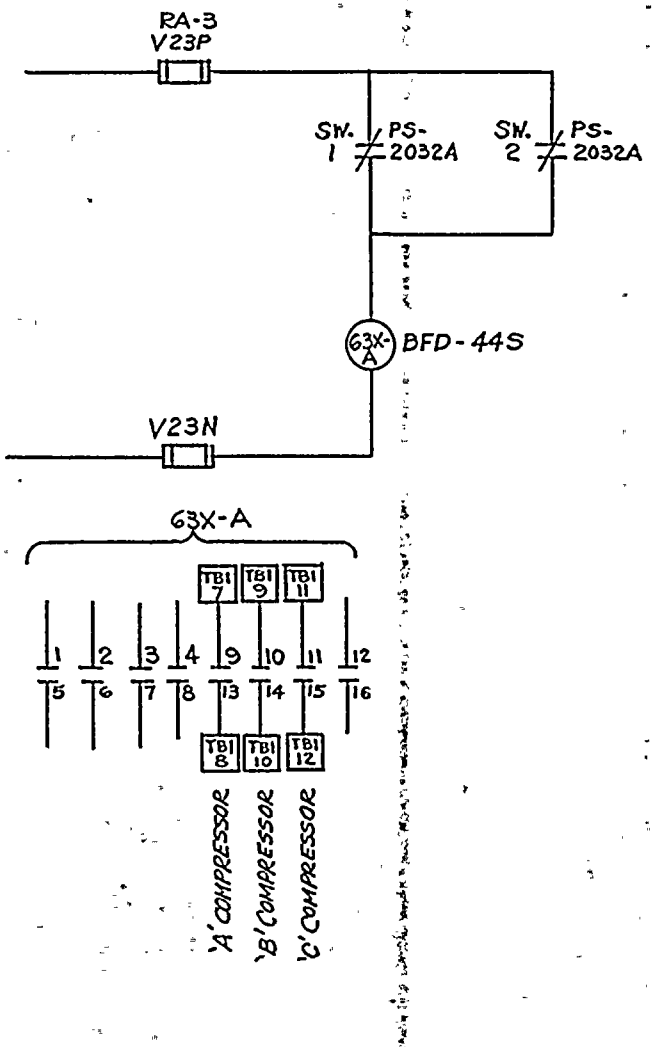
NOTES:
* IACIA, IACIB, OR IACIC
Y/* - SEE SW. DEV. SH. 10, FIG. 1, DETAIL C
SS - SELECTOR SWITCH (SEE SWITCH DEV. THIS PAGE)
RS - RESET SWITCH (LOCAL PUSH BUTTON)
SWV - SOL. VALVE COOLING WATER LINE TO COMP.
TR - TIME DELAY RELAY - DELAY ON ENERGIZE
TR-IC - INSTANTANEOUS CONTACT ON AGASTAT
U - UNLOADER PILOT VALVE
-26/TAH 2004, (2006), (2008) TEMP. SW. IN WTR. LINE FROM COMP.
-26/TAH 2005, (2007), (2009) CONTACT IN THERMOMETER (AFTER COOLER)
-26/TAH 2005A, (2007A), (2009A) CONTACT IN THERMOMETER (COMP. DISCHARGE)
- PS 2030, (2034), (2106) ESTIMATE AIR COMP LOW OIL PRESS.
- PS 2033, (2036), (2105) AIR PRESS. SW. (APS) - AUTO. OPER.
- TX-4, (TX-5), (TX-6), (TX-7), (TX-8), (TX-9) - AUX. RELAY MTD. BELOW COMP. CONT. CAB.
63X & 63XA - AUX. RELAY SEE DWG. 10905-83 SH. 2

THIS DWG. SUPERSEDES DWG. 499B425 SH. 83

REV.	⚠	RMW 7/8/76	OHI 7-9-76	RFA 7-12-76	RES 7/24/76
ORIGINAL		AJV III DWN. BY	RMW CK'D	RFA 4-5-76 RESP. ENGR.	RES ENGR MGR.	4-8-76 DATE

ROBERT E. HEIT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM INSTRUMENT AIR COMPRESSORS 1A [1B] [1C]
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT
SCALE | DRAWN | TRACED | CHECKED | ENG. | DATE | BY | APPROVED | FOLDER NO. | JOB NO.
NO. 10905-83 SH. 1 ⚠





NOTE:
THIS DWG. SUPERCEDES WESTINGHOUSE
DWG No. 449B425, SH. 83A, (REV. 0)

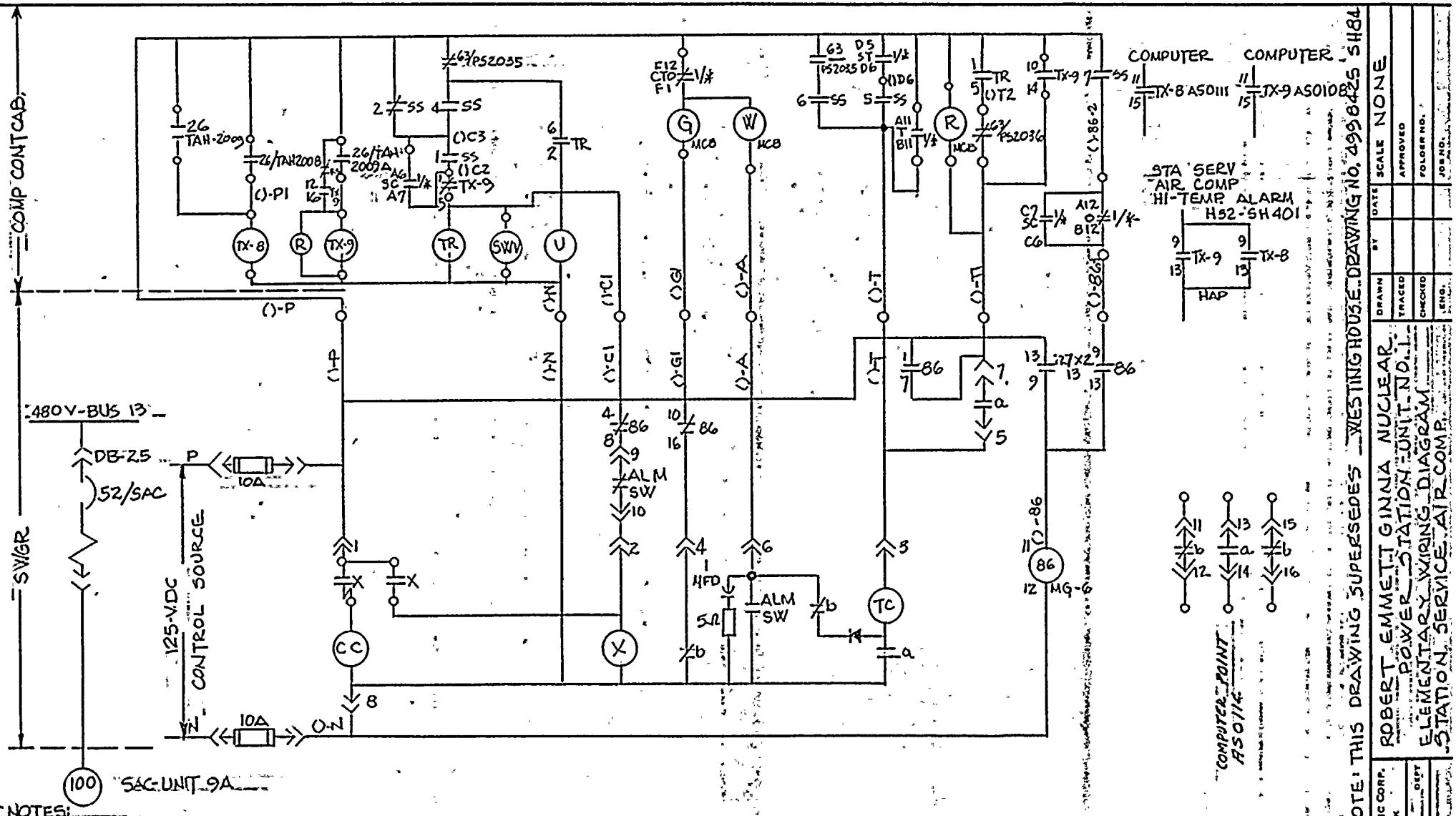
REV.						
ORIGINAL	efschutt	R.H.M. 4/14/75	PCK	RCM	6/4/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION, UNIT No. 1
"ELEMENTARY WIRING DIAGRAM INSTRUMENT AIR COMPRESSOR (A,B&C)"

DRAWN: E. Schutt 9-20-74
TRACED:
CHECKED:
ENG.:
SCALE: None
APPROVED:
FOLDER NO.
JOB NO.

No. 10905-83 SHT. 2



NOTES:

RS-RESET SWITCH (LOCAL PUSH BUTTON)
*-SAC
1/*-SEE SW DEV SH10, FIG. 1, DET. C
PS-2036-OIL PRESS. SW. (OPS)
PS-2035-AIR PRESS. SW.-AUTO OPER (APS)
SWV-SOL VLV COOLING WATER LINE TO COMP.
TR-TIME DELAY RELAY, ON ENERGIZE
U-UNLOADER PILOT VALVE

TX-8 & TX9-AUX RELAY MTD ON "A" COMPT SIDE BELOW COMPT CONT. CAB.
FOR SEL. SW. OPER-SEE CHART ON DWG 10905-83-SH 1
26 TAH 2008-TEMP SW. IN WTR LINE FROM COMP.
26TAH 2009-CONTACT IN THERMO AFTER COOLER
26/TAH 2009A-CONTACT IN THERMO-COMP. DISCHARGE AIR

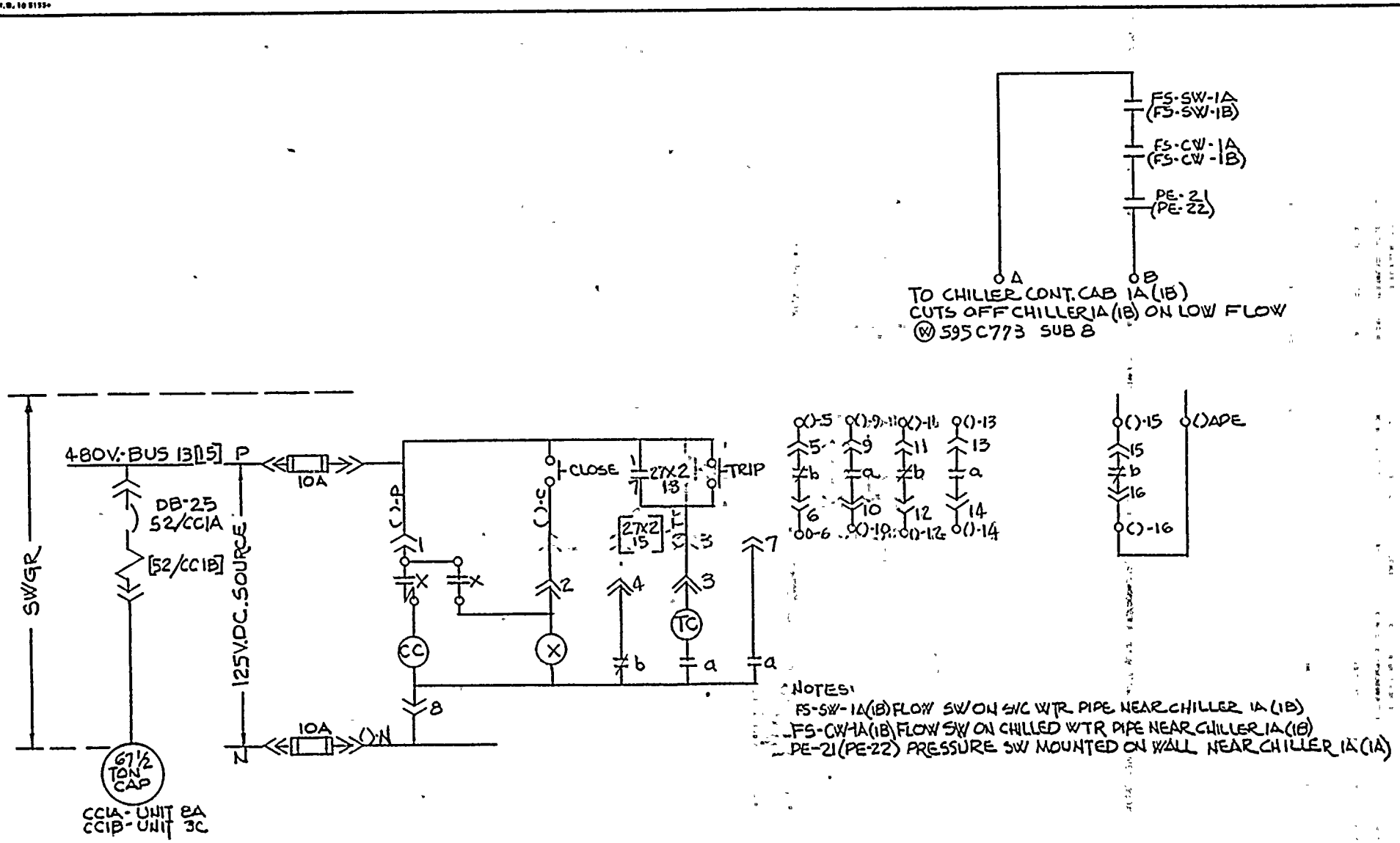
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SH 84

REV.						
ORIGINAL		DRAWN BY	CK'D	REER ENGR	ENG'R MGR	DATE
		W.J.F.	RMW	R.F.A. 4-5-76	J.E.S.	4-8-76

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT. ENGINEERING
No. 10905-5284

ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
STATION SERVICE AIR COMP.

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTES:
FS-SW-1A(1B) FLOW SW ON SVC WTR PIPE NEAR CHILLER 1A (1B)
FS-CW-1A(1B) FLOW SW ON CHILLED WTR PIPE NEAR CHILLER 1A (1B)
PE-21 (PE-22) PRESSURE SW MOUNTED ON WALL NEAR CHILLER 1A (1A)

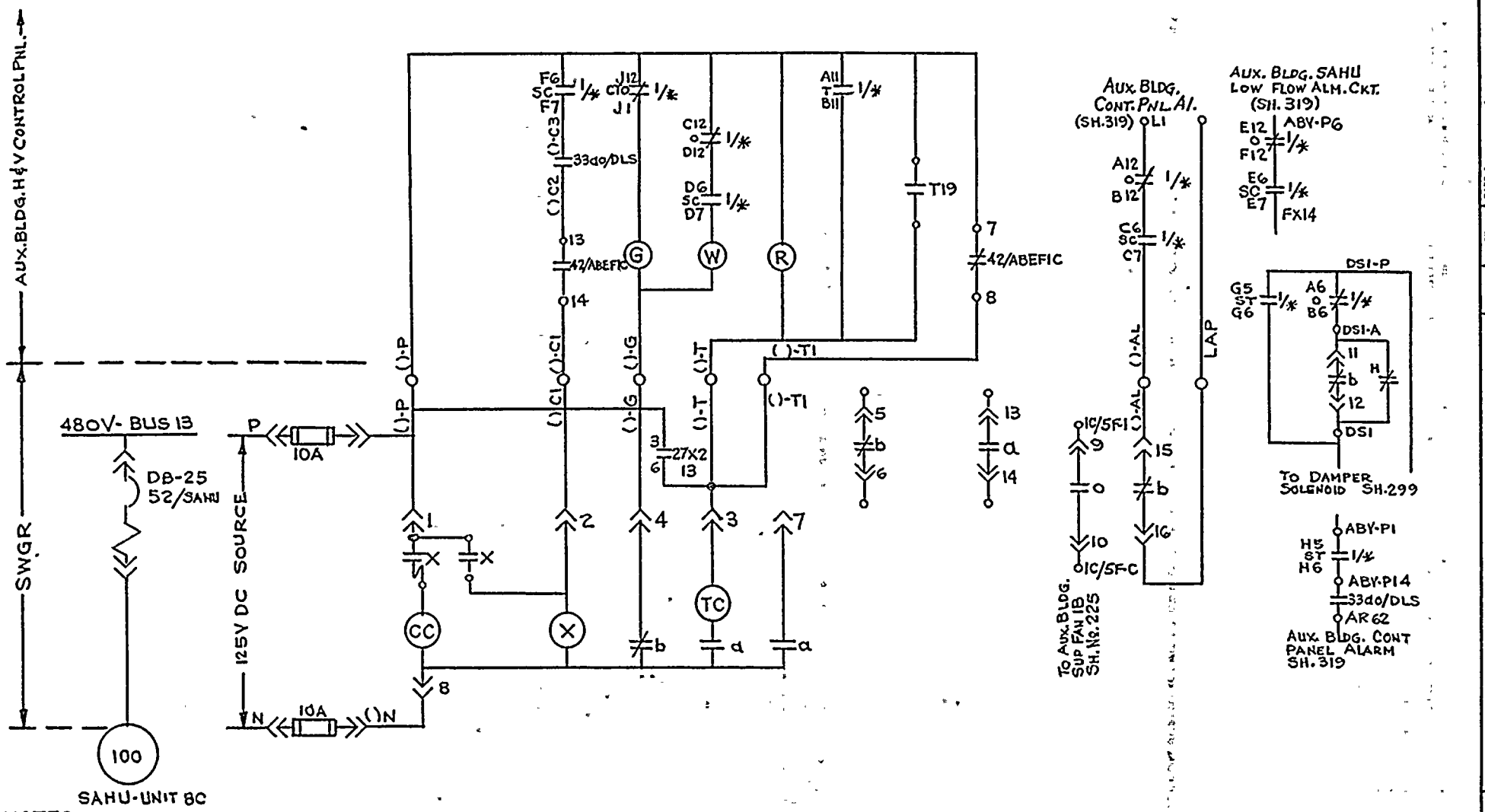
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH.85

REV						
ORIGINAL	DRAWN BY BGF	CK'D Rmi	RESP ENGR	ENGR MGR JES	DATE 12/75	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905-85

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CHILLER COMPR. 1A & 1B

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



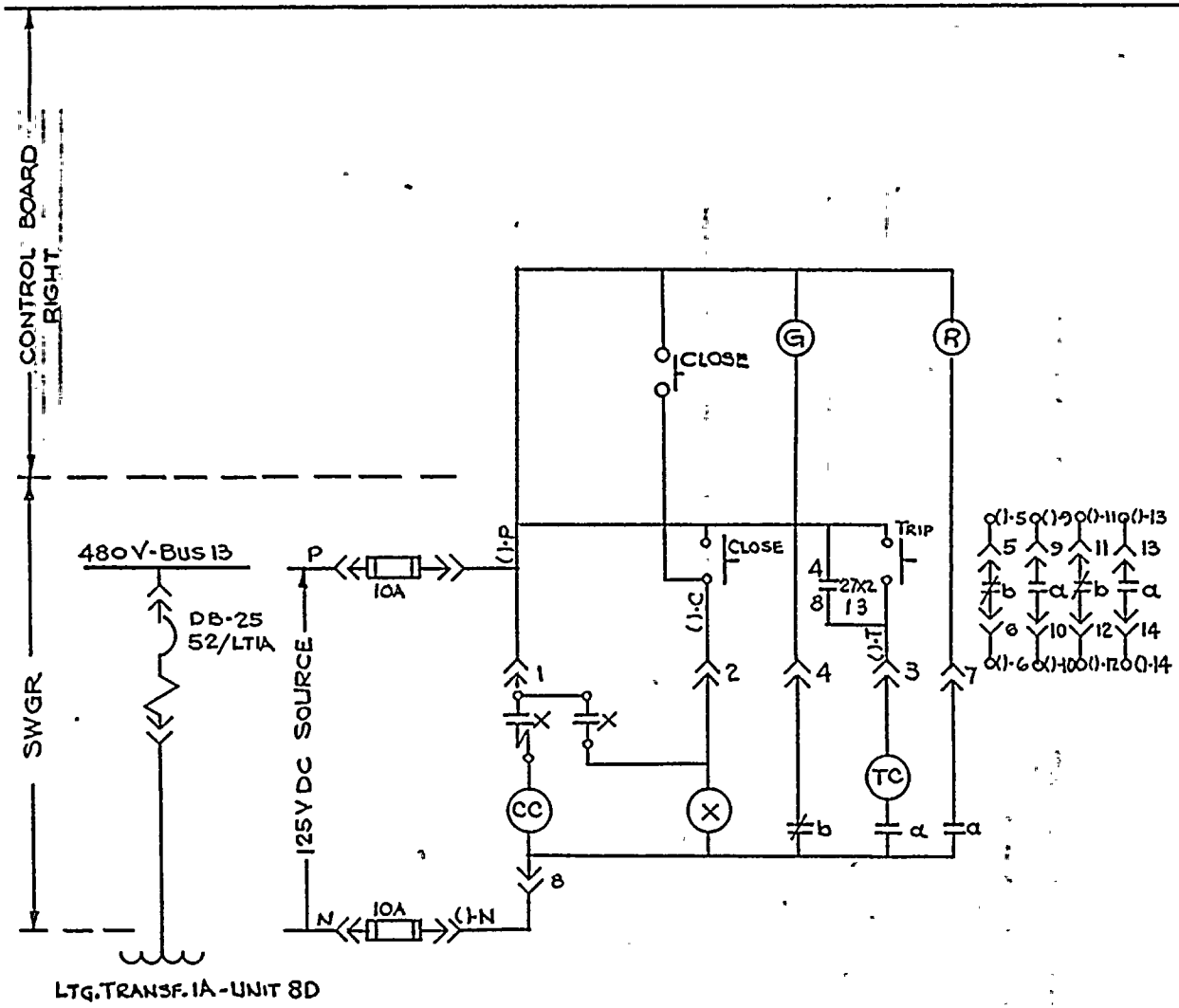
NOTES:
*-SAHU
T19-FIRE PROT. THERMOSTAT IN DISCH. DUCTS.
33/do/DLS-SUCTION DAMPER LIMIT
SW.-CLOSED IN DAMPER FULL OPEN POSITION
(2 ELECT. SEPARATE CONTACTS)
1/* SEE DEV. SH. 11
42/ABEFIC-SH. 201

THIS DWG. SUPERCEDES WESTINGHOUSE
DWG. NO. 499B425, SH. 86 (REV. 8)

REV.						
ORIGINAL		E.J. Schutt	RHAI 4/14/75	PCY	RCM	6/4/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT. ENGINEERING
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
AUX. BLDG. SUPPLY AIR HDR. LIMIT

DRAWN E.J. Schutt 6/2/75 | TRACED | CHECKED | SCALE None | APPROVED | FOLDER NO. | JOB NO.



NOTES:
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425, SH. 87 (REV. 6)

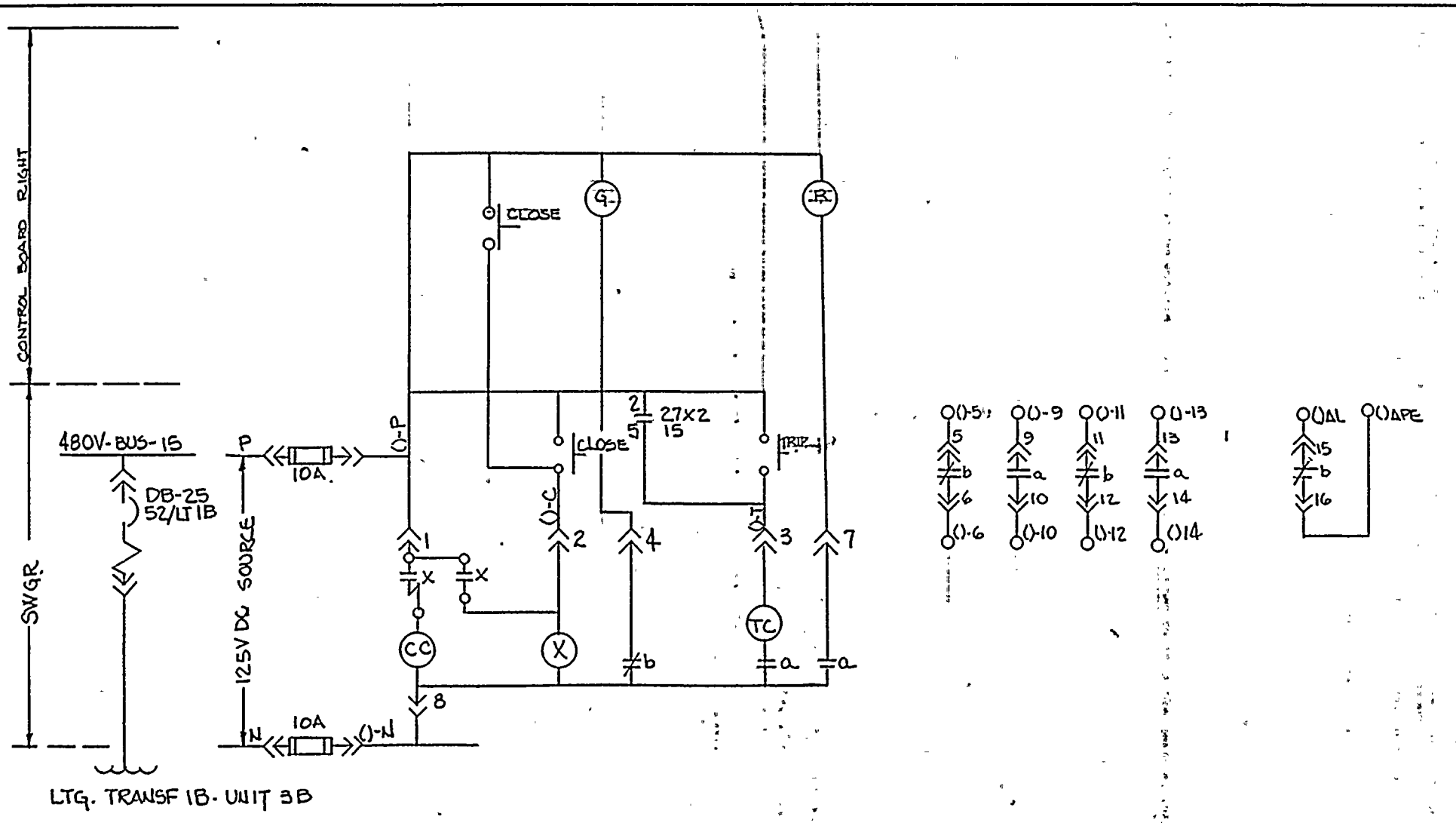
REV.			DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE
ORIGINAL		DFH	[illegible]	[illegible]	[illegible]	[illegible]	9/27/72
	1	[illegible] 9/16/76	RHM 4/4/75	CKR 9/22/76	RCM		6/4/75

DRAWN [illegible] DATE 8-27-72 SCALE NONE
TRACED
CHECKED
ENGR.
APPROVED
FOLDER NO.
JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
LIGHTING TRANSFORMER 1A

No. 10905-87 1



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH. 88

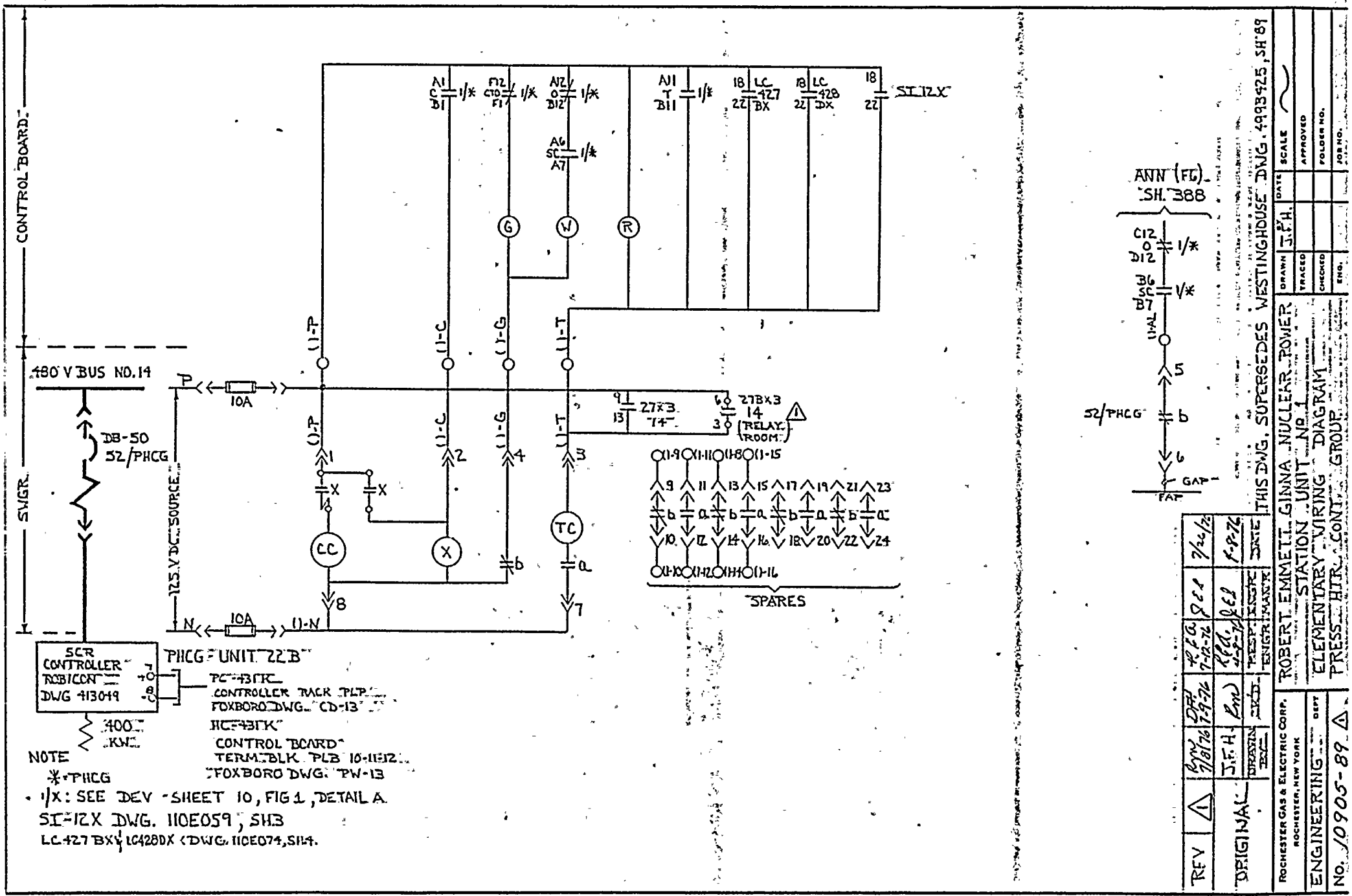
REV.	⚠1					
ORIGINAL	GJF	Rmm 6-1-76	RFW 6-1-76	JES 6-1-76	JES	5/24/76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE	

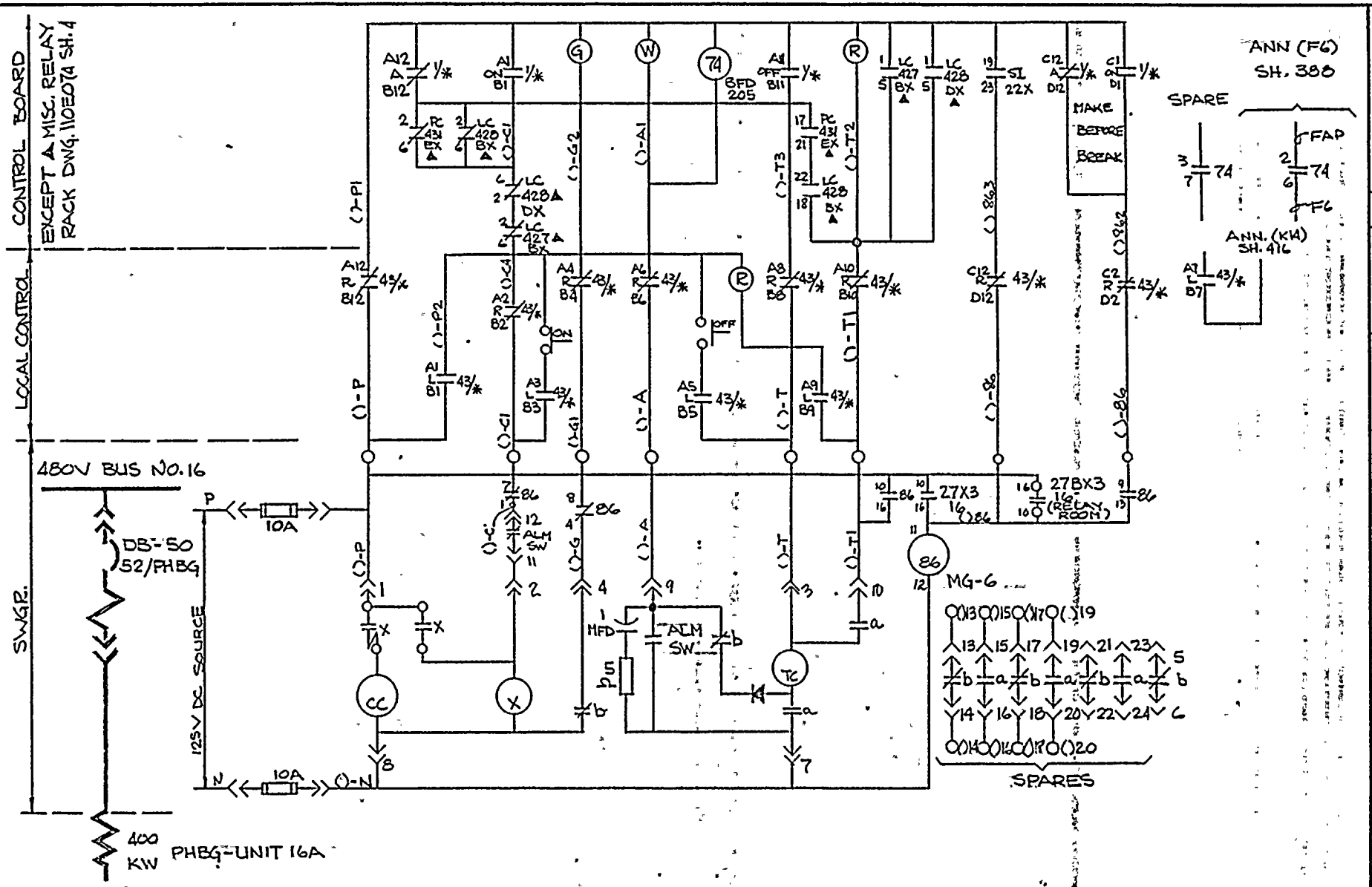
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
LTG. TRANSFORMER 1B

DRAWN BY DATE SCALE NONE
TRACED APPROVED
CHECKED FOLDER NO.
ENG. JOB NO.

NO. 10006-90


CONTROL BOARD
480 V BUS NO. 14
SWGR.
DB-50
52/PHCG
10A
125 V DC SOURCE
N
10A
(1)-N
SCR CONTROLLER
ROBICON
DWG 413049
400 KW
PHCG-UNIT 22B
PC-43TK
CONTROLLER RACK PLP
FOXBORO DWG. CD-13
HC-43TK
CONTROL BOARD
TERM. BLK PLB 10-11&12
FOXBORO DWG. PW-13
(1)-P
(1)-C
(1)-G
(1)-T
A1 C B1 1/*
F12 C10 F1 1/*
A12 O B12 1/*
A6 SC A7 1/*
A11 T B11 1/*
18 LC 427 22 BX
18 LC 428 22 DX
18 SI-12X 22
G
W
R
CC
X
TC
27X3 14
27BX3 14 (RELAY ROOM)
SPARES
ANN (FC) SH. 388
C12 O D12 1/*
B6 SC B7 1/*
(1)-AL
52/PHCG
GAP
FAP
NOTE
*-PHCG
1/X: SEE DEV-SHEET 10, FIG 1, DETAIL A.
SI-12X DWG. 110E059, SH3
LC-427 BX & LC428DX (DWG. 110E074, SH4.
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 4993425, SH 89
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
PRESS. HTR. CONTROL GROUP
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-89
ORIGINAL
REV
DRAWN J.F.H. DATE
TRACED
CHECKED
ENG.
SCALE
APPROVED
FOLDER NO.
JOB NO.



NOTES:

S.I. 22X DWG. 1110E059 SH. 3
* = PHBG
1/*= SEE DEV. SHT. 11, FIG. 4, DETAIL C
43/*= SEE DEV. SHT. 329, FIG. 3, DETAIL 3
▲ = MISC. RELAY RACK, DWG. 1110E074, SH. 4

THIS DWG. SUPERSEDES DWG. 499B425 SH. 90

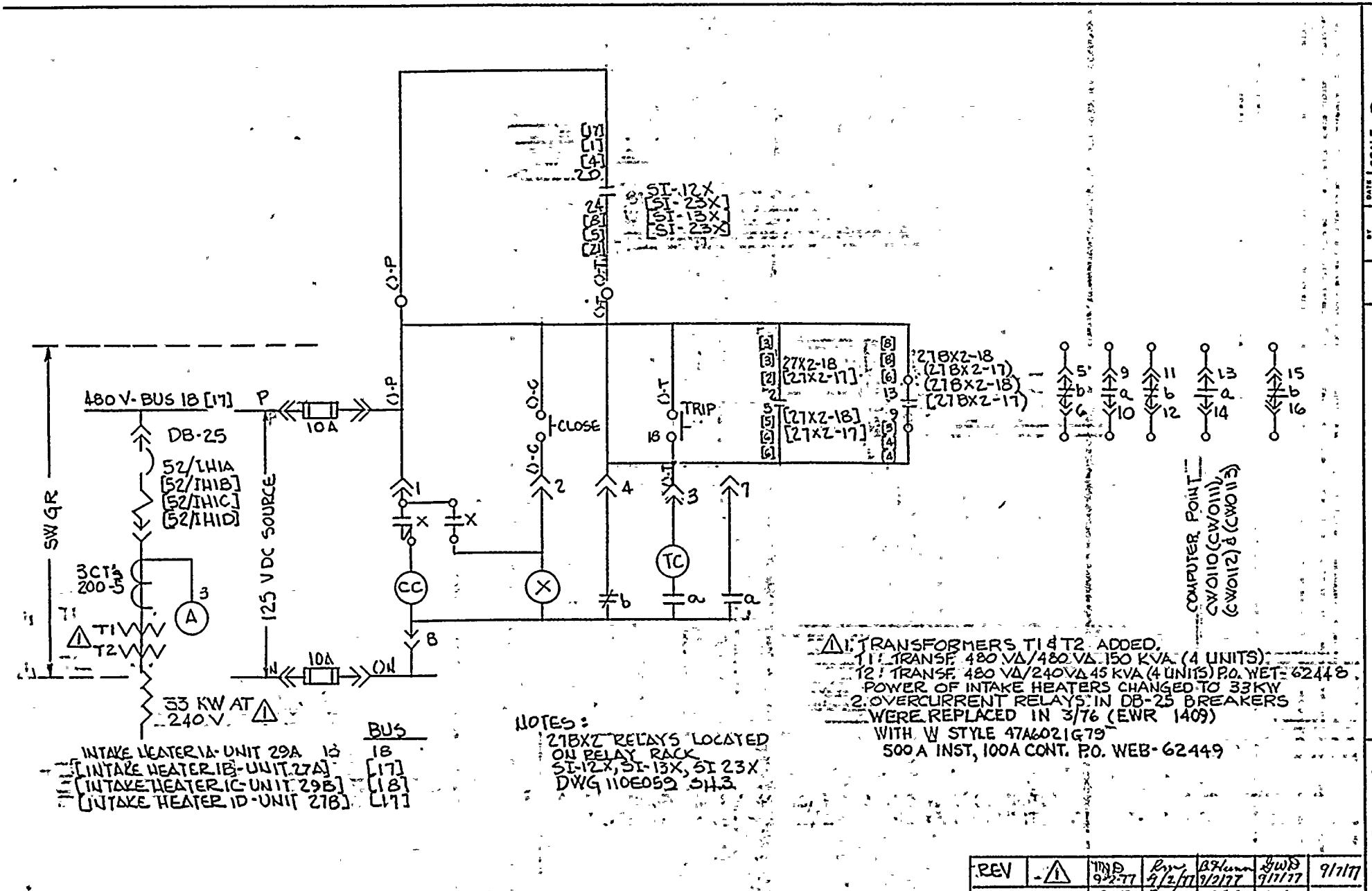
REVD						
ORIGINAL	AWF	RJW	R.E.A.	J.E.S.	11/27/76
	DWN BY	CK'D	RESP. ENGR.	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
PRESS. HTR. BACKUP GROUP

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.:

NO. 10905-90



NOTES:
27BX2 RELAYS LOCATED ON RELAY RACK SI-12X, SI-13X, SI 23X DWG 1106059 SH 3

⚠1. TRANSFORMERS T1 & T2 ADDED.
T1: TRANSF. 480 VA/480 VA, 150 KVA (4 UNITS)
T2: TRANSF. 480 VA/240 VA 45 KVA (4 UNITS) P.O. WET-62448
POWER OF INTAKE HEATERS CHANGED TO 33 KW
2. OVERCURRENT RELAYS IN DB-25 BREAKERS WERE REPLACED IN 3/76 (EWR 1409) WITH W STYLE 47A6021G79
500 A INST, 100A CONT. P.O. WEB-62449

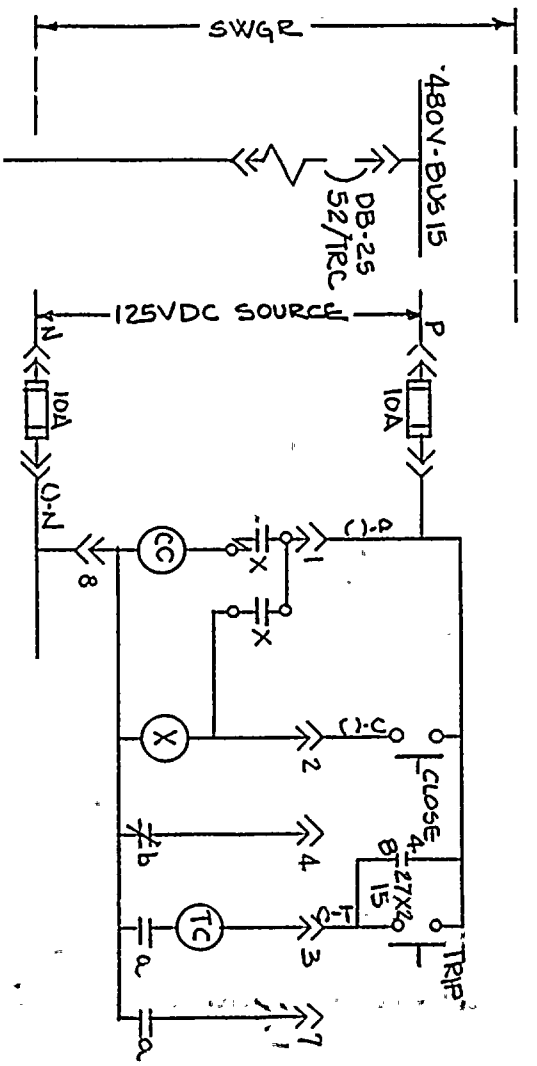
REV	⚠1					
	TND 9-2-77	RJW 9/2/77	BKlumm 9/2/77	GWB 9/1/77	9/1/77
ORIGINAL	GJF 5-24-76	RJW 6-1-76	RFA 6-1-76	QEB 6-1-76	6-1-76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

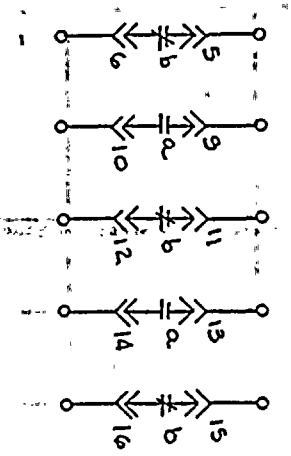
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 499B425 SHEET 91

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO 10905-91

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO 1
ELEMENTARY WIRING DIAGRAM
INTAKE HEATERS 1A [1B] [1C] [1D]

DRAWN | BY | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENGR | JOB NO.





REV						
ORIGINAL						
DRAWN BY	GJF					
CK'D	[illegible] 6-1-76					
RESP ENGR	[illegible] 6-1-76					
ENGR MGR	[illegible] 6-1-76					
DATE	5/25/76					

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH. 92

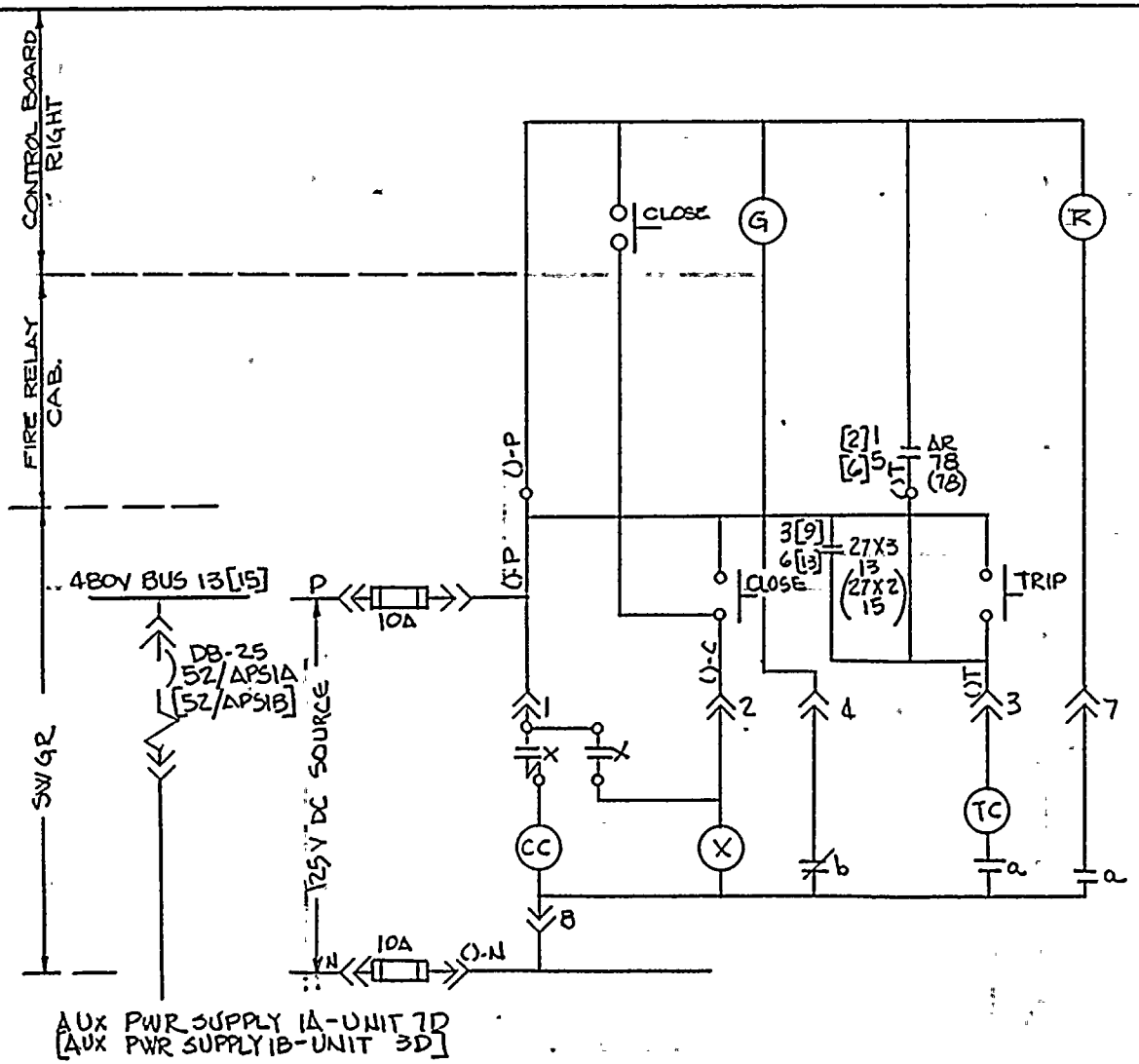
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT

NO. 10006-92

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
TURBINE ROOM CRANE

	BY	DATE	
DRAWN			SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:
AR78-AUX RELAY ACTUATED BY FIRE DELUGE VALVE OPERATION (SH. 324)

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH. 93

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT: ENGINEERING — NO. 10905-93

ROBERT EMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM GEN-TRANS. AUX. PWR SUPPLY 1A [1B]

	DRAWN	TRACED	CHECKED	ENG.
BY				
DATE				

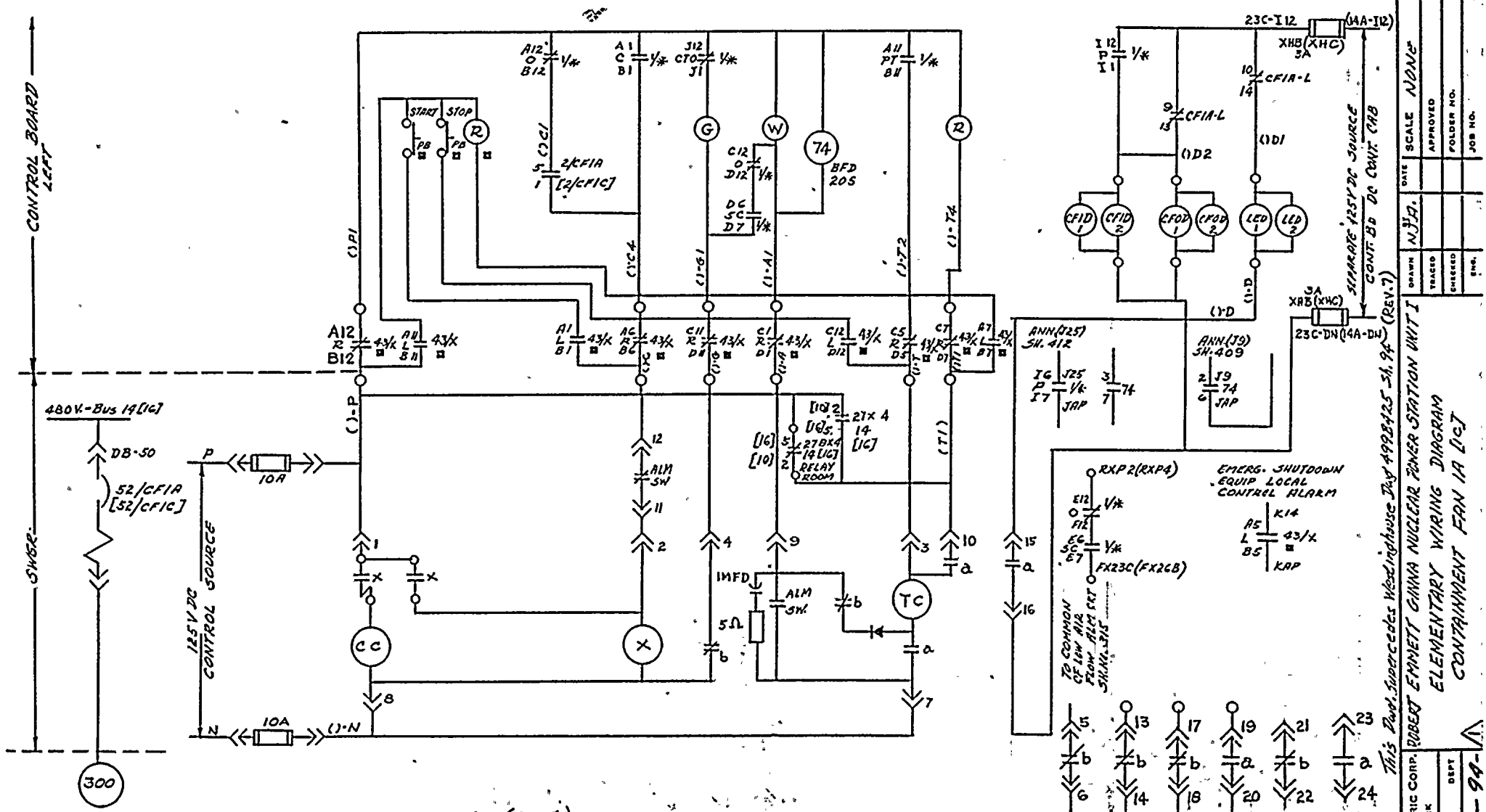
SCALE —

APPROVED

FOLDER NO.

JOB NO.

REV						
	1	AW III	Pmw 8-5-76	RFa 8-10-76	JEJ	8/10/76
ORIGINAL		GJF	Pmw 6-1-76	RFa 6-1-76	JEJ 6-1-76	5/25/76
		DRAWN BY	CKD	RESP ENGR	ENGR MGR	DATE



CFIA-UNIT NO. 23C
CFIC-UNIT NO. 14C

NOTES:
* 1/CFIA OR 1/CFIC
CFID-CHARCOAL FILTER INLET SOLENOID DAMPER ENERG. TO CLOSE
CFOD-CHARCOAL OUTLET SOLENOID DAMPER, ENERG. TO CLOSE

NOTES (CONT.)
LED - LOOP ENTRY SOL. DAMPER, ENERG. TO OPEN
1/* - SEE DEV. SH. 11, FIG. 3, DETAIL A
43/X - TRANSFER SW. IN INTERMEDIATE BLDG. ☐ C11X, C12X, C21X, C22X, DWG. 110E059 SH. 5-2/CFIA, 2/CFIC DWG. 110E059 SH. 4
△1 CFIA-L SEE SH. 315

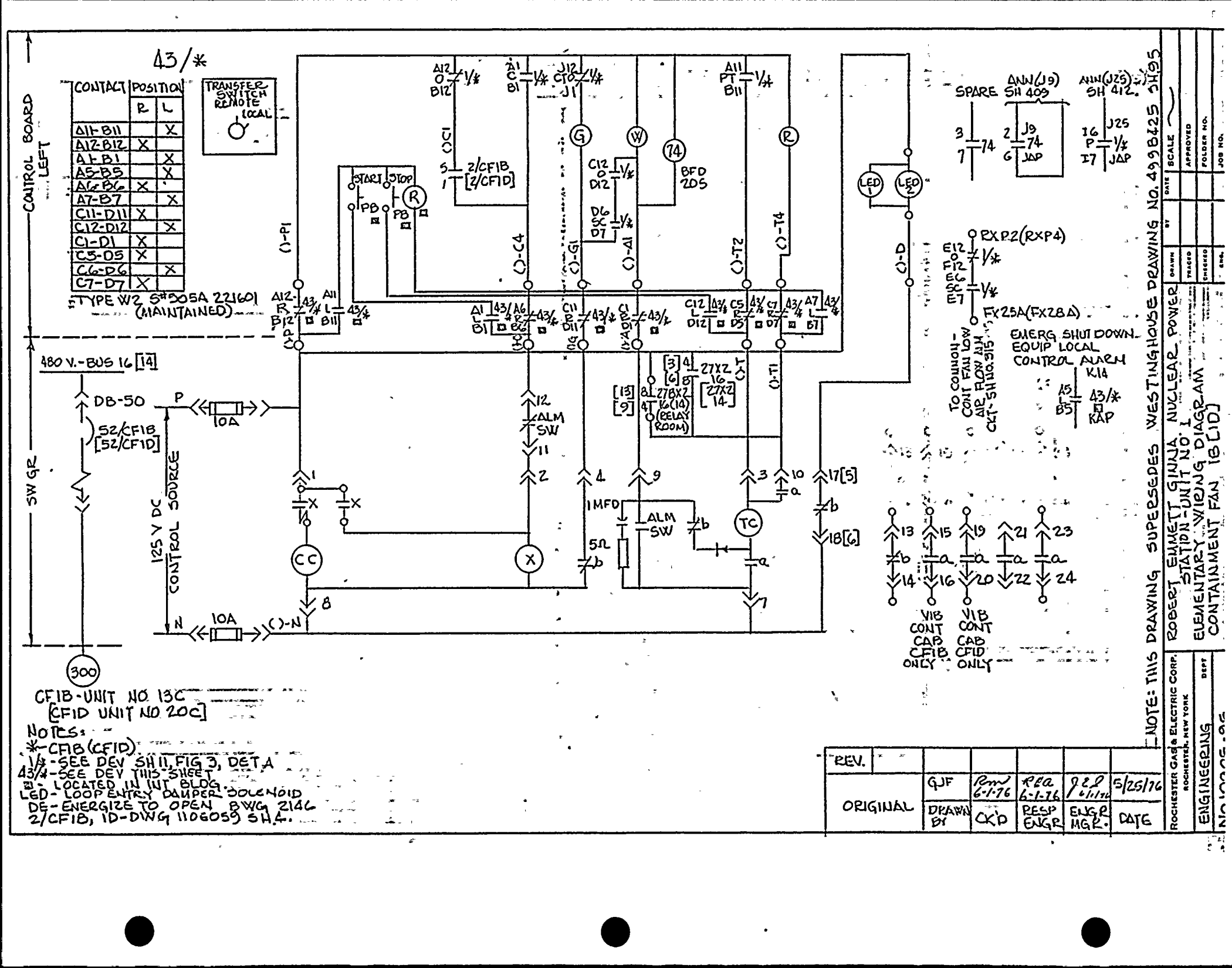
REV.	△1	N.J.A.	1-13-77			1/28/77
ORIGINAL		N.J.A.	RHM 4/14/75		RCM	6/1/75
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR.	DATE

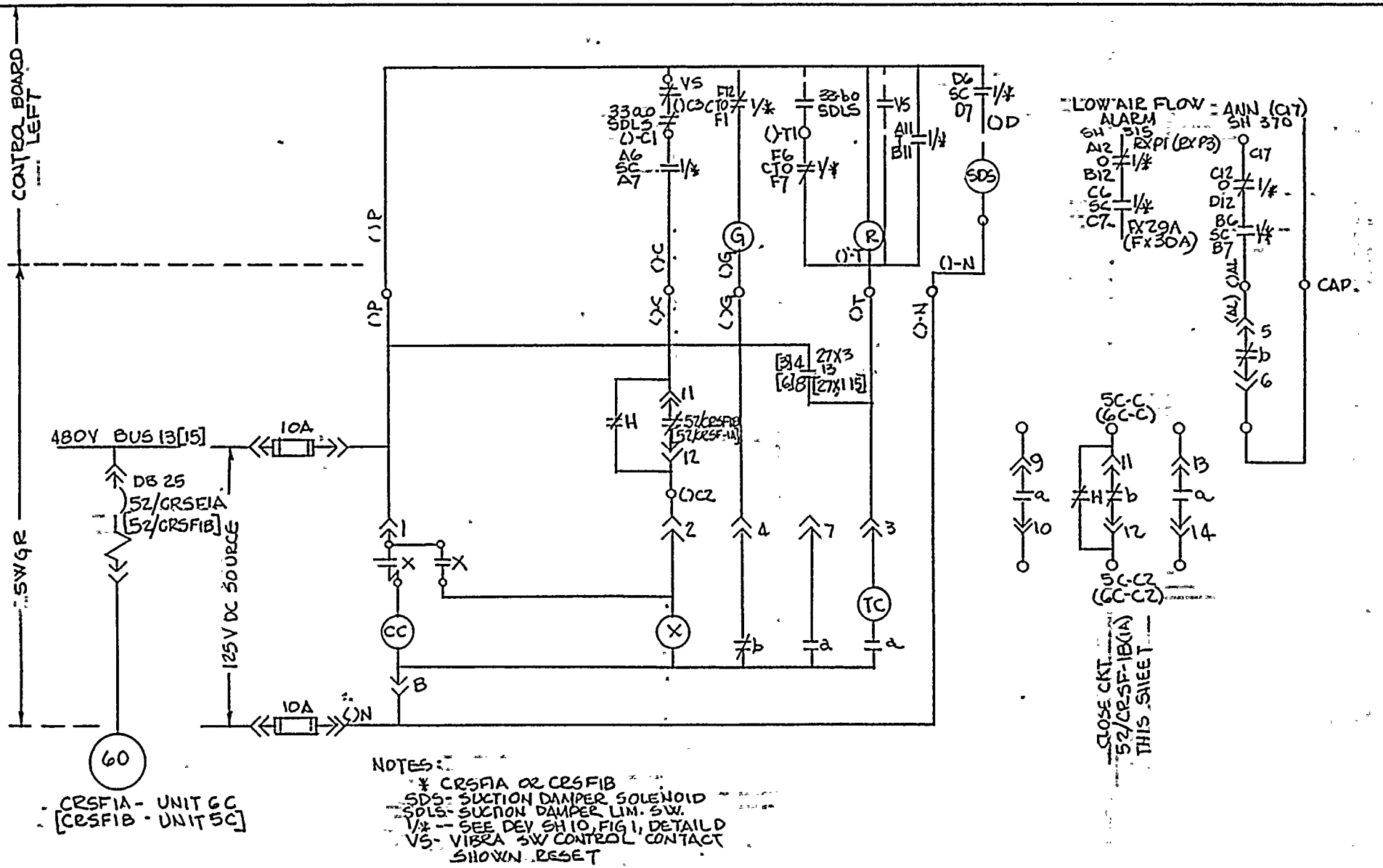
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING
NO. 10915-94-△1

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT I
ELEMENTARY WIRING DIAGRAM
CONTAINMENT FAN 1A DCT

This Part Supercedes Westinghouse Dwg 4998425-SH. 94

DRAWN	NJA.	SCALE	NONE
TRACED		APPROVED	
CHECKED		FOLDER NO.	
ENG.		JOB NO.	


43/*
CONTACT POSITION R L
A11-B11 X
A12-B12 X
A1-B1 X
A5-B5 X
A6-B6 X
A7-B7 X
C11-D11 X
C12-D12 X
C1-D1 X
C5-D5 X
C6-D6 X
C7-D7 X
TRANSFER SWITCH REMOTE LOCAL
TYPE W2 S#3005A 22160 (MAINTAINED)
CONTROL BOARD LEFT
480 V.-BUS 16 [14]
DB-50
52/CF1B [52/CF1D]
10A
125 V DC CONTROL SOURCE
SW GR
300
CF1B-UNIT NO 13C [CF1D UNIT NO 20C]
START
STOP
PB
R
CC
X
TC
ALM SW
1MFD
5Ω
27BX2 16(14) (RELAY ROOM)
27X2 16 [27X2 14]
LED 1
LED 2
SPARE
ANN(J9) SH 409
ANN(J25) SH 412.
RXP2(RXP4)
FX25A(FX28A)
TO COMMON - CONT FAN LOW AIR FLOW ANN CKT - SH NO. 315
EMERG SHUT DOWN EQUIP LOCAL CONTROL ALARM K14
43/* KAP
VIB CONT CAB CF1B ONLY
VIB CONT CAB CF1D ONLY
NOTES:
*-CF1B (CF1D)
1/*-SEE DEV SH 11, FIG 3, DET A
43/*-SEE DEV THIS SHEET
LED-LOOP ENTRY DAMPER SOLENOID DE-ENERGIZE TO OPEN BWG 2146
2/CF1B, ID-DWG 1106059 SH 4.
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SH 5
ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM CONTAINMENT FAN 1B [1D]
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
REV. ORIGINAL
DRAWN BY GJF
CK'D 6-1-76
RESP ENGR 6-1-76
ENGR MGR. 6/1/76
DATE 5/25/76
DRAWN BY DATE SCALE APPROVED
TRACED FOLDER NO.
CHECKED JOB NO.



NOTES:

* CRSF1A OR CRSF1B
SDS- SUCTION DAMPER SOLENOID
SDLS- SUCTION DAMPER LIM. SW.
1/* -- SEE DEV SH 10, FIG 1, DETAIL D
VS- VIBRA SW CONTROL CONTACT SHOWN RESET

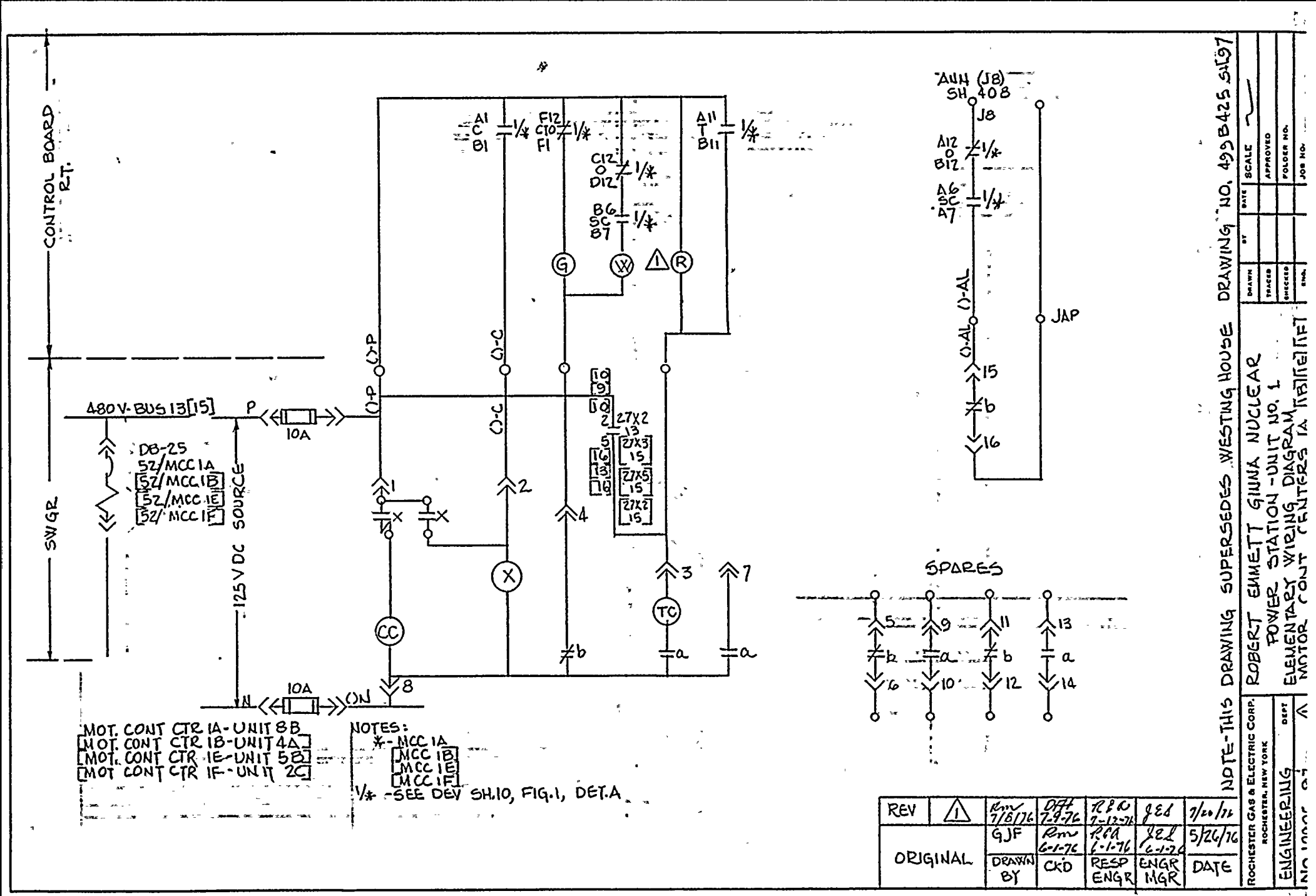
NOTE - THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SHEET. 96

REV						
ORIGINAL	GJF 5-25-76	RMW 6-1-76	KBA 6-1-76	JEB 1-1-076	6-1-76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO 10045-96

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONT. ROD SHROUD COOL FAN 1A[1B]

DRAWN | BY | DATE | SCALE
TRACED
CHECKED
APPROVED
FOLDER NO.
JOB NO.



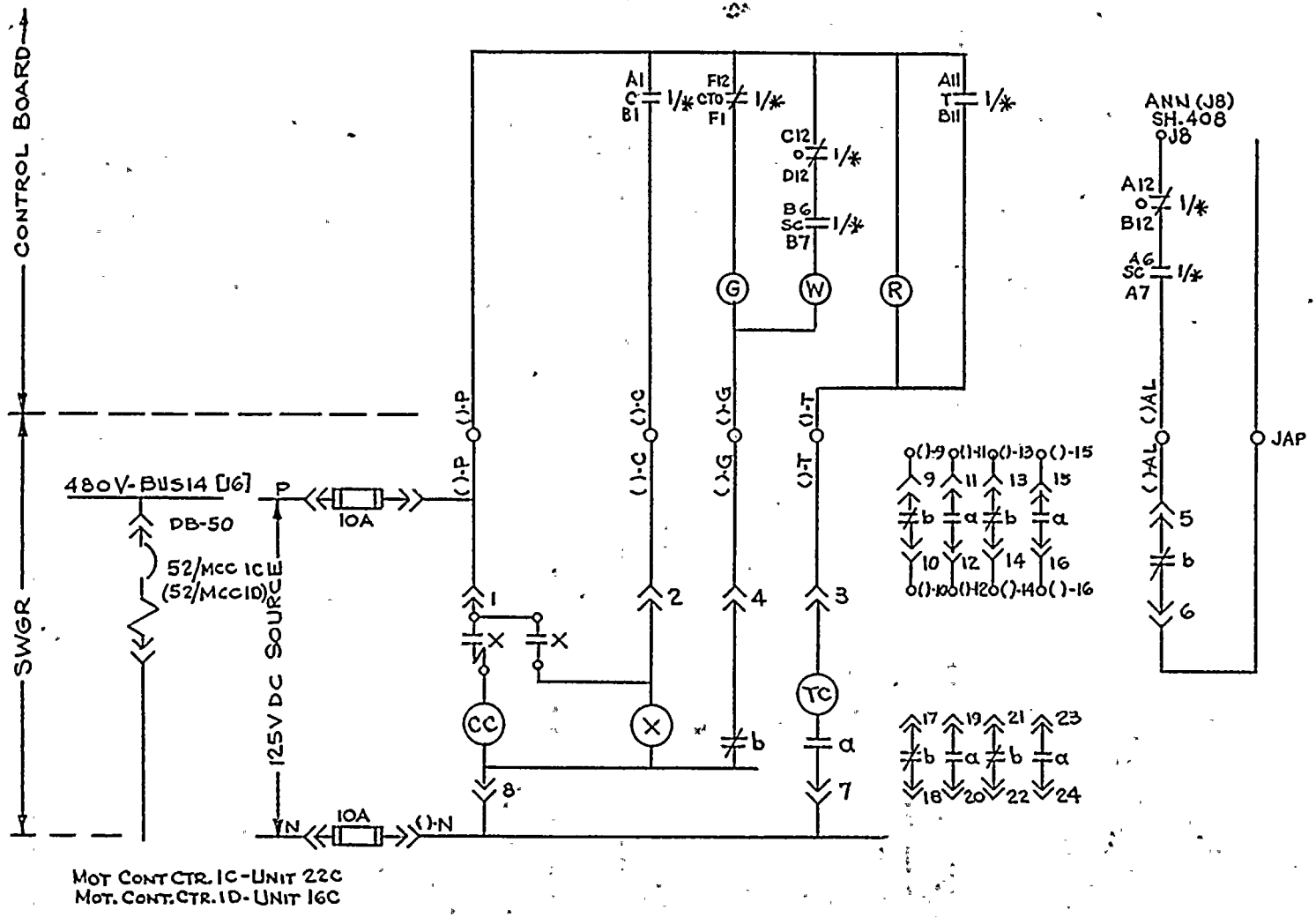
NOTE-THIS DRAWING SUPERSEDES WESTING HOUSE DRAWING NO. 499B425 SH 97

ROBERT EMMETT GIUNA NUCLEAR POWER STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM MOTOR CONT CENTERS 1A, 1B, 1E, 1F

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

REV	1					
	Rmv 7/8/76	Dft 7-9-76	R&C 7-12-76	JEL	7/20/76
ORIGINAL	GJF	Rmv 6-1-76	RCA 6-1-76	JEL 6-1-76	5/26/76
	DRAWN BY	CKD	RESP ENGR	ENGR MGR	DATE



MOT CONT CTR. 1C - UNIT 22C
MOT. CONT. CTR. 1D - UNIT 16C

NOTES:
*-MCC1C
MCC1D
1/*-SEE DEV. SH. 10

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425, SH 58 (REV. 6)

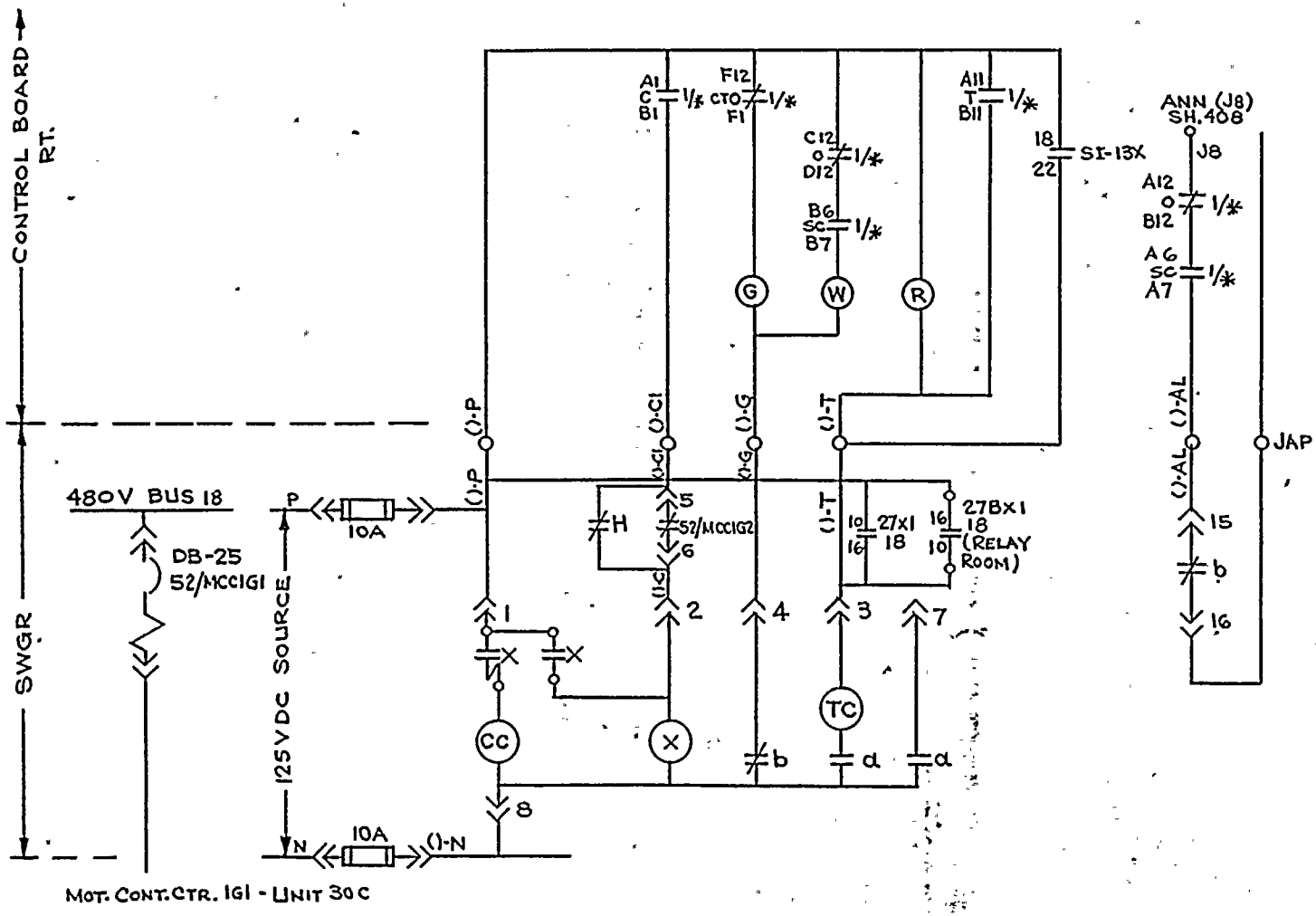
REV.	ORIGINAL	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR.	DATE
		EPB 4/4/75	RHM 4/4/75	[illegible]	RCM	6/4/75

DRAWN ESW 6/4/75 SCALE NONE
TRACED APPROVED
CHECKED FOLDER NO.
ISSUED JOB NO. 1005-00

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR CONTROL CENTER 1C [1D]

DWG. NO. 1005-00



NOTES:
*-MCC1G1
1/*-SEE DEV. SH. 10
SI-13X DWG 110E059 SH. 3.

THIS DWG. SUPERCEDES WESTINGHOUSE DWG 499B425, SH. 99 (REV. 6).

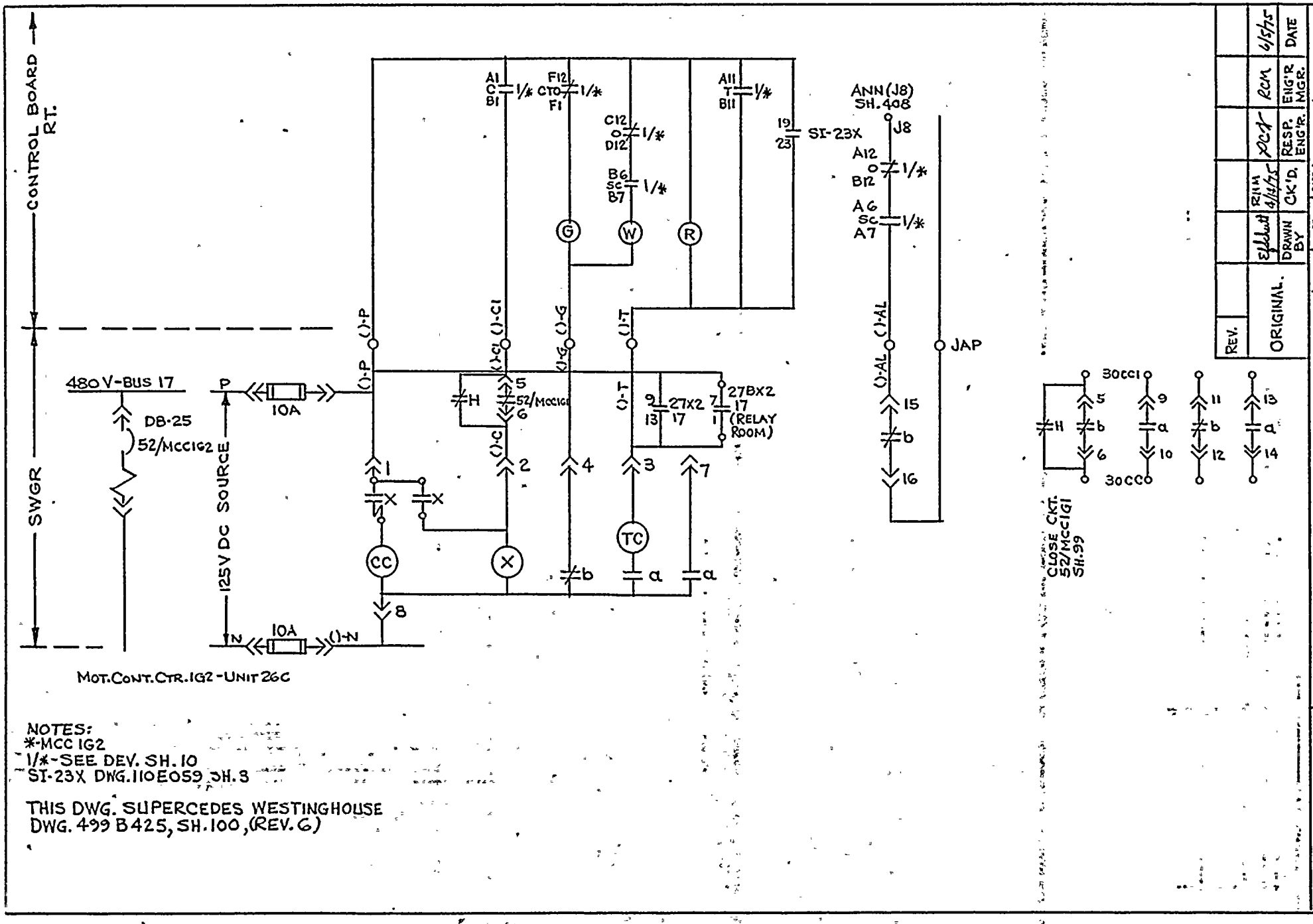
REV.	ORIGINAL	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR	DATE
		Gilbert 4/14/75	REM 4/14/75	RCM	RCM	6/11/75

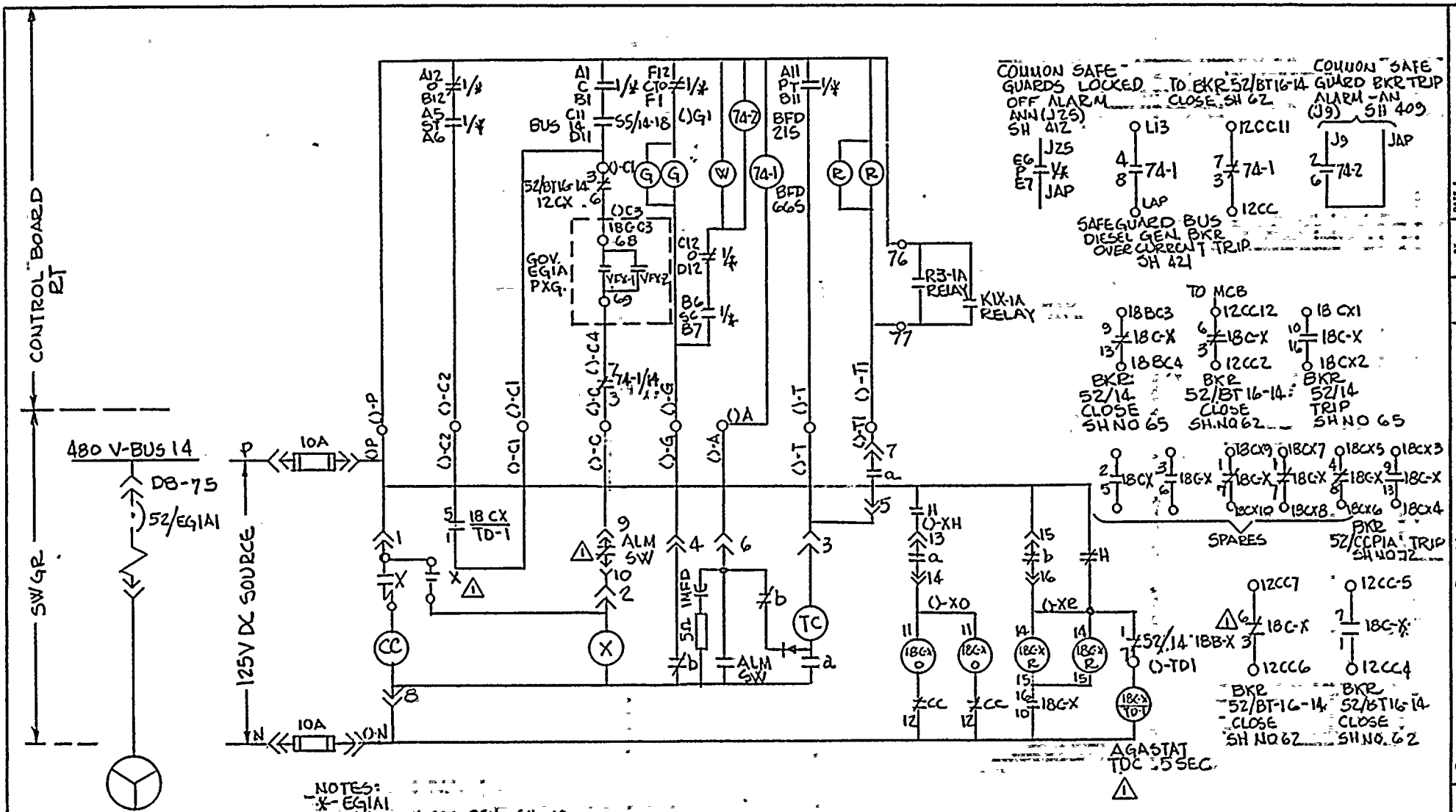
DRAWN F. Selby 9/2/75 SCALE NONE
TRACED APPROVED
CHECKED FOLDER NO.
JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING.

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT No 1
ELEMENTARY WIRING DIAGRAM
MOTOR CONTROL CENTER 1G1

DWG. NO. 110E-00


CONTROL BOARD RT.
SWGR
480V-BUS 17
DB-25
52/MCC1G2
125V DC SOURCE
10A
MOT. CONT. CTR. 1G2 - UNIT 26C
A1 C B1
F12 CTO F1
C12 O D12
B6 SC B7
A11 T B11
19 23 SI-23X
ANN (J8) SH. 408
J8
A12 O B12
A6 SC A7
JAP
27BX2 17 (RELAY ROOM)
27X2
CC
X
TC
CLOSE CKT. 52/MCC1G1 SH. 99
30CC1
30CC0
NOTES:
*-MCC 1G2
1/*-SEE DEV. SH. 10
SI-23X DWG. 110E059 SH. 3
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499 B425, SH. 100, (REV. 6)
REV.
ORIGINAL.
DRAWN BY
CK'D.
RESP. ENG'R.
ENG'R MGR.
DATE
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
MOTOR CONTROL CENTER 1G2



NOTES:
- X-EG1A1
- SS-SYN SW SEE DEV. SH 10
- R3-1A & KIX 1A - SHUT DOWN RELAY - SEE ALCO DWG. 5907-S 310620
- 1/4 - SEE SH 10, FIG 1, DET B

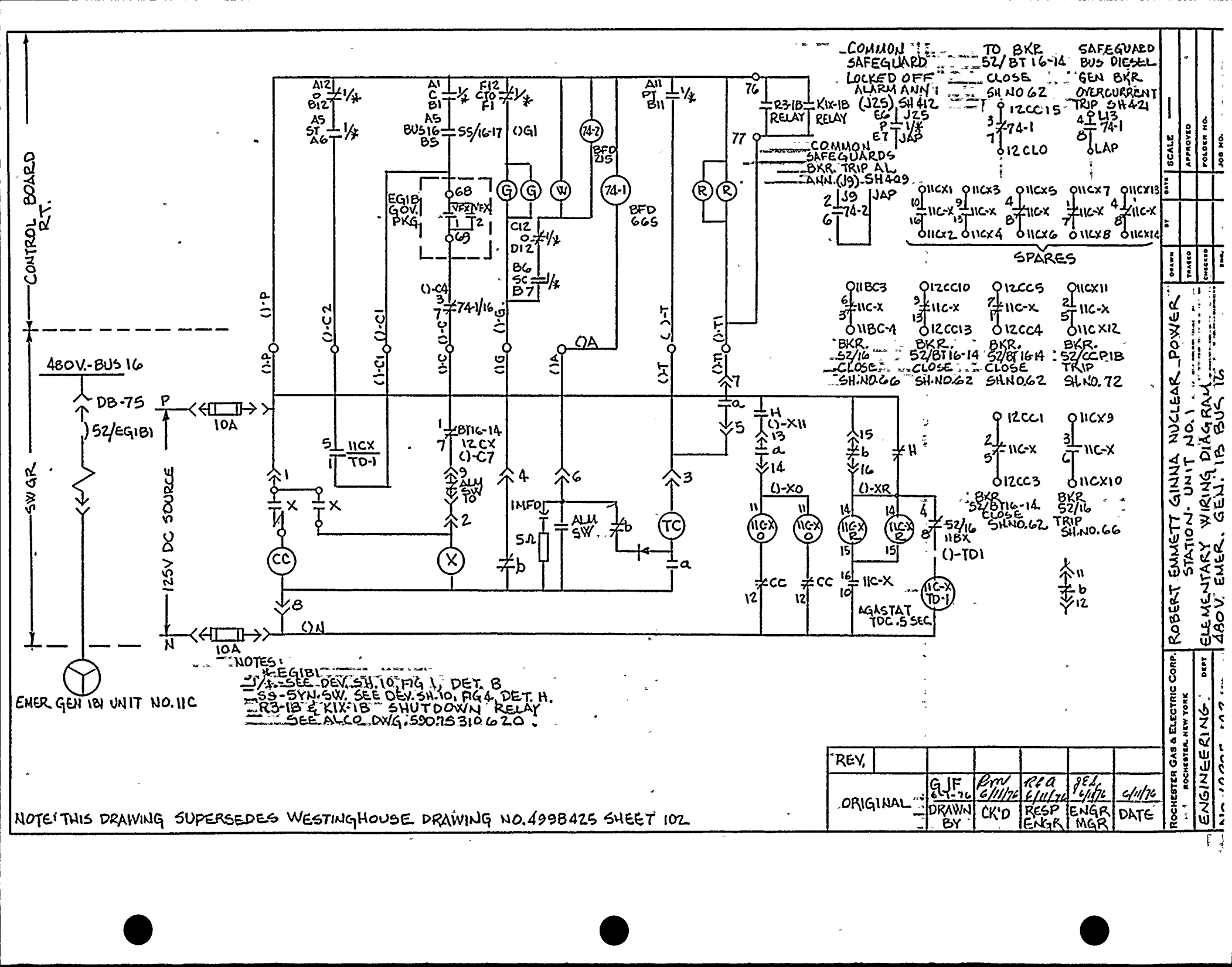
REV	1					
	RMW 7/10/76	DFH 7-9-76	KGA 7-13-76	JED 7-21-76	7/21/76
ORIGINAL	GJF	RMW 6-1-76	KGA 6-1-76	JED 6-1-76	5/26/76
	DRAWN BY	CKD	RESP ENGR	ENGR MGR	DATE

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499 B 425 SH. 101

ROCHESTER GAS & ELECTRIC CORP. 1 ROCHESTER, NEW YORK
ENGINEERING DEPT
NO 10006-1701

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO 1
ELEMENTARY WIRING DIAGRAM
480 V. EMER. GEN. 1A BUS 14

DRAWN | TRACED | CHECKED | APPROVED
DATE | BY | SCALE | FOLDER NO. | JOB NO.



NOTES:
1. EG1B1
2. 1/*-SEE DEV. SH. 10, FIG 1, DET. B
3. 59-SYN. SW. SEE DEV. SH. 10, FIG 4, DET. H.
4. R3-1B & KIX-1B SHUTDOWN RELAY SEE ALCO DWG. 590715310620.

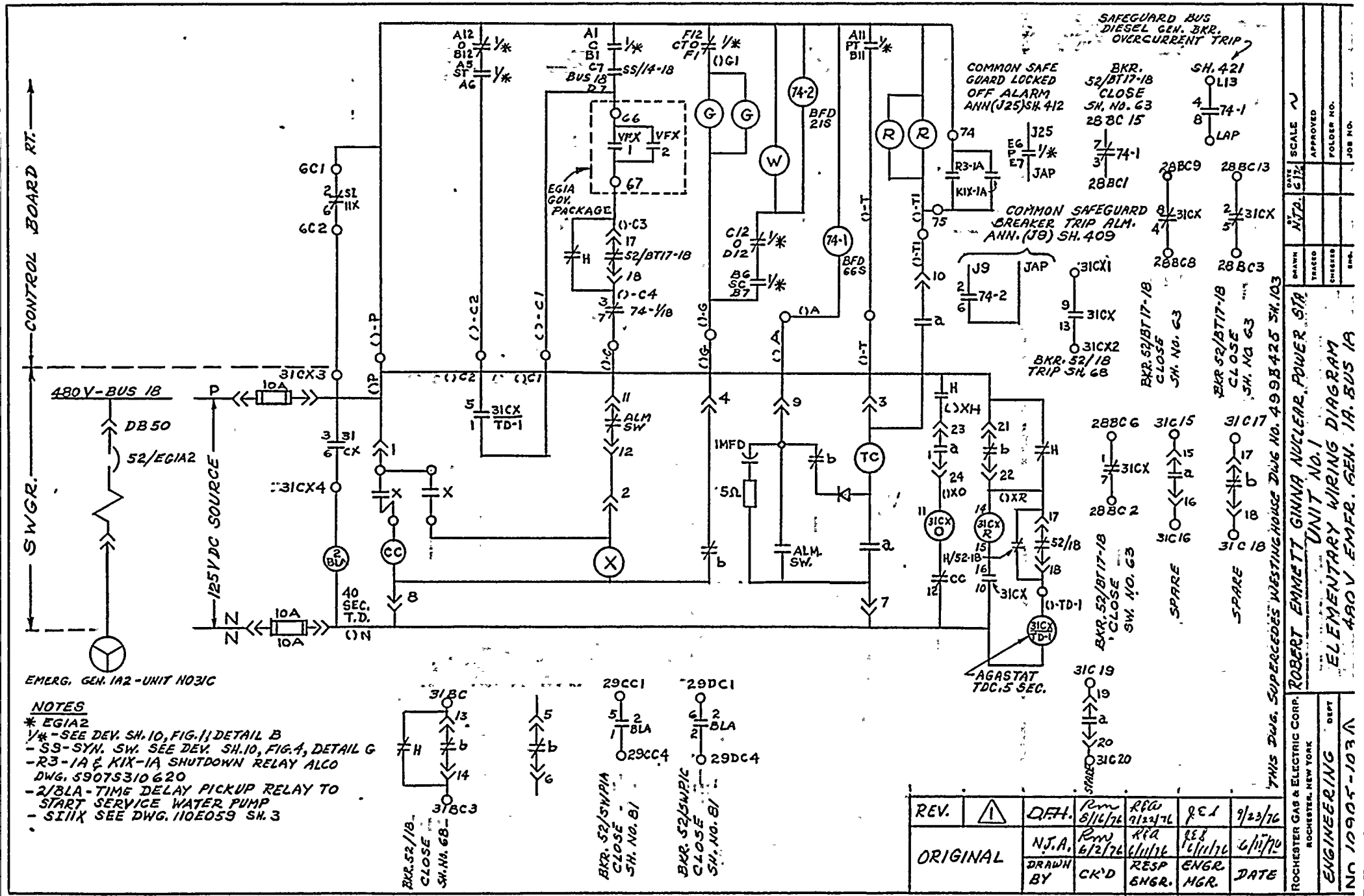
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SHEET 102

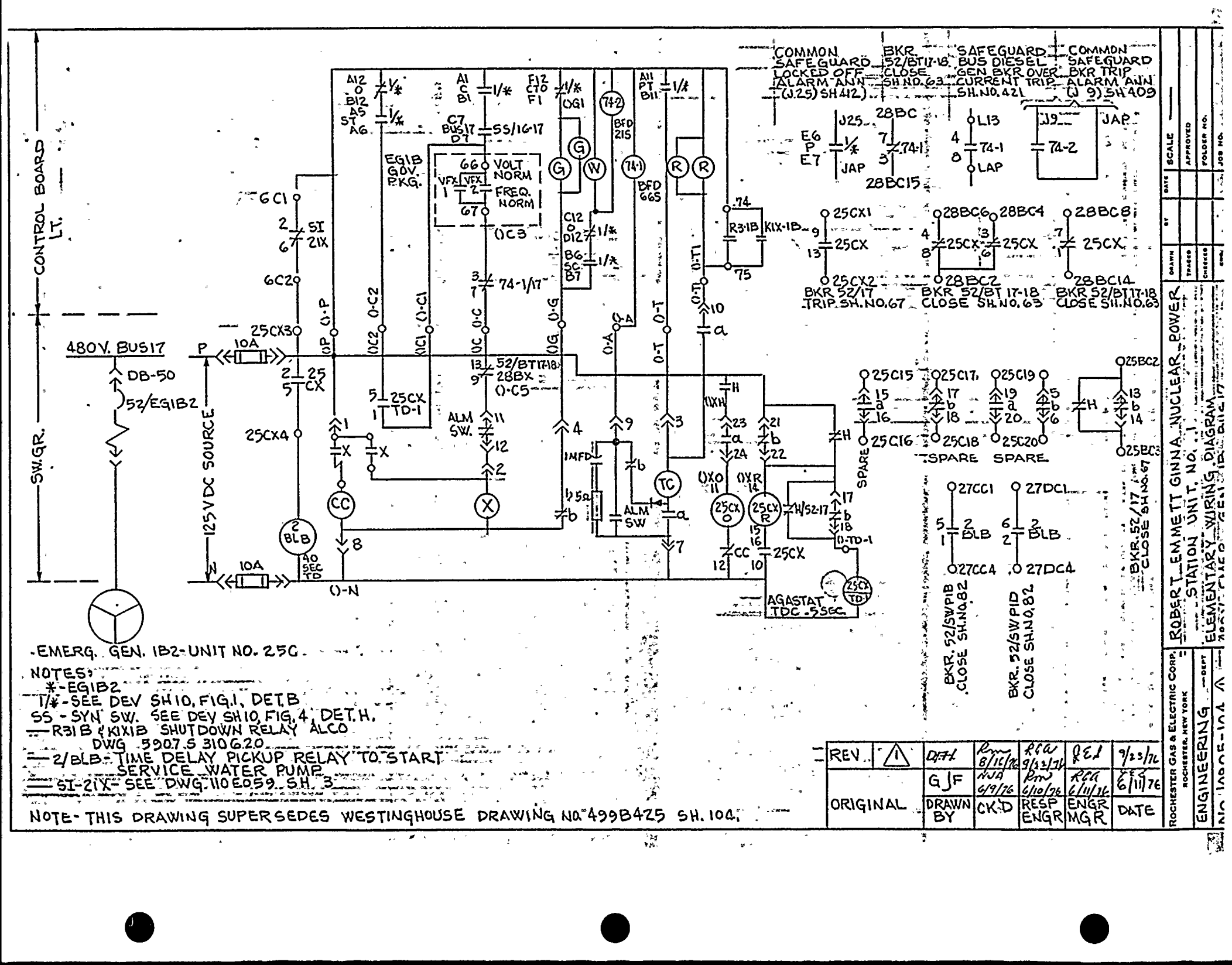
REV.						
ORIGINAL	GJF 6-1-76	RMW 6/11/76	REA 6/11/76	GEL 6/11/76	6/11/76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

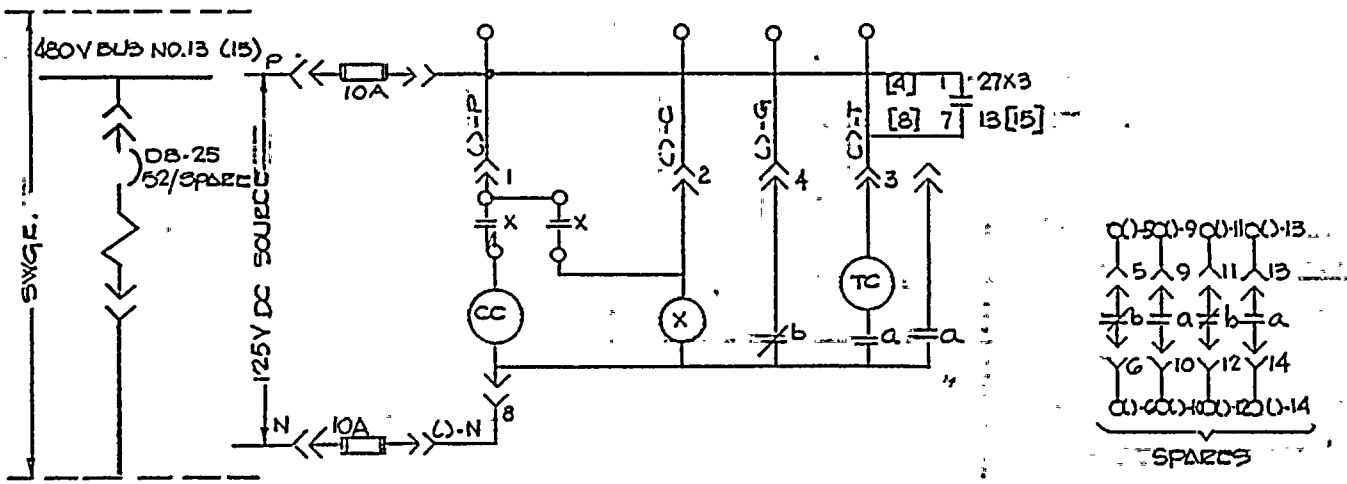
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
480V. EMER. GEN. 1B BUS 16

DRAWN | TRACED | CHECKED | BY | DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.


CONTROL BOARD RT.
SWGR.
480V-BUS 18
DB 50
52/EG1A2
125V DC SOURCE
EMERG. GEN. 1A2 - UNIT NO 3
SAFEGUARD BUS DIESEL GEN. BKR. OVERCURRENT TRIP
COMMON SAFE GUARD LOCKED OFF ALARM ANN(J25) SH. 412
BKR. 52/BT17-18 CLOSE SH. NO. 63
SH. 421
COMMON SAFEGUARD BREAKER TRIP ALM. ANN. (J9) SH. 409
BKR. 52/BT17-18 TRIP SH. 68
BKR. 52/BT17-18 CLOSE SH. NO. 63
BKR. 52/BT17-18 CLOSE SH. No. 63
SPARE
SPARE
AGASTAT TDC.5 SEC.
EGIA GOV. PACKAGE
BUS 18
ALM SW
1MFD
5Ω
ALM. SW.
40 SEC. T.D.
10A
10A
10A
BKR. 52/1B CLOSE SH. No. 68
BKR. 52/SW1A CLOSE SH. NO. 81
BKR. 52/SW1C CLOSE SH. NO. 81
BFD 21S
BFD 66S
NOTES
* EGIA2
1/* - SEE DEV. SH. 10, FIG. 1, DETAIL B
- SS - SYN. SW. SEE DEV. SH. 10, FIG. 4, DETAIL G
- R3-1A & KIX-1A SHUTDOWN RELAY ALCO DWG. 5907S310620
- 2/8LA - TIME DELAY PICKUP RELAY TO START SERVICE WATER PUMP
- S11X SEE DWG. 110E059 SH. 3
REV.
ORIGINAL
DRAWN BY
CK'D
RESP ENGR.
ENGR. MGR.
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING
ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
480V EMER. GEN. 1A BUS 1A
SCALE
APPROVED
FOLDER NO.
JOB NO.
DRAWN
TRACED
CHECKED
ENGR.
THIS DWG. SUPERCEDES WESTINGHOUSE DWG NO. 4998425 SH. 103
DWG NO. 10904-1037


COMMON SAFEGUARD LOCKED OFF ALARM ANN (J 25) SH 412
BKR 52/BT17-18 BUS DIESEL CLOSE GEN BKR OVER CURRENT TRIP SH NO 63
SAFEGUARD BKR TRIP ALARM ANN (J 9) SH 409
CONTROL BOARD LT.
480V. BUS17
DB-50
52/EG1B2
SW.GR.
125 V DC SOURCE
10A
25CX3
25CX4
2 SI 21X
6C1
6C2
2 25 5 CX
5 25CX TD-1
ALM SW.
52/BT17-18 28BX
74-1/17
EG1B GOV. PKG.
66 VOLT NORM
67 FREQ. NORM
VFX
(0C3)
74-2
74-1
BFD 21S
BFD 66S
R3-1B
K1X-1B
74
75
10 a
1 MFD
5Ω
ALM SW
TC
1X
2A
22
21
23
17
18
SPARE
25CX TD
AGASTAT TDC-5SEC.
2 BLB
40 SEC TD
CC
8
7
12
10
25CX
25CX0
25CXR
14/52-17
0-TD-1
0-N
-EMERG. GEN. 1B2-UNIT NO. 25G.
25CX1
25CX2
BKR 52/17 TRIP SH. NO. 67
28BC6
28BC4
28BC2
BKR 52/BT 17-18 CLOSE SH. NO. 63
28BC8
28BC14
BKR 52/BT17-18 CLOSE SH. NO. 63
28BC
28BC15
J25
E6
E7
JAP
L13
74-1
LAP
J9
74-2
25C15
25C16
25C17
25C18
25C19
25C20
SPARE
SPARE
25BC2
25BC3
BKR. 52/17 CLOSE SH NO. 67
27CC1
27CC4
2 BLB
BKR. 52/SW PIB CLOSE SH. NO. 82
27DC1
27DC4
2 BLB
BKR. 52/SW PID CLOSE SH. NO. 82
NOTES:
*-EG1B2
1/*-SEE DEV SH 10, FIG. 1, DET. B
SS-SYN SW. SEE DEV SH 10, FIG. 4, DET. H.
R31B & K1X1B SHUTDOWN RELAY ALCO DWG 5907 S 310620
2/BLB-TIME DELAY PICKUP RELAY TO START SERVICE WATER PUMP
SI-21X-SEE DWG 110E059 SH. 3
NOTE-THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 499B425 SH. 104.
REV. 1
ORIGINAL
DRAWN BY GJF
CK'D
RESP ENGR
ENGR MGR
DATE
9/23/76
6/11/76
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.
SCALE
APPROVED
FOLDER NO.
JOB NO.



SPARE FEEDER - UNITS 7B & 4B BUS 13
7B BUS 15

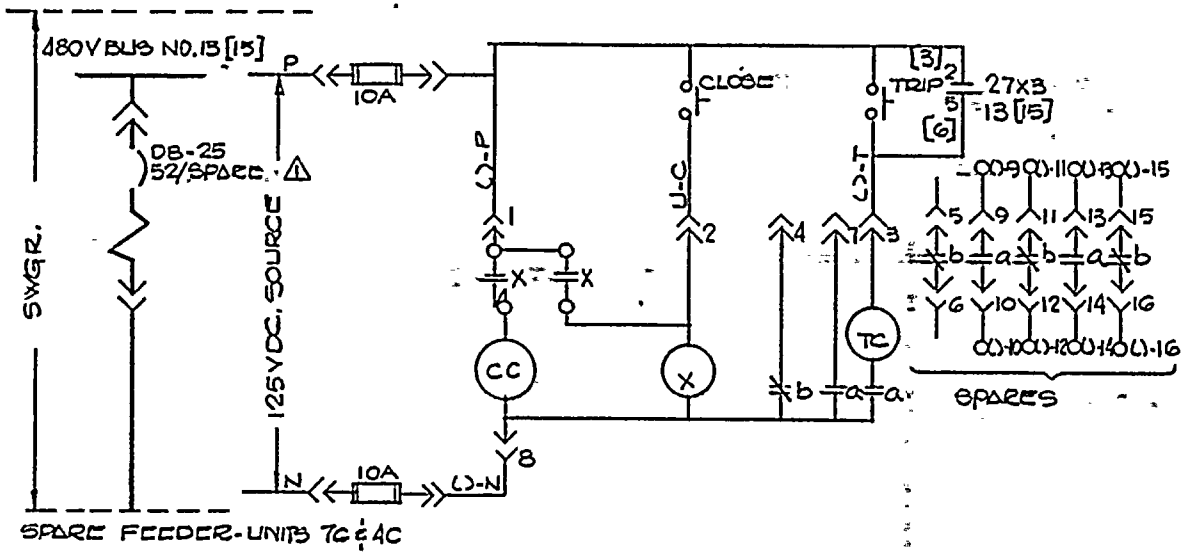
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. #499B425 SHEET 105

REV.						
ORIGINAL	AJV III	RJM	REG 11-5-74	JES	11-8-74
	DRAWN BY	CK'D	DESP. ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENG'R
NO. 10905-105

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SPARE FEEDER BUS NO. 13 & 15

DRAWN	BY	DATE 10-74	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



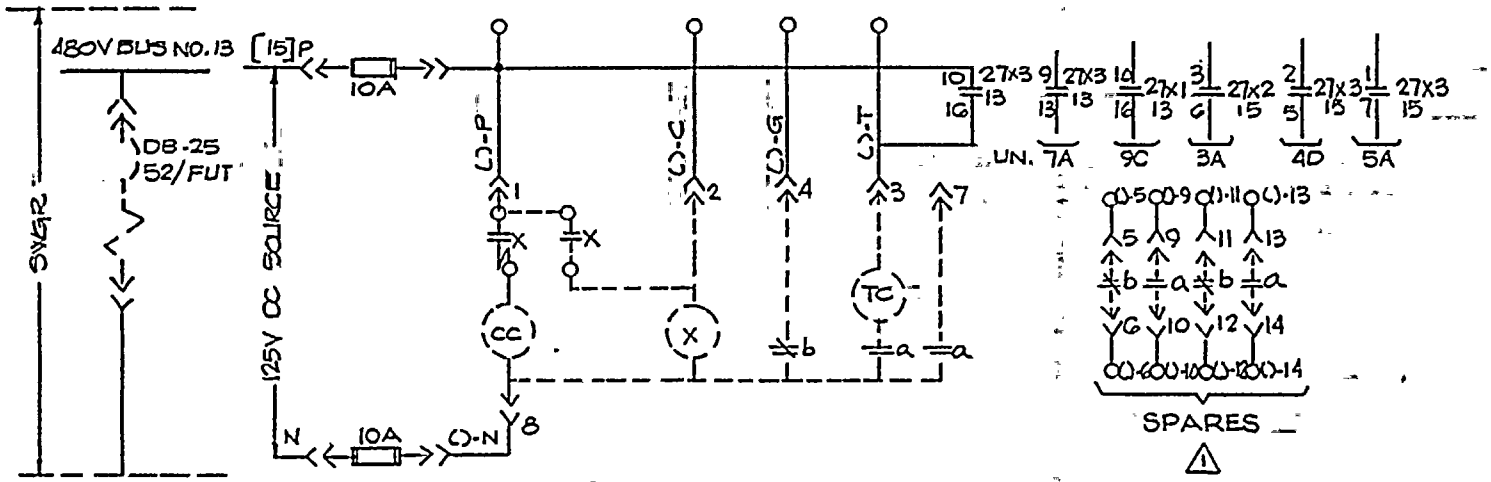
THIS DWG. SUPERSEDES WESTINGHOUSE DWG # 4993425 SH. 100

REV.	⚠					
		RMW 7/8/76	DFT 7-7-76	KFA 7-12-76	J C S	7/14/76
ORIGINAL		AJV III	RMW	KFA 11-5-76	J C S	11-8-76
		DRAWN BY	CK'D	RESP. MAN'R	ENGR'G. MAN'R	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-106 ⚠

ROBERT EMMETT GINNA NUCLEAR POWER STA
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SPARE FEEDER BUS NO. 13 & 15

DRAWN	BY D.H.	DATE 10-74	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



FUTURE FEEDER-UNIT GD, 7A, 9C, [3A], [4D] & [5A]

THIS DWG. SUPERSEDES WESTINGHOUSE DWG #4998425, SHEET-107

REV.	△	RJW	DHH	RFA 7-13-76	QEB	7/26/76
ORIGINAL		AJV III DRAWN BY	RJW CK'D	RFA 4-5-76 ENGR'G SUPV.	QEB ENGR'G MANAGER	4-8-76 DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

DEPT ENG'R

NO. 10905-107 △

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

FUTURE FEEDER-BUS NO. 13 & 15

DRAWN TRACED CHECKED ENG.

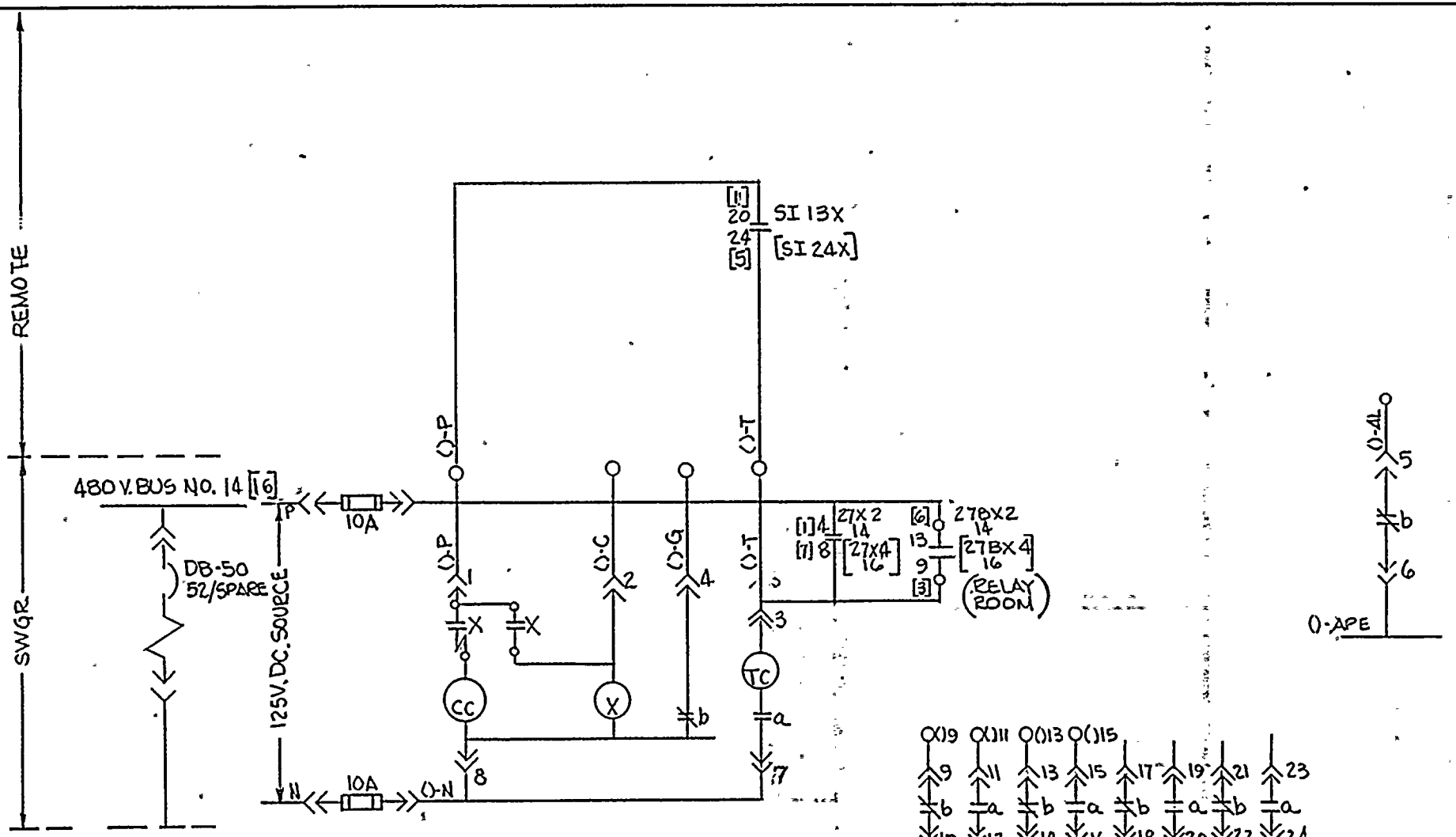
D.H. DATE 10-15

SCALE

APPROVED

FOLDER NO.

JOB NO.



SPARE FEEDER - UNITS 21A & [17A]

NOTE:
SI13X SI24X DWG 1108059 SH3

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SH 108

REV		DFT.				
ORIGINAL		GJF				5/28/76
		DRAWN BY	CK'D	RESP ENG R	ENG R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

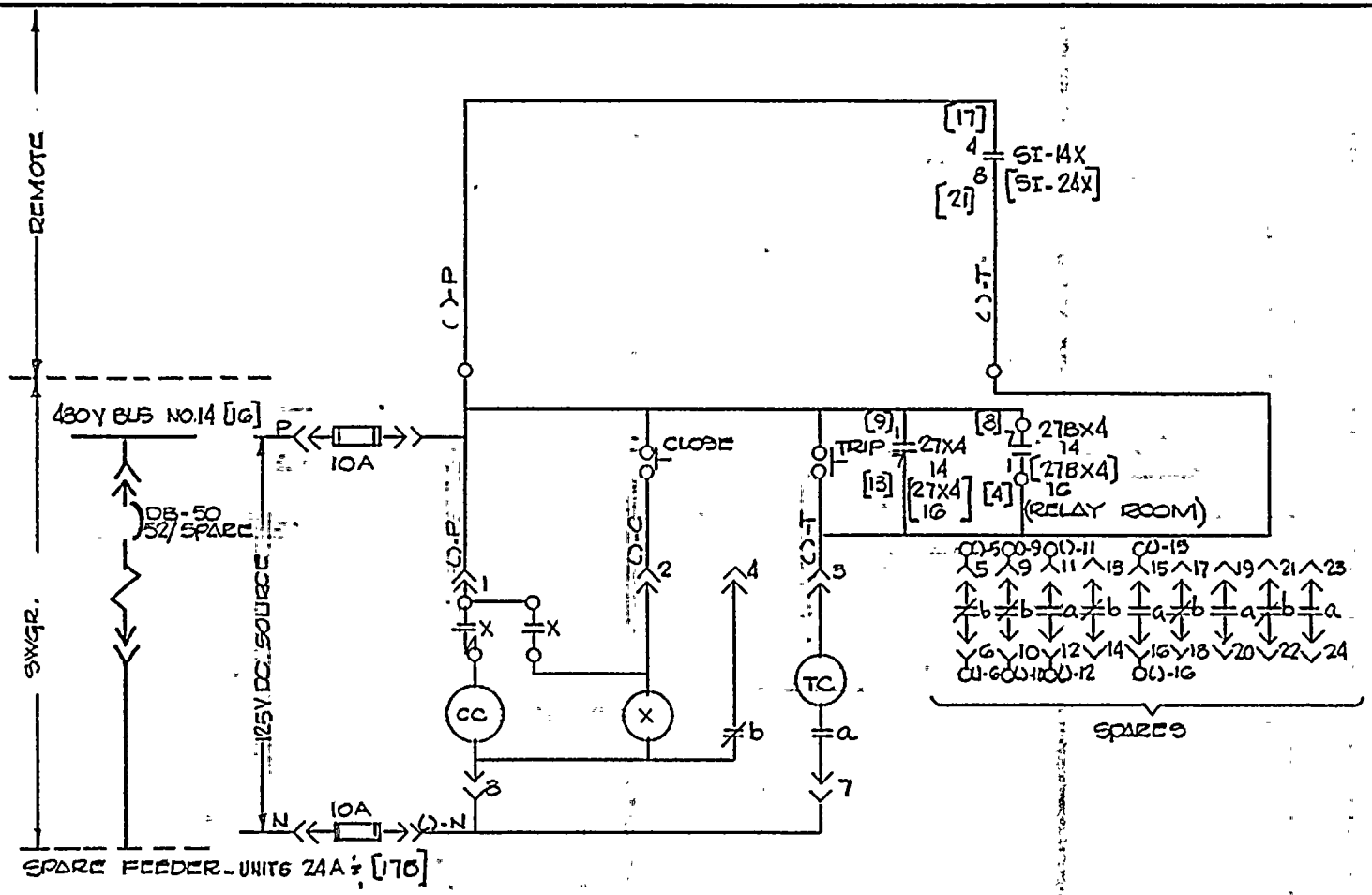
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

SPARE FEEDER BUS NO. 14 & 16

	BY	DATE	SCALE
DRAWN			
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:

SI14X, SI24X DWG 1105059 SH.3

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. # 499B425 SHEET-109

REV.						
ORIGINAL	D.H. DRAWN BY	pm CK'D	RBA 4-5-71 RESP. ENG'R	JCL ENG'R MAN'G	4-6-71 DATE	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

DEPT ENG'R

NO. 10905-109

DRAWN DH. DATE 10-70 SCALE

TRACED APPROVED

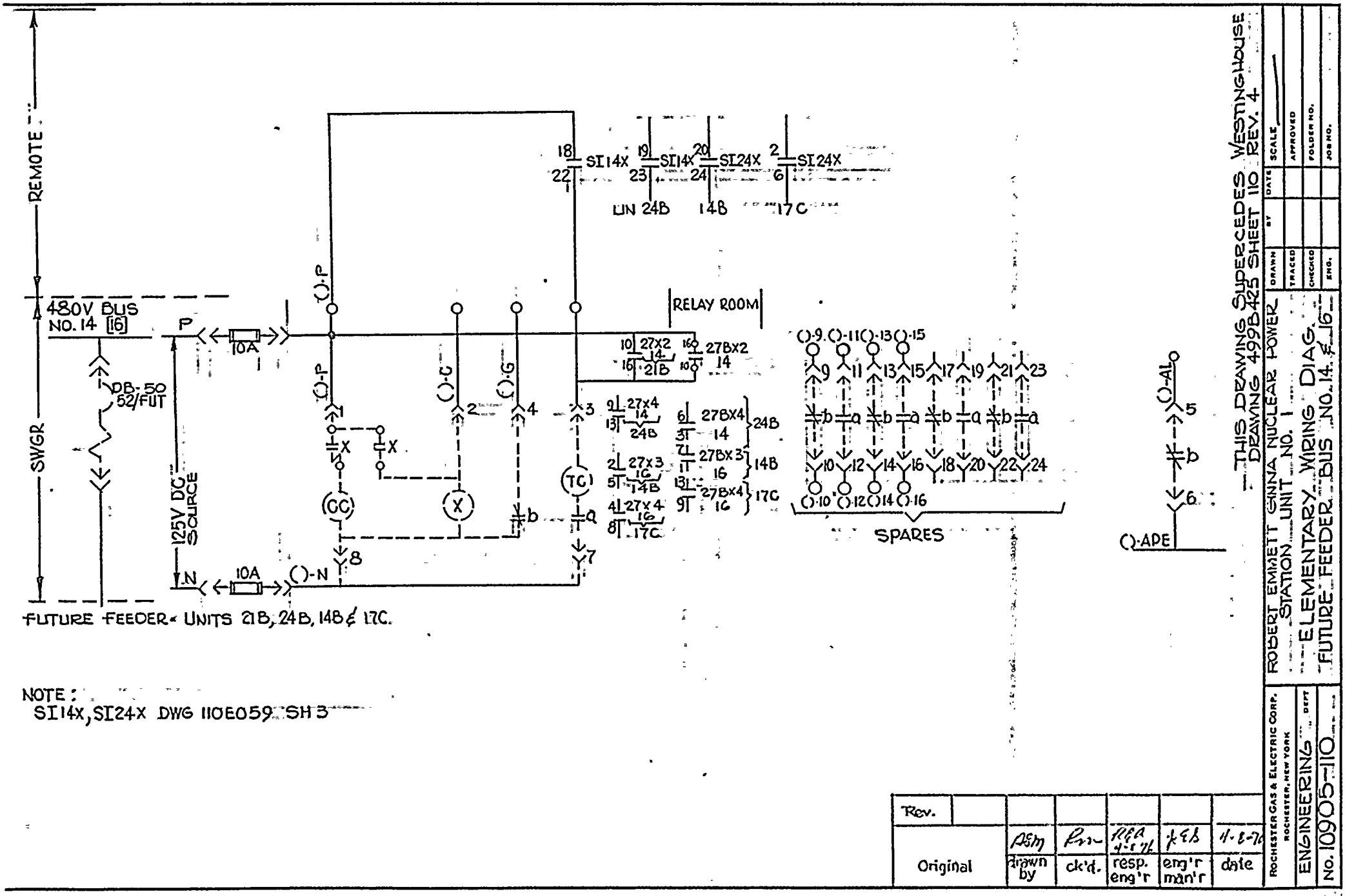
CHECKED FOLDER NO.

ENG. JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

SPARE FEEDER BUS NO. 14 & 16



FUTURE FEEDER - UNITS 21B, 24B, 14B & 17C.

NOTE:
SI14X, SI24X DWG 110E059 SH 3

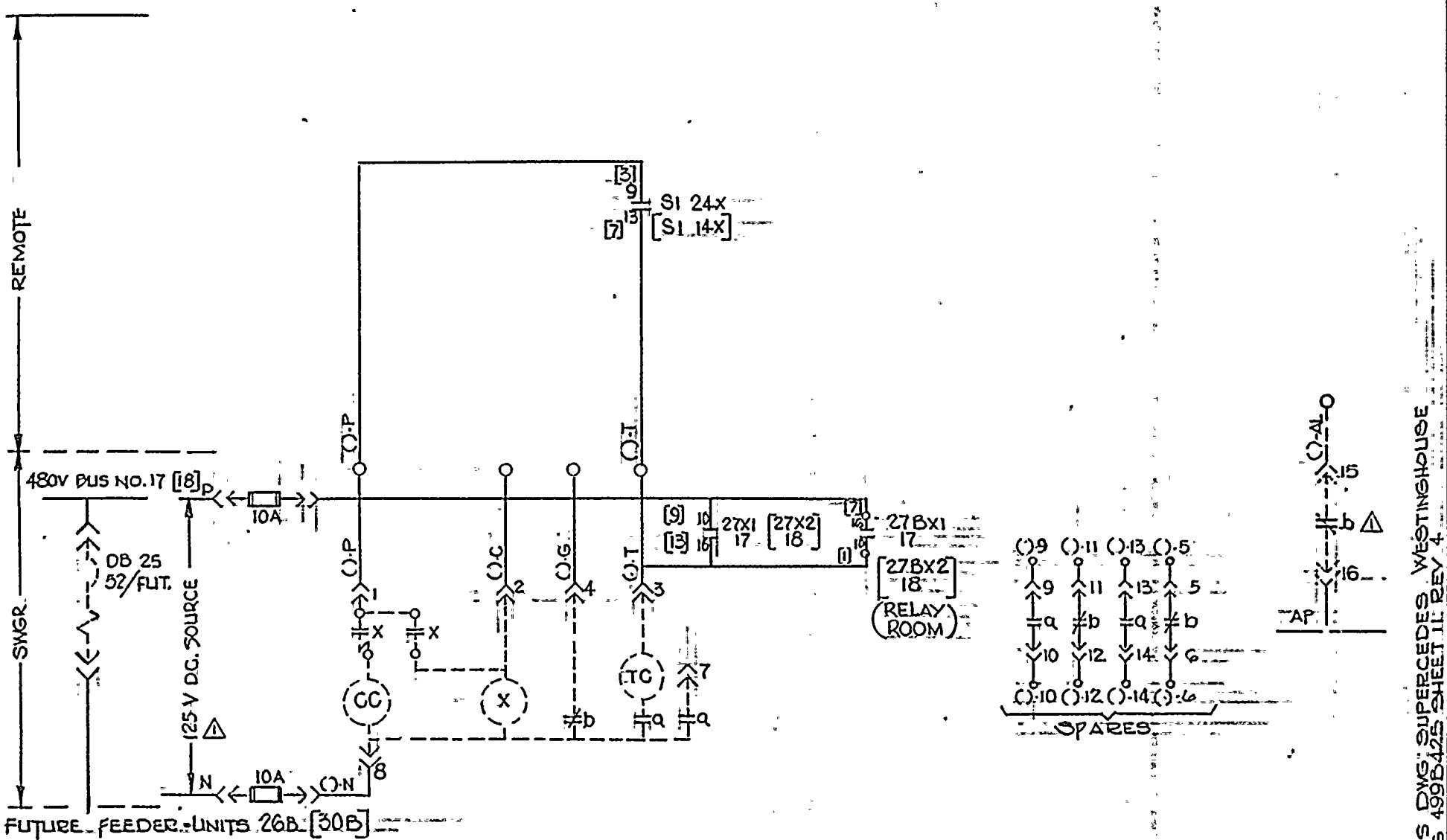
THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425 SHEET 110 REV. 4

Rev.						
Original		DSM drawn by	RWA ck'd.	RGA 4-5-74 resp. eng'r	JEB eng'r mgr	1-8-74 date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-110

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAG.
FUTURE FEEDER BUS NO. 14 & 16

DRAWN | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.



NOTE:
SI24X, SI 14X, DWG 1108059 SH3

THIS DWG SUPERCEDES WESTINGHOUSE DWG 4998425 SHEET 11 REV 4

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

FUTURE FEEDER BUS NO. 17-5-18

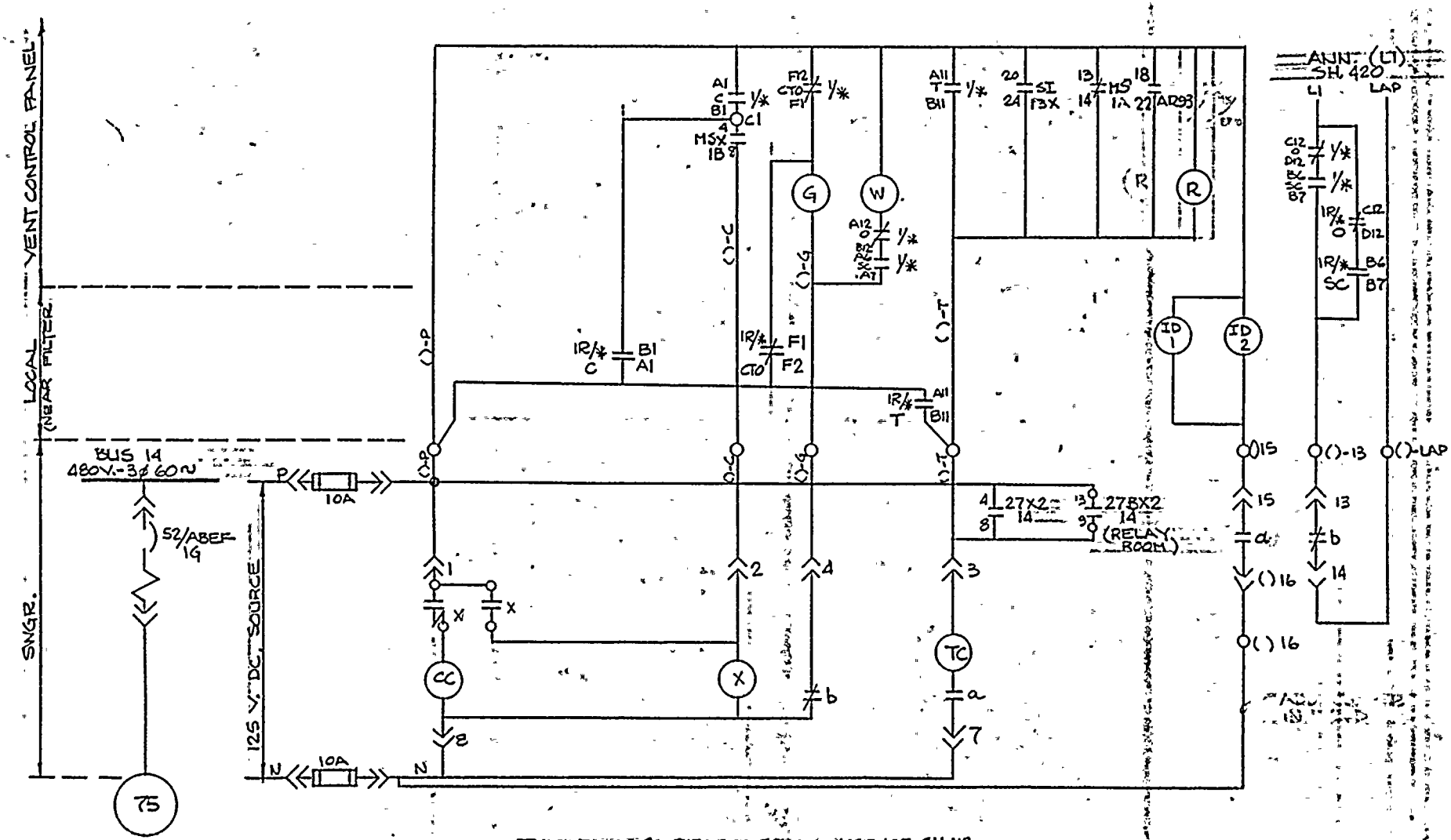
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT.

No. 10905-111

Rev.	1					
Original		ASM	DFH	KFA 11-11-76	JEL	11-6-76
		drawn by	ck'd	resp. eng'r	eng'r mgr'l	date

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.



NOTE:

① SI-13X - ⓦ DWG 1100E059 SH.3

② MSX-1A RELAY SEE SH.319

③ ID-1 - INLET DAMPER TO NEW FILTER (WAS SUCTION DAMPER FOR ABEF-1D) SH.197

④ ID-2 - INLET DAMPER TO NEW FILTER (WAS SUCTION DAMPER FOR ABEF-1E) SH.189

} BOTH ENERGIZE TO OPEN-FAIL CLOSED ON LOSS OF AIR OR ELECTRIC POWER

⑤ 1/* SEE SW. DEV. FIG. #1 SH.10 NAMEPLATE DETAIL 'C'

⑥ AR-9A - SEE SHEET 112 FOR OPERATION ON [illegible]

⑦ 1R/* - REMOTE CONTROL SWITCH-SEE SW. DEV. FIG. #1, SH.10

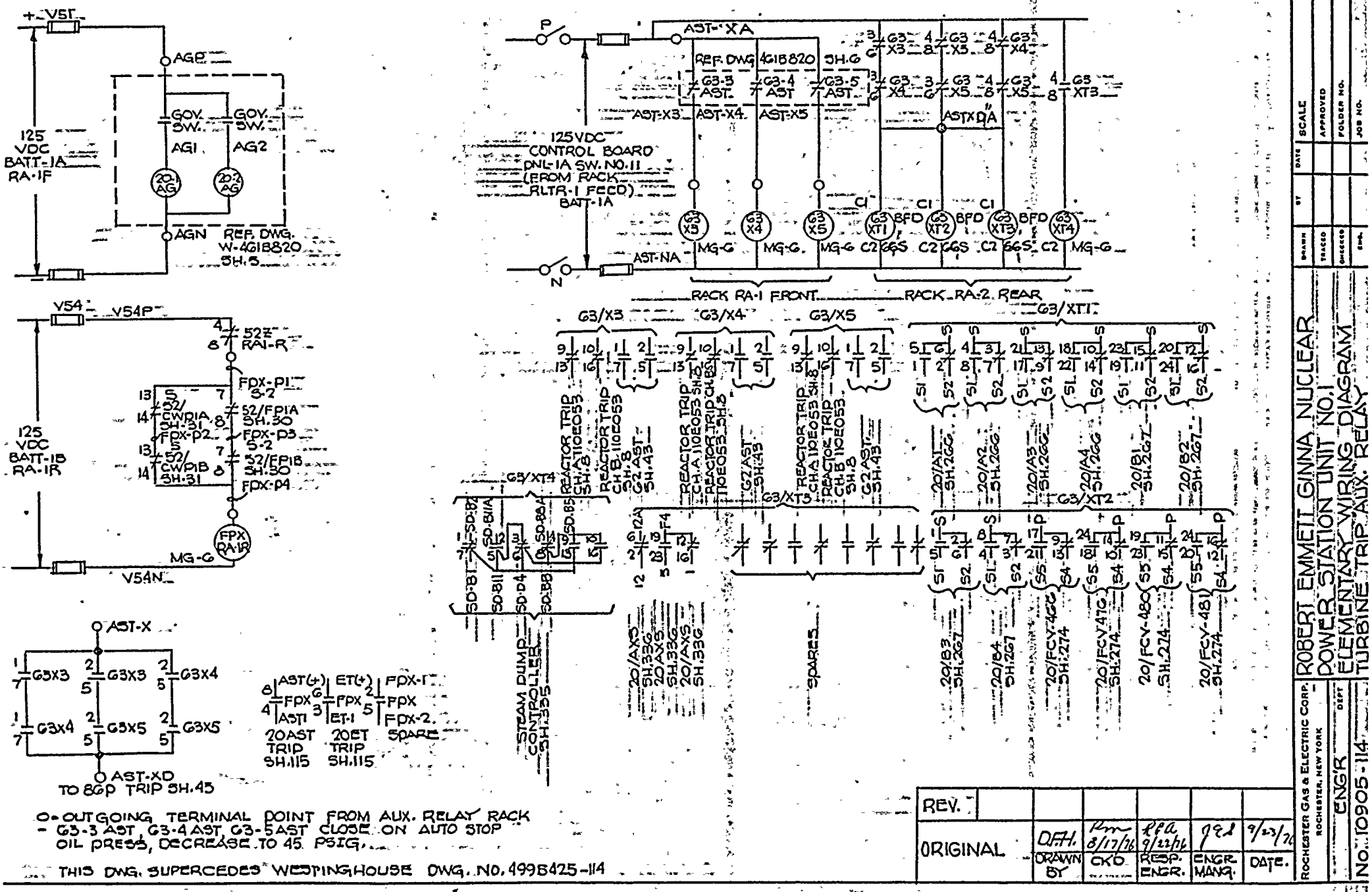
	2	DH. 12-7-76	DG 1-5-77	[illegible] 1-6-77	JES	1-6-77
REV.:	1	DH.	RMW 5/16/78	[illegible] 5/19/78	JES	5/19/78
ORIGINAL		AJV III	RMW	[illegible]	JES	11/28/76
		DRAWN BY	CKD	RESP. ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAG.
AUX. BLDG. EXHAUST FAN 1G

DRAWN | BY | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENGR. | JOB NO.

NO. 10905-112 2/2



O - OUTGOING TERMINAL POINT FROM AUX. RELAY RACK

- G3-3 AST, G3-4 AST, G3-5 AST CLOSE ON AUTO STOP OIL PRESS, DECREASE TO 45 PSIG.

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 4998425-114

REV.						
ORIGINAL		D.F.H.	8/17/76	R.F.A. 9/22/76	J.E.J.	9/23/76
		DRAWN BY	CK'D	RESP. ENGR.	ENGR. MANG.	DATE.

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

DEPT. ENG'R

DRAWN BY | DATE | SCALE

TRACED | APPROVED

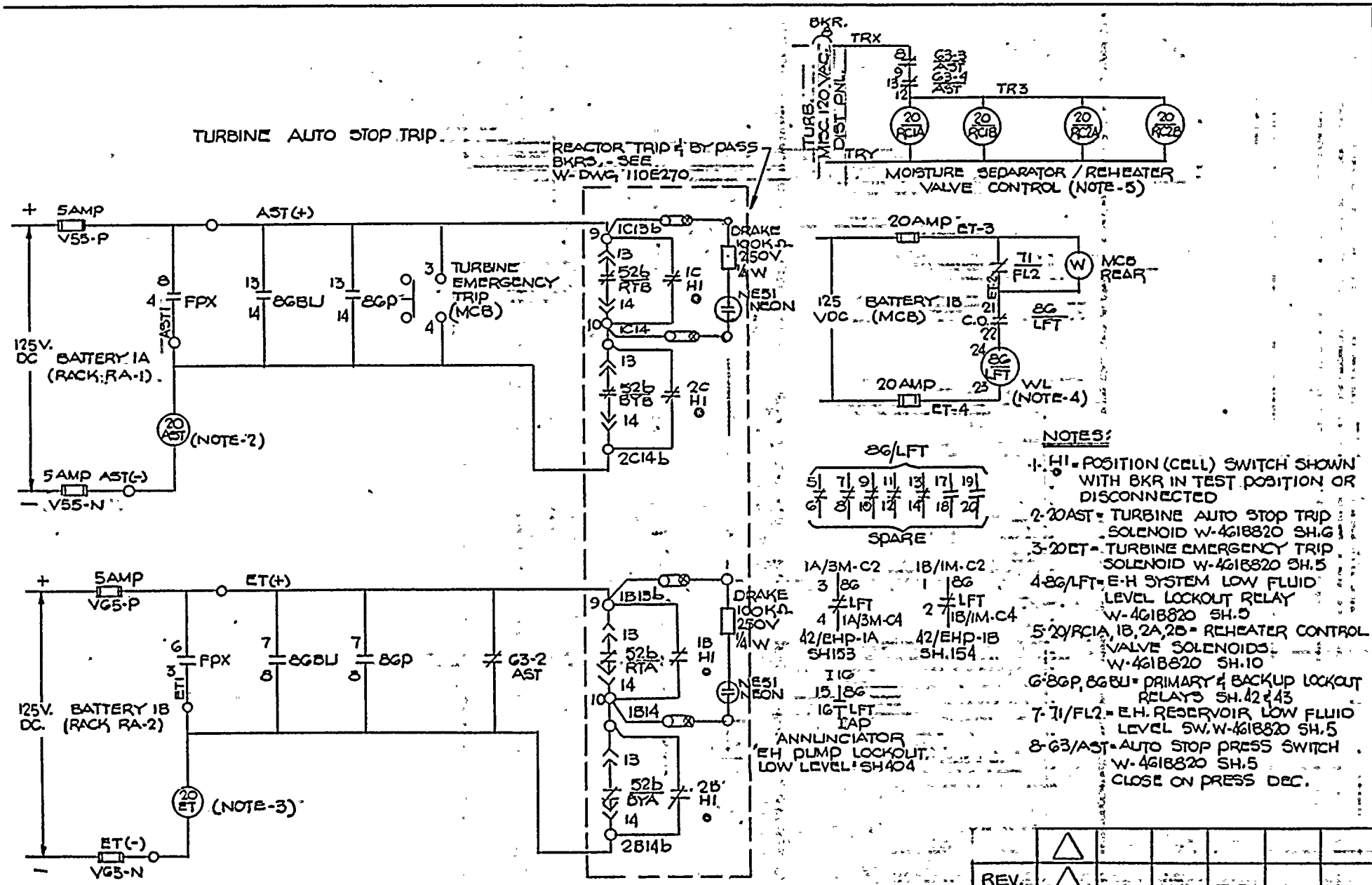
CHECKED | FOLDER NO.

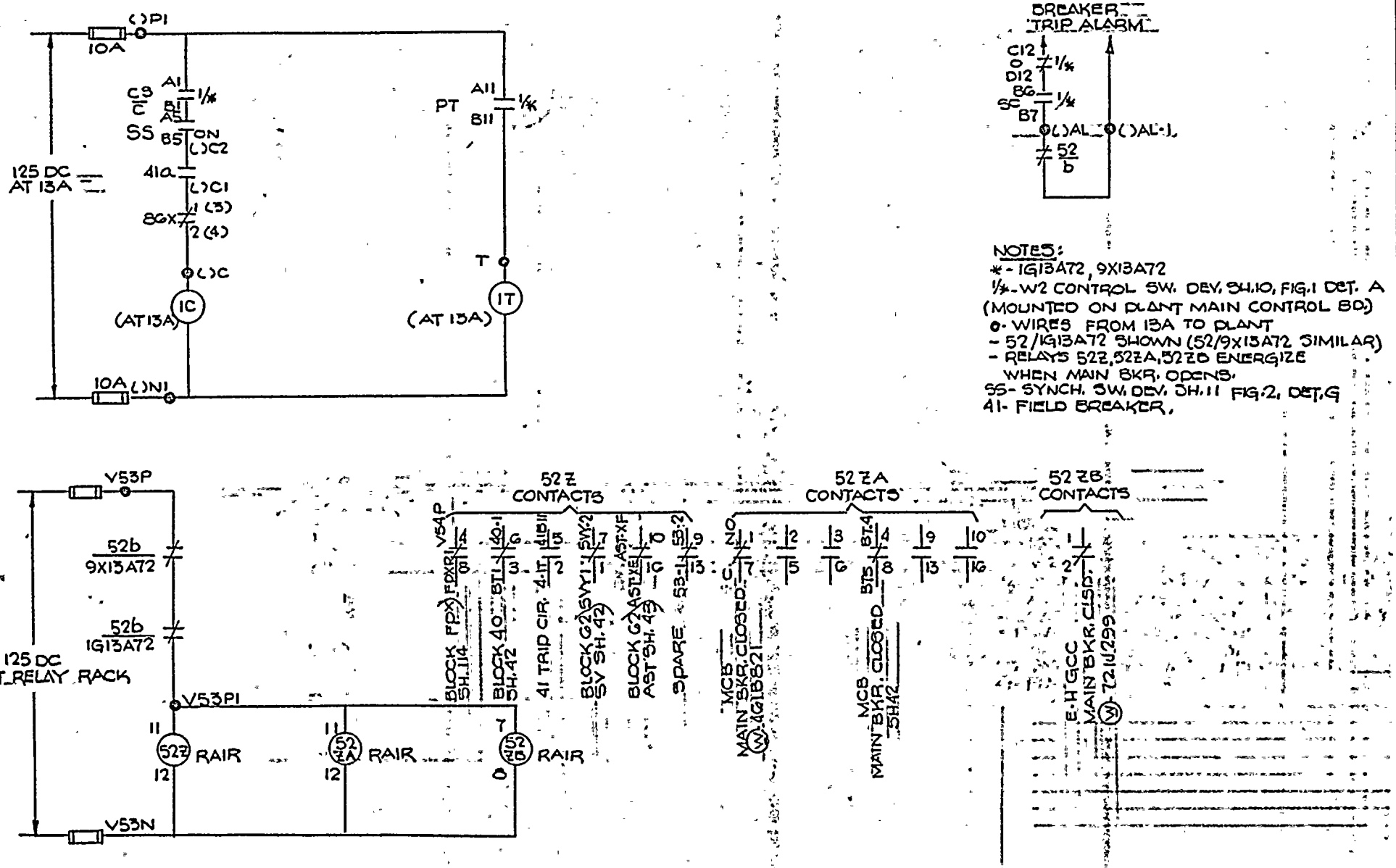
ENG. | JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1

ELEMENTARY WIRING DIAGRAM TURBINE TRIP AUX. RELAY

NO. 10905-114


TURBINE AUTO STOP TRIP
REACTOR TRIP & BY PASS BKRS, - SEE W-DWG 110E270
BKR. TRX
TURB. MOC 120 VAC DIST PNL
TRY
TR3
20 RC1A
20 RC1B
20 RC2A
20 RC2B
MOISTURE SEPARATOR / REHEATER VALVE CONTROL (NOTE-5)
+ 5AMP V55-P
AST(+)
125 V. DC BATTERY 1A (RACK RA-1)
4 FPX
AST
13 14 86BU
13 14 86P
3 TURBINE EMERGENCY TRIP (MCB)
4
20 AST (NOTE-2)
5 AMP AST(-) V55-N
1C13b
13 52b RTB 14
1C14
10
13 52b BYB 14
2C14b
2C HI
DRAKE 100K Ω 250V 1/4 W
NE51 NEON
20AMP ET-3
71 FL2
W MCB REAR
125 VDC BATTERY 1B (MCB)
ET-2
21 22 86 C.O. LFT
24 86 LFT
20AMP ET-4
25 WL (NOTE-4)
86/LFT
5 7 9 11 13 17 19
6 8 10 14 14 18 20
SPARE
1A/3M-C2 3 86 LFT 4 1A/3M-C4
42/EHP-1A SH153
1B/1M-C2 1 86 LFT 2 1B/1M-C4
42/EHP-1B SH.154
I 16 15 86 LFT 16 AP
ANNUNCIATOR 'EH PUMP LOCKOUT LOW LEVEL' SH404
+ 5AMP VG5-P
ET(+)
125 V. DC. BATTERY 1B (RACK RA-2)
6 3 ET FPX
7 8 86BU
7 8 86P
G3-2 AST
20 ET (NOTE-3)
ET(-) VG5-N
1B13b
13 52b RTA 14
1B14
10
13 52b BYA 14
2B14b
1B HI
2B HI
DRAKE 100K Ω 250V 1/4 W
NE51 NEON
NOTES:
1. HI = POSITION (CELL) SWITCH SHOWN WITH BKR IN TEST POSITION OR DISCONNECTED
2. 20AST = TURBINE AUTO STOP TRIP SOLENOID W-4618820 SH.6
3. 20ET = TURBINE EMERGENCY TRIP SOLENOID W-4618820 SH.5
4. 86/LFT = E-H SYSTEM LOW FLUID LEVEL LOCKOUT RELAY W-4618820 SH.5
5. 20/RC1A, 1B, 2A, 2B = REHEATER CONTROL VALVE SOLENOIDS W-4618820 SH.10
6. 86P, 86BU = PRIMARY & BACKUP LOCKOUT RELAYS SH.42 & 43
7. 71/FL2 = E.H. RESERVOIR LOW FLUID LEVEL SW. W-4618820 SH.5
8. G3/AST = AUTO STOP PRESS SWITCH W-4618820 SH.5 CLOSE ON PRESS DEC.
O = OUTGOING TERMINAL POINT FROM AUX. RELAY RACK
THIS DWG SUPERCEDES WESTINGHOUSE DWG NO. 4998425-115
REV.
ORIGINAL
DRAWN BY D.F.H.
CK'D 6/10/76
RESP. ENGR. 9/22/76
ENGR. MANG. J.E.B.
DATE 9/23/76
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENG'R
No. 10905-115
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
TURBINE SOLENOID CONTROL
BY DATE SCALE
DRAWN TRACED CHECKED ENG.
APPROVED
FOLDER NO.
JOB NO.



THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-116

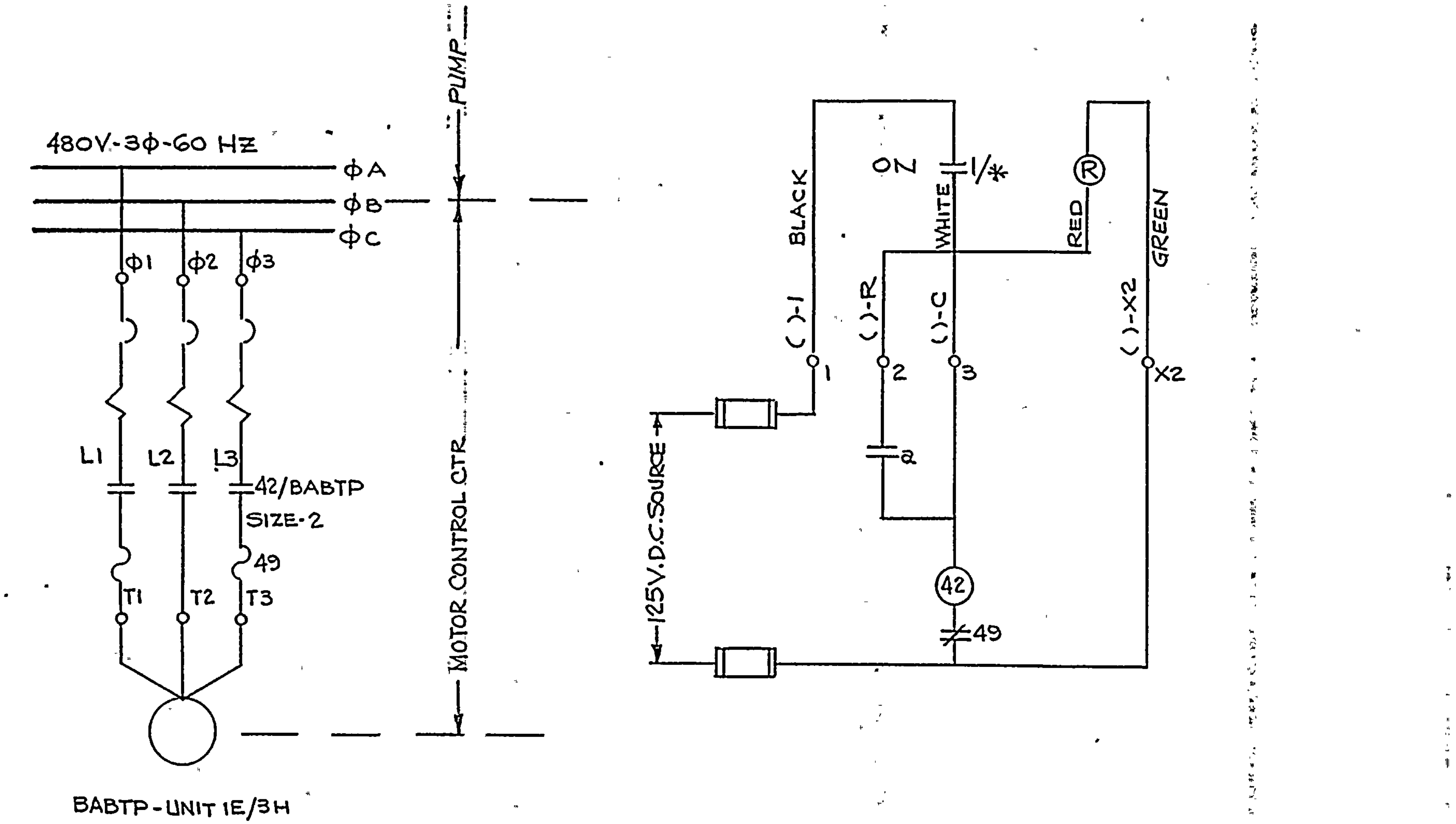
REV.						
ORIGINAL	D.F.H.	Rm 8/11/72	RFG 9/22/72	REED	KES	9/22/72
	DRAWN BY	CK'D	REED ENGR	ENG'R. MANG.		DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGR

ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
THEORY, OPERATION & DETAILED DATA

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

DWG. NO. 1116



NOTES:
* ON-OFF SELSW. LOCATED AT BATCH TANK

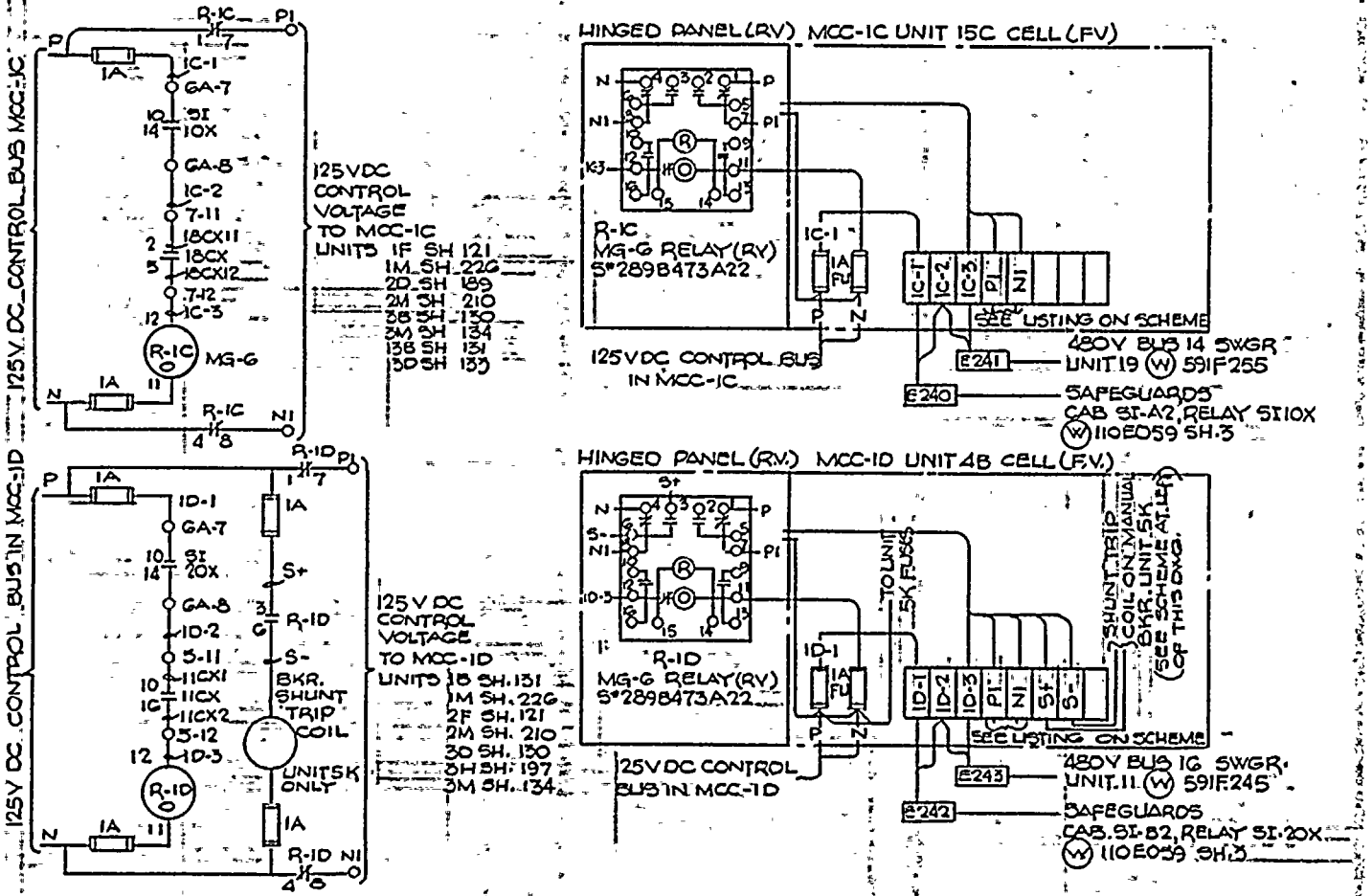
THIS DWG. SUPERCEDES DWG. No. 499B425
SH. 117 (No REV.)

REV.	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE
ORIGINAL	[illegible signature]	RHM 6/14/75	[illegible initials]	[illegible initials]	6/5/75

DRAWN: [illegible signature] DATE 3-21-74 | SCALE: NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG | JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No 1
ELEMENTARY WIRING DIAGRAM
BORIC ACID BATCH TANK TRANSFER PUMP

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. [illegible]-117



NOTE:

1- RELAYS R-IC & R-ID ARE OPERATED BY COINCIDENCE OF SAFETY INJECTION WITH THE EMERGENCY DIESEL GENERATOR BREAKER CLOSED (LOSS OF OFF-SITE POWER). THEY DE-ENERGIZE THE MCC. LOADS LISTED ABOVE BY REMOVING CONTROL VOLTAGE TO THE MOTOR STARTERS. RELAY R-ID ALSO TRIPS THE FEEDER TO THE BORIC ACID EVAPORATOR PACKAGE.

2- TO RESET RELAYS R-IC & R-ID, DEPRESS PUSH ROD ON FRONT COVER OF RELAYS (SI SIGNAL MUST BE RESET FIRST).

3- TO RESTORE POWER TO B.A. EVAPORATOR PACKAGE, RESET RELAY R-ID & CLOSE BREAKER 1 MCC-ID, UNIT 5K.

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 4998425 SH.118

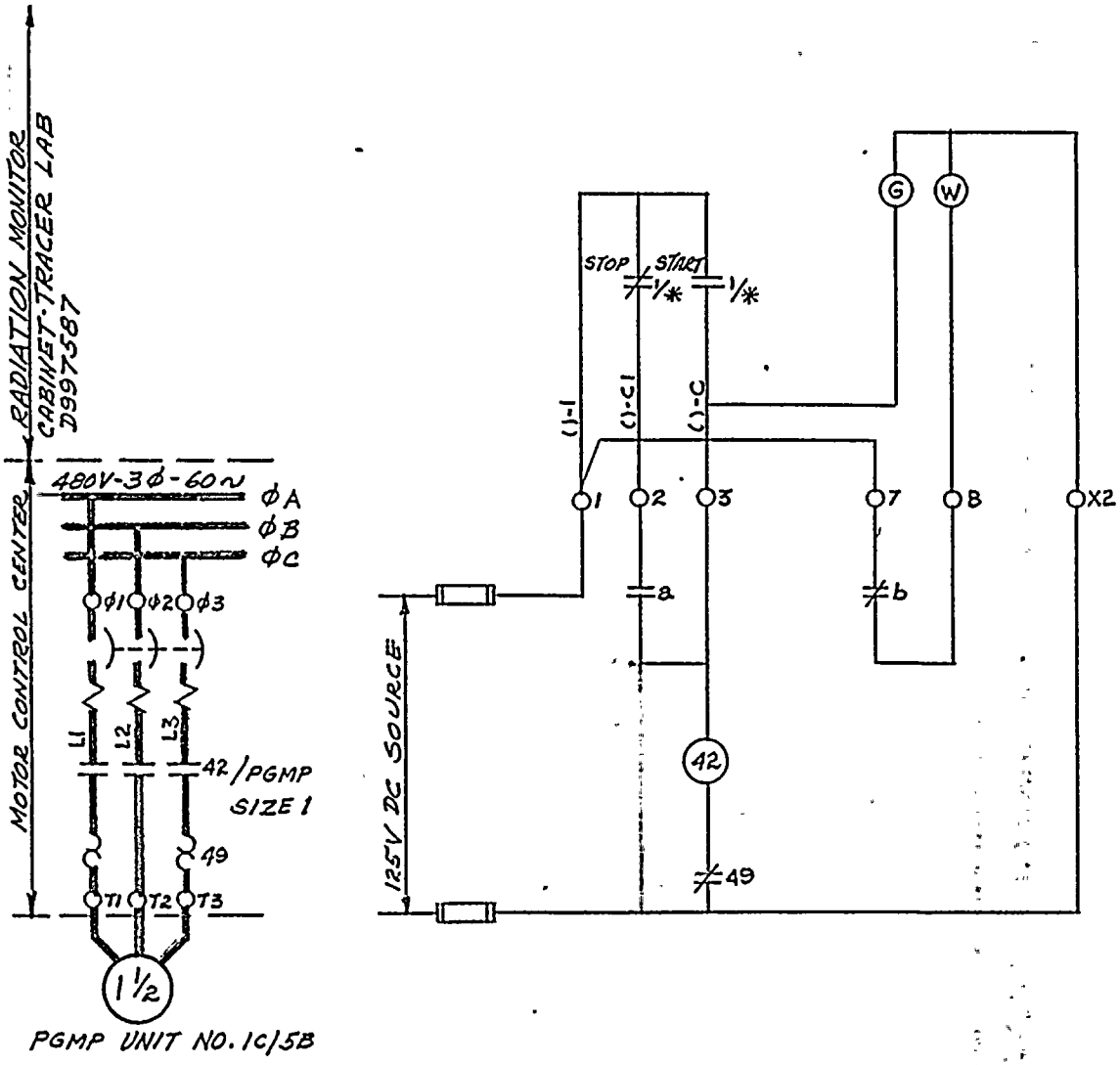
REV.	⚠	DFT.	RMW 9/16/76	REA 9/23/76	GEL	9/23/76
ORIGINAL		DFT. 6-8-76	RMW 6/10/76	REA 6/10/76	GEL 6/10/76	6-10-76
		DRAWN BY	CK'D	RESP. ENG'R	ENG'R MAG'R	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGR.

ROBERT E. MIMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MCC-IC & ID LOAD SHEDDING

DRAWN | BY | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

NO. 10905-118 SHEET



CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1st BLOCK (FRONT) ROTATED 180° TYPE OT2A	(1)-1 NC	(1)-C NO, (1)-C1

STOP START

OPERATOR OT2VG
3 POSITION
SPRING RETURN
TO NEUTRAL

1/*

REV.		DRAWN BY	CH'D.	RESP. ENGR.	ENGR. MAGR.	DATE
	ORIGINAL	N.T.A.	Rmd 7/19/62	RTG 7/16/62	SLC 7/16/62	7/16/62

DRAWN N.T.A. DATE
TRACED
DUPLICATED
CHKD.
SCALE
APPROVED
FOLDER NO.
JOB NO.

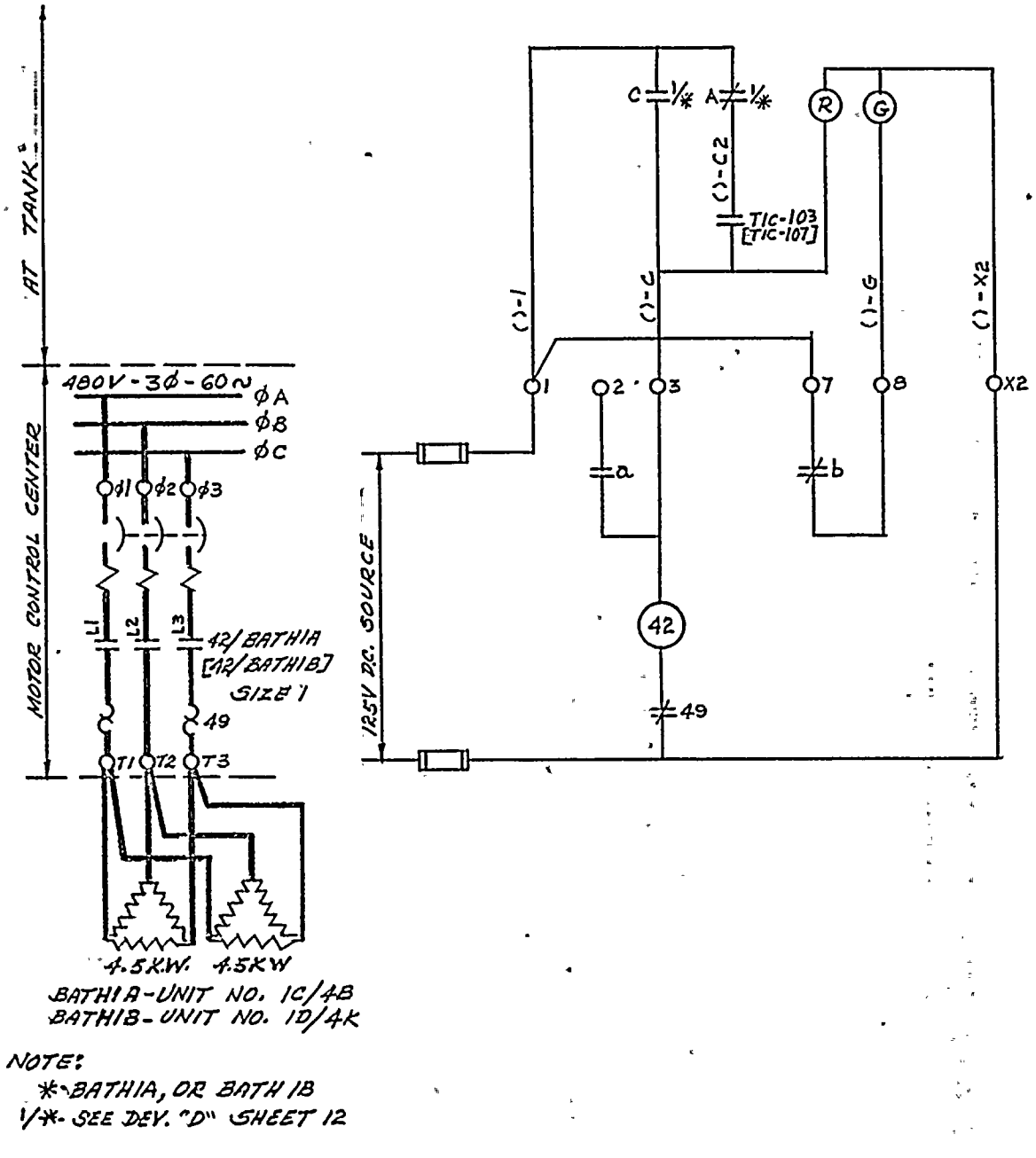
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT 1 - ELEMENTARY WIRING DIAGRAM
AUXILIARY BUILDING AIR VENT. PARTICULATE & GAS MONIT. PUMP

611-7006 VN 119

*NOTE:
*PGMP

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 119



NOTE:
*-BATHIA, OR BATHIB
1/*- SEE DEV. "D" SHEET 12

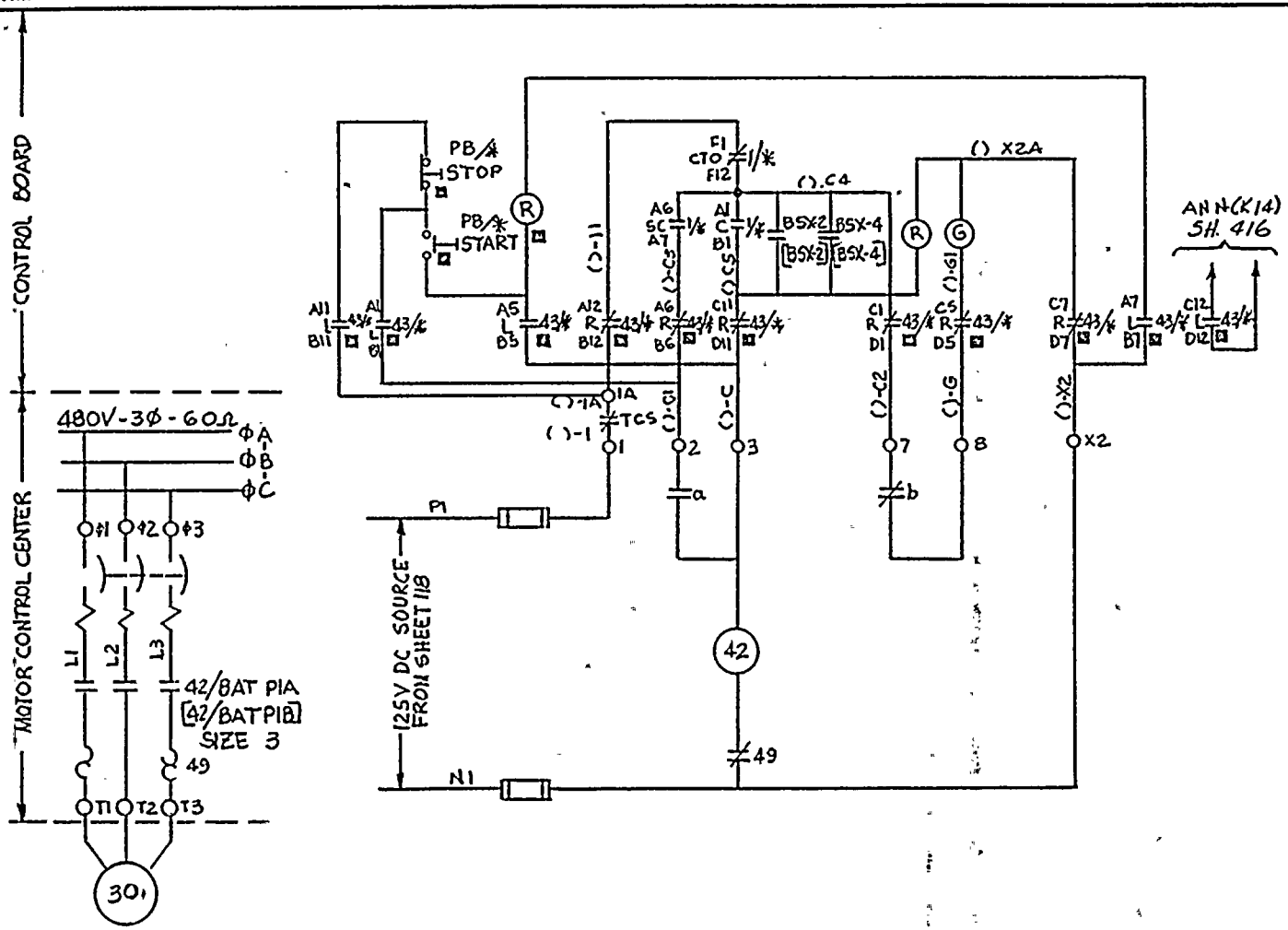
THIS DWG SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 120

REV.						
ORIGINAL	N.T.A. 7/14/76	K.P.D. 7/14/76	K.E.J. 7/14/76			
DRAWN BY	CH'D.	RESP. ENGR.	ENGR. MAGR	DATE		
DRAWN N.J.A.	DATE	SCALE				
TRACED		APPROVED				
CHECKED		FOLDER NO.				
ENG.		JOB NO.				

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
BORIC ACID TANK 1A & 1B HEATERS

No. 10905-120



BATPIA-UNIT NO. 1C/1F
[BATPIB-UNIT NO. 1D/2F]

NOTES:

TCS - THERMAL CUTOUT SW. LOC. IN MTR.
BSX-2 & BSX-4 SEE SHEET-350
*-BATPIA OR BATPIB
Z-LOCATED AT MOTOR
1/* - SEE DEV. SHEET-10, FIG. 1, DETAIL D
43/* SEE SWITCH DEV. THIS SHEET

43/*

CONTACT	POSITION R	POSITION L
A11-B11		X
A12-B12	X	
A1-B1		X
A5-B5		X
A6-B6	X	
A7-B7		X
C11-D11	X	
C12-D12		X
C1-D1	X	
C5-D5	X	
C6-D6		X
C7-D7	X	

TYPE W2 5°505A 221601
(MAINTAINED)

TRANSFER SWITCH REMOTE LOCAL

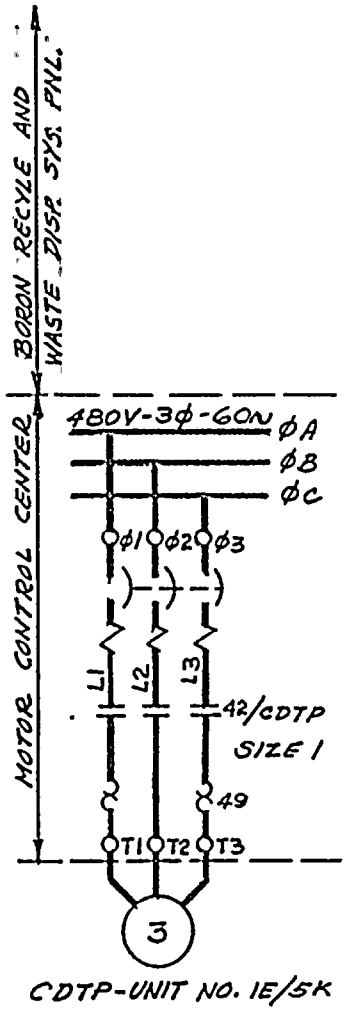
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 299B425 SH 121

REV.						
ORIGINAL	GJF	PRW 8/10/75	REG 4-8-76	GEL	4-8-76
	DRAWN BY	CK'D	RESP ENG'R	ENG'R MGR	DATE

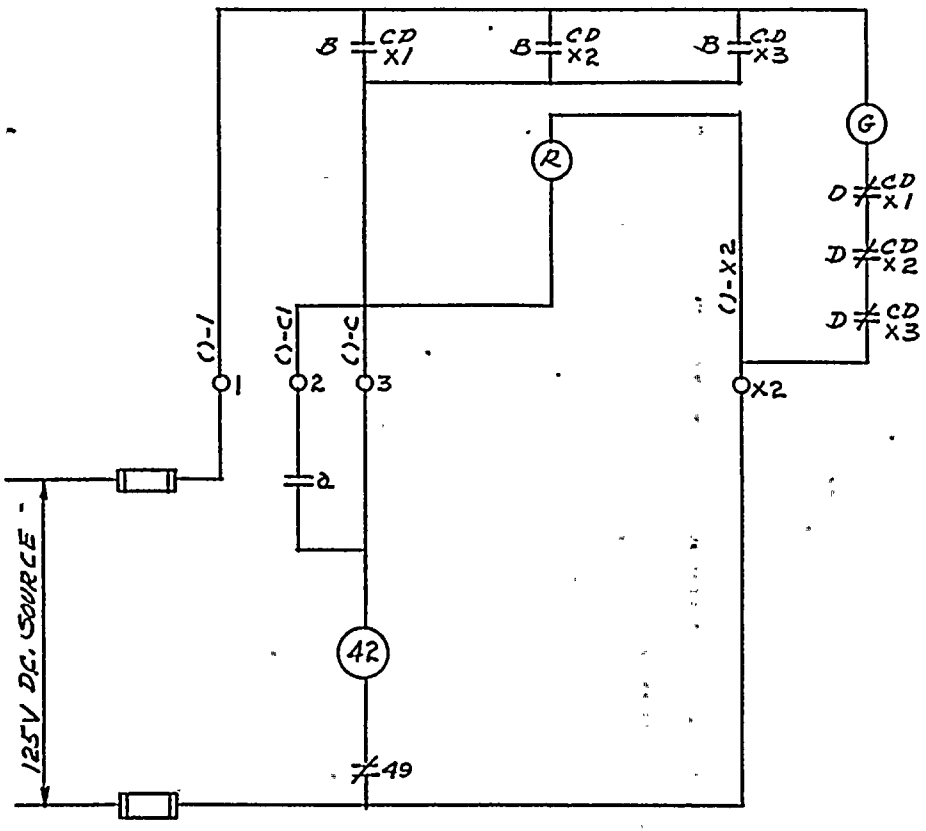
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905-121

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT-NO. 1
ELEMENTARY WIRING DIAGRAM - BORIC ACID TRANSFER PUMP 1A & 1B

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



CDTP-UNIT NO. 1E/5K



NOTE:
*- CDTP
CDX1, CDX2, CDX3 - SH. 331

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 122

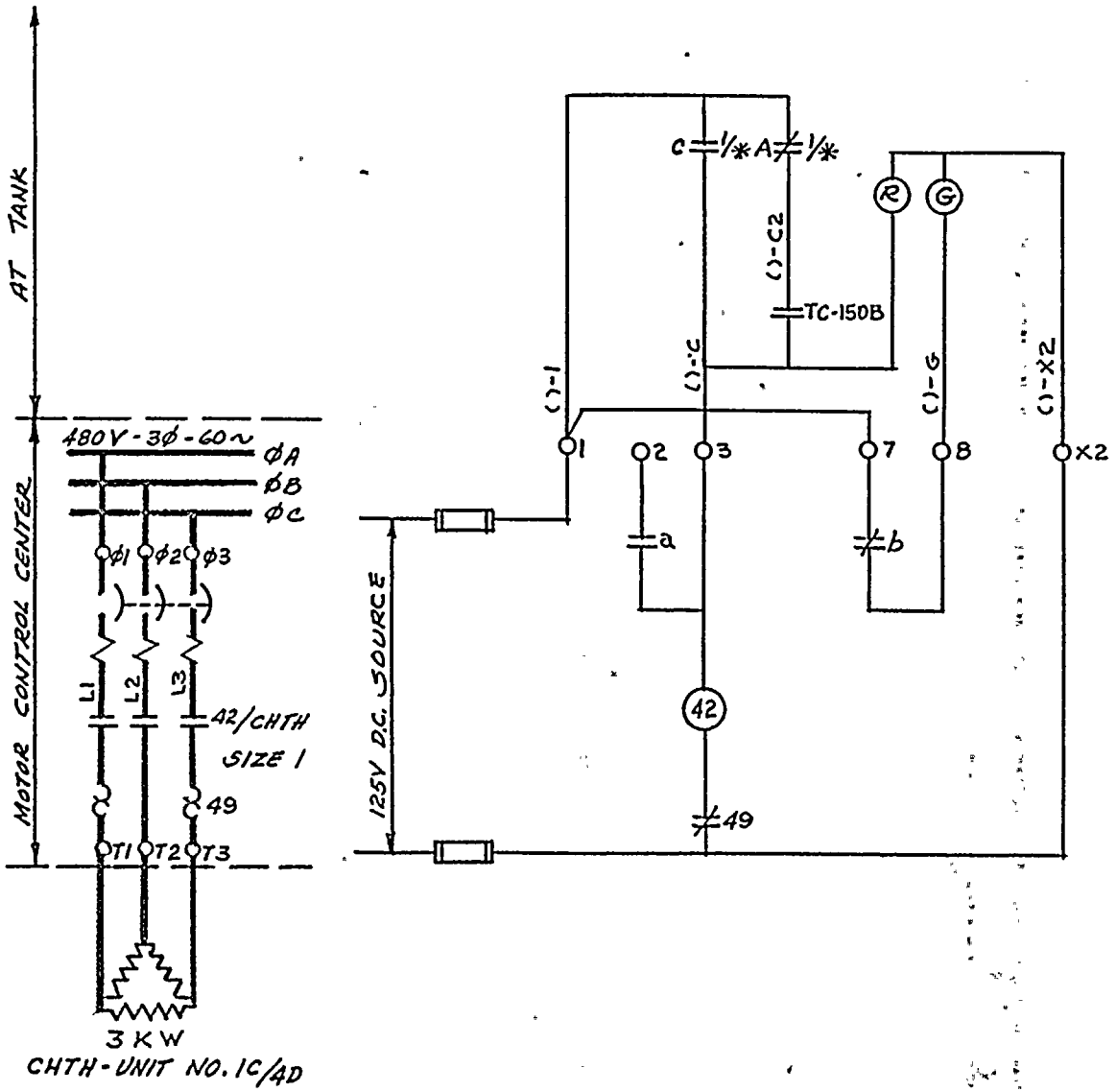
REV.							
ORIGINAL	N.J.R. DRAWN BY	Rev. 7/16/74 CH'D.	R.M.A. 7/19/74 RESP. ENGR.	Q-C-A ENGR. MAGR.	7/4/74 DATE		

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NEUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CHEMICAL DRAIN TANK PUMP

DRAWN N.J.A. DATE
TRACED
CHECKED
ENG.
SCALE
APPROVED
FOLDER NO.
JOB NO.

No. 10905-122



NOTE :
*- CHTH
1/* SEE DEV. "D" SHEET 12

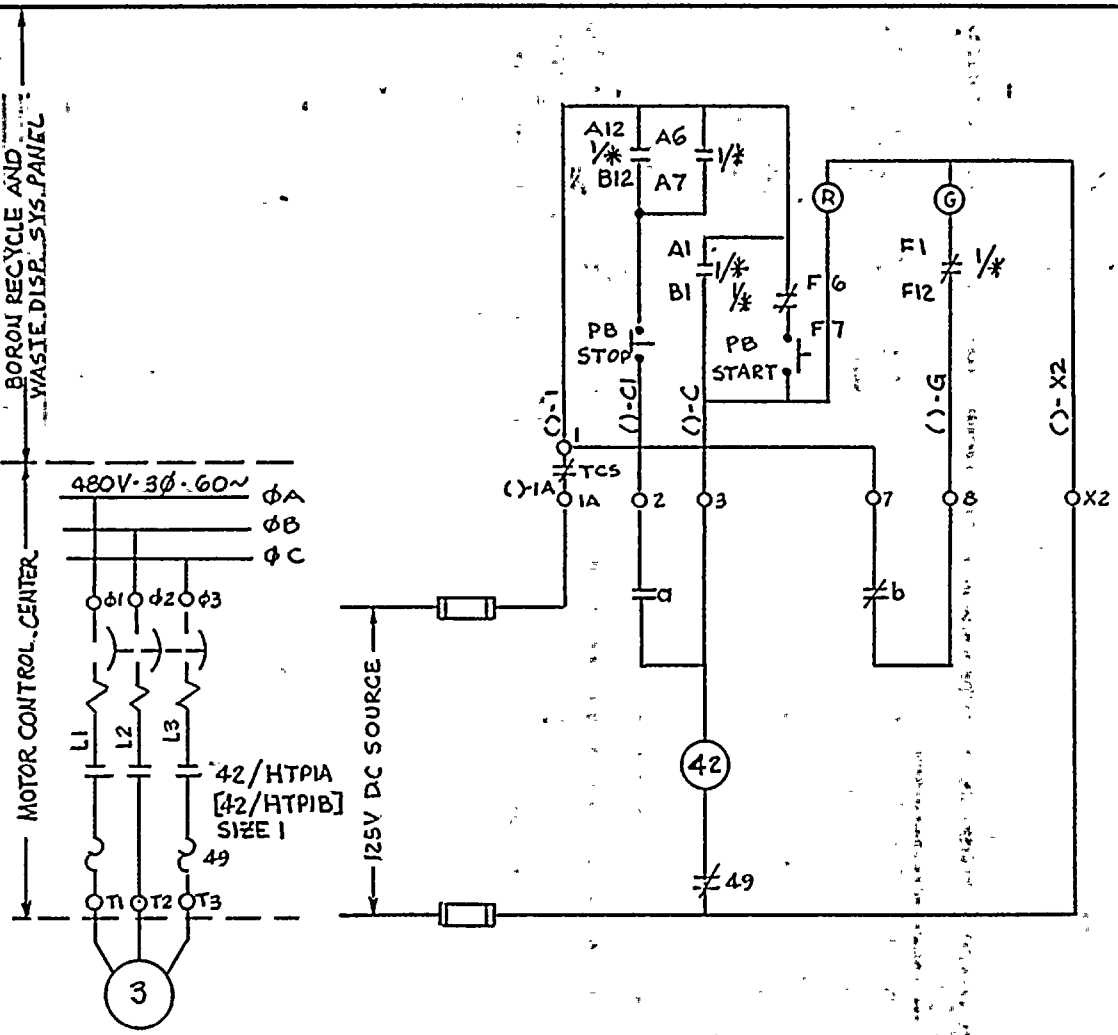
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425-SH. 123

REV.						
ORIGINAL	N.S.A.	RMV 5/16/74	R.F.W. 7/11/74	G.E.J.	7/24/74
	DRAWN BY	N.S.A.	CH'D.	RESP. ENGR.	ENGR MAGE	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
NO. 10905-123

ROBERT EMMETT GINNA NEUCLEAR POWER STATION
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONCENTRATE DIVIDING TANK HEATER

DRAWN	N.S.A.	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



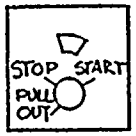
HTPIA-UNIT NO. 1E/2H
[HTPIB-UNIT NO. 1E/5H]

NOTE:
* - HTPIA OR HTPIB
1/* - SEE SWITCH DEV. THIS SHEET.
TCS- THERMAL CUTOUT SWITCH LOC. IN MTR

1/*

CONTACT	POSITION				
	PULL OUT	TRIP	OFF AFTER TRIP	OFF AFTER CLOSE	CLOSE
A11-B11	X	X			
A12-B12			X	X	
A1-B1					X
A5-A6	X	X	X		
A6-A7				X	X
B5-B6	X	X	X		
B6-B7				X	X
C11-D11	X	X			
C12-D12			X	X	
C1-D1					X
C5-C6	X	X	X		
C6-C7				X	X
D5-D6	X	X	X		
D6-D7				X	X
E12-E1	X				
E12-F1		X	X	X	X
E6-E7	X				
E6-F7		X	X	X	X

TYPE W2 CS S* 50BA162G01
(3 POSITION SPRING RETURN TO OFF)

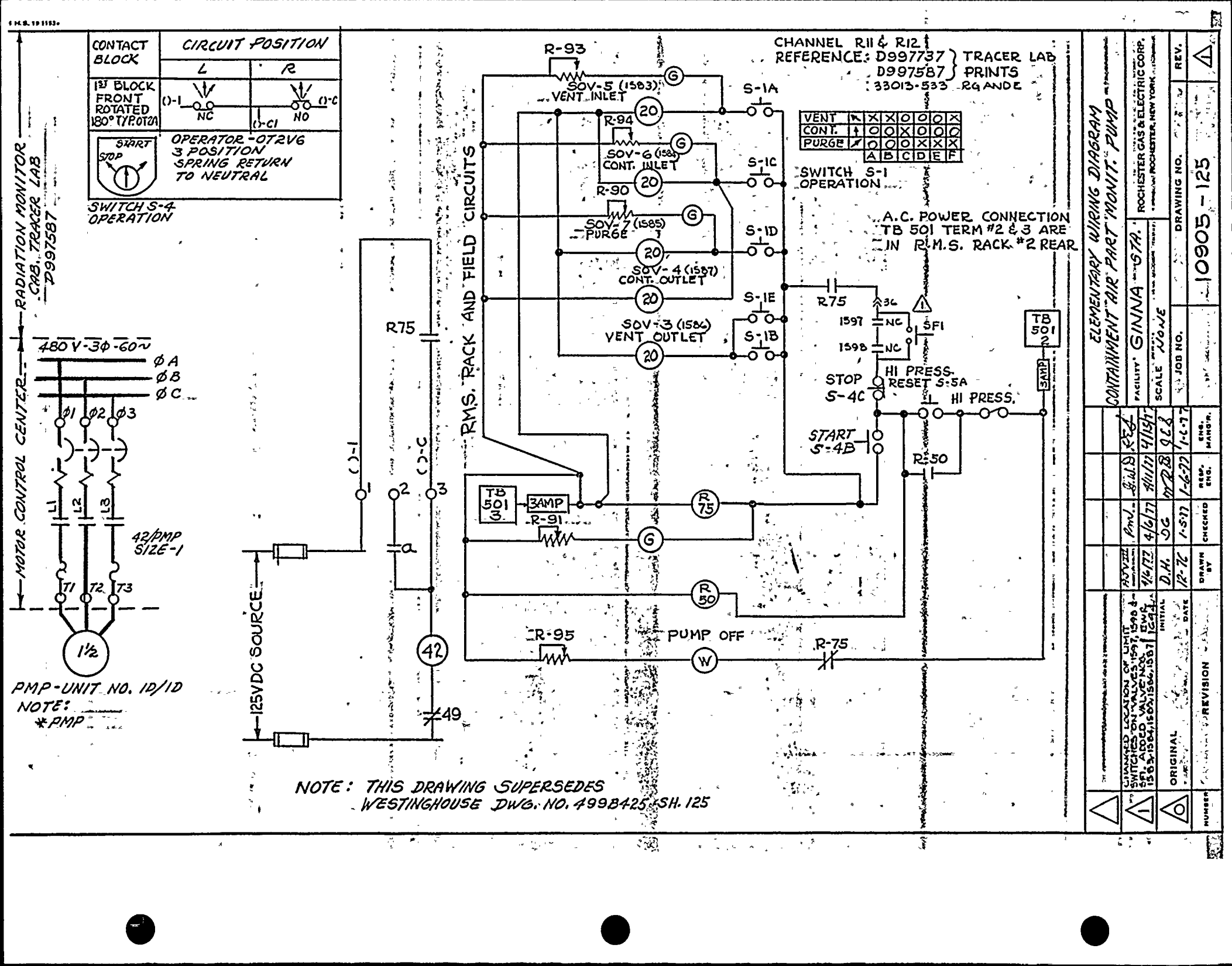


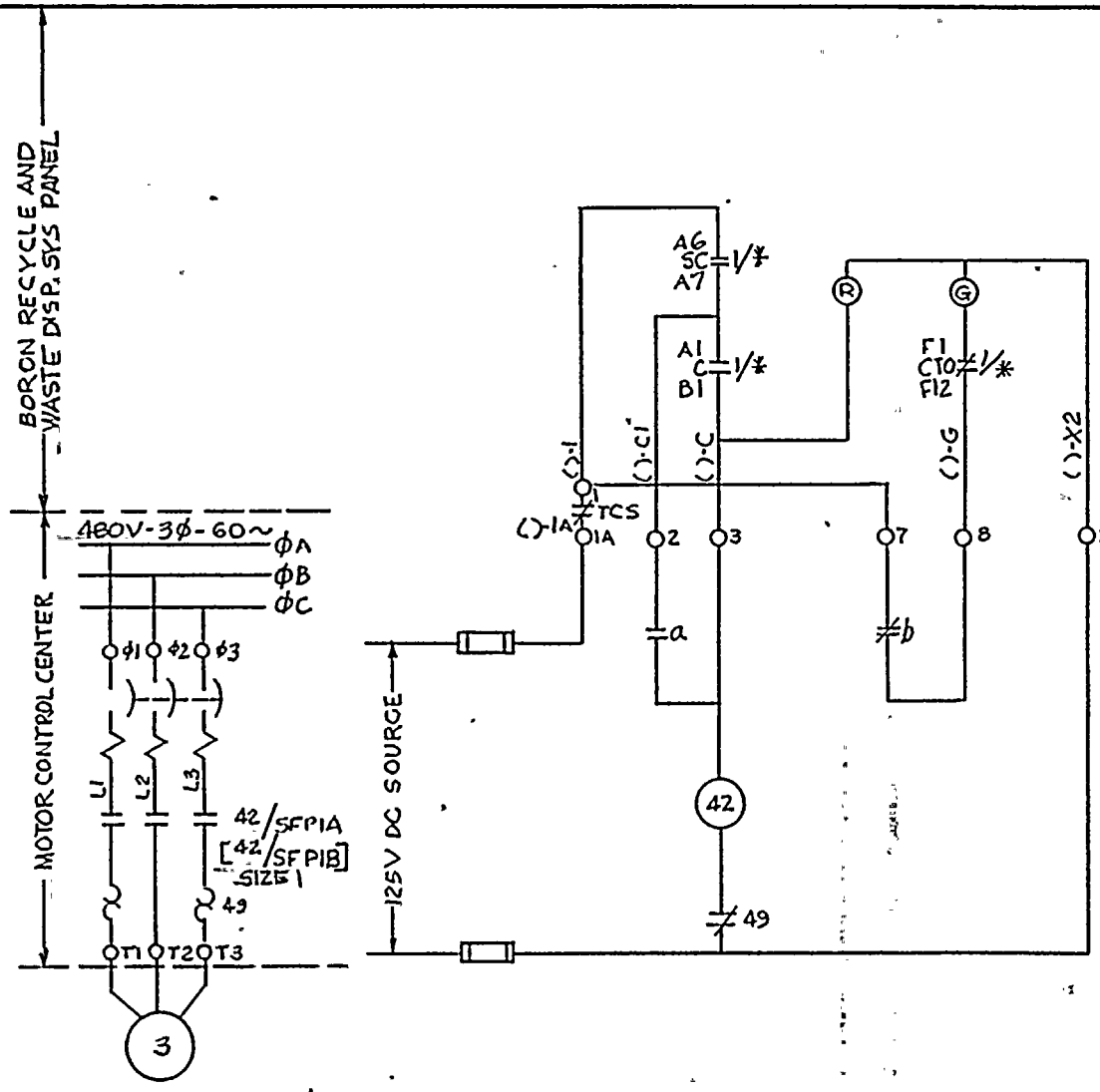
NOTE-THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425 SH.124

ROBERT EMMETT GINNA NUCLEAR STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONTAINMENT TANK TRANSFER PUMPS TA-2A&B

REV.						
ORIGINAL		GJF	RMW 5/19/75	Rod.	Y.S.	4-8-76
		DRAWN BY	OK'D	RESP ENG.	ENG'R MAN'R	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
DRAWN BY
TRACED
CHECKED
ENGR.
DATE
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
No. 10905-124


CONTACT BLOCK
CIRCUIT POSITION
L
R
1ST BLOCK FRONT ROTATED 180° TYP. OT2A
NC
NO
START
STOP
OPERATOR - OT2V6
3 POSITION
SPRING RETURN
TO NEUTRAL
SWITCH S-4 OPERATION
RADIATION MONITOR CAB. TRACER LAB D997587
MOTOR CONTROL CENTER
480 V - 3φ - 60~
φA
φB
φC
φ1 φ2 φ3
L1 L2 L3
42/PMP SIZE-1
T1 T2 T3
1½
PMP-UNIT NO. 1D/1D
NOTE: *PMP
125VDC SOURCE
R75
42
49
R-93
SOV-5 (1583) VENT INLET
R-94
SOV-6 (1586) CONT. INLET
R-90
SOV-7 (1585) PURGE
SOV-4 (1587) CONT. OUTLET
SOV-3 (1584) VENT OUTLET
S-1A
S-1C
S-1D
S-1E
S-1B
20
G
R.M.S. RACK AND FIELD CIRCUITS
CHANNEL R11 & R12
REFERENCE: D997737 } TRACER LAB
D997587 } PRINTS
33013-533 RG ANDE
VENT X X X O O O X
CONT. O O X O O O
PURGE O O O X X X
A B C D E F
SWITCH S-1 OPERATION
A.C. POWER CONNECTION
TB 501 TERM #2 & 3 ARE
IN R.M.S. RACK #2 REAR
R75
1597 NC
1598 NC
SFI
TB 501 2
3AMP
STOP S-4C
HI PRESS. RESET S-5A
HI PRESS.
START S-4B
R-50
TB 501 3
3AMP
R-91
R75
R50
R-95
PUMP OFF
W
R-75
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DWG. NO. 499B425 SH. 125
ELEMENTARY WIRING DIAGRAM
CONTAINMENT AIR PART. MONIT. PUMP
FACILITY: GINNA 607th.
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE NONE
JOB NO.
DRAWING NO. 10905-125
REV.
DRAWN BY D.H. 12-76
CHECKED 1-5-77
RESP. ENG. 1-6-77
ENG. MANGR. 1-6-77
ORIGINAL
CHANGED LOCATION OF LIMIT SWITCHES ON VALVES 1597, 1598 & SFI. ADDED VALVE NOS. 1583, 1584, 1585, 1586, 1587
INITIAL DATE
REVISION
NUMBER



SFP1A-UNIT NO. 1E/3D
SFP1B-UNIT NO. 1E/5D

NOTE:
* SFP1A, OR SFP1B
1/* SEE DEV. SHEET 10, FIG 1, DETAIL C
TCS THERMAL CUTOUT SWITCH LOC IN MTR.

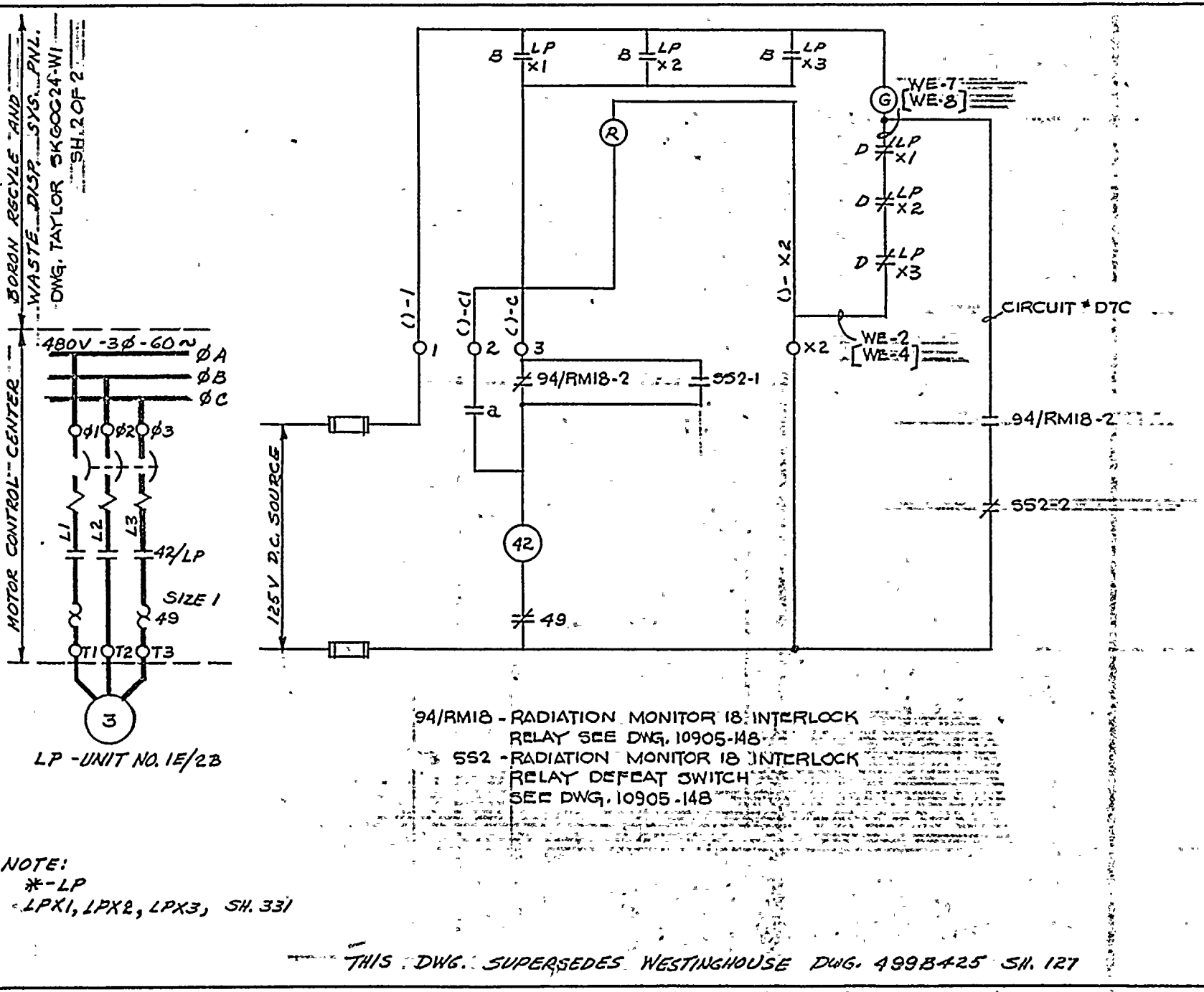
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 4998425-SH126

REV.					
ORIGINAL	GJF	Rev 8/19/75	RBA.	QEL	4/27/71
	DRAWN BY	CK'D	RESP ENG'R	CHG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-126

ROBERT EMMETT GINNA NUCLEAR POWER STATION "UNIT NO 1"
ELEMENTARY WIRING DIAGRAM
GAS STRIPPER FEED PUMP (AUTO)

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



94/RM18 - RADIATION MONITOR 18 INTERLOCK RELAY SEE DWG. 10905-148

SS2 - RADIATION MONITOR 18 INTERLOCK RELAY DEFEAT SWITCH SEE DWG. 10905-148

NOTE:
*-LP
-LPX1, LPX2, LPX3, SH. 331

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 127

REV.		DATE
ORIGINAL		
	QH.	1-7-77
	N.J.A.	7/14/76
DRAWN BY	N.J.A.	
TRACED		
CHECKED		
ENGR.		

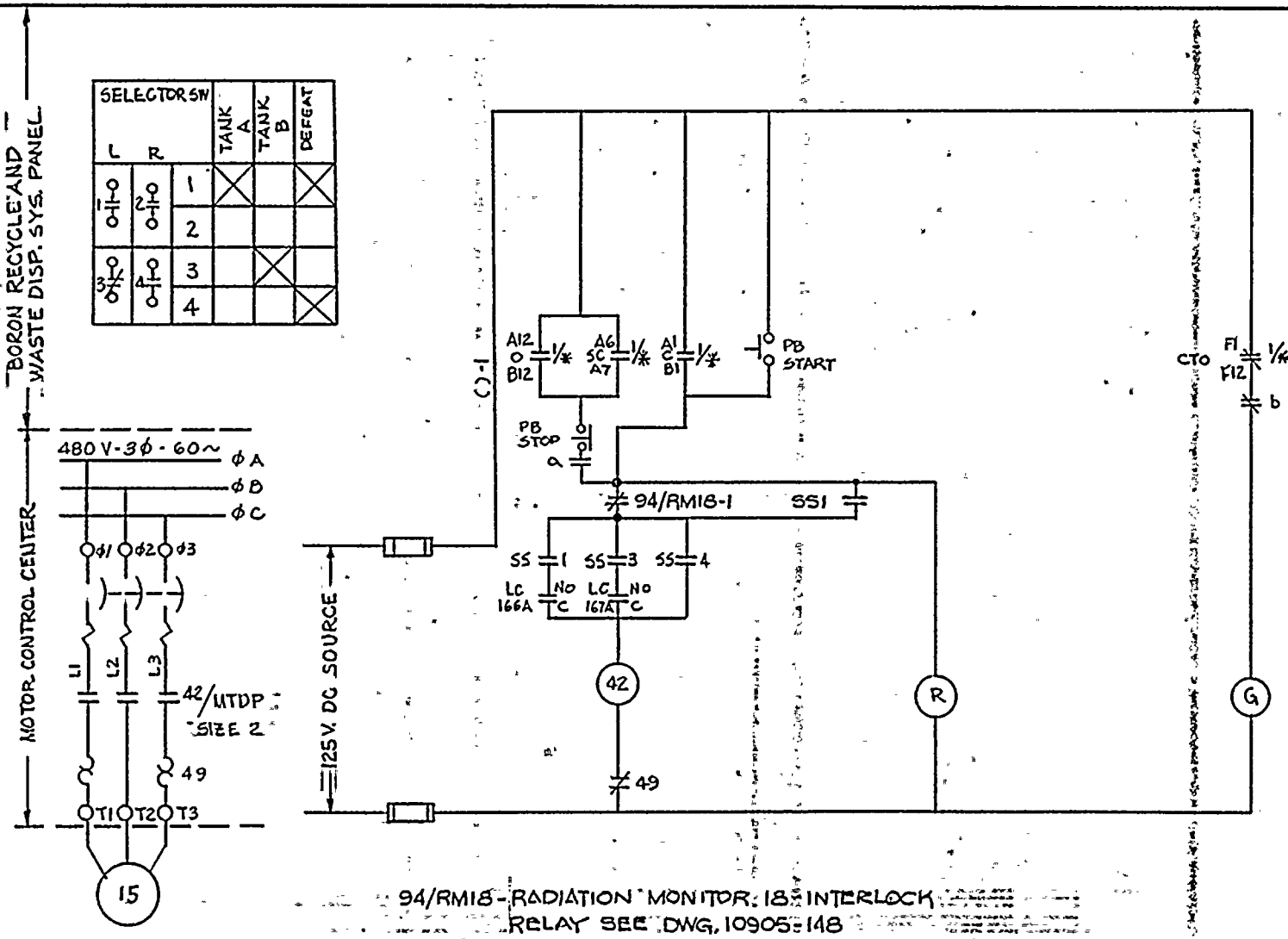
	DATE
DRAWN	7-28-76
RESP. ENGR.	7/14/76
CH'D ENGR.	
SCALE	
APPROVED	
FOLDER NO.	
JOB NO.	

	DATE
RCE	1/7/77
RSH	7/24/76
ENGR. MAGR.	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STA.
ELEMENTARY WIRING DIAGRAM
UNIT NO. 1
LAUNDRY PUMP

No. 10905-127 Δ



MTDP UNIT NO. 1E/8F

94/RM18 - RADIATION MONITOR 18 INTERLOCK RELAY SEE DWG. 10905-148

SS1 - RADIATION MONITOR 18 INTERLOCK RELAY DEFEAT SWITCH. SEE DWG. 10905-148

NOTE:

PB - LOCAL PUSH BUTTON
SS - TANK SELECTOR SWITCH
LC - TANK LOW LEVEL PRESS. SW.
* - MTDP
1/* - SEE DEV. SHEET 10, FIGURE 1, DETAIL C

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 4998425 SH 128

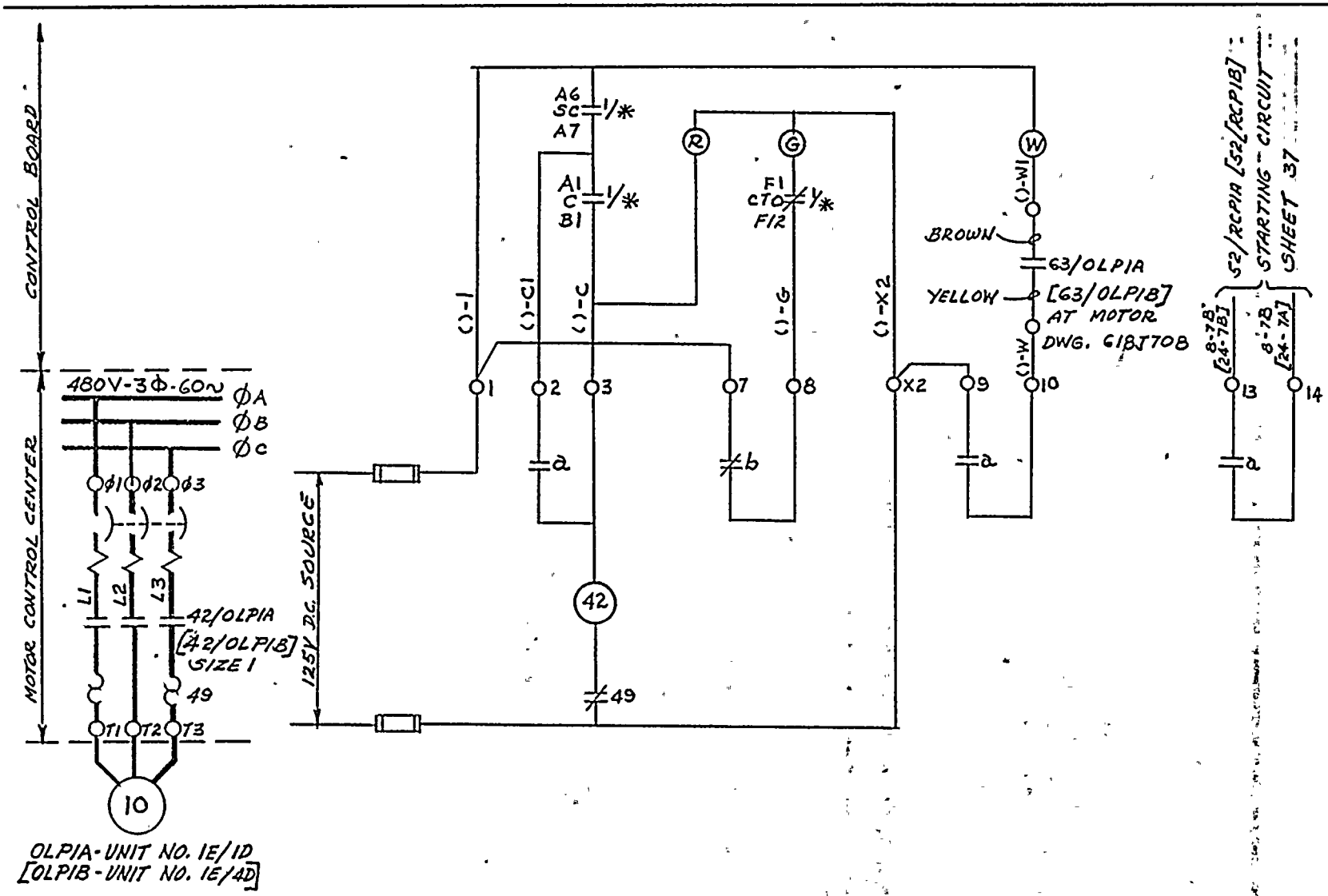
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM MONITOR TANK DISCHARGE PUMP

REV.	1	DH.	RMW 1-7-77	WMB 1-7-77	JEL	11/1/77
ORIGINAL		GJF	RMW 9/19/75	RGA	JCL	5/1/76
		DRAWN BY	CK'D	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905-128 1

DRAWN BY DATE SCALE NONE
TRACED APPROVED
CHECKED FOLDER NO.
ENG. JOB NO.



OLPIA - UNIT NO. 1E/1D
[OLPIB - UNIT NO. 1E/4D]

NOTE:
*-OLPIA, OR OLPIB
1/* - SEE DEV. SHEET-10, FIGURE NO. 1, DETAIL C

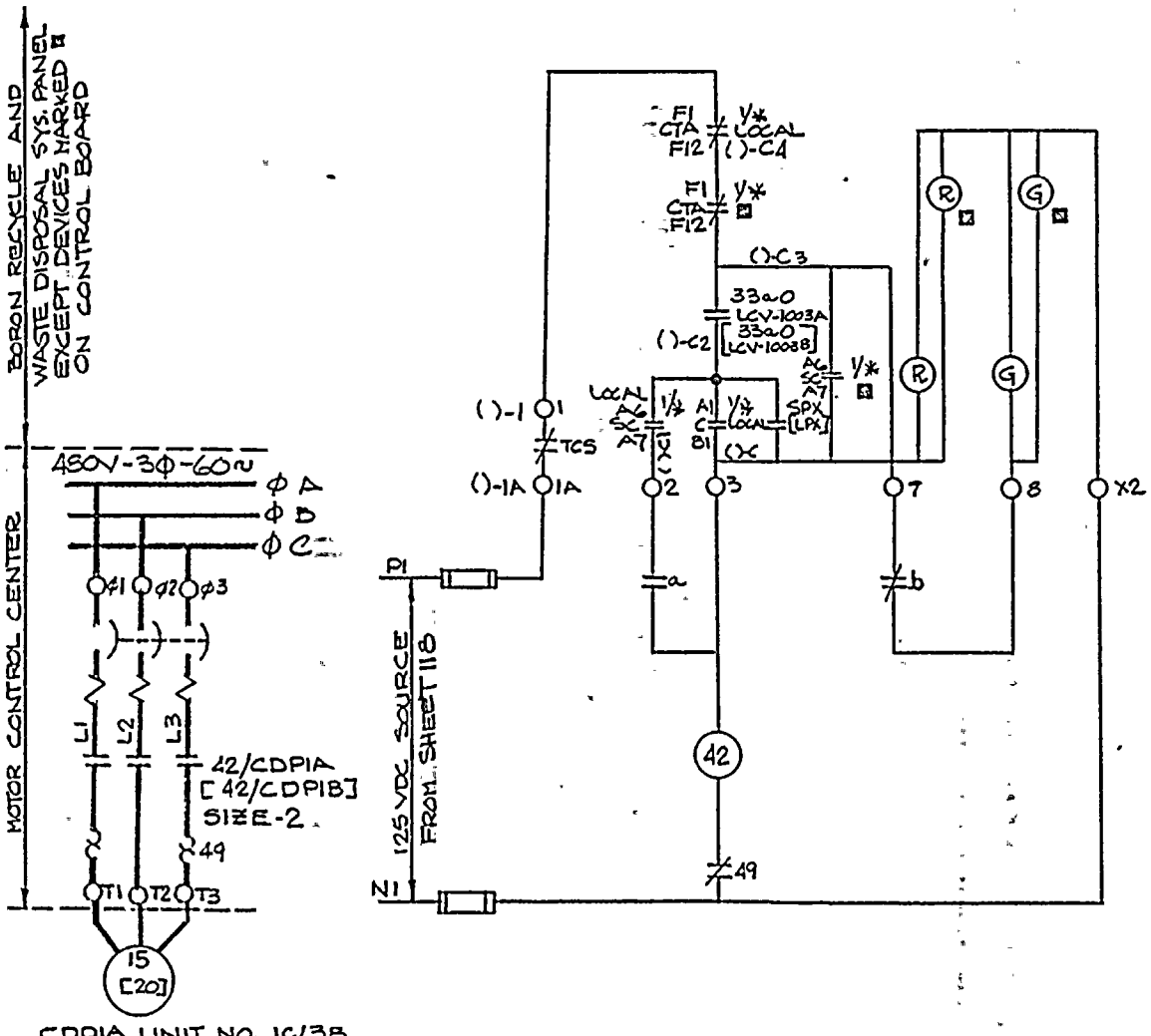
THIS DRAWING SUPERSEDES WESTINGHOUSE DWG. 10905-129

REV.								
ORIGINAL								
DRAWN BY	N.T.A.	RPW 7/16/76	RDW 7/19/76	JSA 7/21/76	DATE			
CH'D.	N.J.A.		RESP. ENGR.	ENGR. MAGR.				

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905-129

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
RCP OIL LIFT PUMP 1A & 1B

DRAWN | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENGR. | JOB NO.



NOTE
TCS THERMAL CUTOUT SW. LOC. IN MTR.
* CDP1A, OR CDP1B
1/* SEE DEV. SHEET-10, FIG. 1, DETAIL D
SPX & LPX SHEET 333
☐-AT MAIN CONTROL BOARD

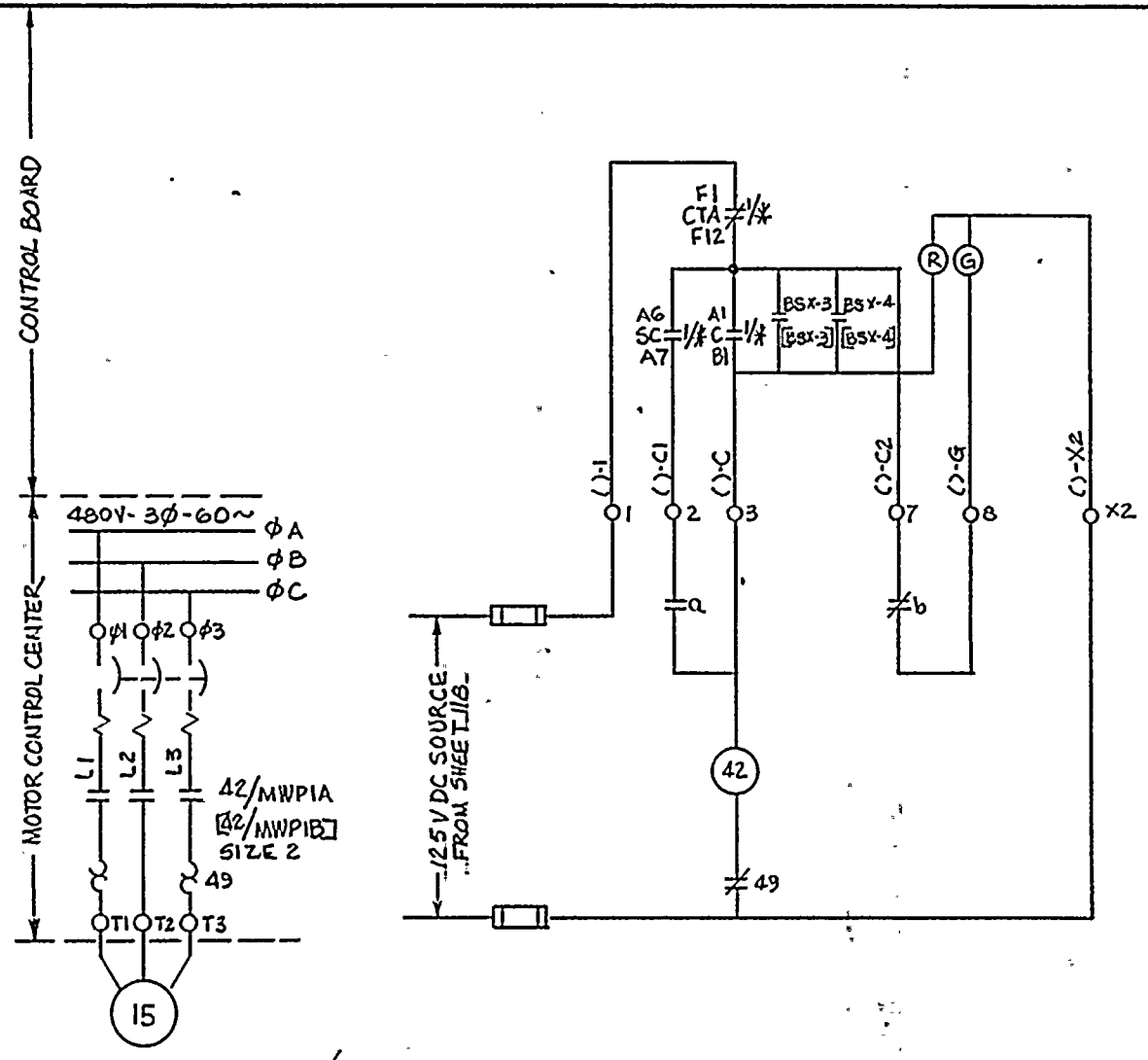
THIS DWG. SUPERSEDES W. DWG. 499B425 SH. 130

REV.						
ORIGINAL		AJY III	PMW	RFG.	JEJ	4/27/76
		DWN. BY	CK'D	RESP. ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
NO. 10905-130

ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO.1
ELEMENTARY WIRING DIAGRAM
REACTOR COOLANT DRAIN PUMP 1A & 1B

	BY	DATE	SCALE
DRAWN			
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:

* - MWPIA, OR MWPIB
1/* - SEE DEV. SHEET-10, FIG 1, DET. D
- BSX-3 & BSX-4 - SEE SHEET-330 -

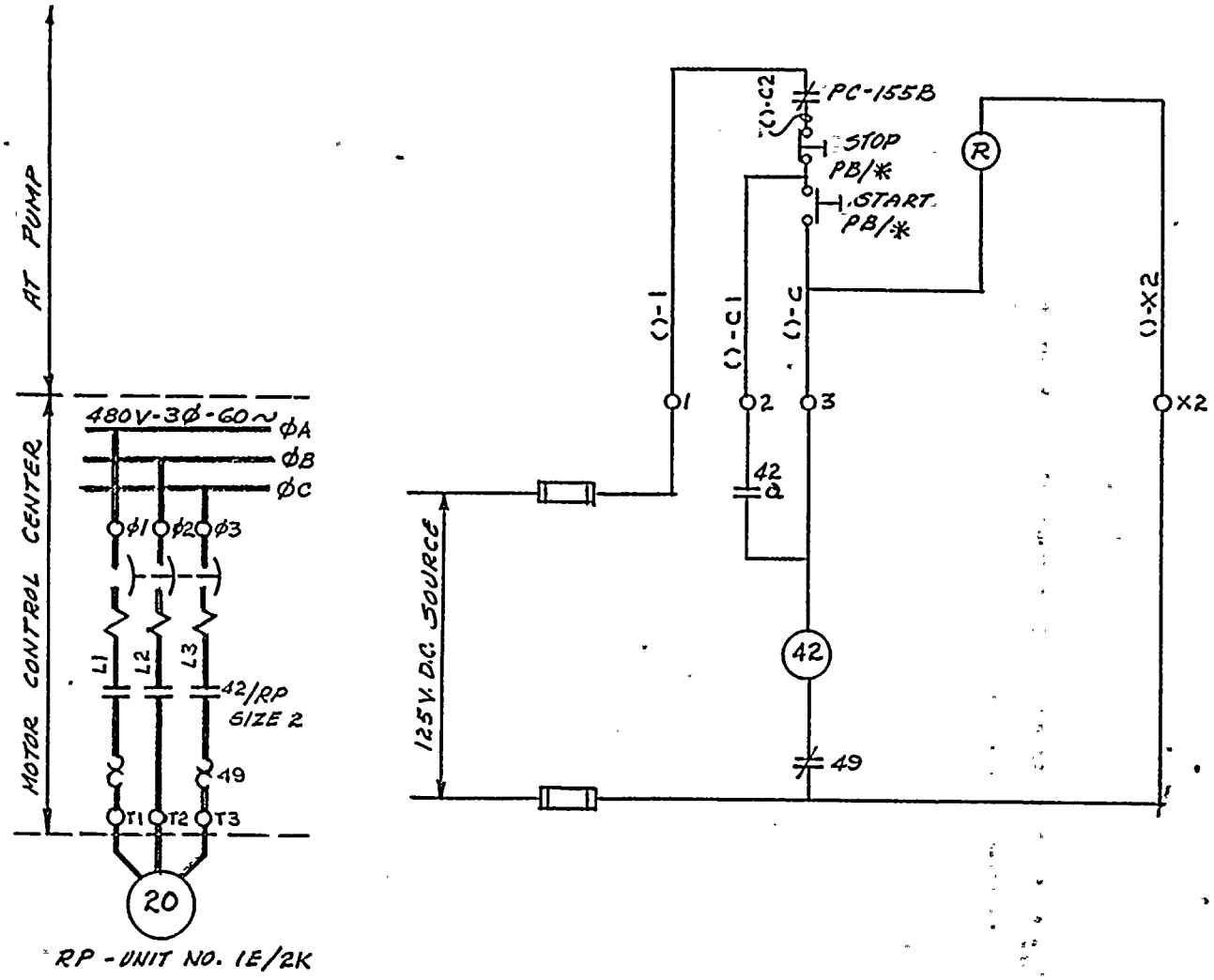
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO 4998425 SH 131

REV.						
ORIGINAL	GJF	Rm 6/19/75	RFA,	JEL	4/27/76
	DRAWN BY	CK'D	RESP ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
NO. 10905-131

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
REACTOR MAKEUP WATER PUMP 1A & 1B

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:
*-RP
PC-155B BORON RECYCLE. WASTE DISPOSAL PNL.
DWG - TAYLOR INST. CO. SK. 60624-W1 SH.-3

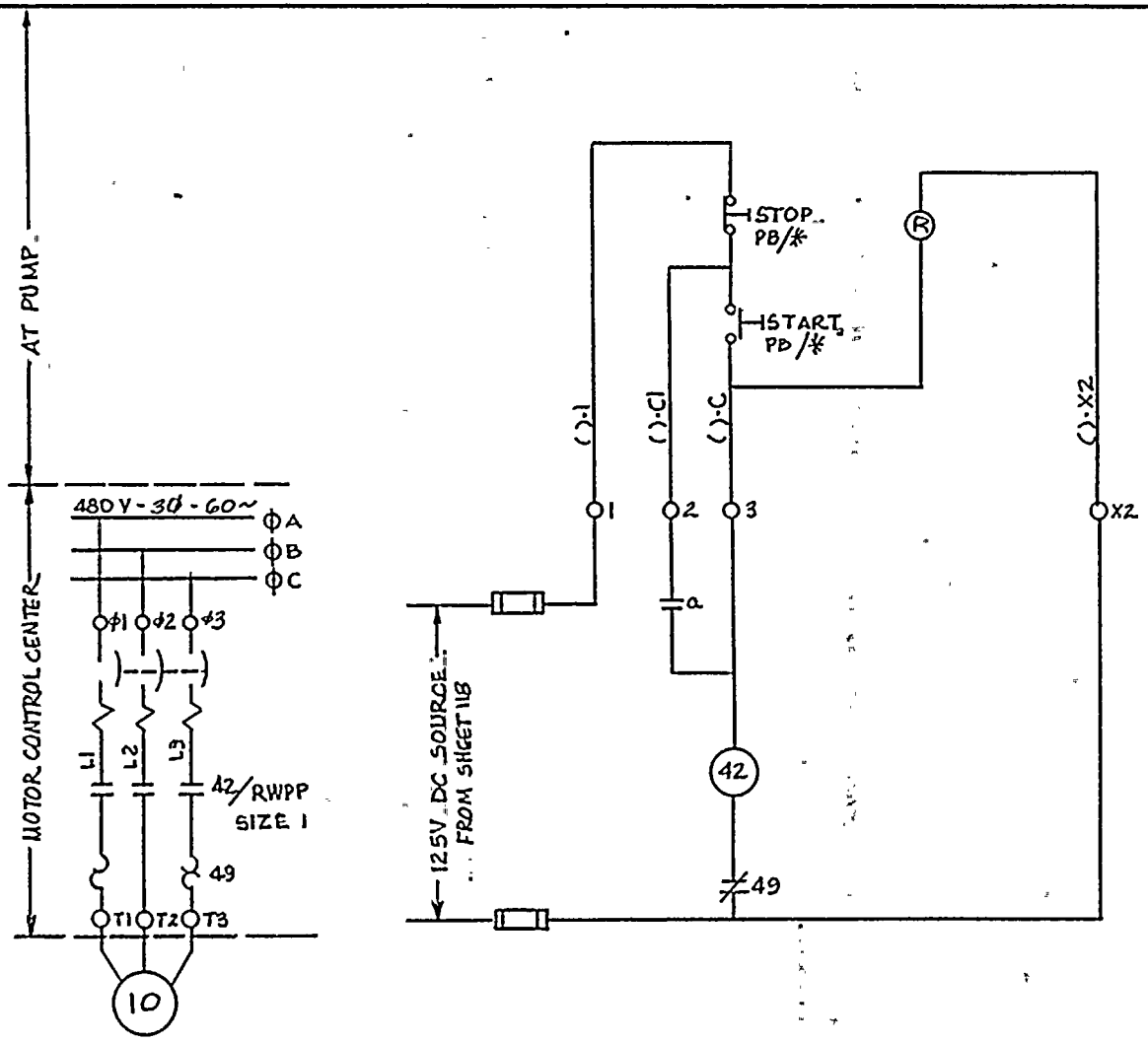
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425-132

REV.								
ORIGINAL								
	N.J.A.	Rev. 7/16/76	Rev. 7/19/76	9 E.A	7/22/76			
DRAWN BY	CK'D.	RESP. ENGR.	ENGR. MAGR.	DATE				

DRAWN	N.J.A.	3/8" = 1'-0"	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-132

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
RECIRCULATION PUMP



RWPP-UNIT NO. 1C/1D.

NOTE:

*- RWPP

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO 4998425 SH133

ROBERT EMMETT GINNA NUCLEAR POWER STATION, UNIT NO 1

ELEMENTARY WIRING DIAGRAM REFUEL WATER PURIFICATION PUMP

REV.						
ORIGINAL	GJF	KMW 8/19/35	RGA.	QEJ	4/27/36
	DRAWN BY	CK'D	ENGR	ENGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING

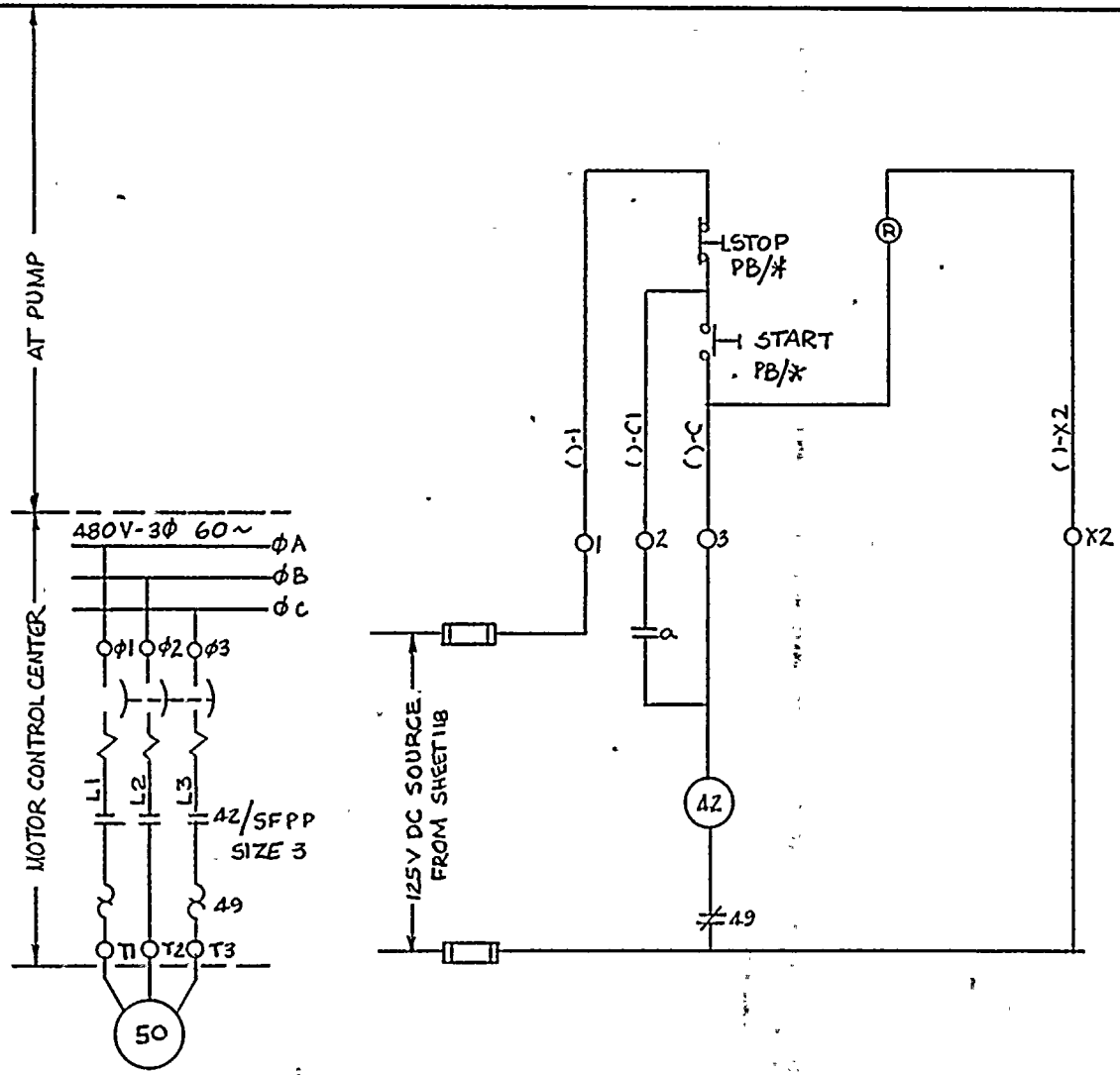
DRAWN BY DATE SCALE NONE

TRACED APPROVED

CHECKED FOLDER NO.

ENG'R JOB NO.

No. 10905-133



NOTE:
*-SFPP

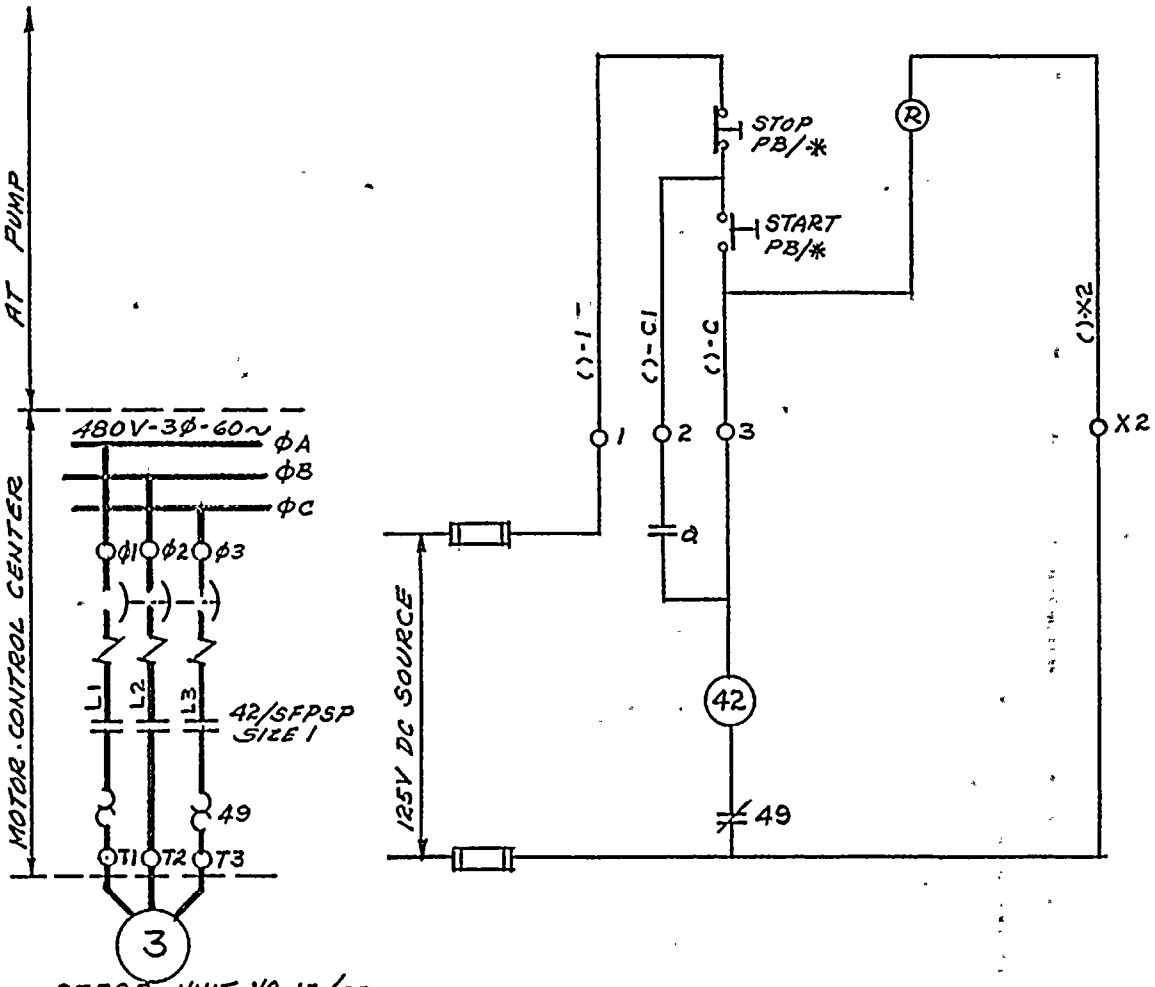
NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NUMBER 4998425 SH 1&2

REV.						
ORIGINAL	GJF	P.M. 8/12/75	R.P.C.	J.E.L.	11/21/74	
	DRAWN BY	CK'D	RESP ENG'R	ENG'G MGR	DATE	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
NO. 10905-134

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SPENT FUEL PIT PUMP

	BY	DATE	SCALE NONE
DRAWN			APPROVED
TRACED			FOLDER NO.
CHECKED			JOB NO.
ENG.			



NOTE:
*-SFPSP

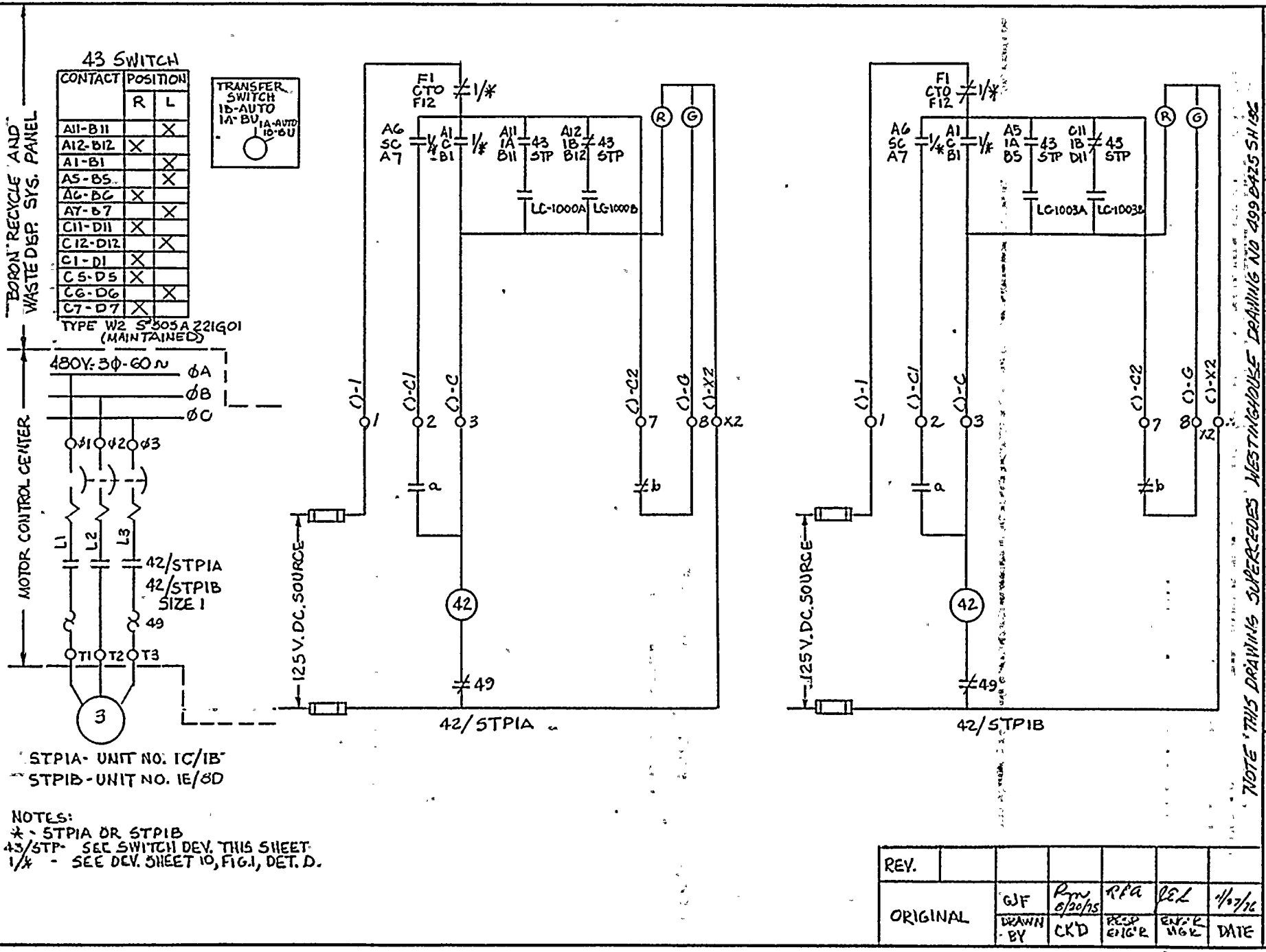
THIS DWG. SUPERSEDES WESTINGHOUSE DWG NO.4998425 SH. 135

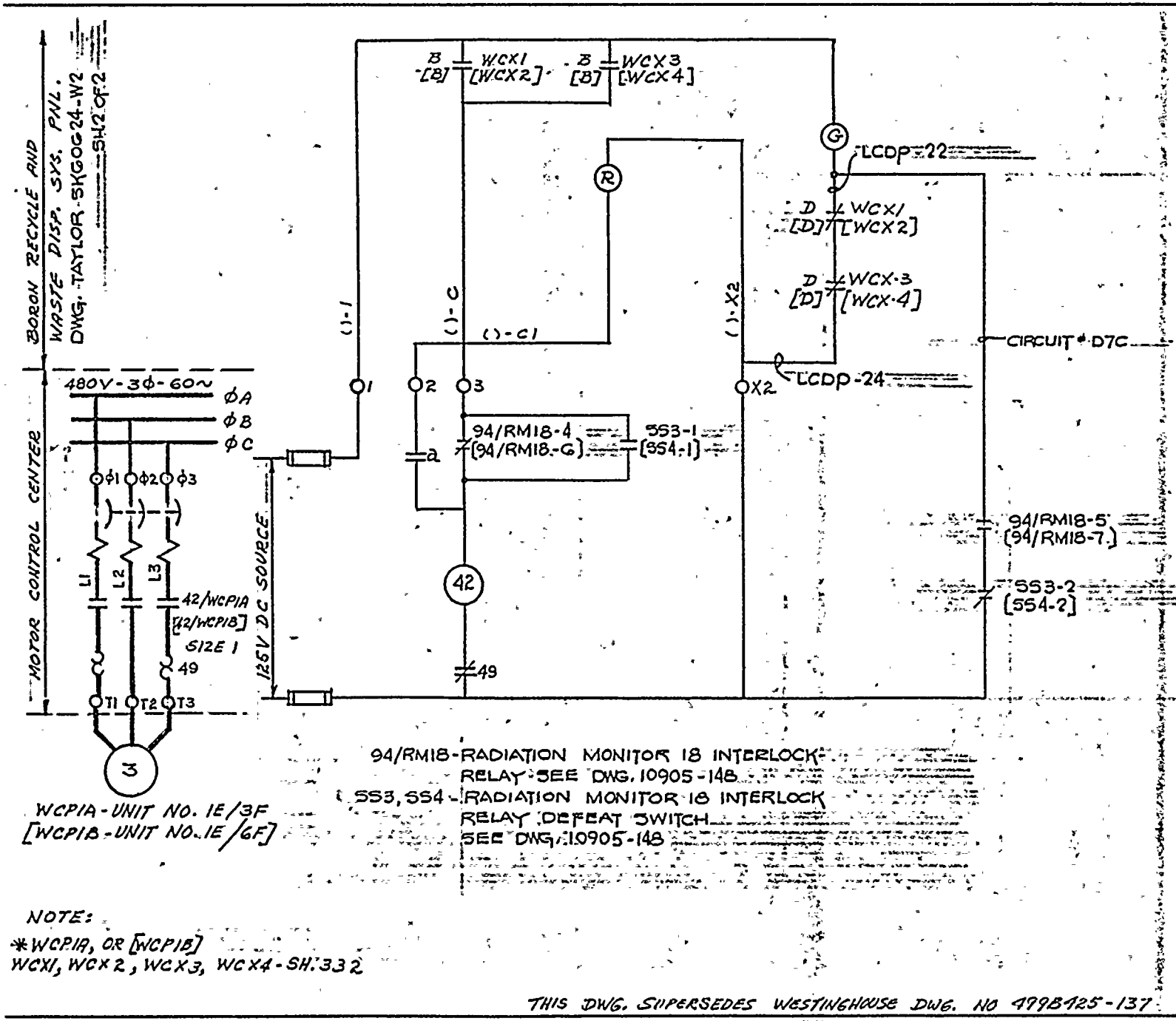
REV.								
ORIGINAL								
DRAWN BY	N.J.A.							
CK'D.	RWM 7/15/76							
RESP. ENGR.	R.G.A. 7/16/76							
ENGR. MAG'R.	R.G.A.							
DATE	7/26/76							

DRAWN	N.J.A.
TRACED	
CHECKED	
ENG.	
DATE	
SCALE	
APPROVED	
FOLDER NO.	
JOB NO.	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-135

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SPENT FUEL PIT SKIM. PUMP


43 SWITCH
CONTACT | POSITION R | L
A11-B11 | | X
A12-B12 | X |
A1-B1 | | X
A5-B5 | | X
A6-B6 | X |
A7-B7 | | X
C11-D11 | X |
C12-D12 | | X
C1-D1 | X |
C5-D5 | X |
C6-D6 | | X
C7-D7 | X |
TYPE W2 S*505A 221G01
(MAINTAINED)
TRANSFER SWITCH
1B-AUTO
1A-BU
1A-AUTO
1B-BU
BORON RECYCLE AND WASTE DISP. SYS. PANEL
MOTOR CONTROL CENTER
480V.-3Φ-60~
ΦA
ΦB
ΦC
Φ1 Φ2 Φ3
L1 L2 L3
42/STPIA
42/STPIB
SIZE 1
49
T1 T2 T3
3
125 V.DC. SOURCE
F1
CTO
F12
A6
SC
A7
A1
C
B1
A11
1A
B11
43 STP
A12
1B
B12
43 STP
LC-1000A
LC-1000B
R
G
C)-1
C)-C1
C)-C
C)-C2
C)-G
C)-X2
1
2
3
7
8
X2
a
b
42
49
42/STPIA
A5
1A
B5
C11
1B
D11
LC-1003A
LC-1003B
42/STPIB
STPIA- UNIT NO. 1C/1B
STPIB- UNIT NO. 1E/8D
NOTES:
* - STPIA OR STPIB
43/STP- SEE SWITCH DEV. THIS SHEET
1/* - SEE DEV. SHEET 10, FIG.1, DET. D.
NOTE THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 499 E425 SH 136
ROBERT EMETT GINNA NUCLEAR POWER
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SUMP TANK PUMPS 1A & 1B
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-136
DRAWN BY
TRACED
CHECKED
ENG.
DATE
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
REV.
ORIGINAL
GJF
DRAWN BY
Rpw 8/30/15
CK'D
RFA
PROJ ENG'R
REL
ENG'R MGR.
11/07/16
DATE



94/RM18-RADIATION MONITOR 18 INTERLOCK RELAY-SEE DWG. 10905-148

SS3, SS4-RADIATION MONITOR 18 INTERLOCK RELAY DEFEAT SWITCH SEE DWG. 10905-148

WCP1A-UNIT NO. 1E/3F
[WCP1B-UNIT NO. 1E/6F]

NOTE:
*WCP1A, OR [WCP1B]
WCX1, WCX2, WCX3, WCX4-SH. 332

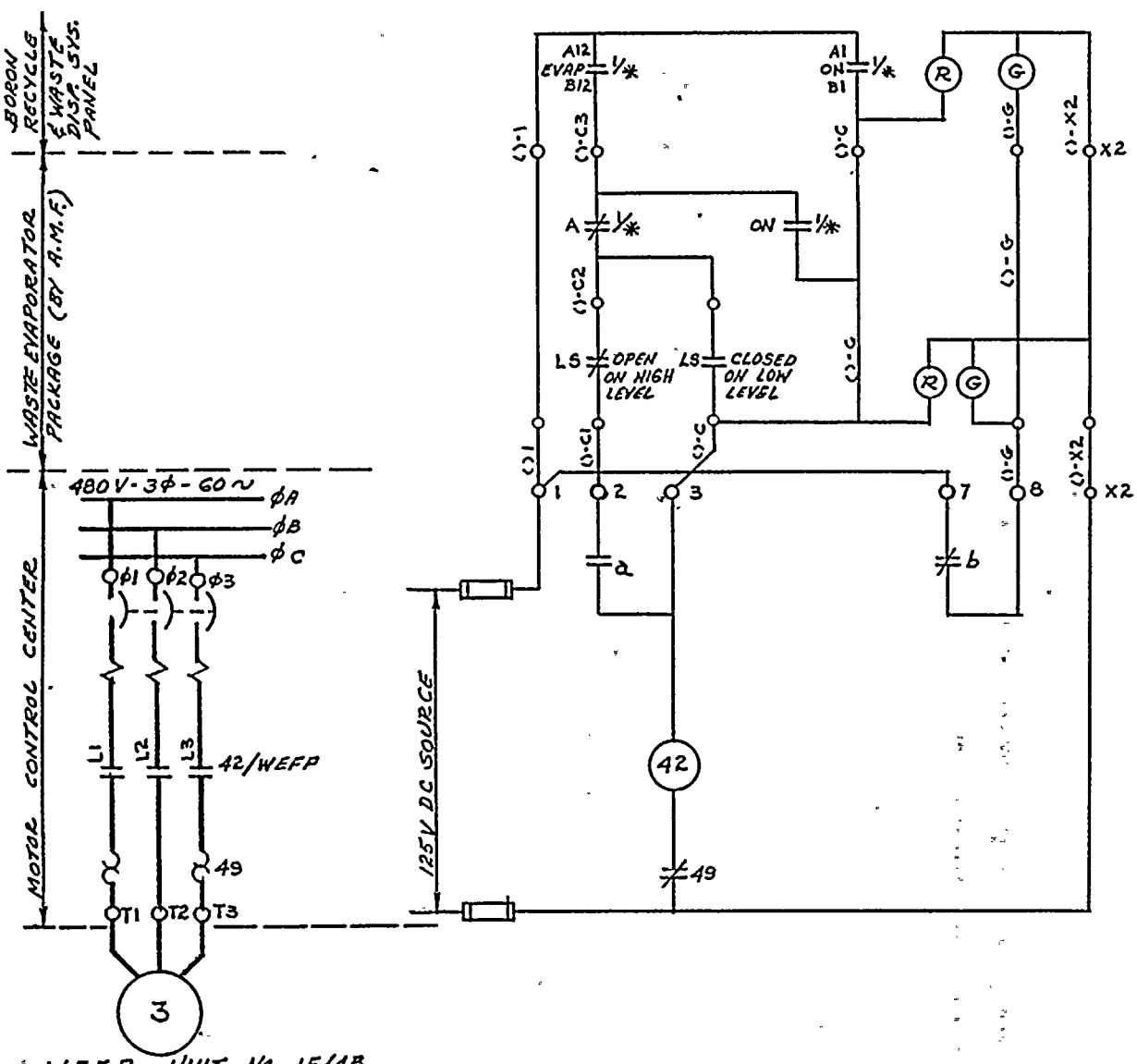
THIS DWG. SUPERSEDES WESTINGHOUSE DWG. NO 4998425-137

REV.		DR.	N.T.A.	DRAWN BY	CK'D.	DATE
ORIGINAL						
	1	RMJ 12-7-77	RMJ 5/16/78	RGG 7/21/78	RGG 8/3/78	1/2/79

DRAWN	N.Y.A.
TRACED	
CHECKED	
V. ERR.	
SCALE	~
APPROVED	
FOLDER NO.	
JOB NO.	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING
NO. 10905-137 Δ

ROBERT EMMETT GINNA NUCLEAR POWER STA.
ELEMENTARY WIRING DIAGRAM
WASTE CONDENSATE PUMPS 1A & 1B



NOTE:
*- WEEP

CONTACT BLOCK	CIRCUIT POSITION L	CIRCUIT POSITION R
1ST BLOCK (FRONT) TYPE OT2M	NO	1-C NO 1-C3
2ND. BLOCK TYPE OT2N	1-C2 NC	NC

AUTO OFF ON

OPERATOR - OT2SG
3 POSITION MAINTAINED

V* : WASTE EVAPORATOR PACKAGE (BY-AMF)

EVAP. OFF ON

V*
BORON RECYLE & WASTE DISP. SYS. PANEL

CONTACT	POSITION OFF	POSITION EVAP.	POSITION ON
A11-B11	X		
A12-B12		X	
A1-B1			X
A5-B5	X		
A6-B6		X	
A7-B7			X

TYPE "W2" S 505A 602-G01
3-POSITION MAINTAINED

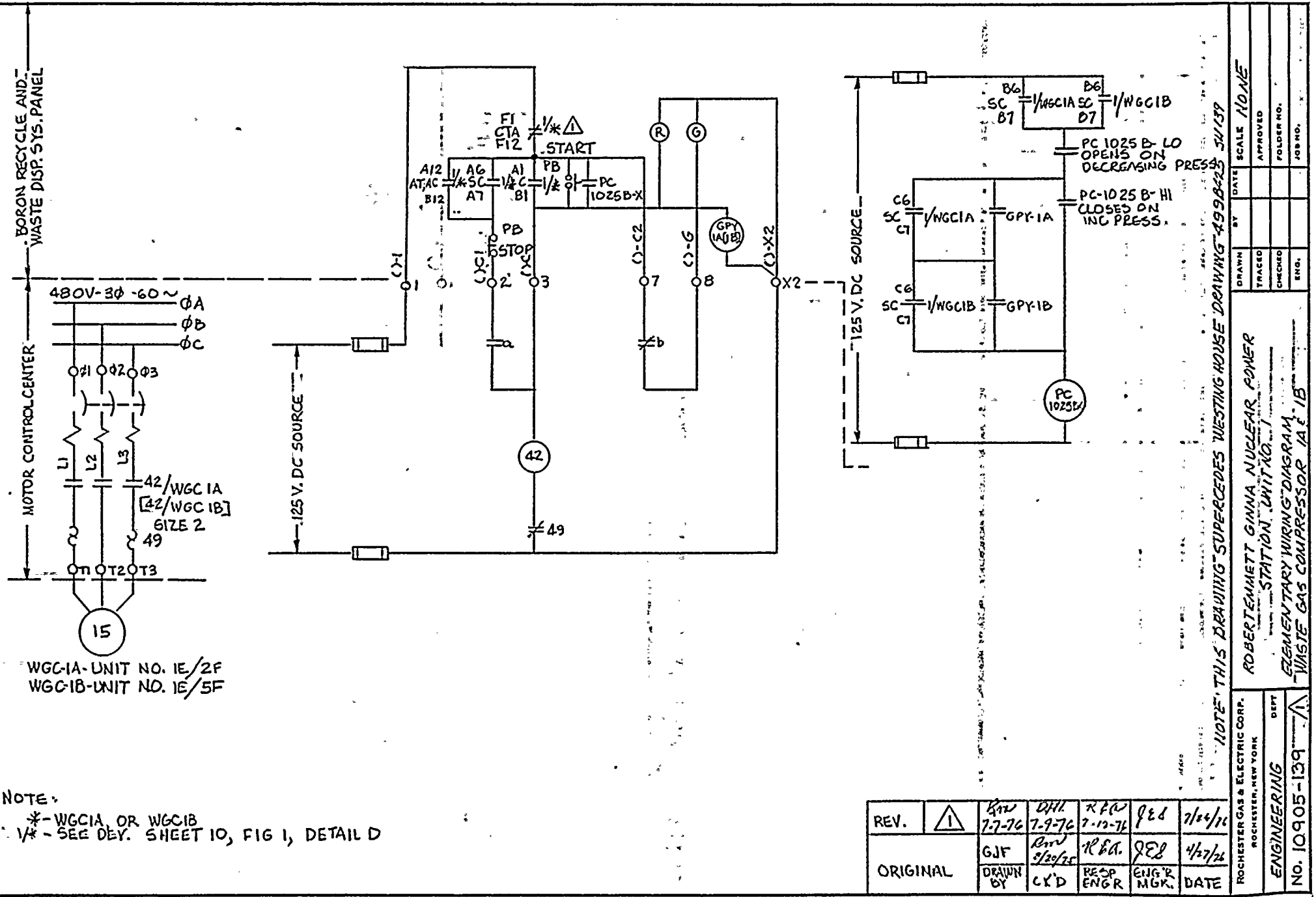
REV.		DRAWN BY	CK'D	ENGR. MGR.	DATE
ORIGINAL	N.J.A.	N.J.A. 7/6/72	RCW 7/6/72	RFG 7/6/72	7/6/72

DRAWN N.J.A. 7/6/72 SCALE
TRACED APPROVED
CHECKED FOLDER NO.
ENG. JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905 - 138

ROBERT EMMETT GINNA NUCLEAR POWER STA.
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
WASTE EVAPORATOR FEED PUMP

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 498B425 SH. 138



NOTE:
*-WGC1A OR WGC1B
1/* - SEE DEV. SHEET 10, FIG 1, DETAIL D

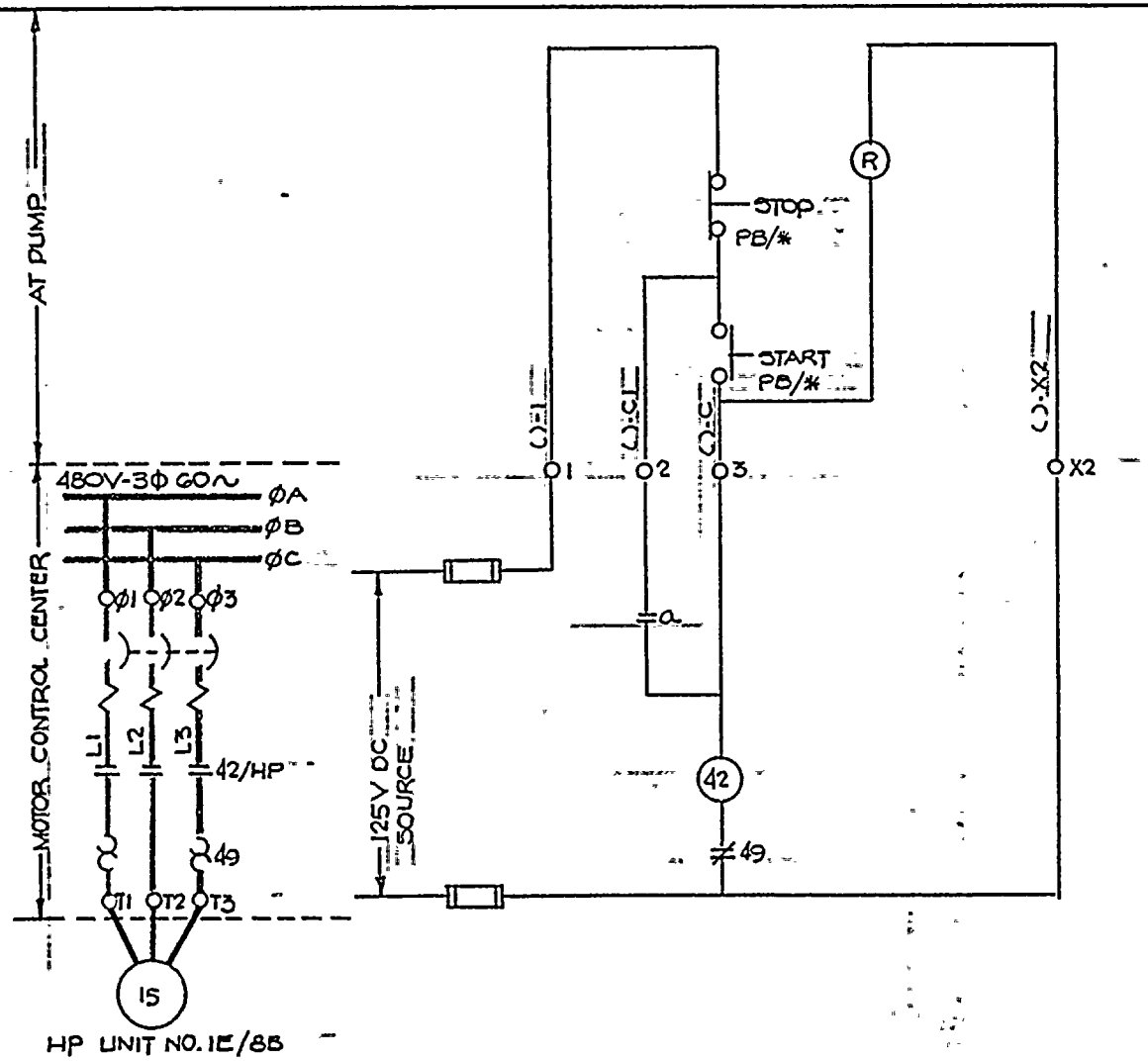
REV.	1					
	RMW 7-7-76	DHL 7-9-76	RFW 7-12-76	JEL	7/24/76
ORIGINAL	GJF	RMW 9/20/76	RFW	JEL	11/27/76
	DRAWN BY	CK'D	RESP ENGR	ENG'R MGR.	DATE

NOTE: THIS DRAWING SUPERCEDES WESTING HOUSE DRAWING 4998429 SH 139

ROBERT EMMETT GINNA NUCLEAR POWER STATION, UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
WASTE GAS COMPRESSOR 1A & 1B

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
NO. 10905-139 /1

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE
*-HP

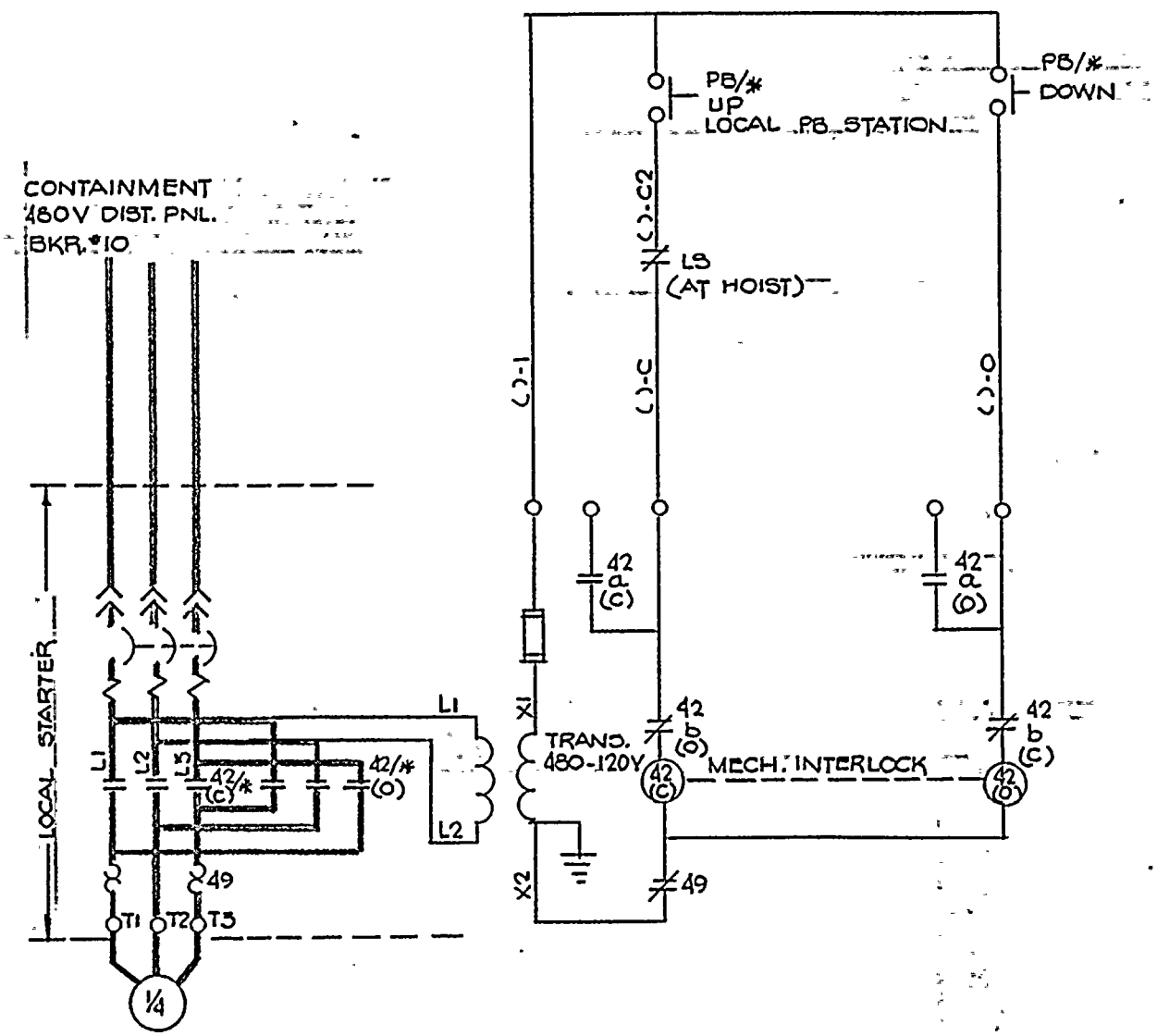
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-140

REV						
ORIGINAL		DFH.	Pm 8/17/76	REA 9/23/76	YEB	9/23/76
		DRAWN BY	CK'D	ENG'R	ENG'R MAINT.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R DEPT
No. 10905-140

ROBERT EMMETT GINNA NUCLEAR
POWER STATION, UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
HYDROSTAT PUMP

	BY	DATE	SCALE
DRAWN			
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:
*-RCC

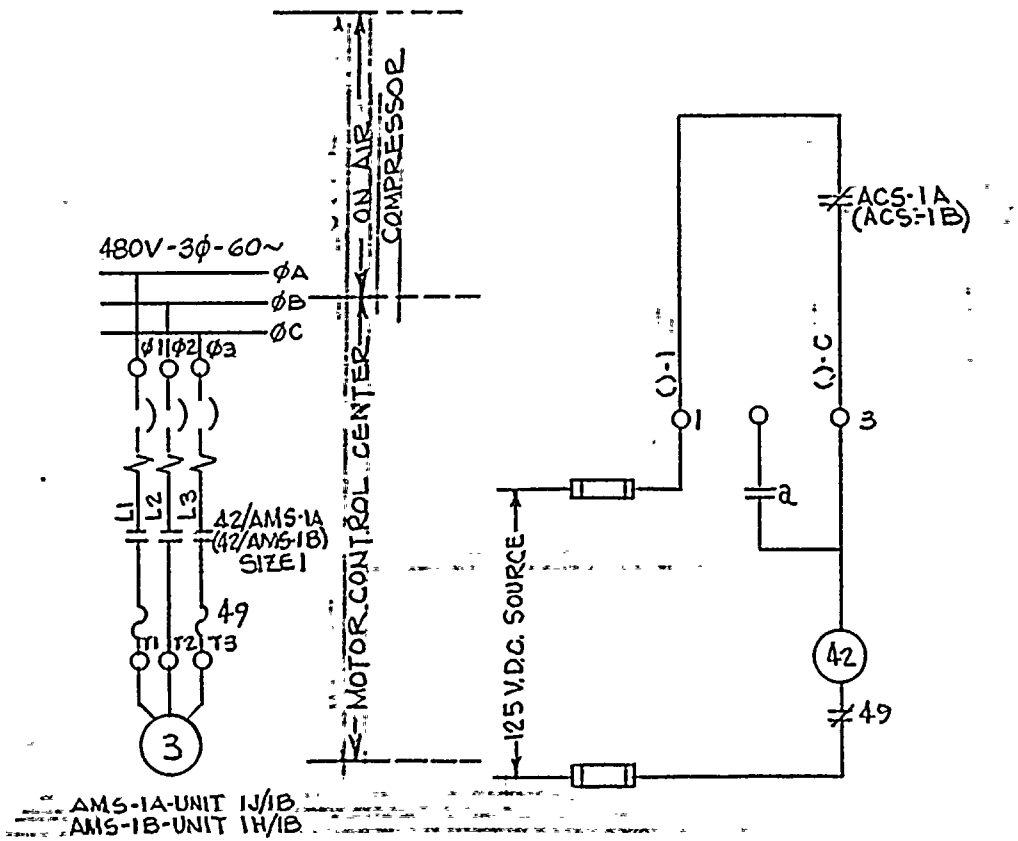
THIS DWG. SUPERCEDES WESTINGHOUSE DWG #499B425-141.

REV.	△					
ORIGINAL		DFT	RWD 6/17/76	RFA 9/23/76	J E A	9/23/76
		DRAWN BY	CK'D	RESP. ENGR.	ENGR. MANG.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENG'R
No. 10905-141

ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
RCC CHANGE FIXTURE HOIST DR.

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTES:

ACS - AIR COMPRESSOR PRESSURE SWITCH

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425 SH 142

REV.						
ORIGINAL	GJF 8/10/76	RMW 9/7/76	RFA 9/23/74	JEJ	9/23/74	
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE	

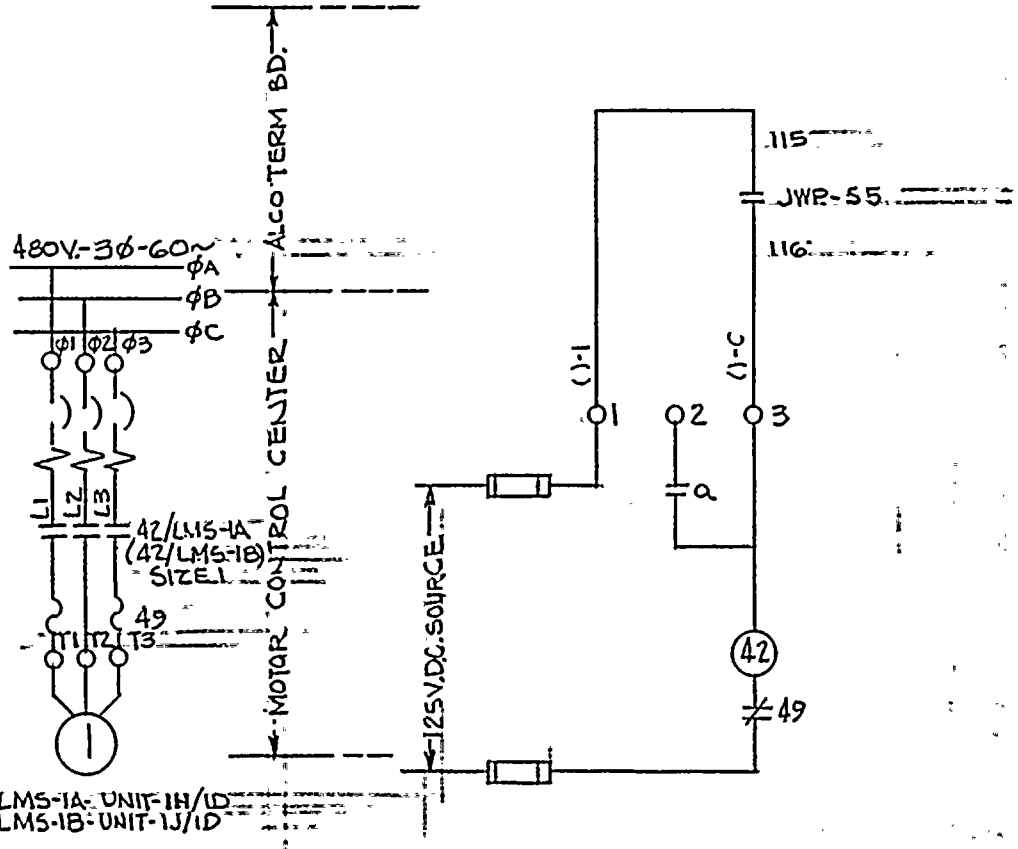
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

NO. 10905-142

R.E. GINNA NUCLEAR POWER STATION
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DIESEL START AIR COMP. 1A(1B)

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



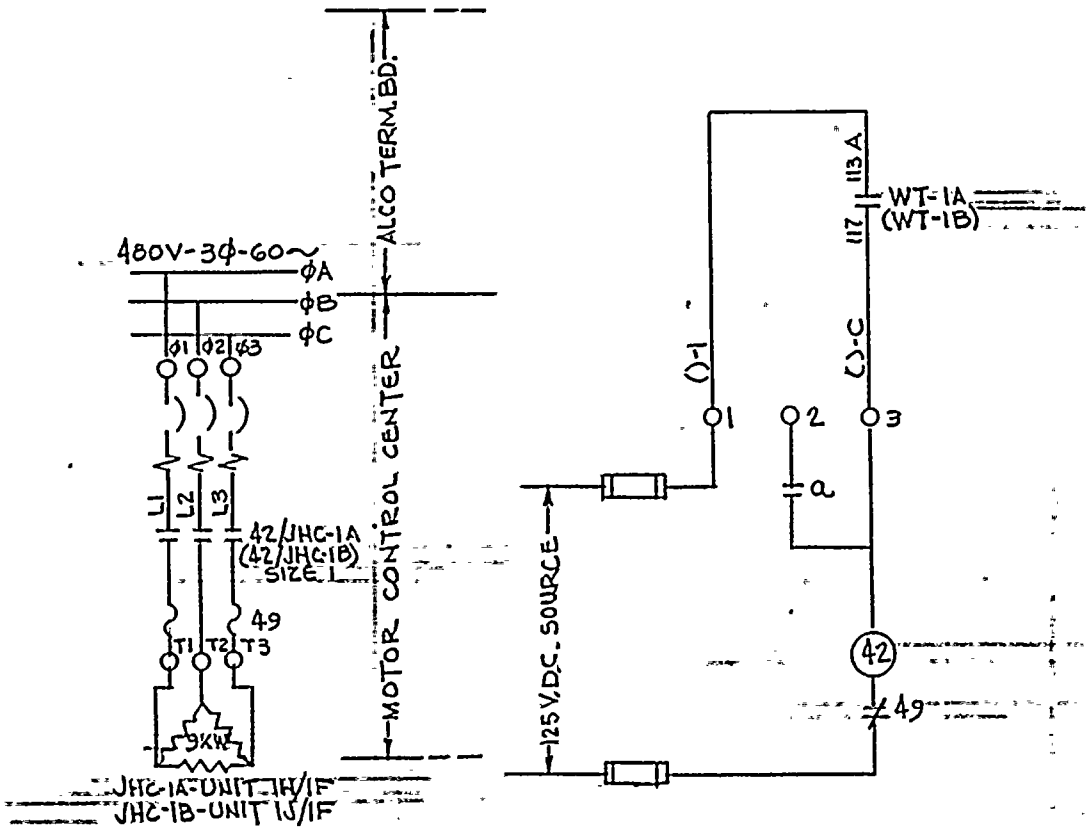
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH 143

REV.						
ORIGINAL	GJF 8/10/76 DRAWN BY	lcm 8/18/76 CK'D	RCa 9/23/76 RESP ENGR	GJF ENGR MGR	9/23/76 DATE	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-145

DRAWN BY DATE SCALE
TRACED APPROVED
CHECKED FOLDER NO.
ENG. JOB NO.

RE GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DIESEL GEN 1A(1B) PRELUBE PUMP



NOTES:
WT-WATER TEMP SW

NOTE- THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING No. 499B425-144

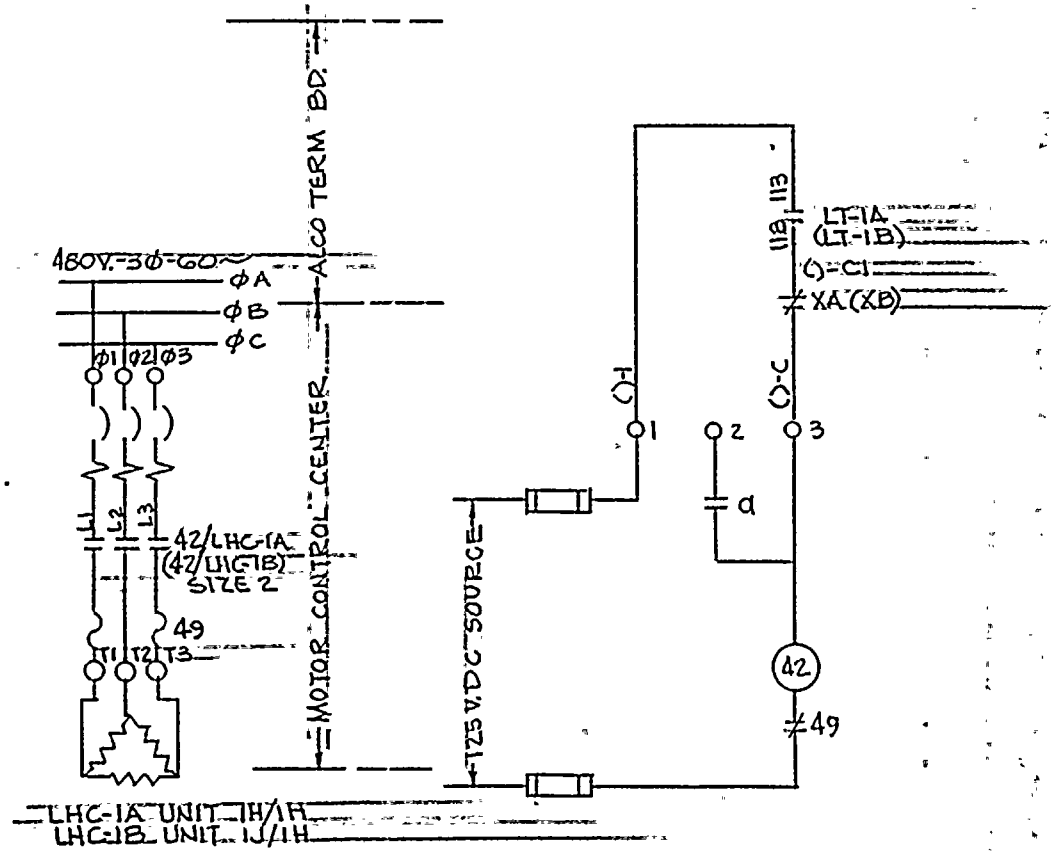
REV						
ORIGINAL	GJF 8/11/76	RMW 8/18/76	R&A 9/23/76	PEB	9/23/76
	DRAWN BY	CK'D	RESP ENG	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
11 ROCHESTER, NEW YORK
ENGINEERING DEPT.
No. 10905-144

R.E. GINNA NUCLEAR POWER STATION
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DIESEL GEN. 1A(1B) JACKET WTR HTRS.

	BY	DATE
DRAWN		
TRACED		
CHECKED		
ENG.		

SCALE
APPROVED
FOLDER NO.
JOB NO.



NOTES:

LT- LUBE OIL TEMP. SW.

XA(XB)- RELAY IN BASSLER CABINET SEE ALCO

REV.						
ORIGINAL	DRAWN BY	GJF 6/11/76	RWM 9/2/76	RFA 9/23/76	JEL	9/24/76
	CK'D					
	RESP ENGR					
	ENGR MGR					
	DATE					

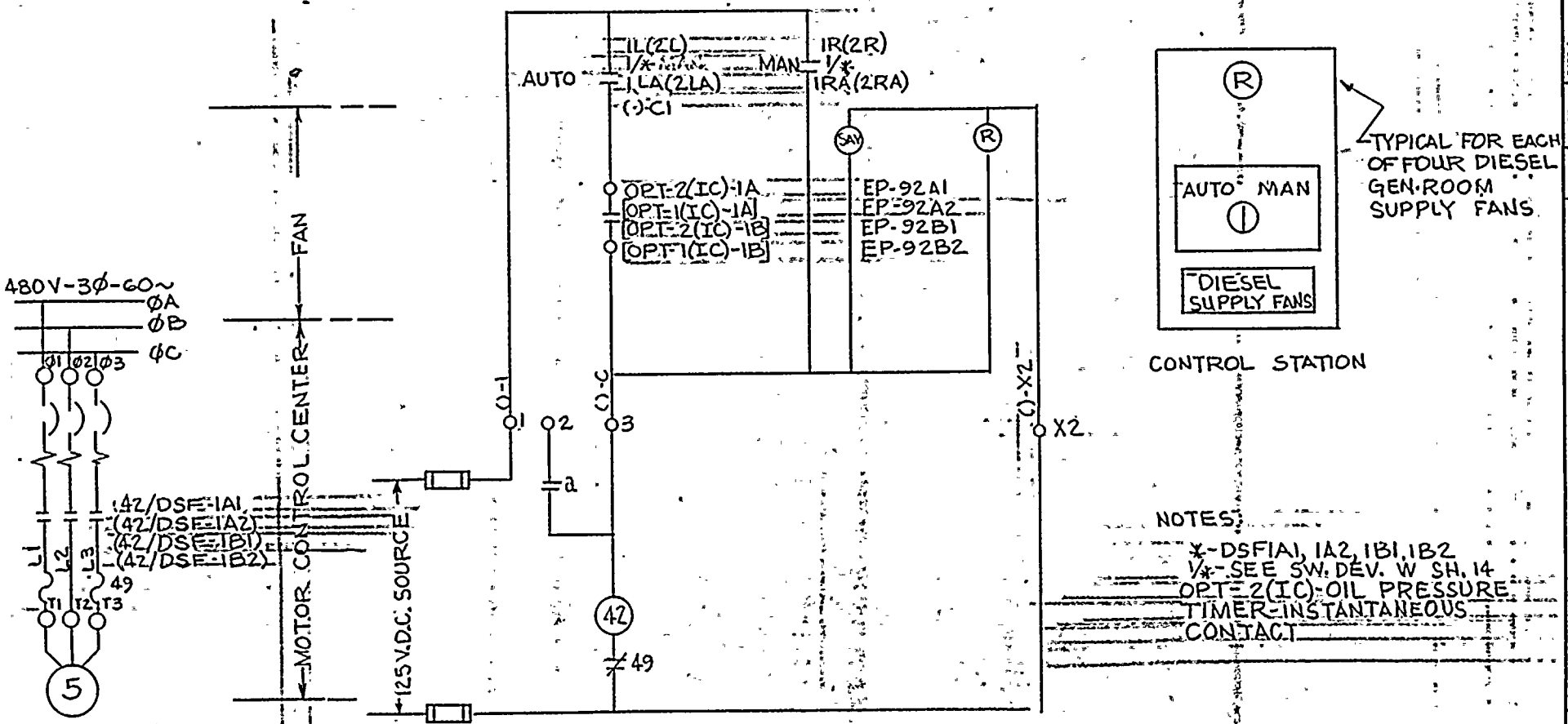
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH. 145

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

RE GINNA NUCLEAR POWER
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DIESEL GEN. 1A[1B] LUBE OIL HTRS

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.

No. 10905-145



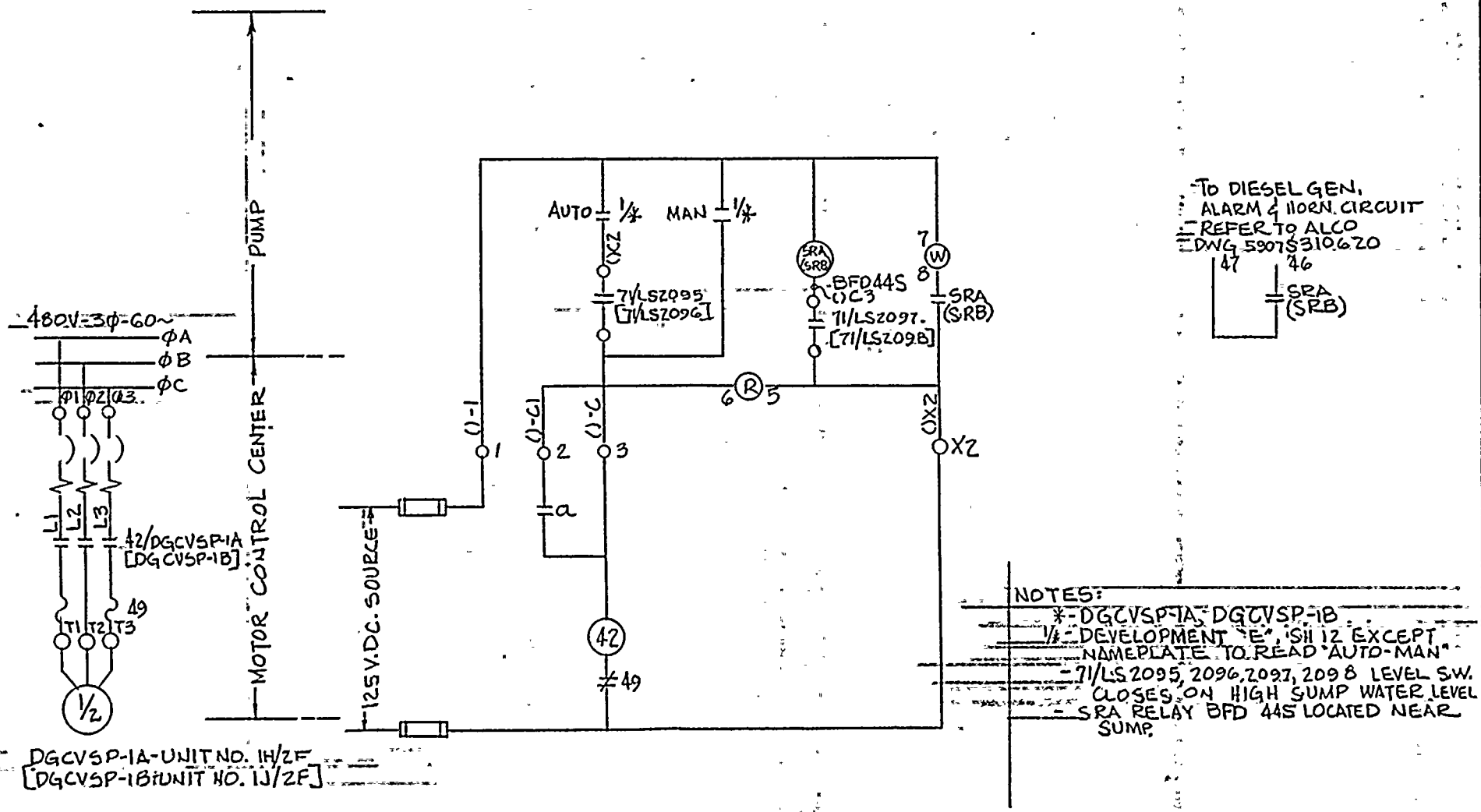
NOTE-THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH. 146

REV						
ORIGINAL		GJF 8/12/71	RWM 8/16/71	RFW 9/23/71	QEB	9/23/71
		DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

R.E. GINNA NUCLEAR POWER PLANT
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DIESEL ROOM SUPPLY FAN 1A\(1A2,1B1,1B2)

DATE | BY | SCALE
DRAWN | TRACED | CHECKED
APPROVED
FOLDER NO.
JOB NO.



DGCVSP-1A-UNIT NO. 1H/2F
[DGCVSP-1B-UNIT NO. 1J/2F]

NOTES:
*-DGCVSP-1A, DGCVSP-1B
1/4-DEVELOPMENT "E", SH 12 EXCEPT NAMEPLATE TO READ "AUTO-MAN"
-71/LS2095, 2096, 2097, 2098 LEVEL SW. CLOSES ON HIGH SUMP WATER LEVEL
-SRA RELAY BFD 44S LOCATED NEAR SUMP.

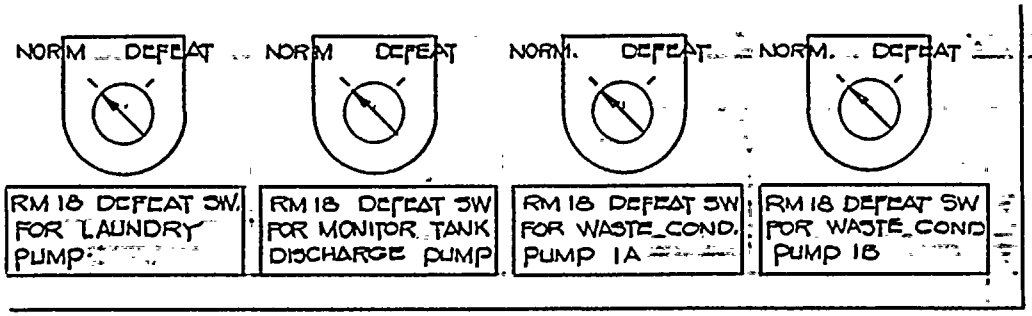
REV.						
ORIGINAL	GJF 8/12/76	RM 8/18/76	KTG 9/23/76	JJ28	9/23/76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

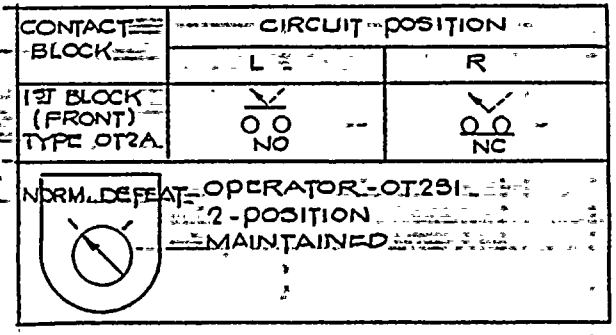
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 4998425 SH 147

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-1147

R.E. GINNA NUCLEAR POWER STATION
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
DIESEL GEN. CABLE VAULT SUMP PUMP 1A[B]

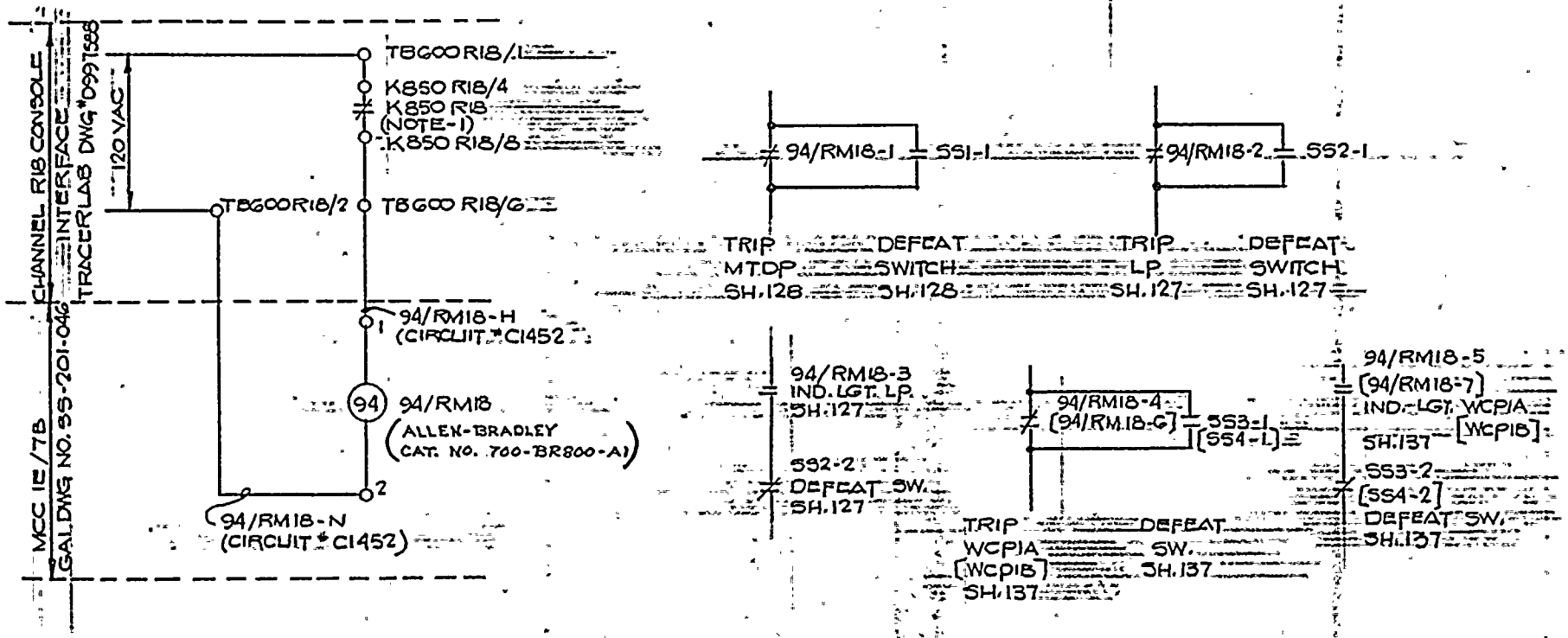
DRAWN | TRACED | CHECKED | ENG.
DATE | BY
SCALE
APPROVED
FOLDER NO.
JOB NO.





SWITCH LAYOUT ON FRONT PNL. OF MCC1E/7B

SS1, SS2, SS3, SS4 SWITCH DEVELOPMENT



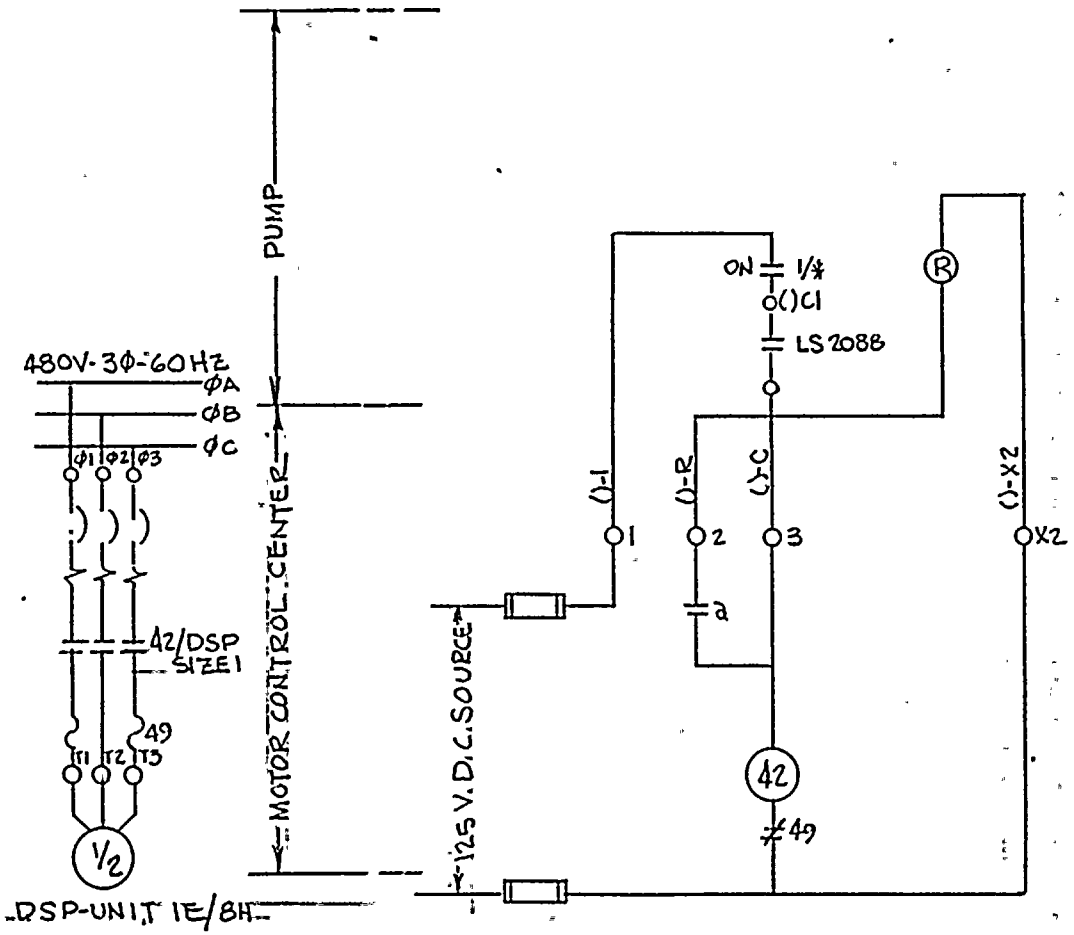
NOTES:
1-ALARM RELAY K850R18 DENERGIZED FOR ALARM

REV						
ORIGINAL	DH.	Rmm 1-7-77	MBB 1-7-77	JES	1-7-77
	DRAWN BY	CK'D	RESP. ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 109057145

DRAWN BY | TRACED | CHECKED | ENG.
DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.

ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
RADIATION MONITOR 1B TRIPPING RELAY



NOTES

*=DSP

1/* - ON-OFF SEL. SW

LS2088 LOCATED ON OFFSITE COLLECTING TANK

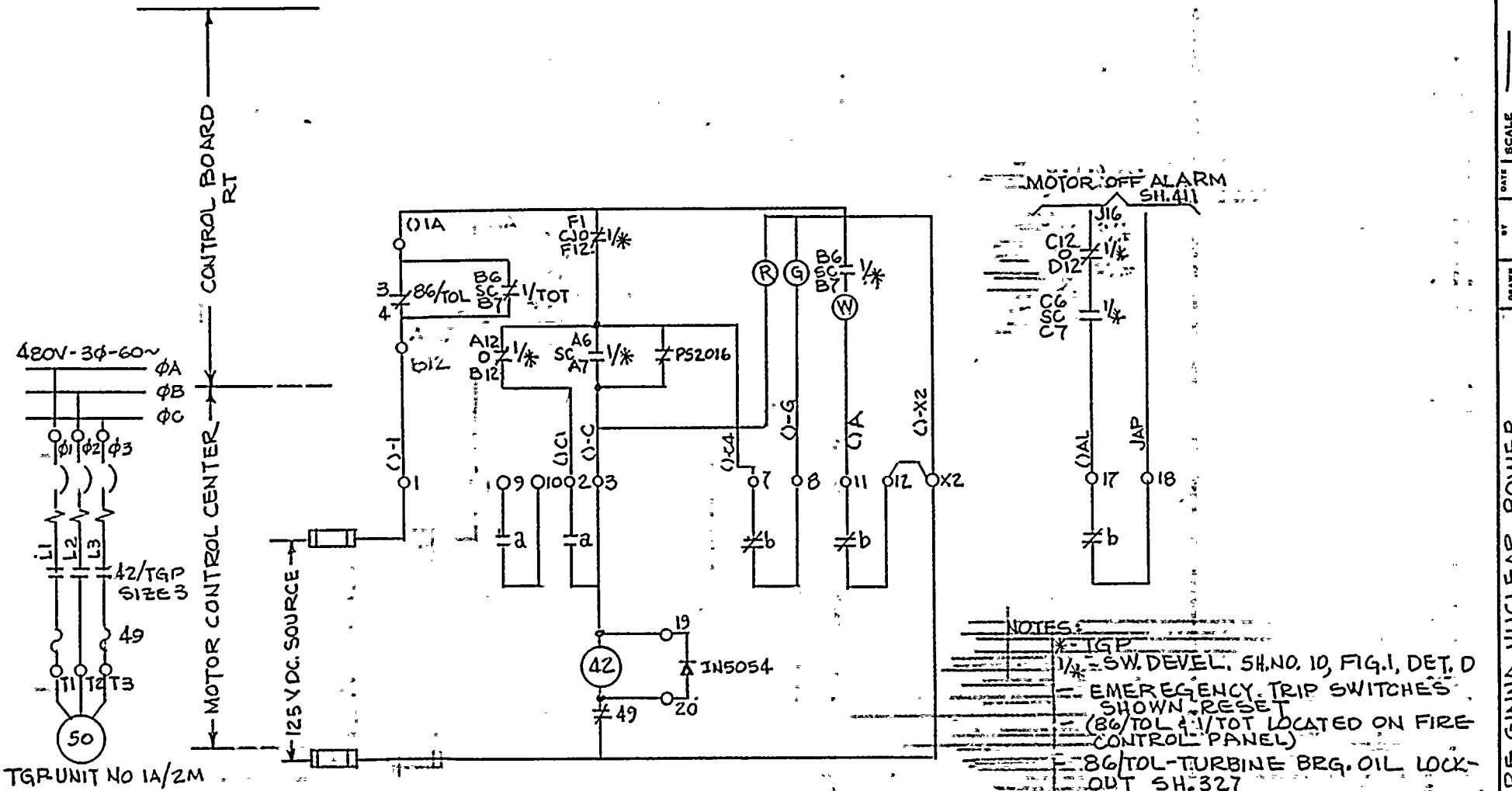
REV.						
ORIGINAL	GJF 8/12/76	RM 8/18/76	RFA 9/23/76	JES	9/23/76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 150

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.
NO. 10905-150

R.E. GINNA NUCLEAR POWER STATION
UNIT NO 1
ELEMENTARY WIRING DIAGRAM
DESUPER HEATER PUMP

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.



NOTES:

* - TGP

1/* - SW. DEVEL. SH. NO. 10, FIG. 1, DET. D
= EMERGENCY TRIP SWITCHES SHOWN RESET
(86/TOL & 1/TOT LOCATED ON FIRE CONTROL PANEL)

- 86/TOL - TURBINE BRG. OIL LOCK-OUT SH. 327
- 1/TOT - TURBINE BRG. OIL TRIP SW. SH. 327.
- PS-2016 (W 63/TGP) W DWG. 461B820 SH. 2.

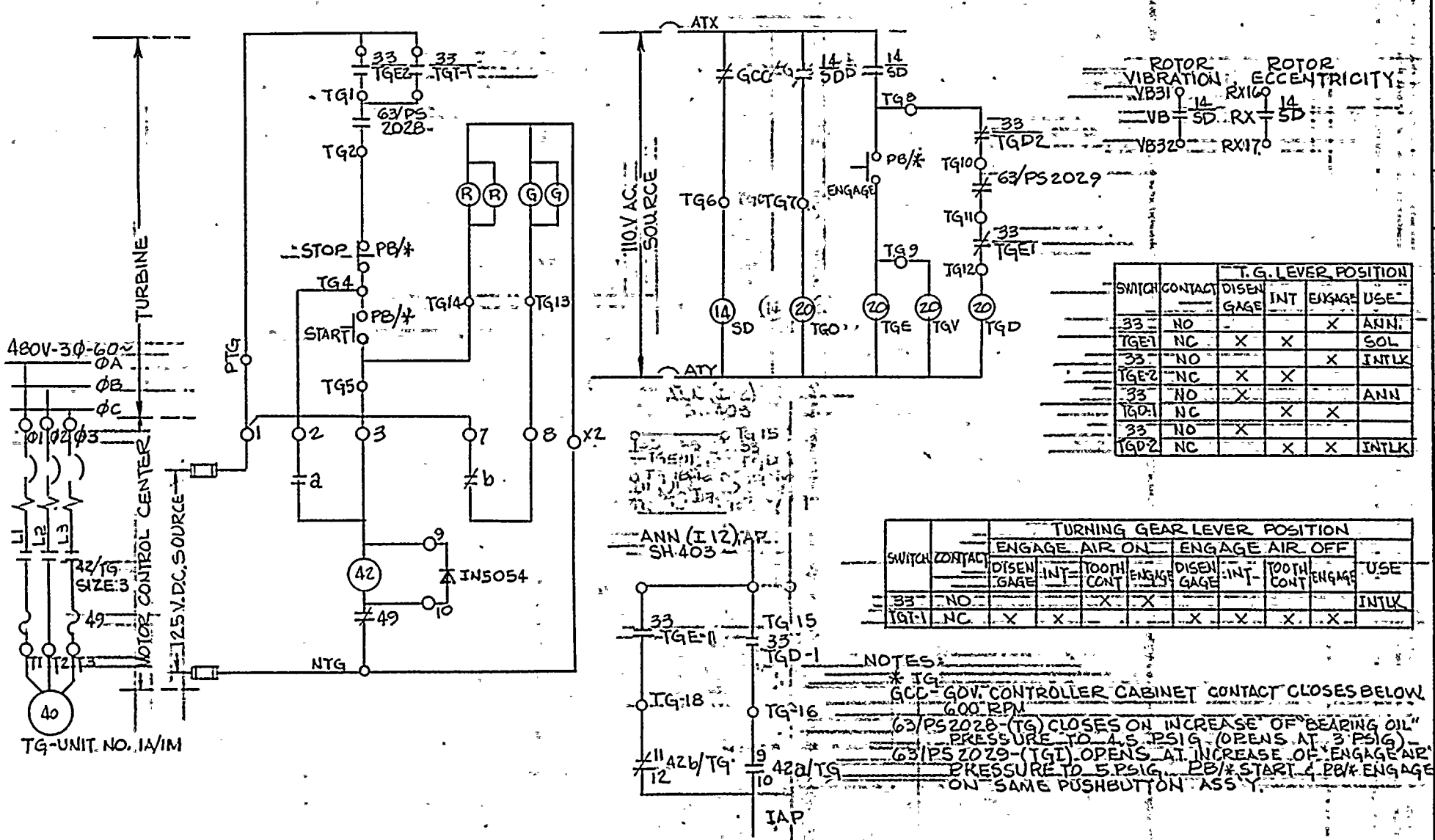
REV.						
ORIGINAL	CJT 8/13/76	RMW 8/18/76	RFA 9/23/76	JEL	9/23/76
	DRAWN BY	CK'D	RESP. ENG.	ENGR MGR	DATE

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH. 151

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-151

RE GINNA NUCLEAR POWER - STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM, TURNING GEAR OIL PUMP

DRAWN | DATE | SCALE
TRACED | BY | APPROVED
CHECKED | FOLDER NO.
ENGR. | JOB NO.



SWITCH	CONTACT	T.G. LEVER POSITION DISENGAGE	INT	ENGAGE	USE
33	NO	-	-	X	ANN.
TGE-1	NC	X	X	-	SOL
33	NO	-	-	X	INTLK
TGE-2	NC	X	X	-	
33	NO	X	-	-	ANN
TGD-1	NC	-	X	X	
33	NO	X	-	-	
TGD-2	NC	-	X	X	INTLK

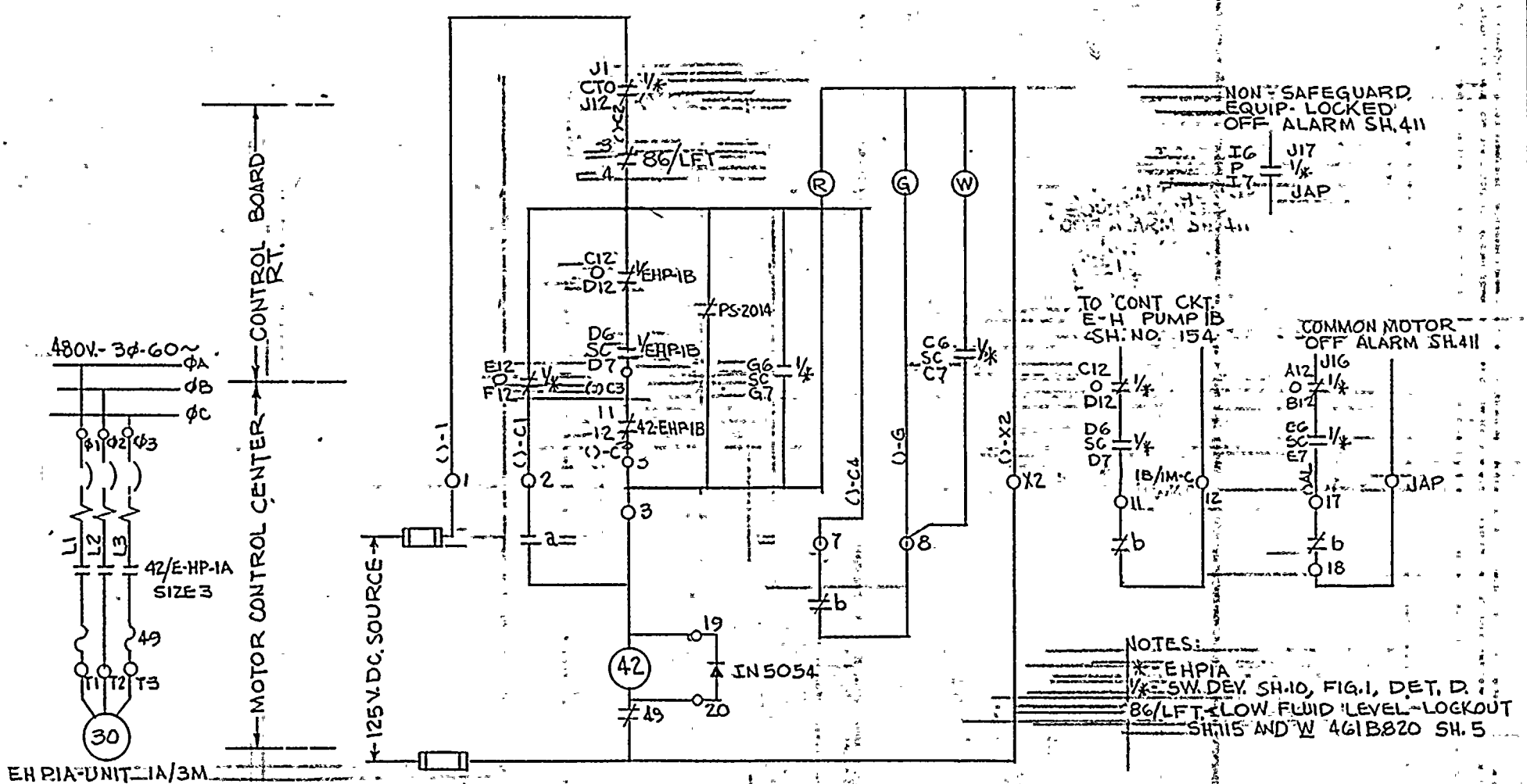
SWITCH	CONTACT	TURNING GEAR LEVER POSITION: ENGAGE AIR ON DISENGAGE	INT	TOOTH CONT	ENGAGE	ENGAGE AIR OFF DISENGAGE	INT	TOOTH CONT	ENGAGE	USE
33	NO	-	-	X	X	-	-	-	-	INTLK
TGT-1	NC	X	X	-	-	X	X	X	X	

NOTES:
* IG - GCC - GOV. CONTROLLER CABINET CONTACT CLOSES BELOW 600 RPM
63/PS 2028 - (TG) CLOSES ON INCREASE OF BEARING OIL PRESSURE TO 4.5 PSIG (OPENS AT 3 PSIG)
63/PS 2029 - (TGT) OPENS AT INCREASE OF ENGAGE AIR PRESSURE TO 5 PSIG. PB/* START & PB/* ENGAGE ON SAME PUSHBUTTON ASS'Y.

REV.						
ORIGINAL	GJF 8/16/74	Rm 9/18/74	RCA 9/23/74	[illegible]	[illegible]	9/23/74
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE	

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 498B425 SH 152

ROCHESTER GAS & ELECTRIC CORP. 1 ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905-152
R.E. GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
TURNING GEAR
DRAWN GJF DATE 8/74 SCALE
TRACED
CHECKED
ENG.
APPROVED
FOLDER NO.
JOB NO.



NOTE - THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 153

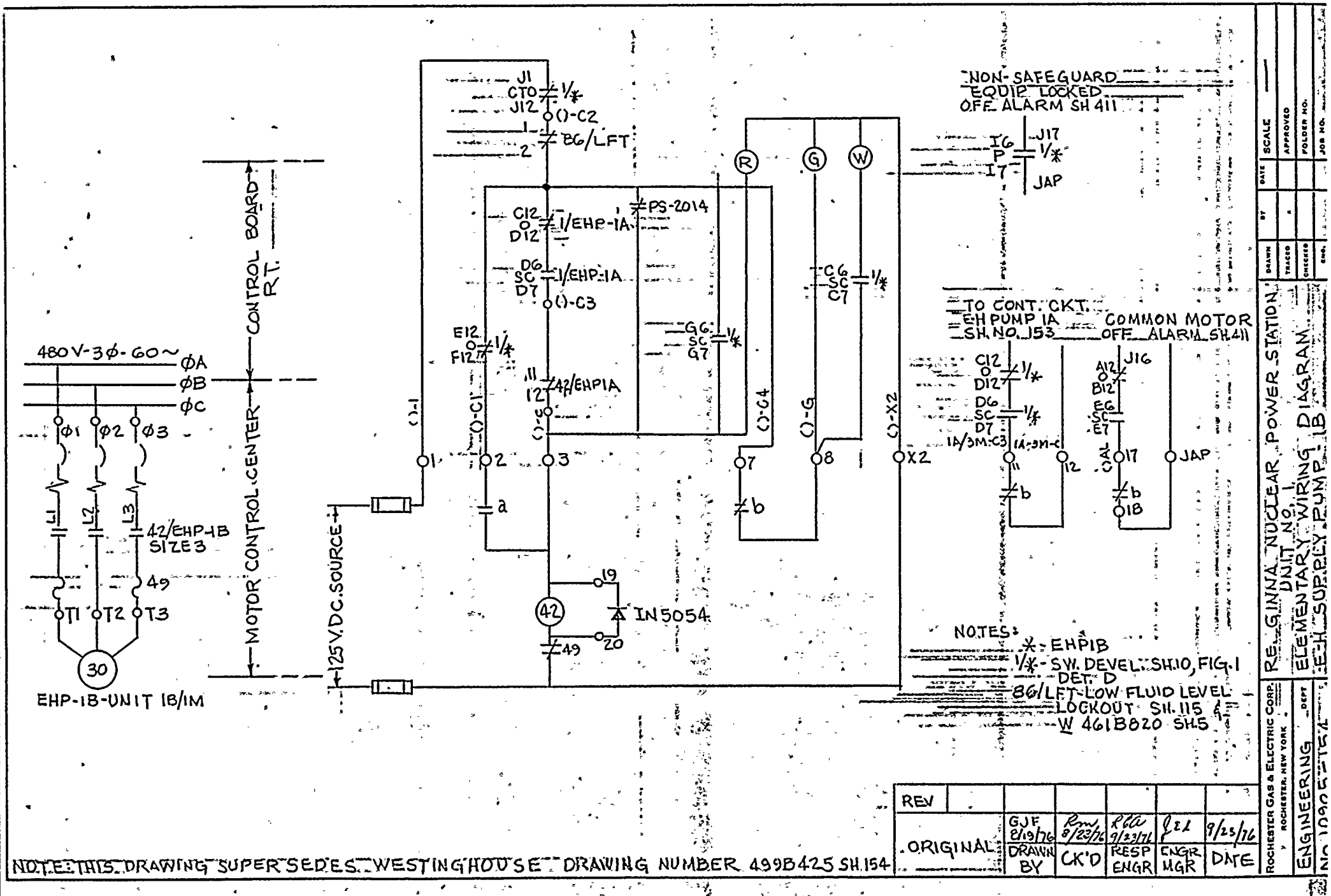
REV						
ORIGINAL	GJF 8/17/76	Rmw 8/18/76	R/a 9/23/74	RED	9/23/76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. — ROCHESTER, NEW YORK
ENGINEERING ..... DEPT

RE. GINNA NUCLEAR POWER STATION
UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
E-H SUPPLY PUMP 1A

DRAWN | TRACED | CHECKED | DATE | BY
SCALE | APPROVED | FOLDER NO. | JOB NO.

NO. 10005 - 15 RT



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH. 154

REV						
ORIGINAL	GJF 8/19/76	RWL 8/23/76	RGL 9/23/76	JEL		9/23/76
	DRAWN BY	CK'D	RESP ENGR	ENGR MGR		DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

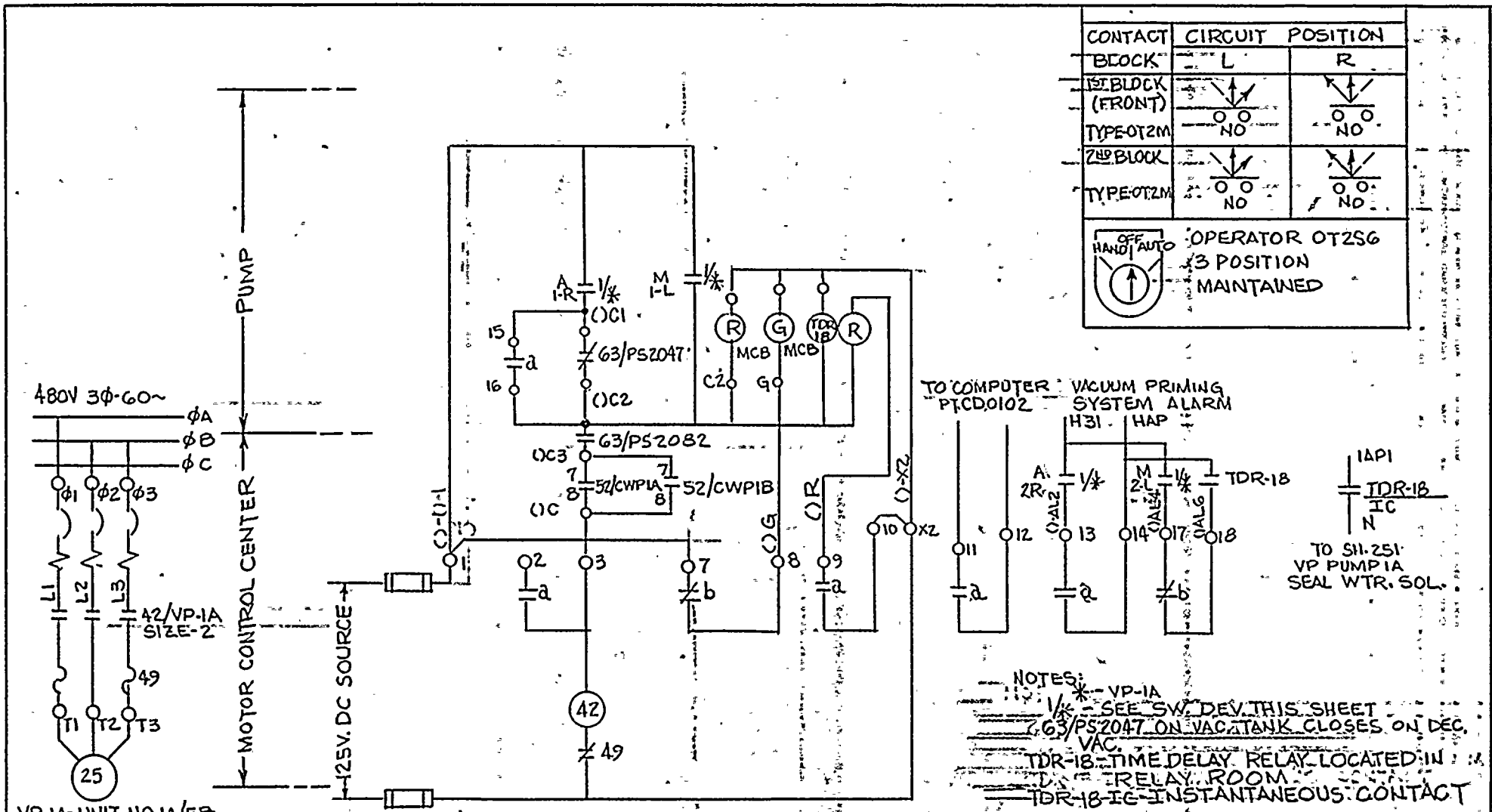
RE. GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

EHP SUPPLY PUMP 1B

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.

NO. 10905 SHEET 1



CONTACT BLOCK	CIRCUIT POSITION L	R
1ST BLOCK (FRONT) TYPE OT2M	NO	NO
2ND BLOCK TYPE OT2M	NO	NO

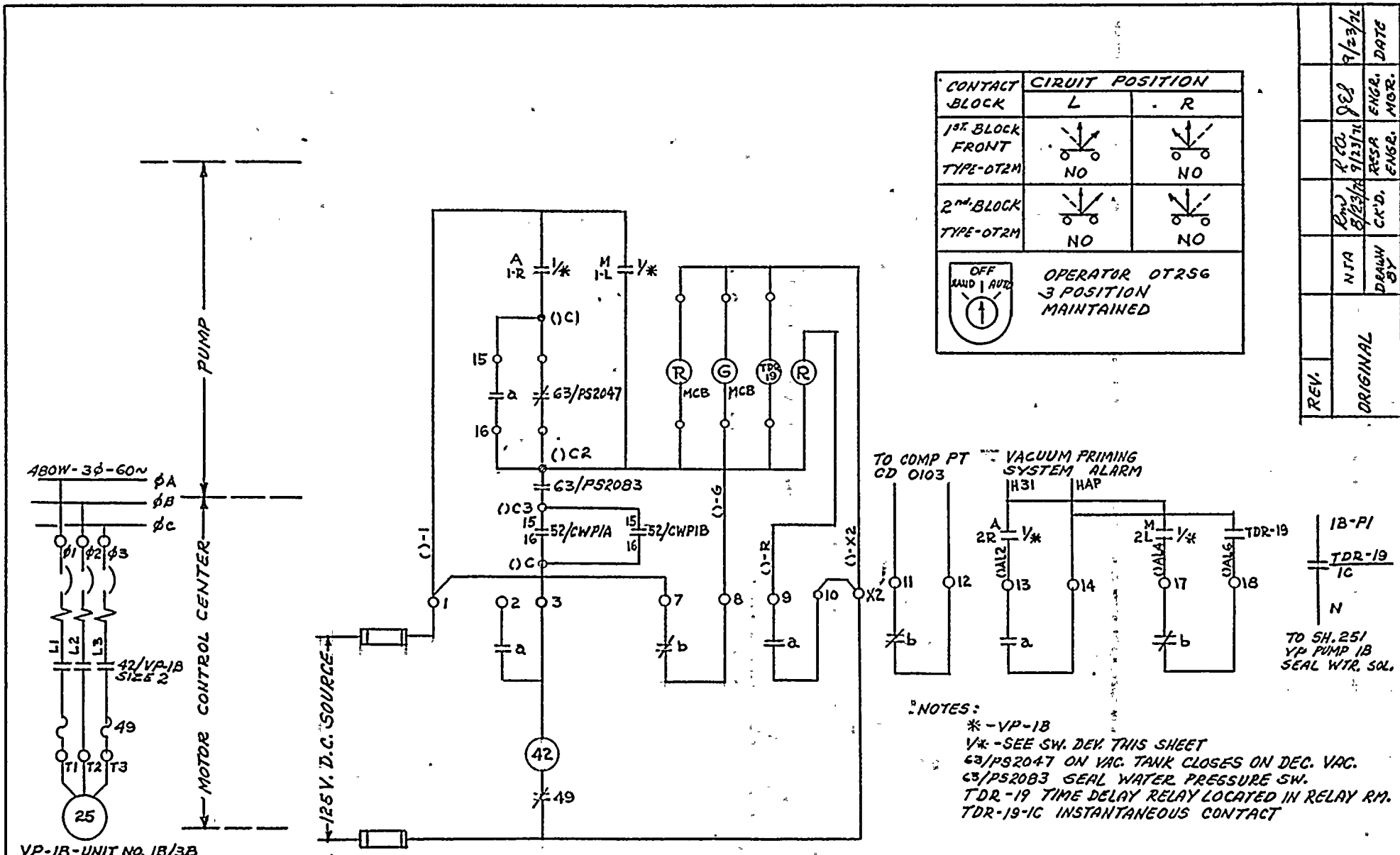
OFF HAND AUTO — OPERATOR OT2S6 3 POSITION MAINTAINED

NOTES:
* - VP-1A
1/* - SEE SW. DEV. THIS SHEET
63/PS2047 ON VAC. TANK CLOSES ON DEC. VAC.
TDR-18 - TIME DELAY RELAY LOCATED IN RELAY ROOM
TDR-18 IC - INSTANTANEOUS CONTACT

NOTE - THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH. 155

REV.					
ORIGINAL	GJF 8-23-76 DRAWN BY	RMW 9/7/76 CK'D	RFG 9/23/76 RESP ENGR	JEJ ENGR MGR	9/23/76 DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
R.E. GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
VACUUM PRIMING PUMP 1A
DRAWN | TRACED | CHECKED | ENGR | DATE | BY | SCALE | APPROVED | FOLDER NO. | JOB NO. 10905-155



CONTACT BLOCK	CIRUIT POSITION L	CIRUIT POSITION R
1ST. BLOCK FRONT TYPE-OT2M	NO	NO
2nd. BLOCK TYPE-OT2M	NO	NO

OFF HAND AUTO

OPERATOR OT2SG
3 POSITION
MAINTAINED

NOTES:
* -VP-1B
V* -SEE SW. DEV. THIS SHEET
63/PS2047 ON VAC. TANK CLOSES ON DEC. VAC.
63/PS2083 SEAL WATER PRESSURE SW.
TDR-19 TIME DELAY RELAY LOCATED IN RELAY RM.
TDR-19-1C INSTANTANEOUS CONTACT

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 156

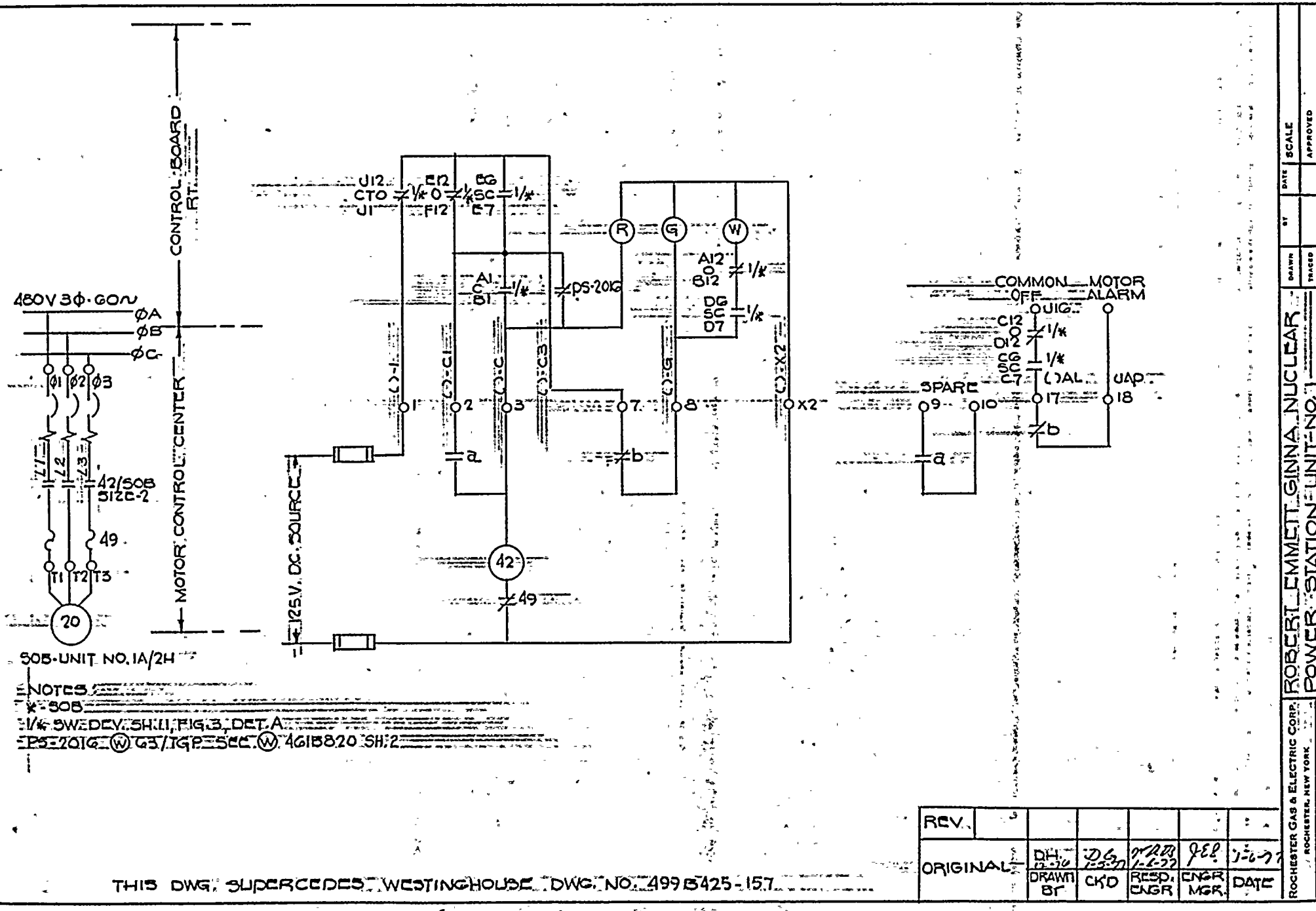
REV.		DRAWN BY	CK'D.	ENGR. MGR.	DATE
	ORIGINAL	NJA	RMJ 8/23/72	RESA 9/23/72	9/23/72

DRAWN NJA. SCALE 3/4"
TRACED
CHECKED
APPROVED
FOLDER NO.
JOB NO.

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT No.1
ELEMENTARY WIRING DIAGRAM
VACUUM PRIMING PUMP-1B

DWG. NO. 10905-156



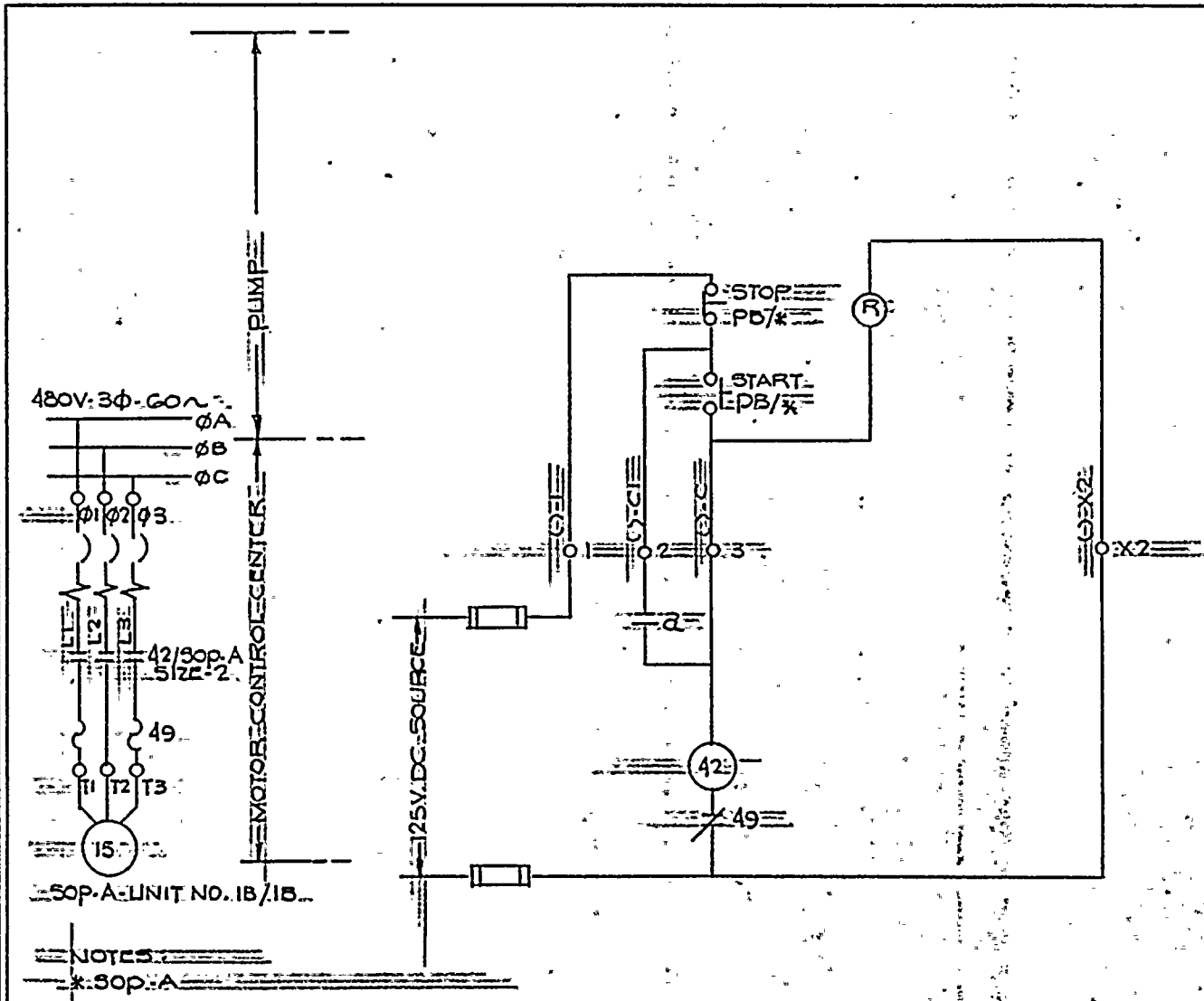
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-157

REV.						
ORIGINAL	DH 12-30	DG 1-5-71	[illegible] 1-6-72	JEL	[illegible]	
	DRAWN BY	CK'D	RESP. ENGR	ENGR MGR.	DATE	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
STARTER FOR OIL FRACTIONATING PUMP

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
1 ENG.			JOB NO.



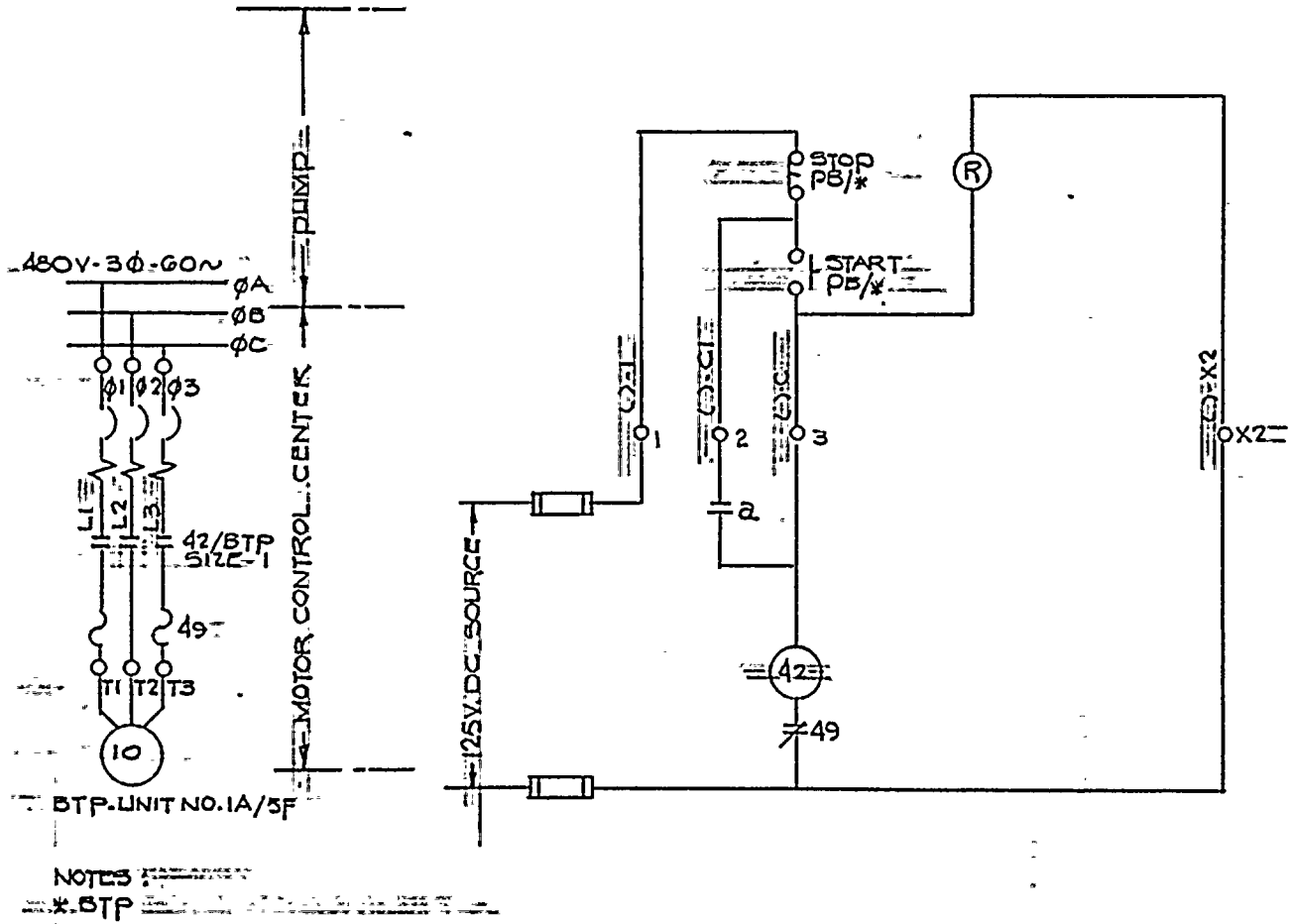
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425-158

REV.						
ORIGINAL	DH 1-31	DG 1-31-77	MRR 1-6-77	JES	1-6-77
	DRAWN BY	CK'D	RESP. ENGR	ENGR MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.
NOTTINGHAM

ROBERT EMMET GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
FOR AUXILIARY FEEDWATER PUMP

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENGR.			JOB NO.



NOTES:
*.BTP

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 4996425-159

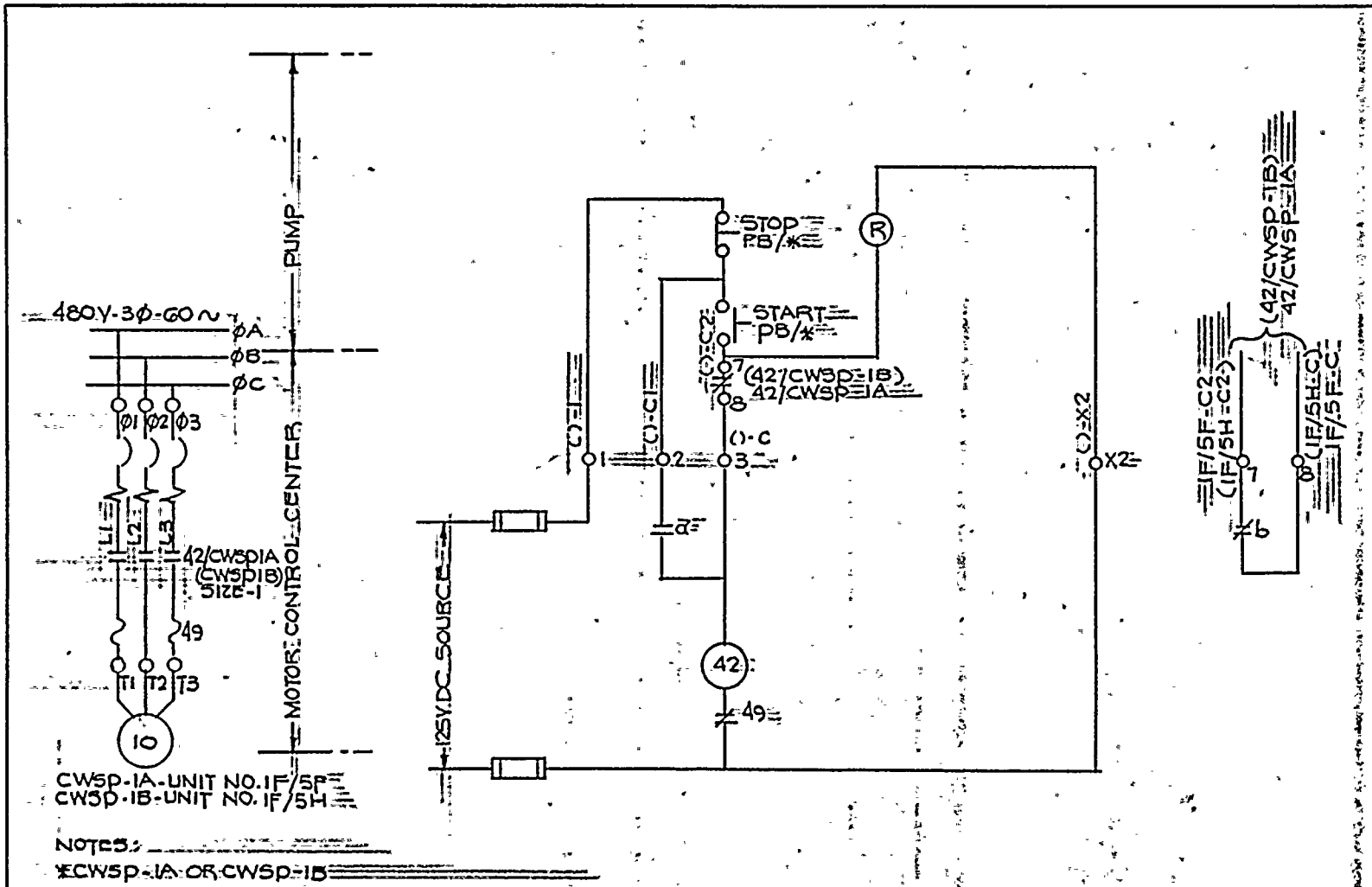
REV.	△					
ORGINAL		DH. 11-76	DG 1-5-77	MRB 1-6-77	JEB	1-6-77
		DRAWN BY	CK'D	RESP ENGR	ENGR MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGR

ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM

	BY	DATE	SCALE
DRAWN			
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NO. 10005-150



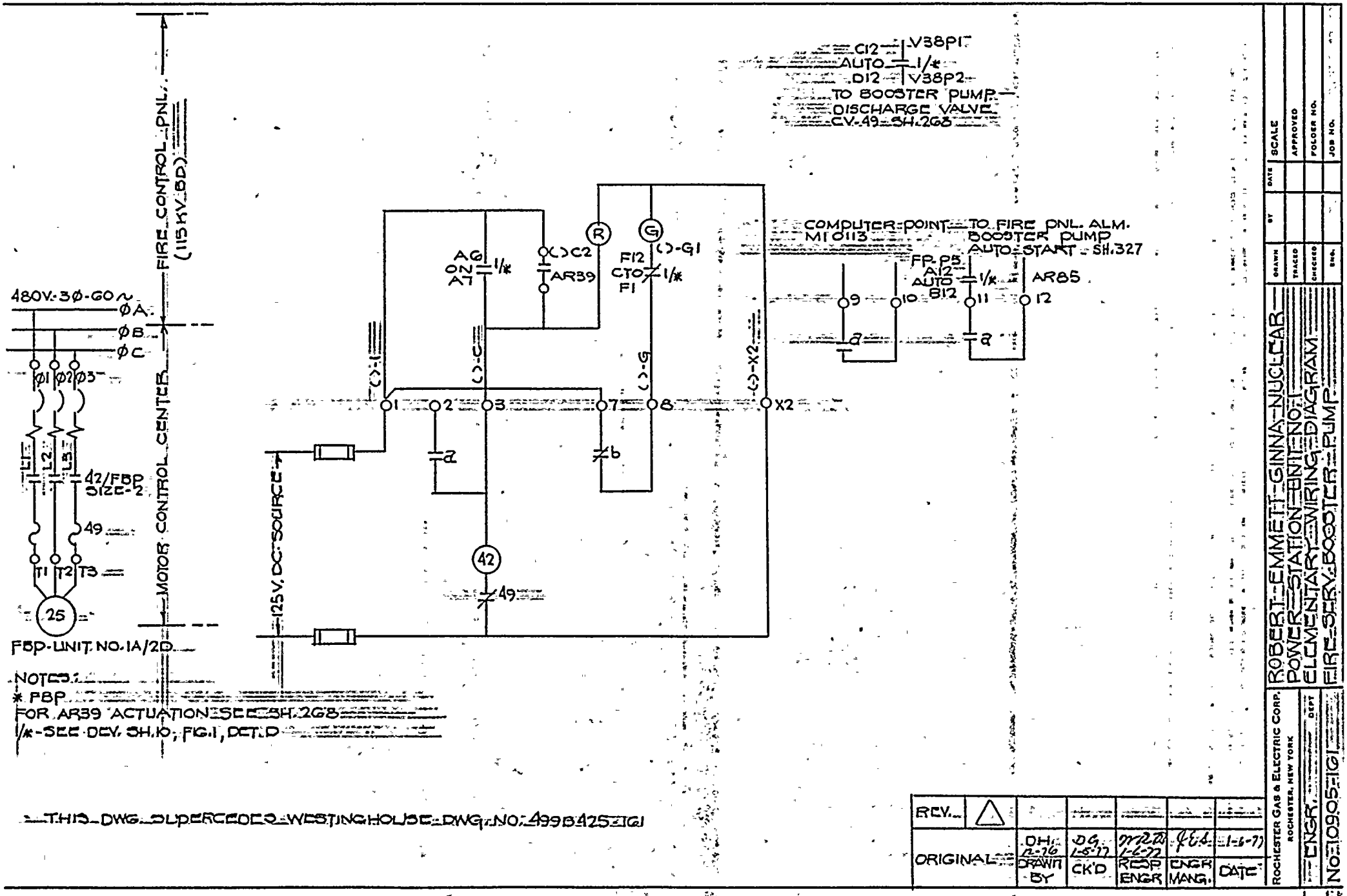
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425-160

REV.						
ORIGINAL	D.H. 12-7-76	DG 1-5-77	TRB 1-6-77	RED	1-6-77
	DRAWN BY	CK'D	RESP. ENGR.	ENGR MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT — ENGR

ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CIRCUITRY FOR CIRCULATING WATER PUMP 1A & 1B

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTES:

* FBP FOR AR39 ACTUATION SEE SH.2G8

1/* - SEE DEV. SH.10, FIG.1, DET.D

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-1G1

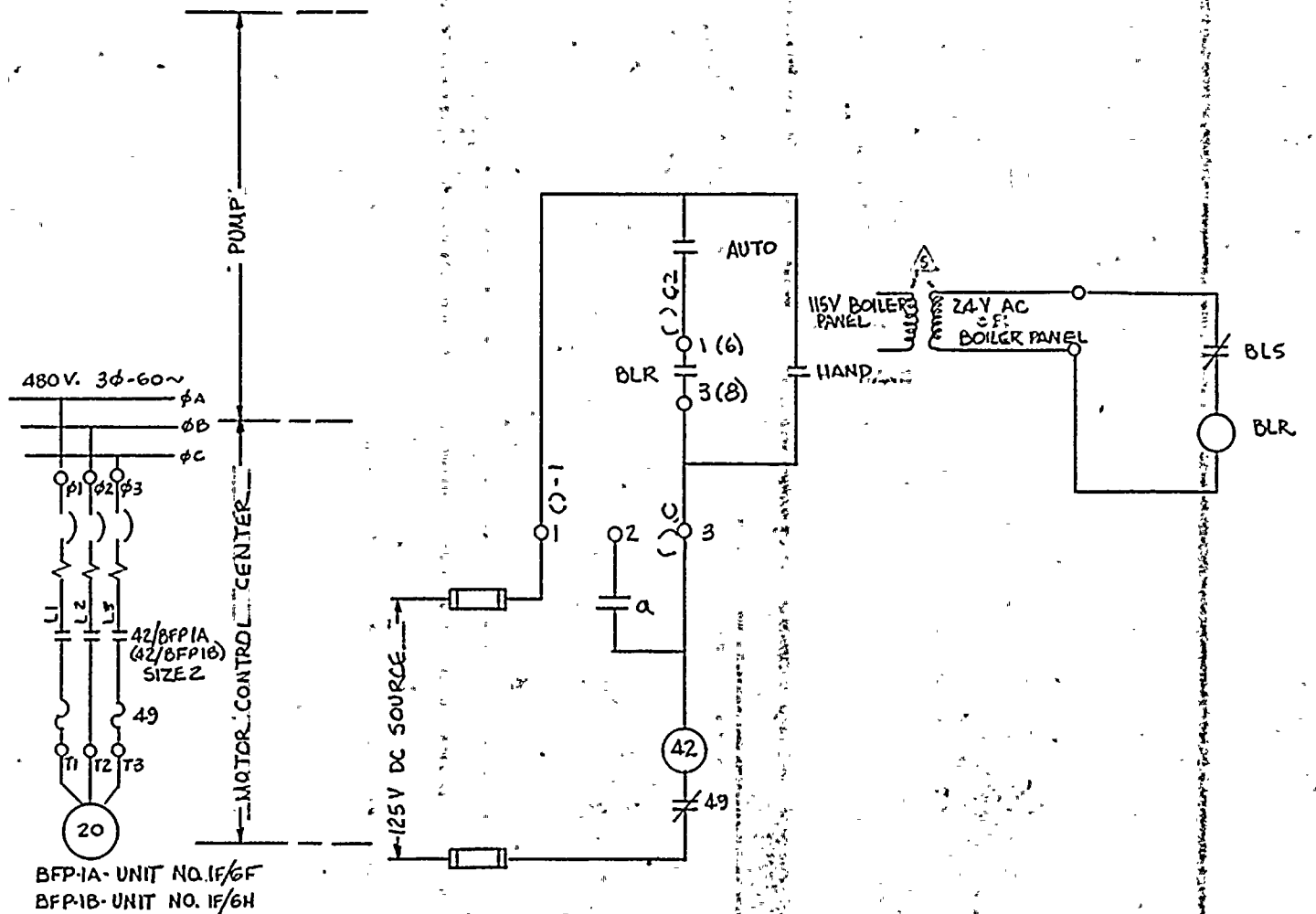
REV.						
ORIGINAL		DH 2-76 DRAWN BY	DG 1-5-77 CK'D	MRD 1-6-77 RESP ENGR	JFS ENGR MANG.	1-6-77 DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGR. DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
FIRE SERV. BOOSTER PUMP

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NO. 1090511G1



BFP-1A - UNIT NO. 1F/6F
BFP-1B - UNIT NO. 1F/6H

NOTE:
BLR - LEVEL RELAY LOCATED IN SWITCH BOX (LOCAL)
BLS - BOILER LEVEL SWITCH
* = BFP1A OR BFP1B

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 4998425 SH 162

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
HEATER BCR-2 BLR FEED PUMP STARTER

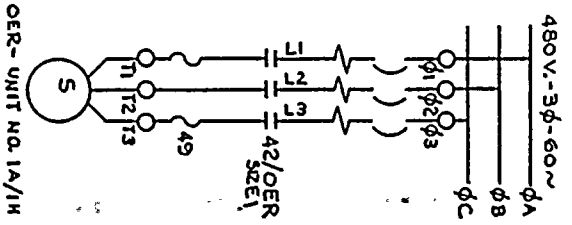
REV						
ORIGINAL	GJF	Rmm 5/22/72	RGL	JEL	4/27/72
	DRAWN BY	CK'D	RESP ENG'R	ENGR MGR	DATE

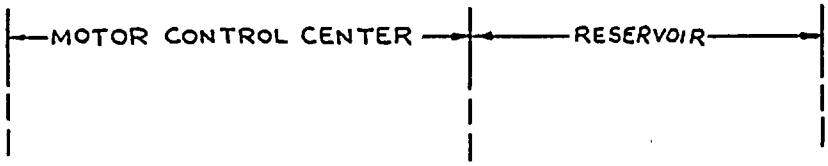
DRAWN | BY | DATE | SCALE NONE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. MGR. | | | JOB NO. 5716

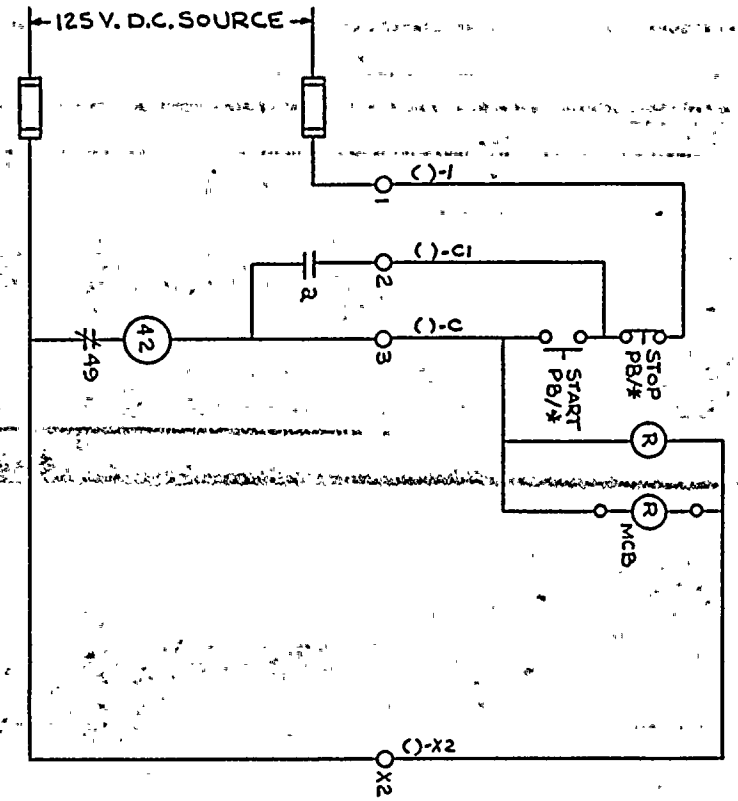
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-162

NOTES:

* OER







THIS DWG SUPERSEDES WESTINGHOUSE DWG. NO. 499B425-163

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL — INITIAL	MJB	[illegible]	[illegible]	[illegible]
	DATE	3/18/77	3/22/77	3/28/77	3/28/77

ELEMENTARY WIRING DIAGRAM
VAP. EXT. TURB. OIL RESVR.

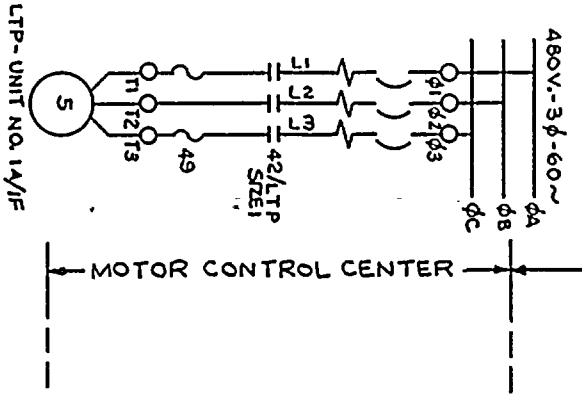
FACILITY GINNA STATION

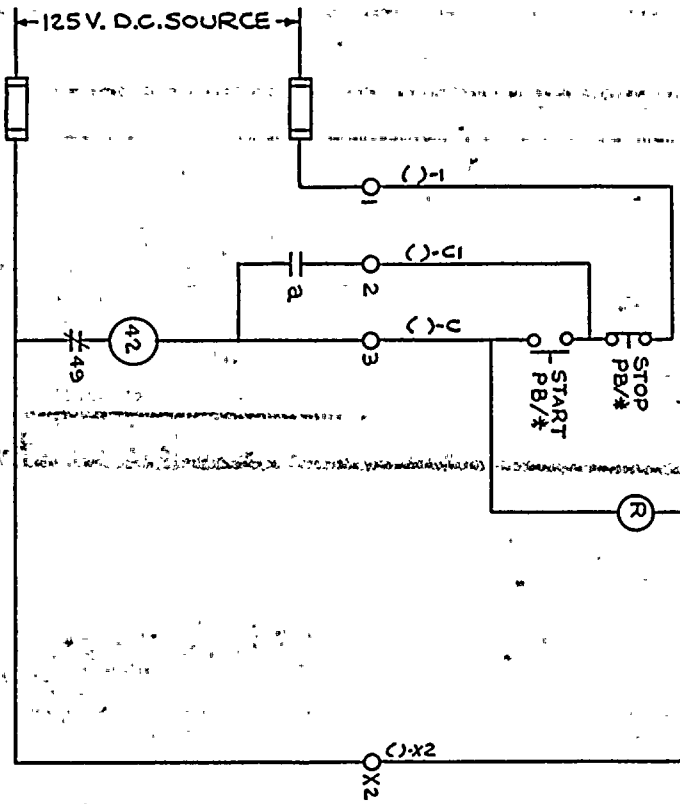
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-163	0

NOTES:
4 - LTP





THIS DWG. SUPERSEDES WESTING HOUSE DWG. NO. 4998425-124

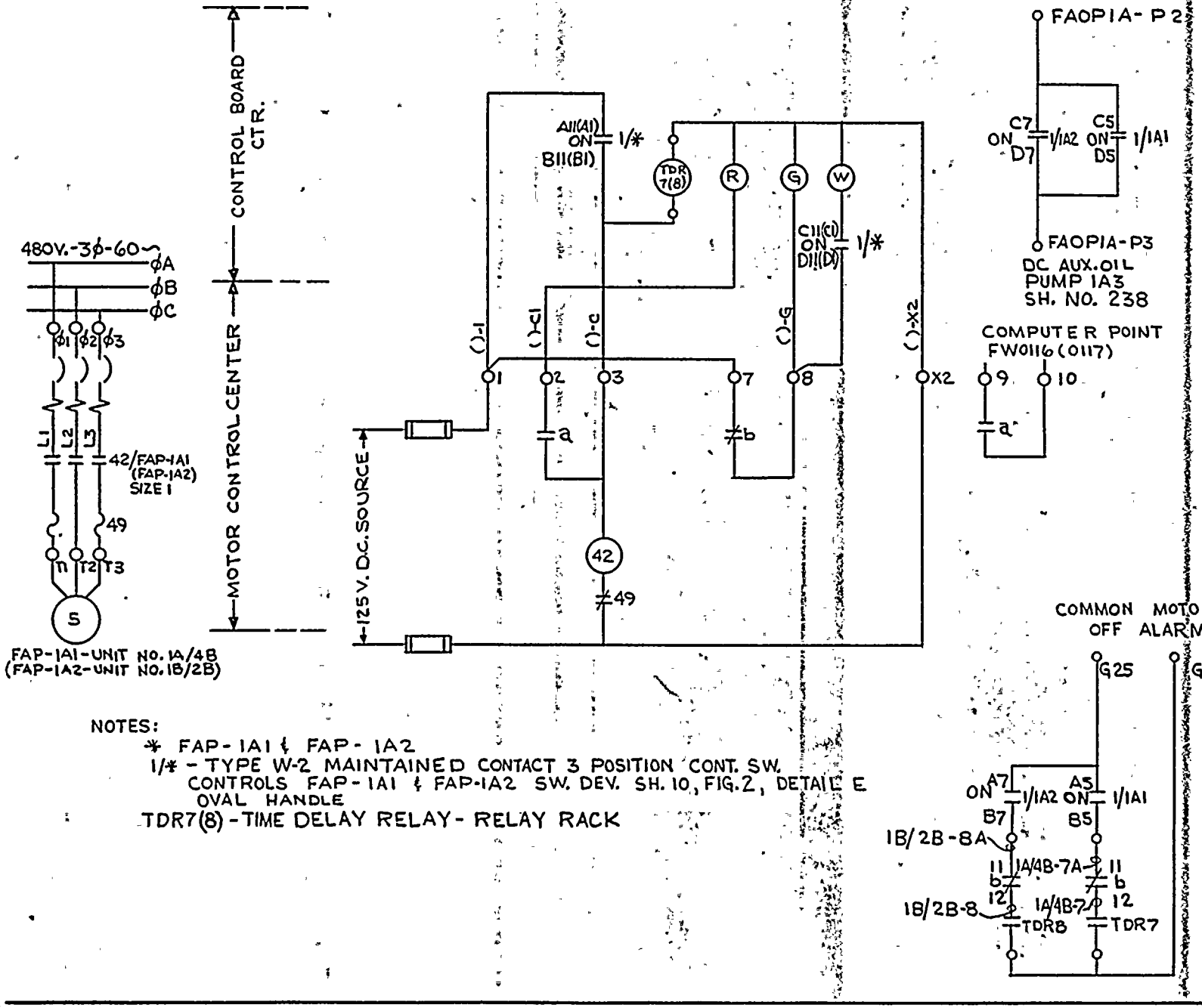
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MH	RW	HWD	RLF
	DATE	3/18/77	3/22/77	3/28/77	5/28

ELEMENTARY WIRING DIAGRAM
LUBE OIL TRANSFER PUMP

FACILITY GINNA STATION — ROCHESTER GAS & ELECTRIC CORP., ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-164	



NOTES:

* FAP-1A1 & FAP-1A2

1/* - TYPE W-2 MAINTAINED CONTACT 3 POSITION CONT. SW. CONTROLS FAP-1A1 & FAP-1A2 SW. DEV. SH. 10, FIG. 2, DETAIL E OVAL HANDLE

TDR7(8) - TIME DELAY RELAY - RELAY RACK

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-165

ELEMENTARY WIRING DIAGRAM
STM. GEN. F.W. AUX. OIL P. 1A1 (1A2)

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

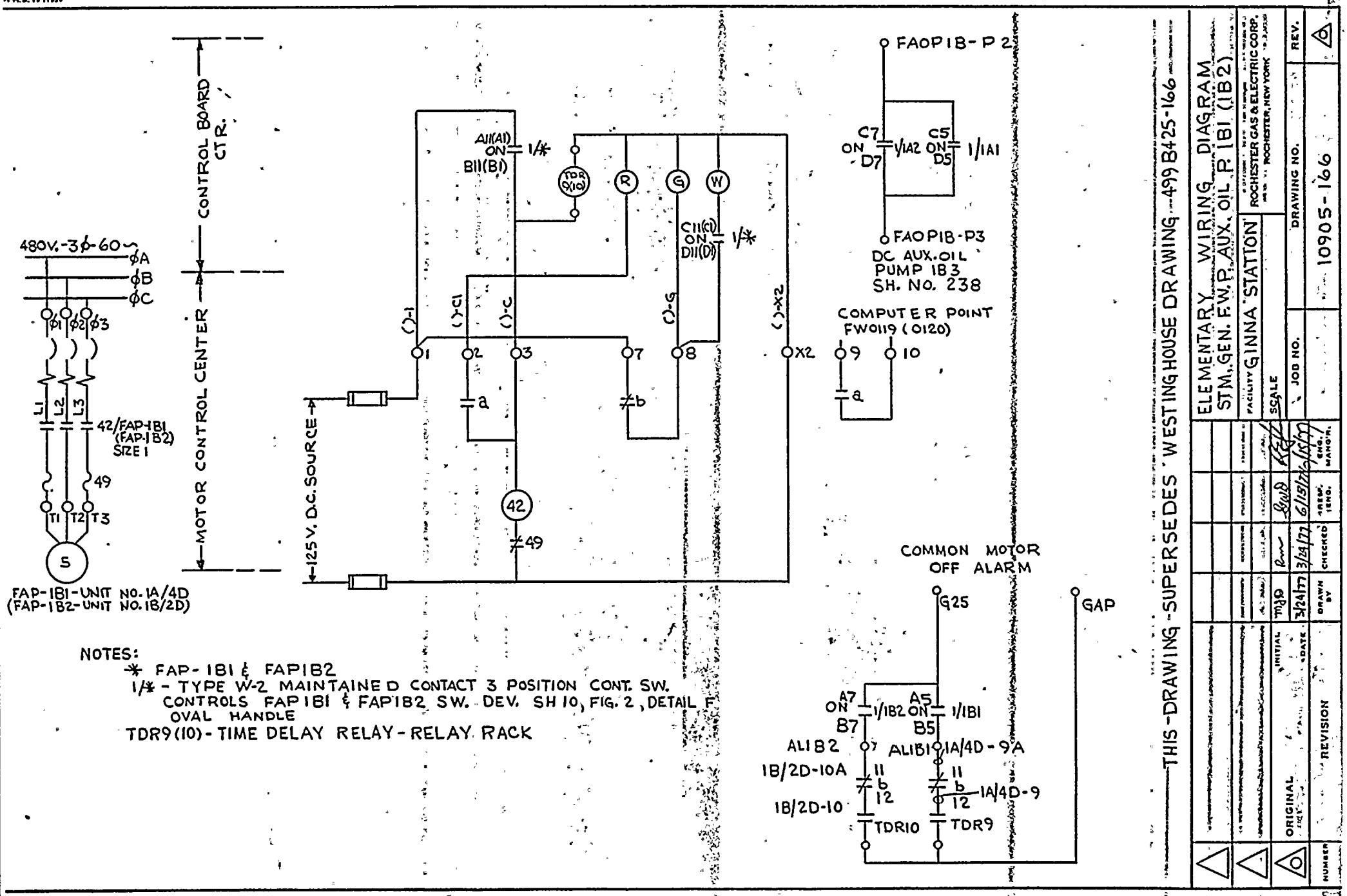
SCALE

JOB NO.

DRAWING NO. 10905-165

REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
ORIGINAL		THD	5/23/77	[illegible]	3/31/77	6/13/77	[illegible]



NOTES:

* FAP-1B1 & FAP1B2
1/* - TYPE W-2 MAINTAINED CONTACT 3 POSITION CONT. SW. CONTROLS FAP1B1 & FAP1B2 SW. DEV. SH 10, FIG. 2, DETAIL F OVAL HANDLE
TDR9(10) - TIME DELAY RELAY - RELAY RACK

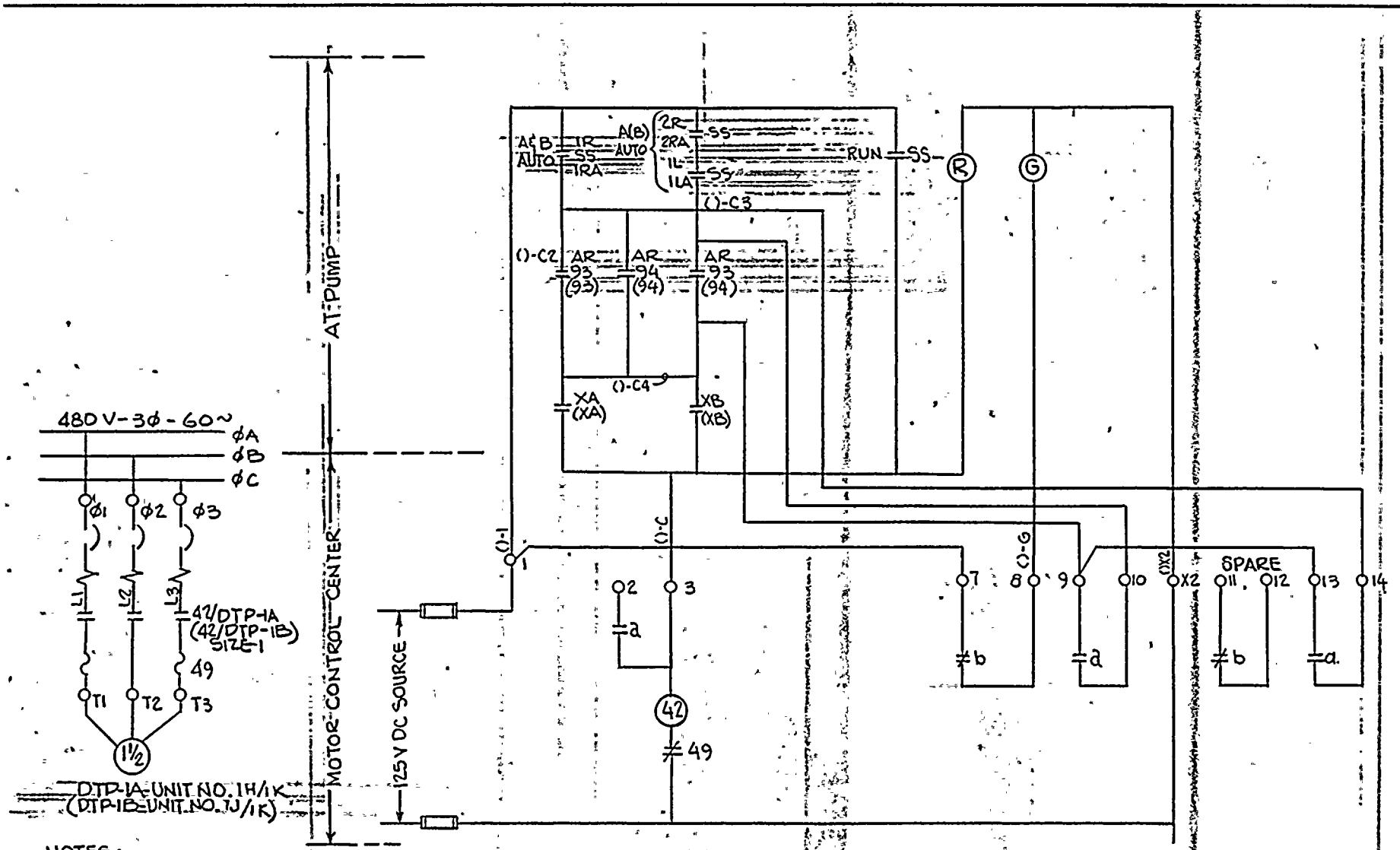
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-166

ELEMENTARY WIRING DIAGRAM
STM. GEN. F.W.P. AUX. OIL P. 1B1 (1B2)

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE
JOB NO.
DRAWING NO. 10905-166
REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	PRESENT ENG.	ENG. MANGR.
ORIGINAL		MJB	3/24/77	[illegible]	3/24/77	[illegible]	6/15/77



NOTES:
- 55-3 POSITION SELECTOR SWITCH (TANKS A&B AUTO, TANK A AUTO, RUN)- PUMP-1A (TANKS A&B AUTO, TANK B AUTO, RUN)-PUMP-1B
- AR 93(94) LOCATED IN DIESEL PUMP CONTROL PANEL! ELEM. SH 320
- XA(XB) RELAYS LOCATED IN BASLER CABINET - SEE ALCO DWG. 59075310620

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 499B425 SH 167

ELEMENTARY WIRING DIAGRAM
DIESEL F.O. TRANSFER PUMP 1A(1B)

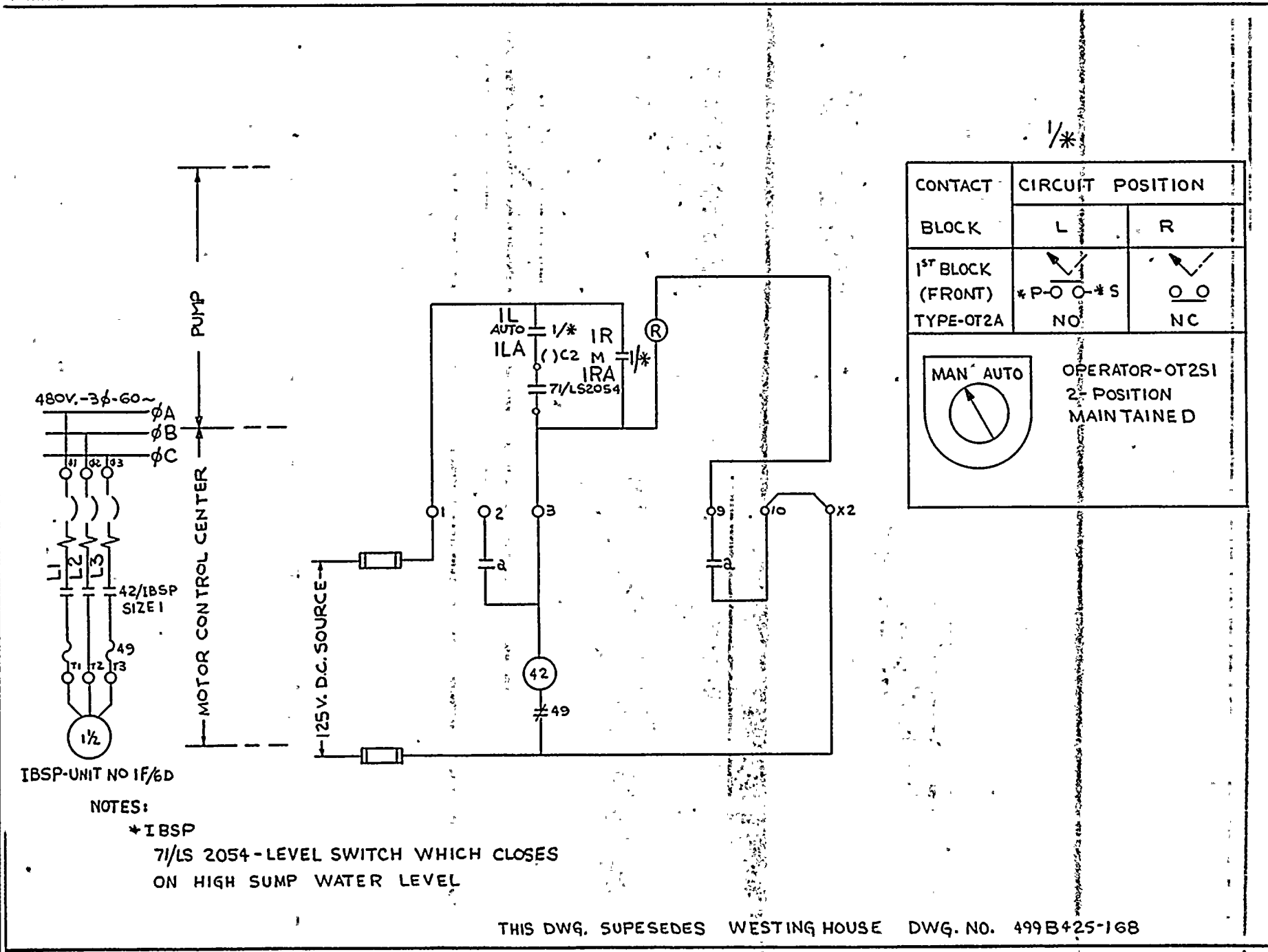
FACILITY GINNA STA
SCALE —
JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

DRAWING NO. 10905-167

REV. 1

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
1		GJF	2/10/78	GJF	RWJ	JWD	RWJ
0	ORIGINAL	MJD	3/22/77	RWJ	RWJ	JWD	RWJ



NOTES:

*IBSP

71/LS 2054 - LEVEL SWITCH WHICH CLOSES ON HIGH SUMP WATER LEVEL

THIS DWG. SUPESEDES WESTING HOUSE DWG. NO. 499B425-168

ELEMENTARY WIRING DIAGRAM
INTER. BLDG SUMP PUMP

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

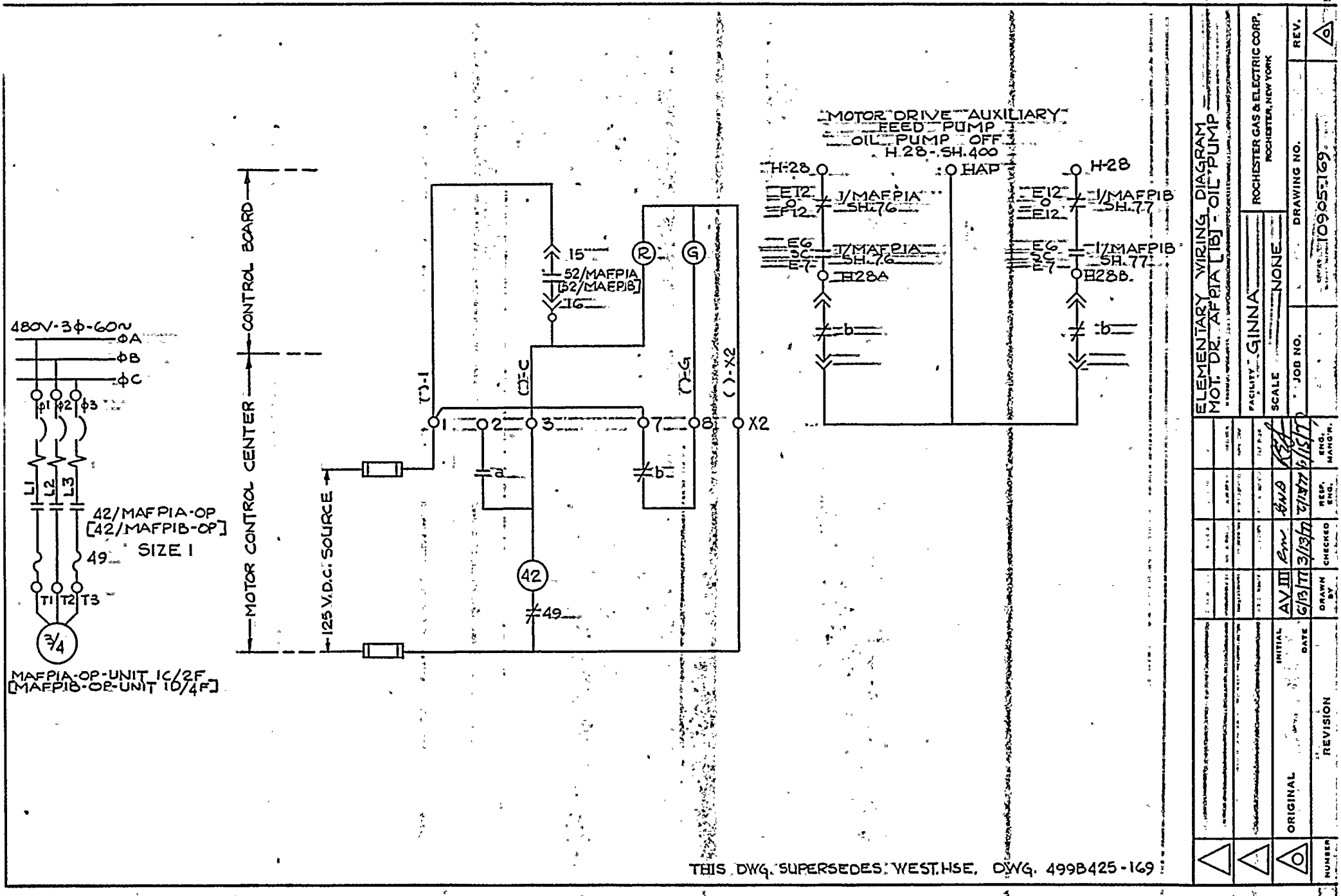
SCALE

JOB NO.

DRAWING NO. 10905-168

REV.

NUMBER	REVISION	DATE	INITIAL	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL		3/17/72	WJG	Rox	3/22/72	Bwb	REL 3/28/72



THIS DWG. SUPERSEDES WEST. HSE. DWG. 499B425-169

ELEMENTARY WIRING DIAGRAM
MOT. DR. AFP 1A [1B] - OIL PUMP

FACILITY GINNA
SCALE NONE
JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

DRAWING NO. 10965-169

NUMBER	REVISION	INITIAL DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
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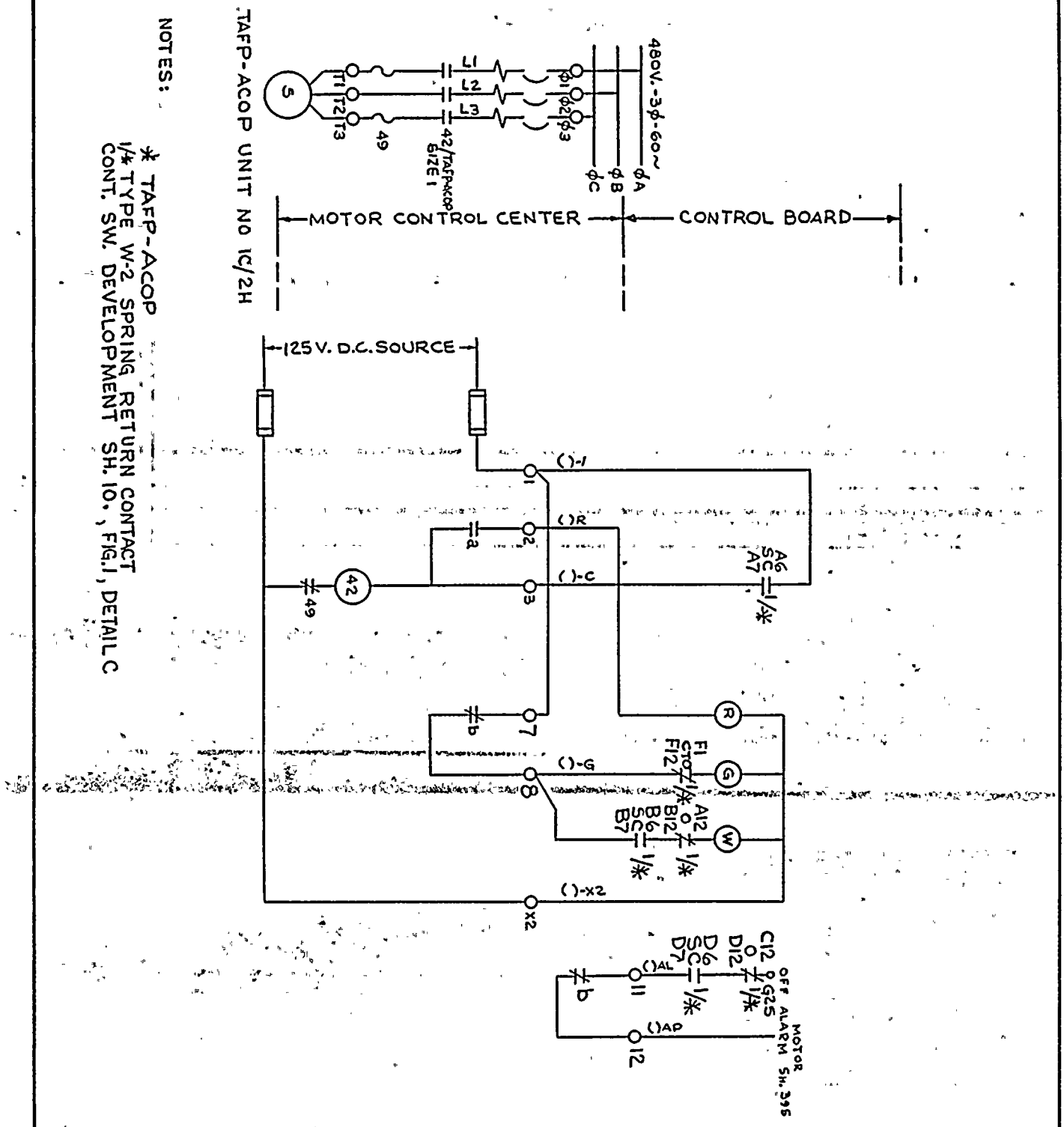
REV. 0



NOTES:

* TAFP-ACOP 1/* TYPE W-2 SPRING RETURN CONTACT CONT. SW. DEVELOPMENT SH. 10., FIG.1, DETAIL C

THIS DRAWING SUPERSEDED
WESTINGHOUSE 4998425-170

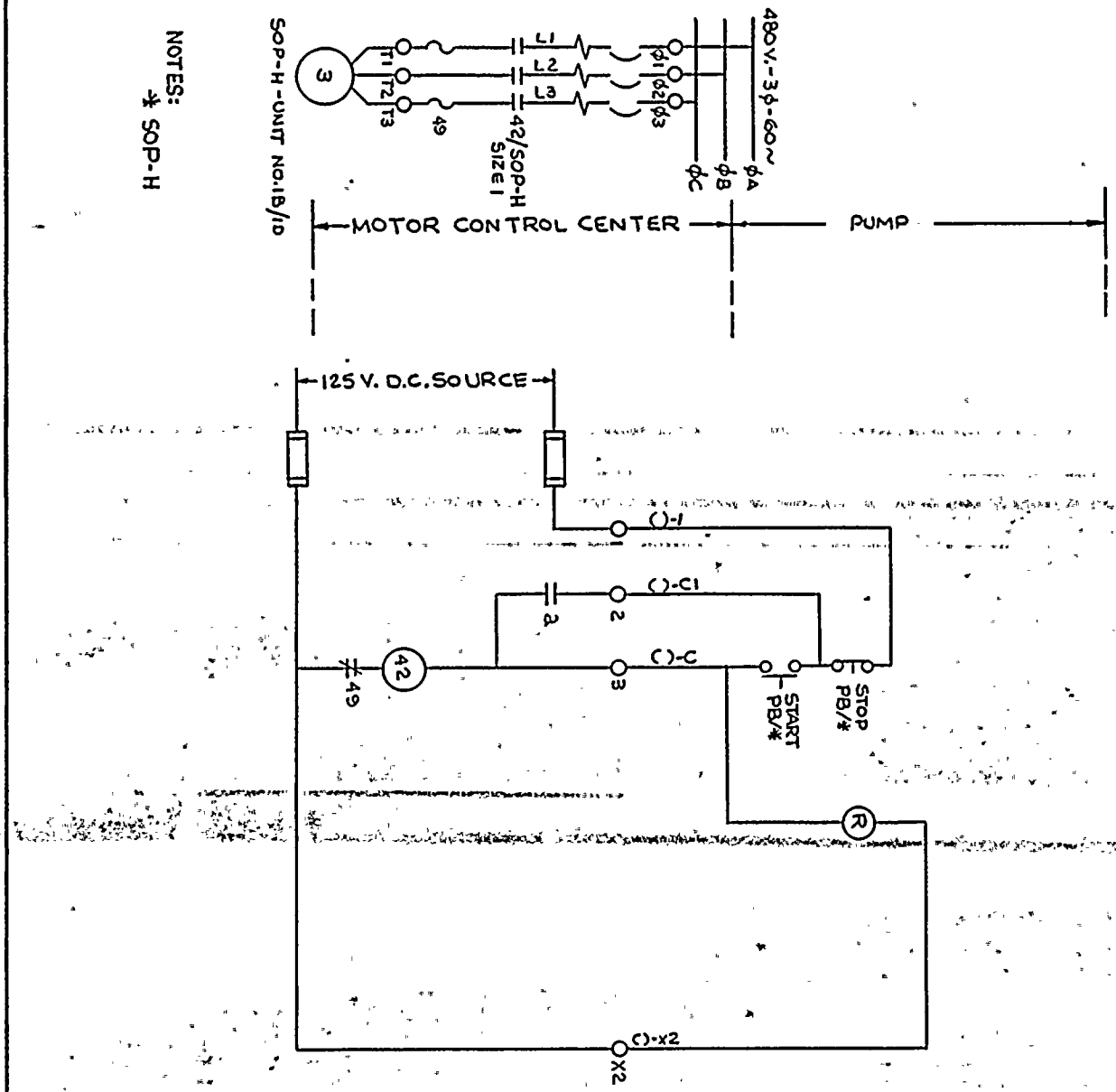
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MJD	RWM	RWB	RE
	DATE	3/16/77	3/25/77	6/13/77	6/15/77

ELEMENTARY WIRING DIAGRAM
TURB. DVN. AUX. FWP-AC OIL PUMP

FACILITY GINNA STATION
SCALE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-170	



THIS DRAWING SUPERSEDES
WSTINGHOUSE 499B425 - 171

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.	DATE
	ORIGINAL INITIAL	MJB	RW	KWB	RCF	
	DATE	3/16/77	3/25/77	6/15/77	6/15/77	

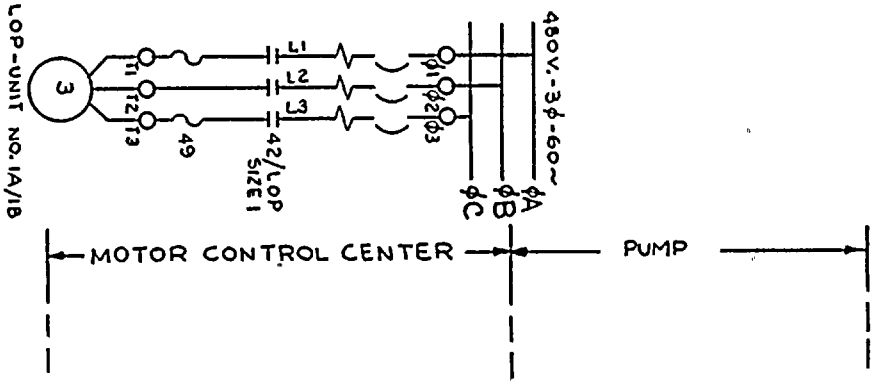
ELEMENTARY WIRING DIAGRAM
GEN. H_2 SIDE SEAL OIL PUMP

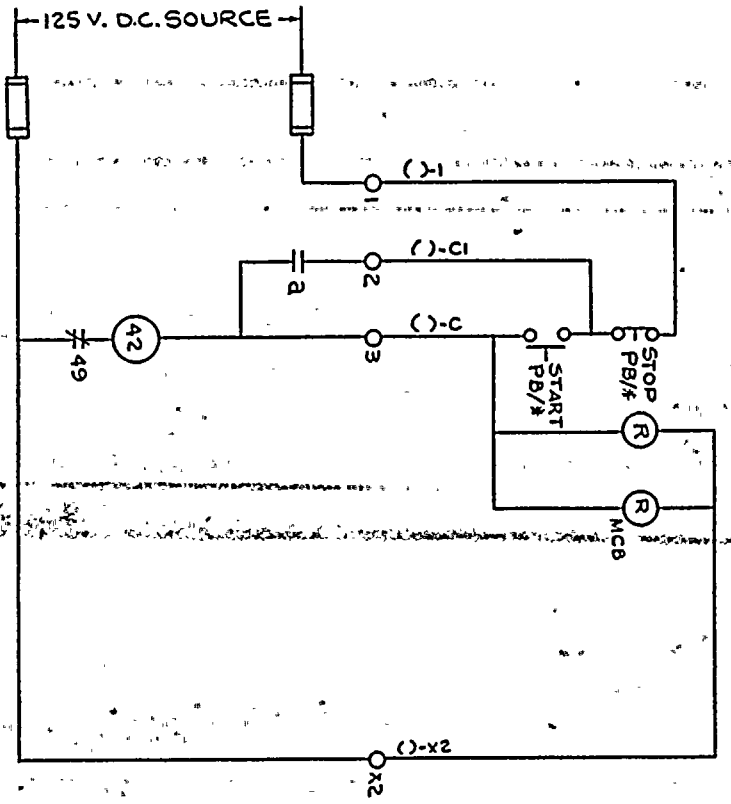
FACILITY GINNA STATION
SCALE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO. | DRAWING NO. 10905-171 | REV. A

NOTES:
* LOP





THIS DRAWING SUPERSEDES WSTINGHOUSE 499B425 -172

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MJD	RW	DWD	REK
	DATE	3/10/77	3/25/77	6/15/77	6/15/77

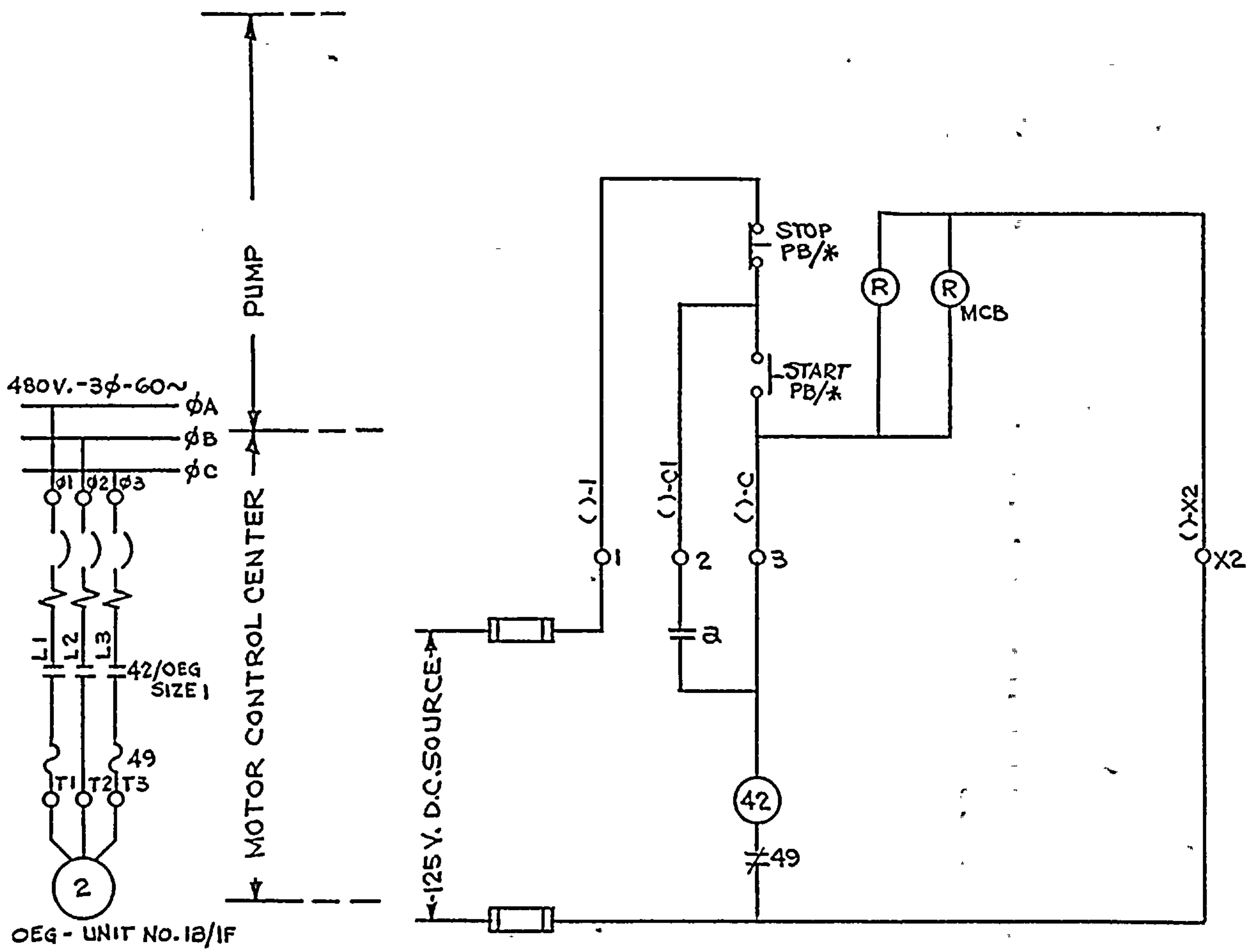
ELEMENTARY WIRING DIAGRAM
LUBE OIL PURIFIER CIRCULATING PUMP

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-172	



NOTES:
*-OEG

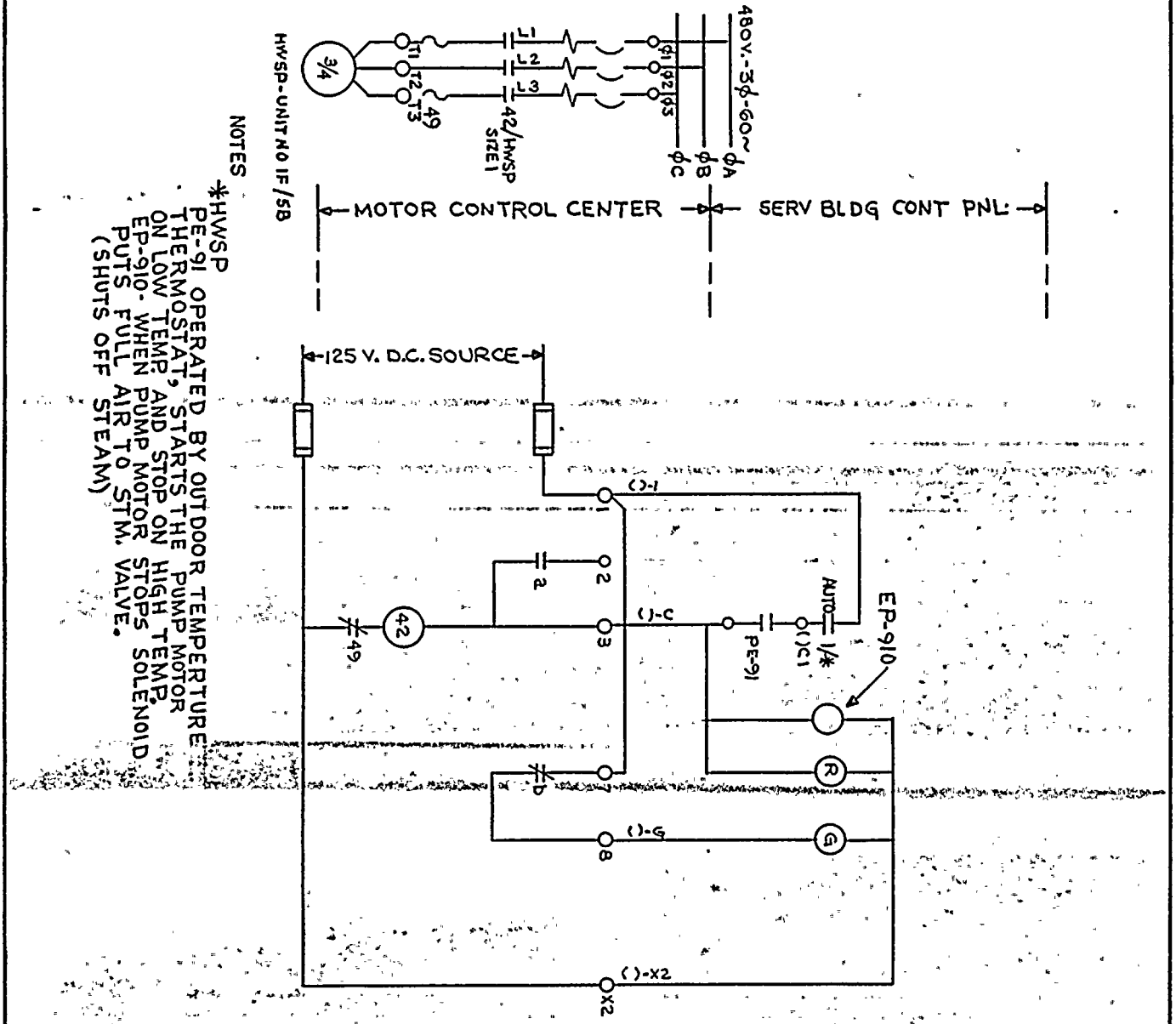
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No 499B425 SH.173 (REV. 2)

REV.	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R. MGR.	DATE
ORIGINAL	E.Schutt	RHM 4/18/75	PCH	RCM	6/5/75

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
VAPOR EXT. GEN. OIL DRAIN

DRAWN BY E. Schutt DATE 3-23-75 SCALE NONE
TRACED
CHECKED
ENG.
APPROVED
FOLDER NO.
JOB NO.
NO. 11045-172



NOTES

*HWSP PE-91 OPERATED BY OUTDOOR TEMPERTURE THERMOSTAT, STARTS THE PUMP MOTOR ON LOW TEMP. AND STOP ON HIGH TEMP. EP-910- WHEN PUMP MOTOR STOPS SOLENOID PUTS FULL AIR TO STM. VALVE. (SHUTS OFF STEAM)

THIS DRAWING SUPERSEDES WSTINGHOUSE 409B425-174

NUMBER	REVISION	DRAWN BY	CHECKED	REL. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL DATE	MJB 4/15/77	RM 9/17/77	GWD 6/10/77	RLF 6/10/77

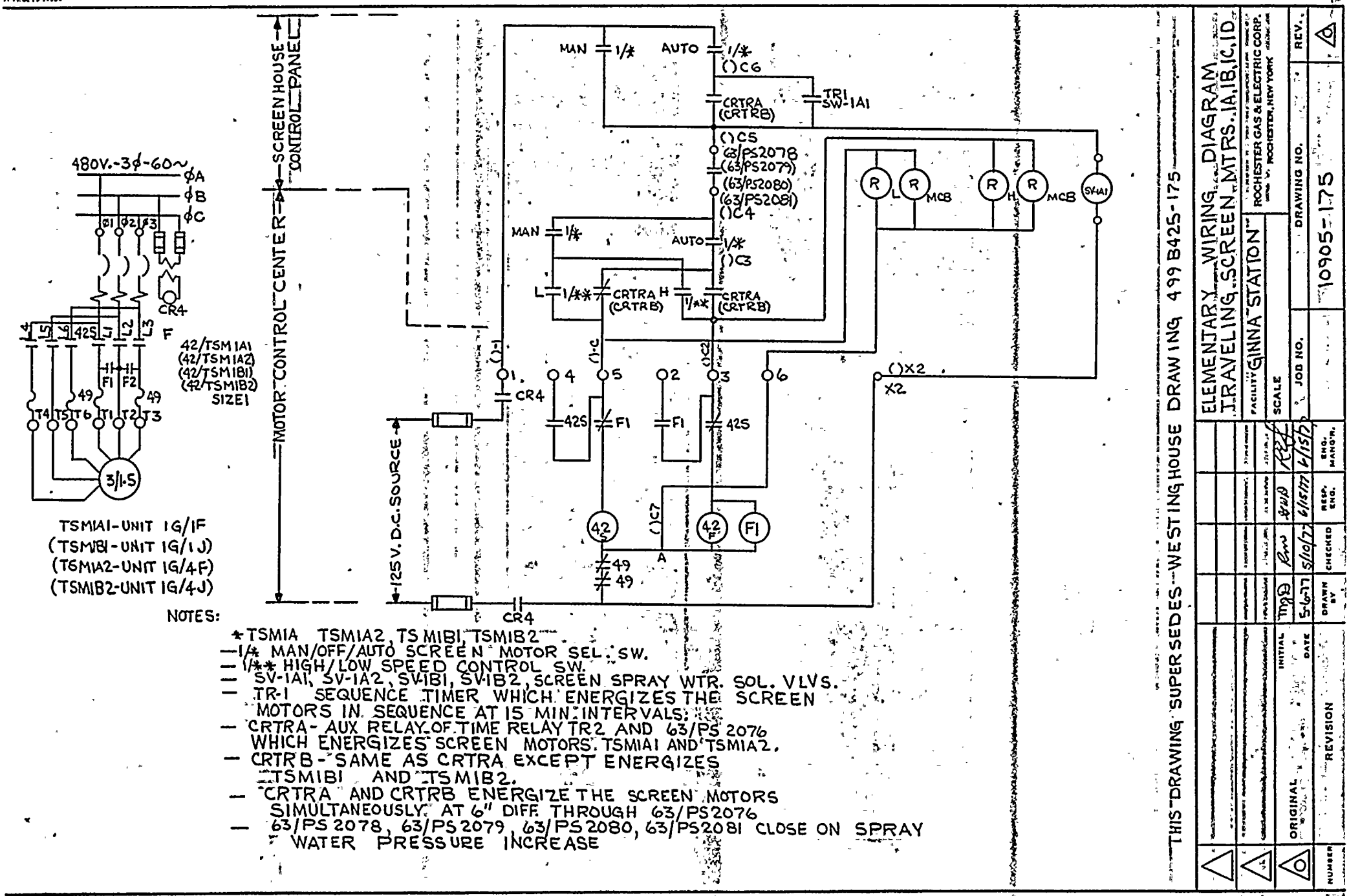
ELEMENTARY WIRING DIAGRAM
RADIATION HOT WATER SUPPLY PUMP

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-174	0



NOTES:

- ★TSM1A TSM1A2, TSM1B1, TSM1B2
- —1/* MAN/OFF/AUTO SCREEN MOTOR SEL. SW.
- —1/** HIGH/LOW SPEED CONTROL SW.
- — SV-1A1, SV-1A2, SV-1B1, SV-1B2, SCREEN SPRAY WTR. SOL. VLVS.
- — TR-1 SEQUENCE TIMER WHICH ENERGIZES THE SCREEN MOTORS IN SEQUENCE AT 15 MIN. INTERVALS.
- — CRTRA - AUX RELAY OF TIME RELAY TR2 AND 63/PS 2076 WHICH ENERGIZES SCREEN MOTORS TSM1A1 AND TSM1A2.
- — CRTRB - SAME AS CRTRA EXCEPT ENERGIZES TSM1B1 AND TSM1B2.
- — CRTRA AND CRTRB ENERGIZE THE SCREEN MOTORS SIMULTANEOUSLY AT 6" DIFF. THROUGH 63/PS2076
- — 63/PS 2078, 63/PS 2079, 63/PS 2080, 63/PS 2081 CLOSE ON SPRAY WATER PRESSURE INCREASE

THIS DRAWING SUPERSEDES—WESTINGHOUSE DRAWING 499 B425-175

ELEMENTARY WIRING DIAGRAM
TRAVELING SCREEN MTRS. 1A, 1B, 1C, 1D

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STATION

SCALE

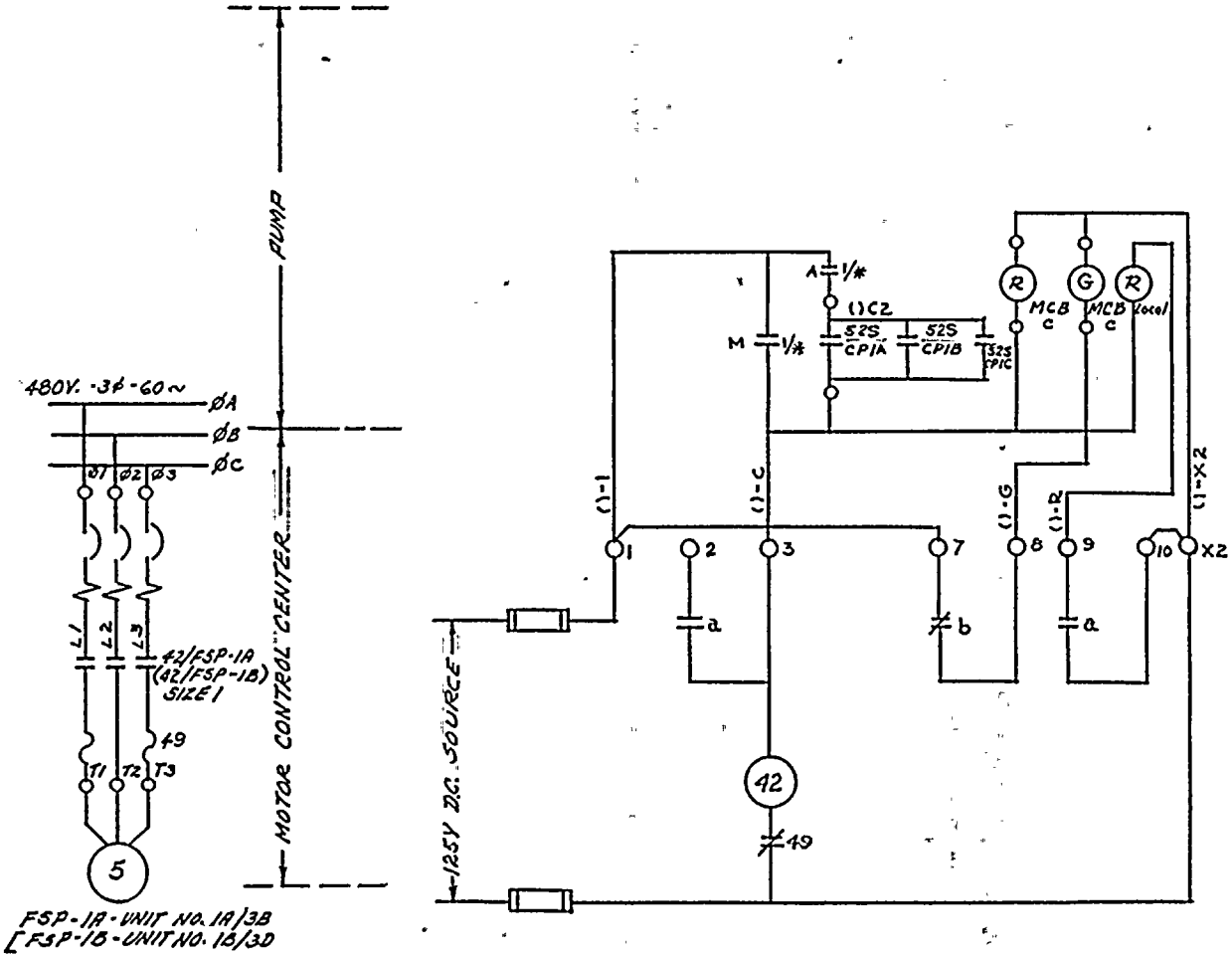
JOB NO.

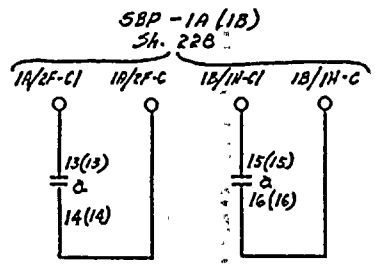
DRAWING NO. 10905-175

REV.

NUMBER	REVISION	DATE	INITIAL
	ORIGINAL	5-6-77	MGB

DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
MGB	RWS	GHS	GHS
5-6-77	5/10/77	5/11/77	5/11/77





NOTES:

*-FSP-1A OR FSP-1B.

1/* SEE DEV. U EXCEPT NAMEPLATE TO READ MAN/OFF/AUTO SH. 13 52S/CP1A. 1B, 1C. CONDENSATE PUMP Sh. 32, 33, 34

THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT. NO. 176, (REV. 5)

REV.						
ORIGINAL	N.J.A.	R.H.M 4/14/75	PCK	RCM	4/5/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

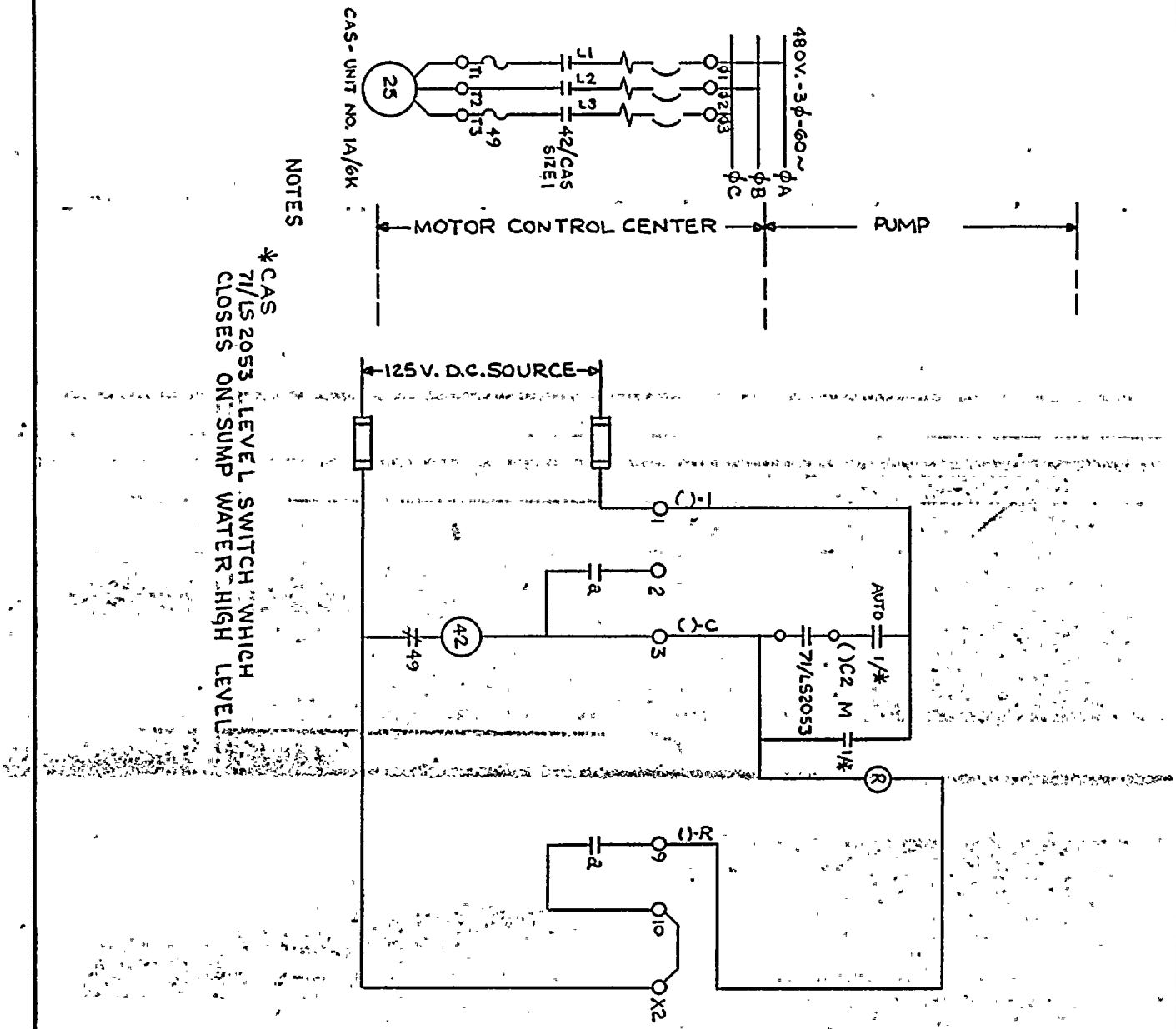
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT ENGINEERING NO. 10905-176

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT 1

ELEMENTARY WIRING DIAGRAM

FEED PUMP SEAL DRAIN PUMPS 1A, 1B

DRAWN | TRACED | CHECKED | BY W.S.H. | DATE 4/7/75 | SCALE NONE | APPROVED | FOLDER NO. | JOB NO.



NOTES

*CAS 71/LS 2053 LEVEL SWITCH WHICH CLOSES ON SUMP WATER HIGH LEVEL.

THIS DRAWING SUPERSEDES WSTINGHOUSE 499B425-178

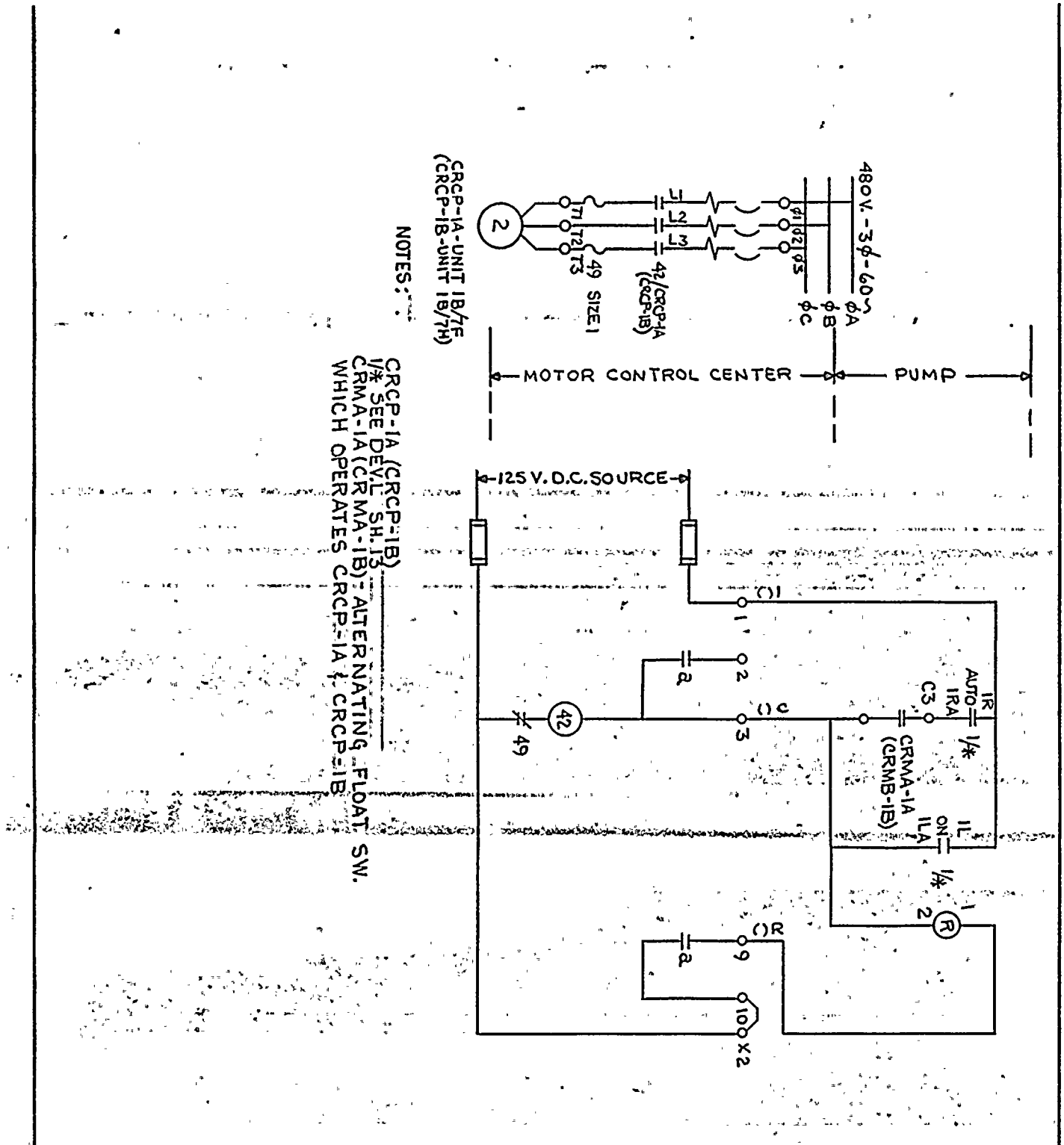
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	mjd	Rm	GWA	REL
	DATE	4/18/77	4/20/77	6/10/77	6/10/77

ELEMENTARY WIRING DIAGRAM
CDSER PIT AUX. SUMP PUMP

FACILITY GINNA STATION — ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-178	



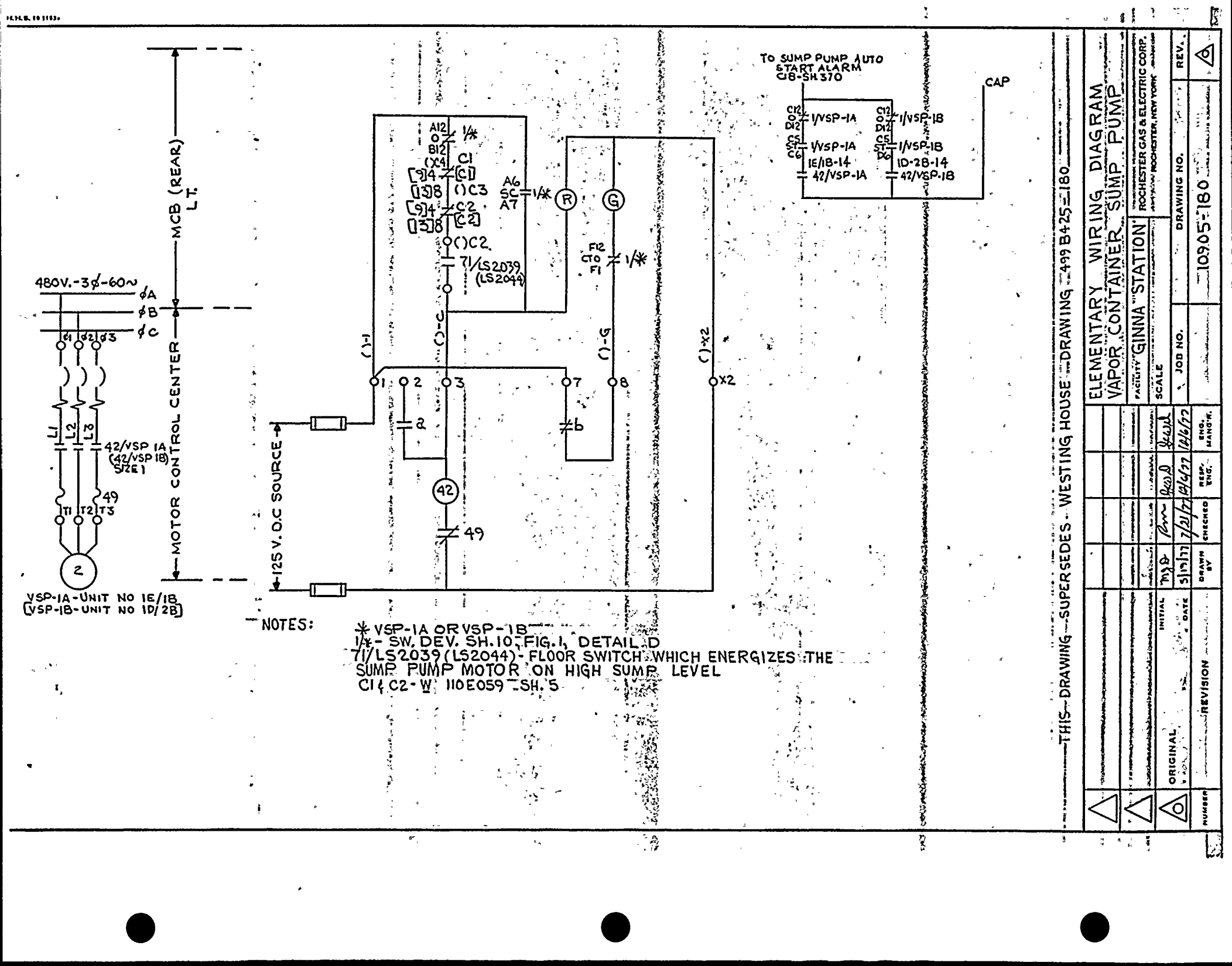
THIS DRAWING SUPERSEDES WESTING HOUSE DRAWING 499B425-179

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	mjd	RM	GWD	GWD
	DATE	5-17-77	7/21/77	8/6/77	8/6/77

ELEMENTARY WIRING DIAGRAM
CONT. RM. CDSTE. RTN. PUMP 1A(1B)

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE

JOB NO.	DRAWING NO.	REV.
	10905-179	0



NOTES:

* VSP-1A OR VSP-1B
1/* - SW. DEV. SH. 10, FIG. 1, DETAIL D
71/LS2039 (LS2044) - FLOOR SWITCH WHICH ENERGIZES THE SUMP PUMP MOTOR ON HIGH SUMP LEVEL
C1 & C2 - W. 110E059 SH. 5

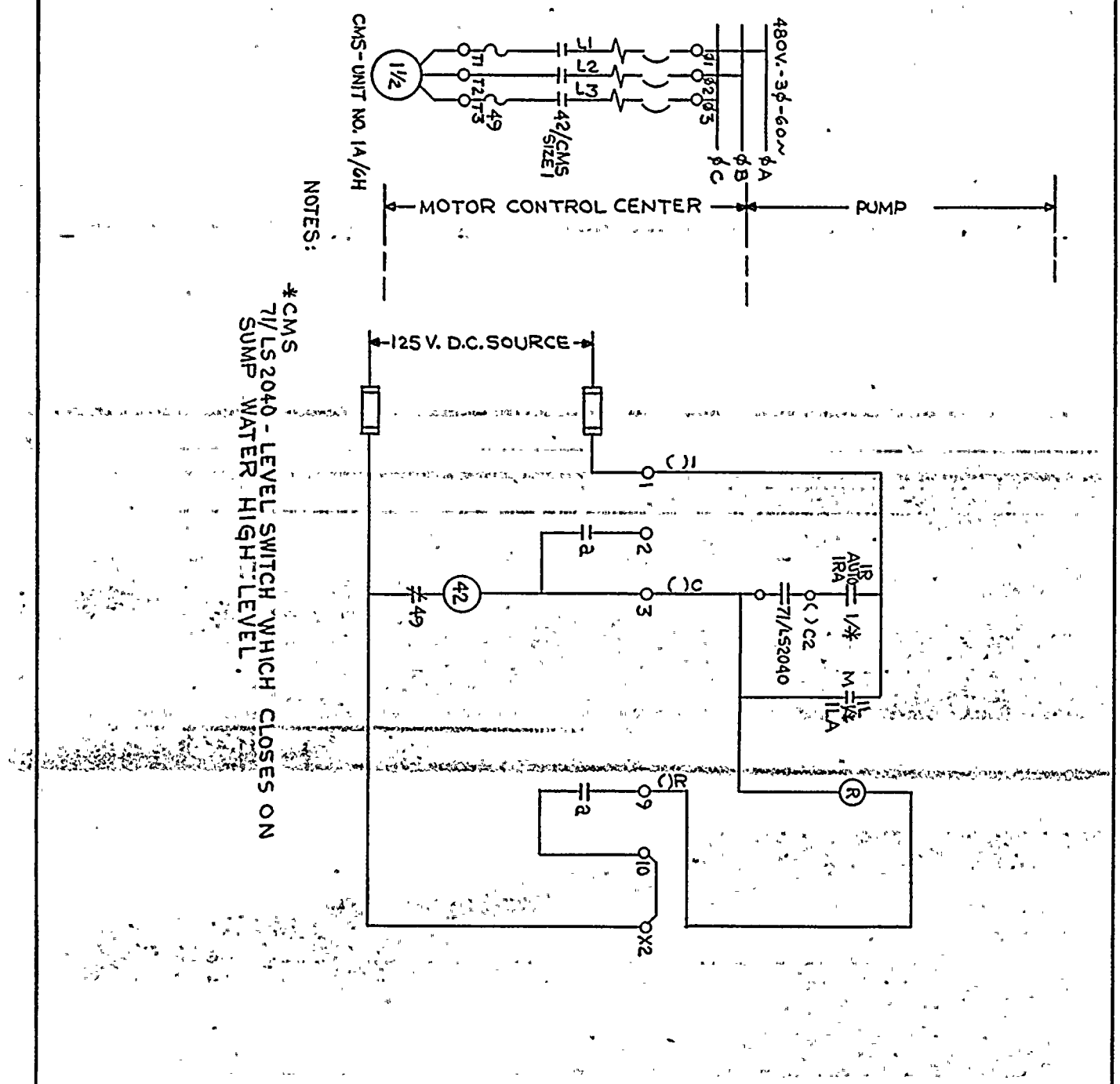
THIS DRAWING — SUPERSEDES - WESTING HOUSE DRAWING 499B425-180

ELEMENTARY WIRING DIAGRAM
VAPOR CONTAINER SUMP PUMP

FACILITY "GINNA STATION" ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

SCALE | JOB NO. | DRAWING NO. 109D5-180 | REV.

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL	INITIAL	MJB	Pam	Wesd	Kesk
	DATE	5/19/77	7/21/77	12/14/77	12/16/77



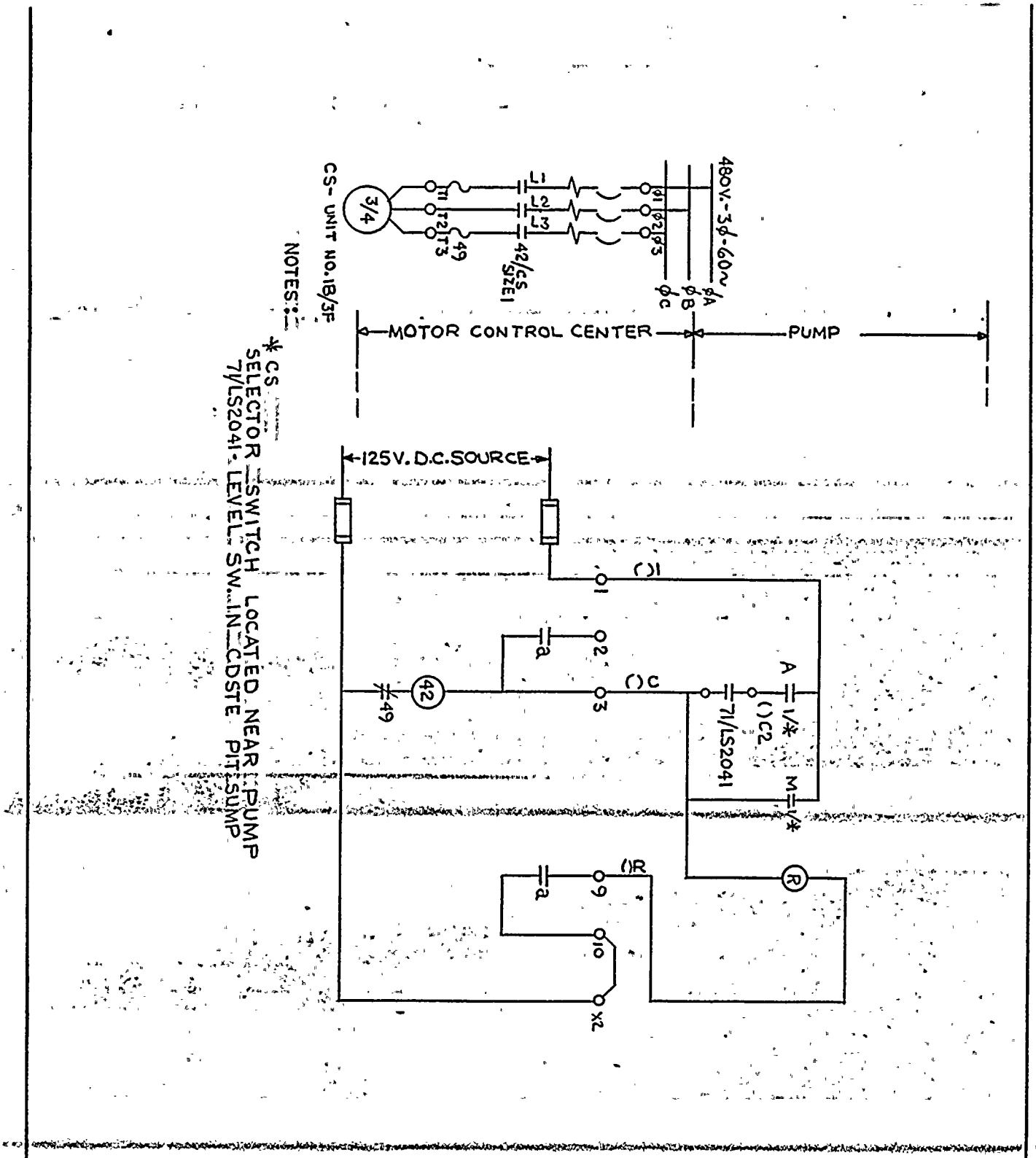
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-181

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MJD	RMW	KWD	RJS
	DATE	5/16/77	5/16/77	6/10/77	6/10/77

ELEMENTARY WIRING DIAGRAM
CDSER PIT MN SUMP PUMP

FACILITY GINNA STATION
SCALE
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-181	



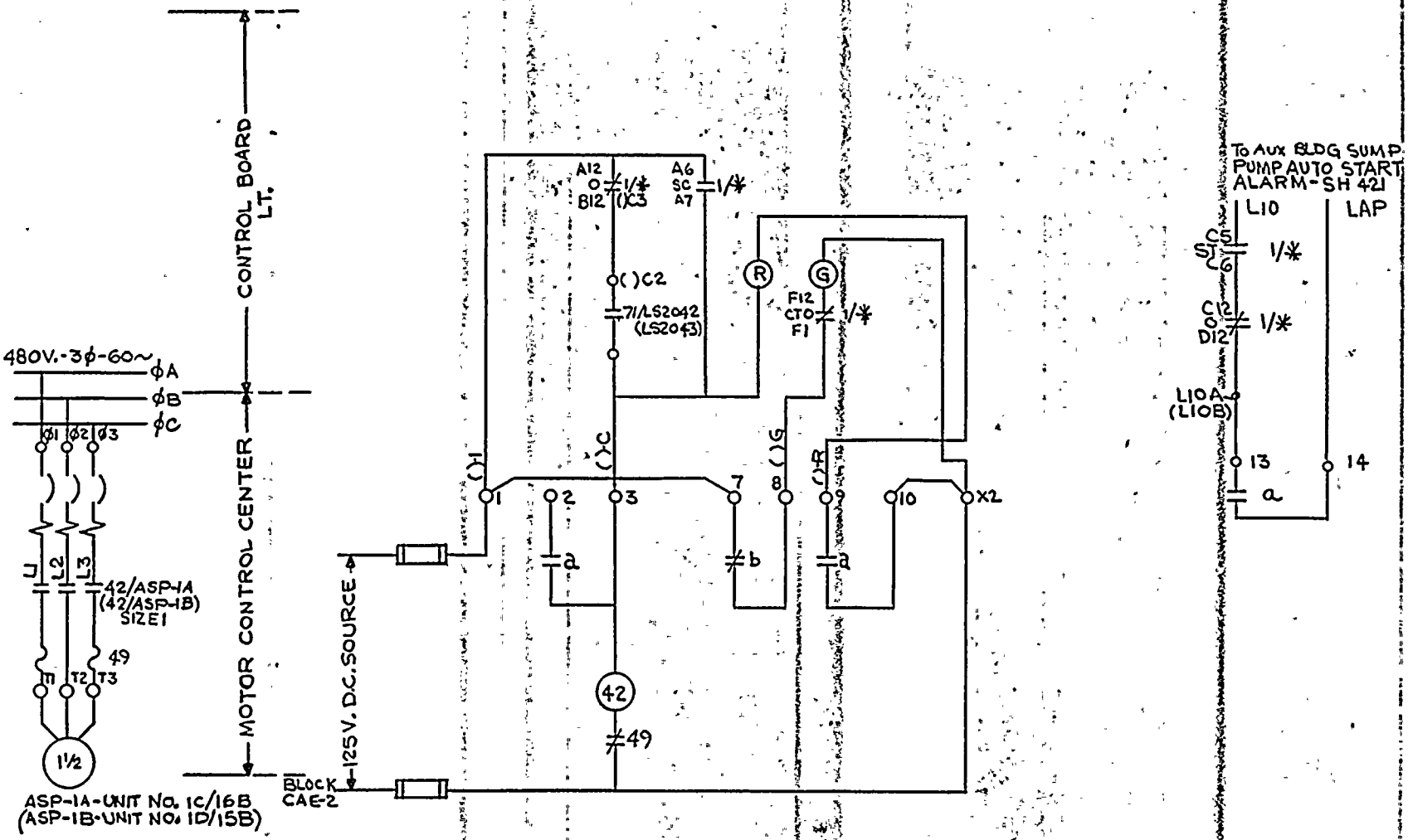
THIS DRAWING SUPERSEDES WESTING HOUSE DRAWING 499B425-182

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	mjs	ewl	gwd	gwd
	DATE	5/17/11	7/19/11	11/6/11	11/6/11

ELEMENTARY WIRING DIAGRAM
CDSTE PIT SUMP PUMP

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE

JOB NO.	DRAWING NO.	REV.
	10905-182	A



NOTES: 1/* - SEE DEV. SH. 10, FIG. 1, DETAIL D.
* ASP-1A OR ASP-1B
71/LS2042 (LS2043) FLOAT SWITCH ENERGIZES THE SUMP PUMP MOTOR ON HIGH SUMP LEVEL SW. DEV. SH. 10

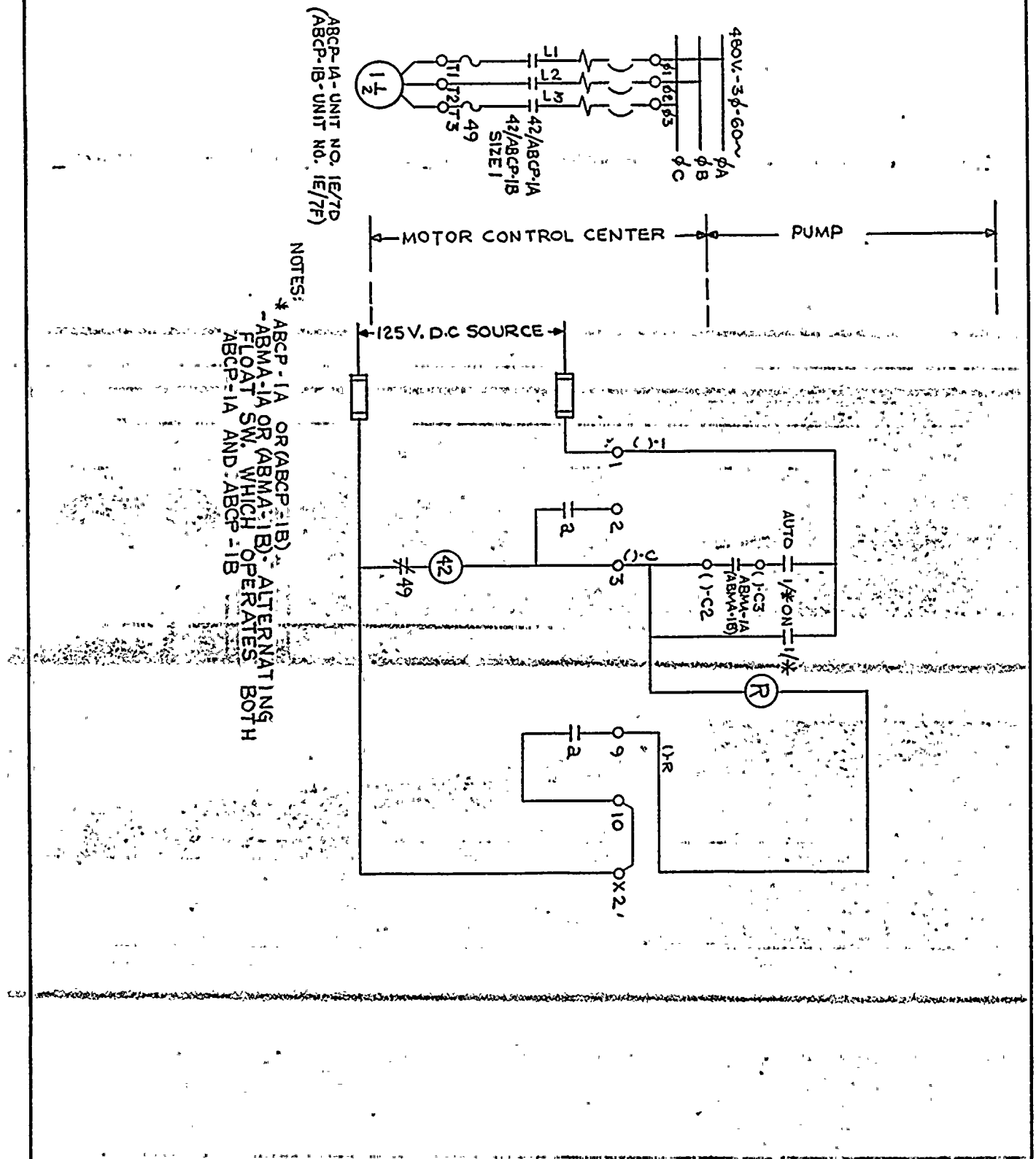
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-183

ELEMENTARY WIRING DIAGRAM
REACT. AUX. BLDG. SUMP PUMP 1A & 1B

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
SCALE
JOB NO.
DRAWING NO. 109053-183
REV.

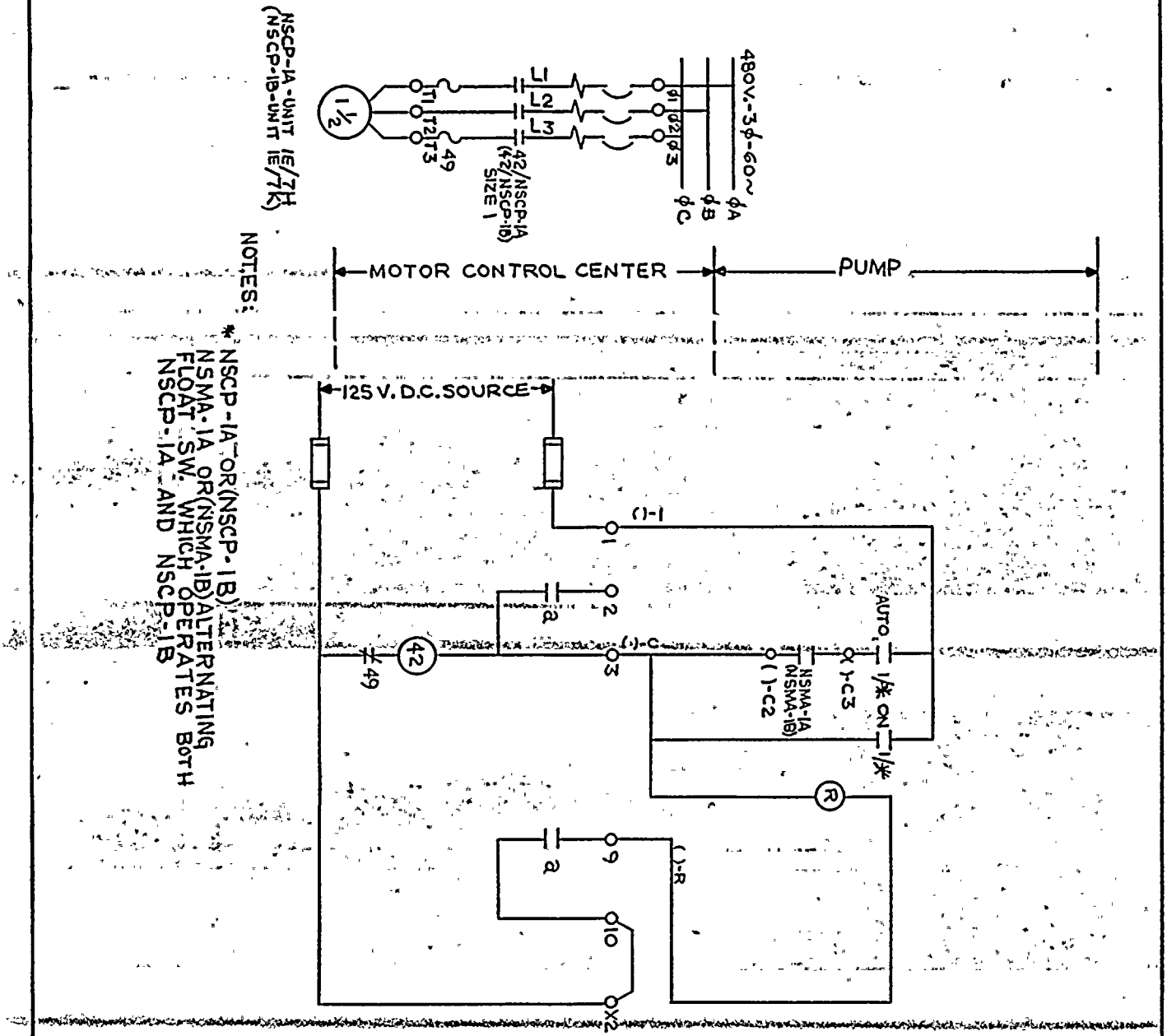
NUMBER	REVISION	DATE	INITIAL
ORIGINAL			

DRAWN BY: 5-11-77
CHECKED:
RESP. ENG.: 6/11/77
ENG. MANGR.: 6/11/77



THIS DRAWING SUPERSEDES WESTING HOUSE DRAWING 4998425-184

						ELEMENTARY WIRING DIAGRAM AUX. BLDG. CDSTE. RTN. PUMP 1A & 1B	
						FACILITY GINNA STATION	ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
	ORIGINAL	MJB	RM	GWD	KRF	SCALE	
	DATE	5/18/77	5/16/77	6/10/77	6/10/77	JOB NO.	DRAWING NO. 10905-184 REV.
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.		



NOTES:

* NSCP-IA OR (NSCP-IB) NSMA-IA OR (NSMA-IB) ALTERNATING FLOAT SW. WHICH OPERATES BOTH NSCP-IA AND NSCP-IB

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-185

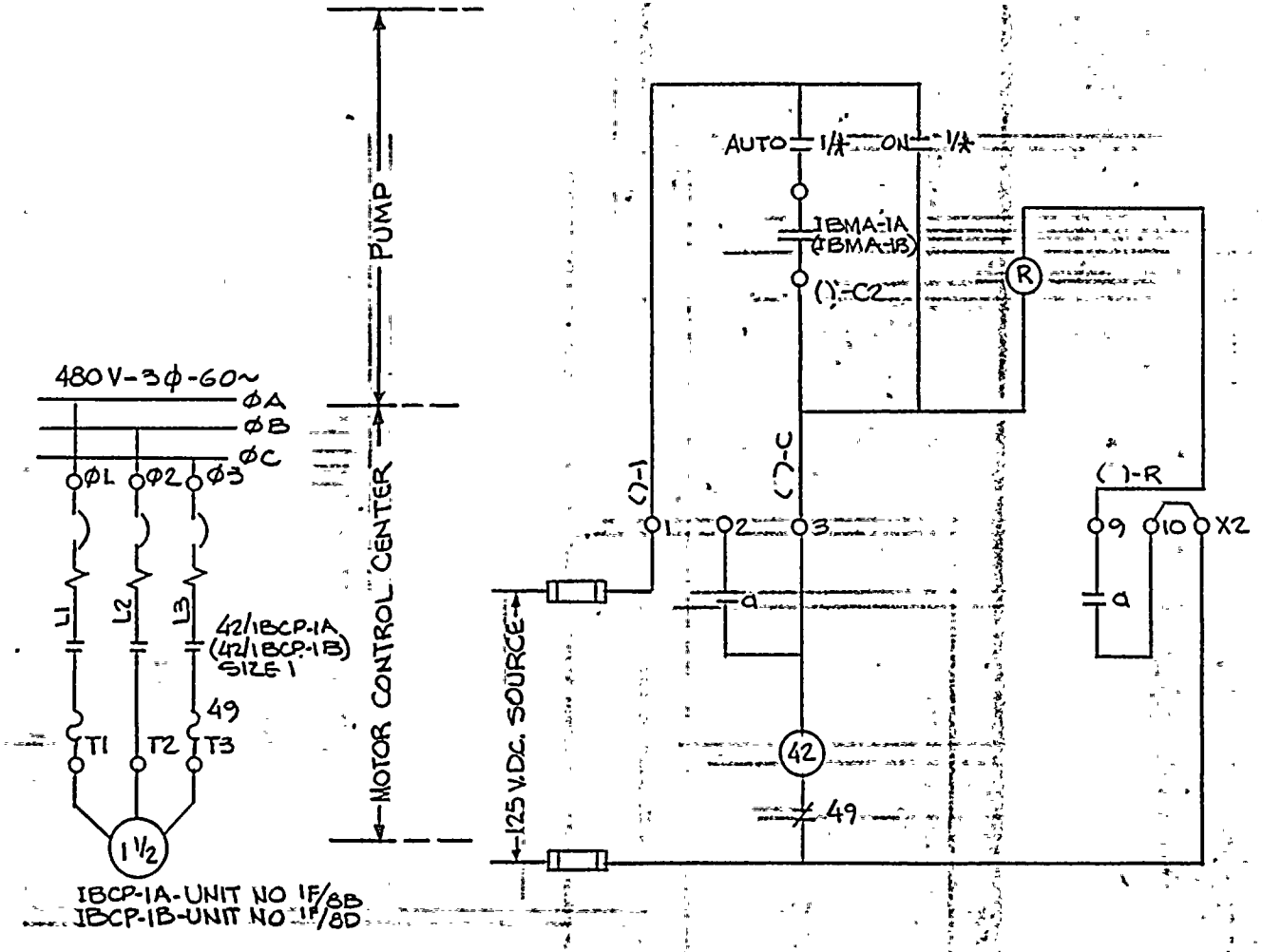
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MJB	RW	AWD	DEF
	DATE	5/18/77	5/18/77	6/10/77	6/11/77

ELEMENTARY WIRING DIAGRAM
AUX. BLDG. NSSS. CDSTE. RTN. PUMP. TATTB

FACILITY GINNA STATION — ROCHESTER GAS & ELECTRIC CORP., ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-185	0



NOTES:
* -IBCP-1A OR IBCP-1B
IBMA-1A OR IBMA-1B ALTERNATING FLOAT SW.
WHICH OPERATES IBCP-1A AND IBCP-1B

NOTE-THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 186

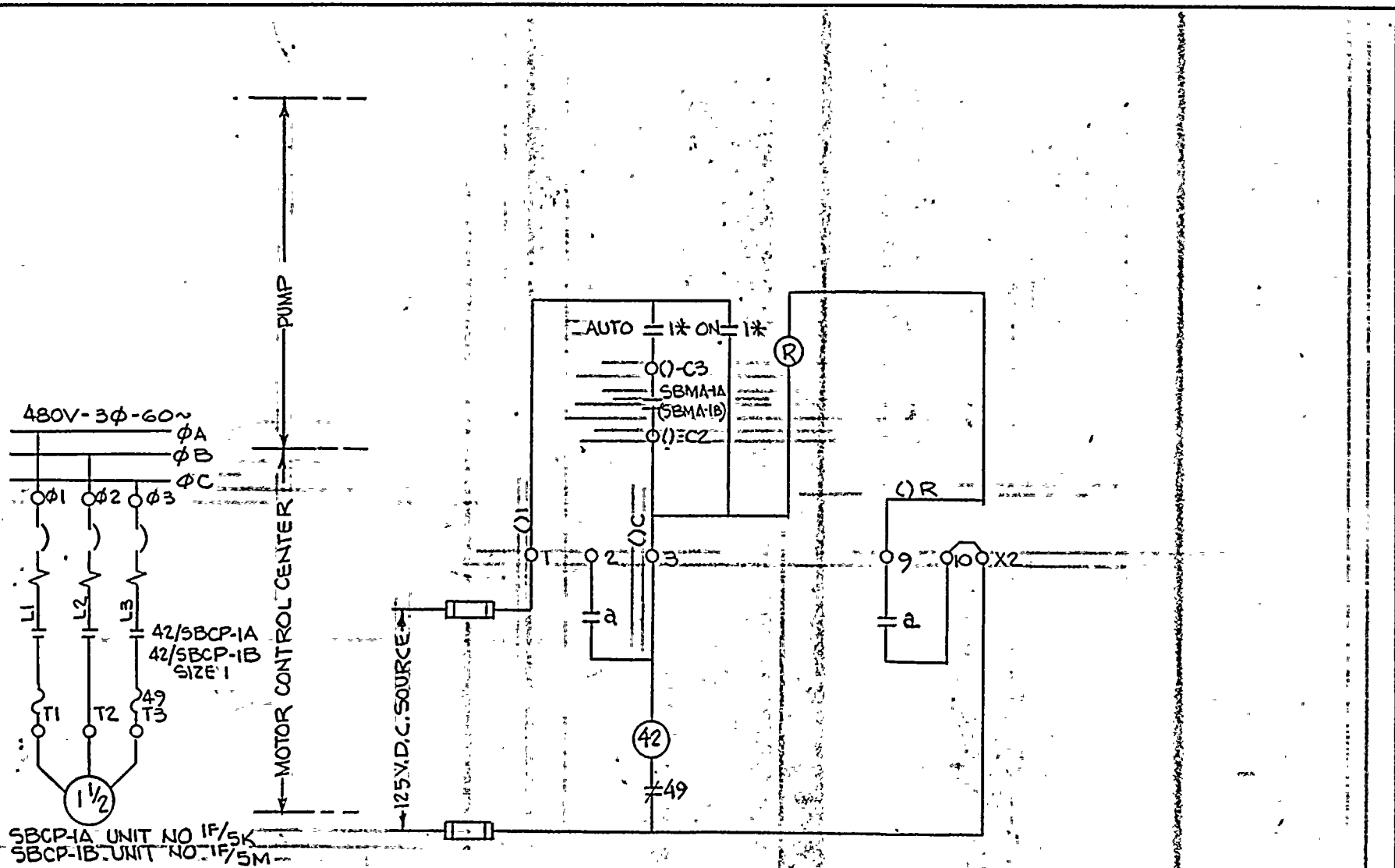
ELEMENTARY WIRING DIAGRAM
INT. BLDG. CDSTE., RTN. PUMP 1A & 1B

FACILITY GINNA STA. — ROCHESTER GAS & ELECTRIC CORP., ROCHESTER, NEW YORK

SCALE — JOB NO. — DRAWING NO. 10905-'186 — REV. △

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
△					
△					
0 △	ORIGINAL	GJF 1/21/57	[illegible]	[illegible]	[illegible]

INITIAL — DATE



NOTES
* SBCP-1A OR SBCP-1B SBMA-1A OR SBMA-1B ALTERNATING FLOAT SW. WHICH OPERATES BOTH SBCP-1A OP SBCP-1B

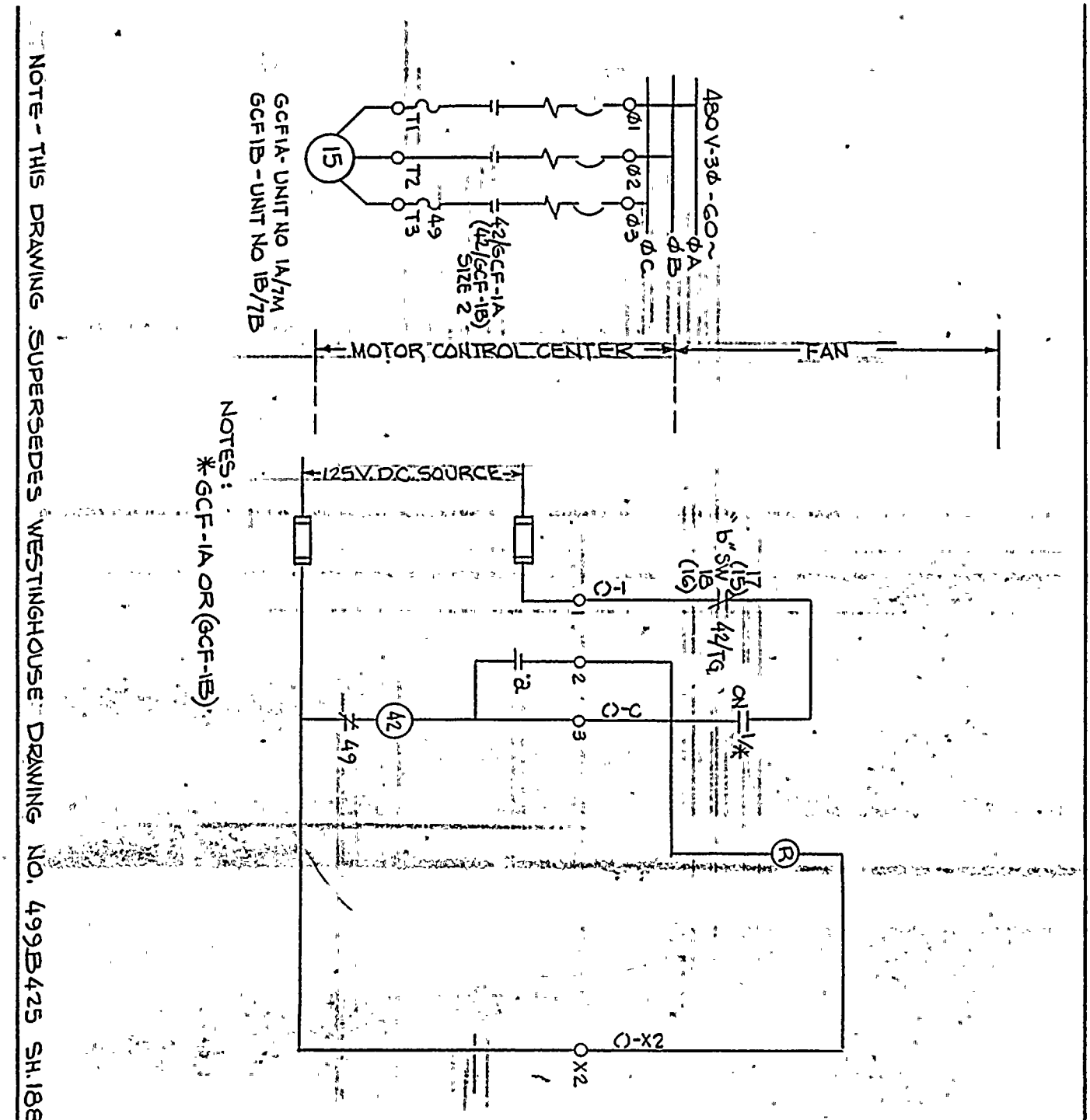
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 499B425 SH 187

ELEMENTARY WIRING DIAGRAM
SERV_BLDG_COSTE_RTN_PUMP 1A & 1B

FACILITY GINNA STA
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE
JOB NO.
DRAWING NO. 10905-187
REV.

NUMBER	REVISION	DATE	INITIAL
ORIGINAL			

	DRAWN BY	CHECKED	REPR. ENG.	ENG. MANGR.
	GJF 11/11/77	11/11/77	11/11/77	11/15/77



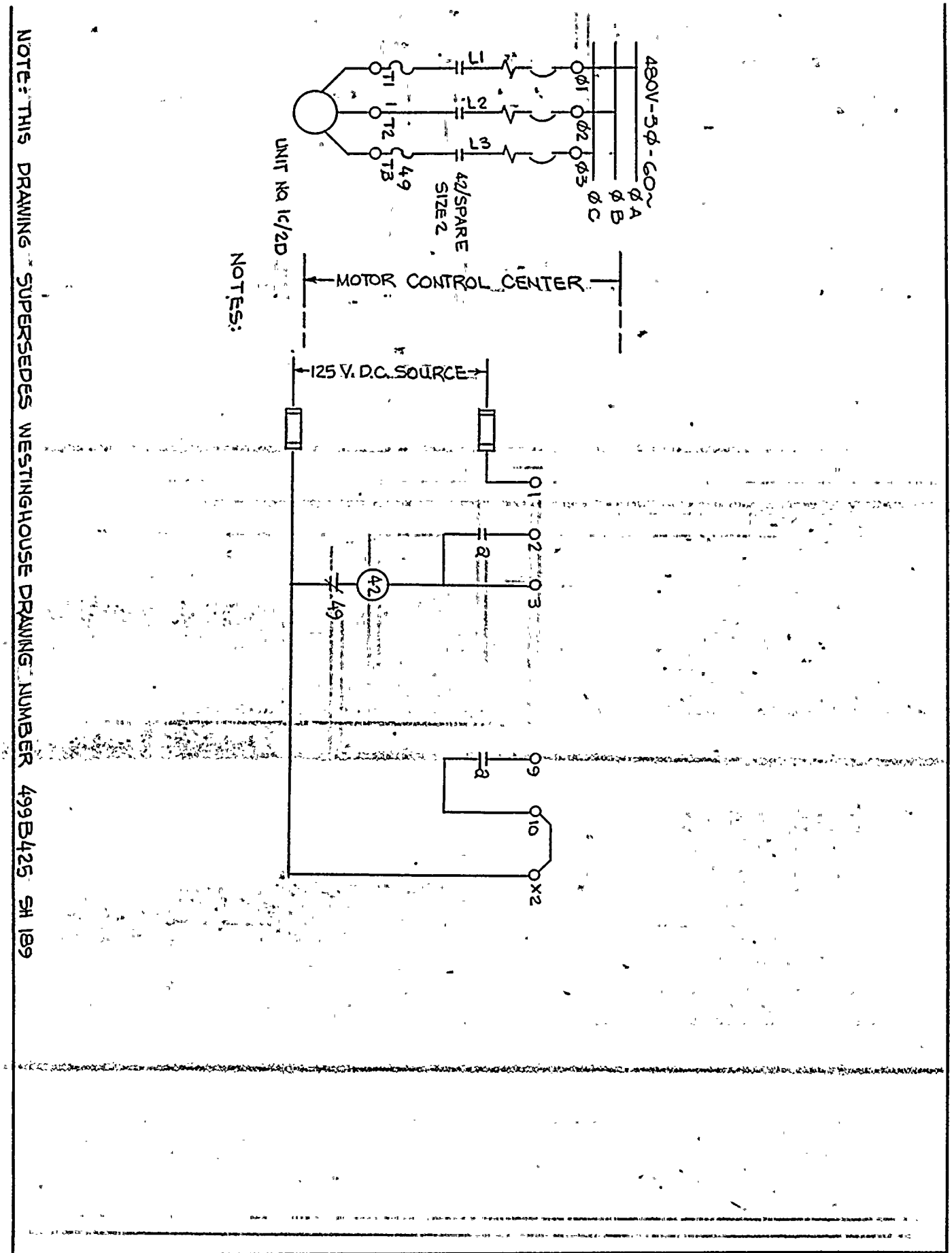
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	GJF	RW	KWB	KWB
	DATE	11/10/77	11/11/77	2/17/78	2/17/78

ELEMENTARY WIRING DIAGRAM
GEN BUS PRESS COOL FANS 1A & 1B

FACILITY GINNA STA.
SCALE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-188	



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 189

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	GJF	RCW	KWB	KWB
	DATE	9/10/77	11/11/77	11/30/78	11/30/78

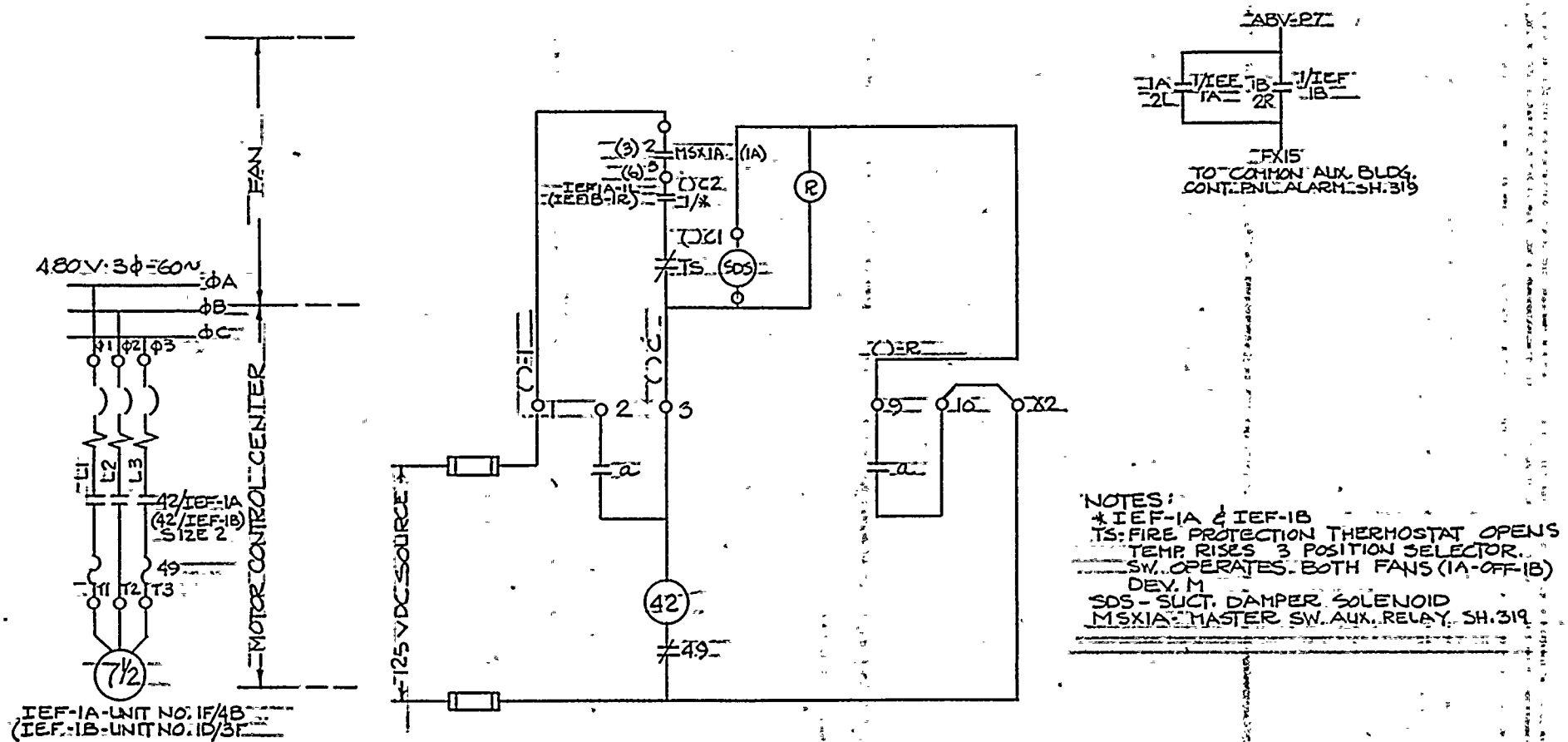
ELEMENTARY WIRING DIAGRAM
SPARE FEEDER

FACILITY GINNA

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE —

JOB NO.	DRAWING NO.	REV.
	10905-189	A



REV.						
ORIGINAL	DWN BY	CK'D	RESP. ENG	ENG. MGR	DATE
			7/12/76		11/29/76

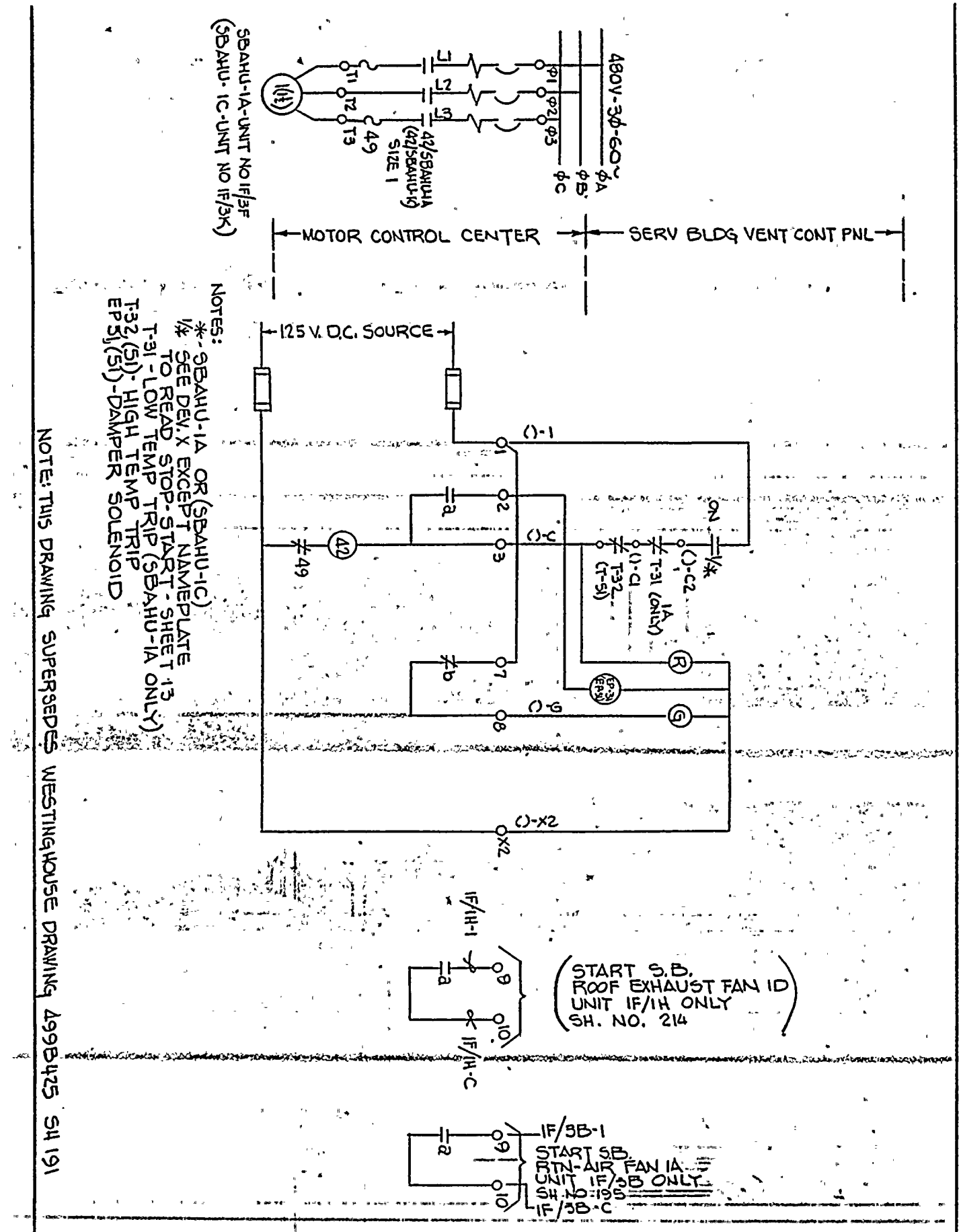
THIS DWG. SUPERSEDES W. DWG. 499B425 SH. 190

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.

R.E. GINNA NUCLEAR POWER STA. UNIT #1
ELEMENTARY WIRING DIAGRAM
INTERMEDIATE BLDG. EXHAUST FAN 1A (1B)

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

33013-0190



NOTES:
*- SBAHU-1A OR (SBAHU-1C) 1/4 SEE DEV. X EXCEPT NAMEPLATE TO READ STOP-START-SHEET 13
T-31 - LOW TEMP TRIP (SBAHU-1A ONLY)
T-32 (51): HIGH TEMP TRIP
EP 3J (51) - DAMPER SOLENOID

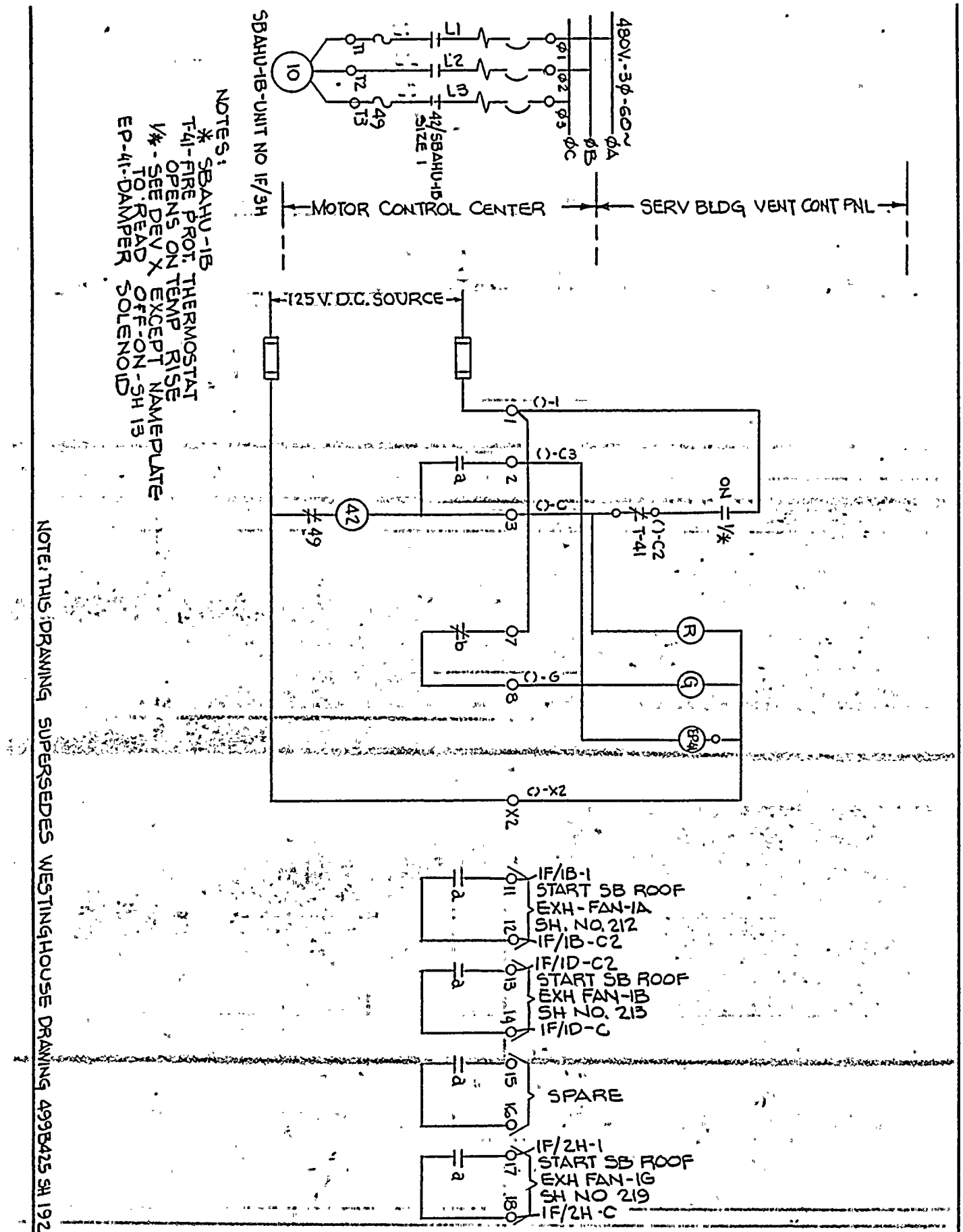
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH 191

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL INITIAL / DATE	GJF 7/25/77	RW 7/26/77	JWD 10/13/77	JWD 10/13/77

ELEMENTARY WIRING DIAGRAM
SERV BLDG AIR HDLG UNIT 1A, (1C)

FACILITY GINNA STA
SCALE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-191	0



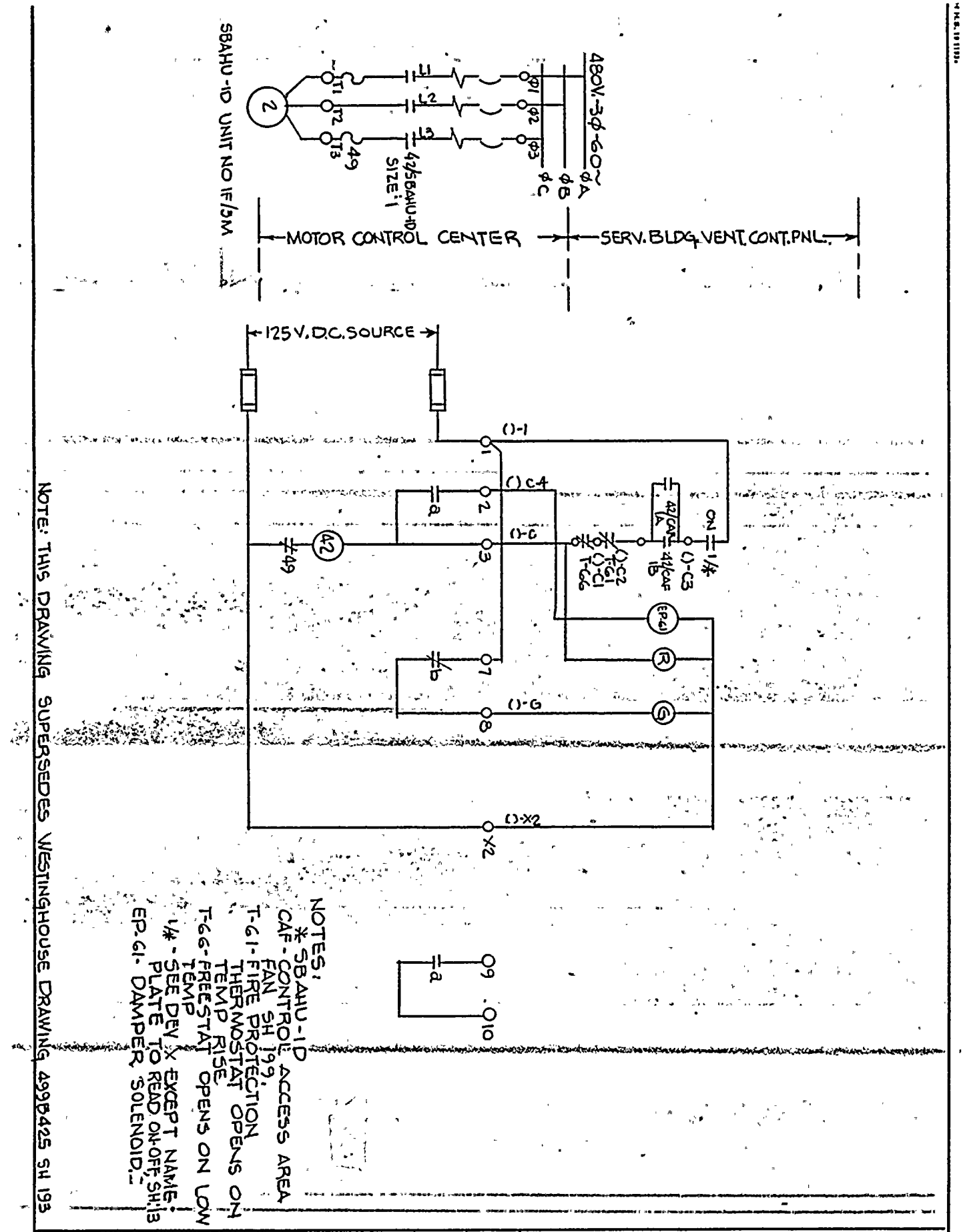
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
ORIGINAL	INITIAL	GJP	PW	GWD	GWD
	DATE	7/22/77	7/22/77	10/12/77	10/12/77

ELEMENTRY WIRING DIAGRAM
SERV BLDG AIR HDLG UNIT-1B

FACILITY GINNA STA.
SCALE —

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-192	



NOTES:
* SBAHU-1D CAF - CONTROL ACCESS AREA FAN SH 199.
T-61- FIRE PROTECTION THERMOSTAT OPENS ON TEMP RISE
T-66- FREESTAT OPENS ON LOW TEMP
1/4 - SEE DEV. X EXCEPT NAME PLATE TO READ ON-OFF, SH. 13
EP-61- DAMPER SOLENOID.

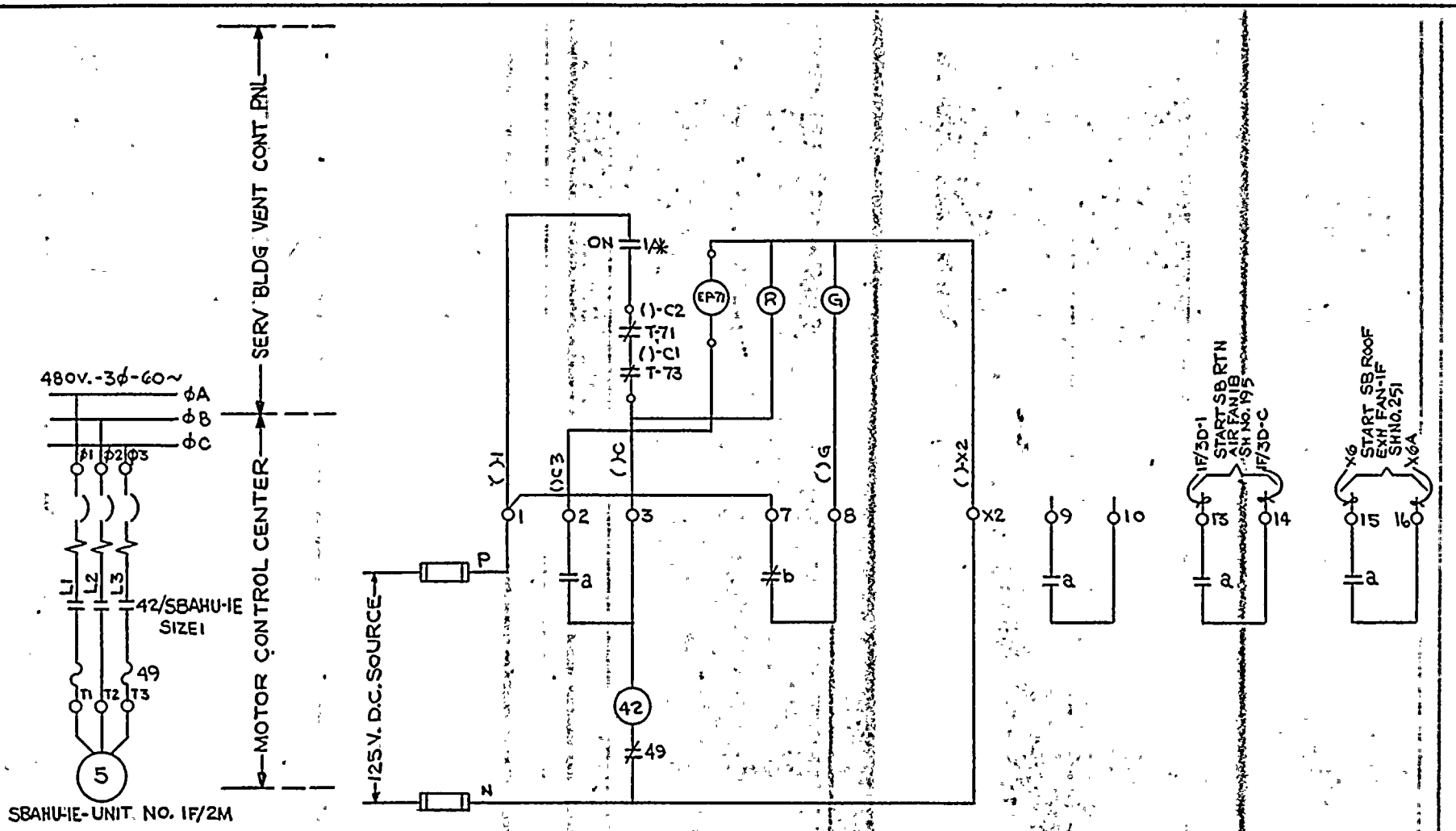
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 4998425 SH 193

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL	GJF 7/22/77	PWJ 7/26/77	GWB 10/11/77	GWB 10/11/77

ELEMENTARY WIRING DIAGRAM
SERV BLDG AIR HDLG-UNIT 1D

FACILITY GINNA STA
SCALE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-193	



NOTES:

* SBAHU-1E
T-71- FIRE PROTECTION THERMOSTAT OPENS ON TEMP RISE.
T-73- FREESTAT OPENS ON LOW TEMP.
1/* - SEE DEV. X EXCEPT NAMEPLATE TO READ OFF-ON, SHEET 13
EP-71 DAMPER SOLENOID.

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-194

ELEMENTARY WIRING DIAGRAM
SERV BLDG AIR HDLG UNIT-1E

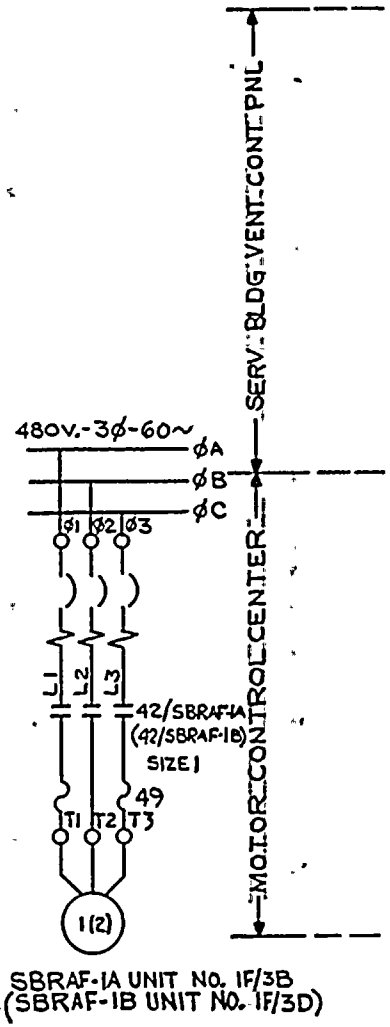
FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE	JOB NO.	DRAWING NO.	REV.
		10905-194	

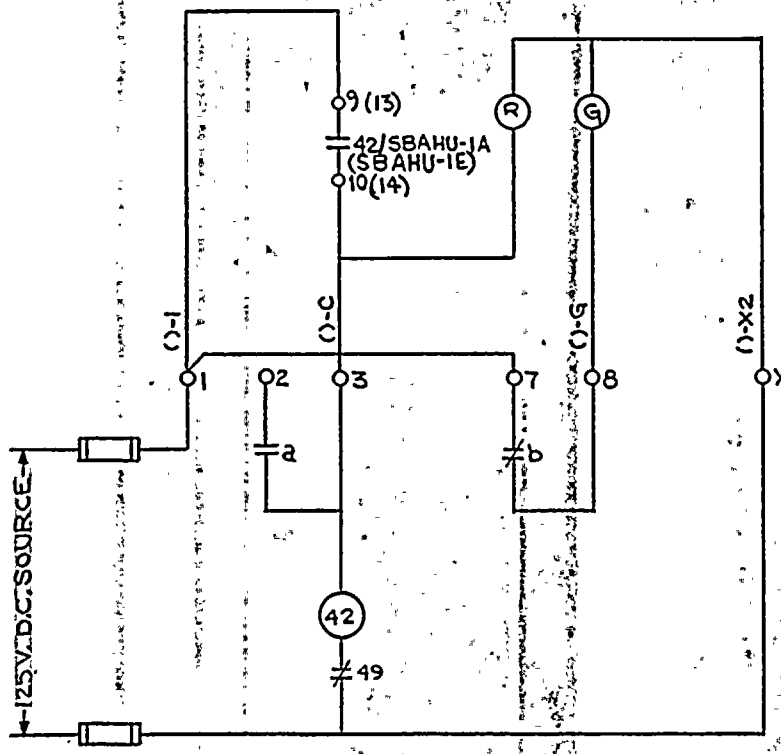
	INITIAL	DATE
ORIGINAL		
REVISION		

	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
	TMB	EW	GWB	GWB
	T-24-71	7/24/71	6/24/71	6/24/71

NUMBER



SBRAF-1A UNIT NO. 1F/3B
(SBRAF-1B UNIT NO. 1F/3D)



NOTES:

SBAHU-1A - SH. 191
(SBAHU-1E - SH. 194)

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-195

ELEMENTARY WIRING DIAGRAM
SVC. BLDG. RTN. AIR FAN 1A & (1B)

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STATION

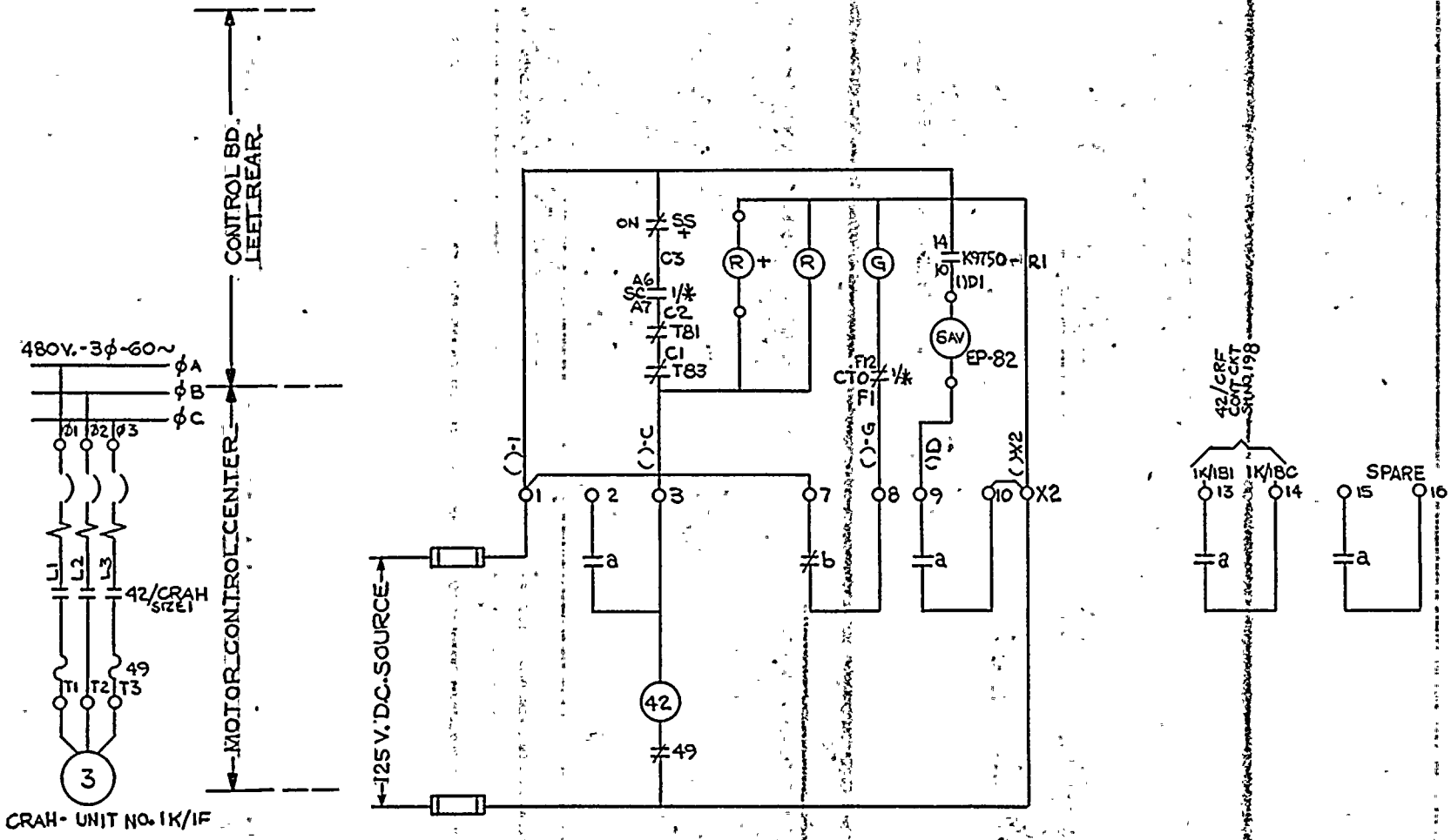
NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL	MJB	7-22-77	pm	7/22/77	10/4/77	10/6/77

SCALE

JOB NO.

DRAWING NO. 10905-195

REV. 0



NOTES:

+ - CONTROL STATION LOCATED ON COLUMN JUST OUTSIDE CONTROL RM.

* CRAH.

1/* SEE DEV. SH. 10, FIG 1, DETAIL C.

SAV- DAMPER MECH. SOLENOID (EP-82 SEE JOHNSON SERVICE DRAW. 885-83-8)

V11X, V21X- ⊗ 110E059 SH. 5

T81 & T83 FIRESTAT/FREESTAT ON CRAH UNIT DUCT

K9750-R1 AUX RELAY CONTACT, AREA 1 RAD MONITOR (CONTROL ROOM) SEE TRACER LAB DWG. D997586

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-196

ELEMENTARY WIRING DIAGRAM
CONT RM AIR HDLG UNIT

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE

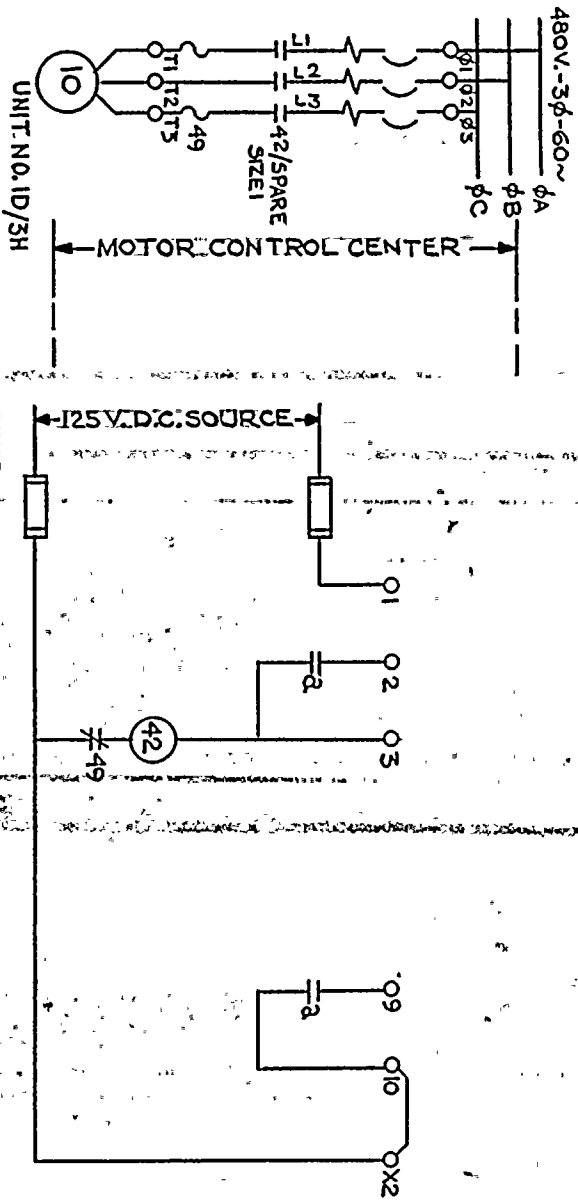
JOB NO.

DRAWING NO. 10905-196

REV.

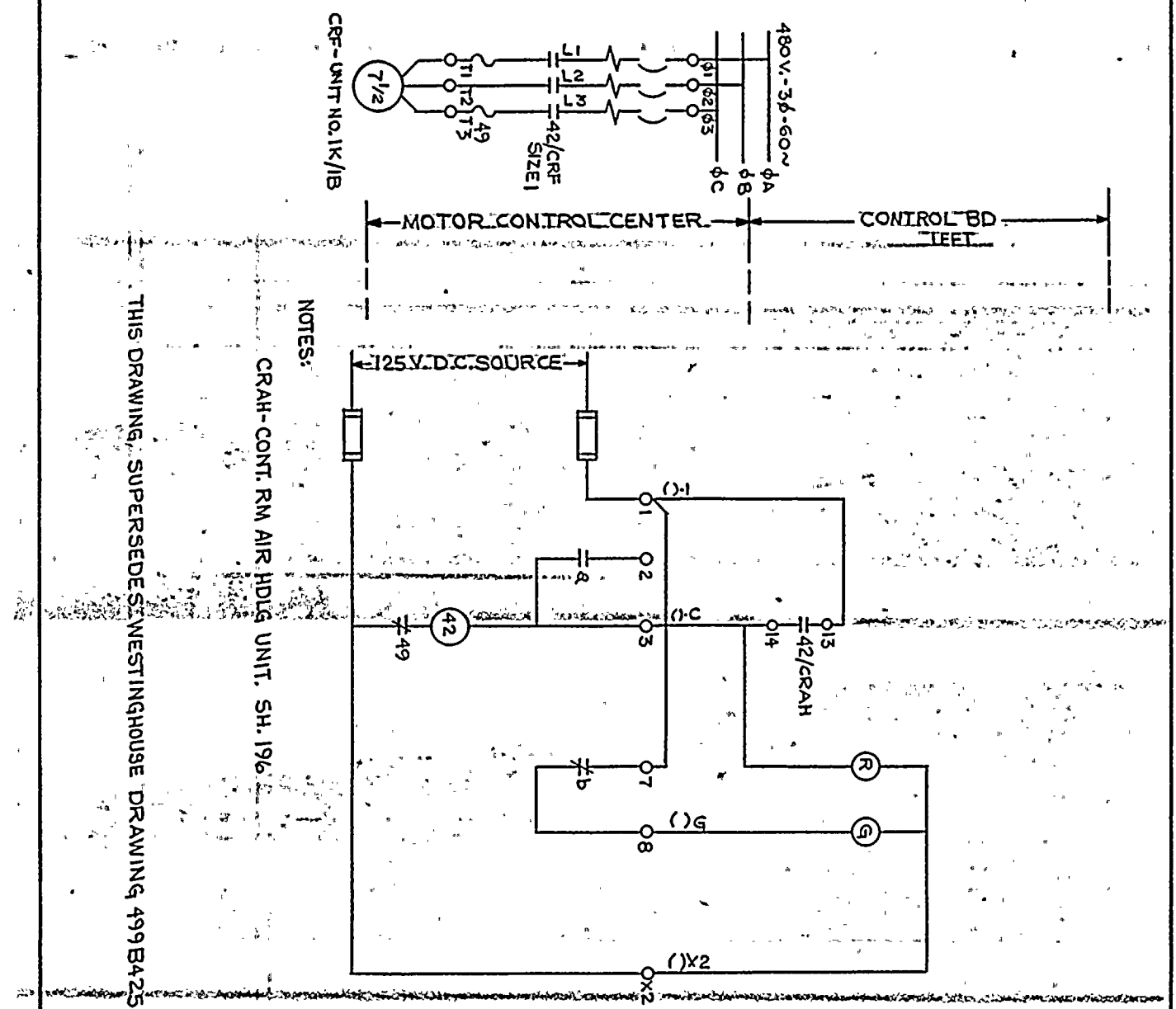
NUMBER	REVISION	DATE	INITIAL
ORIGINAL			MJB

	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
	8-16-71	9/27/71	10/1/71	10/1/71



THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-197

						ELEMENTARY WIRING DIAGRAM SPARE FEEDER
						FACILITY GINNA STATION — ROCHESTER GAS & ELECTRIC CORP., ROCHESTER, NEW YORK
						SCALE
	ORIGINAL — INITIAL	MJD	RW	RWD	RWD	JOB NO. — DRAWING NO. 10905-197 — REV.
	DATE	8-5-77	10/27/77	1/30/78	1/30/78	
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.	



NOTES:

1. THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 - 198

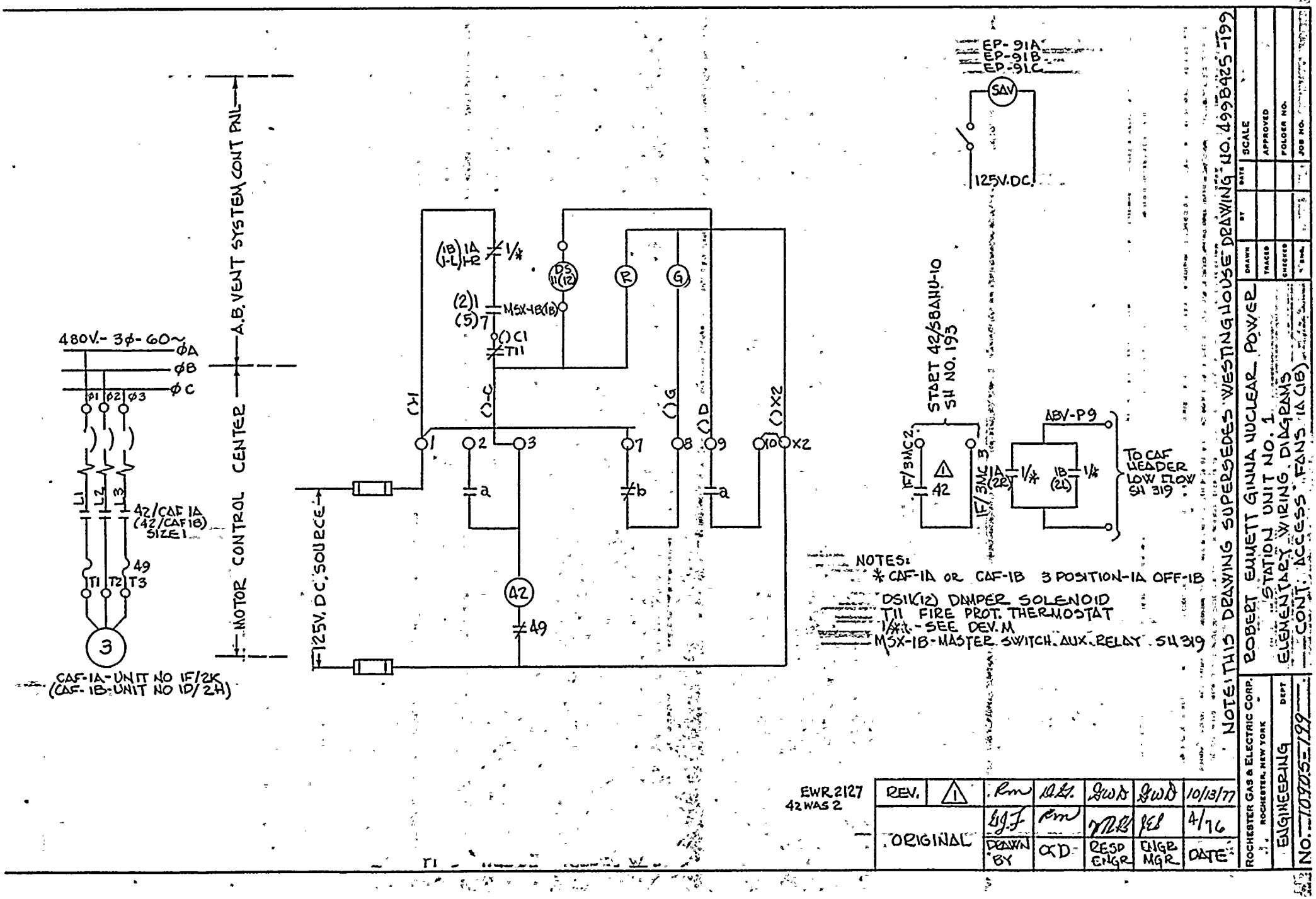
CRAH-CONT. RM AIR HDLG UNIT, SH. 196

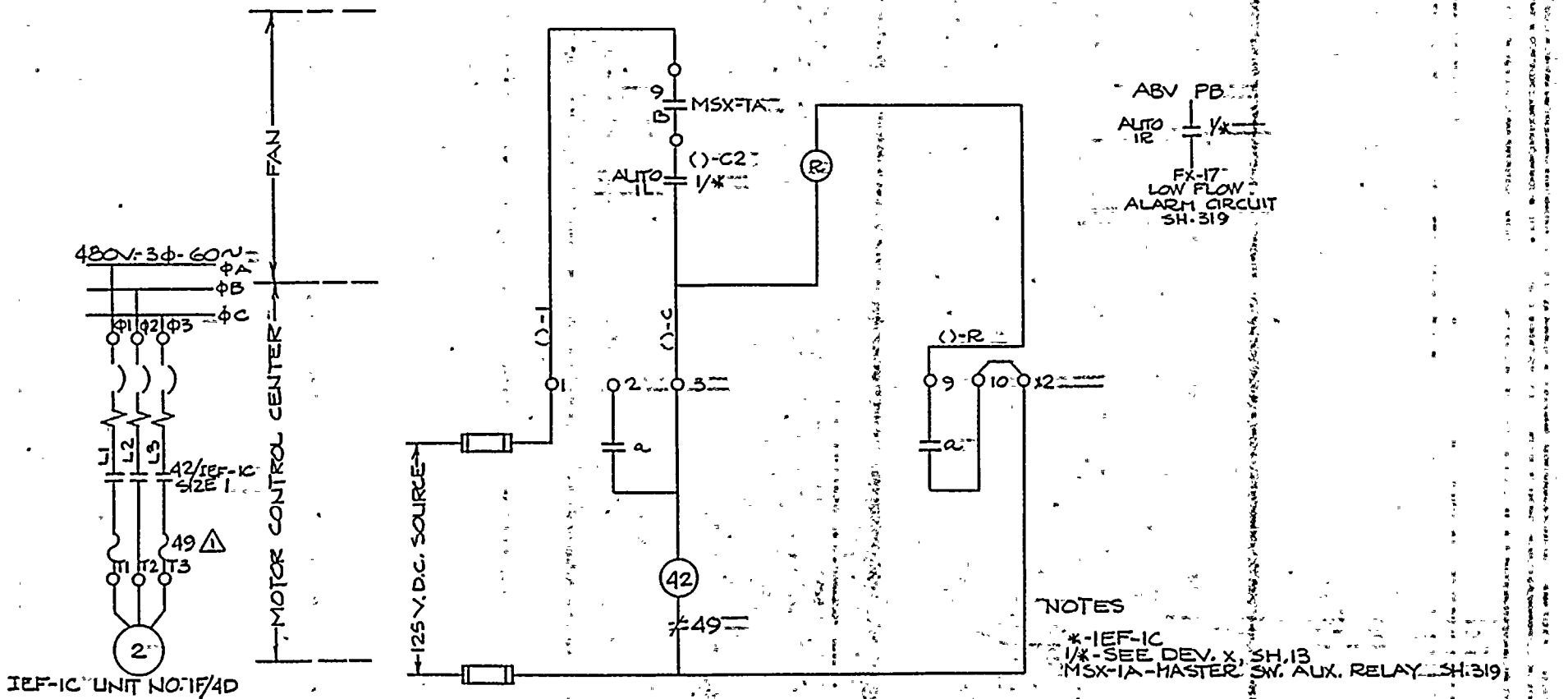
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MJB	RM	GWD	GWD
	DATE	7-27-77	8/31/77	10/11/77	10/12/77

ELEMENTARY WIRING DIAGRAM
CONT RM RTN AIR FAN

FACILITY GINNA STATION
SCALE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-198	


480V.- 3φ- 60~
φA
φB
φC
P1 P2 φ3
L1 L2 L3
42/CAF 1A
(42/CAF 1B)
SIZE 1
49
T1 T2 T3
3
CAF-1A-UNIT NO 1F/2K
(CAF-1B-UNIT NO 1D/2H)
A.B. VENT SYSTEM CONT PNL
MOTOR CONTROL CENTER
125V. DC. SOURCE
(1B)1A (1-L)1-2
1/*
DS 11(12)
(2)1
(5)7
M5X-4B(1B)
C1
T11
C-C
C-1
C-G
C-D
C-X2
1
2
3
7
8
9
10
X2
a
b
a
42
49
R
G
EP-91A
EP-91B
EP-91C
SAV
125V.DC.
START 42/58AHU-10
SH NO. 193
1F/3MC 2
1F/3MC 3
42
1A (22)
1/*
1B (21)
1/*
ABV-P9
TO CAF HEADER LOW
LOW SH 319
NOTES:
* CAF-1A OR CAF-1B 3 POSITION-1A OFF-1B
DS1(12) DAMPER SOLENOID
T11 FIRE PROT. THERMOSTAT
1/*-SEE DEV. M
M5X-1B-MASTER SWITCH AUX. RELAY SH 319
NOTE! THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 4998425-199
EWR 2127
42 WAS 2
REV.
1
ORIGINAL
DRAWN BY
CKD
RESP ENGR
ENGR MGR
DATE
10/13/77
4/76
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
NO. 4998425-199
ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAMS
CONT. ACCESS. FANS 1A (1B)
DRAWN
TRACED
CHECKED
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.



THIS DWG. SUPERSEDES W. DWG. 4998425 SH. 200

REV.	1					
		RMM 7/8/76	DHH 7-7-76	REA 7-12-76	JES	7/14/76
ORIGINAL		AIV III	RMM	WRB	JES	7/28/76
		DWN BY	CK'D	RESP. ENG.	ENG MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT

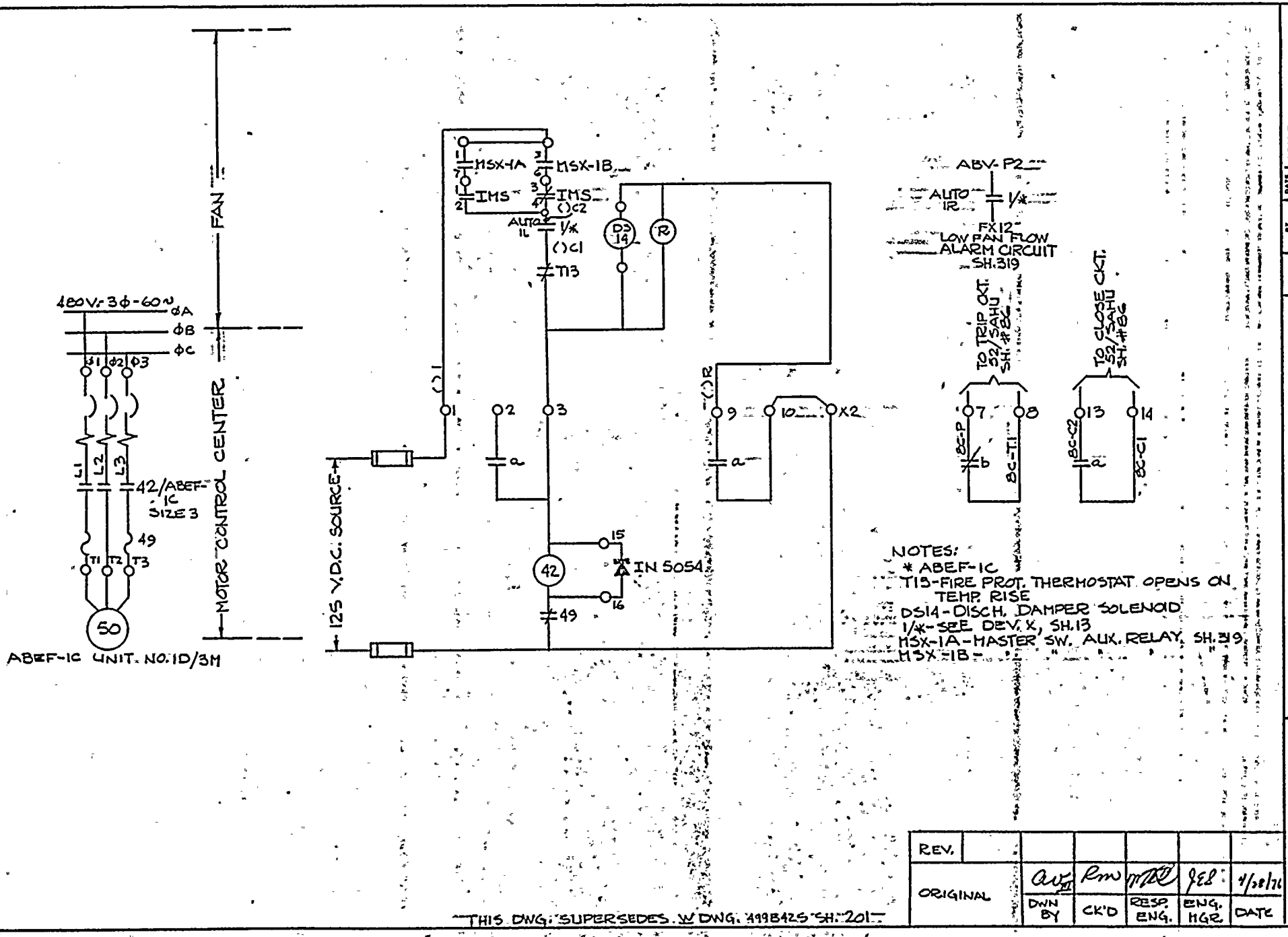
ROBERT EMMETT GINNA NUCLEAR POWER PLANT, UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

INTERMEDIATE BUILDING EXHAUST FAN ETC.

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENGR.			JOB NO.

NO. 1035-2002



NOTES:
* ABEF-1C
T13-FIRE PROT. THERMOSTAT OPENS ON TEMP. RISE
DS14-DISCH. DAMPER SOLENOID
1/*-SEE DEV. X, SH. 13
MSX-1A-MASTER SW. AUX. RELAY, SH. 319
MSX-1B- " " " "

THIS DWG. SUPERSEDES W DWG. 4998425 SH. 201

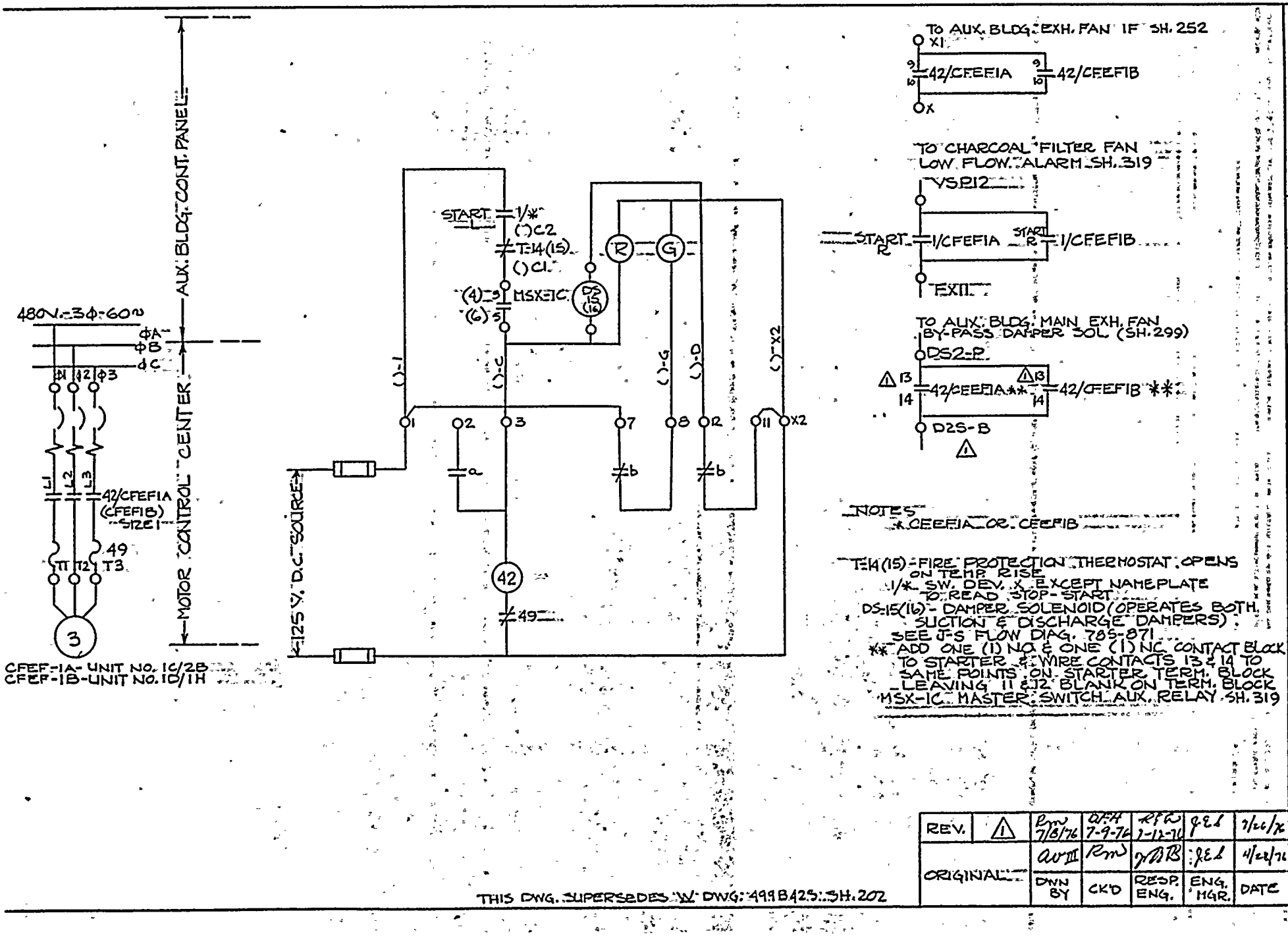
REV.						
ORIGINAL		AWH	RMW	WMK	JEL	4/28/71
		DWN BY	CK'D	RESP. ENG.	ENG. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION
UNIT 1
ELEMENTARY WIRING DIAGRAM
AUX. BLDG. EXHAUST FAN 1C

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

No. 10905-201



NOTES

* CEEFIA OR CEEFIB

T-14(15) - FIRE PROTECTION THERMOSTAT OPENS ON TEMP RISE

1/* SW. DEV. X EXCEPT NAMEPLATE TO READ STOP-START

DS-15(16) - DAMPER SOLENOID (OPERATES BOTH SUCTION & DISCHARGE DAMPERS) SEE J-S FLOW DIAG. 705-871

** ADD ONE (1) NO & ONE (1) NC CONTACT BLOCK TO STARTER & WIRE CONTACTS 13 & 14 TO SAME POINTS ON STARTER TERM. BLOCK LEAVING 11 & 12 BLANK ON TERM. BLOCK

MSX-1C MASTER SWITCH AUX. RELAY SH. 319

THIS DWG. SUPERSEDES W. DWG. 4998425 SH. 202

REV.						
1	RMW 7/8/76	DFH 7-9-76	RFW 7-12-76	JEL	7/22/76
ORIGINAL	AW III	RMW	WBB	JEL	4/22/76
	DWN BY	CK'D	RESP. ENG.	ENG. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT

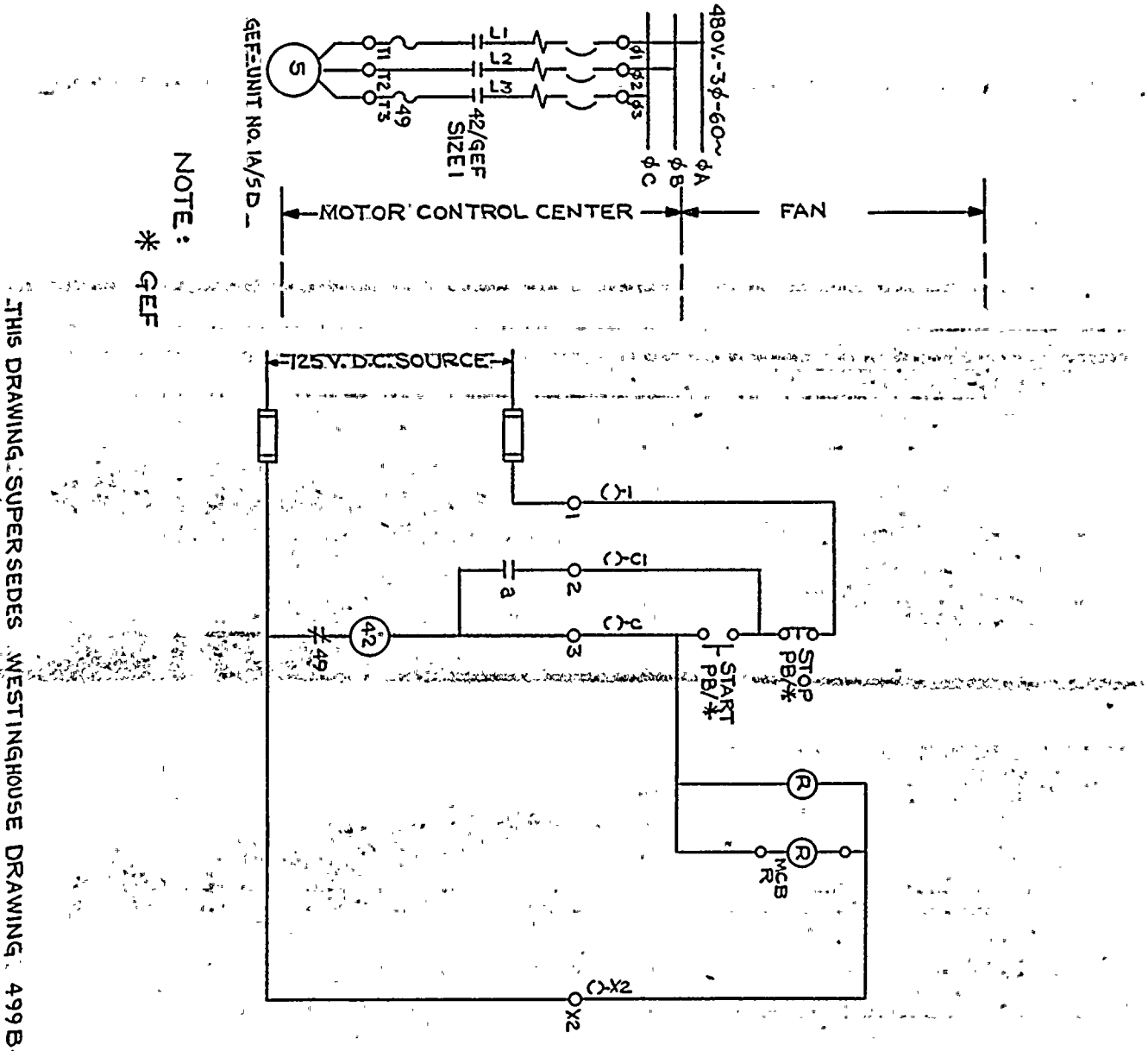
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

CHARCOAL FILTER EXHAUST FAN 1A (1B)

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NO. 10905-2021



THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-203

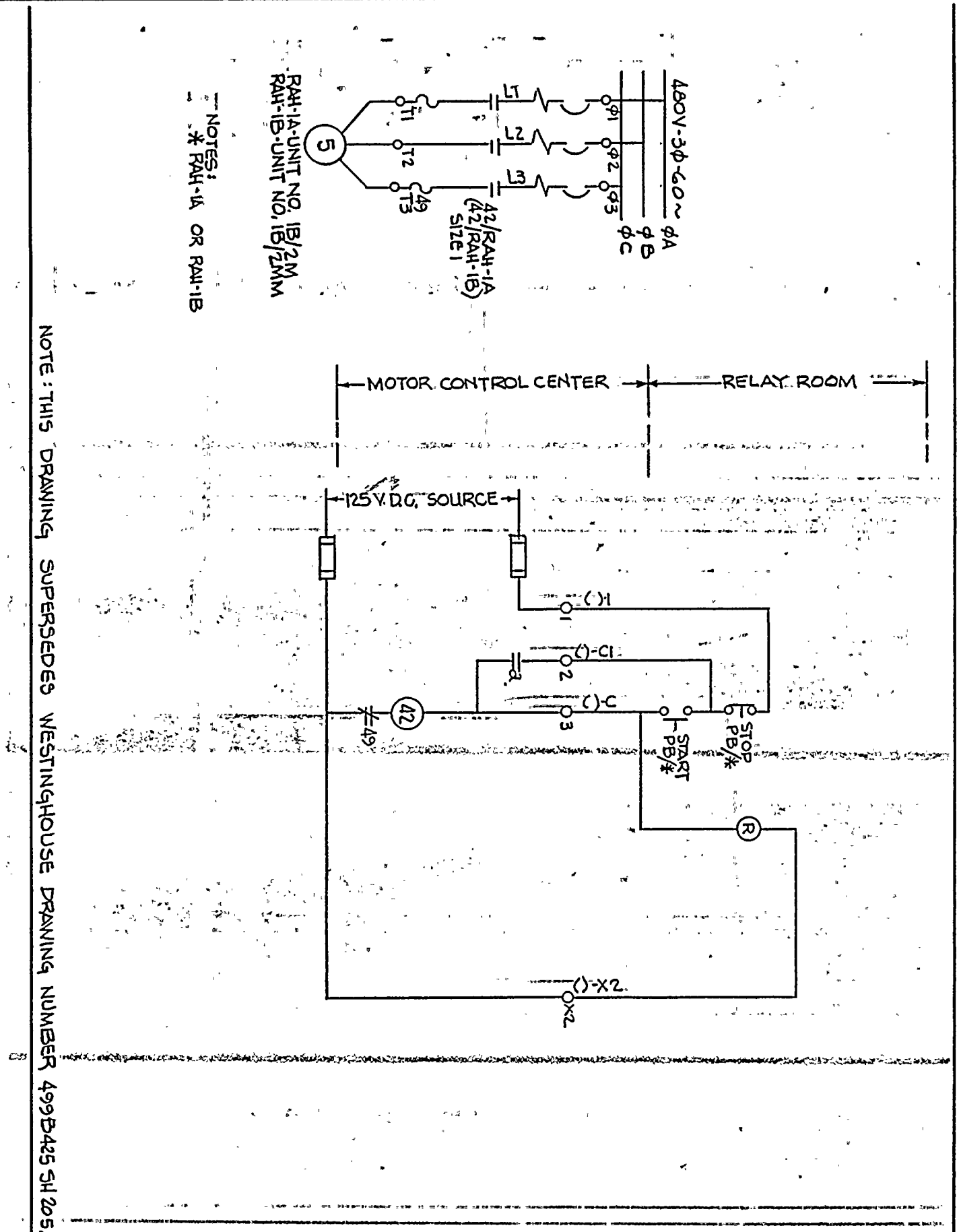
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL INITIAL	MGB	RMS	RMS	RMS
	DATE	7-21-77	8/31/77	9/20/77	9/20/77

ELEMENTARY WIRING DIAGRAM
GLAND STM COND AIR EXH FAN

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-203	



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 205.

	ORIGINAL	GJF	RW	GWD	GWD
	DATE	7/29/77	8/30/77	9/2/77	9/20/77
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.

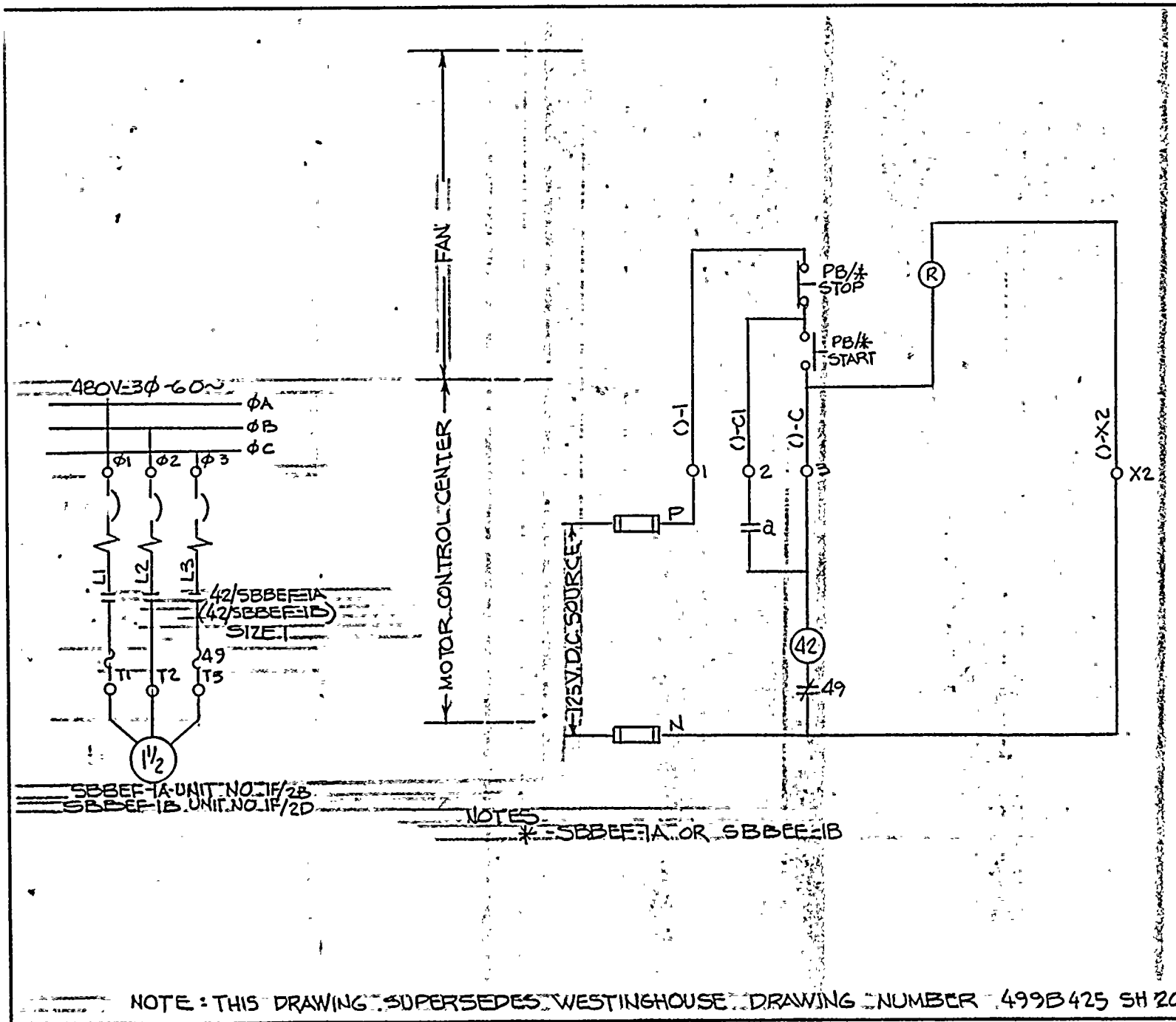
ELEMENTARY WIRING DIAGRAM
RELAY RM AIR HDLG UNIT 1A & 1B

FACILITY GINNA STA

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE —

JOB NO.	DRAWING NO.	REV.
	10905-205	A



NOTES:
*=SBBEF-1A OR SBBEF-1B

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 206

ELEMENTARY WIRING DIAGRAM
SERV BLDG BSMT EXH FAN 1A & 1B

FACILITY GINNA STA
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

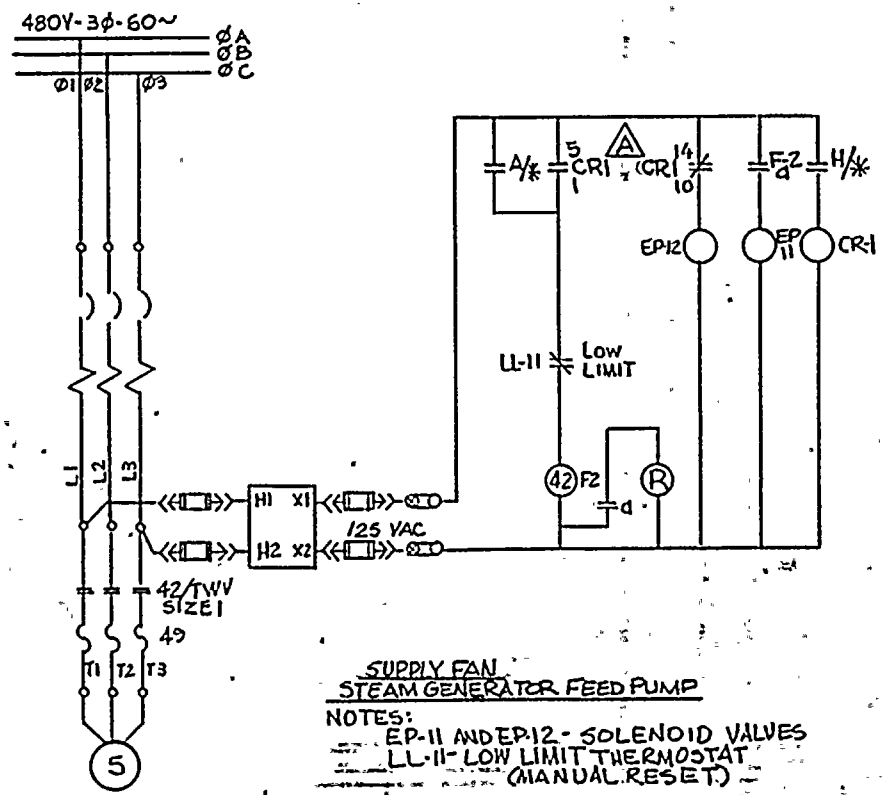
SCALE

JOB NO.

DRAWING NO. 10905-206

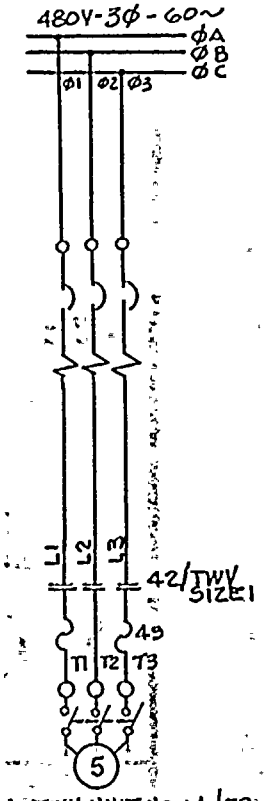
REV. A

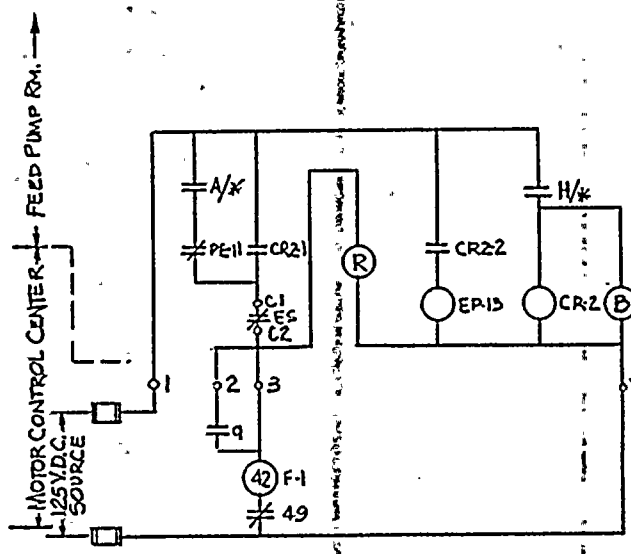
NUMBER	REVISION	INITIAL DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL	GJE 12/7/77	Emj 12/5/77	Emj 1/30/78	Emj 1/30/78	Emj 1/30/78



SUPPLY FAN
STEAM GENERATOR FEED PUMP

NOTES:
EP-11 AND EP-12 - SOLENOID VALVES
LL-11 - LOW LIMIT THERMOSTAT (MANUAL RESET)





NOTE: ES - EMERGENCY SHUTDOWN SWITCH ON MCB FIRE PANEL
EP-13 SOLENOID VALVE
EXHAUST FAN

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499 P 425 SH 207

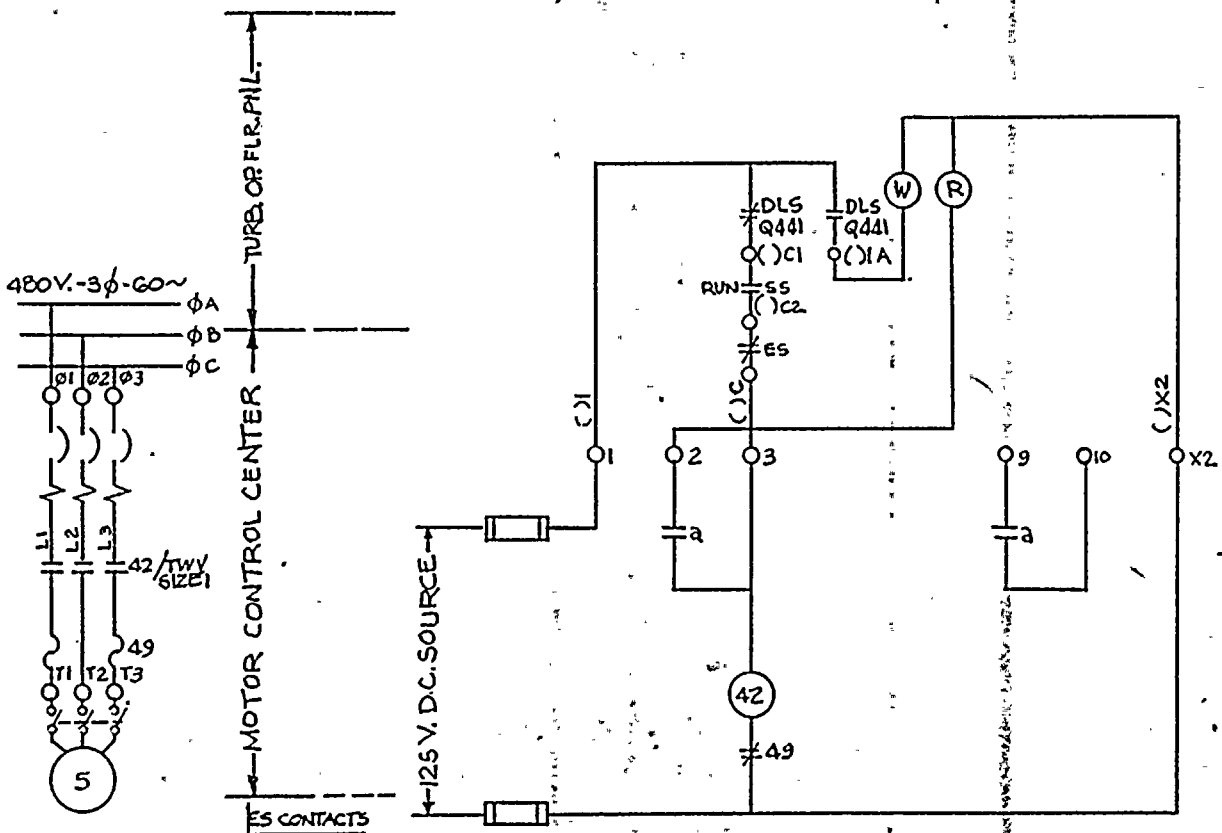
REV.		G J F	11-9-77	11-2-77		11/9/77
ORIGINAL		GJF	2/13/78	R.F.G.	Q.E.L.	4/27/78
		DRAWN BY	CK'D	RESP ENG'R	ENG'K MGR	DATE

EWR 2134

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
NO. 10905-207

ROBERT E. MUELLER NUCLEAR POWER
ELEMENTARY WIRING DIAGRAM
STEAM GENERATOR FEED PUMP
ROOM VENTILATION

DRAWN | DATE | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.



TWV-1B - UNIT 1A/7D A3-B3
TWV-1C - UNIT 1A/7F A5-B5
TWV-1D - UNIT 1A/7H A7-B7
TWV-1E - UNIT 1A/7K A9-B9
TWV-1F - UNIT 1B/6B A11-B11
TWV-1G - UNIT 1B/6D C1-D1
TWV-1H - UNIT 1B/6F C3-D3
TWV-1J - UNIT 1B/6H C5-D5

NOTES:
T*: TWV-1B, TWV-1C, TWV-1D, TWV-1E, TWV-1F, TWV-1G, TWV-1H, TWV-1J
1. DAMPERS NORMALLY DRIVEN CLOSED BY DAMPER MOTOR. DAMPERS OPEN AND REMAIN OPEN UPON LOSS OF POWER.
DM - DAMPER MOTOR
SS - 3 POS. SEL. SW. - CLOSE-OFF-RUN
ES - EMERG. SHUTDOWN SW. ON MCB FIRE PNL (STOP - NORMAL)

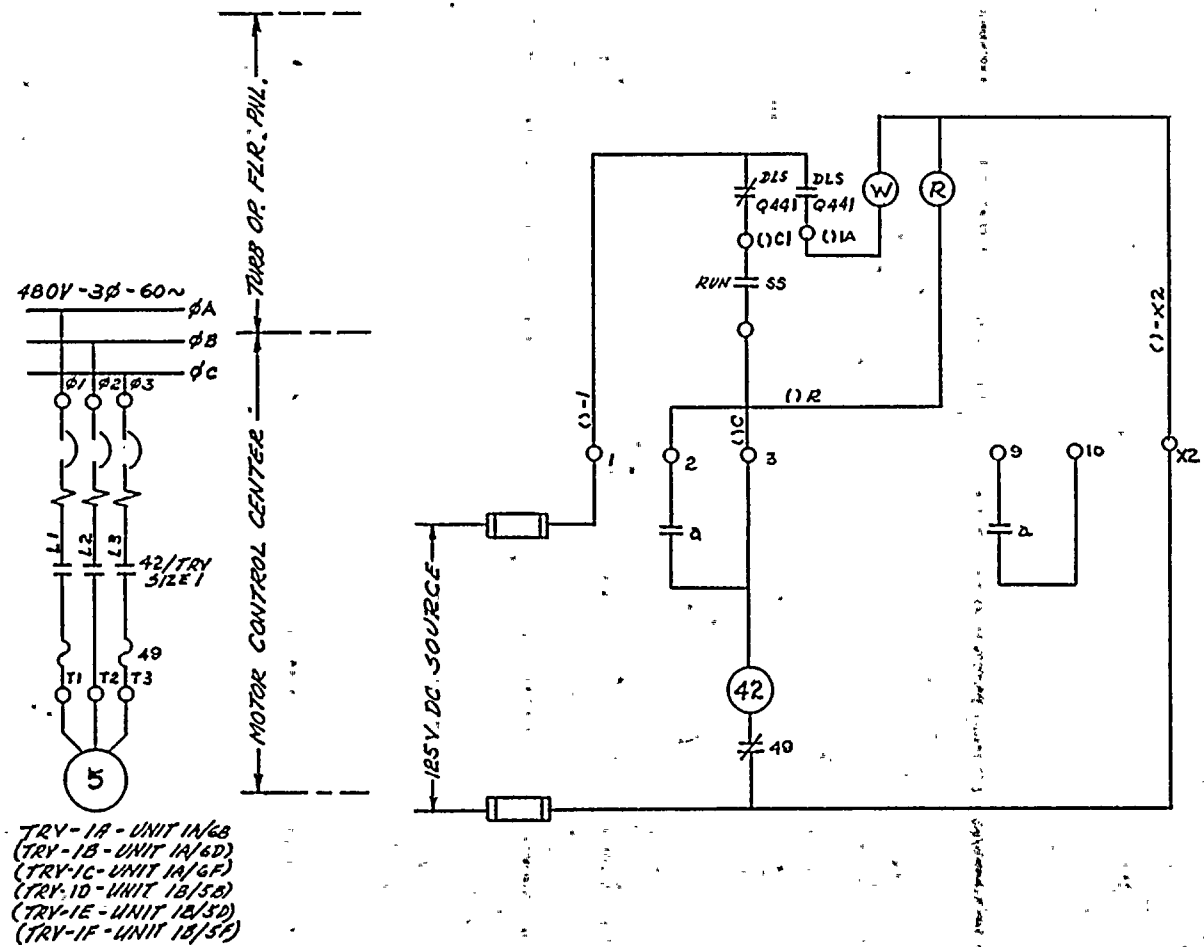
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 208

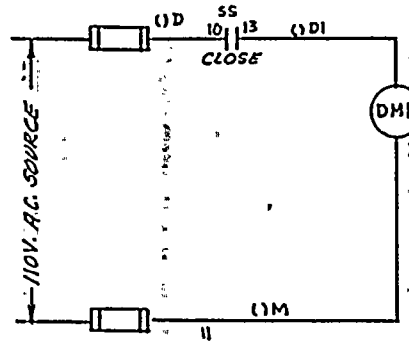
REV.	1	RMW 7/8/76	DFF 7-9-76	RFA 7-12-76	QED	7/14/76
ORIGINAL		GJF	RMW 8-16-76	RFA	QES	4/27/76
		DRAWN BY	CK'D	PROJ. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING
NO. 10905-208 1

ROBERT EMMETT GINNA NUCLEAR POWER STATION; UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
TURB. RM. WALL EX HAUST FANS 1B, 1C, 1D

DRAWN	G.J.F.	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.





TRY-1A - UNIT 1N/6B
(TRY-1B - UNIT 1A/6D)
(TRY-1C - UNIT 1A/6F)
(TRY-1D - UNIT 1B/5B)
(TRY-1E - UNIT 1B/5D)
(TRY-1F - UNIT 1B/5F)

NOTES:

* - TRY-1A, TRY-1B, TRY-1C, TRY-1D, TRY-1E, TRY-1F DAMPERS ARE NORMALLY DRIVEN CLOSED BY DAMPER MOTOR.
DAMPERS OPEN AND REMAIN OPEN UPON LOSS OF POWER
DM - DAMPER MOTOR
SS - 3 POSITION SELECTOR SW. CLOSE-OFF-RUN.

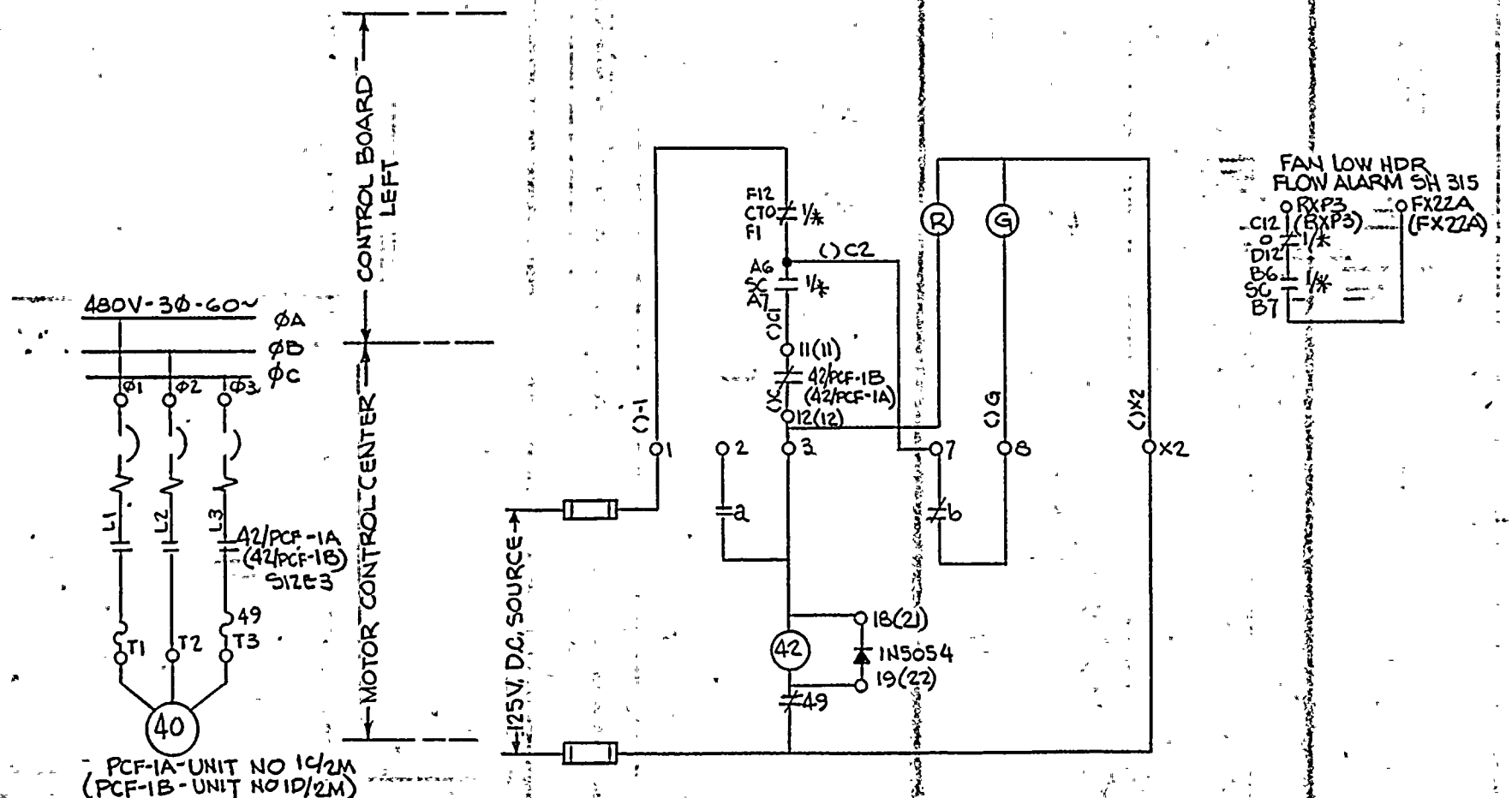
THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499 B 425, SHT. # 209, (REV. 2)

REV.						
ORIGINAL	N.J.A.	R.H.M. 4/14/75	PCK	RCM	4/5/75
	DRAWN BY	CK'D	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
No. 11925-209

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT I
ELEMENTARY WIRING DIAGRAM
TURBINE BLDG. RADE EXHAUST FAN

DRAWN	N.J.A.	DATE 3-24	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENGR.			JOB NO.



NOTES:
* PCF-1A OR PCF-1B SW. DEV. SH 10

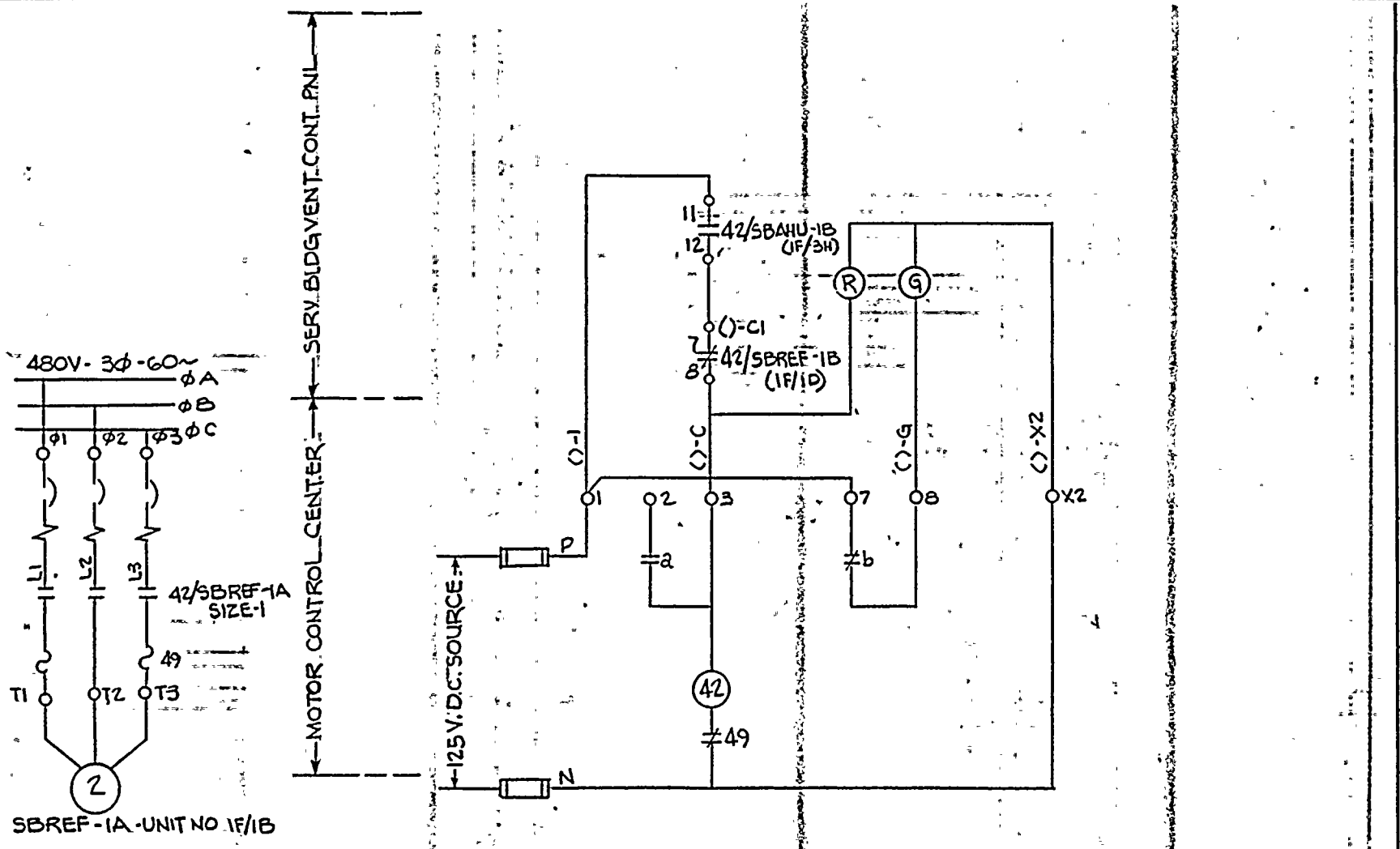
NOTE THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 210

ELEMENTARY WIRING DIAGRAM
PENETRATION COOL FAN 1A(1B)

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE —
JOB NO.
DRAWING NO. 10905-210
REV. 0

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENGR.	ENG. MANGR.
ORIGINAL	INITIAL DATE	GJF 7/15/77	Ewo 8/8/77	Hwb 8/11/77	Hwb 10/10/77



NOTES:
42/SBAHU-1B SH 192
(42/SBREF-1B SH 213)

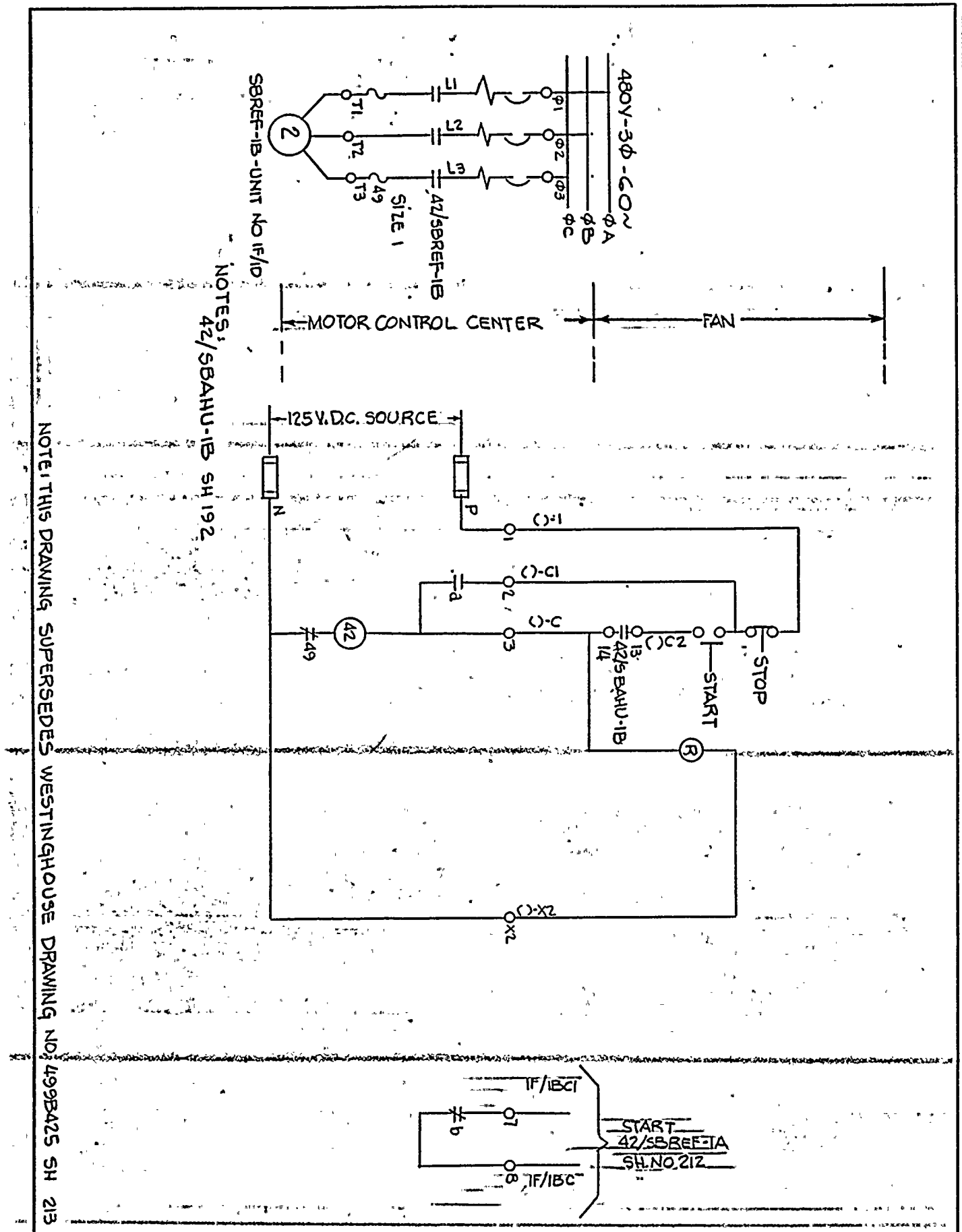
NOTE: THIS DRAWING SUPERSEDES, WESTINGHOUSE DRAWING 499B425 SH 212

ELEMENTARY WIRING DIAGRAM
SERV BLDG ROOF EXH FAN 1A

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE
JOB NO.
DRAWING NO. 10905-212
REV. 0

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL			GJE	RMS	GWD	WWM



NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL — INITIAL / DATE	GJF 7/26/77	EMW 8/31/77	[illegible] 10/13/77	[illegible] 10/12/77

ELEMENTARY WIRING DIAGRAM
SERV. BLDG ROOF EXH FAN 1B

FACILITY GINNA STA

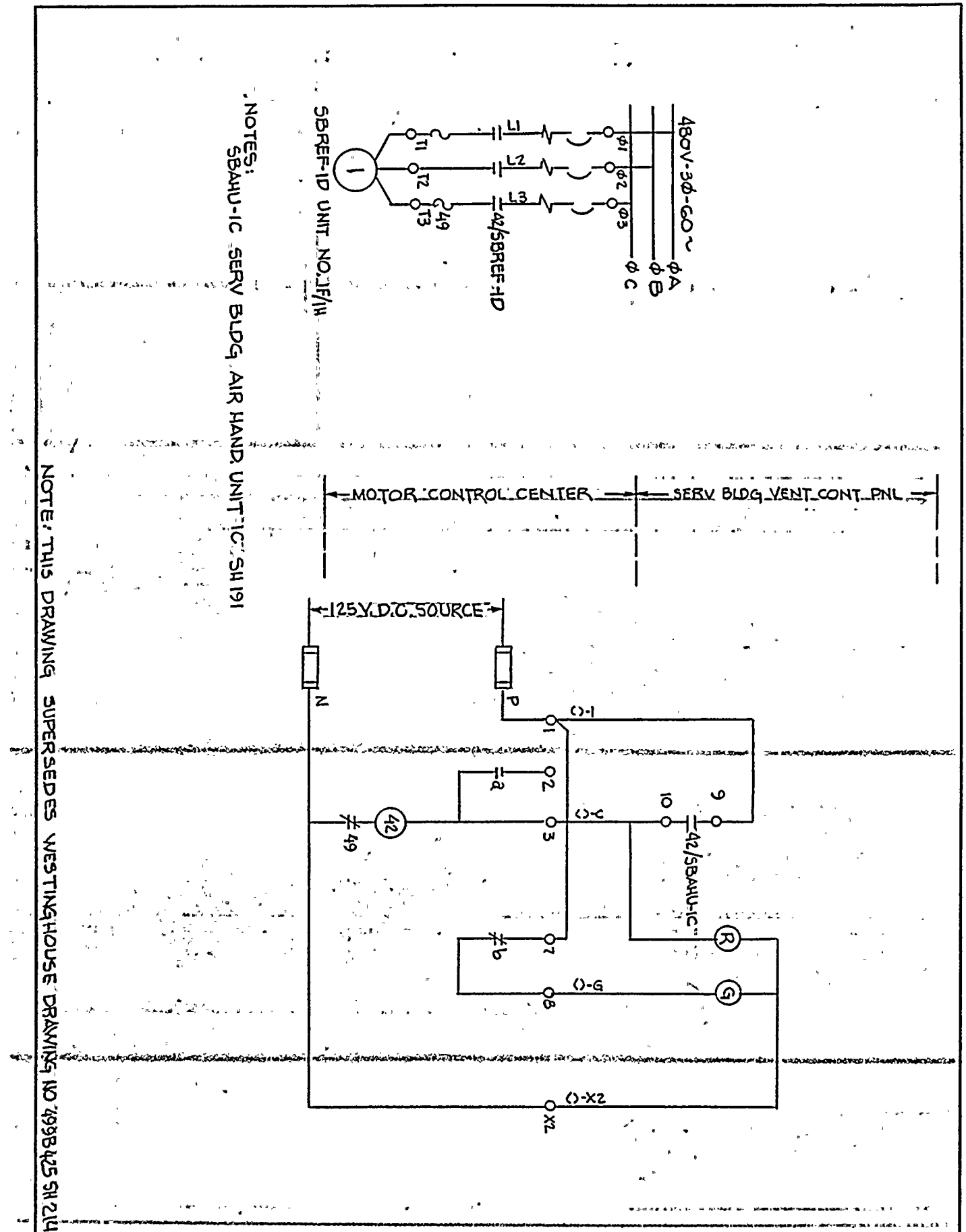
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE —

JOB NO.

DRAWING NO. 10905-213

REV. 0



NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL INITIAL DATE	GJF 9/12/77	RW 9/30/77	BWD 10/11/77	BWD 10/12/77

ELEMENTARY WIRING DIAGRAM
SERV. BLDG. ROOF EXH. FAN 1D

FACILITY GINNA

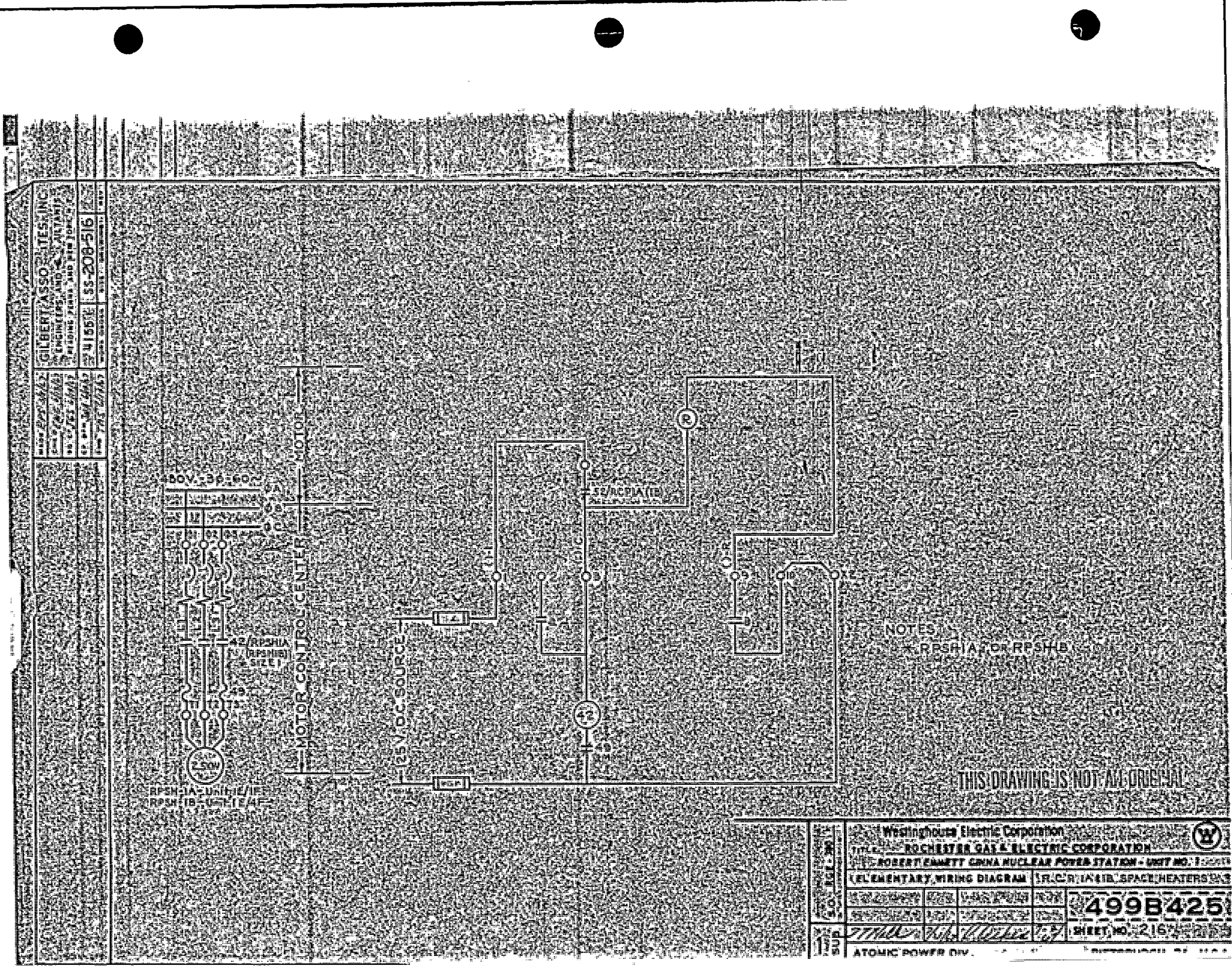
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

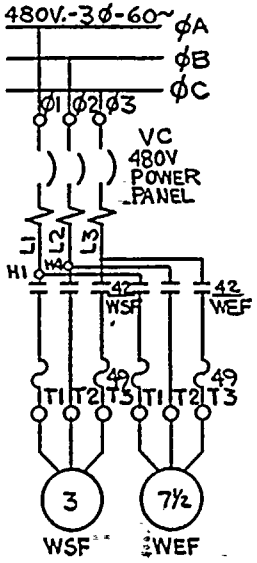
SCALE ~

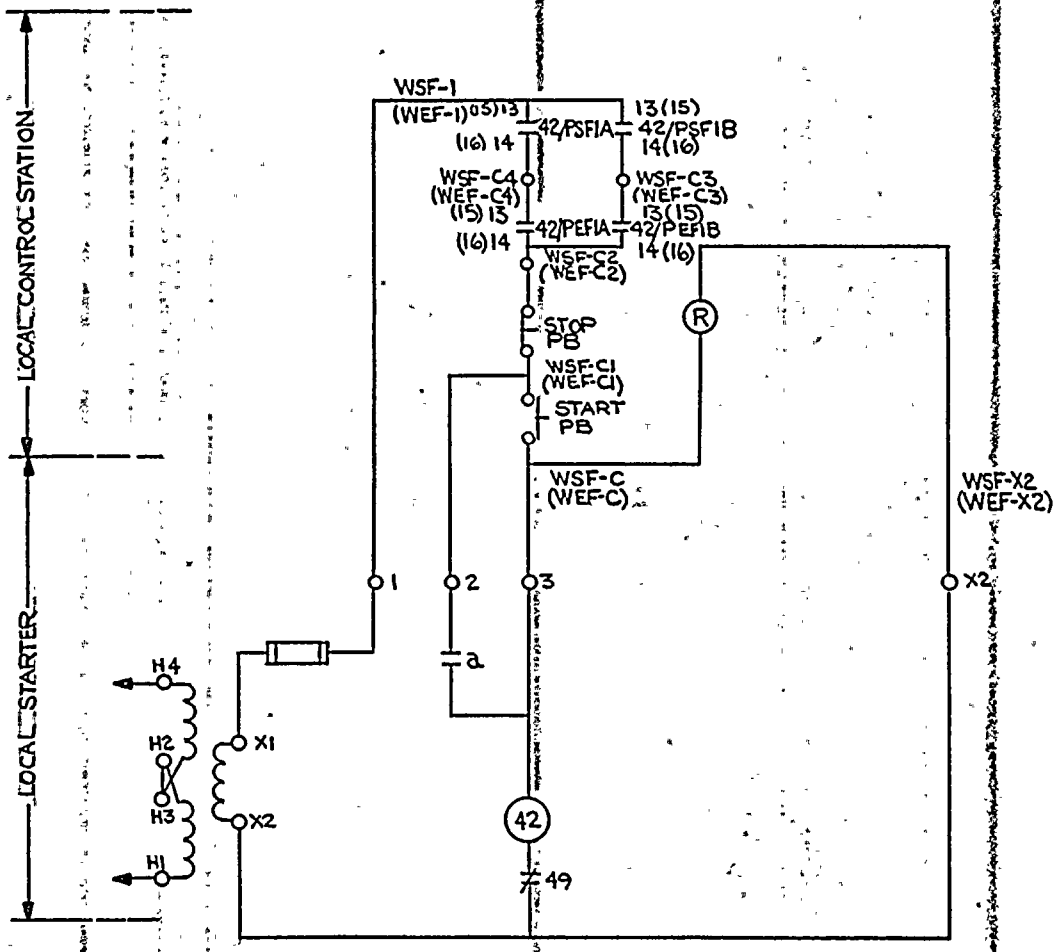
JOB NO.

DRAWING NO. 10905-214

REV. 0


GILBERT ASSOCIATES, INC.
ENGINEERS, ARCHITECTS
READING, PENNA. AND FT. LAUDERDALE, FLA.
4155
215-208-5161
480V.-3ø-60~
MOTOR CONTROL CENTER
125V. DC SOURCE
42/RPSHIA
49
RPSH-1A-Unit 1E/1F
RPSH-1B-Unit 1E/4F
52/RCPSHIA(B)
NOTES
RPSHIA for RPSH(B)
THIS DRAWING IS NOT AN ORIGINAL
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT E. GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
1R.C.P. 1A & 1B SPACE HEATERS
499B425
SHEET NO. 216
ATOMIC POWER DIV.





NOTES:
42/PSF1A,1B ; 42/PEF1A,1B PURGE SUPPLY & EXHAUST FANS SH. 222 & 223
STOP PB Ⓦ 0T2B1N, START PB Ⓦ 0T2B1M
SAME PUSHBUTTON FOR BOTH FANS

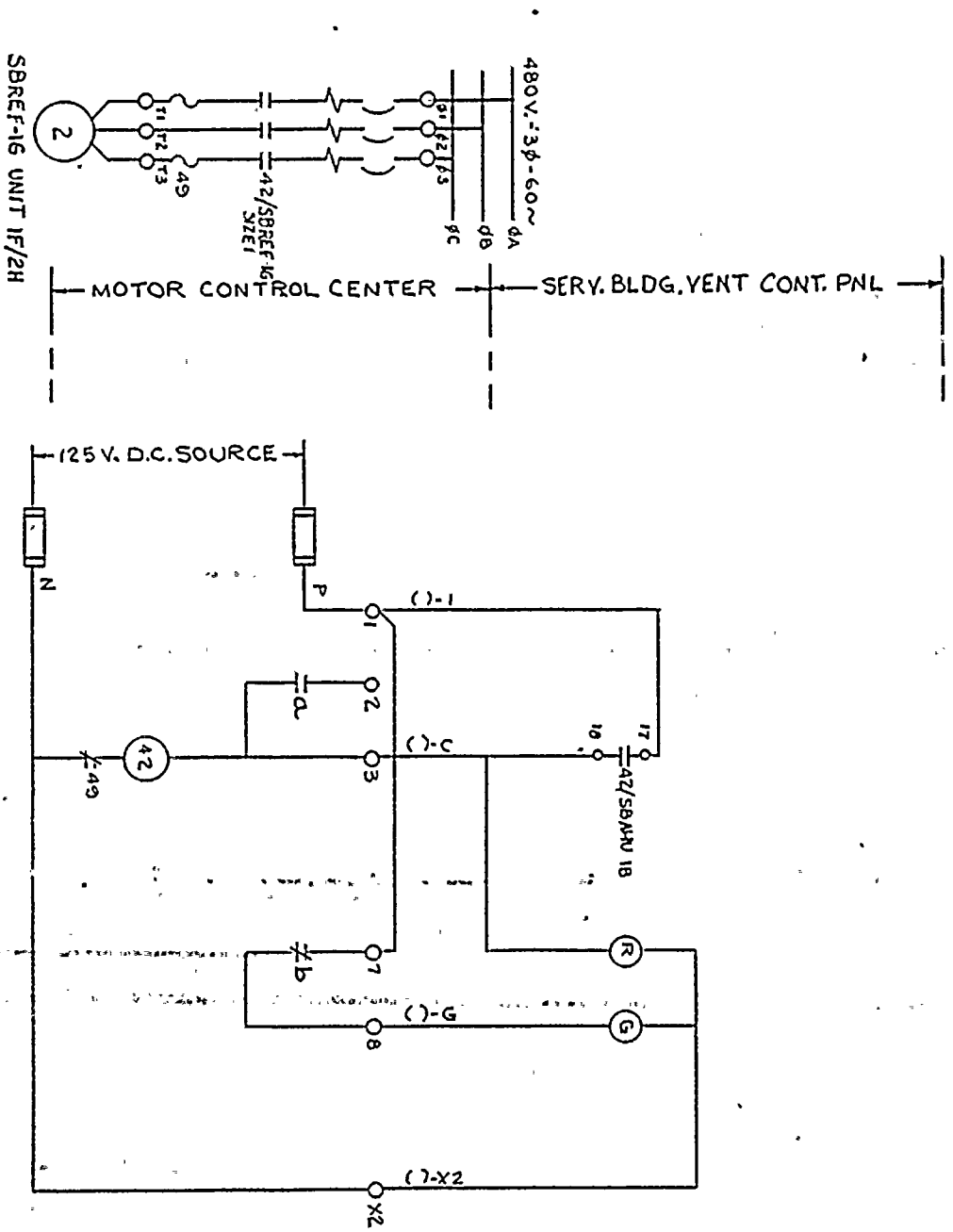
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-218

ELEMENTARY WIRING DIAGRAM
WATER SURFACE SUPPLY (EXH.) FANS

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STATION
SCALE
JOB NO.
DRAWING NO. 10905-218
REV. 0

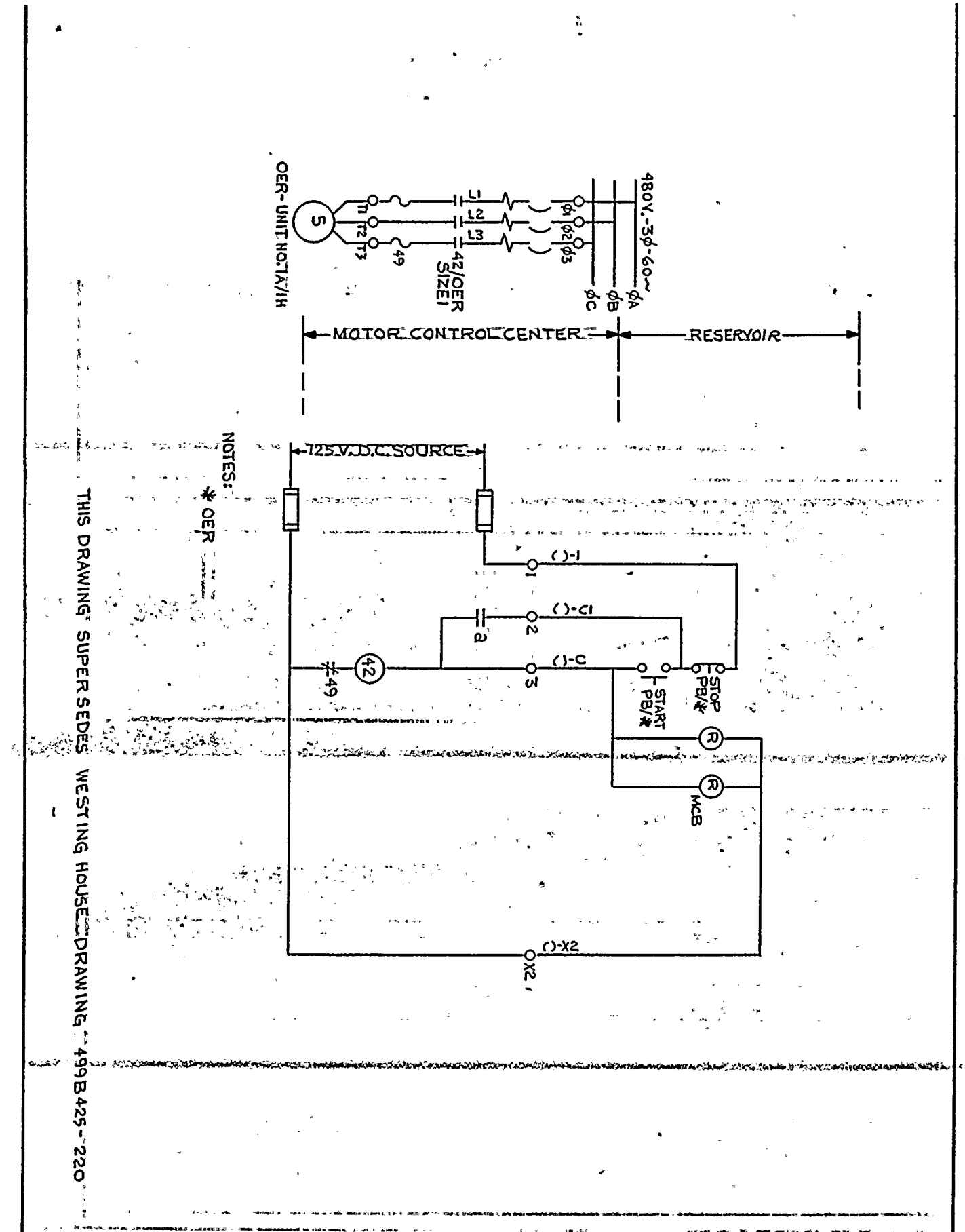
NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL			mjb	Gww	GwD	GwD
				8-25-77	9/2/77	10/12/77	10/21/77



THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING No. 4228425 SHT. 219

REV.						
ORIGINAL						
	DRAWN BY	CK'D	RESP ENG'R	ENG'R MGR	DATE	
		RW	RBA	JEL	4/27/76	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM SERVICE BUILDING ROOF EXHAUST FAN 1G	TRACED			APPROVED
No. 10905-219		CHECKED			FOLDER NO.
		ENG.			JOB NO.



THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-220

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	INITIAL	MJD	RWD	[illegible]	[illegible]
0	ORIGINAL				
	DATE	8-17-77	8/30/77	9/6/77	9/20/77

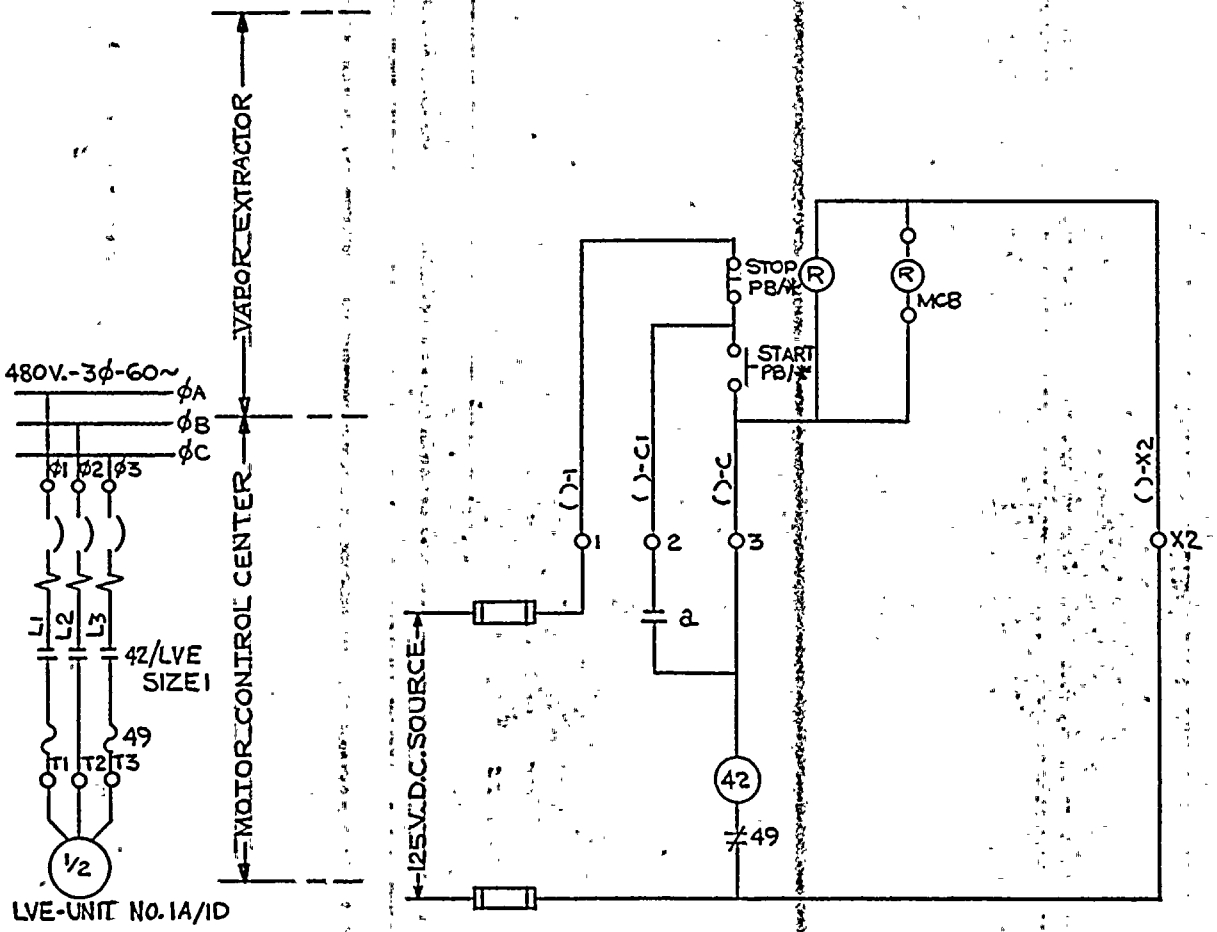
ELEMENTARY WIRING DIAGRAM
VAP. EXT. TURB. OIL RESVR.

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE

JOB NO.	DRAWING NO.	REV.
	10905-220	0



NOTES:

* LVE

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-221

ELEMENTARY WIRING DIAGRAM
LUBE OIL PURIFIER VENT FAN

FACILITY GINNA STATION

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

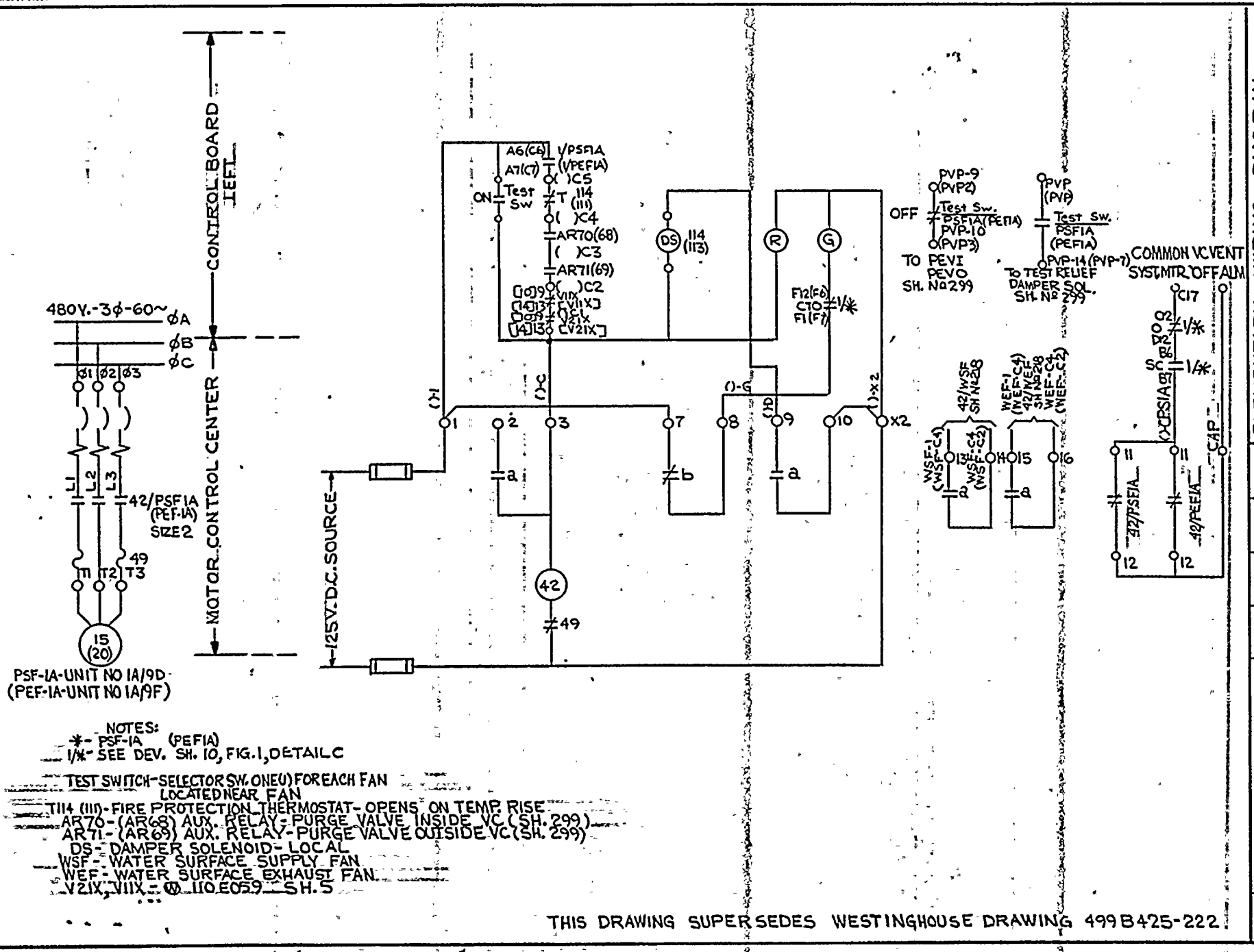
SCALE

JOB NO.

DRAWING NO. 10905-221

REV.

NUMBER	REVISION	DRAWN BY INITIAL	DRAWN BY DATE	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL		MJB	8-23-71	EWJ	RWB	11/8/71



NOTES:
*- PSF-1A (PEF1A)
1/*- SEE DEV. SH. 10, FIG. 1, DETAIL C

TEST SWITCH-SELECTOR SW. ONE(1) FOR EACH FAN LOCATED NEAR FAN
T114 (111)-FIRE PROTECTION THERMOSTAT-OPENS ON TEMP. RISE
AR70-(AR68) AUX. RELAY-PURGE VALVE INSIDE VC (SH. 299)
AR71-(AR69) AUX. RELAY-PURGE VALVE OUTSIDE VC (SH. 299)
DS-DAMPER SOLENOID-LOCAL
WSF-WATER SURFACE SUPPLY FAN
WEF-WATER SURFACE EXHAUST FAN.
V21X, V11X-W 110.E059 SH.5

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-222

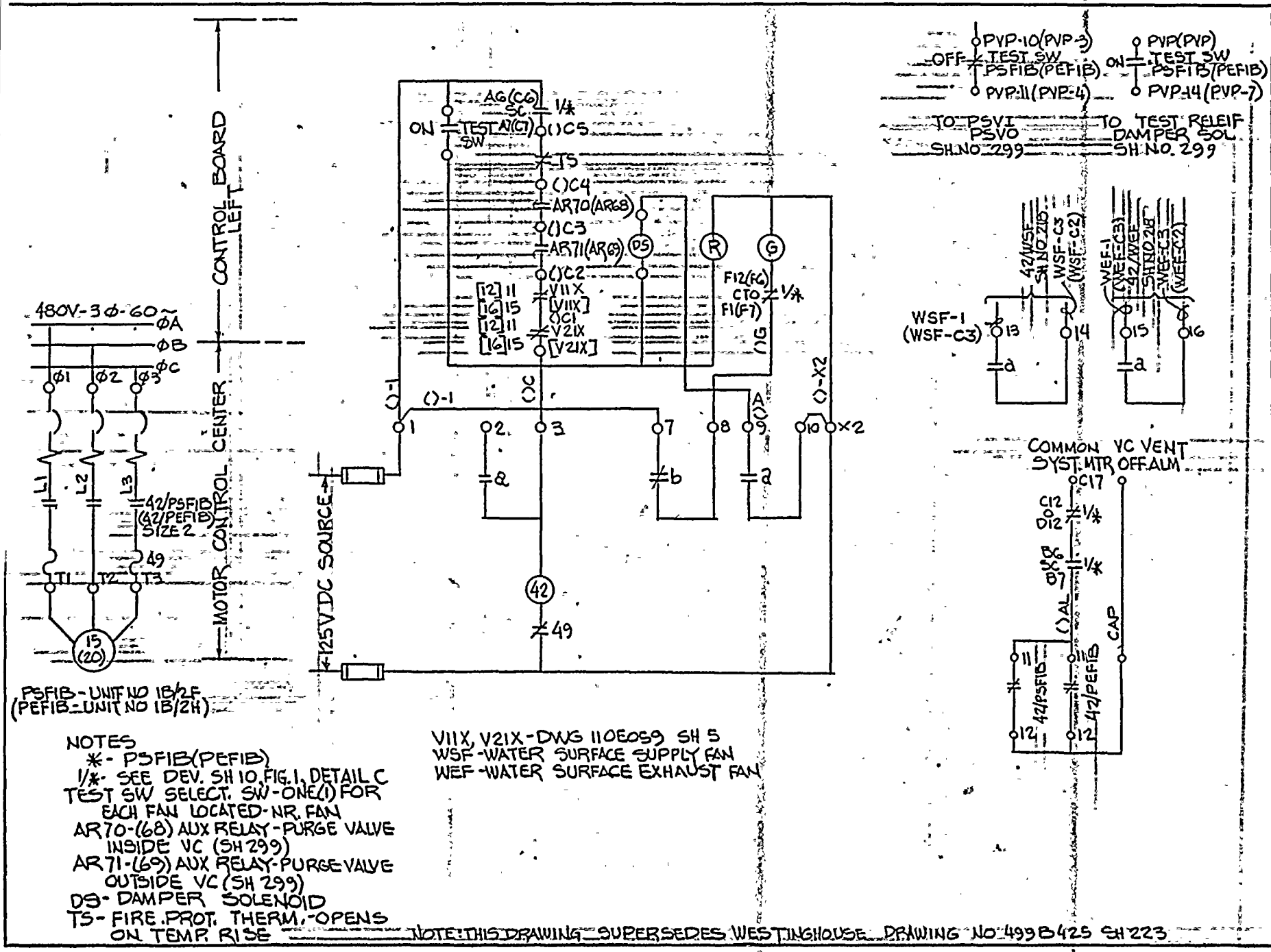
ELEMENTARY WIRING DIAGRAM
CONT PURGE SYSTEM "A"

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STATION
SCALE
JOB NO.
DRAWING NO. 10905-222
REV.

NUMBER	REVISION	DATE	INITIAL
	ORIGINAL	9/11/77	MJB

	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
	MJB	9/27/77	[illegible]	[illegible]



NOTES
*- PSFIB(PEFIB)
1/*- SEE DEV. SH 10, FIG. 1, DETAIL C
TEST SW SELECT. SW-ONE(1) FOR EACH FAN LOCATED-NR. FAN
AR70-(68) AUX RELAY-PURGE VALVE INSIDE VC (SH 299)
AR71-(69) AUX RELAY-PURGE VALVE OUTSIDE VC (SH 299)
DS- DAMPER SOLENOID
TS- FIRE PROT. THERM.-OPENS ON TEMP. RISE

V11X, V21X-DWG 110E059 SH 5
WSF-WATER SURFACE SUPPLY FAN
WEF-WATER SURFACE EXHAUST FAN

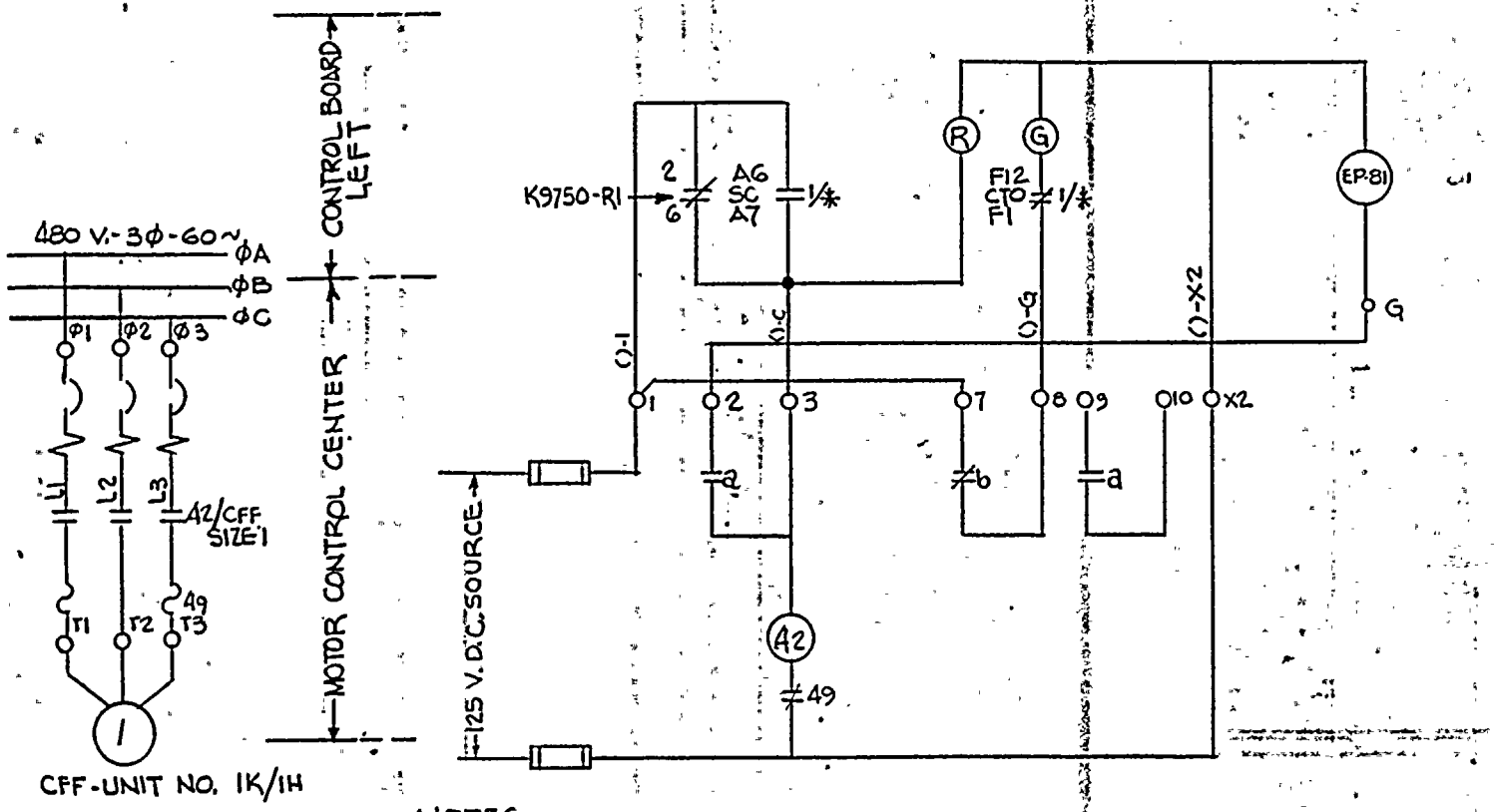
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO 499B425 SH 223

ELEMENTARY WIRING DIAGRAM
CONT. PURGE SYSTEM 1B

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE
JOB NO.
DRAWING NO. 10905-223
REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL			GJF	Bmr	#WD	#WD
				12/4/77	12/5/77	11/30/78	11/30/78



NOTES

* CFF
EP-81 DAMPER SOLENOID - JOHNSON SERVICE, DWG 885-83-8
1/*-SW DEV. SH 10, FIG. 1, DETAIL C
K9750-R1-AUXILIARY RELAY CONTACT AREA I RAD MONITOR SEE TRACER LAB DWG D997586

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH NO. 224

ELEMENTARY WIRING DIAGRAM
CONTROL ROOM CHARCOAL FILTER FAN

FACILITY GINNA SJA

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

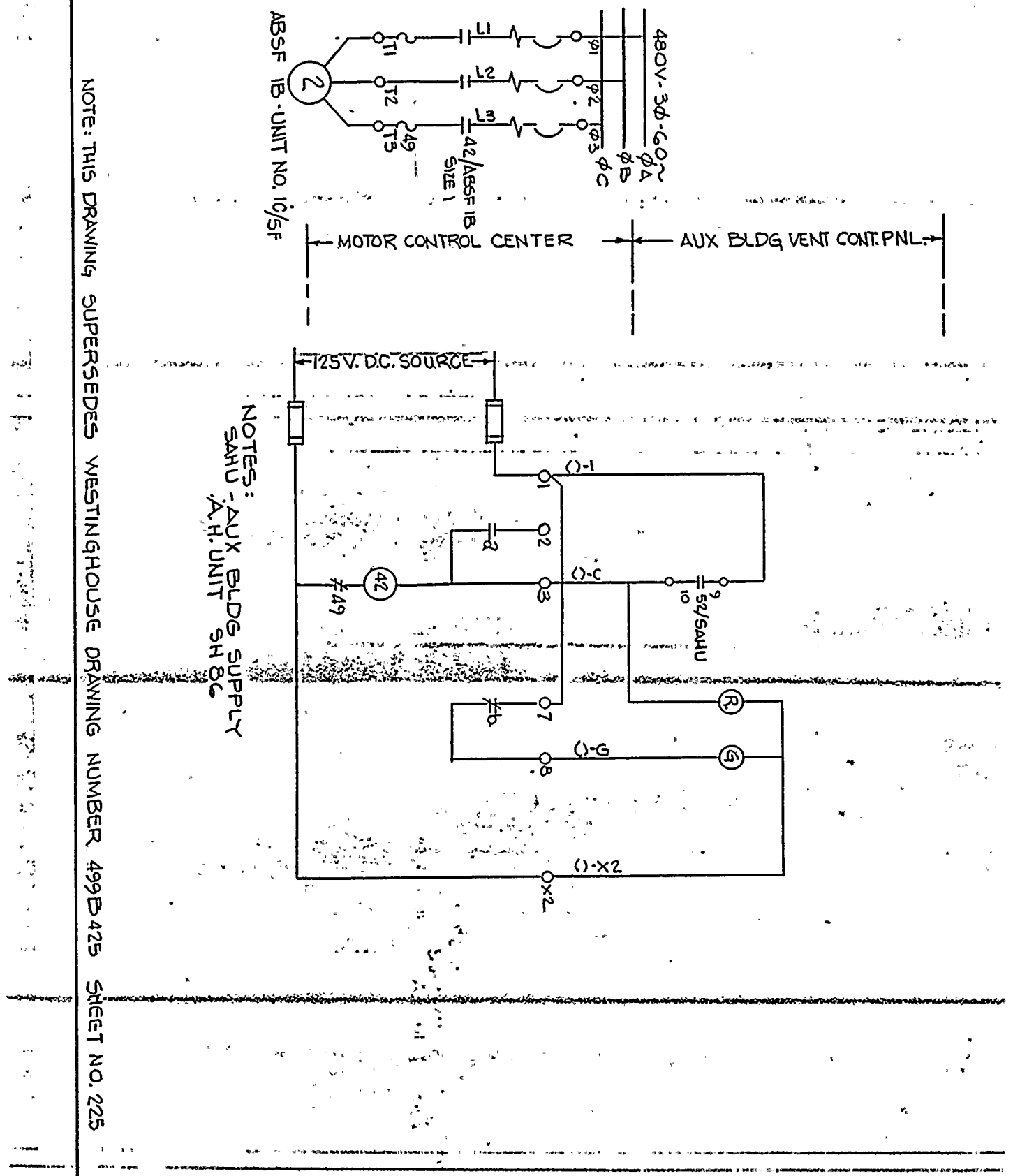
SCALE

JOB NO.

DRAWING NO. 10905-224

REV.

NUMBER	REVISION	DATE	INITIAL	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL				SJF 8/19/77	8/20/77	10/21/77	10/21/77



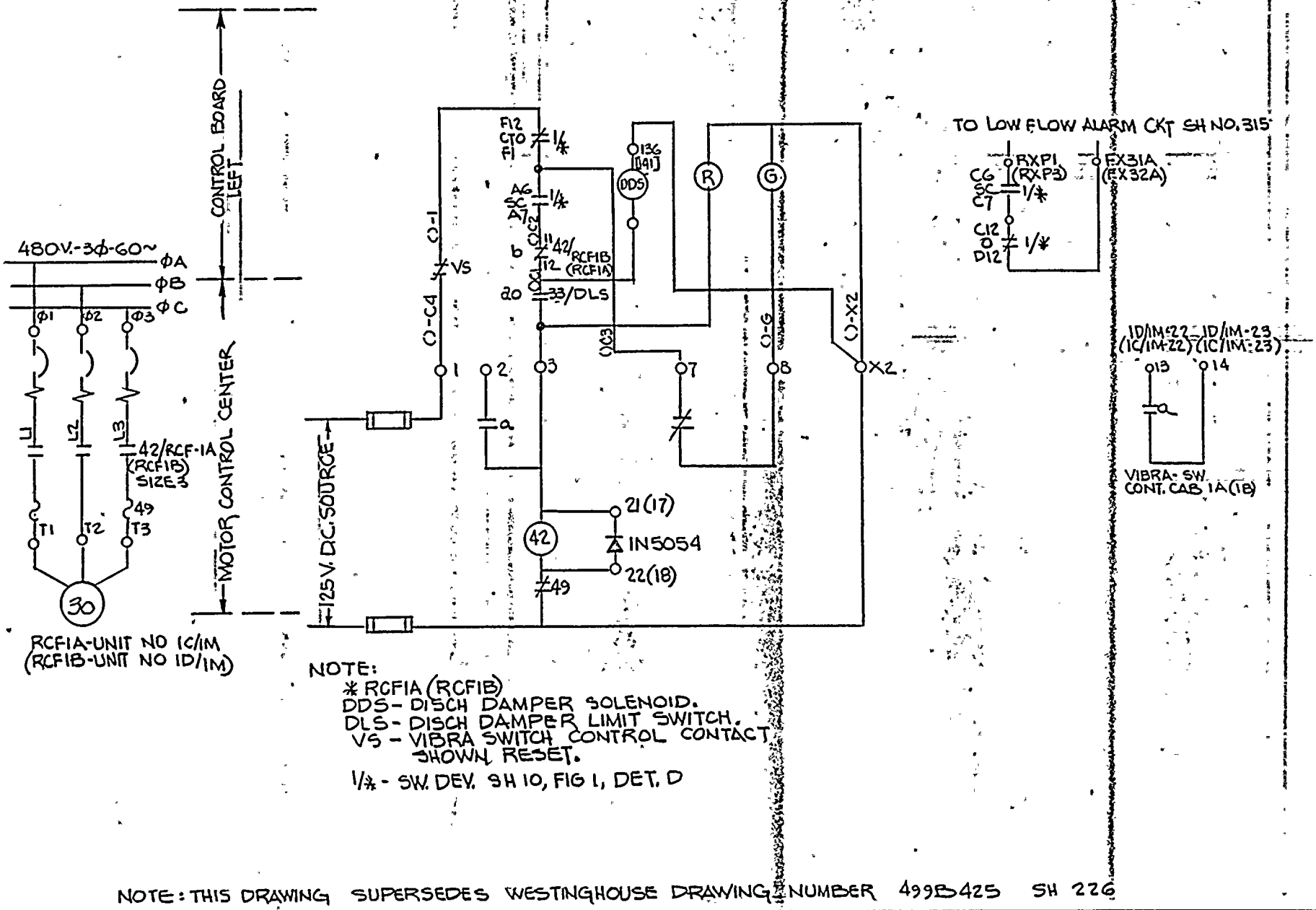
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SHEET NO. 225

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL — INITIAL	GJF	fmw	DeWD	GwD
	DATE	8/22/77	8/30/77	9/20/77	9/20/77

ELEMENTARY WIRING DIAGRAM
AUX BLDG SUPPLY FAN 1B

FACILITY GINNA-STA
ROCHESTER GAS & ELECTRIC CORP
ROCHESTER, NEW YORK
SCALE —

JOB NO.	DRAWING NO.	REV.
	10905-225	A



NOTE:
* RCF1A (RCF1B)
DDS - DISCH DAMPER SOLENOID.
DLS - DISCH DAMPER LIMIT SWITCH.
VS - VIBRA SWITCH CONTROL CONTACT SHOWN RESET.
1/* - SW. DEV. SH 10, FIG 1, DET. D

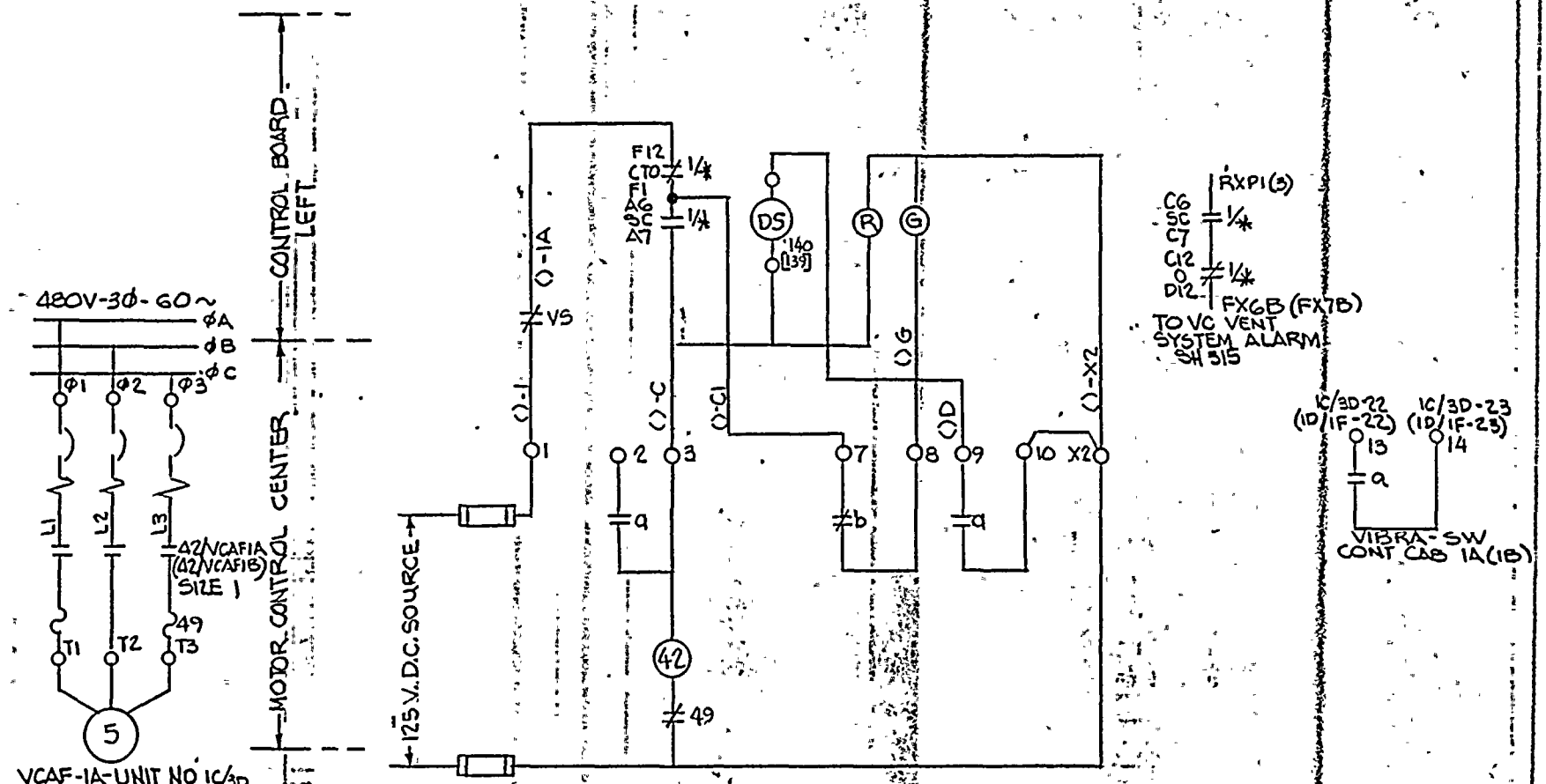
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 226

ELEMENTARY WIRING DIAGRAM
REACTOR COMPT. FAN 1A(1B)

ROCHESTER GAS & ELECTRIC CORP
ROCHESTER, NEW YORK

FACILITY GINNA STA.
SCALE —
JOB NO.
DRAWING NO. 10905-226
REV. 10

NUMBER	REVISION	DRAWN BY	CHECKED	ENG. MANGR.
10	ORIGINAL	GJF 8/23/71	8/26/71	10/20/71



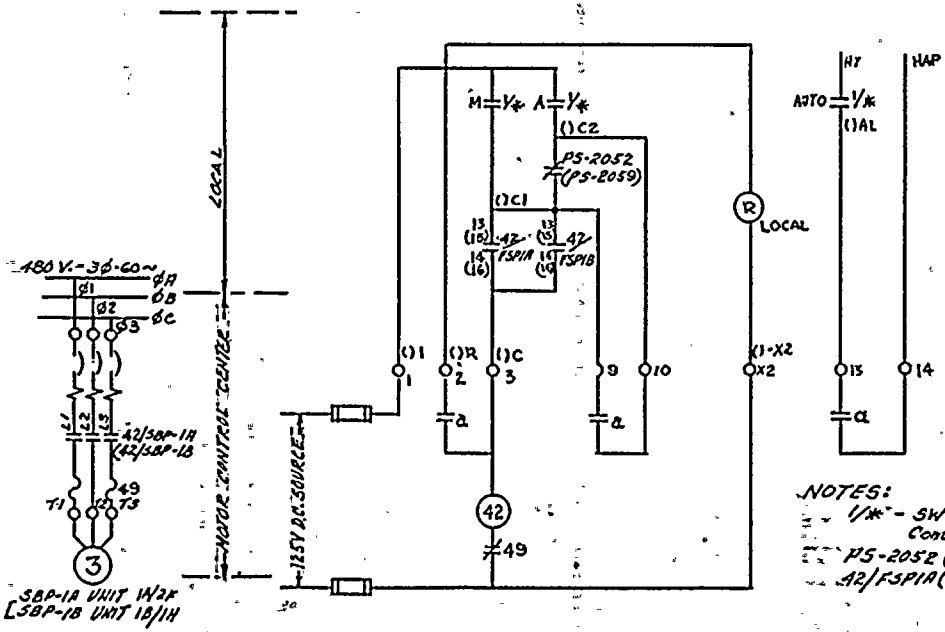
NOTES:
* VCAF-1A (VCAF-1B)
DS - DISCHARGE DAMPER & CHARCOAL FILTER INLET DAMPER SOLENOID
VS - VIBRA SWITCH CONTROL CONTACT SHOWN RESET
1/* - SW DEV SH. 10, FIG 1, DET. C

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 227

ELEMENTARY - WIRING - DIAGRAM
VAPOR CONTAINER AUX. FILTER FAN 1A(1B)

FACILITY GINNA
ROCHESTER GAS & ELECTRIC CORP
ROCHESTER, NEW YORK
SCALE
JOB NO.
DRAWING NO. 10905-227
REV.

NUMBER	REVISION	INITIAL DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL	8/24/11 GJF	8/26/11	10/20/11	10/20/11	



NOTES:

1/* - SW. DEV. 14, SH.13 Three Position Maintained Contact Except Nameplate To Read Auto-Off-Man.

PS-2052 (PS-2059) Seal Diff. Press. Sw.

42/FSP1A(1B) FEED Pump Seal Drain Pump - SH. 176

REV.								
ORIGINAL		N.J.A.	RHM 4/14/75	Apd	Lcm	6/5/75	DATE
		DRAWN BY	CK'D	RESP. ENG'R.	ENG'R MGR.		

DRAWN	N.J.A.	DATE 4-14	SCALE	NONE
TRACED			APPROVED	
CHECKED			FOLDER NO.	
ENG.			JOB NO.	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING

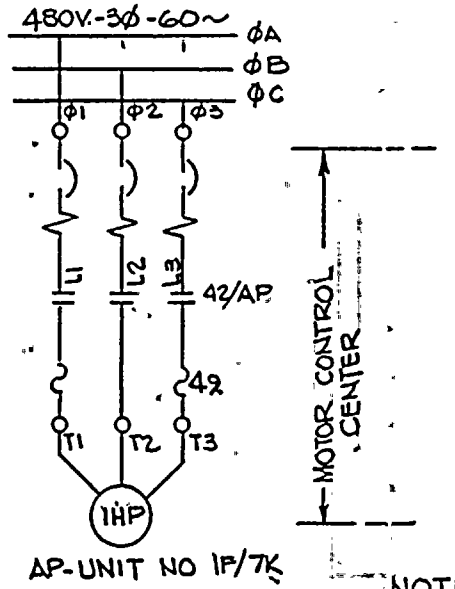
ROBERT EMMETT SMYTH NUCLEAR POWER STATION UNIT I

ELEMENTARY WIRING DIAGRAM

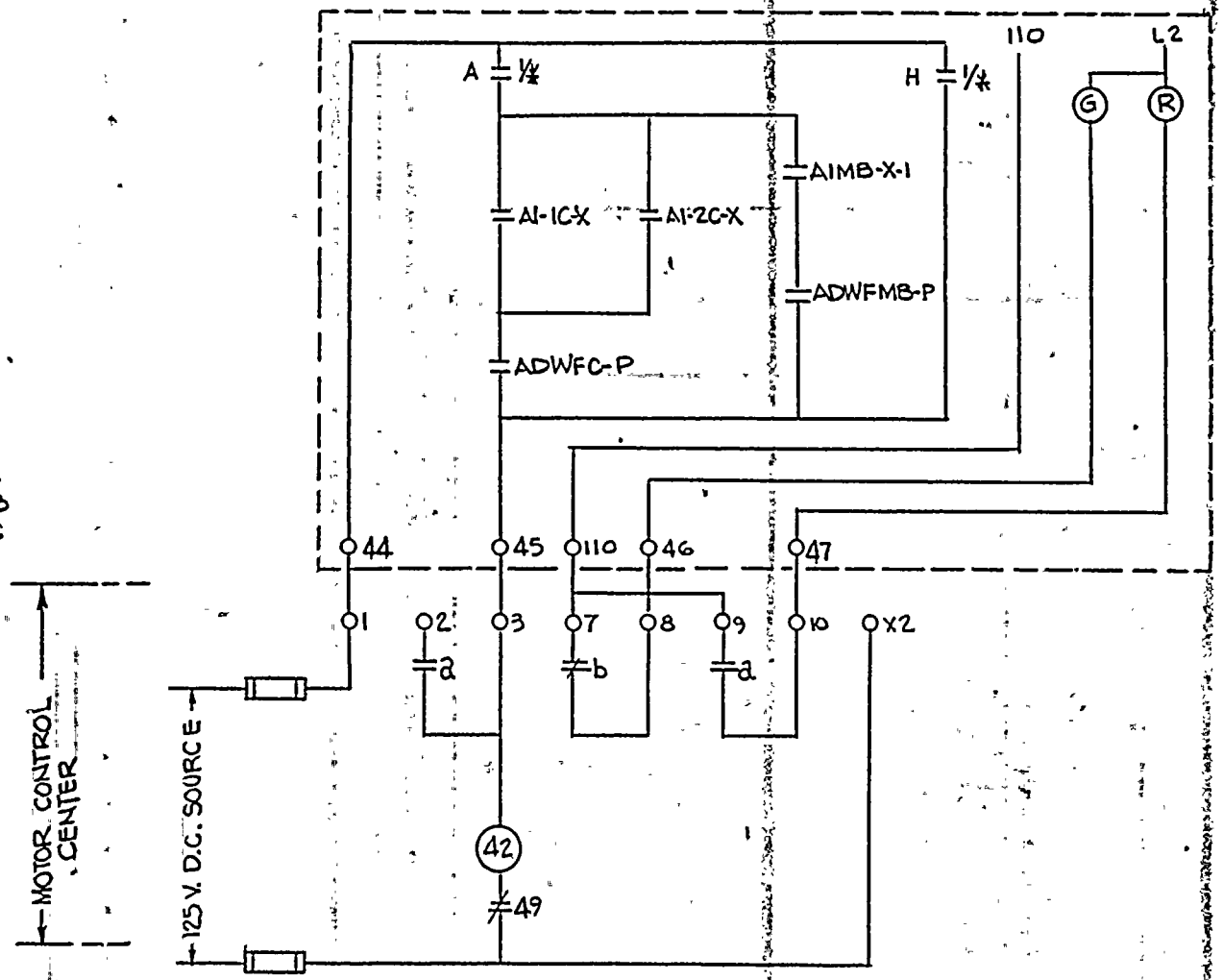
F.W. PUMP SEAL DIFF. BOOSTER PUMP 1A (1B)

NO. 10905-2128

THIS DRAWING SUPERCEDES
WESTINGHOUSE DRAWING
499B425, SHT. 228, (REV. 1)



AP-UNIT NO 1P/7K



NOTES:
1/*-AP
DOTTED PORTION REPRESENTS ILLCO PACKAGE COMPONENTS
REFERENCE DRAWING
ILLCO FE 2045-15D SH5.

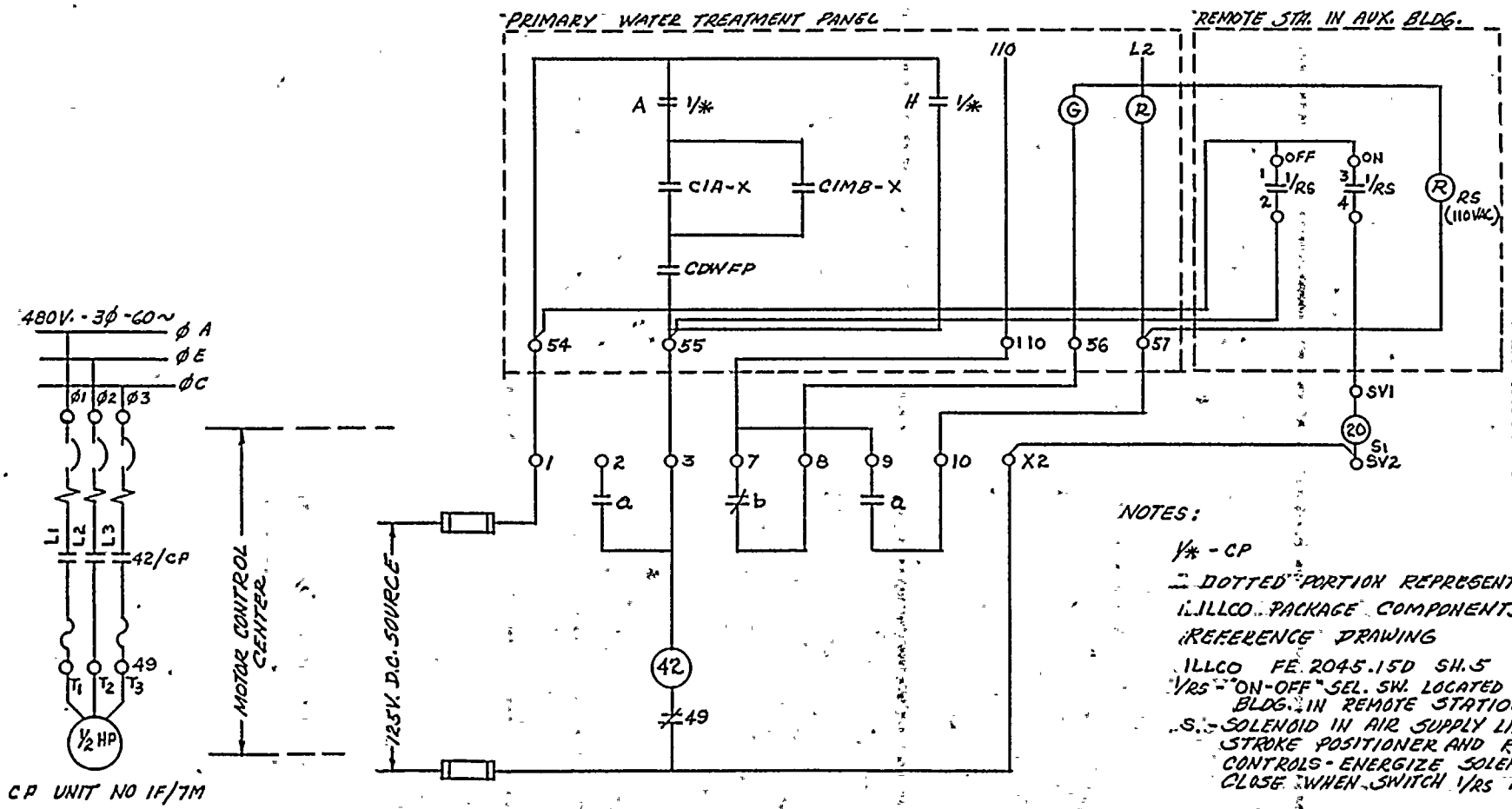
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SHEET 229

ELEMENTARY WIRING DIAGRAM
ACID PUMP

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE
JOB NO.
DRAWING NO. 10905-229
REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL			GJF 8/25/71	ewv 9/8/71	Hwb 9/8/71	Hwb 9/8/71



NOTES:

1/* - CP

DOTTED PORTION REPRESENTS ILLCO PACKAGE COMPONENTS

REFERENCE DRAWING ILLCO FE 2045.15D SH.5

1/RS - "ON-OFF" SEL. SW. LOCATED N. AUX. BLDG. IN REMOTE STATION

S - SOLENOID IN AIR SUPPLY LINE BTWN. STROKE POSITIONER AND REGEN. CONTROLS - ENERGIZE SOLENOID TO CLOSE WHEN SWITCH 1/RS IS ON

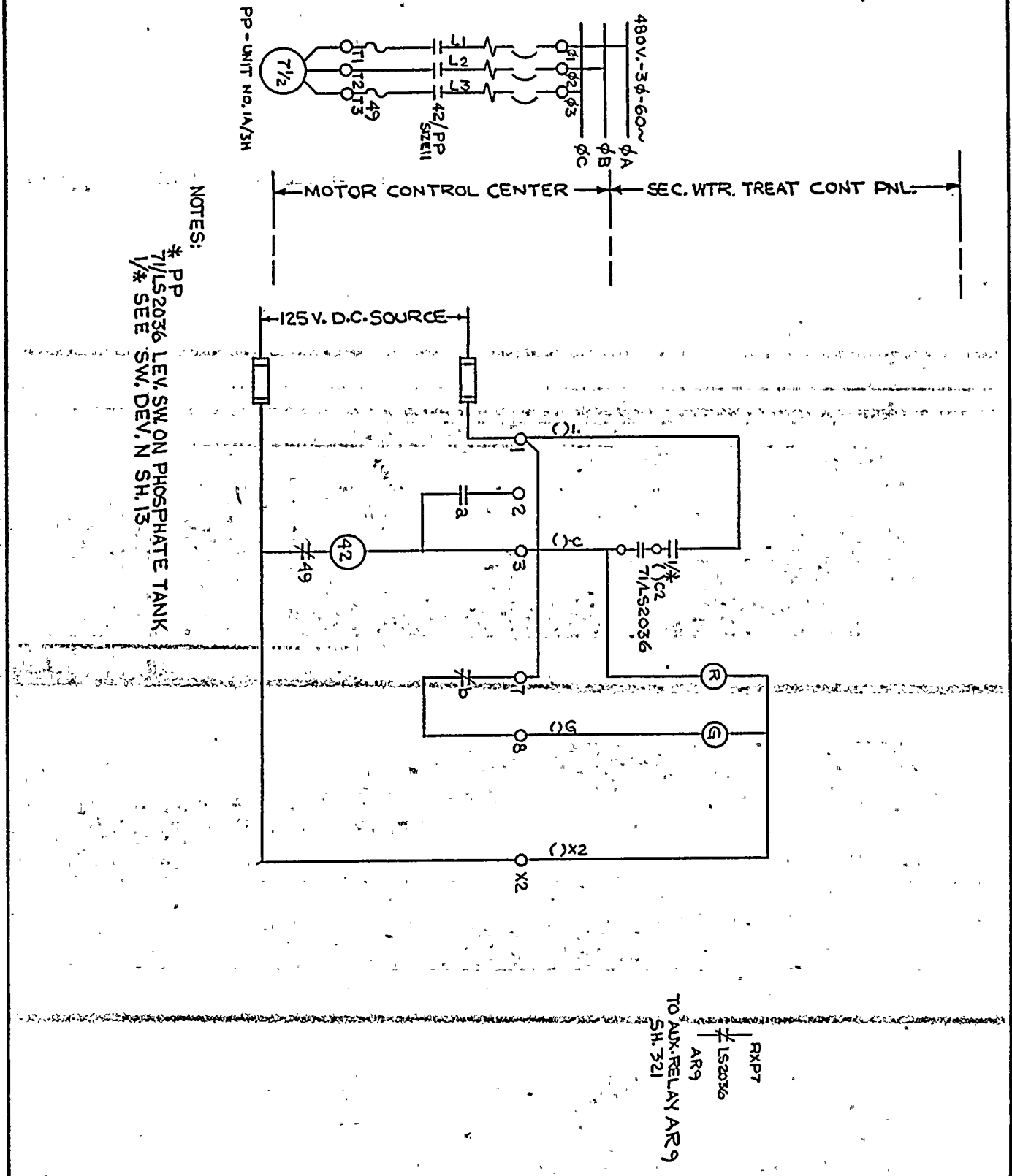
This Dwg. Supercedes Westinghouse Dwg. 4994255 Sh. 230 (Rev. 4)

REV.						
ORIGINAL		N.J.A.	R.H.M. 4/14/75	PCK	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING
No. 10905-230

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT I
ELEMENTARY WIRING DIAGRAM
CAUSTIC PUMP

DRAWN	BY N.J.A.	DATE 9-72	SCALE ALONE
TRACED			APPROVED
SUCCEED			FOLDER NO.
ENG.			JOB NO.



THIS DRAWING SUPERSEDES WESTINGHOUSE 499B425-231

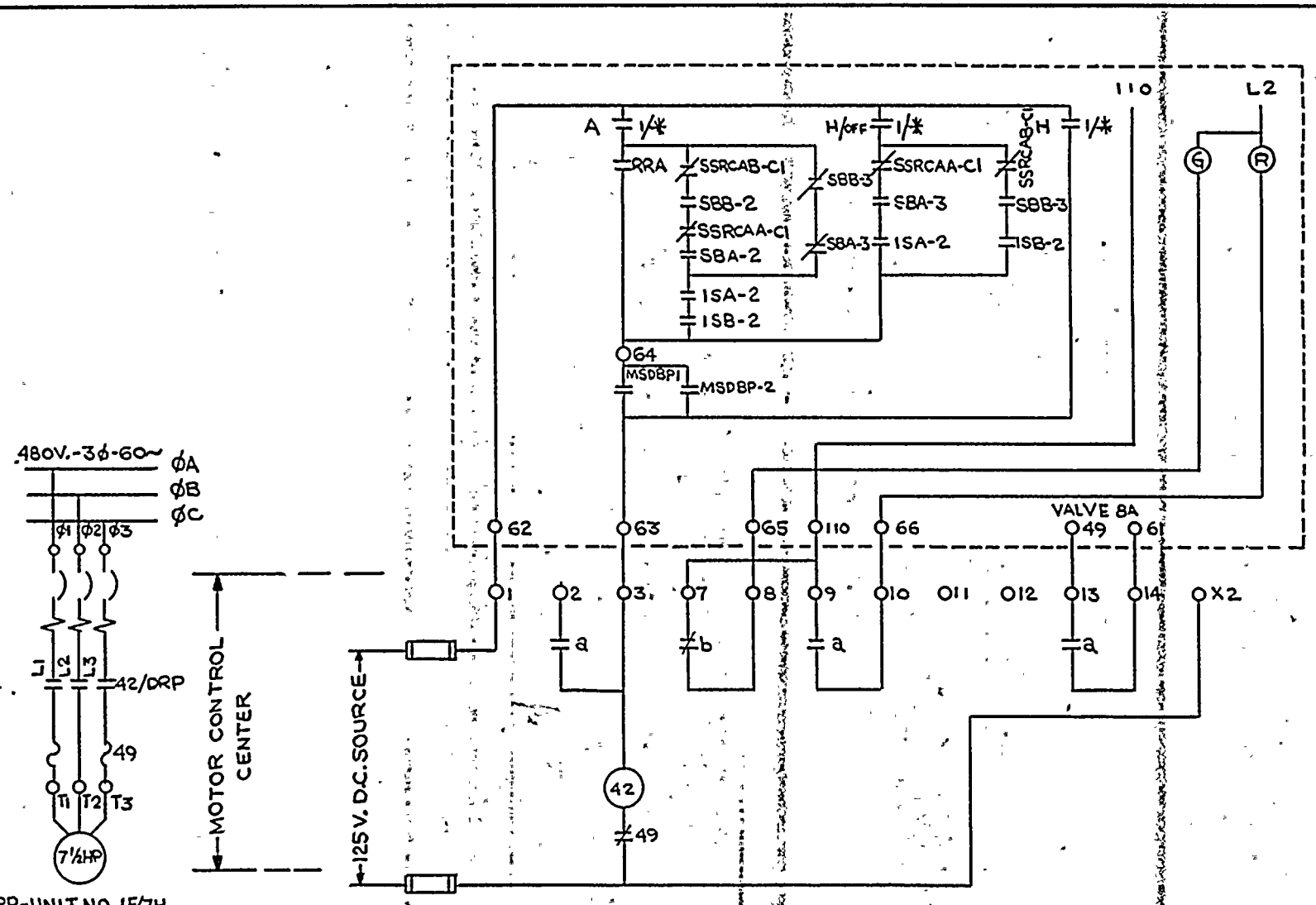
NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL — INITIAL	MGP	RW	BWH	BWH
	DATE	12/6/77	12/6/77	1/24/78	4/20/78

ELEMENTARY WIRING DIAGRAM
PHOSPHATE PUMP

FACILITY GINNA STATION
SCALE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-231	0



NOTES:

1/*-DRP
DOTTED PORTION REPRESENTS ILLCO PACKAGE COMPONENTS.
REFERENCE DRAWING
ILLCO FE2045.15 D SH. 6

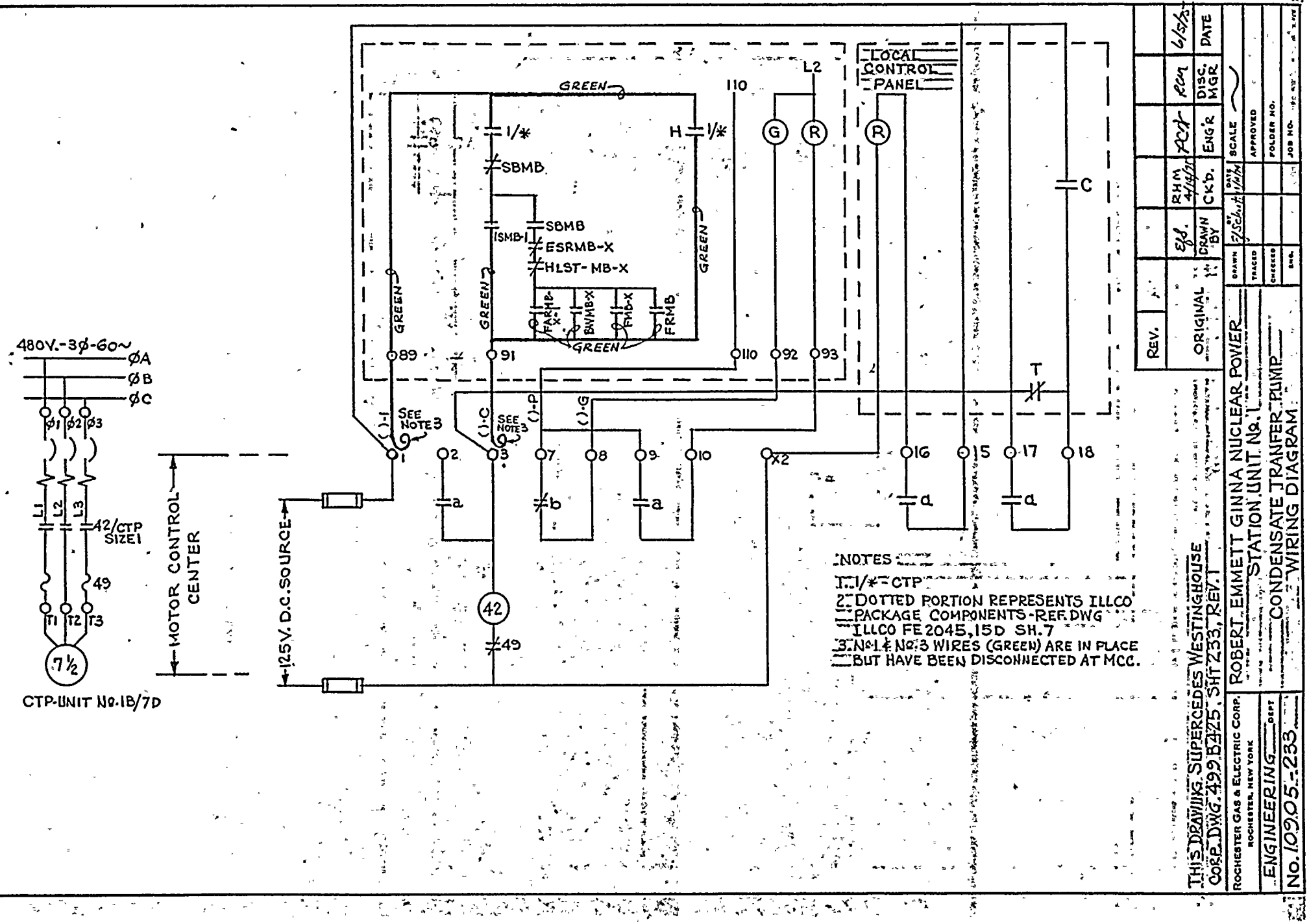
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-232

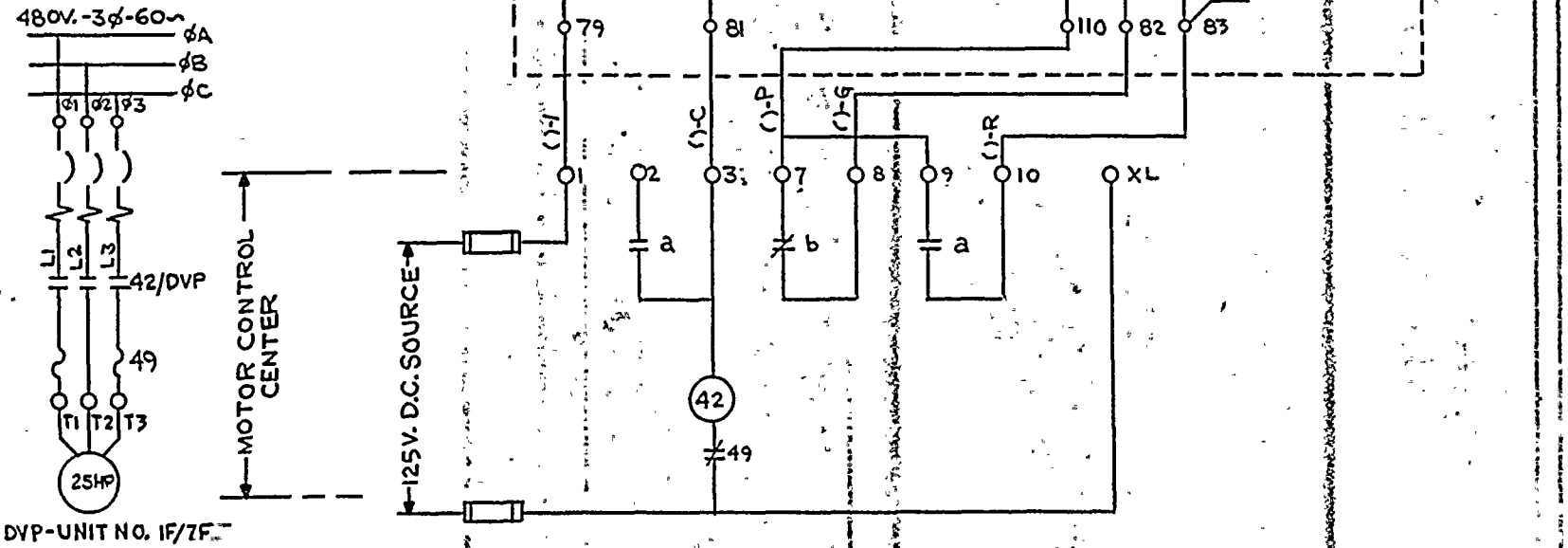
ELEMENTARY WIRING DIAGRAM
DEMINERALIZER RECIRC. PUMP

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STATION
SCALE
JOB NO.
DRAWING NO. 10905-232
REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL				12/13/67	12/15/67	1/17/68	1/17/68


480V.-3φ-60~
φA
φB
φC
φ1
φ2
φ3
L1
L2
L3
42/CTP SIZE1
49
T1
T2
T3
7½
CTP-UNIT No.1B/7D
MOTOR CONTROL CENTER
125V. D.C. SOURCE
LOCAL CONTROL PANEL
L2
GREEN
110
1/*
SBMB
SBMB
ESRMB-X
HLST-MB-X
1SMB-1
FARMB-X
BWMB-X
FMB-X
FRMB
H
G
R
C
T
SEE NOTE 3
( )-I
( )-C
( )-P
( )-G
89
91
92
93
1
2
3
7
8
9
10
X2
16
15
17
18
a
b
42
49
NOTES
1. 1/* = CTP
2. DOTTED PORTION REPRESENTS ILLCO PACKAGE COMPONENTS - REF. DWG ILLCO FE 2045, 15D SH. 7
3. No. 1 & No. 3 WIRES (GREEN) ARE IN PLACE BUT HAVE BEEN DISCONNECTED AT MCC.
REV.
ORIGINAL
DRAWN
TRACED
CHECKED
ENG.
Ejd.
RHM 4/14/61
ACP
RCM
6/5/61
DRAWN BY
CK'D.
ENG'R
DISC. MGR
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
CONDENSATE TRANFER PUMP WIRING DIAGRAM
No. 10905-233
THIS DRAWING SUPERCEDES WESTINGHOUSE CORP. DWG. 499B325, SHT 233, REV. 1



NOTES:

* - DVP DOTTED PORTION REPRESENTS ILLCO PACKAGE COMPONENTS REFERENCE DRAWING ILLCO FE2045.15D SH. 6

THIS DRAWING SUPERSEDES WESTINGHOUS DRAWING 499B425-234

ELEMENTARY WIRING DIAGRAM
DEGASIFIER VACUUM PUMP

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

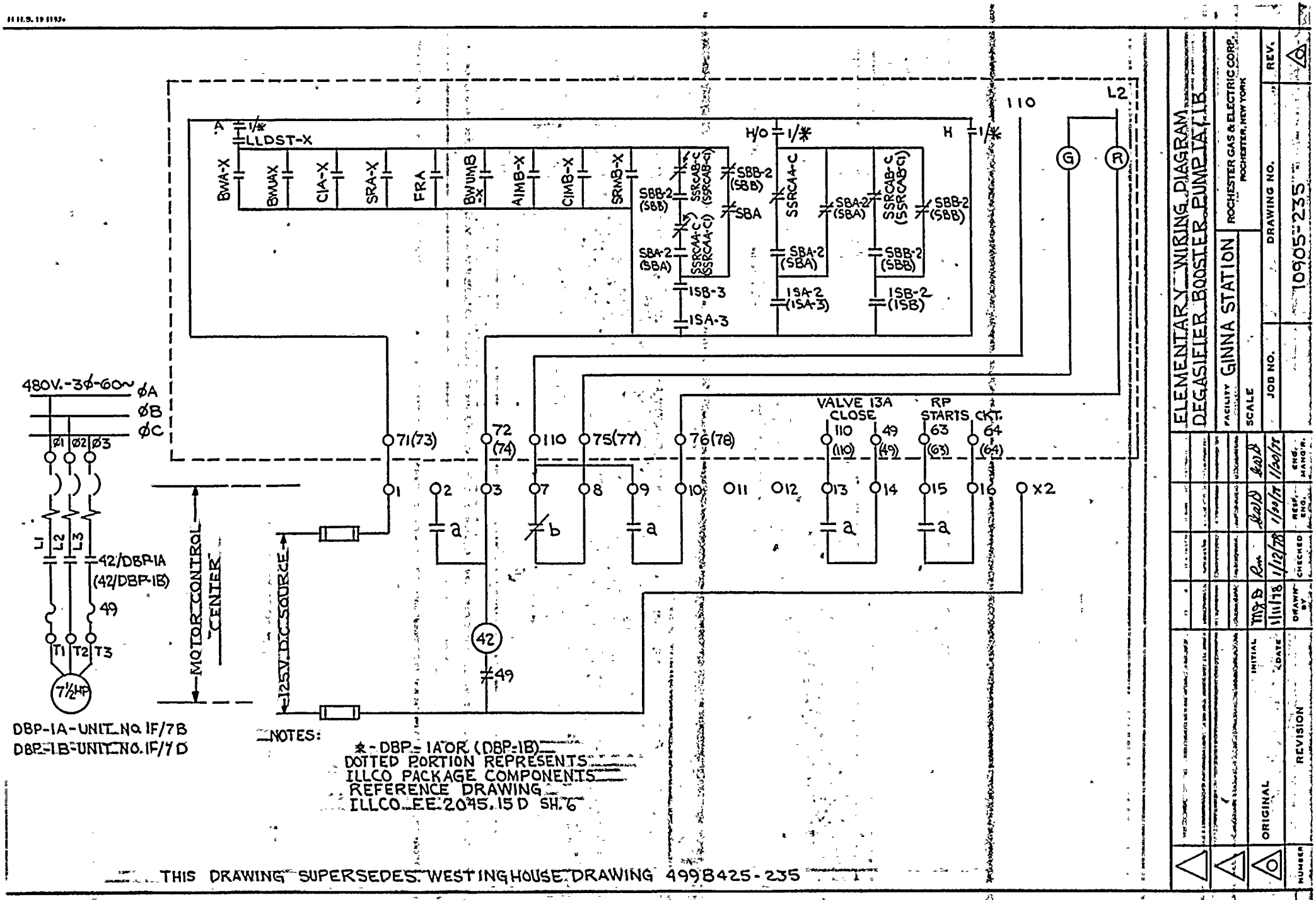
SCALE

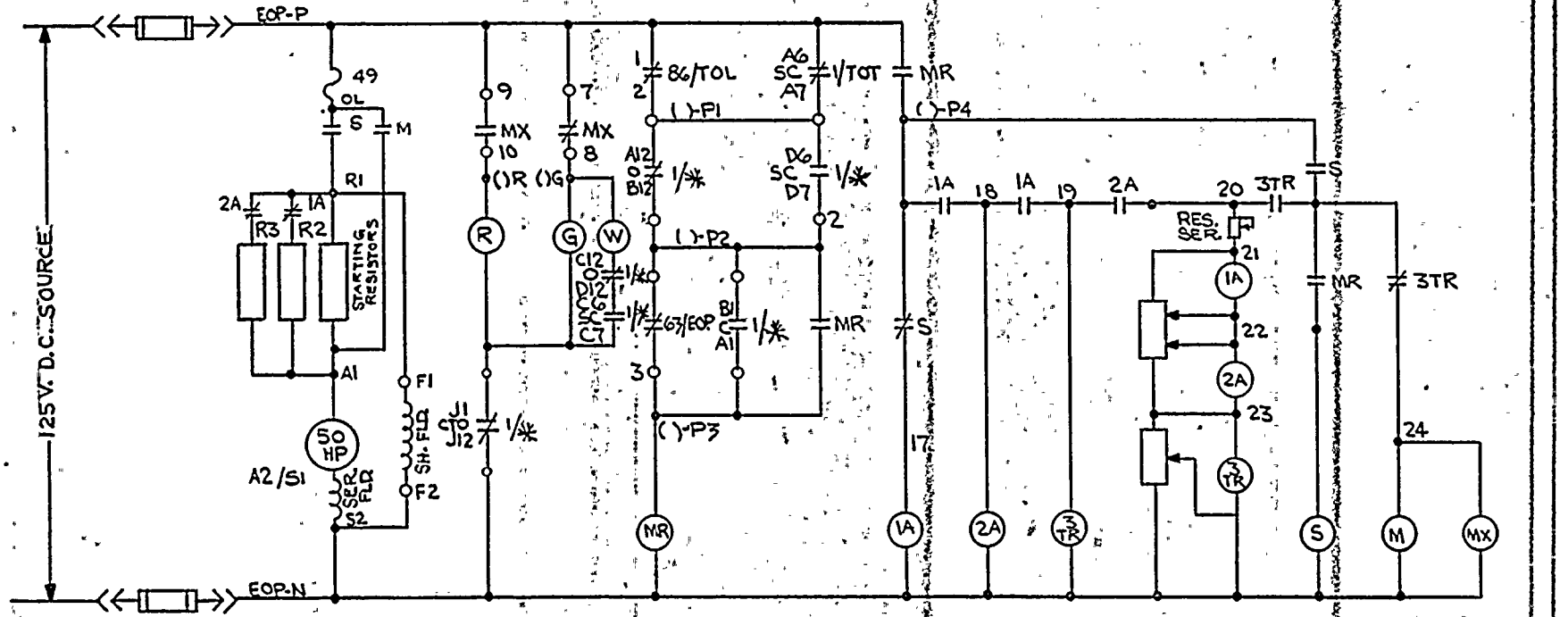
JOB NO.

DRAWING NO. 10905-234

REV. 0

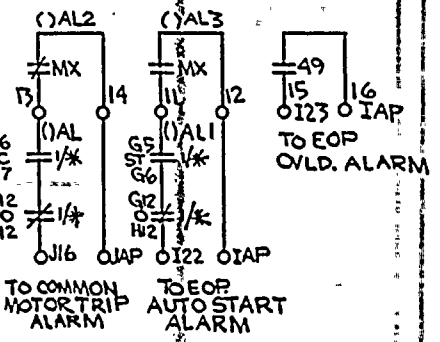
NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL	MJD	12/29/77	Penn	1/2/78	Ward	Reed 1/20/78


ELEMENTARY WIRING DIAGRAM
DEGASIFIER BOOSTER PUMP 1A/1B
FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE
JOB NO.
DRAWING NO. 10905-235
REV.
ORIGINAL
REVISION
INITIAL
DATE
DRAWN BY
CHECKED
RESP. ENG.
ENG. MANGR.
480V.-3ϕ-60~
ϕA
ϕB
ϕC
ø1 ø2 ø3
L1 L2 L3
42/DBP-1A
(42/DBP-1B)
49
T1 T2 T3
7½HP
MOTOR CONTROL CENTER
125V. DC SOURCE
DBP-1A-UNIT NO. 1F/7B
DBP-1B-UNIT NO. 1F/7D
A
H/O
H
1/*
LLDST-X
BWA-X
BWUAX
C1A-X
SRA-X
FRA
BWUMB-X
A1MB-X
C1MB-X
SRMB-X
SBB-2 (SBB)
SSRCAB-C (SSRCAB-C1)
SBA
SSRCA4-C (SSRCA4-C1)
SBA-2 (SBA)
1SB-3
1SA-3
SSRCA4-C
SBA-2 (SBA)
1SA-2 (1SA-3)
SSRCAB-C (SSRCAB-C1)
SBB-2 (SBB)
1SB-2 (1SB)
110
L2
G
R
71(73)
72 (74)
110
75(77)
76(78)
VALVE 13A CLOSE
110 (110)
49 (49)
RP STARTS CKT.
63 (63)
64 (64)
1 2 3 7 8 9 10 O11 O12 13 14 15 16 X2
a
b
a
a
a
42
49
NOTES:
*-DBP-1A OR (DBP-1B)
DOTTED PORTION REPRESENTS
ILLCO PACKAGE COMPONENTS
REFERENCE DRAWING
ILLCO EE 2045.15 D SH. 6
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-235



NOTES:

1. * - EOP (CONT. BD. RIGHT SECT.).
2. 1/* - SWITCH DEV. SH. 11 FIG. 3, DET. D
3. 63/EOP - BRG OIL PRESS SW. AT TURB. CLOSES ON DEC. PRESS @ 6-7 PSIG.
4. 86/TOL - TURBINE BEARING OIL LOCKOUT SH. 327
5. 1/TOT - TURBINE BEARING OIL TRIP SWITCH SH. 327
6. REF. W G47C195 - F2395
   W G66C549



THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-236

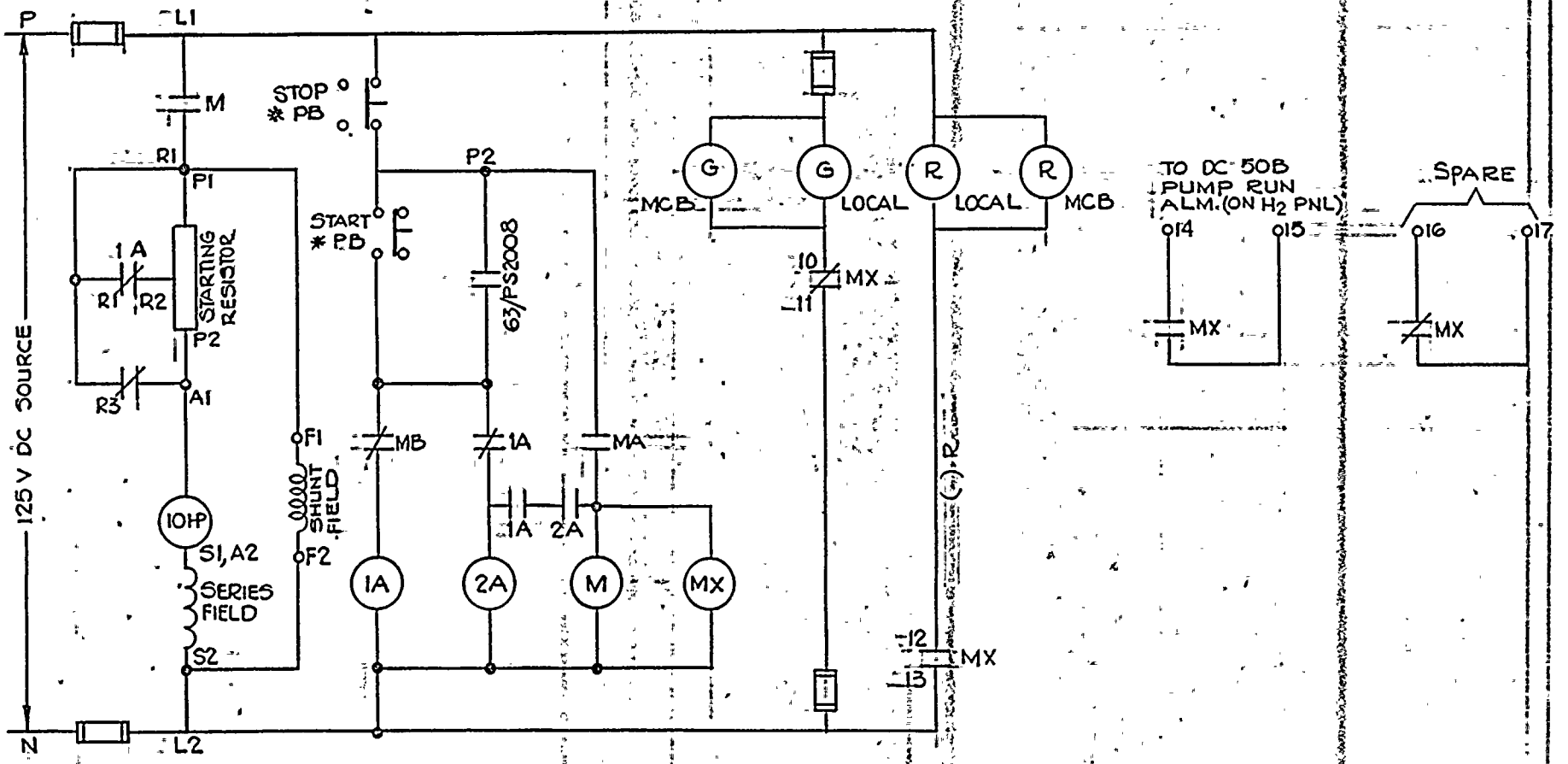
NUMBER	REVISION	DRAWN BY	CHECKED	REQD. MFGR. APPR.	ENG'G. MANUFR. APPR.
ORIGINAL		MJD 11/15/78	EWS 11/16/78	EWS 8/12/79	EWS 8/12/79

INITIAL / DATE

ELEMENTARY WIRING DIAGRAM
EMERG. OIL PUMP

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STATION
SCALE
JOB NO.
DRAWING NO. 10905-236
REV.



* DENOTES DC-50B
PUSHBUTTON STATION AND RED AND GREEN LIGHT MOUNTED LOCALLY. (W) CLASS 8522B WITH 3 POINT ACCELERATION AND SIZE 3 STARTER.

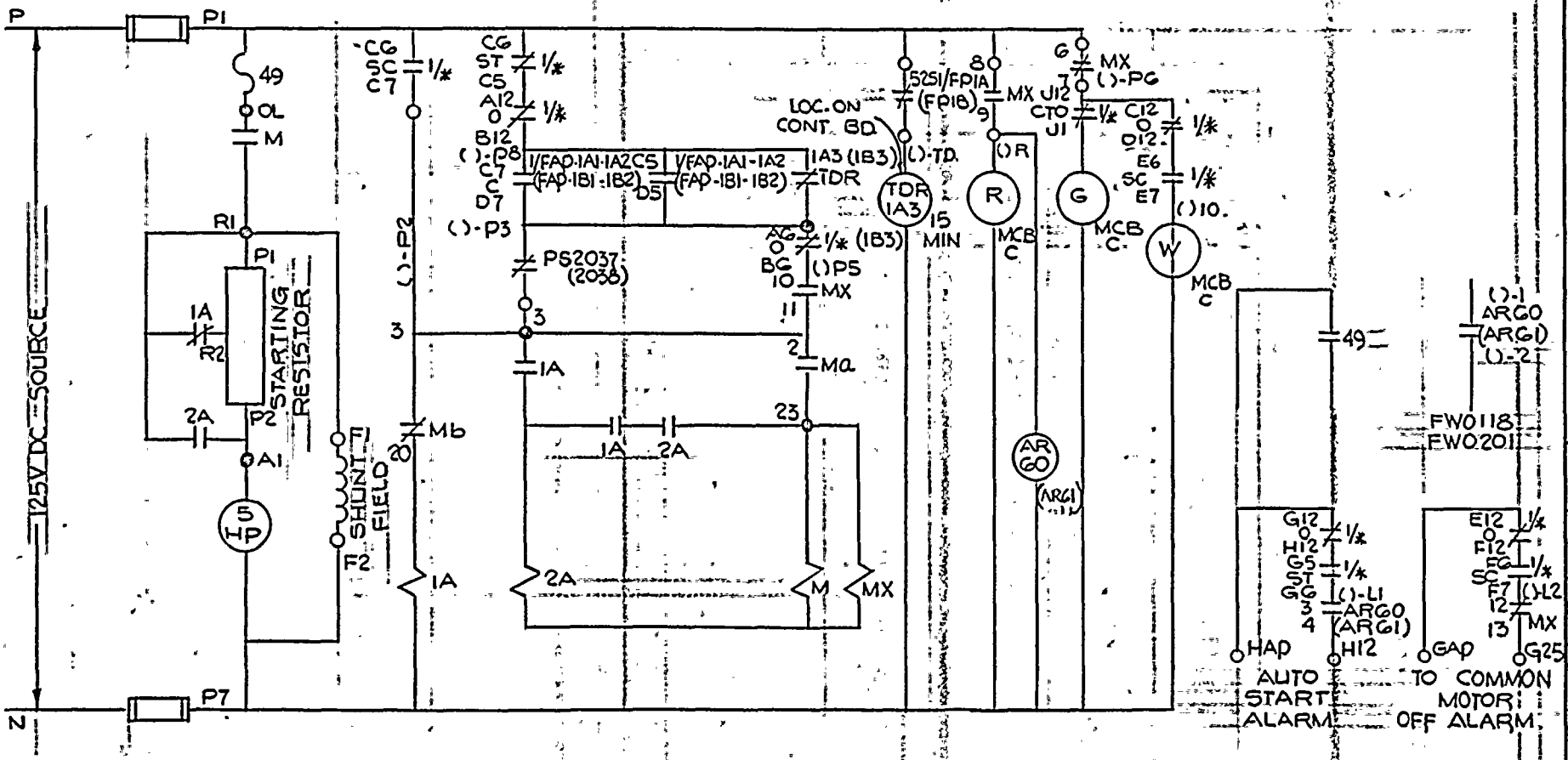
NOTE:
THIS DWG SUPERSEDES WESTINGHOUSE DWG 499B425 SHEET 237 REV 2

ELEMENTARY WIRING DIAGRAM
AIR SIDE DC SEAL OIL BACK UP PUMP

FACILITY GINNA STA.
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE
JOB NO.
DRAWING NO. 10905-237
REV. 0

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL	INITIAL ASM DATE 10/12/67	Asm 12/6/67	Asm 12/6/67	Asm 12/6/67	12/6/67



NOTES:
*-FAOD-1A (FAOP-1B).
1/*-SEE DEV. SH.11, FIG.3, DET.D
TDR 1A3(1B3) TIME DELAY (SET AT 15 MIN)
FP1A (FP1B)-SH.30.
ARGO-AUX. RELAYS LOC.
(ARG1) ON RELAY RACK RA1.
THIS DWG SUPERCEDES WEST. DWG. NO. 4998425-238

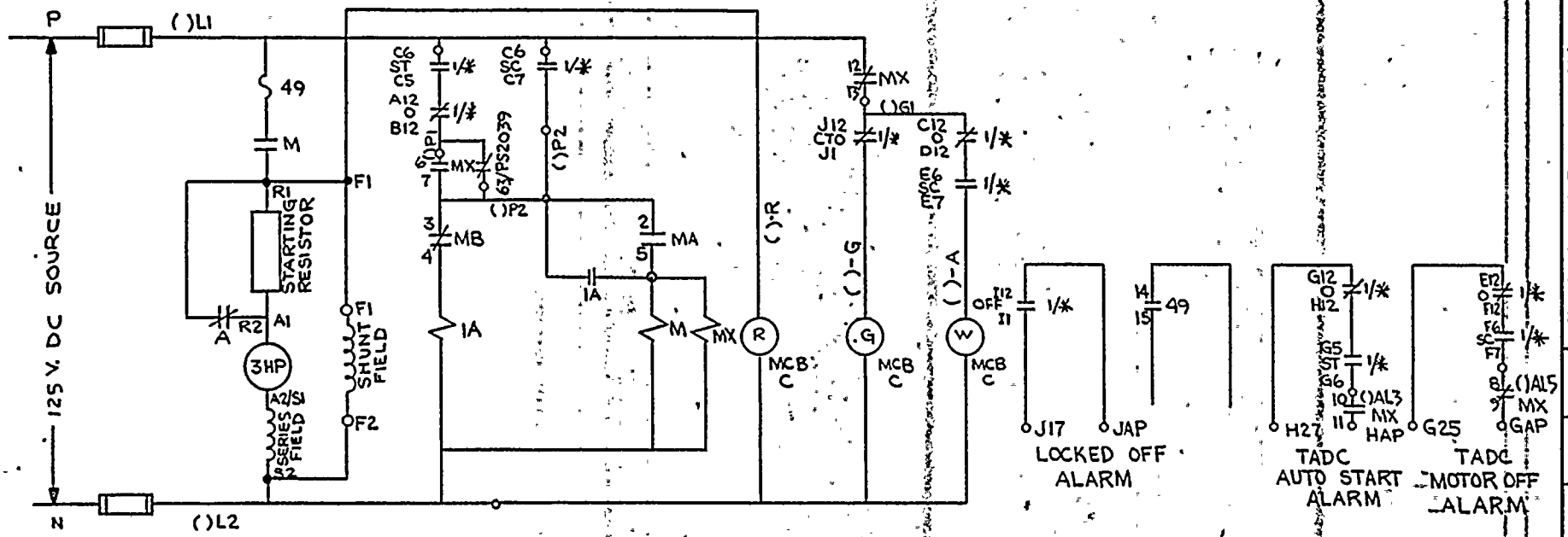
ELEMENTARY WIRING DIAGRAM
STM. GEN. FDWTR PUMP DC.
AUX. OIL PUMP 1A (1B)

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA
SCALE
JOB NO.
DRAWING NO. 10905-238
REV. A

NUMBER	REVISION	DATE	INITIAL
0	ORIGINAL	8/9/78	DH

DRAWN BY DH 8/9/78
CHECKED Cwd 8/10/78
RESP. ENG. gw 9/13/78
ENG. MANG'R. 9/22/78



NOTES

1. * TADC (CONT. BD-CTR. SECT.)
2. 1/* SEE DEV- SH 11, FIG. 3, DETAIL D
3. 63/PS2039 CLOSES ON PRESS DROP
4. SIZE 1 STARTER

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-239

ELEMENTARY WIRING DIAGRAM
TURB. DRVN. AUX. SGEW. PUMP D.C. AUX. OIL PUMP

FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE
JOB NO.
DRAWING NO. 10905-239
REV.

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL		MRR	1/5/78	Lmw	1/11/78	Lmw	1/30/78

VALVE NO. MCC NO	FIG/SH	SW/SH	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
313 1C/13J SEAL WATER RETURN ISOL.	9/288	C/12	O/FAI	CB	1C/13J C2 1 C 1 C 5 10X 5 20X 1C/13J-C	110E059 SH 5
350 1D/11M EMER. BORATE	1/280	C/12	C/FAI	CB		
515 1C/6C PRESS. REL. STOP	1/280	C/12	O/FAI	CB		
516 1D/6C PRESS. RELEIF STOP	1/280	C/12	O/FAI	CB		
700 1C/7F R.H.R. SUCTION STOP FROM LOOP A	6/285	C/12	C/FAI	CB	1 1C/7F-01 5 PC420X 10 1C/7F-01A 14 850AX 10 1C/7F-01B 14 850BX 1C/7F-02	110E074 SH. 1,2&3 SH 305
701 1D/7F R.H.R. SUCTION STOP FROM LOOP A	6/285	C/12	C/FAI	CB	11 1D/7F-01 15 850AX 11 1D/7F-01A 15 850BX 1D/7F-02	110E074 SH 2&3 SH 305
720 1C/7C R.H.R. DISCHARGE TO LOOP B	1/280	C/12	C/FAI	CB		
721 1D/7C R.H.R. DISCHARGE TO LOOP B	6/285	K/13	C/FAI	CB	4 1D/7C-01 8 PC-420X 1D/7C-02	110E074 SH 1
738A 1C/9M C.C. TO 1A R.H.R. HX	1/280	C/12	C/FAI	CB		
738B 1D/9M C.C. TO 1B R.H.R. HX	1/280	C/12	C/FAI	CB		
704A 1C/15F 1A R.H.R. PUMP SUCT.	13/278	C/12	O/FAI	CB		
704B 1D/16M 1B R.H.R. PUMP SUCT.	13/278	C/12	O/FAI	CB		

OPER. MODE
- O- NORMALLY OPERATED OPEN
- C- NORMALLY OPERATED CLOSED
- X- NORMALLY OPERATED OPEN & CLOSED
- FC- FAILED CLOSED
- FO- FAILED OPEN
- FAI- FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT LOCATIONS:
- L- LOCAL
- CB- CONTROL BOARD
- SR- SAMPLE ROOM
- BWP- BORON RECYCLE & WASTE DISPOSAL PANEL

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH 240

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	ORIGINAL	INITIAL JF	BNW	KWD	KWD
		DATE 11/9/77	12/9/77	7/18/78	7/18/78

ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

FACILITY GINNA ST
SCALE —

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-240	

VALVE NO / MCC NO.	FIG / SH	SW / SH	OPER MODE	CS LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
749A 1C/10J CV. STOP AC TO A LOOP RCP.	1/280	C/12	O/FAI	CB	—	
749B 1D/10J CV. STOP AC TO B LOOP RCP.	1/280	C/12	O/FAI	CB	—	
759A 1C/12J CV STOP C.C. FROM A. LOOP R.C.P.	1/280	C/12	O/FAI	CB	—	
759B 1D/12F C.V. STOP C.C FROM B LOOP R.C.P.	1/280	C/12	O/FAI	CB	—	
813 1C/10F C.C. SUP. TO REACTOR SUPPORT COOLING	9/288	C/12	O/FAI	CB	1C/10F-C2 4 C 8 10X 1C/10F-C	110E059 SH.5
814 1D/10F CC RETURN FROM REACTOR SUPPORT COOLING	9/288	C/12	O/FAI	CB	1D/10F-C2 17 C 21 20X 1D/10F-C	110E059 SH.5
817 1D/10C CC WATER TO C.V. MASTER STOP	1/280	C/12	O/FAI	CB	—	
823 1D/13J RMW TO CC PUMP SUCTION	1/280	C/12	O/FAI	CB	—	
825A 1C/9J R.W.ST. TO S.I. PUMPS SUCTION	1/303	C/12	O/FAI	CB	1C/9J-02 1 2AB SI-15X 5 1C/9J-0C 5 1C/9J-0A 17 LC 102 CX 21 LC 172 CX 21 CX 1C/9J-0B 17 LC171 CX 21 LC106 17 CX 1C/9J-0 (A)	110E059 SH.3 110E074 SH.2,4&5

ORIGINAL

DRAWN BY	Elliott
CHK'D.	Amass
RESP. ENG'R	Partian
ENG'R. MGR.	RCM
DATE	2/25/75

OPER. MODE
O: NORMALLY OPERATED OPEN
C: NORMALLY OPERATED CLOSED
X: NORMALLY OPERATED OPEN & CLOSED
FC: FAILED CLOSED
FO: FAILED OPEN
FAI = FAILED AS IS

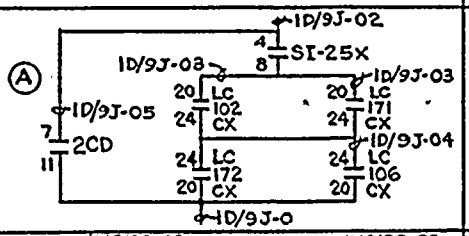
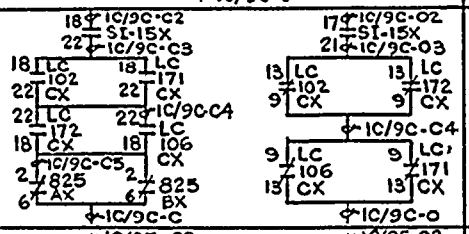
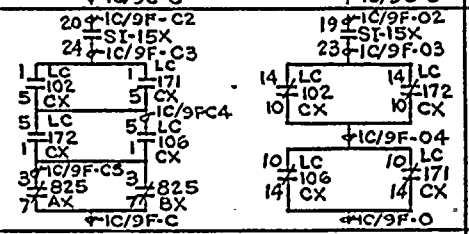
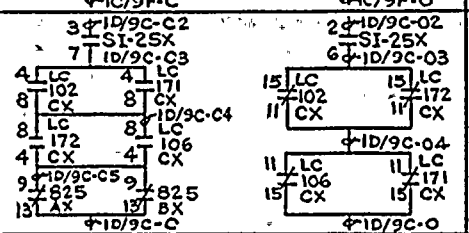
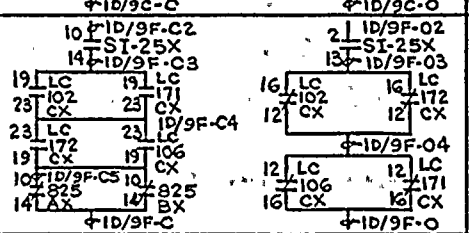
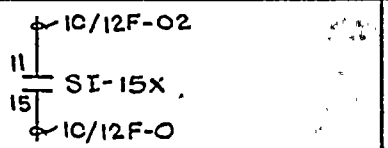
CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM
BWP = BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT. 241 (REV. 6)

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-241

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

	BY	DATE	
DRAWN			SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE No MCC No.	FIG./SH	SW. DEV.	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REF. DWG. & REMARKS
825B 1D/9J R.W.S.T. To S.I. Pumps Suction	303	C/12	C/FAI	CB		110 E059 SH 3 110 E074 SH. 2, 4 & 5
826A 1C/9C B.A. Tanks To S.I. Pumps Suction	304	C/12	C/FAI	CB		110 E059 SH. 3 110 E074 SH. 2, 4, 5 & 303
826B 1C/9F B.A. Tanks To S.I. Pumps Suction	304	C/12	C/FAI	CB		110 E059 SH. 3 110 E074 SH. 2, 4, & 5
826C 1D/9C B.A. Tanks To S.I. Pumps Suction	304	C/12	C/FAI	CB		110 E059 SH. 3 110 E074 SH. 2, 4 & 5
826D 1D/9F B.A. Tanks To S.I. Pumps Suction	304	C/12	C/FAI	CB		110 E059 SH. 3 110 E074 SH. 2, 4 & 5
841 1C/12F Loop-B Acc. Stop	8/287	C/12	C/FAI	CB		110 E059 SH. 3
850A SUMP B 1C/6J To R.H.R. PP	305	C/12	C/FAI	CB	—	
850B SUMP B 1D/6J To R.H.R. PP	305	C/12	C/FAI	CB	—	
851A SUMP B 1C/10M To R.H.R. PP	13/278	C/12	C/FAI	CB	—	
851B SUMP B 1D/10M To R.H.R. PP	13/278	C/12	C/FAI	CB	—	

OPER. MODE
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CONTROL SWITCH AND/OR POS. LGT. LOCATION
L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM
AP = AUXILIARY PANEL
BWP = BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. No. 499 B 425, SHT. 242, (REV. 7)

ORIGINAL	
DRAWN BY	Gilchrist
CK'D.	R. Massee
RESP. ENG'R.	[illegible]
ENG'R MGR.	RCM
DATE	2-25-75

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-247

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

DRAWN	BY	DATE	SCALE ~
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499 B425 SH. 243

VALVE NO. / MCC NO.	FIG / SH	SW'T / SH	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
852A 1C/7J RHR TO REACTOR (LOW HEAD SIS)	313	C/12	C/FAI	CB	1C/7J-02 12 SI-15X 16 1C/7J-0	110E059 SH 3 NOTE: KEY SWITCH IN CLOSE COIL CIRCUIT △2
852B 1D/7J RHR TO REACTOR (LOW HEAD SIS)	313	C/12	C/FAI	CB	1D/7J-02 1 SI-26X 5 1D/7J-0	110E059 SH 3 NOTE: KEY SWITCH IN CLOSE COIL CIRCUIT.
856 1C/1D C.W. S.T. TO R.H.R. PUMP SUCT	13/218	C/12	C/FAI	CB		
857A 1C/7M A.R.H.R. HX. TO SI & CS PUMPS	276	C/12	C/FAI	CB	1C/7M-03 1C/7M-02 PIC-629 2 850 AX 2 897 2 898 6 1C/7M-06 20X1 6 20X1 2 1C/7M-06 6 896 2 896 6 850 2 AX 2 BX 2 BX 5 850 5 1C/7M-06 3 AX 1 850 1C/7M-0 BX	110E074 SH 2,3,5 SH 259, 301, 305, 277
857B 1D/7M B.R.H.R. HX TO SI & CS PUMPS	276	C/12	C/FAI	CB	1D/7M-02 3 850 AX 3 897 3 898 7 1D/7M-05 7 20X1 7 20X1 7 1D/7M-05 7 896 7 896 3 850 BX 3 AX 3 BX 4 850 8 1D/7M-04 8 AX 4 1D/7M-0 850 BX	110E074 SH 2,3,5 SH 259, 301, 305, 277
857C 1C/15J A.R.H.R. HX TO SI & CS PUMPS	276	C/12	C/FAI	CB	1C/15J-02 9 850 AX 9 897 9 898 15 1C/15J-05 15 20X1 15 20X1 13 1C/15J-05 13 896 13 896 9 850 BX 9 AX 9 BX 21 850 21 1C/15J-04 21 AX 17 1C/15J-0 850 BX	110E074 SH 2,3,5 SH 259, 301, 305, 277
860A 1C/8J 1A CS PUMP DISCH	8/287	C/12	C/FAI	CB	1C/8J-02 1 S10X 5 1C/8J-0	110E059 SH 5
860B 1D/8J 1A CS PUMP DISCH	8/287	C/12	C/FAI	CB	1D/8J-02 4 S20X 8 1D/8J-0	110E059 SH 5
860C 1C/11F 1B CS PUMP DISCH	8/287	C/12	C/FAI	CB	1C/11F-02 17 S10X 21 1C/11F-0	110E059 SH 5
860D 1D/11F 1B CS PUMP DISCH	8/287	C/12	C/FAI	CB	1D/11F-02 18 S20X 22 1D/11F-0	110E059 SH 5

OPER MODE
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X: NORMALLY OPER OPEN & CLOSED
FC: FAILED CLOSED
FO: FAILED OPEN
FAI: FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L: LOCAL
CB: CONTROL BOARD
SR: SAMPLE ROOM
AP: AUXILIARY PANEL
BWPL: BORON RECYCLE & WASTE DISPOSAL PANEL

REV.	DRAWN BY	CK'D	RESP. ENG'R	ENG'R MGR.	DATE
△2	DFH 2-6-77	DWW 2-15-77	MRB 2-15-77		
△1	[illegible] 7/8/76	DWW 7-9-76	RJA 7-12-76	RJA 7-12-76	11/2/76
ORIGINAL					7/4/76

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-243 △2

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE NO. / MCC NO.	FIG. / SH.	SW. / SH.	OPER. MODE	C.S. / LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
865 ID/12C LOOP A ACC. STOP	8/287	C/12	C/FAI	CB	6 ID/12C-02 — SI-2GX — 2 ID/12C-O	110E059 SH.3
IC S.I.P. TO 1A S.I.P. DISCH. — 871A IC/11C	-/279	C/12	O/FAI	CB	SEE SHEET 279	
IC S.I.P. TO 1B S.I.P. DISCH. — 871B ID/11C	-/279	C/12	C/FAI	CB	SEE SHEET 279	
C.S.P. TO CHAR. FILTER DELUGE — 875A IC/14C	7/286	C/12	C/FAI	CB	—	
C.S.P. TO CHAR. FILTER DELUGE — 875B ID/14C	7/286	C/12	C/FAI	CB	—	
C.S.P. TO CHAR. FILTER DELUGE — 876A IC/14F	7/286	C/12	C/FAI	CB	—	
C.S.P. TO CHAR. FILTER DELUGE — 876B ID/14F	7/286	C/12	C/FAI	CB	—	
878A IC/8C 1A S.I.P. TO LOOP B HOT LEG	8/287	C/12	C/FAI	CB	IC/8C-02 — 3 SI-1GX — 7 IC/8C-O	110E059 SH.3
878B ID/8C 1A S.I.P. TO LOOP B COLD LEG	8/287	C/12	C/FAI	CB	ID/8C-02 — 9 SI-2GX — 13 ID/8C-O	110E059 SH.3
878C IC/8F 1B S.I.P. TO LOOP A HOT LEG	8/287	C/12	C/FAI	CB	IC/8F-02 — 10 SI-1GX — 14 IC/8F-O	110E059 SH.3
878D ID/8F 1B S.I.P. TO LOOP A COLD LEG	8/287	C/12	C/FAI	CB	ID/8F-02 — 11 SI-2GX — 15 ID/8F-O	110E59 SH.3
896A IC/8M R.W.S.T. TO C.S. & S.I. PUMPS	277	C/12	C/FAI	CB	SEE SHEET 277	110E074 SH.2&3 NOTE: KEY SWITCH IN OPEN AND CLOSE COIL CIRCUITS. ⚠1
896B ID/8M R.W.S.T. TO C.S. & S.I. PUMPS	277	C/12	O/FAI	CB	SEE SHEET 277	110E074 SH.2&3 NOTE: KEY SWITCH IN OPEN AND CLOSE COIL CIRCUITS. ⚠1

OPER. MODE
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CONTROL SWITCH AND/OR POS. LGT. LOCATION:
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SR: SAMPLE ROOM
BWP: BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. # 4998425-244

REV.	ORIGINAL
⚠1	
DRAWN BY	DFH 2-15-77 / DFH 6-7-76
CK'D	Rev 2-15-77 / Rev 6-7-76
RESP. ENG'R	[illegible] 2-15-77 / [illegible] 6-7-76
ENG'R MGR.	[illegible] / [illegible]
DATE	6-10-76

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGR. DEPT
No. 10905-244 ⚠

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425 SH.245 REV. 5

VALVE NO / MCC NO	FIG / SH	SW / SH	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
1813A 1C/13M SUMP B TO RCDT PUMP A	7/286	C/12	C/FAI	CB	—	
1813B 1D/13M SUMP B TO RCDT PUMP B	7/286	C/12	C/FAI	CB	—	
1815A 1C/15M "C" S.I.P. SUCTION FROM RWST.	8/287	C/12	O/FAI	CB	1C/15M-02 10 SI 14X 14 10 SI-24X 14 1C/15M-0	110E059 SH.3
1815B 1D/16J "C" SIP SUCTION FROM RWST	8/287	C/12	O/FAI	CB	1D/16J-02 11 SI 14X 15 11 SI-24X 15 1D/16J-0	110E059 SH3
4663 1C/11M ACTV-1A1	5/282	C/12	O/FAI	CB	1C/11M-C2 22 SI 17X 18 1C/11M-C3 1C/11M-C 18BX10 7 52/18B-X 18BX9	110E059 SH3 SHEET 65 AIR COND. CHILLER SERV WATER ISOL VALVE 1A1 4663
4007A 1C/6M AFDV-1A	4/283	BB/14	C/FAI	CB	1C/6M-C2 TDR 17 C3 17 FS 2039 52/MAFP 1A 18 1C/6M-C 1C/6M-02 AR 73 19 C-03 52/MAFP 1A 20 1C/6M-0	SHEET 76 & 317 MOTOR DRIVEN AUX FEED PUMP 1A DISCHARGE VALVE 4007
4008 1D/6M AFDV-1B	4/283	BB/14	C/FAI	CB	1D/6M-C2 TDR 17 C-C3 17 FS 3040 52/MAFP 1B 18 1D/6M-C 1D/6M-02 AR 74 C-03 19 52/MAFP 1B 20 1D/6M-0	SHEET 77 & 317 MOTOR DRIVEN AUX FEED PUMP 1B DISCHARGE VALVE 4008
4027 1C/12C AEPSV-1A	5/284	C/12	C/FAI	CB	—	MOTOR DRIVEN AUX. FEED PUMP 1A SERVICE WATER SUPPLY VALVE 4027
4733 1D/14J ACTV-1A2	3/282	C/12	O/FAI	CB	1D/14J-C2 △2 22 SI 27X 18 1D/14J-C3 1D/14J-C 11BX7 △ 5 52/11BX 11BX8 △	110E059 SH.3 SHEET 66 AIR COND. CHILLER SERV WATER ISOL VALVE 1A2 4733

OPER MODE
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CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L=LOCAL
CB=CONTROL BOARD
SR=SAMPLE ROOM
B/P=BORON RECYCLE & WASTE DISPOSAL PANEL

REV.	DRAWN BY	CKD.	RESP ENGR.	ENGR MGR.	DATE
△1 ORIGINAL	RDM 11/16/76	DHH 7-9-76	ARM 7-12-76	9 7-8	11/1/76

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-245 △1

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE- THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 499D425 SH. 246 REV. 5

VALVE NO. / MCC NO.	FIG / SH	SW / SH	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
4028 1D/12J AFPSV-1B	5/284	C/12	C/FAI	CB		MOTOR DR. AUX. FP. 1B SERV. WTR. SUPPLY VALVE 4028
4013 1D/12M AFPSV-1C	5/284	C/12	C/FAI	CB		TURB. DR AUX. F.P. SERV. W.T.R. SUPPLY VALVE 4013
3154 1A/8C CIV-1A1	11/290	J/13 BLOCK NO.1 LEFT CONT	O/FAI	CB REAR	1A/8C-C1 CVX1 1A/8C-C	SINGLE SWITCH FOR CIV-1A1 & CIV-1B2 CONDENSER INLET VALVE 1A1 SH. 316
3152 1A/8F CIV-1A2	11/290	J/13 BLOCK NO.1 LEFT CONT	O/FAI	CB	1A/8F-C1 CVX2 1A/8F-C	SINGLE SWITCH FOR CIV-1A2 & CIV-1B1 CONDENSER INLET VALVE 1A2 SH. 316
3155.1 1A/8J CIV-1B1	11/290	J/13 BLOCK NO.1 RIGHT CONT	O/FAI	CB	1A/8J-C1 CVX2 1A/8J-C	SINGLE SWITCH FOR CIV-1A2 & CIV-1B1 CONDENSER INLET VALVE 1B1 SH 316
3153 1A/8M CIV-1B2	11/290	J/13 BLOCK NO.1 RIGHT CONT	O/FAI	CB	1A/8M-C1 CVX1 1A/8M-C	SINGLE SWITCH FOR CIV-1A1 & CIV-1B2 CONDENSER INLET VALVE 1B2 SH 316
3158 1B/4C COV-1A1	11/290	J/13 BLOCK NO.1 LEFT CONT	O/FAI	CB	1B/4C-C1 CVX3 1B/4C-C	SINGLE SWITCH FOR COV-1A1 & COV-1B2 CONDENSER OUTLET VALVE 1A1 SH 316

OPER. MODE
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FAI=FAILED AS IS

CONTROL SWITCH AND/OR POS LGT LOCATION:
L=LOCAL
CB=CONTROL BOARD
SR=SAMPLE ROOM
BWP=BORON RECYCLE & WASTE DISPOSAL PANEL.

REV	ORIGINAL	
DRAWN BY	CJF	
OKD	D.A.G. [illegible]	
PROJ. ENGR	R.P.M.	
CONSTR. MGR	R.E.S.	
DATE	4/24/74	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-246

ROBERT E. MIETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

DRAWN	BY	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 4998425 SH.247 REV.5

VALVE NO / MCC NO	FIG / SH	SW / SH	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
3156 1B/4E COV-1A2	11/290	J/13 BLOCK NO.1 LEFT CONT	O/FAI	CB	1B/4F-C1 CVX4 1B/4F-C	SINGLE SWITCH FOR COV-1A2 & COV-1B1 CONDENSER OUTLET VALVE 1A2 SH 316
3159 1B/4J COV-1B1	11/290	J/13 BLOCK NO.1 RIGHT CONT	O/FAI	CB	1B/4J-C1 CVX4 1B/4J-C	SINGLE SWITCH FOR COV-1A2 & COV-1B1 CONDENSER OUTLET VALVE 1B1 SH 316
3157 1B/4M COV-1B2	11/290	J/13 BLOCK NO.1 RIGHT CONT	O/FAI	CB	1B/4M-C1 CVX3 1B/4M-C	SINGLE SWITCH FOR COV-1A1 & COV-1B2 CONDENSER OUTLET VALVE 1B2 SH 316
3977 1A/9J FDV-1A	3/282	C/12	O/FAI	CB	1A/9J-C2 52S/FP1A 1A/9J-C	SHEET 30 STM GEN FW PUMP DISCHARGE VALVE
3976 1B/8G FDV-1B	3/282	C/12	O/FAI	CB	1B/8G-C2 52S/FP1B 1B/8G-C	SHEET 30 STM GEN FW PUMP DISCHARGE VALVE
4615 1C/14J ABV-1B1	3/282	C/12	O/FAI	CB	1C/14J-C2 → 16 SI-16X 12 → 1C/14J-C3 1C/14J-C → 13 52/18B-X 9 → 18BX15 18BX16	110E059 SH 3 SHEET 65 AUX BLDG SERV WTR ISOLATION VALVE
4734 1D/6F ABV-1B2	3/282	C/12	O/FAI	CB	1D/6F-C2 → 17 SI-27X 21 → 1D/6F-C3 1D/6F-C → 1 52/11B-X 1 → 11BX-9 11BX10	110E059 SH 3 SHEET 66 AUX BLDG SERV WTR ISOLATION VALVE
4609 1H/2M SHMV-1A1	3/282	C/12	O/FAI	CB	1H/2M-C2 → 4 SI-16X 8 → 1H/2M-C3 1H/2M-C → 8 52/18B-X 4 → 18B-X3 18BX4	110E059 SH 3 SHEET 65 SCREEN WASH SERV WATER ISOL VALVE 1A1
4780 1J/2M SHMV-1A2	3/282	C/12	O/FAI	CB	1J/2M-C2 → 4 SI-26X 8 → 1J/2M-C3 1J/2M-C → 8 52/11B-X 4 → 11BX3 11BX4	110E059 SH 3 SHEET 66 SCREEN WASH SERV WATER ISOL VALVE 1A2

OPER MODE
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C=NORMALLY OPERATED CLOSED
X=NORMALLY OPERATED OPEN & CLOSED
FC=FAILED CLOSED
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CONTROL SWITCH AND/OR POS. LGT LOCATION:
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CB=CONTROL BOARD
SR=SAMPLE ROOM
BWP=BORON RECYCLE & WASTE DISPOSAL PANEL

REV	DRAWN BY	CK'D	DES. ENGR	ENGR MGR	DATE
ORIGINAL	GJF	D.L.G.	RFG	TCL	4/4/84

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-247

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

	BY	DATE	
DRAWN			SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE- THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO. 499B425 SH. 248 REV. 5

VALVE NO / MCC NO	FIG / SH	SW. / SH	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
4614 / 1C/14M / TBIV-TA1	3/282	C/12	O/FAI	CB	1C/14M-C2 — 23 SI-17X 19 — 1C/14M-C3; 1C/14M-C 18BX2 6 — 52/18B-X 3 — 18BX-1	110E059 SH.3 SHEET 65 — TURB. BLDG. SERV. WTR. ISOLATION VALVE
4664 / 1D/13F / TBIV-TA2	3/282	C/12	O/FAI	CB	1D/13F-C2 — 24 SI-27X 20 — 1D/13F-C3; 1D13F-C 11B12 12 — 52/16 11 — 11B11	110E059 SH.3 SHEET 66 — TURB. BLDG. SERV. WTR. ISOLATION VALVE
4670 / 1H/2J / TBIV-TB1	3/282	C/12	O/FAI	CB	1H/2J-C2 — 2 SI-17X 6 — 1H/2J-C3; 1H-2J-C 18BX8 5 — 52/18B-X 2 — 18BX7	110E059 SH.3 SHEET 65 — TURB. BLDG. SERV. WTR. ISOLATION VALVE
4613 / 1D/11J / TBIV-TB2	3/282	C/12	O/FAI	CB	1D/11J-C2 — 3 SI-27X 1 — 1D/11J-C3; 1D/11J-C 11BX2 6 — 52/11B-X 3 — 11BX1	110E059 SH3 SHEET 66 — TURB. BLDG. SERV. WTR. ISOLATION VALVE
AGTG / 1C/6E / ABIV-1A1	9/282	C/12	O/FAI	CB	1C/6F-C2 — 4 SI-17X 8 — 1C/6F-C3; 1C/6F-C 18B12 12 — 52/11 11 — 18B11	110E059 SH3 SHEET 65 — AUX. BLDG. SERV. WTR. ISOLATION VALVE
4735 / 1D/13C / ABIV-1A2	3/282	C/12	O/FAI	CB	1D/13C-C2 — 1 SI-27X 5 — 1D/13C-C3; 1D/13C-C 11BX16 5 — 52/11B-X 2 — 11BX15	110E059 SH3 SHEET 66 — AUX. BLDG. SERV. WTR. ISOLATION VALVE

OPER MODE:
O-NORMALLY OPERATED OPEN
C-NORMALLY OPERATED CLOSED
X-NORMALLY OPERATED OPEN & CLOSED
FC-FAILED CLOSED
FO-FAILED OPEN
FAI-FAILED AS IS

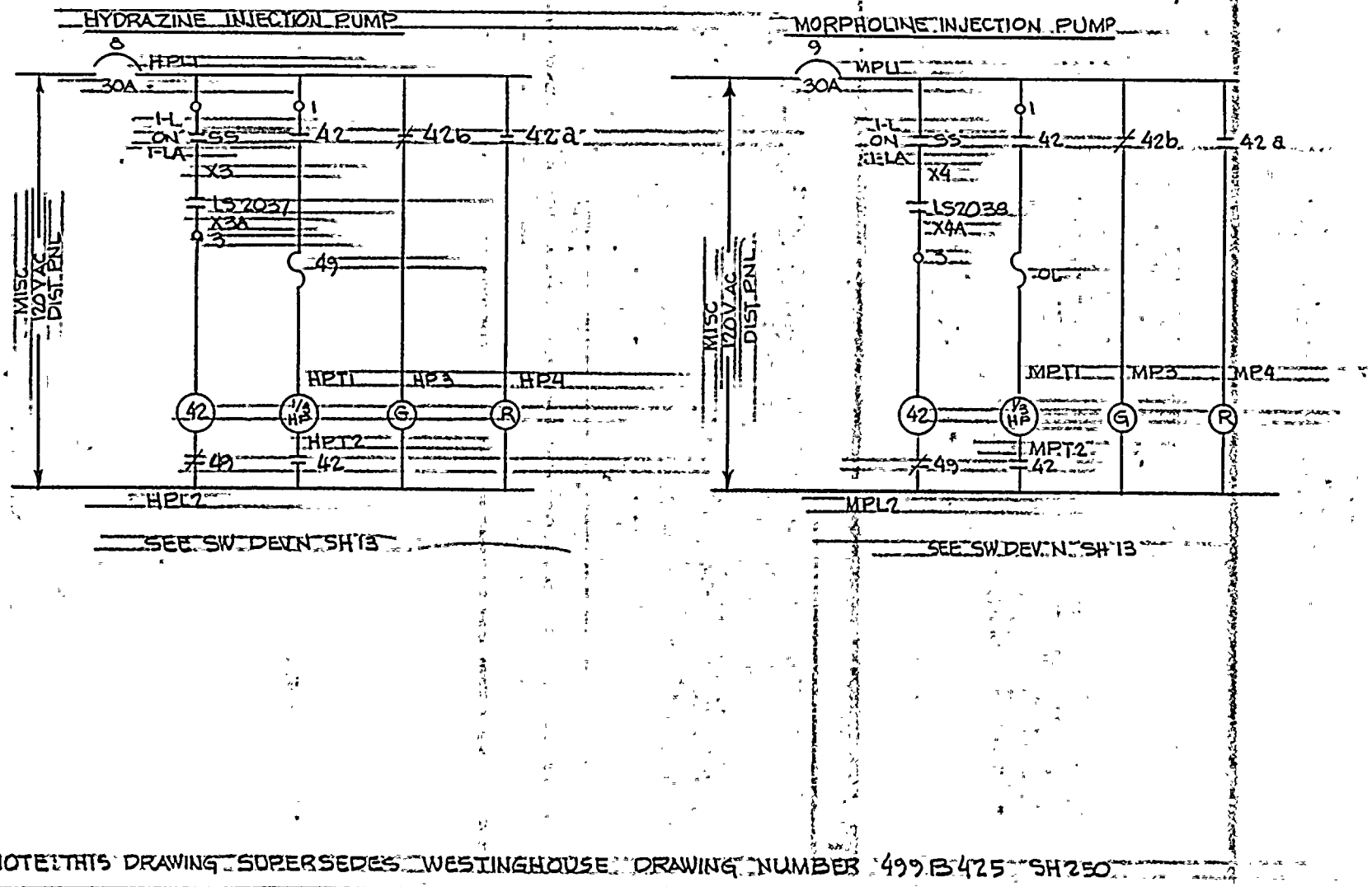
CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L=LOCAL
CB=CONTROL BOARD
SR=SAMPLE ROOM
BWP=BORON RECYCLE & WASTE DISPOSAL PANEL

REV					
ORIGINAL	GJF	DLG 4-10-73	RJG	RJ	4/4/74
	DRAWN BY	CKD	RESP ENGR	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-248

ROBERT EMMETT GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE TABLE

	DRAWN	BY	DATE	SCALE NONE
	TRACED			APPROVED
	CHECKED			FOLDER NO.
	ENG.			JOB NO.



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH250

ELEMENTARY WIRING DIAGRAM
HYDRAZINE AND MORPHOLINE INJECTION PUMPS

FACILITY GINNA STA

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

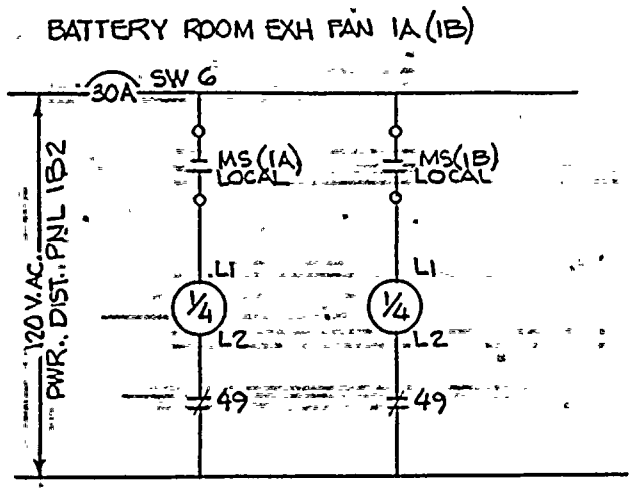
SCALE

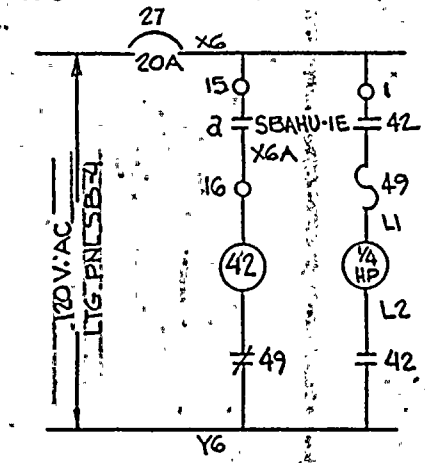
JOB NO.

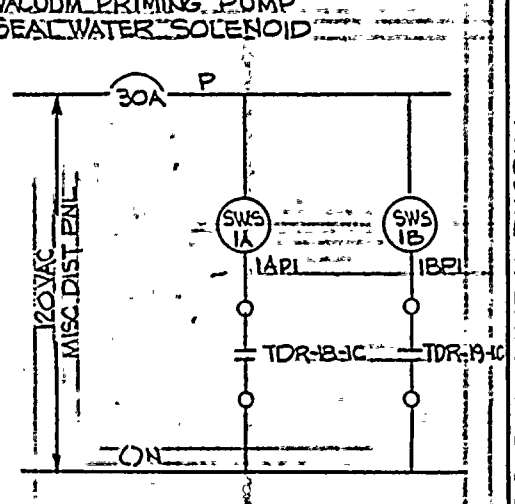
DRAWING NO. 10905-250

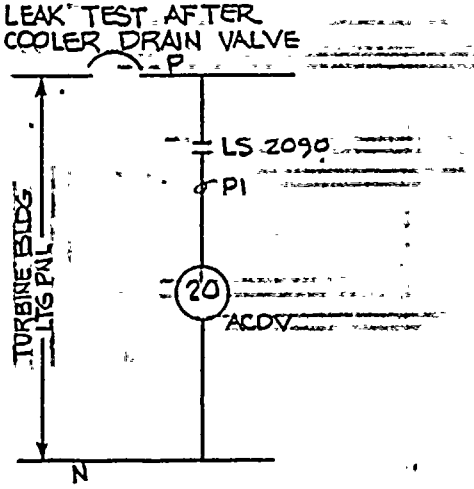
REV. A

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
ORIGINAL	INITIAL	GJF	RWL	RWD	
	DATE	12/8/77	12/8/77	1/20/78	1/20/78









NOTES:
TDR-18-IC SHEET 155
- TDR-19-IC SHEET 156

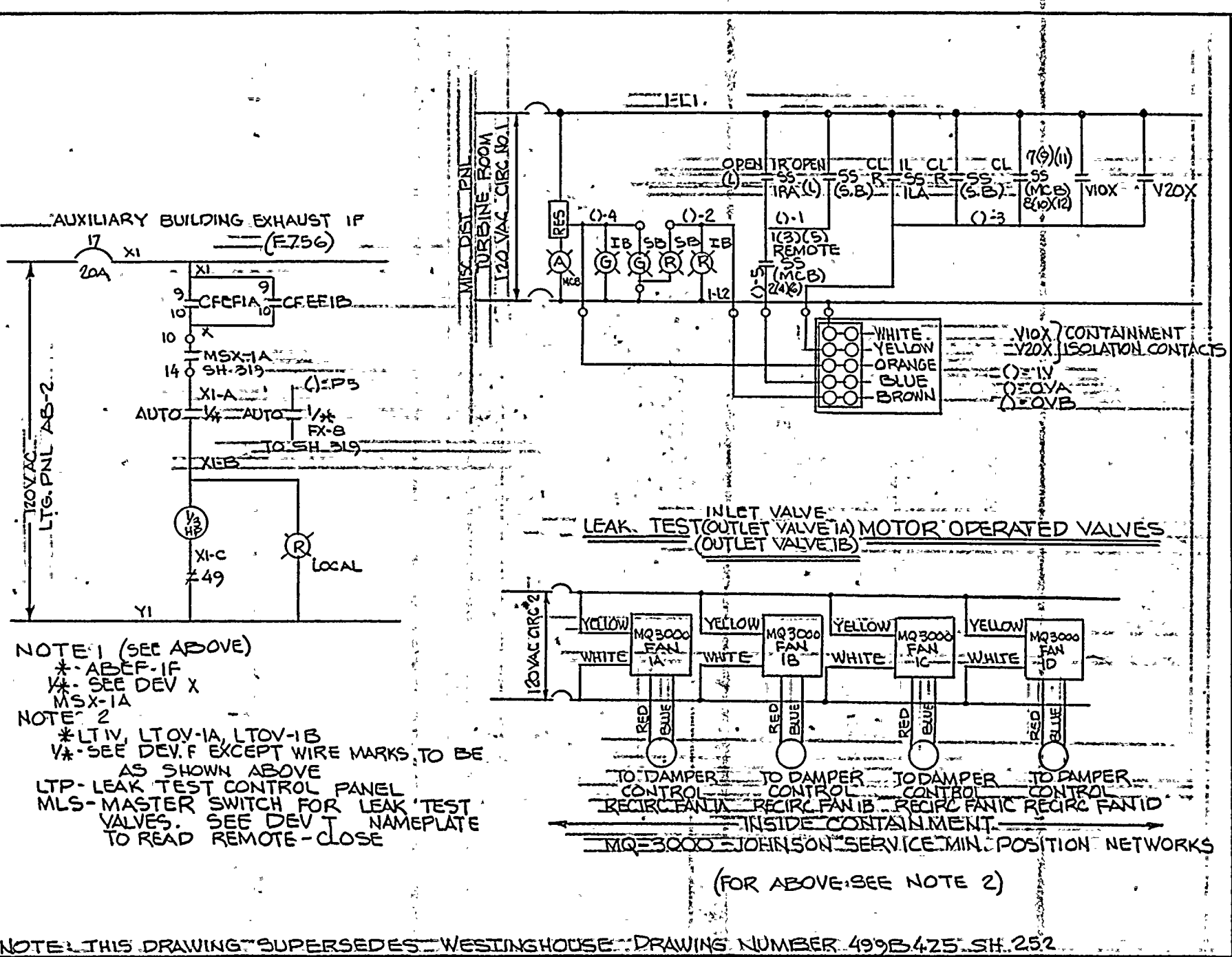
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 251

ELEMENTARY WIRING DIAGRAM
120 V-AC, CIRCUITS

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA
SCALE
JOB NO.
DRAWING NO. 10905-251
REV. Δ

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL			SJF 12/8/72	12/8/72	4/11/73	4/11/73



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH. 252

ELEMENTARY WIRING DIAGRAM
120 VAC CIRCUITS

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE
JOB NO.
DRAWING NO. 10905-252
REV. A

NUMBER	REVISION	DATE	INITIAL
1	ORIGINAL	12/7/77	SJF

	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
	SJF	[illegible]	[illegible]	[illegible]

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 4998 425 SH 254 REV 5

VALVE NO. B/M NO.	FIG /SH	SW DEV.	OPER. MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
3505 TAFSV-1A RN21A	322	G/329	C/FAI	CB	TAFSV-1A-O2 — MFPX 1A2 — MFPX 1B2 — TAFSV-1A-O	SH. 317 TURB. DRV. STM. GEN. F.W. PUMP STM. ADM. VALVE 1A; TAFSV-1A THIS SW 33 QQ; CPTR FWSOO2 33 DC
3504 TAFSV-1B RN21B	322	G/329	C/FAI	CB	TAFSV-1B-O2 — MFPX 1A2 — MFPX 1B2 — TAFSV-1B-O	SH. 317 TURB. DRV. STM. GEN. F.W. PUMP STM. ADM. VALVE 1B; TAFDV THIS SW 33 QQ; CPTR FWSOO2 33 DC
3996 TAFDV	/293	C/12	C/FAI	CB	TAFDV-O2 — MFPX 1A2 — MFPX 1B2 — TAFDV-XR — TAFSV 1A — TAFSV 1B — TAFDV-O	SH. 317 TURB. DRV. STM. GEN F.W. PUMP DISCH. VALVE (WATER)
3150 CWDV-1A	/294	G/12	O/FAI	PB LOCAL 1/CWP 1A CB	SEE SH. 294	SH. 31 & 316 CIRC. WTR. PUMP DISCH. VALVE 1A
3151 CWDV-1B	/294	G/12	O/FAI	PB LOCAL 1/CWP-1B CB	SEE SH. 294	SH. 31 & 316 CIRC. WTR. PUMP DISCH VALVE 1B
5171 FSEV RNG3	/292	G/12	O/FAI	CONT. RM FIRE CONT PANEL		33bc TURB. RM. FIRE CPTR SERV. ISOL. VALVE I0110

CPER. MODE
O-NORMALLY OPER. OPEN
C-NORMALLY OPER. CLOSED
X-NORMALLY OPER. OPEN & CLOSED
FC: FAILED CLOSED
FO: FAILED OPEN
FAI: FAILED AS "IS"

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L-LOCAL
CB-CONTROL BOARD
SR-SAMPLE ROOM
AP-AUXILARY PANEL
WP-WASTE DISPOSAL PANEL

REV.	ORIGINATE	D.H. DRAWN BY	CKD	RESP. ENGR.	ENGR.	DATE
1	Arm	Rmw 8-5-76	RMW 8-10-76	RSA 8-12-76	JEL	8/10/76

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENG'R DEPT

NO. 10905-254 1

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEM. WIRING DIAGRAM MOTOR OPERATED VALVES

	BY	DATE	
DRAWN	D.H.	10-75	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 8498425-SI-255 REV. 0

VALVE	FIG./SH	SW/SH	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
200A LETDOWN ORIFICE STOP	31/300	E/12 45/8 SH.11	O/FC	CB	9 — 200A-RX; 13 — 20X/427; 200A-S	FIG.4 SHEET 295
200B LETDOWN ORIFICE STOP	31/300	E/12 43/8 SH.11	O/FC	CB	10 — 200B-RX; 14 — 20X/427; 200B-S	FIG.4 SHEET 295
202 LETDOWN ORIFICE STOP	31/300	E/12 43/8 SH.11	O/FC	CB	11 — 202-RX; 15 — 20X/427; 2025	FIG.4 SHEET 295
244 DEBORATE DI. DIVERSION	1/295	E/12	O/FC FAIL TO NORM	CB		MARK FACE PLATE 'NORMAL' INSTEAD OF 'CLOSE' 'INVERT' INSTEAD OF 'OPEN'
258 VCT VENT	8/295	G/12	C/FC	CB		
270A 1A RCP SEAL DISCH.	1/295	F/12	O/FO	CB		
270B 1B RCP SEAL DISCH.	1/295	F/12	O/FO	CB		
294 CHARGING COLD LEG LOOP B	1/295	E/12	X/FC	CB		
296 AUX. SPRAY TO PRZR.	1/295	E/12	X/FC	CB		

OPER. MODE
O-NORMALLY OPER. OPEN
C-NORMALLY OPER. CLOSED
X-NORMALLY OPER. OPEN & CLOSED
FC-FAILED CLOSED

CONTROL SWITCH AND/OR POS. LGT. LOCATION
L-LOCAL
CB-CONTROL BOARD
SR-SAMPLE ROOM

REV.					
ORIGINAL	D.H.	RWW	R.F.A.	J.S.S.	4/27/76
	DRAWN BY	CK'D	RESP. ENG'R	ENG'R MAN'G	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R DEPT
NO. 10905-255

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEM. WIRING DIAGRAM
SOLENOID & SOLENOID-PILOT VALVES

DRAWN	D.H.	DATE 10-75	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG/SH.	SW/SH.	OPER. MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
310 EXCESS LETDOWN STOP	1/295	E/12	C/FC	CB	—	
312 EXCESS LETDOWN DIVERSION	1/295	E/12	C/FC FAIL TO NORM	CB	—	MARK FACE PLATE: "NORMAL" INSTEAD OF "CLOSE" "DIVERT" INSTEAD OF "OPEN"
371 LETDOWN ISOL.	10/296	E/12	O/FC	CB	317-C; 2C 6 10X; 317-S1; 2C 6 20X; 317-S	110E059 SH. 5
386 RCP SEAL BYPASS	1/295	E/12	C/FC	CB	—	
392A CHARGING HOT LEG LOOP B	1/295	E/12	C/FC	CB	—	
392B ALTERNATE CHARGING COLD LEG LOOP A	1/295	E/12	C/FC	CB	—	
508 RMW TO C.V. STOP	10/296	E/12	C/FC	CB	508-C; 11C 15 13X; 508-S1; 11C 15 23X; 508-S	110E059 SH. 5
521 REACTOR VESSEL FLANGE LEAKOFF	1/295	E/12	O/FO	CB	—	

OPER. MODE:
O= NORMALLY OPERATED OPEN
C= NORMALLY OPERATED CLOSED
X= NORMALLY OPERATED OPEN & CLOSED
FC= FAILED CLOSED
FO= FAILED OPEN
F.A.I.= FAILED AS IS

CONTROL SW. AND/OR POS. LGT. LOCATION:
L= LOCAL, CB= CONTROL BOARD, SR= SAMPLE ROOM, BVP= BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DRAWING SUPERSEDES WESTINGHOUSE DWG 499B425 SHEET 256 REV. 4.

Rev.						
Original		QBM drawn by	RMW ck'd.	RBG resp. eng'r	JEL eng'r mgr'r	11/2/72 date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT.
No. 10905-256

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SOLENOID & SOLENOID PILOT VALVE

	BY	DATE	
DRAWN			SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG/SH	BW/SH	OPER MODE	CS/LG ID. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
526 PRT DRAIN	Y/295	E/12	C/FC	CB	—	
527 PRT VENT TO V.H.	3/295	E/12	C/FC	CB	2/6 # PC-A40B-X.	110E074 SH.1
539 PRT TO GAS ANAL	309	A/314	C/FC	CB	3 # C10X 539-C; 7 # C20X 539-SI; 3 # 539-S	110E059 SH.5 MINE SFTY. APPL. ASK1675-675
548 RMW TO PRT	1/295	E/12	C/FC	CB	—	
550A RMW TO A STAND PIPE	J/295	E/12	C/FC	CB	—	
550B RMW TO B STAND PIPE	J/295	E/12	C/FC	CB	—	
745	U/295	E/12	O/FC	CB	—	CC RETURN FROM EXCESS LETDOWN HX (AIR OP.)
754A CC FROM A RCP THERMAL BARRIER	1/295	E/12	O/FC	CB	—	
754B CC FROM B RCP THERMAL BARRIER	U/295	E/12	O/FC	CB	—	
834A N_2 TO B LOOP ACC	1/295	E/12	C/FC	CB	—	
834B N_2 TO A LOOP ACC	1/295	E/12	C/FC	CB	—	
835A FILL TO LOOP B ACC.	1/295	E/12	C/FC	CB	—	

OPER. MODE:
O=NORMALLY OPER. OPEN
C=NORMALLY OPER. CLOSED
X=NORMALLY OPER OPEN & CLOSED
FC=FAILED CLOSED
FO=FAILED OPEN
FAI=FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L=LOCAL
CB=CONTROL BOARD
SR=SAMPLE ROOM

BWD=BORON RECYCLE AND WASTE DISPOSAL PANEL

NOTE: THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING NO 499B425 SH257

REV					
ORIGINAL	Light	Band	Mech.	Elect.	
DRAWN	DRAWN CKD	PROJ. ENGR.	PROJ. ENGR.	ENGR.	DATE
JEY				8/31	11/7/74

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT.

NO. 10905-257

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM SOLENOID AND SOLENOID PILOT VALVE

	BY	DATE	
DRAWN			SCALE —
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG/SH	SW/GH	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
835B Fill To Loop A Acc.	1/295	E/12	C/FC	CB	—	
836A Dischg. From NAOH Tank	41/312	—	—	—	—	SPRAY ADDITIVE TANK DISCH. VALVE
836B Dischg. From NAOH Tank	41/312	—	—	—	—	SPRAY ADDITIVE TANK DISCH. VALVE
839A Loop B Acc. Dump Line Test	1/295	E/12	C/FC	CB	—	
839B Loop B Acc. Dump Line Test	1/295	E/12	C/FC	CB	—	
840A Loop A Acc. Dump Line Test	1/295	E/12	C/FC	CB	—	
840B Loop A Acc. Dump Line Test	1/295	E/12	C/FC	CB	—	
844A Loop B Acc. To R.C.D.T. Stop	1/295	E/12	C/FC	CB	—	
844B Loop A Acc. To R.C.D.T. Stop	1/295	E/12	C/FC	CB	—	

REV.	ORIGINAL	
	DRAWN BY	N.J.A. 4/14/75
	CK'D.	RHK
	RESP. ENG'R.	POT
	ENG'R. MGR.	RCM
	DATE	6/5/75

OPER. MODE
O= NORMALLY OPERATED OPEN
C= NORMALLY OPERATED CLOSED
X= NORMALLY OPERATED OPEN & CLOSED

FC = FAILED CLOSED
FO = FAILED OPEN
FAI = FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM

BWP = BORON RECYCLE & WASTE DISPOSAL PANEL

This Dwg. Supercedes Westinghouse Dwg. 499B425 SH. 25B Rev. 5

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-258

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT I
ELEMENTARY WIRING DIAGRAM
SOLENOID & SOLENOID PILOT VALVE

DRAWN	N.J.A.	DATE	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG/SH	SW/SH	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
846 Master N_2 Stop To Acc's	10/296	E/12	C/FC	CB	9 C 13 10X 846-C; 9 C 13 20X 846-S1; 846-S	110E059 SH.5
						VALVE 874A DELETED
						VALVE 874B DELETED
897 S.I. Test & Recirc. To R.W.S.T.	30/301	E/12	O/F.C.	CB	—	20X1=110E074 SH.2
898 S.I. Test & Recirc. To R.W.S.T.	36/301	E/12	O/F.C.	CB	—	20X1=110E074 SH.3
1275A No. 3 H.U.T. Gas Anal. Solenoid	309	—	X/F.C.	—	SEE SH. 309	—
1275B No. 2 H.U.T. Gas Anal. Solenoid	309	—	X/F.C.	—	SEE SH. 309	—
1275C No. 1 H.U.T. Gas Anal. Solenoid	309	—	X/FC	—	SEE SH. 309	—
1275D V.C.T. Gas Anal Solenoid	309	—	X/FC	—	SEE SH. 309	—

OPER. MODE
O: NORMALLY OPERATED OPEN
C: NORMALLY OPERATED CLOSED
X: NORMALLY OPERATED OPEN & CLOSED
FC: FAILED CLOSED
FO: FAILED OPEN
FAI: FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L: LOCAL
CB: CONTROL BOARD
SR.: SAMPLE ROOM

BWP: BORON RECYCLE & WASTE DISPOSAL PANEL

This Dwg. Supercedes Westinghouse Dwg. 4998425 Sh. 259 (REV. 7)

REV.		
ORIGINAL		
DRAWN BY	N.J.A.	
CK'D.	RHM 4/18/75	
RESP. ENG'R.	POK	
ENG'R. MGR.	RCM	
DATE	4/15/75	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT
No. 10905-259

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
SOLENOID & SOLENOID PILOT VALVE

	BY	DATE	
DRAWN	N.J.A.	9-74	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG./SH	SW./SH	OPER. MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
951 PRZR. STEAM SPACE STOP	35/301	E/12	C/FC	SR	951-S3 1/S 951-S2 10 C 10X 951-S1 14 C 20X 951-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
953 PRZR. LIQUID SPACE STOP	35/301	E/12	C/FC	SR	953-S3 1/S 953-S2 11 C 15 10X 953-S1 11 C 15 20X 953-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
955 LOOP B HOT LEG SAMPLE	35/301	E/12	C/FC	SR	955-S3 955-S2 12 C 16 10X 955-S1 12 C 16 20X 955-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
959 R.H.R. LOOP SAMPLE	35/301	E/12	C/FC	SR	959-S3 1/S 959-S2 2 C 6 11X 959-S1 2 C 6 21X 959-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
966A PRZR. STEAM SPACE C.V. ISOL. STOP	35/301	E/12	C/FC	SR	966A-S3 1/S 966A-S2 3 C 7 11X 966A-S1 3 C 7 21X 966A-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
966B PRZR. LIQUID SPACE C.V. ISOL. STOP	35/301	E/12	C/FC	SR	966B-S3 1/S 966B-S2 9 C 13 11X 966B-S1 9 C 13 21X 966B-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
966C LOOP B HOT LEG C.V. ISOL. STOP	35/301	E/12	C/FC	SR	966C-S3 1/S 966C-S2 10 O 14 11X 966C-S1 10 C 14 21X 966C-S	WHITE LIGHT ON CB 110E059 SH. 5 1/S ON CB
		C/314		CB		
SEE SH. 263 FOR 1090 - 1091 - 1092 - 1093						
1597 R-10A R-11 R-12 AUTO AIR INLET	10/296	E/12	O/FC	CB	1597-C 11 V 15 10X 1597-S1 11 V 15 20X 1597-S	110E059 SH. 5
1598 R-11 R-12 AUTO AIR OUTLET	10/296	E/12	O/FC	CB	1598-C 12 V 16 10X 1598-S1 12 V 16 20X 1598-S	110E059 SH. 5

OPER. MODE

O = NORMALLY OPERATED OPEN
C = NORMALLY OPERATED CLOSED
X = NORMALLY OPERATED OPEN & CLOSED
FC = FAILED CLOSED
FO = FAILED OPEN
FAI = FAILED AS IS

CONTROL SW. AND/OR POS. LGT. LOCATION

L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM
BWP = BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 4998425 SH. 260

REV.	ORIGINAL	N.J.A.	BMW 6/6/72	WRB 6/19/72	R.E.L. 6/19/72	6-9-72
		DRAWN BY	CK'D.	RESP. ENGR.	ENGR. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905 - 260

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1.
ELEMENTARY WIRING DIAGRAM
SOLENOID AND SOLENOID PILOT VALVE

DRAWN	N.J.A.	DATE	SCALE ~
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG/SH	SW/SH	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
1600A RCDT TO GA	309	—	X/FC	—	1600AP 9 C 13 22X 1600AS	SH.309 10E059 SH.5
1600B VCT TO GA	309	—	X/FC	—	SEE SH.309	—
1600C SRT TO GA	309	—	X/FC	—	SEE SH.309	—
1600D SRT TO GA	309	—	X/FC	—	SEE SH.309	—
1600E PRT TO GA	309	—	X/FC	—	SEE SH.309	—
1600F GDT TO GA AUTO	309	—	X/FC	—	SEE SH.309	—
1600G HUT #1 TO GA	309	—	X/FC	—	SEE SH.309	—
1600H HUT #2 TO GA	309	—	X/FC	—	SEE SH.309	—
1600J HUT #3 TO GA	309	—	X/FC	—	SEE SH. 309	—
1600K GDT TO GA MANUAL	309	—	X/FC	—	SEE SH.309	—

OPER MODE — CONTROL SWITCH AND/OR POS. LGT.

D: NORMALLY OPERATED OPEN — LOCATION:

C: NORMALLY OPERATED CLOSED — L = LOCAL — GA = GAS ANALYZER

X: NORMALLY OPERATED OPEN & CLOSED — CB: CONTROL BOARD — SR: SAMPLE ROOM

EC: FAILED CLOSED

EO: FAILED OPEN — BWP: BORON RECYCLE & WASTE DISPOSAL PANEL

FAI: FAILED AS IS

REV.	ORIGINAL	DRAWN BY	CH'D	RESP. ENGR.	ENGR. MAGR.	DATE
		DRH 6-4-76	Rmv 6/7/76	WRP 6/8/76	JEB 6/8/76	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGR. DEPT
NO. 10905-2611

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
SOLENOID & SOLENOID PILOT VALVE

	BY	DATE	
DRAWN			SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE	FIG./SH.	SW./SH.	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
1600L GAS STIPPER TO GA	309	—	X/FC	—	SEE SH. 309	—
1629 #1 GDT REUSE DISCHG.	1/295	E/12	C/FC	BWP	—	—
1630 #2 GDT REUSE DISCHG.	1/295	E/12	C/FC	BWP	—	—
1631 #3 GDT REUSE DISCHG.	1/295	E/12	C/FC	BWP	—	—
1632 #4 GDT REUSE DISCHG.	1/295	E/12	C/FC	BWP	—	—
1641 A S.R.T. TO V.H.	1/295	E/12	C/FC	DP	—	—
1642 B S.R.T. TO V.H.	1/295	E/12	C/FC	DP	—	—
1684 A S.R.T. TO DRUM STA.	1/295	E/12	C/FC	DP	—	—
1687 B S.R.T. TO DRUM STA.	1/295	E/12	C/FC	DP	—	—
1692 N_2 TO TOP A S.R.T.	1/295	E/12	C/FC	DP	—	—
1693 N_2 TO TOP B S.R.T.	1/295	E/12	C/FC	DP	—	—
1700 N_2 TO A S.R.T. (LOWER)	1/295	E/12	C/FC	DP	—	—
1702 N_2 TO B S.R.T. (LOWER)	1/295	E/12	C/FC	DP	—	—
1643 N_2 TO W.G.C.	1/295	E/12	C/FC	BWP	—	—

OPER. MODE
O = NORMALLY OPERATED OPEN
C = NORMALLY OPERATED CLOSED
X = NORMALLY OPERATED OPEN & CLOSED
FC = FAILED CLOSED
FO = FAILED OPEN
FAI = FAILED AS IS

CONTROL SW. AND/OR POS. LGT. LOCATION:
L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM
DP = DRUMING PANEL
GA = GAS ANALIZER
BWP = BORON RECYCLE & WASTE DISPOSAL, PANEL

THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. NO. 499B425 SH. 262

REV.					
ORIGINAL	N.J.A	RJW 6/2/72	WRB 6/9/72	GLS 6/9/72	
	DRAWN BY	CK'D.	RESP. ENGR.	ENGR. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-262

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SOLENOID AND SOLENOID PILOT VALVE

DRAWN	BY N.J.A.	DATE	SCALE ~	
TRACED			APPROVED	
CHECKED			FOLDER NO.	
ENG.			JOB NO.	

VALVE	FIG./SH.	SW./SH.	OPER. MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
1090	1/295	E/12	C/FC	CB	—	CONTAINMENT FAN COOLER 1A CONDENSATE DRAIN VALVE
1091	1/295	E/12	C/FC	CB	—	CONTAINMENT FAN COOLER 1B CONDENSATE DRAIN VALVE
1092	1/295	E/12	C/FC	CB	—	CONTAINMENT FAN COOLER 1C CONDENSATE DRAIN VALVE
1093	1/295	E/12	C/FC	CB	—	CONTAINMENT FAN COOLER 1D CONDENSATE DRAIN VALVE
1694	309	—	C/FC	—	SEE SH. 309	— 1-A S.R.T. S.O. TO GA
1695	309	—	C/FC	—	SEE SH. 309	— 1B S.R.T. S.O. TO GA
1721	37/301	E/12	O/FC	BWP	1721C 2C 12X 1721-S1	110E059 SHEET 5 ROOT VALVE, SUCTION LINE TO R.C.D.T.
		1/DT B/314		1/DT & "W" LGT. CB	2C 22X 1721-S	
1723	11A/296	E/12	O/FC	BWP	1723-S 9C 13X 1723-S1	110E059 SHEET 5 CONTAINMENT SUMP PUMP DISCHARGE TO WHT STOP VALVE
1728	11A/296	E/12	O/FC	BWP	1728-S 14C 23X 1728-S1	110E059 SHEET 5 CONTAINMENT SUMP PUMP DISCHARGE TO WHT ROOT VALVE

OPER. MODE

O = NORMALLY OPERATED OPEN
C = NORMALLY OPERATED CLOSED
X = NORMALLY OPERATED OPEN & CLOSED
FC = FAILED CLOSED
FO = FAILED OPEN
FAI = FAILD AS IS

CONTROL SW. AND/OR POS. LGT. LOCATION

L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM
GA = GAS ANALIZER
BWP = BORON RECYCLE & WASTE DISPOSAL PANEL.

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 4998425 SH. 263

REV.						
ORIGINAL	N.J.A. DRAWN BY	CWW 6/8/72 CK'D.	WRD 6/19/72 RESP. ENGR.	QEL 6/9/72 ENGR. MGR.	DATE	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1	DRAWN	BY N.J.A.	DATE 6/72	SCALE ~
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM SOLENOID AND SOLENOID PILOT VALVE	TRACED			APPROVED
No. 10905 - 263		CHECKED			FOLDER NO.
		ENG.			JOB NO.

VALVE	FIG/SH	SW/SH	OPER MODE	CB/LGTD LOCATION	INTERLOCKS	REFERENCE AND DRAWING REMARKS
1786	35/301	E/12	O/FC	BWP	1786C 1/VH; 1786-S1 3/C; 12X 7/1786-S	WHITE LIGHT ON CB 110E059 SH.5 R.C.D.T TO VH PRIMARY ISOL. VALVE
		1/VH A/314		CB		
1787	35/301	E/12	O/FC	BWP	1787-C 1/VH; 1787-S1 10/C; 22X 14/1787-S	WHITE LIGHT ON CB 110E059 SH.5 RC.D.T. TO VH SECONDARY ISOL. VALVE
		1/VH A/314		CB		
1789	309	A/314	C/FC	CB	1789-S1 10/C; 12X 14/1789-S	110E059 SH.5 MINE SAFETY APPLIANCES DWG. ASK 1673-G15 RC.D.T. TO GA OUTLET ISOL.
1798A	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1798AS1 LEVEL SW. AT DRUM OPENS ONLY AT HI LIMIT 1798AS	S.R.T., S.O. RESIN DISPENSING VALVE
1798B	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1798BS1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1798BS	S.R.T. S.O. RESIN DISPENSING VALVE
1798C	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1798C S1 LEVEL SW. AT DRUM OPENS ONLY AT HI LIMIT 1798C S	S.R.T. S.O. RESIN DISPENSING VALVE
1798D	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1798D S1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1798DS	S.R.T. S.O. RESIN DISPENSING VALVE
1798E	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1798E S1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1798ES	S.R.T. S.O. RESIN DISPENSING VALVE
1799A	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1799A S1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1799AS	W.E. S.O. CONCENTRATED DISPENSING VALVE
1799B	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1799B S1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1799BS	W.E. S.O. CONCENTRATED DISPENSING VALVE

OPER. MODE
O-NORMALLY OPER. OPEN
C-NORMALLY OPER. CLOSED
X-NORMALLY OPER. OPEN & CLOSED
FC-FAILED CLOSED
FO-FAILED OPEN
FAI-FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION;
L-LOCAL
CB-CONTROL BOARD
SR-SAMPLE ROOM
GA-GAS ANALYZER PANEL
BWP-BORON RECYCLE & WASTE DISPOSAL PNL.
DP-DRUMMING PANEL

THIS DRAWING SUPERSEDES WESTINGHOUSE 499B425 SH.264.

ORIGINAL	REV.
DRAWN BY	DH.
CHK'D	
RESP. ENG'R.	
ENG'R. MAN'R.	
DATE	4/7/72

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R. DEPT
NO. 10905-264

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEM. WIRING DIAGRAM
SOLENOID & SOLENOID PILOT VALVE

	DRAWN	BY	DATE	SCALE
	DH.		10/5	
TRACED				APPROVED
CHECKED				FOLDER NO.
ENG.				JOB NO.

VALVE	FIG/SH.	SW DEV.	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DWG. AND REMARKS
1799C	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1799CS1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1799CS	W.E. S.O. CONCENTRATES DISPENSING VALVE
1799D	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1799 DS1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1799 DS	W.E. S.O. CONCENTRATES DISPENSING VALVE.,
1799E	30/300	H/12 NP CLOSE OPEN	C/FC	DP	1799 ES 1 LEVEL SW AT DRUM OPENS ONLY AT HI LIMIT 1799 ES	W.E. S.O. CONCENTRATES DISPENSING VALVE
TURB DRAIN DV8 3386	311	SH. 10 COMMON SWITCH	C/FC	CB	SEE SH. 311	D-302-141 461B420-SH.9
TURB. DRAIN DV7 3388	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9
TURB. DRAIN TB 12 ST 3831	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9 COMP. TB0310
TURB DRAIN HPDT 3841	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9 COMP TB0311
TURB. DRAIN B2 3845	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9 COMP TB0309
TURB DRAIN B1 3850	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9 COMP TB0307
TURB. DRAIN A2 3855	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9 COMP TB0308
TURB. DRAIN A1 3860	311		C/FC	CB	SEE SH. 311	D-302-141 461B420 SH.9 COMP. TB0306
AUX FP LATCHED TURB. GOV. VALVE V6R, V6N	20/291	—		—/CB	TDG-N TDG-W TDG-R	SPDT SW ON VALVE RED LIGHT-LATCHED WHITE LIGHT-UNLATCHED

THIS DWG SUPERSEDES W. DWG. 449B425 SH. 265

	ORIGINAL	REV.
DWN. BY	[illegible]	
CK'D	[illegible]	
RESP. ENGR.	[illegible]	
ENGR. MGR.	[illegible]	
DATE	4/24/71	

OPER MODE
O - NORMALLY OPERATED OPEN
C - NORMALLY OPERATED CLOSED
X - NORMALLY OPERATED OPEN & CLOSED
FC - FAILED CLOSED
FO - FAILED OPEN
FAI - FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L - LOCAL
CB - CONTROL BOARD
SR - SAMPLE ROOM
GA - GAS ANALYZER
BWP - BORON RECYCLE WASTE DISPOSAL
DP - DRUMMING PANEL

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
NO. 10905-265

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SOL & SOL PILOT VALVES

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE	VALVE B/M NO. (FUSE NO)	FIG/SH	SW DEV	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
	3339 CV-1 / 3335 CV-5 (V12P) (V12N)	16/297	—	C/FO	—	AR7	MOISTURE SEP 1A DRAIN VALVE SHEET 316 F672 D-302-111
	3340 CV-2 / 3337 CV-6 (V13P) (V13N)	16/297	—	C/FO	—	AR7	MOISTURE SEP 1B DRAIN VALVE SHEET 316 F-672 D-302-111
	3341 CV-3 / 3342 CV-7 (V14P) (V14N)	16/297	—	C/FO	—	AR7	MOISTURE SEP 2A DRAIN VALVE SHEET 316 F672 D302-111
	3347 CV-4 / 3346 CV-8 (V15P) (V15N)	16/297	—	C/FO	—	AR7	MOISTURE SEP 2B DRAIN VALVE SHEET 316 F-672 D-302-111
	43TG CV-10 / 43 11 CV-13 (V9P) (V9N)	18/297	—	O/FO	—/SWTP	20X1-AR-38 CA 2003 RECORDER CONTACT CB	CONDENSATE MAKE UP FEED MODULATING VALVES F673 OPENS ON INCREASING CONDUCTIVITY D-302-101 S-205-673
	3977 CV-18 / RN-47A (V10P) (V10N)	15/297	—	O/FO	—/CB	20X1=AR1 20X2=AR2 20X3=AR3 V10P1 CV18-S V10P2 80/FSH 80/FSL 2002 2001 20X1 PS	FEED PUMP 1A RECIRC VALVE AR2 AR3 AR3 AR1 CPTR FWO10 CPTR FWO10 TO EPIA SH30 TO EPLITE LOAD (CLOSED) (CLOSED) D-302-101 ALM SOLENOID IS ENERGIZED TO CLOSE VALVE S-205-662
	4263 CV-19 / RN-47A (V11P) (V11N)	15/297	—	O/FO	—/CB	20X1-AR4 20X2-AR5 20X3-ARG V11P1 CV19-S V11P2 80/FSL 80/FSH 2004 2003 20X1	FEED PUMP 1B RECIRC VALVE AR5 ARG ARG ARH CPTR FWO10 CPTR FWO10 TO EP1B (CLOSE) (OPEN) D302-101 TO EPLITE SH30 LOAD ALARM SOLENOID IS ENERGIZED TO CLOSE VALVE S-205-662
	3358 A1 / RN-12A (V16P) (V16N)	34/300	—	C/FC	—/CB Δ	AIP 45 20X A153 TC-401 H-X A151 A152 XT1 XT5	STEAM DUMP D-302-111 33 bc 33 ao 110E074, SH 4 SH 114 E336 CPTR TB-0207 CPTR TB-0208
	3353 A2 / RN-12B (V17P) (V17N)	34/300	—	C/FC	—/CB Δ/	A2P 30X A253 TC-401 H-X A251 A252 XT1 XT3	STEAM DUMP D-302-111 33 DC 33 ao 110E074 SH 4 SH 114 E336 CPTR TB-0209 CPTR TB-0210
	3356 A3 / RN-12C (V18P) (V18N)	34/300	—	C/FC	—/CB Δ	A3P 45 30X A353 TC-401 E-X A351 A352 XT1 XT3 A33	STEAM DUMP D-302-111 33 bc 33 ao 110E074 SH 4 SH 114 E336 CPTR TB-0211 CPTR TB-0212
	3349 A4 / RN-12D (V19P) (V19N)	34/300	—	C/FC	—/CB Δ	A4P 45 30X A453 TC-401 E-X A451 A452 XT1 XT3 A43	STEAM DUMP D-302-111 33 bc 33 ao 110E074 SH 4 SH 114 E336 CPTR TB-0213 CPTR TB-0214

OPER MODE
O-NORMALLY OPERATED OPEN
C-NORMALLY OPERATED CLOSED
X-NORMALLY OPERATED OPEN & CLOSED
FO-FAILED CLOSED
FO-FAILED OPEN
FAT-FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION
L-LOCAL
CB-CONTROL BOARD
SWTP-SEC. WATER TREATING PNL
Δ-LIMIT SW CONTACTS ARE ON VALVE NOT SOLENOID OPERATOR

REV	DESCRIPTION	BY	CHKD	ENGR	ENGR. MGR.	DATE
	ORIGINAL					4-27-74

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-266

ROBERT EMMET GINNA NUCLEAR POWER STATION UNIT No 1
ELEMENTARY WIRING DIAGRAM
SOLENOID VALVE TABLE

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

VALVE B/M NO. (FUSE NO)	FIG/SH	SW DEV	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
B1 RN-12A (V20P) (V20N)	34/300		C/FC	-/CB ▲	B1P, 43, SDX, TC-401 J-X, B1S2, 63 XT1, B1S; B1S3, TC-401 H-X, B1S1	STEAM DUMP D-302-111, 110E074 SH4, SH 114 & 336 33, 33, bc, ao CPTR TB-0215, CPTR TB-0216
B2 RN-12B (V21P) (V21N)	34/300		C/FC	-/CB ▲	B2P, 43, SDX, TC-401 J-X, B2S2, 63 XT1, B2S; B2S3, TC-401 H-X, B2S1	STEAM DUMP D-302-111, 110E074 SH4, SH 114 & 336 33, 33, bc, ao CPTR TB-0217, CPTR TB-0218
B3 RN-12C (V22P) (V22N)	34/300		C/FC	-/CB ▲	B3P, 43, SDX, TC-401 O-X, B3S2, 63 XT2, B3S; B3S3, TC-401 E-X, B3S1	STEAM DUMP D-302-111, 110E074 SH4, SH 114 & 336 33, 33, bc, ao CPTR TB-0219, CPTR TB-0220
B4 RN-12D (V23P) (V23N)	34/300		C/FC	-/CB ▲	B4P, 43, SDX, TC-401 O-X, B4S2, 63 XT2, B4S; B4S3, TC-401 E-X, B4S1	STEAM DUMP D-302-111, 110E074 SH4, SH 114 & 336 33, 33, bc, ao CPTR TB-0301, CPTR TB-0302
CV-70 CV-71 RN-9D (V24P) (V24N)	33/300	B1 X/13 N.P. CLOSE AUTO	O/FC	SR/SR 1/BD & "W" LGT CB	SEE FIG 33 SH 300	BLOWDOWN ISOLATION VALVES D-302-121 110E074 SH3 110E059 SH5 SH 317
CV-36 RN-38B (V25P) (V25N)	13/296		C/FO	BACKLIGHTED PB ON CB/CB	LS1=LAH 2022 LS2=LAL 2080 LS3=NOT USED 20X1=AR12 20X2=AR13 20X3=H3AX C1=ARB (SH 316) FG78	FEEDWATER HEATER 3A DUMP VALVE H29 AR12, H29 AR13, AR13, 33bc HAP F-2, HAP F-2 COMM COMP, COMM COMP, COMP HI HX0110, LO HX0111, HX0215 ALARM, ALARM SOLENOID IS ENERGIZED TO CLOSE VALVE D-302-041, S-205-678
CV-37 RN-38B (V26P) (V26N)	13/296		C/FO	BACKLIGHTED PB ON CB/CB	LS1=LAH 2025 LS2=LAL 2081 LS3=NOT USED 20X1=AR14 20X2=AR15 20X3=H3BX C1=ARB (SHT 316) FG78	FEEDWATER HEATER 3B DUMP VALVE H29 AR14, AR14, H29 AR15, AR15, 33bc HAP F-2, HAP F-2 COMM COMP, COMM COMP, COMP HI HX0112, LO HX0113, HX0216 ALARM, ALARM SOLENOID IS ENERGIZED TO CLOSE VALVE D-302-041, S-205-676
CV-40 RN-39B (V29P) (V29N)	13/296		C/FO	BACKLIGHTED PB ON CB/CB	LS1=LAH 2021 LS2=LAL 2076 LS3=LAH 2020 FROM CV-44 20X1=AR20 20X2=AR21 20X3=H2AX C1=ARB (SH 316) FG76	FEEDWATER HEATER 2A DUMP VALVE H29 AR20, AR20, H29 AR21, AR21, 33bc HAP F-2, HAP F-2 COMM COMP, COMM COMP, COMP HI HX0106, LO HX0107, HX0213 ALARM, ALARM SOLENOID ENERGIZED TO CLOSE VALVE D-302-041, S-205-676
CV-44 RN-40B (V27P) (V27N)	13/296		C/FO	BACKLIGHTED PB ON CB/CB	LS1=LAH 2020 LS2=LAL 2076 LS3=NOT USED 20X1=AR16 20X2=AR17 20X3=H1AX C1=ARB (SH 316) FG76 LAH 2020 TO LS3 ON CV-40	FEEDWATER HEATER 1A DUMP VALVE H29 AR16, AR16, H29 AR17, AR17, 33bc HAP F-2, HAP F-2 COMM COMP, COMM COMP, COMP HI HX0102, LO HX0103, HX0211 ALARM, ALARM SOLENOID ENERGIZED TO CLOSE VALVE D-302-041, S-205-676
CV-45 RN-40B (V28P) (V28N)	13/296		C/FO	BACKLIGHTED PB ON CB/CB	LS1=LAH 2023 LS2=LAL 2077 LS3=NOT USED 20X1=AR18 20X2=AR19 20X3=H1BX C1=ARB (SH 316) FG76 LAH 2023 TO LS3 ON CV-41	FEEDWATER HEATER 1B DUMP VALVE H29 AR18, AR18, H29 AR19, AR19, 33bc HAP F-2, HAP F-2 COMM COMP, COMM COMP, COMP HI HX0104, LO HX0105 ALARM, ALARM, HX0212 SOLENOID IS ENERGIZED TO CLOSE VALVE D-302-041, S-205-676

OPER. MODE.
O = NORMALLY OPERATED OPEN
C = NORMALLY OPERATED CLOSED
X = NORMALLY OPERATED OPEN & CLOSED
FC = FAILED CLOSED
FO = FAILED OPEN
FAI = FAILED AS IS

CONTROL SWITCH AND/OR POS LGT LOCATION
L = LOCAL
CB = CONTROL BOARD
▲ = LIMIT SWITCH CONTACTS ARE ON VALVE, NOT SOLENOID OPERATOR
SR = SAMPLE ROOM

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH 267

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
	INITIAL	GJF	RW	GWD	GWD
ORIGINAL	DATE	12/7/77	3/16/78	7/18/78	7/18/78

ELEMENTARY WIRING DIAGRAM
SOLENOID VALVE TABLE

FACILITY GINNA STA
SCALE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO. | DRAWING NO. 10905-267 | REV. A

VALVE BM NO. (FUSE NO)	FIG/SH	SW REV	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
CV-41 RN-39B (VP30P VP30N)	13/296		C/FO	BACK-LIGHTED PB ON CB/CB	LS1-LAH2024 LS2-LAL2079 LS3-LAH2023 FROM CV-45 20X1-AR22 20X2-AR23 20X3-H28X C1-AR8 (SHT-316)	FEEDWATER HEATER 2B DUMP VALVE SOLENOID IS ENERGIZED TO CLOSE VALVE ⊥H29 ⊥-1 ⊥H29 ⊥-1 ⊥336C THAP T-2 THAP T-2 T COMM COMP COMM COMP COMP HI HX0100 LO HX0109 HX0214 ALARM ALARM F676 D-302-041F S-205-676
CV-49 RN-23A (VP38P VP38N)	14/296		C/FC	FIRE CONTROL PANEL	20=NOT USED 20X1-AR39 20X2-AR40 1/X-CONT. SW FIRE SERV. BOOSTER PUMP (SHT 161)	FIRE SERV BOOSTER PUMP DISCH VALVE ⊥1A/2D-C2 ⊥AR39 ⊥AR40 T1A/2DC T OPEN ⊥AR #40 TO FIRE SERV BOOSTER PUMP (SH 161) COMP PT MI0111 F469 4 CLOSE CPTR MI0112
CV-51 RN-22A	PNEU. OPER.		O/FC			FIRE WATER TANK SPILL VALVE ⊥336C T CLOSE COMP MI 0108 D-302-231
CV-52 RN-32A	PNEU. OPER.		O/FC			FIRE TANK AIR PRESSURE VALVE ⊥336D T OPEN ⊥336C T CLOSE COMP COMP MI-0109 MI-0110 D-302-231
CV-56 (VP35P VP35N)	22/297		O/FC		20X1-AR30 20X2-AR31 PS2092	ATMOSPHERIC RELIEF VALVE 1A ⊥-1 ⊥AR30 ⊥-1 ⊥AR31 D-302-011 S-205-663 T CLOSE T OPEN COMP -2 COMP -2 TB0116 TB0117 SOLENOID IS ENERGIZED TO OPEN VALVE F663
CV-57 (VP36P VP36N)	22/297		O/FC		20X1-AR32 20X2-AR33 PS2093	ATMOSPHERIC RELIEF VALVE 1B ⊥-1 ⊥AR32 ⊥AR33 T CLOSE -2 T OPEN -2 D-302-011 COMP COMP S-205-663 TB0120 TB0119 SOLENOID IS ENERGIZED TO OPEN VALVE F663
RN-1A RN-1B (VP34P VP34N)	13/296		O/FC	BACKLIGHTED PB ON CB/CB	LS1-LA2029 LS2-LAL2085 LS3-NOT USED 20X1-AR27 20X2-AR29 20X3-B5BX C1-NOT USED	HP HTR 5B EXTR NON RTN VALVES SOLENOID IS ENERGIZED TO OPEN VALVE ⊥-1 ⊥H29 ⊥-1 ⊥H29 ⊥336C ⊥336C T AR27 T AR27 T AR29 T AR29 T RN1A T RN1B T-2 THAP T-2 THAP COMP COMM COMP COMM COMP COMP HX0118 HI HX0119 LO HX0205 HX0206 D-302-041 ALARM ALARM S-205-679 F679
RN-1C RN-1D (VP33P VP33N)	13/296		O/FC	BACKLIGHTED PB ON CB/CB	LS1-LA2028 LS2-LAL2082 LS3-NOT USED 20X1-AR26 20X2-AR28 20X3-B5AX C1-NOT USED	HP HTR 5A EXTR NON RTN VALVES SOLENOID IS ENERGIZED TO OPEN VALVE ⊥-1 ⊥H29 ⊥-1 ⊥H29 ⊥336C ⊥336C T AR26 T AR26 T AR28 T AR28 T RN1C T RN1D T-2 THAP T-2 THAP COMP COMM COMP COMM COMP COMP HX0116 HI HX0117 LO HX0203 HX0204 D-0302-041 ALARM ALARM S-205-679 F679
RN-2A RN-2B (VP31P VP31N)	13/296		O/FC	BACKLIGHTED PB ON CB/CB	LS1-LA2026 LS2-NOT USED LS3-NOT USED 20X1-AR24 20X2-NOT USED 20X3-H4AX C1-NOT USED	LP HTR 4A EXTR NON RTN VALVES SOLENOID IS ENERGIZED TO OPEN VALVE ⊥-1 ⊥H29 ⊥336C ⊥336C T AR24 T AR24 THAP T RN2A T RN2B T-2 COMP COMM COMP COMP HX0114 HI HX0207 HX0208 ALARM D-302-041 S-205-674 F674
RN-2A RN-2C (VP32P VP32N)	13/296		O/FC	BACKLIGHTED PB ON CB/CB	LS1-LA2027 LS2-NOT USED LS3-NOT USED 20X1-AR25 20X2-NOT USED 20X3-H4BX C1-NOT USED	LP HTR 4B EXTR NON RTN VALVES SOLENOID IS ENERGIZED TO OPEN VALVE ⊥-1 ⊥H29 SW 1 SW 2 ⊥AR25 ⊥AR25 ⊥336C ⊥336C T-2 THAP T RN2A T RN2C COMP COMM COMP COMP HX0115 ALARM HX0209 HX0210 D-302-041 S-205-674 F674

OPER. MODE
O-NORMALLY OPERATED OPEN
C-NORMALLY OPERATED CLOSED
X-NORMALLY OPERATED OPEN & CLOSED
FC-FAILED CLOSED
FO-FAILED OPEN
FAI-FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L-LOCAL
CB-CONTROL BOARD
SR-SAMPLE ROOM
AP-AUXILIARY PANEL
WP-WASTE DISPOSAL PANEL

⚠=LIMIT SW CONTACTS ARE ON VALVE NOT SOL. OPERATOR

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425SH 268

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL INITIAL / DATE	GJF 9/19/77	RW 1/11/78	GWD 7/18/78	GWD 7/18/78

ELEMENTRY WIRING DIAGRAM
SOLENOID VALVE TABLE

FACILITY GINNA STA
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE
JOB NO.
DRAWING NO. 10905-268
REV. ⚠

Rev.						
Original						
drawn by	ASM					
ckd	[illegible]					
resp engr	R.E.H.					
engr mgr	E.E.L.					
	4/27/72					

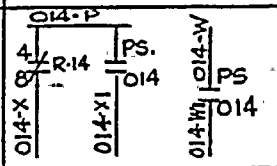
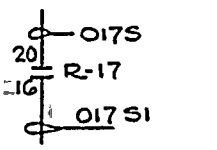
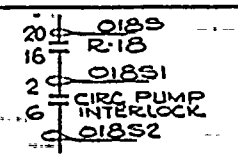
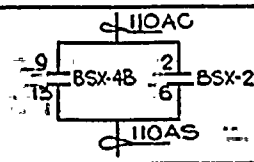
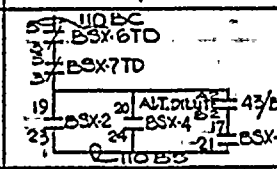
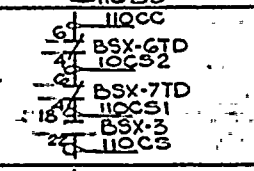
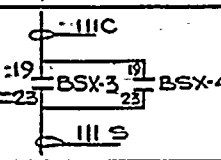
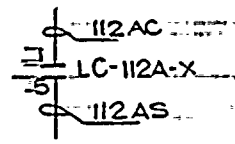
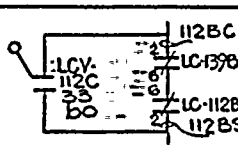
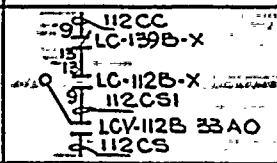
VALVE B/M NO. (FUSE NO.)	FIG./SH	SW. DEV.	OPER MODE	CS./LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
3336 CV-24A / 3336A CV-24B (V3P) (V3N)	19/297	N/12 N.R. CV.24 CV.25	C/FC.	CB/CB	20X1-AR41	REHEATER 1A & 1B DRAIN DUMP VALVE AR41 TO CPTR TB 0201 D-302-111
3336B CV-25A / 3336A CV-25B (V4P) (V4N)	19/297	CON. SW. WITH CV.24	C/FC	CB/CB	20X1-AR42	REHEATER 2A & 2B DRAIN DUMP VALVE AR42 TO CPTR TB 0202 D-302-111
4291 CV-27 (V46P) (V46N)	25/298	—	O/EO.	—/CB	20X1-AR72 FS 2009	H10B TD. AUX FWP AR72 - RECIRC. VALVE HAP LGT. LOAD ALARM D-302-101
3347 CV-30 / RN-36B	PNEU OPER	—	C/FC	—/—		HP HEATER 5A DRAIN VALVE 33bc CLOSE SW#1 COMP HX0201 D-302-111
3348 CV-31 / RN-36B	PNEU OPER	—	C/FC	—/—		HP HEATER 5B DRAIN VALVE 33bc CLOSE SW#1 COMP HX0202 D-302-111
3343 CV-33 / RN-37B (V43P) (V43N)	16/297	—	O/FC	—/—	LS 2012 (SHT 317)	HEATER DUMP VALVE 33a0 V22P RA-3 REAR G R COMP CD 0112 D-302-111 S-205-111
4238 CV-53 / RN-33A (V-16P) (V-16N)	16/297	—	C/FO.	—/—	PS 2057	CONDENSATE RECIRC. VALVE 33a0 OPEN 33bc CLOSE COMP CD0114 COMP CD0115 D-302-101
3365 CV-59	—/317	—	C/FC.	—/CB		HEATER DRAIN TANK RECIRC. VALVE 33 33 aa bc SH. 317 D-302-111
4304 CV-62 / RN-66A (V44P) (V44N)	21/297	—	C/FO.	—/CB	20X1-AR34 20X2-AR35	MOTOR DR. AUX FP 1A RECIRC. VALVE H10A 1 AR34 AR35 AR34 2 OPEN CLOSE 2 HAP COMP COMP LGT LOAD ALARM FW0204 FW0202 D-302-101 S-205-681
4310 CV-63 / RN-66A (V45P) (V45N)	21/297	—	C/FO.	—/CB	20X1-AR36 20X2-AR37	MOTOR DR. AUX FP 1B RECIRC. VALVE H10A 1 AR36 1 AR37 AR36 2 2 HAP COMP. COMP. LGT LOAD ALARM FW0205 FW0203 D-302-111 S-205-681

OPER MODE:
O - NORMALLY OPERATED OPEN
C - NORMALLY OPERATED CLOSED
X - NORMALLY OPERATED OPEN & CLOSED
FC - FAILED CLOSED
FO - FAILED OPEN
FAI - FAILED AS IS

CONTROL SWITCH AND/OR POS LGT LOCATION:
L - LOCAL
CB - CONTROL BOARD
SR - SAMPLE ROOM
AP - AUXILIARY PANEL
WP - WASTE DISPOSAL PANEL
Δ - LIMIT SW. CONTACTS ARE ON VALVE, NOT SOL. OPERATOR

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SHEET 269 REV 5

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1	DRAWN	BY	DATE	SCALE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM SOLENOID VALVE TABLE	TRACED			APPROVED
No. 10905-269		CHECKED			FOLDER NO.
		ENG.			JOB NO.

VALVE	FIG/SH	SW/SH	OPER. MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
RCV-014	29/298	—	C/FC	BWP		TRACER LAB D997587 TAYLOR 60624W2 SH.2 WASTE GAS RELEASE VALVE
RCV-017	3/295	E/12	O/FC	CB		TRACER LAB D997588 C.C. SURGE TANK VENT VALVE
RCV-018	3/295	E/12	C/FC	BWP		TRACER LAB D997588 RA-2 REAR LIQUID WASTE RELEASE VALVE
FCV-110A	4/295	D/12	C/FC	CB		SHEET-330 B.A. TO BLENDER OR CHG. PP. SUCTION
FCV-110B	4/295	A/12	C/FC	CB		SHEET-330 33 QC COMPUTER BLENDER DISCH TO V.C.T. OUTLET
FCV-110C	4/295	A/12	C/FC	CB		SHEET-330 33 QC COMPUTER BLENDER DISCH TO V.C.T. INLET
FCV-111	4/295	A/12	C/FC	CB		SHEET-330 R.M.W. TO BLENDER
LCV-112A	39/312	A/12	C/FC FAIL TO NORM	CB		MARK FACEPLATE "NORMAL" INSTEAD OF "CLOSE" AND "DIVERT" INSTEAD OF "OPEN" 110E074 SH. 2 V.C.T. INLET DIVERSION
LCV-112B	4/295	A/12	C/FC	CB		110E074 SH. 2 RWST TO CHG. PUMP SUCTION.
LCV-112C	4/295	B/12	O/FO	CB		110E074 SH. 2 V.C.T. OUTLET VALVE

OPER. MODE:
O = NORMALLY OPERATED OPEN
C = NORMALLY OPERATED CLOSED
X = NORMALLY OPERATED OPEN AND CLOSED
FC = FAILED CLOSED
FO = FAILED OPEN
FAI = FAILED AS IS

CONTROL SWITCH AND OR POS LGT. LOCATION:
L = LOCAL
CB = CONTROL BOARD
SR = SAMPLE ROOM
BWP = BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SHEET 270 REV. 6

	Rev.	by	date
Original		A.S.M.	4/1/72
ckd.			
resp. engr.			
engr.			
date			

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-270

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONTROL VALVE TABLE

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499 B 425 SH 271

VALVE FUSE NO	FIG/SH	SW DEV	OPER MODE	CS/LGTS. LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
LCV-427	4/295	B/12	O/FO	CB	427 C 19 LG-428DX 19 LG-427B-X 23 23 427S	110E074 SH.4 LETDOWN ISOL. STOP
TCV-145	4/295	B/12	C/FO FAIL TO DIVERT	CB	145 C 1 5 TG-145-X 145S	MARK FACEPLATE "NORMAL" INSTEAD OF "CLOSE" AND "DIVERT" INSTEAD OF OPEN 110E074 SH.2 LETDOWN DIVERSION
PCV-430	4/295	A/12	C/FC	CB	10 430 C 22 RC-429-BX 22 PC-430-BX 18 430-S	110E074 SH.4 PRZR SPRAY VALVE
PCV431C	4/295	A/12	C/FC	CB	431CC 19 PC449-BX 23 PC-431-BX 18 22 431-CS	110E074 SH.4 PRZR SPRAY VALVE
LCV 1030B	40/312	—	C/FC	—	SEE FIG 40 SH 312	WASTE GAS COMPRESSOR DRAIN VALVE
LCV 1032B	40/312		C/FC		SEE FIG 40 SH 312	WASTE GAS COMPRESSOR DRAIN VALVE
LCV-1003A F11	38/301	A/12 I/DT B/314	C/FC	BWP I/DT & W LGT. CB	1003A-1 SPK 1003A-C 11 C 11X 13 1003A-S1	9 33 110E059 SH5 T 20 SH.333 42/CDP1A SHEET-130 A.R.C.D.T. SUCTION VALVE
LCV-1003B F17	38/301	A/12 I/DT B/314	C/FC	BWP I/DT & W LGT CB	1003B-1 LPK 1003B-C 12 C 22X 16 1003B-S1	8 33 110E059 SH5 T 20 SH.333 42/CDP1B SHEET-130 A.R.C.D.T. SUCTION VALVE
PCV-1036A	2/295	—	C/FC	BWP	1036AP GDX-1 1036AS	SH 334 INLET REG. VALVE TO #1 GDT

REV					
ORIGINAL	DRAWN BY	CKD	RESP ENGR	ENGR MGR	DATE
					12-1-75

OPER MODE
O=NORMALLY OPERATED OPEN
C=NORMALLY OPERATED CLOSED
X=NORMALLY OPERATED OPEN & CLOSED
FC=FAILED CLOSED
FO=FAILED OPEN
FAI=FAILED AS IS

CONTROL SWITCH AND/OR POS LGT. LOCATION
L=LOCAL
CB=CONTROL BOARD
SR=SAMPLE ROOM
BWP=BORON RECYCLE & WASTE DISPOSAL PANEL

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 109905-271

ROBERT EMMETT GINNA NUCLEAR POWER PLANT UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONTROL VALVE TABLES

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH. 272 REV. 4

VALVE	FIG/SH	SW/SH	OPER. MODE	CB/LIGHTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
PCV-1036B	2/295	B/314	C/FC	BWP	1036-B-S TB-2-4 (18) 1036VB-2 GAX-1 GDX-1 TB-2-4-(16) 1036VBH F/1036B	SH. 334 OUTLET REG. TO GA FROM #1 GDT.
PCV-1037A	2/295		C/FC	BWP	1037AP GDX-2 1037AS	SH. 334 INLET REG. VALVE TO #2 GDT.
PCV-1037B	2/295	B/314	C/FC	BWP	1037-B-S TB-2-4 (21) 1037VB-2 GAX-1 GDX-2 TB-2-4 (19) 1037VBH F/1037B	SH. 334 OUTLET REG. TO GA FROM #2 GDT.
PCV-1038A	2/295		C/FC	BWP	1038AP GDX-3 1038AS	SH. 334 INLET REG. VALVE TO #3 GDT.
PCV-1038B	2/295	B/314	C/FC	BWP	1038-B-S TB-2-4 (24) 1038VB-2 GAX-1 GDX-3 TB-2-4 (22) 1038VBH F/1038B	SH. 334 OUTLET REG. TO GA. FROM #3 GDT.
PCV-1039A	2/295		C/FC	BWP	1039AP GDX-4 1039AS	SH. 334 INLET REG. VALVE TO #4 GDT.
PCV-1039B	2/295	B/314	C/FC	BWP	1039-B-S TB-2-5 (5) 1039VB-2 GAX-1 GDX-4 TB-2-5 (1) 1039VBH F/1039B	SH. 334 OUTLET REG. TO GA FROM #4 GDT.

OPER. MODE
O - NORMALLY OPER. OPEN
C - NORMALLY OPER. CLOSED
X - NORMALLY OPER. OPEN & CLOSED
FC - FAILED CLOSED
FO - FAILED OPEN
FAI - FAILED AS IS

CONTROL SWITCH AND/OR POS. LGT. LOCATION:
L - LOCAL
CB - CONTROL BOARD
SR - SAMPLE ROOM
BWP - BORON RECYCLE & WASTE DISPOSAL PANEL

THIS DRAWING SUPERSEDES WESTINGHOUSE DWG. 499B425 SH. 272

REV.	ORIGINAL	DRAWN BY	CK'D	ENGR.	ENGR. MAN'R	DATE
		DH.	KMV	RJG	RJG	4-27-76

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R DEPT
No. 10905-272

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONTROL VALVE TABLE

DRAWN	BY	DATE	SCALE
	DH.	10-75	
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 4998A25.

VALVE (FUSE NO)	FIG/SH	JW DEV	OPER MODE	CS/LG TB LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
CBV (V58)	-/31B	—	C/FC	—	** CBVX SH 31B	CONDENSATE BYPASS VALVE
MSIV 1A (V8) 1A (V52) 1B RACK RA-1	28/298	D/314	O/FC	CB	REF DWG 11DE059 SH 4 V8P MS 4 MS 5 1 8 1 V8 S1 S3; V52P MS 4 MS 5 2 8 2 V52 S2 S4	MAIN STM. 150L. VALVE 1A 33a0 TO CPTR TB0109
MSIV 1B (V7) 1B (V5) 1A RACK RA-2	28/298	D/314	O/FC	CB	REF DWG 11DE059 SH 4 V5P MS 4 MS 3 3 8 3 V5 S1 S3; V7P MS 4 MS 5 4 8 4 V7 S2 S4	MAIN STM. 150L. VALVE 1B 33a0 TO CPTR TB01011
MAFTA BV (V59) RACK RA-1	16/297	—	C/FO	—	V59P PS2084 V595	MTR. DR. AUX. FP 1A COOL WTR. BYPASS VALVE
MAFTB BV (V60) RACK RA-2	16/297	—	C/FO	—	V60P PS 2085 V605	MTR. DR. AUX. FP 1B COOL WTR. BYPASS VALVE
TAF BV (V61)	16/297	—	C/FO	—	V61P PS2094 V615	TURB. DR. AUX. FP. COOL WTR. BYPASS VLV.
CV-26 (V62)	16/297	—	O/FC	—	V62P 19 CP1A 20 19 CP1B 20 21 CP1C 20 V625	AIR EJECTOR STEAM SUPPLY VALVE SH 32, 33, & 34
CV-58 (V20P) (V20N)	16/297	—	C/FO	—	CV58P 10 51 14 11X CV58-3	CONTAINMENT VENT TEMP CONTROL VALVE 9 33 bc BATTERY 1A ANN (C10) SH 369 11DE059 SH 3
SM-6 (V63P) (V63N)	16/297	—	C/FO	—	SM6-R 10 SX 14 21X SM6-S	CONTAINMENT VENT TEMP CONTROL BYPASS VALVE 9 33 bc BATTERY 1B ANN (C10) SH 369 11DE059 SH 3

OPER MODE:
O: NORMALLY OPERATED OPEN
C: NORMALLY OPERATED CLOSED
X: NORMALLY OPERATED OPEN & CLOSED
FC: FAILED CLOSED
FO: FAILED OPEN
FAI - FAILED AS IS

CONTROL SWITCH AND/OR POS LGT. LOCATION:
L: LOCAL
CB: CONTROL BOARD
SR: SAMPLE ROOM
AP: AUXILIARY PANEL
WP: WASTE DISPOSAL PANEL

REV		
ORIGINAL		
DRAWN BY	MJF	
LEAD ENGR	RMW	
GROUP ENGR	RFG	
ENG'R MGR	FEL	
DATE	4-27-76	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

ENGINEERING DEPT

No. 10905-7775

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

125V DC SOLENOID VALVE TABLE

	BY	DATE
DRAWN		
TRACED		
CHECKED		
ENG.		

SCALE NONE
APPROVED
FOLDER NO.
JOB NO.

VALVE BYM NO (FUSE NO)	FIG / SH	SW DEV	OPER MODE	CS/LGTS LOCATION	INTERLOCKS	REF DWG AND REMARKS
FCV 466	26/298	—	O/FC	—	466P 21 TC401F XL — 6 — 63 XT2 M T466B 63 XT2 2 F10X — 6 — 466S1 2 466S4 F20X 6 — 466S2 466S5 — A 17 T466B 466S6 — 466S3 — 21 TC401F XH	110E059 SH6 110E074 SH4 SH 114 FOXBORO BD-18
FCV 476	26/298	—	O/FC	—	476P 9 TC401F XL — 18 — 63 XT2 M T477B 63 XT2 2 F30X — 6 — 476S1 2 476S4 F40X 6 — 476S2 47655 — A 19 T477B 476S6 — 476S3 — 23 TC401F XH	110E059 SH6 110E074 SH4 SH 114 FOXBORO BD-19
ECV 480	26/298	—	O/FC	—	480P 3 TC401E XL — 7 — 63 XT2 M T466B 63 XT2 1 F1 — 7 — 480S1 1 480S4 F2 7 — 480S2 480S5 — A 20 T466B 480S6 — 480S3 — 24 TC401F XH	110E059 SH6 110E074 SH4 SH 114 FOXBORO BD-18
ECV 481	26/298	—	O/FC	—	481P 11 TC401F XL — 18 — 63 XT2 M T477B 63 XT2 1 F3 — 7 — 481S1 1 481S4 F4 7 — 481S2 481S5 — A 18 T477B 481S6 — 481S3 — 22 TC401F XH	110E059 SH6 110E074 SH4 SH 114 FOXBORO BD-19
CV-74 RN-16	24/298	E/12	O/FC	CB	12 IAIV-51 C 13X 16 C 12 23X 16 IAIV-5	110E059 SH5 INST AIR ISOL
CDV-1A	24/298	E/12	C/FC	CB	9 CDV1A-51 13 V10X 9 CDV1A-52 13 V20X CDV1A-5	110E059 SH5 CONT DEPRESS VALVE
CDV-1B	24/298	E/12	C/FC	CB	10 CDV1B-51 14 V10X 10 CDV1B-52 14 V20X CDV1B-5	110E059 SH5 CONT DEPRESS VALVE
CV-76 RN115a	32/300	BSI E/12 N.P. AUTO OPEN BI X/13 N.P. CLOSE AUTO	O/FC	SR 1/BD& WLGT CB	SEE FIGURE 32 SHEET 300	BLOWDOWN ISOL (SAMPLE) D-302-121 110E074 SH3 110E059 SH5
CV-77 RN115a	32/300	BSI E/12 N.P. AUTO OPEN BI-X/13 N.P. CLOSE AUTO	O/FC	SR 1/BD& WLGT CB	SEE FIGURE 32 SHEET 300	BLOWDOWN ISOL (SAMPLE) D-302-121 110E074 SH3 110E059 SH5 SH 317

OPER. MODE
- O- NORMALLY OPERATED OPEN
- C- NORMALLY OPERATED CLOSED
- X- NORMALLY OPERATED OPEN & CLOSED
- FC- FAILED CLOSED
- FO- FAILED OPEN
- FAI- FAILED AS IS

CONTROL SWITCH AND/OR POS LGT LOCATION:
- L- LOCAL
- CB- CONTROL BOARD
- SR- SAMPLE ROOM

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 274 REV 4

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL — INITIAL	GF	BW	GWD	GWD
	DATE	12/7/77	12/8/77	7/18/78	7/18/78

ELEMENTARY WIRING DIAGRAM
SOLENOID VALVE TABLE

FACILITY GINNA STA
SCALE —
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

JOB NO.	DRAWING NO.	REV.
	10905-274	A

VALVE NO. (PIPING NO.)	FIG./SH.	SW. DEV.	OPER. MODE	CS/LGTS LOCATION	INTERLOCKS	REFERENCE DRAWING AND REMARKS
1A1 (RN-125) (V16P V16N)	34/2000	—	C/FC	—/CB▲	A1P — 20AXS — 1A1S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1A2 (RN-129) (V17P V17N)	34/2000	—	C/FC	—/CB▲	A2P — 20AXS — 1A2S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1A3 (RN-129) (V18P V18N)	34/2000	—	C/FC	—/CB▲	A3P — 20AXS — 1A3S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1A4 (RN-129) (V19P V19N)	34/2000	—	C/FC	—/CB▲	A4P — 20AXS — 1A4S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1B1 (RN-129) (V20P V20N)	34/2000	—	C/FC	—/CB▲	TBIPX — 20AXS — 1B1S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1B2 (RN-129) (V21P V21N)	34/2000	—	C/FC	—/CB▲	B2P — 20AXS — 1B2S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1B3 (RN-129) (V22P V22N)	34/2000	—	C/FC	—/CB▲	B3P — 20AXS — 1B3S	STEAM DUMP D-302-111 SH 336 CPTR CPTR
1B4 (RN-129) (V23P V23N)	34/2000	—	C/FC	—/CB▲	B4P — 20AXS — 1B4S	STEAM DUMP D-302-111 SH 336

OPER. MODE: C-NORMALLY OPERATED CLOSED; O-NORMALLY OPERATED OPEN; X-NORMALLY OPERATED OPEN & CLOSED; FC-FAILED CLOSED; FO-FAILED OPEN

CONTROL SWITCH AND/OR POS. LGT. LOCATION: L-LOCAL; CB-CONTROL BOARD; SB-SAMPLE ROOM

▲-LIMIT SW. CONTACTS ARE ON VALVE, NOT SOLENOID OPERATOR

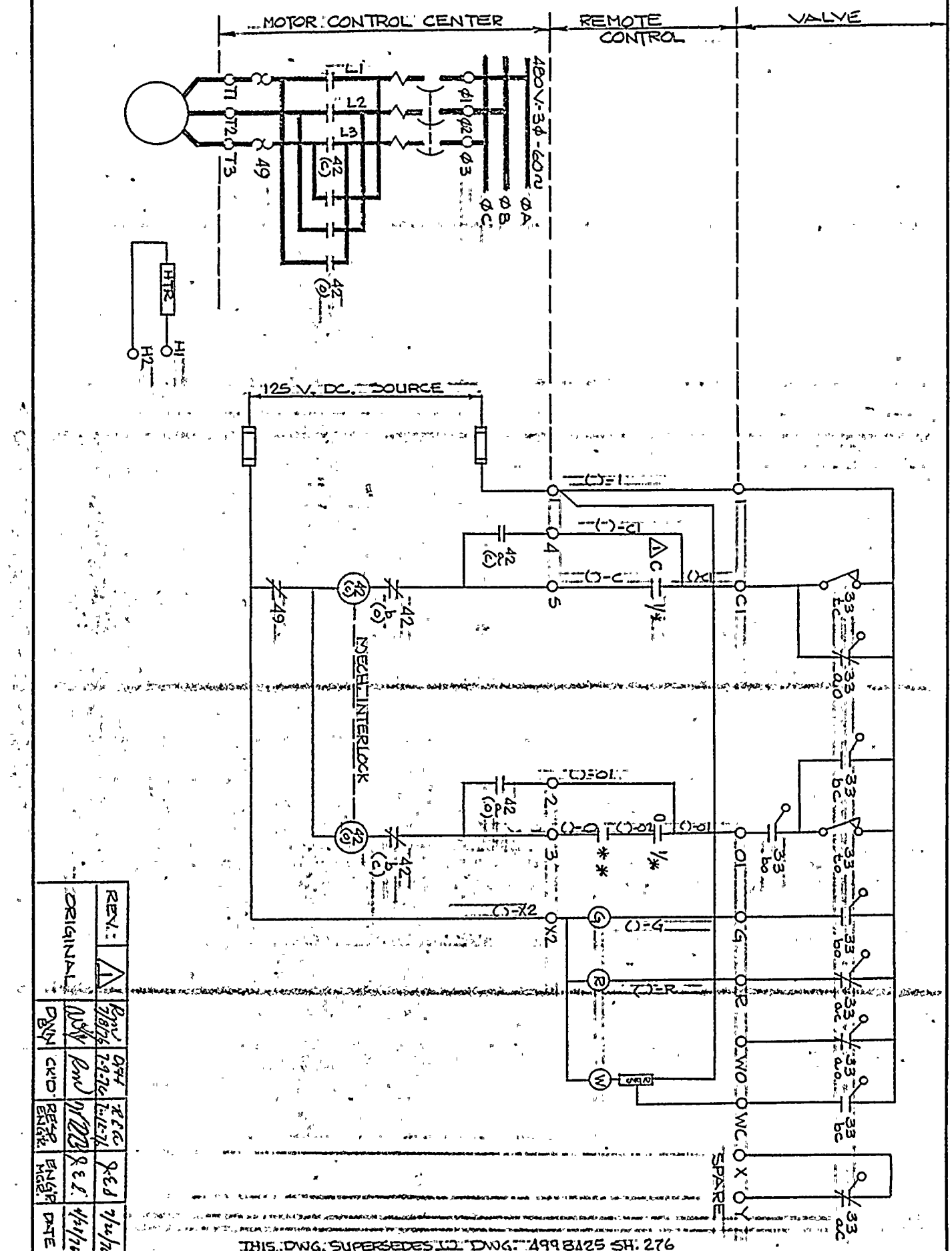
THIS DRAWING IS NOT AN OFFICIAL RECORD

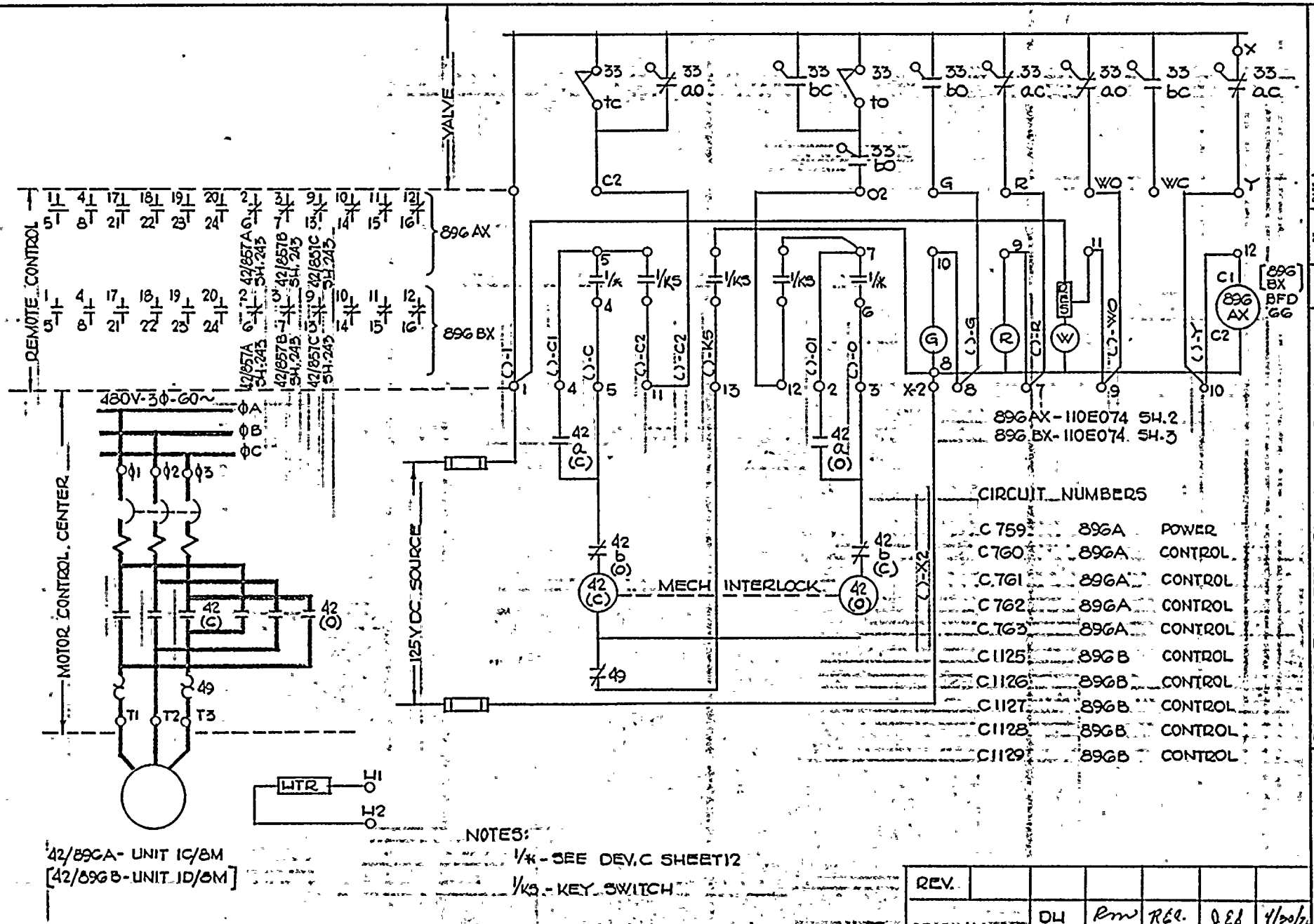
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT EMMETT GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM SOLENOID VALVE TABLE
ATOMIC POWER DIV. PITTSBURGH, PA.

DRAWN	TRACED	DESIGNED	CHECKED	APPROVED
R.WILSON				
4/16/68				

SHEET 12 OF 12

4196B42S


MOTOR CONTROL CENTER
REMOTE CONTROL
VALVE
480V-3φ-60cy
φA
φB
φC
φ1
φ2
φ3
T1
T2
T3
L1
L2
L3
49
42 (c)
HTR
H1
H2
125 V. DC. SOURCE
MECH. INTERLOCK
42 (a)
42 (b)
42 (c)
33 bc
33 ac
33 aa
33 ba
33 bb
SPARE
REV.
ORIGINAL
DWN
CKD
REACTOR ENGR.
ENGR MGR.
DATE
THIS DWG. SUPERSEDES 12 DWG. 4998125 SH. 276
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
No. 10905-276
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE
DRAWN
TRACED
CHECKED
ENG.
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.



CIRCUIT NUMBERS

C 759	896A	POWER
C 760	896A	CONTROL
C 761	896A	CONTROL
C 762	896A	CONTROL
C 763	896A	CONTROL
C 1125	896B	CONTROL
C 1126	896B	CONTROL
C 1127	896B	CONTROL
C 1128	896B	CONTROL
C 1129	896B	CONTROL

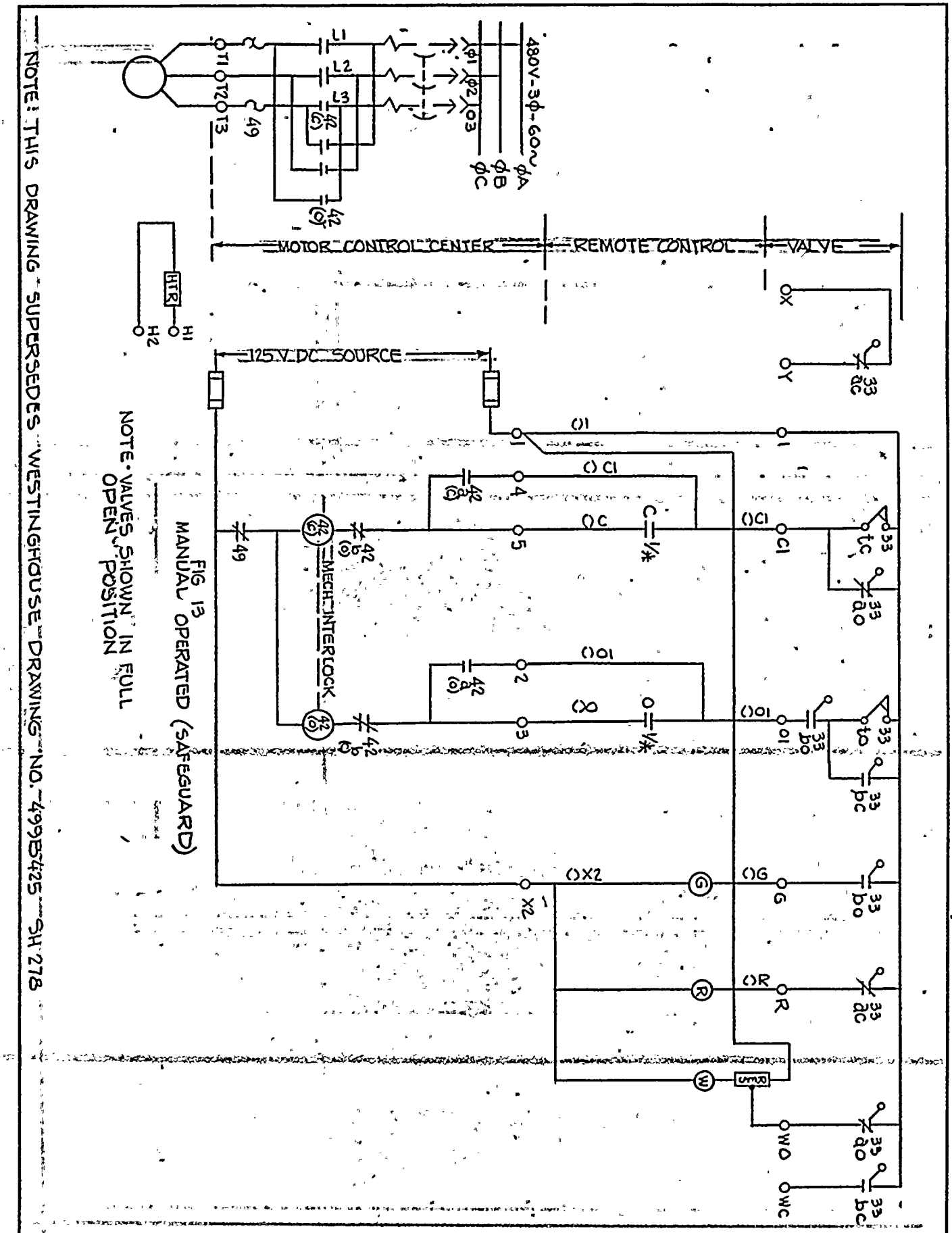
42/89CA - UNIT 1C/8M
[42/89CB - UNIT 1D/8M]

NOTES:
1/K - SEE DEV. C SHEET 12
1/K5 - KEY SWITCH

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425 SH-277

REV.						
ORIGINAL	DH	RW	REG.	JEB	4/30/74
	drawn by	ck'd	resp. engr	engr Mgr	date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGR DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM MOTOR OPERATED VALVE
DRAWN DH DATE 4-72 SCALE
TRACED APPROVED
CHECKED FOLDER NO.
ENGR JOB NO.
No. 10905-977



NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL	GJF	RNW	EWD	EWD
	DATE	4/22/76	3/15/78	8/11/78	8/11/78

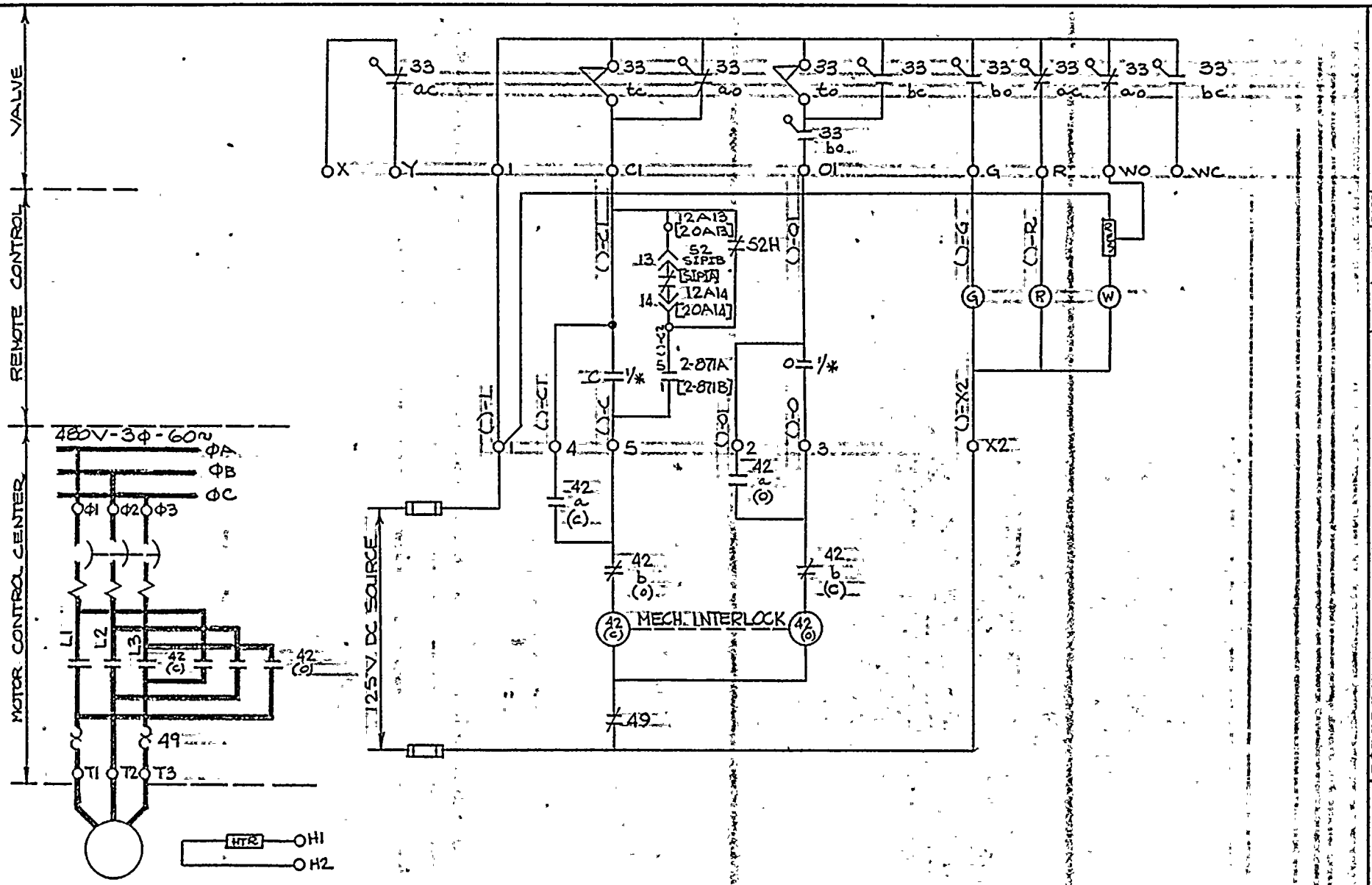
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

FACILITY GINNA ST.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE —

JOB NO.	DRAWING NO.	REV.
	10905-278	0



NOTES:
. 871A AS SHOWN
871B ⊏ ⊐
1/* SEE DEV. SH. 12, FIG. C

VALVE SHOWN IN FULL OPEN POSITION

THIS DWG. SUPERSEDES W. DWG. 499B425 SH. 279

REV.						
ORIGINAL	AWH	PMW	R.P.G.	J.E.S.	4/24/70
	DWN BY	CK'D	RESP. ENG	ENG MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION: UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
WESTINGHOUSE ELECTRIC CORP. ATOMIC POWER DIVISION

	BY	DATE	SCALE
DRAWN			
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NO. 33013-270

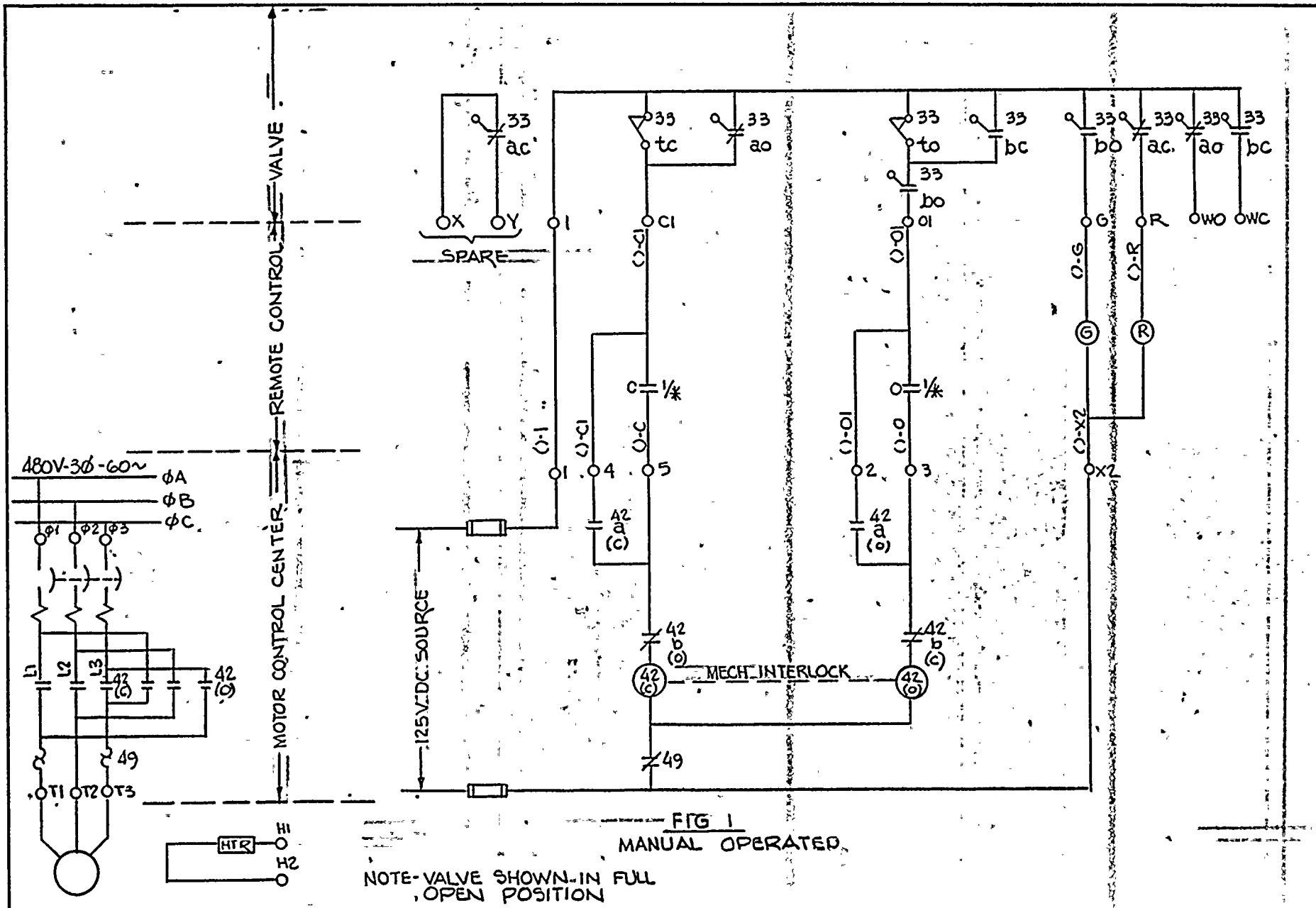


FIG 1
MANUAL OPERATED

NOTE- VALVE SHOWN IN FULL OPEN POSITION

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 280

ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE
JOB NO.
DRAWING NO. 10905-280
REV. 0

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MAN'GR.	DATE
0	ORIGINAL	GJF	RWW	EWS	GWS	2/12/73 3/13/73 8/11/73 8/11/73

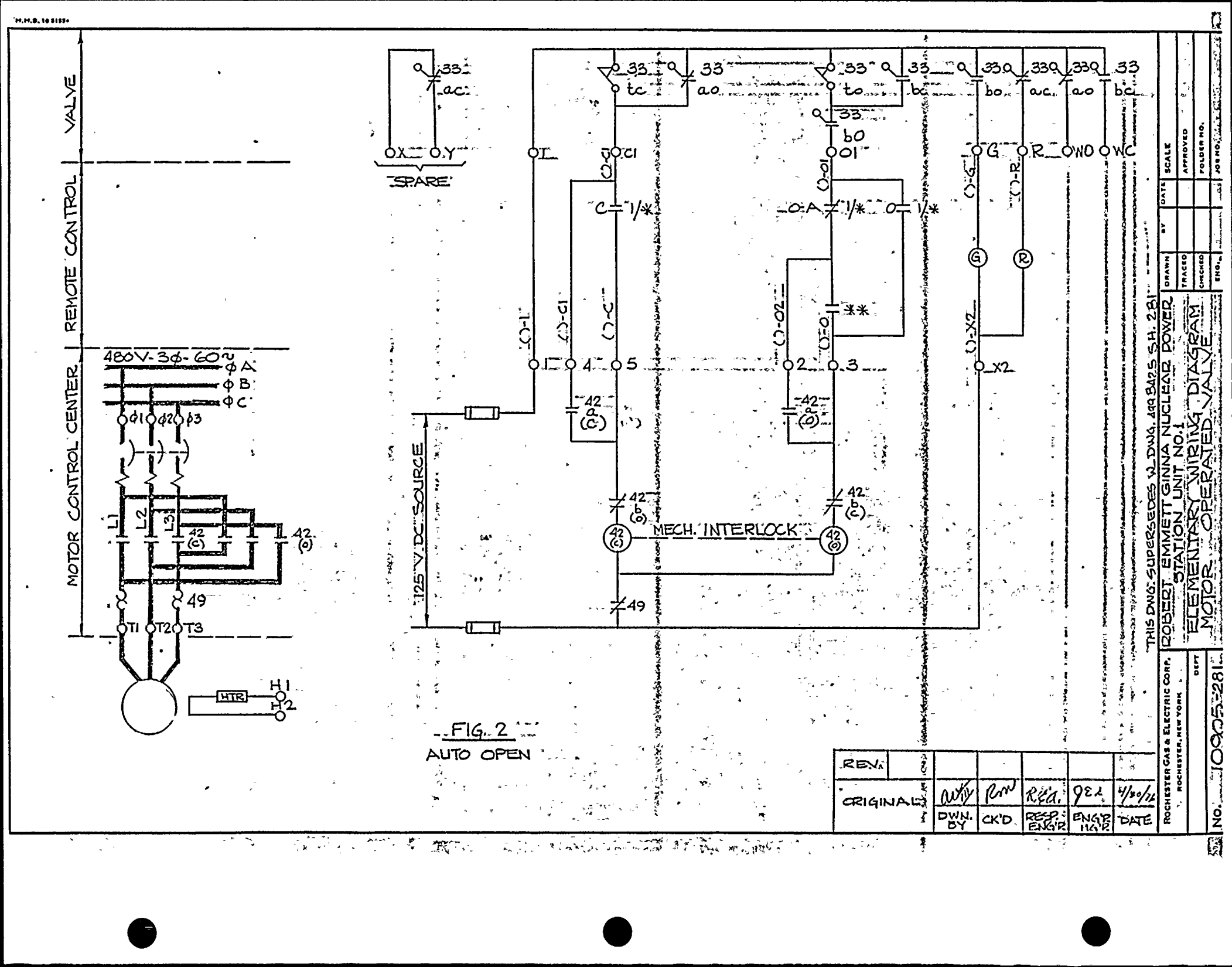


FIG. 2
AUTO OPEN

THIS DWG. SUPERSEDES W.DWG. 499 8425 SH. 2&1

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT.

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

NO. 10005-2281

REV.					
ORIGINAL	AWH	RW	Rea.	GEL	4/30/62
	DWN. BY	CK'D	REGD ENG'R	ENG'R IN CH'G	DATE

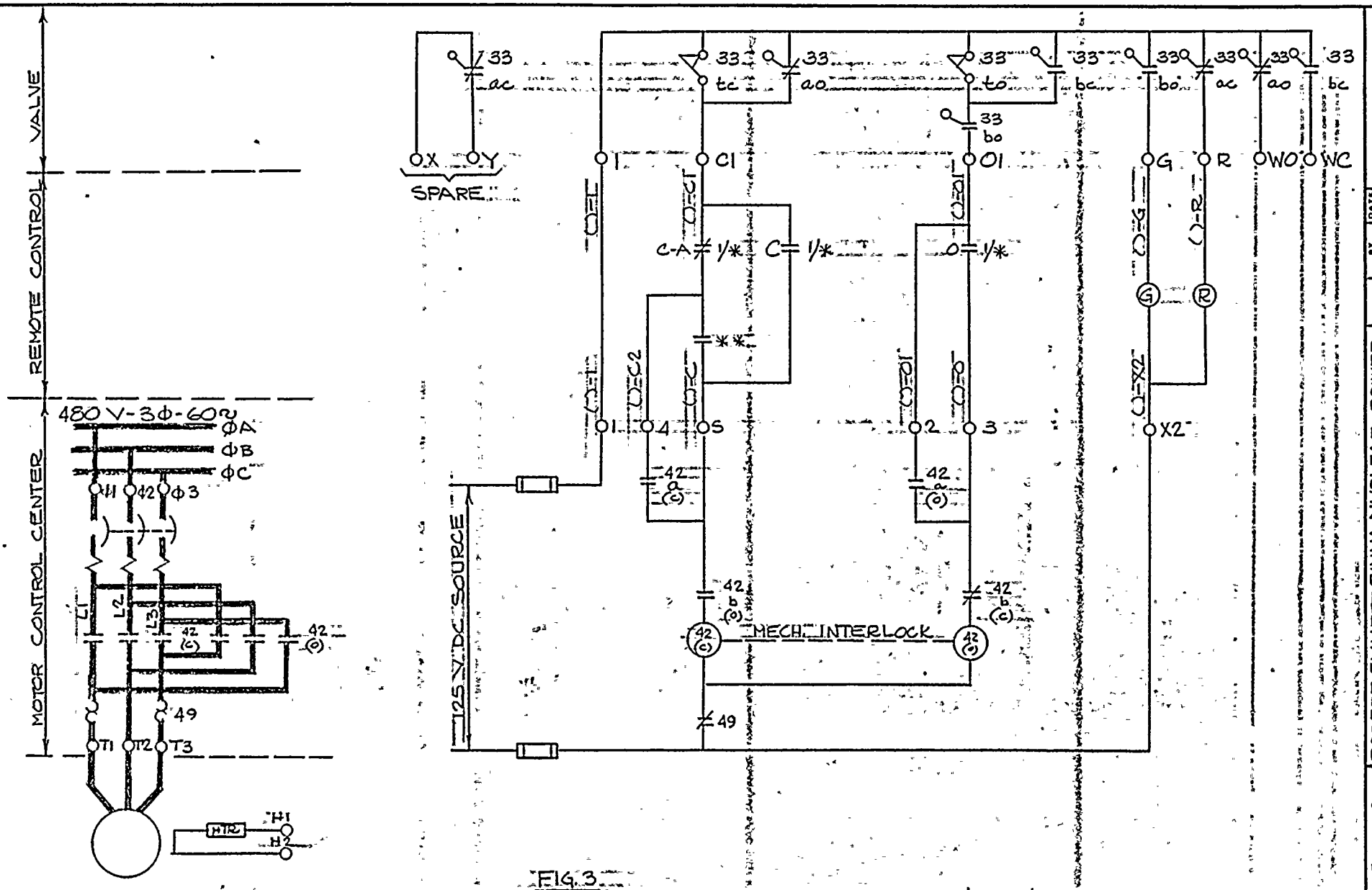


FIG. 3

AUTO CLOSE

THIS DWG. SUPERSEDES W 499B425 SH. 282

VALVE SHOWN IN FULL OPEN POSITION

REV.						
ORIGINAL		WJF	PMW	RCA.	JEB.	4/30/76
		DWN BY	CK'D	RESP. ENG.	ENG'G. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT

NO. 10905-282

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

DRAWN BY DATE SCALE
TRACED APPROVED
CHECKED FOLDER NO.
ENG. JOB NO.

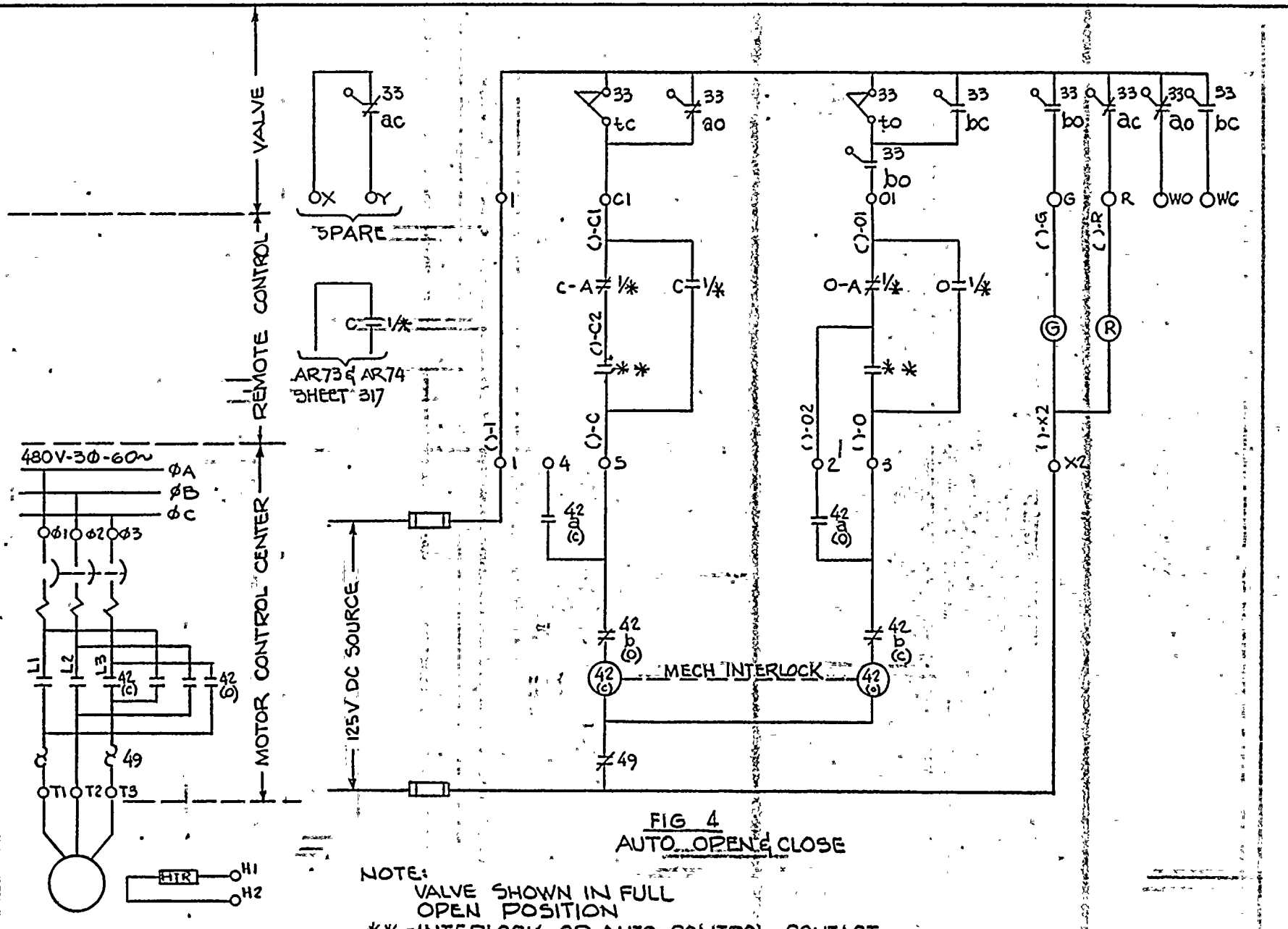


FIG 4
AUTO. OPEN & CLOSE

NOTE:
VALVE SHOWN IN FULL OPEN POSITION
** - INTERLOCK OR AUTO CONTROL CONTACT

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499 B 425 SH. 283

ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE —
JOB NO.
DRAWING NO. 10905-283
REV. A

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANG'R.
0	ORIGINAL	GJF	4/21/78	BW	5/15/78	5/31/78	8/4/78

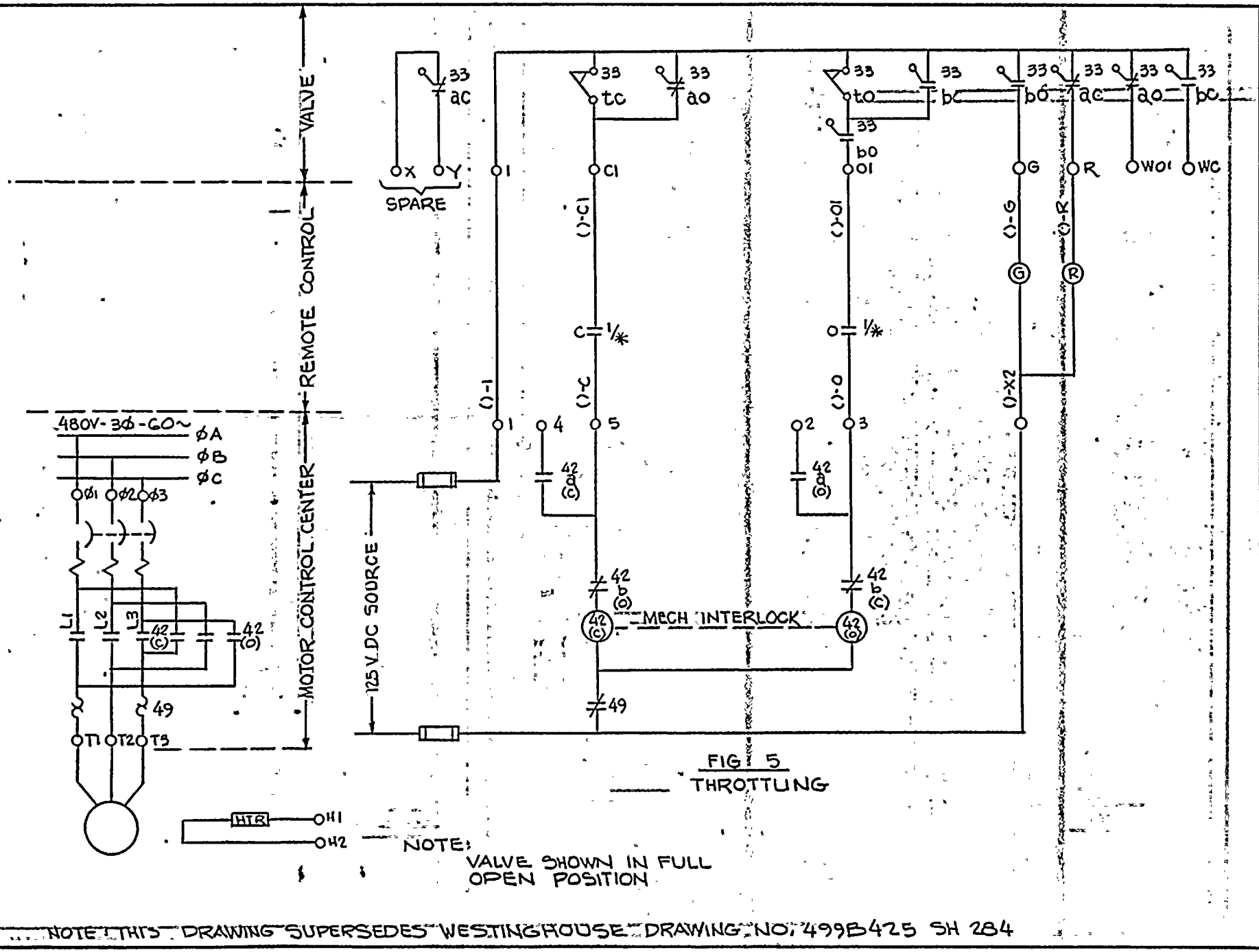


FIG 5
THROTTLING

NOTE:
VALVE SHOWN IN FULL OPEN POSITION

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH 284

ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE —
JOB NO.
DRAWING NO. 10905-284
REV. A

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL	INITIAL	GGF	RM	RWB	RWB
	DATE	12/11/73	3/13/78	8/18/78	8/18/78

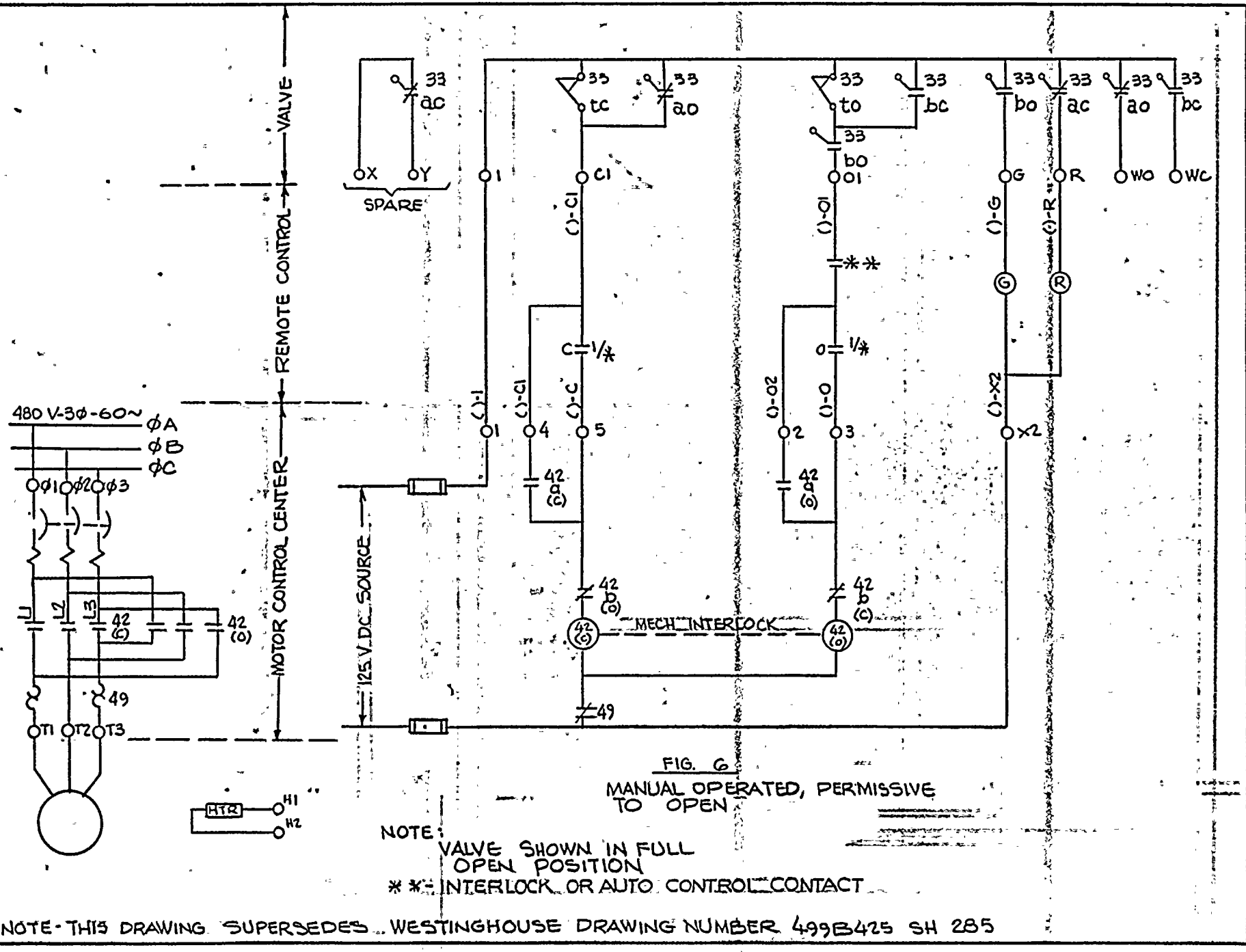


FIG. 6

MANUAL OPERATED, PERMISSIVE TO OPEN

NOTE:
VALVE SHOWN IN FULL OPEN POSITION
** INTERLOCK OR AUTO CONTROL CONTACT

NOTE - THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SH 285

ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

FACILITY GINNA STA

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE —

JOB NO.

DRAWING NO. 10905-285

REV. A

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
0	ORIGINAL	GJF 4/23/70	5/31/70	6/22/70	6/23/70
	INITIAL DATE				

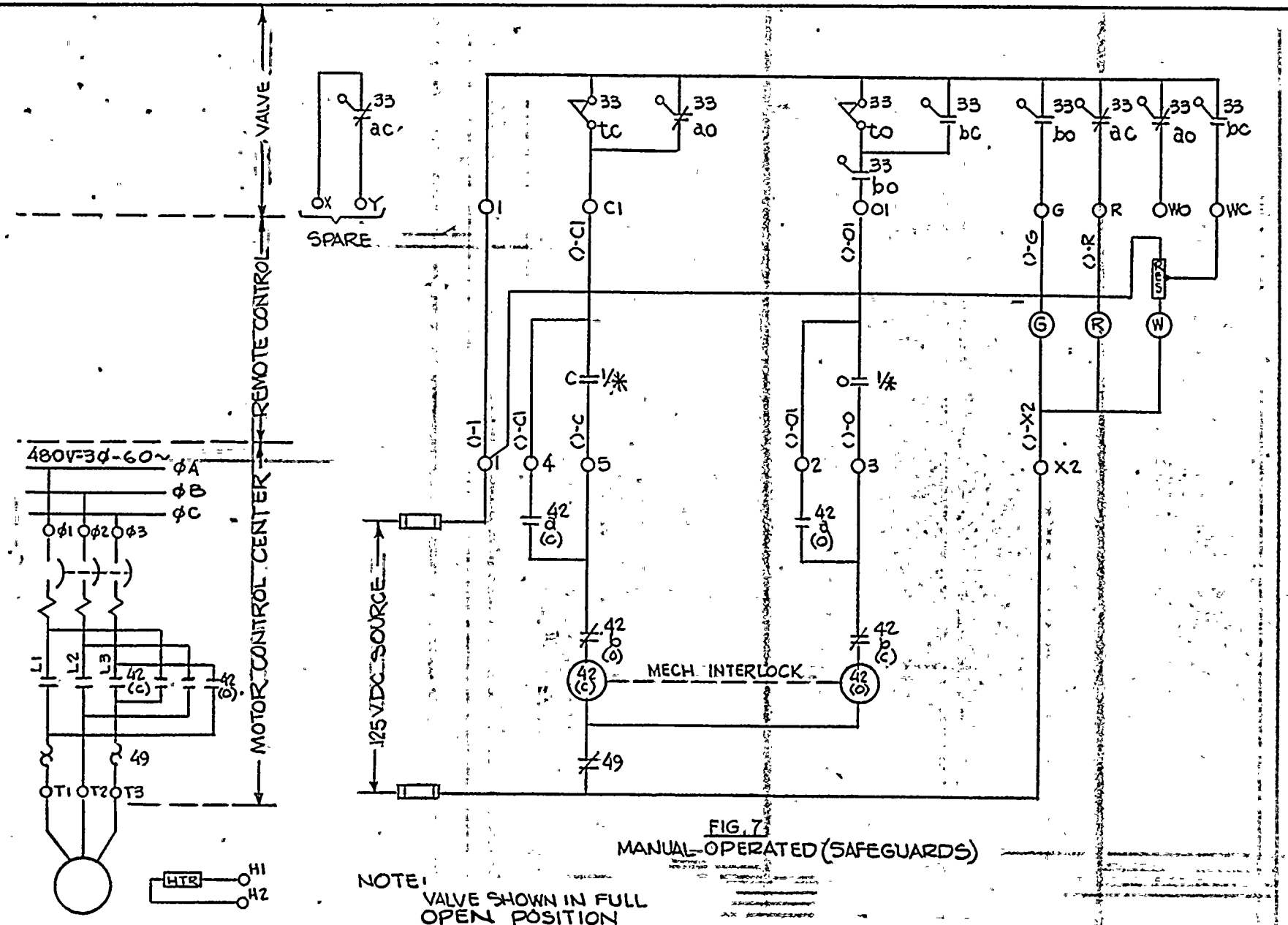


FIG. 7
MANUAL-OPERATED (SAFEGUARDS)

NOTE:
VALVE SHOWN IN FULL OPEN POSITION

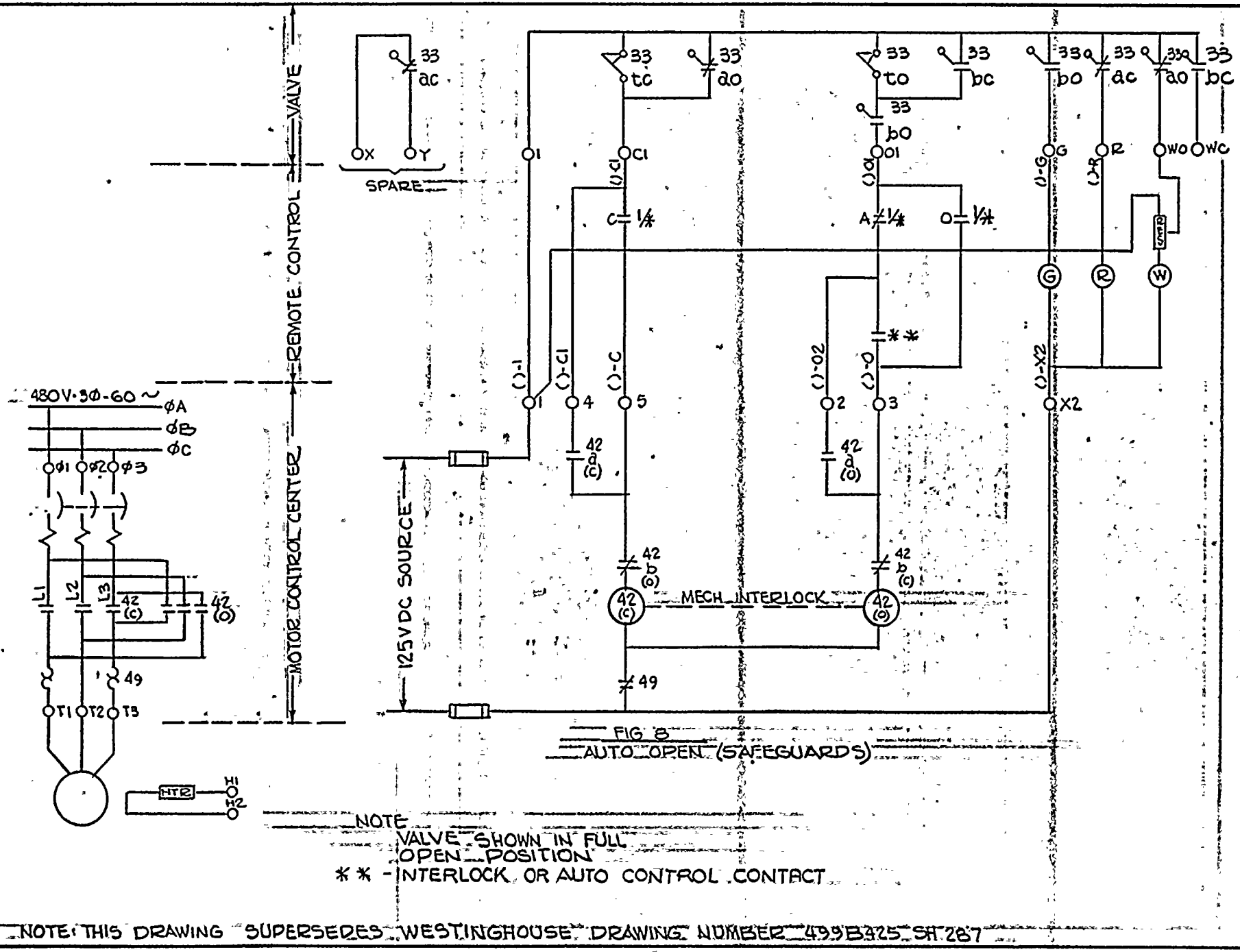
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 499B425 SHEET 28C

ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE
JOB NO.
DRAWING NO. 10905-286
REV.

NUMBER	REVISION	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
ORIGINAL	INITIAL DATE	GJF 4/25/77	[illegible] 5/5/78	[illegible] 5/19/78	[illegible] 5/19/78



ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

FACILITY GINNA STA.
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

SCALE —
JOB NO.
DRAWING NO. 10905-287
REV. A

NUMBER	REVISION	INITIAL DATE	DRAWN BY	CHECKED	RESP. ENGR.	ENG. MANGR.
		ORIGINAL	GJF 3/6/78	EWJ 3/13/78	EWB 9/11/81	SWM 5/11/82

FIG. 9

AUTO CLOSE (SAFEGUARDS)

THIS DWG SUPERSEDES W. DWG. 4998425 SH. 288

REV.						
ORIGINAL	AJVII	PRW	RJG	JCL	4/30/76
	DWN BY	CK'D.	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

	DATE	BY
DRAWN		
TRACED		
CHECKED		
ENG'R		

SCALE
APPROVED
FOLDER NO.
JOB NO.

NO. 10905-288

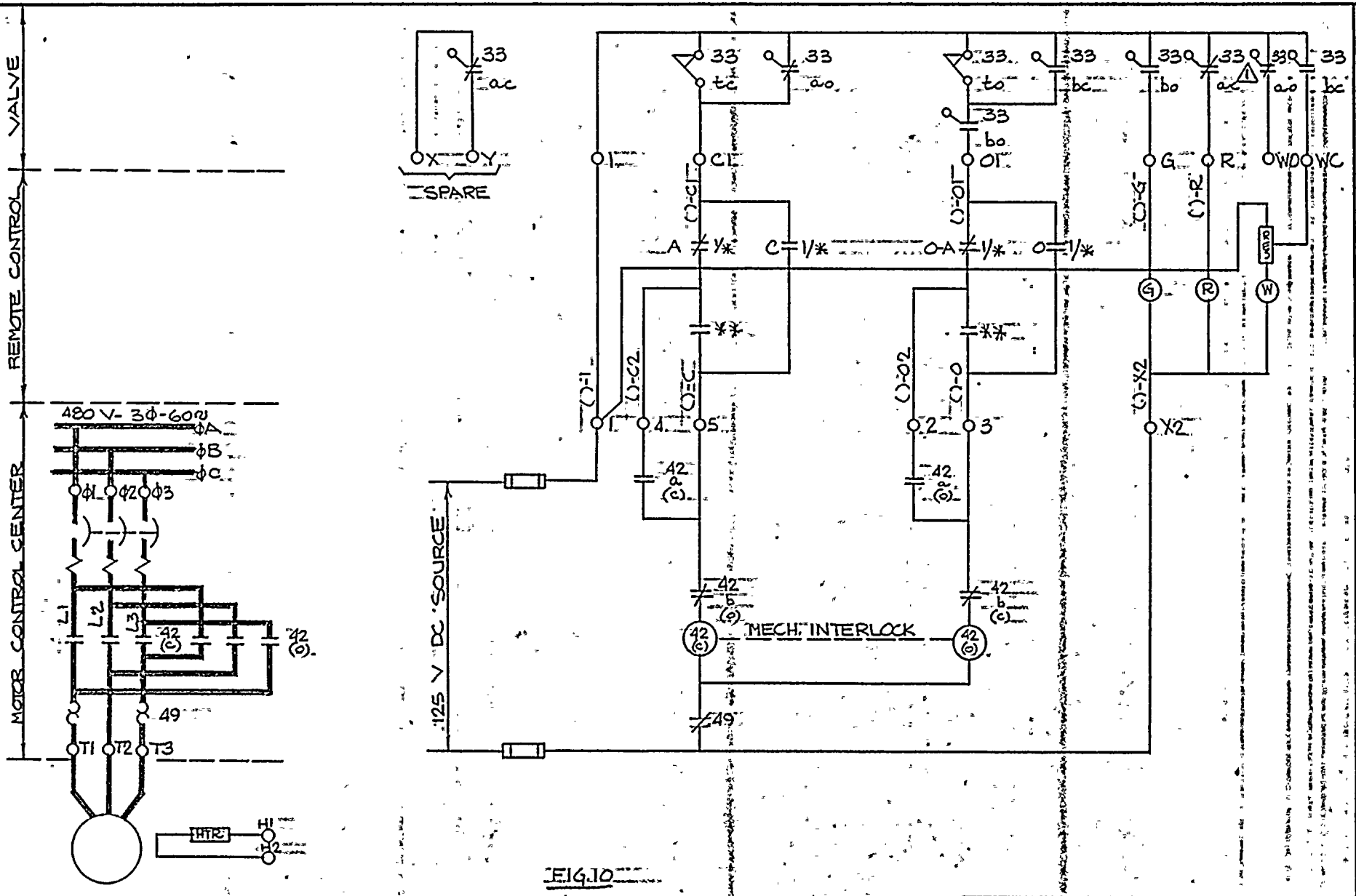


FIG. 10

AUTO OPEN & CLOSE (SAFE GUARDS)

VALVE SHOWN IN FULL OPEN POSITION

THIS DWG. SUPERSEDES W DWG. 499B425 SH. 289

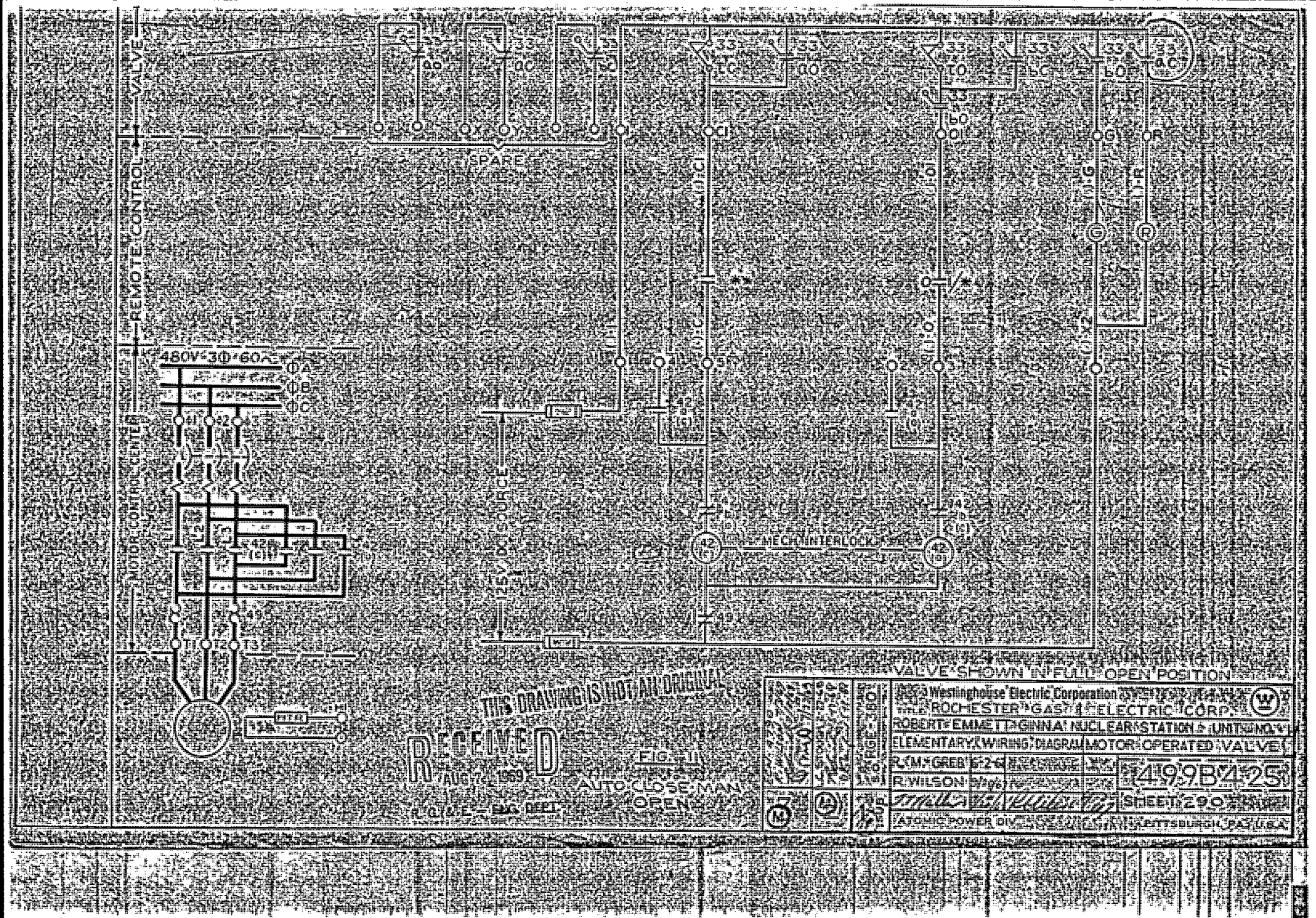
REV.		DWN BY	CK'D	RESR ENGR	ENG'R MGR	DATE
	1	RWV 7/8/76	DAI 7-9-76	RLC 8-12-76	J.E.S.	7/26/76
ORIGINAL		AWZ	RWV	RLC	J.E.S.	11/20/75

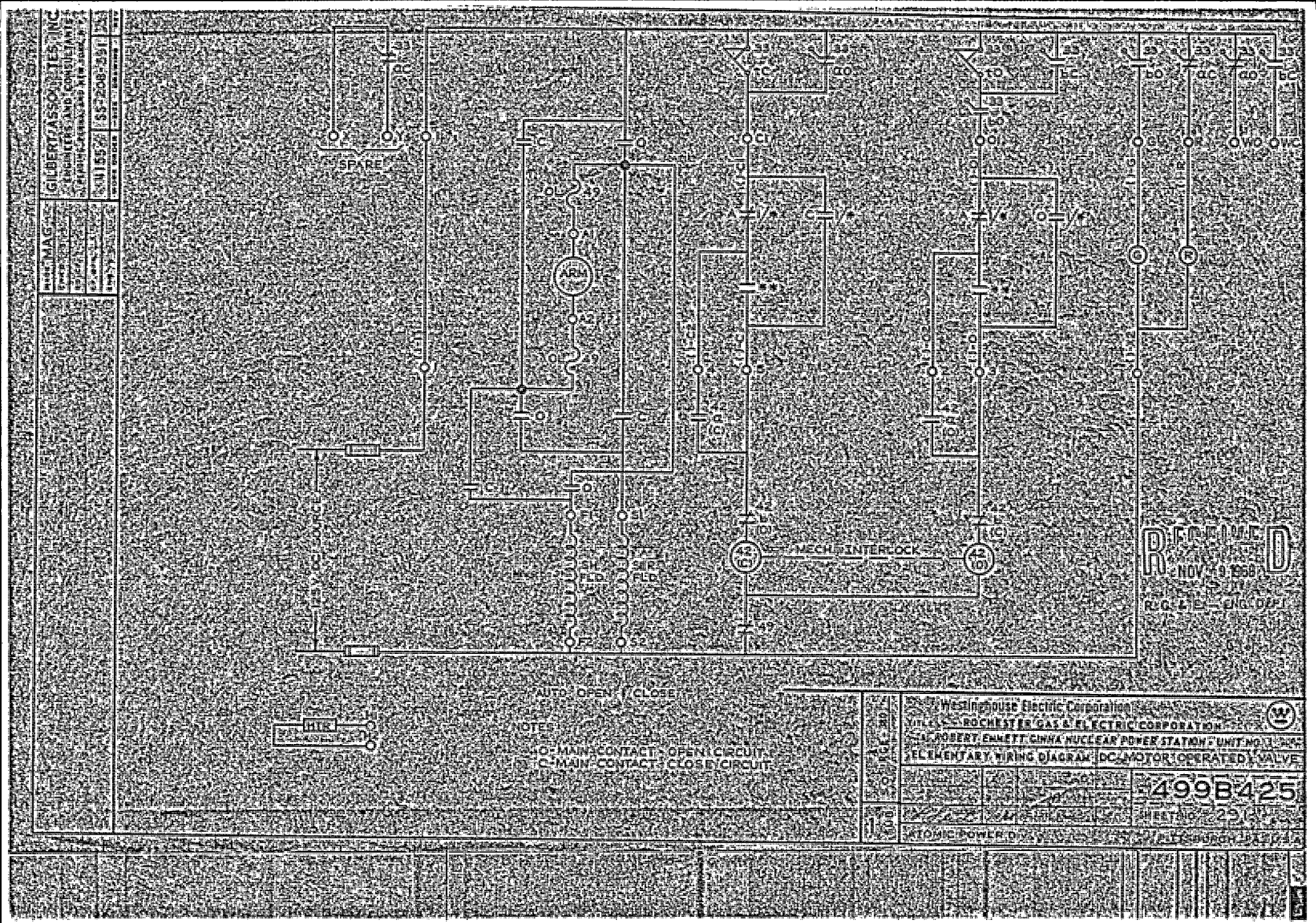
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'G DEPT

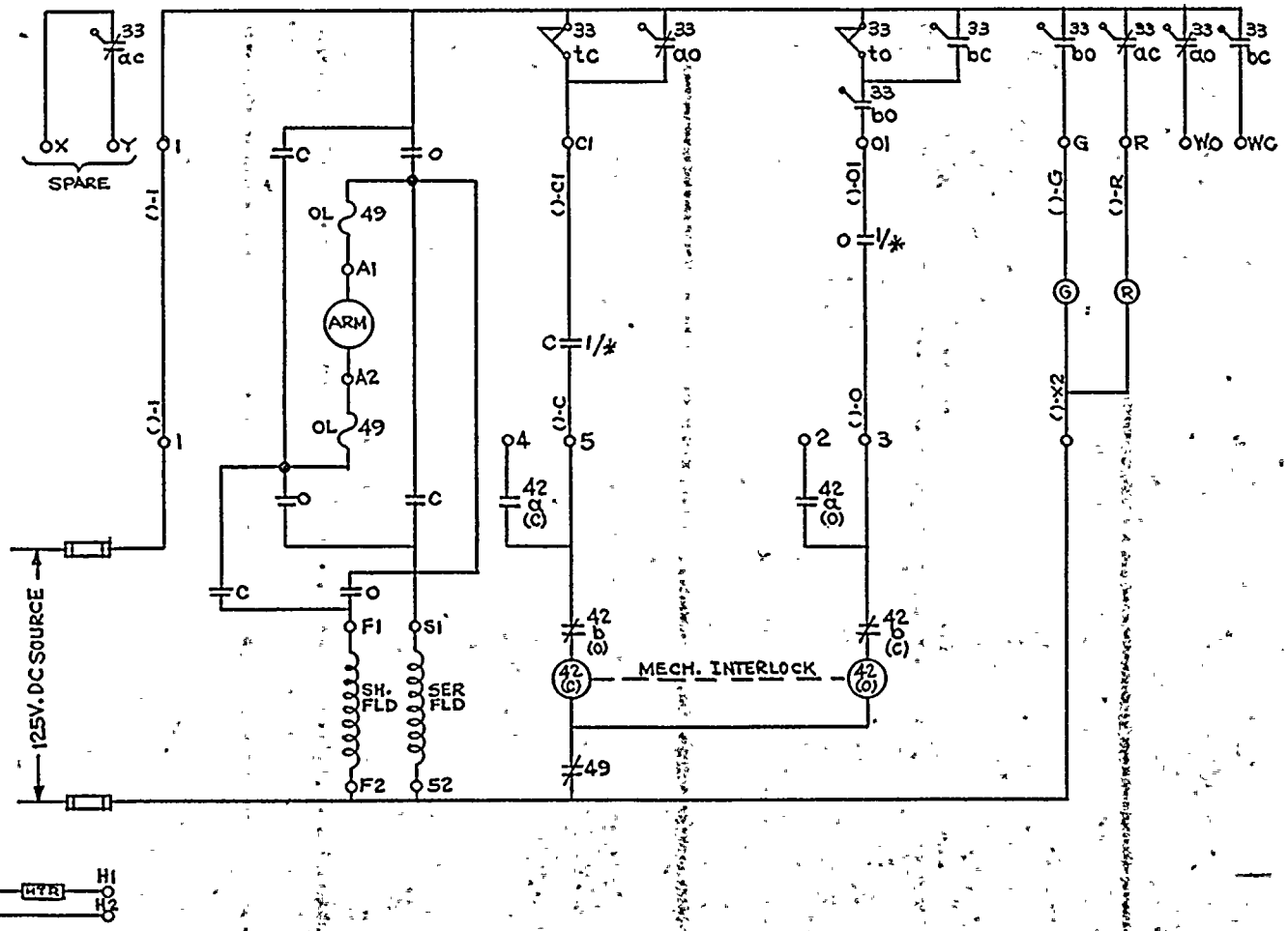
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

DRAWN BY DATE SCALE
TRACED APPROVED
CHECKED FOLDER NO.
ENG. JOB NO.

NO. 33013-0705


REMOTE CONTROL VALVE
MOTOR CONTROL CENTER
480V 3Φ 60~
ΦA
ΦB
ΦC
SPARE
2 WIRE SOURCE
MECH INTERLOCK
VALVE SHOWN IN FULL OPEN POSITION
THIS DRAWING IS NOT AN ORIGINAL
RECEIVED
AUG 7 1969
R.G.&E. — ELEC. DEPT.
FIG. 11
AUTO CLOSE-MAN OPEN
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT E. EMMETT GINNA NUCLEAR STATION - UNIT NO. 1
ELEMENTARY (WIRING) DIAGRAM MOTOR OPERATED VALVE
R. M. GREB 6-2-69
R. WILSON
499B425
SHEET 290
ATOMIC POWER DIV. PITTSBURGH, PA. U.S.A.


SPARE
ARM
MECH. INTERLOCK
AUTO OPEN / CLOSE
NOTES:
O-MAIN CONTACT: OPEN CIRCUIT
C-MAIN CONTACT: CLOSE CIRCUIT
GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSULTANTS
RECEIVED
NOV 9 1968
RG & E — ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
R. E. GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM DC MOTOR OPERATED VALVE
498B425
SHEET NO. 2
ATOMIC POWER DIVISION
PITTSBURGH, PA.



NOTES:
O- MAIN CONTACT- OPEN CIRCUIT
C- MAIN CONTACT- CLOSED CIRCUIT
OPEN-CLOSE SEL. SW. DEV. "G" SH. 13

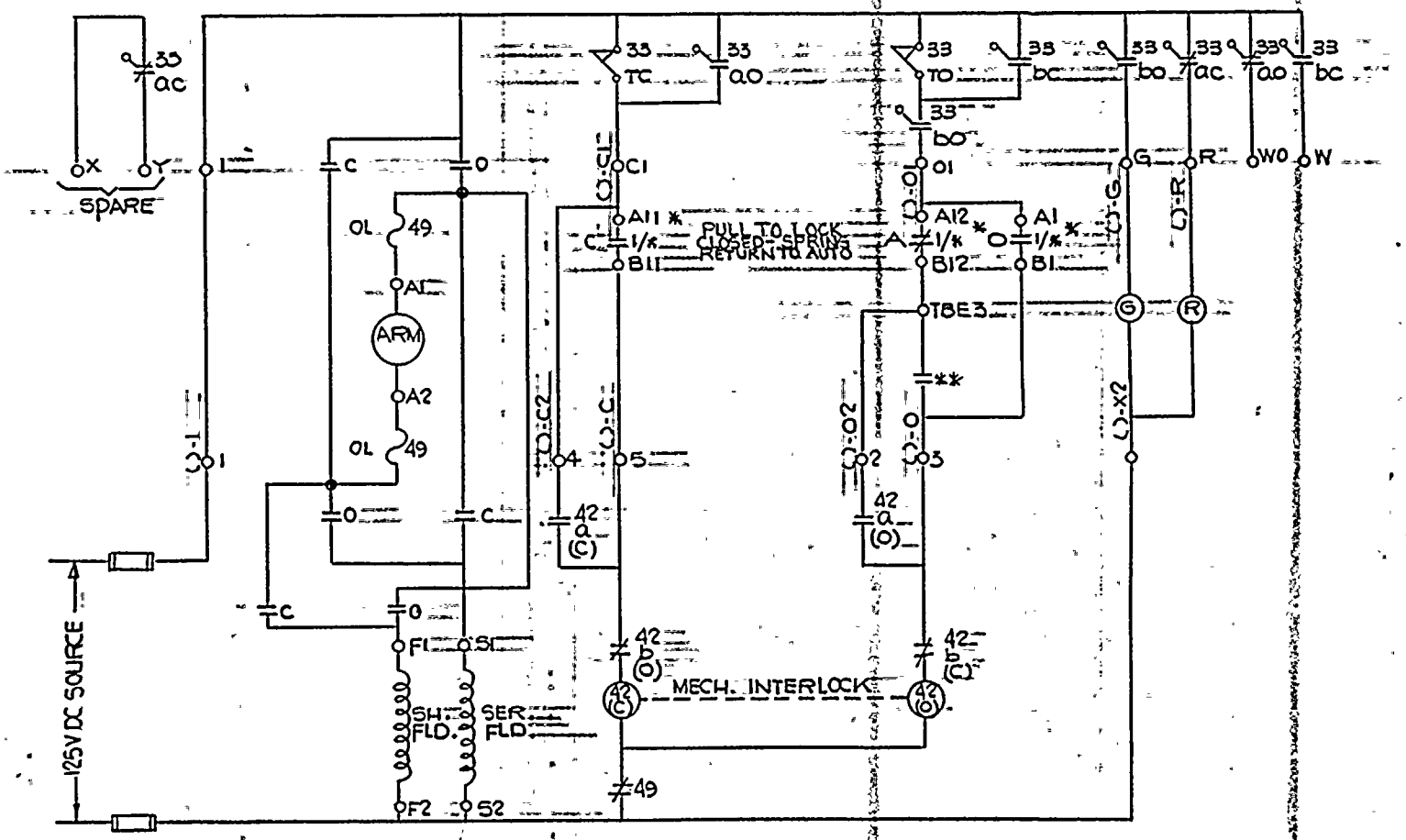
"THIS DWG SUPERCEDES "WESTINGHOUSE DWG. NO. 499B425, SH. 292 (REV. 3)"

REV.						
ORIGINAL		effblatt	RHM 9/14/75	PCK	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-192

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
D.C. MOTOR OPERATED VALVE

DRAWN	2-21-67	SCALE	NONE
TRACED		APPROVED	
CHECKED		FOLDER NO.	
ENG.		JOB NO.	



NOTES:

O - MAIN CONTACT - OPEN CIRCUIT
C - MAIN CONTACT - CLOSE CIRCUIT
OPEN - AUTO - CLOSE SEL. SW. SPRING RTN TO AUTO
* - PULL TO LOCK CLOSED, SPRING RETURN TO AUTO

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. # 499B425-293

ELEMENTARY WIRING DIAGRAM DC MOTOR OPERATED VALVE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

FACILITY GINNA STA.

SCALE

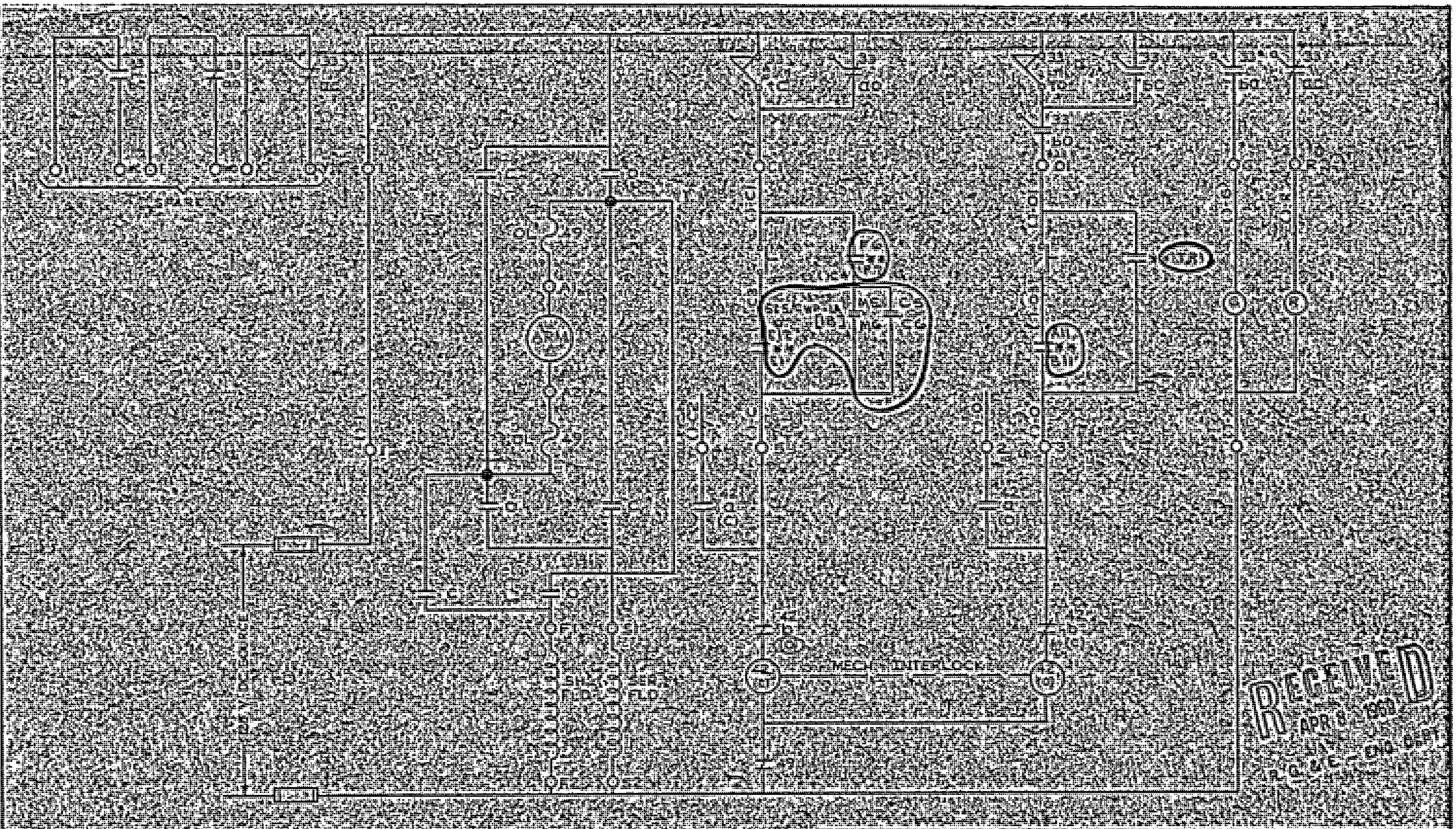
JOB NO.

DRAWING NO. 10905-293

REV.

NUMBER	REVISION	DATE	INITIAL
0	ORIGINAL	1-18-78	DH

	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
	DH	EMV	Hall	Hall
	1-18-78	1-19-78	1-30-78	1-30-78



PUSHBUTTON OPEN - CLOSE

NOTES:
O - MAIN CONTACT - OPEN CIRCUIT
C - MAIN CONTACT - CLOSE CIRCUIT

RECEIVED
APR 8 1969
R.G.&E. ENG. DEPT.

GILBERT ASSOC., INC.

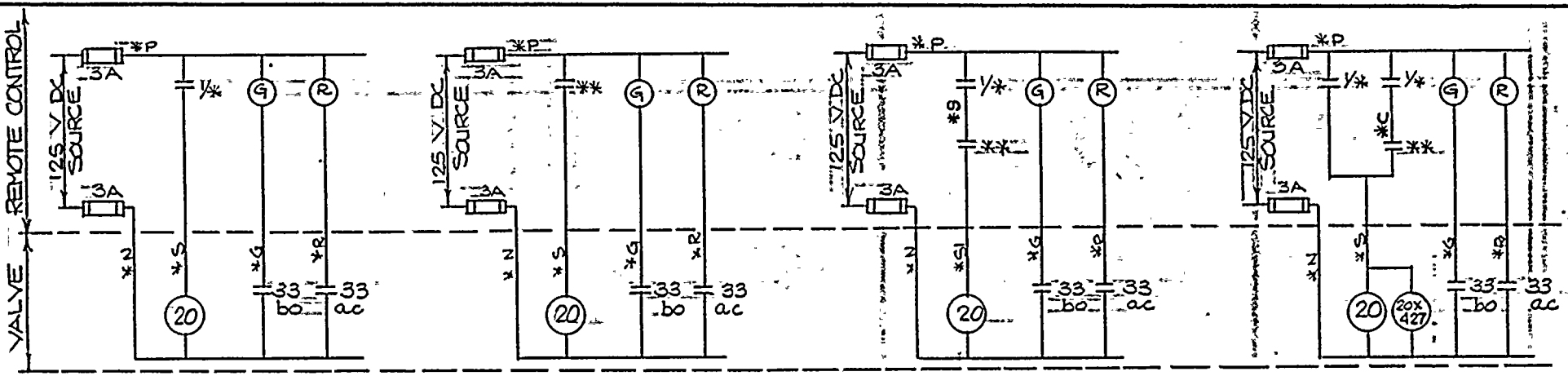
Westinghouse Electric Corporation

TITLE: ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION, UNIT NO. 1
ELEMENTARY WIRING DIAGRAM DC MOTOR OPERATED VALVE

499B425

SHEET NO. 234

ATOMIC POWER DIV. PITTSBURGH, PA.

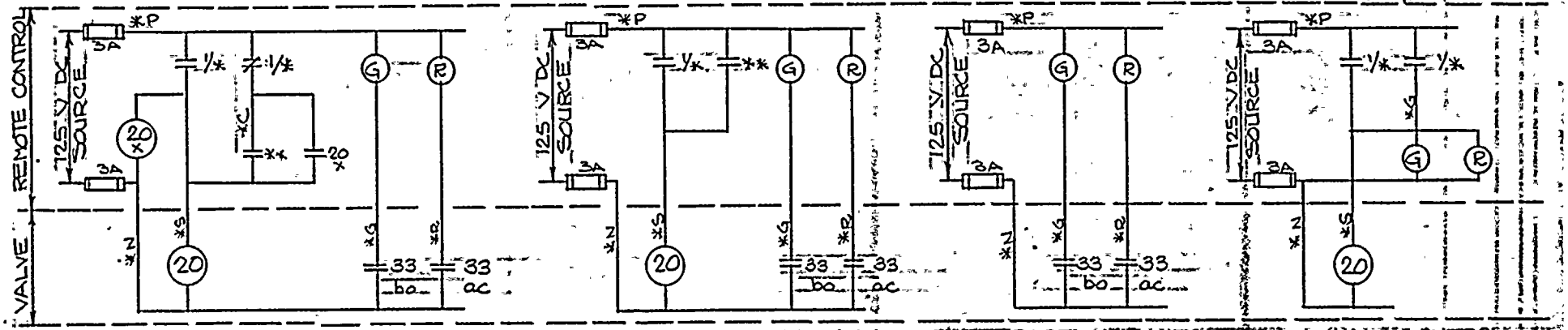


MANUAL CONTROL
FIG. 1

AUTOMATIC CONTROL
FIG. #2

MAN. CONTROL AUTO. OVERRIDE TO DE-ENERGIZE SOLENOID
FIG. #3

AUTO CONTROL MAN. OVERRIDE TO ENERGIZE SOLENOID (AUX. RELAY ON VALVE 1CV427 ONLY)
FIG. #4



AUTOMATIC CONTROL w/ LOCK UP MANUAL OVERRIDE TO RESET
FIG. #5

MANUAL CONTROL AUTO OVERRIDE TO ENERGIZE SOLENOID
FIG. #6

POSITION LIGHTS
FIG. #7

MANUAL CONTROL (W/O POSITION SWITCHES)
FIG. #8

SOLENOID & PILOT SOLENOID OPERATED AIR DIAPHRAGM VALVES

REV.						
ORIGINAL	AJV III	RMW	K.E.G.	J.E.L.	4/3/62
	DWN BY	CK'D	RESP. ENG'R	ENG'R MGR.	DATE

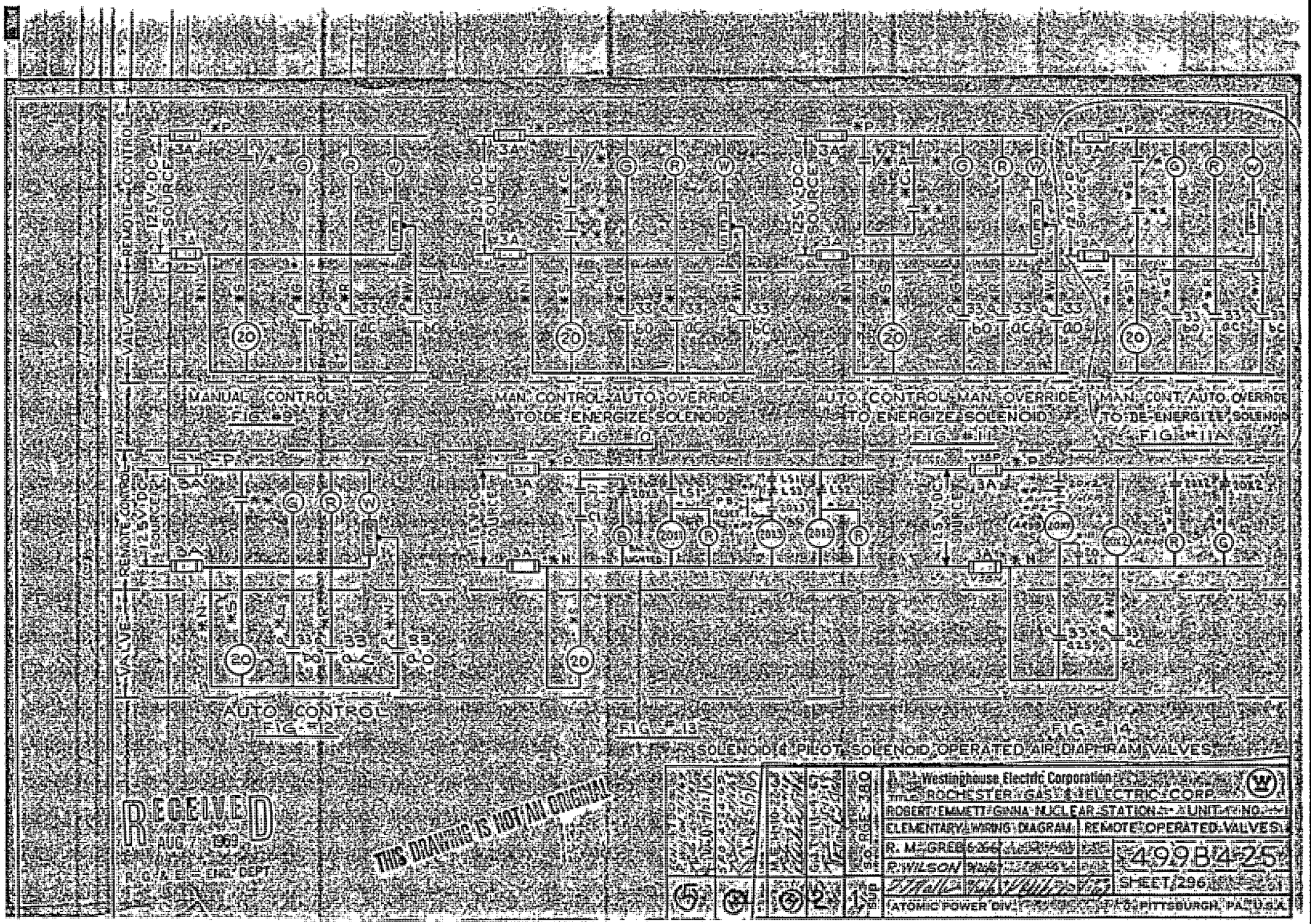
THIS DWG. SUPERSEDES W. DWG. 4995425 SH. 295

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
REMOTE OPERATED VALVES

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R ____ DEPT

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.

NO. 10905-295


MANUAL CONTROL
FIG. #9
MAN. CONTROL, AUTO. OVERRIDE
TO DE-ENERGIZE SOLENOID
FIG. #10
AUTO. CONTROL, MAN. OVERRIDE
TO ENERGIZE SOLENOID
FIG. #11
MAN. CONT. AUTO. OVERRIDE
TO DE-ENERGIZE SOLENOID
FIG. #11A
AUTO. CONTROL
FIG. #12
FIG. #13
FIG. #14
SOLENOID & PILOT SOLENOID OPERATED AIR DIAPHRAM VALVES
VALVE — REMOTE CONTROL — 125 V. DC SOURCE
RECEIVED
AUG 1969
R.G.&E. ENG. DEPT.
THIS DRAWING IS NOT AN ORIGINAL
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT E. MIMETT GINNA NUCLEAR STATION — UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
REMOTE OPERATED VALVES
R. M. GREEN
R. WILSON
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.
499B425
SHEET 296

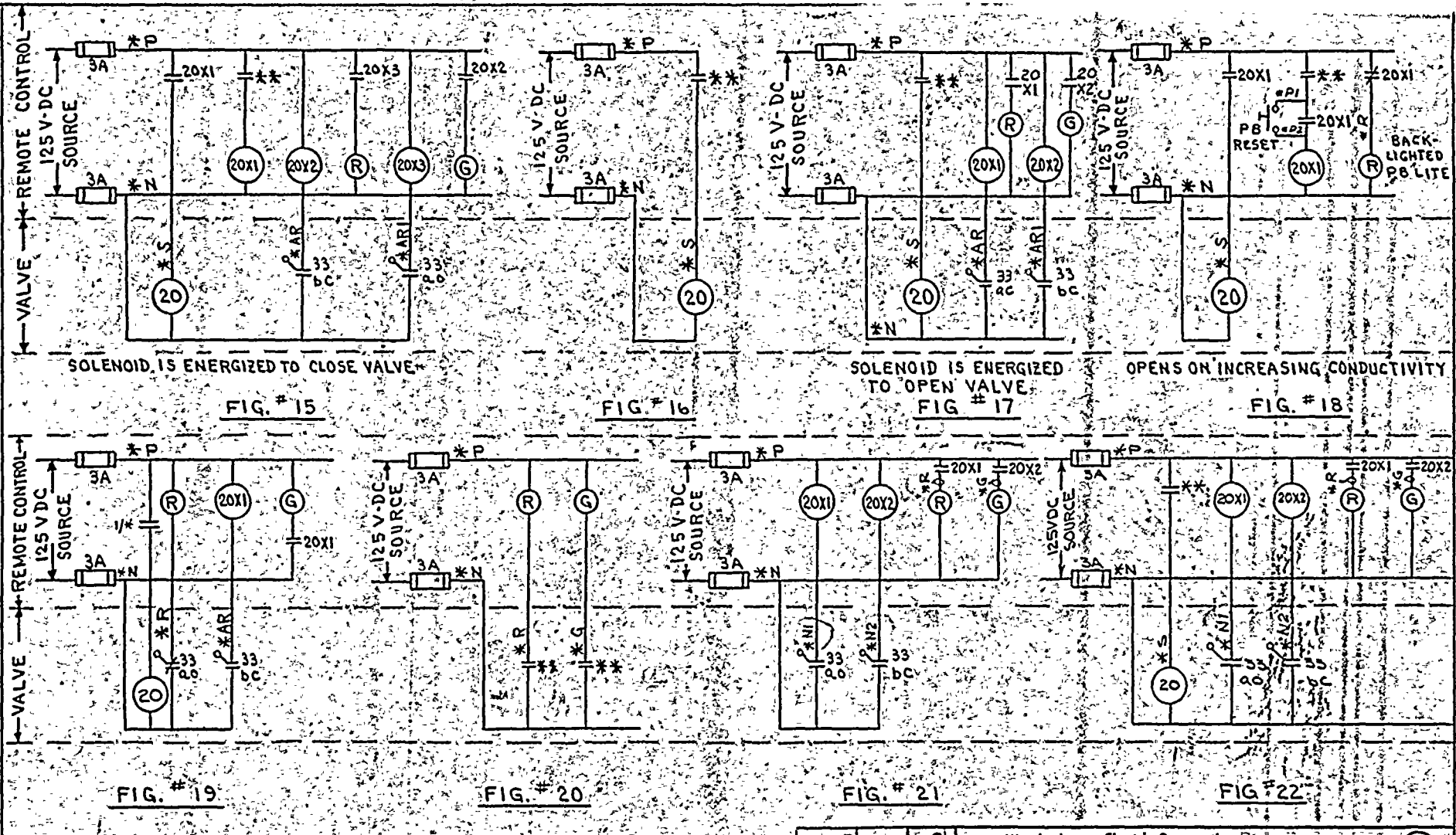


FIG. # 15 FIG. # 16 FIG. # 17 FIG. # 18

FIG. # 19 FIG. # 20 FIG. # 21 FIG # 22

RECEIVED
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R. G. & E. — ENG. DEPT

THIS DRAWING IS NOT AN ORIGINAL

GEN. ADO E. Wilson 7/14/69	SEO 4-25-69	S.O. RGE-380	Westinghouse Electric Corporation		
			TITLE: ROCHESTER GAS & ELECTRIC CORP.		
			ROBERT EMMETT GINNA NUCLEAR STATION-UNIT NO. 1		
			ELEMENTARY WIRING DIAG.	SOLENOID VALVE TABLE	
			9-TURBA 11-6-67		499B425
(3)	(2)	1 SUB		11/18/68	SHEET 297
			ATOMIC POWER DIV.	PITTSBURGH, PA., U.S.A.	

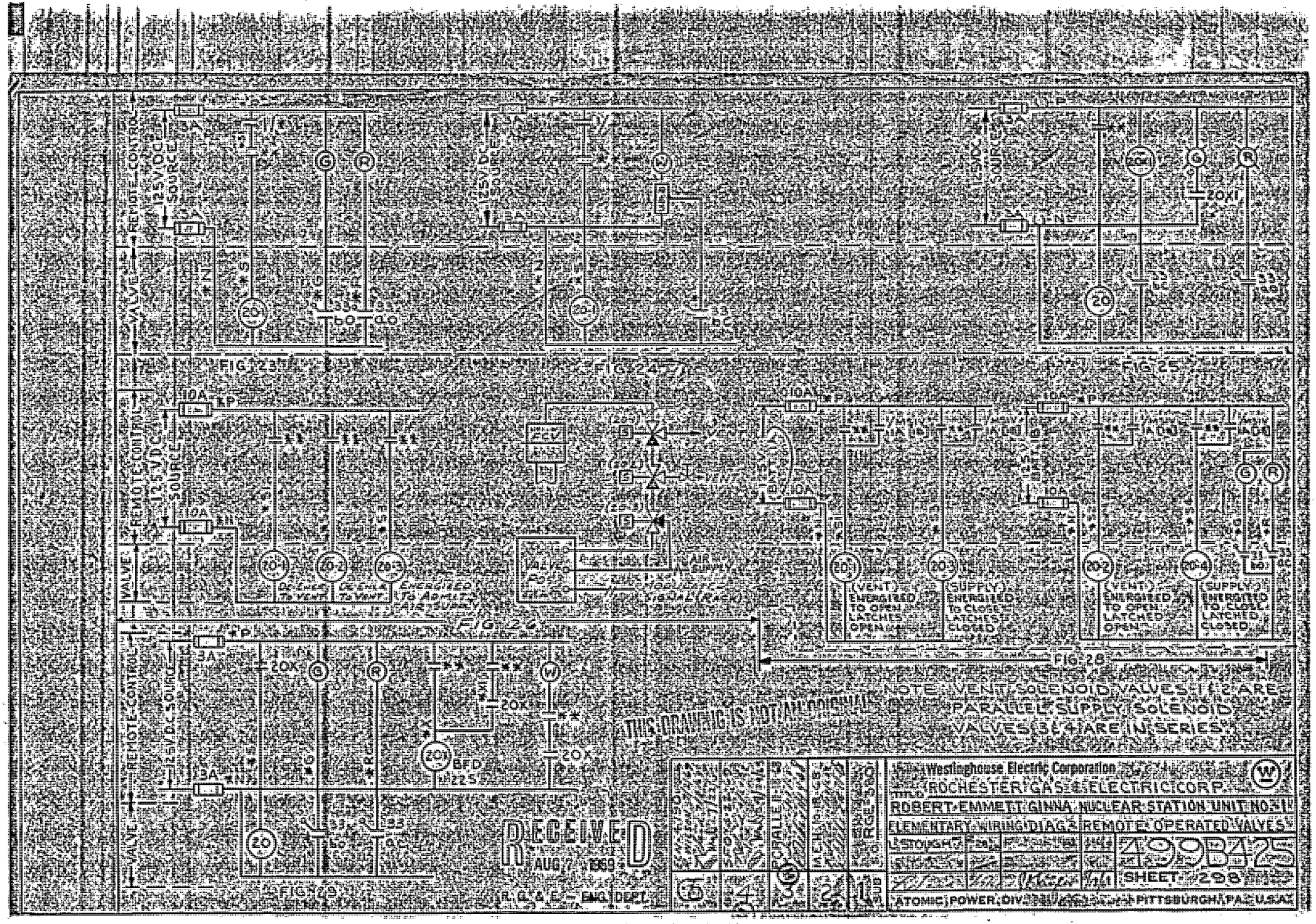
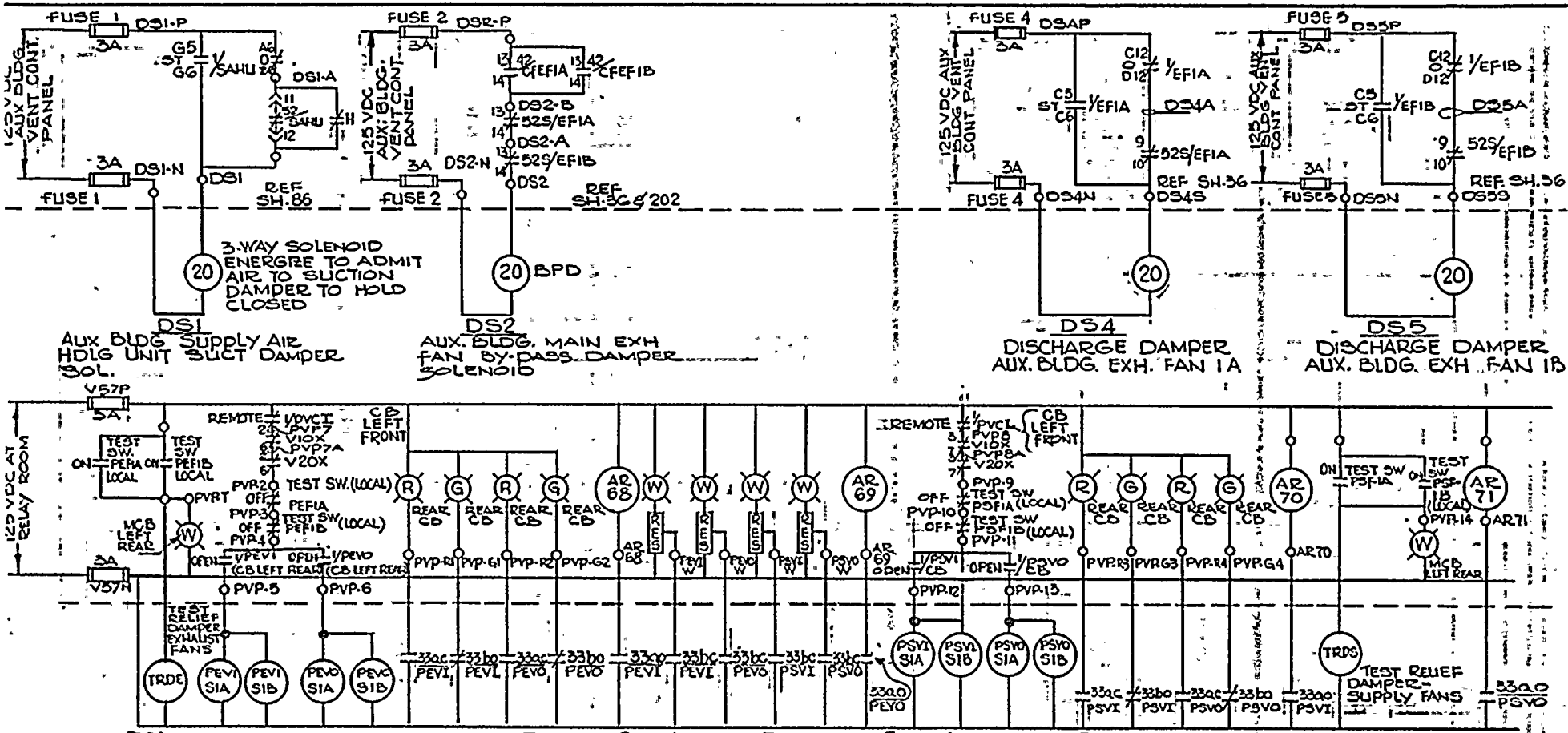


FIG. 23
FIG. 24
FIG. 25
FIG. 26
FIG. 27
FIG. 28
REMOTE CONTROL VALVE
125 VDC SOURCE
10A
3A
20X
20X1
20-1
20-2
20-3
20-4
20-5
20-6
29
(VENT) ENERGIZED TO OPEN LATCHES OPEN
(SUPPLY) ENERGIZED TO CLOSE LATCHES CLOSED
(VENT) ENERGIZED TO OPEN LATCHED OPEN
(SUPPLY) ENERGIZED TO CLOSE LATCHED CLOSED
AIR SUPPLY
SIGNAL (RED)
NOTE: VENT SOLENOID VALVES (1) & (2) ARE PARALLEL. SUPPLY SOLENOID VALVES (3) & (4) ARE IN SERIES.
THIS DRAWING IS NOT A CONTRACT
RECEIVED
AUG 1969
R. G. & E. — ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT E. MOTT GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAG. REMOTE OPERATED VALVES
49B425
SHEET 298
ATOMIC POWER DIV. PITTSBURGH, PA., U.S.A.



1A/9F-C4 AR68 1A/9F-C3 TO PEF-1A SH.222
1B/2H-C4 AR68 1B/2H-C3 TO PEF-1B SH.223
1A/9F-C3 AR69 1A/9F-C2 TO PEF-1A SH.222
1B/2H-C3 AR69 1B/2H-C2 TO PEF-1B SH.223
1A/9D-C4 AR70 1A/9D-C3 TO PSF-1A SH 222
1B/2F-C4 AR70 1B/2F-C3 TO PSF-1B SH.223
1A/9D-C3 AR71 1A/9D-C2 TO PSF-1A SH.222
1B/2F-C3 AR71 1B/2F-C2 TO PSF-1B SH.223

NOTE:
(1)- 1/PVCI SEE DEV "A" SHEET 314
(2)- V10X, V20X DWG 110E059 SH 5
(3)- S1A, S1B REDUNDANT SOLENOIDS (2 ON EACH PURGE VALVE)

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425-SHEET 299 REVISION 5

Rev.						
Original	GSM	RMW	KEA	JEL	4/20/62
	drawn by	ck'd	resp eng'r	eng'r man'r	date

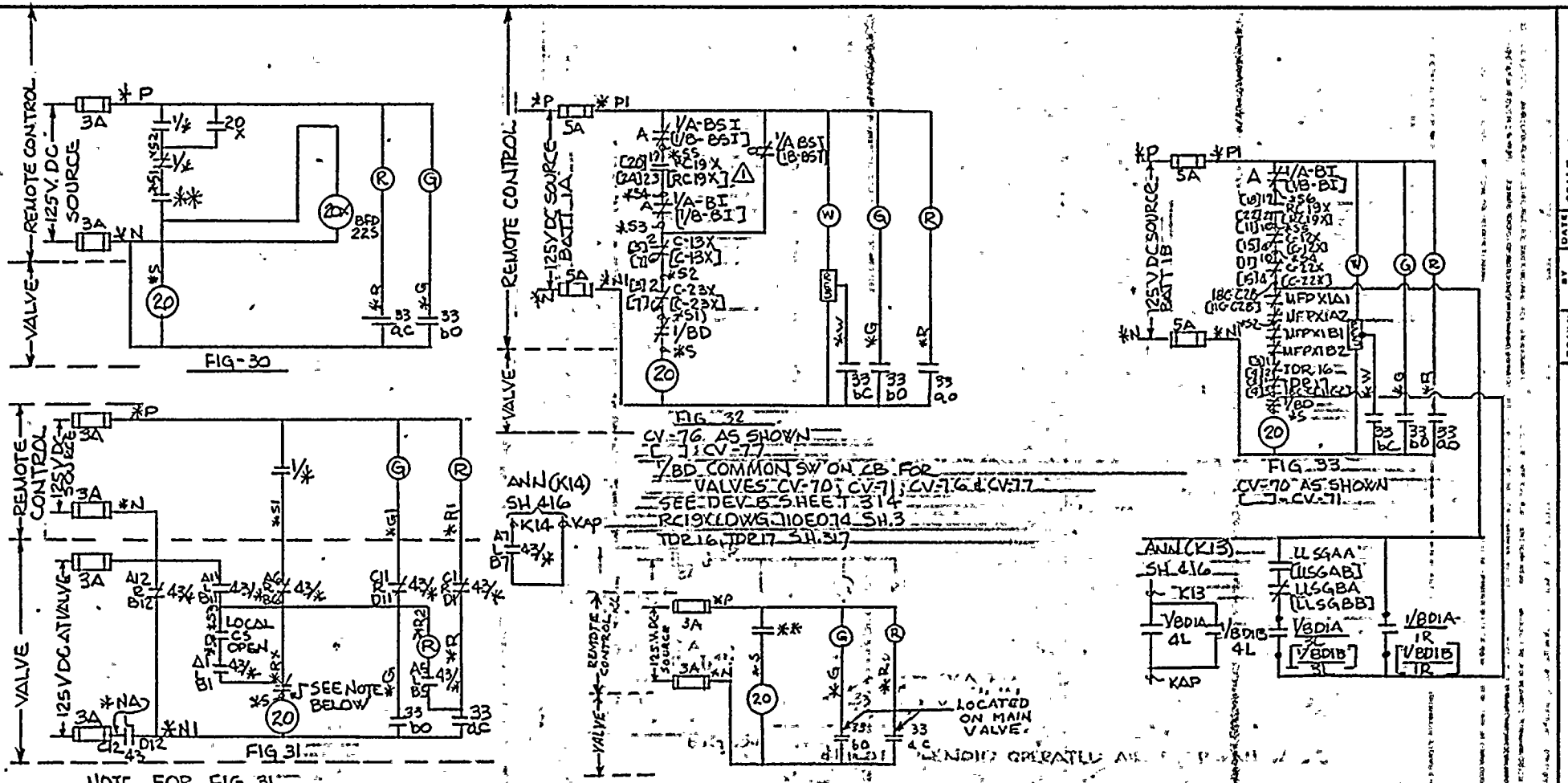
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK — DEPT ENGINEERING — No. 10995-299

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

DAMPER SOLENOID ELEMENTARY

DRAWN | BY | DATE | SCALE | TRACED | CHECKED | APPROVED | ENG. | FOLDER NO. | JOB NO. V



NOTE FOR FIG 31

RELAY CONTACT 20X/427 FOR VALVES 200A, 200B & 202 ONLY

VALVE	200A	200B	202
	9 ± *RX	10 ± *RX	11 ± *RX
	13 ± *S	14 ± *S	15 ± *S

FIG. 34

SOLENOID & PILOT SOLENOID OPERATED AIR DIAPHRAM VALVE

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. A99B425 SH 500

REV.						
	1	RMW 7/8/76	DAH 7-9-76	KFA 7-12-76	QES	7/12/76
ORIGINAL		BOF DRAWN	RMW CKD.	KFA RESP. ENGR.	QES ENGR MGR.	5/13/76 DATE

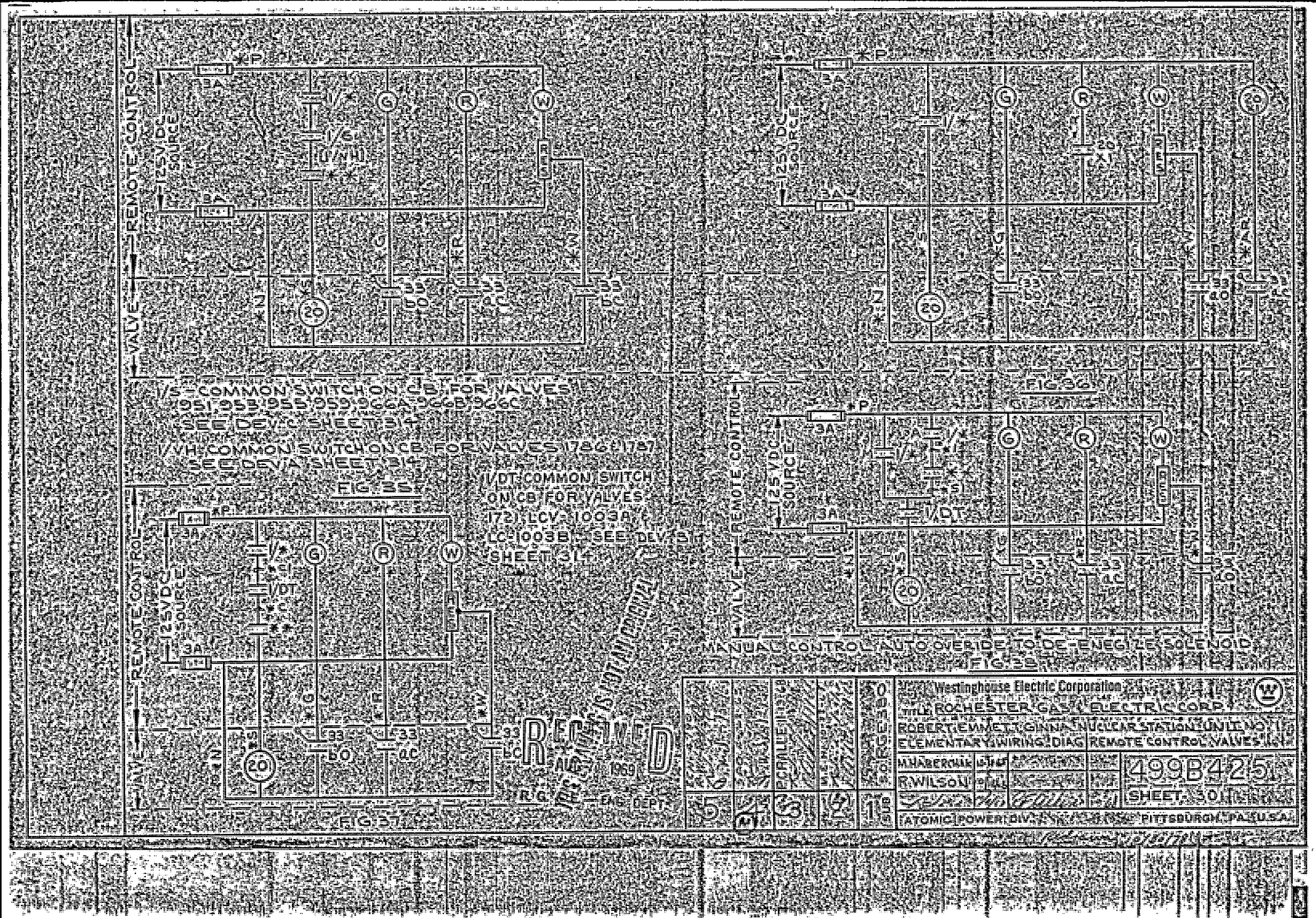
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING

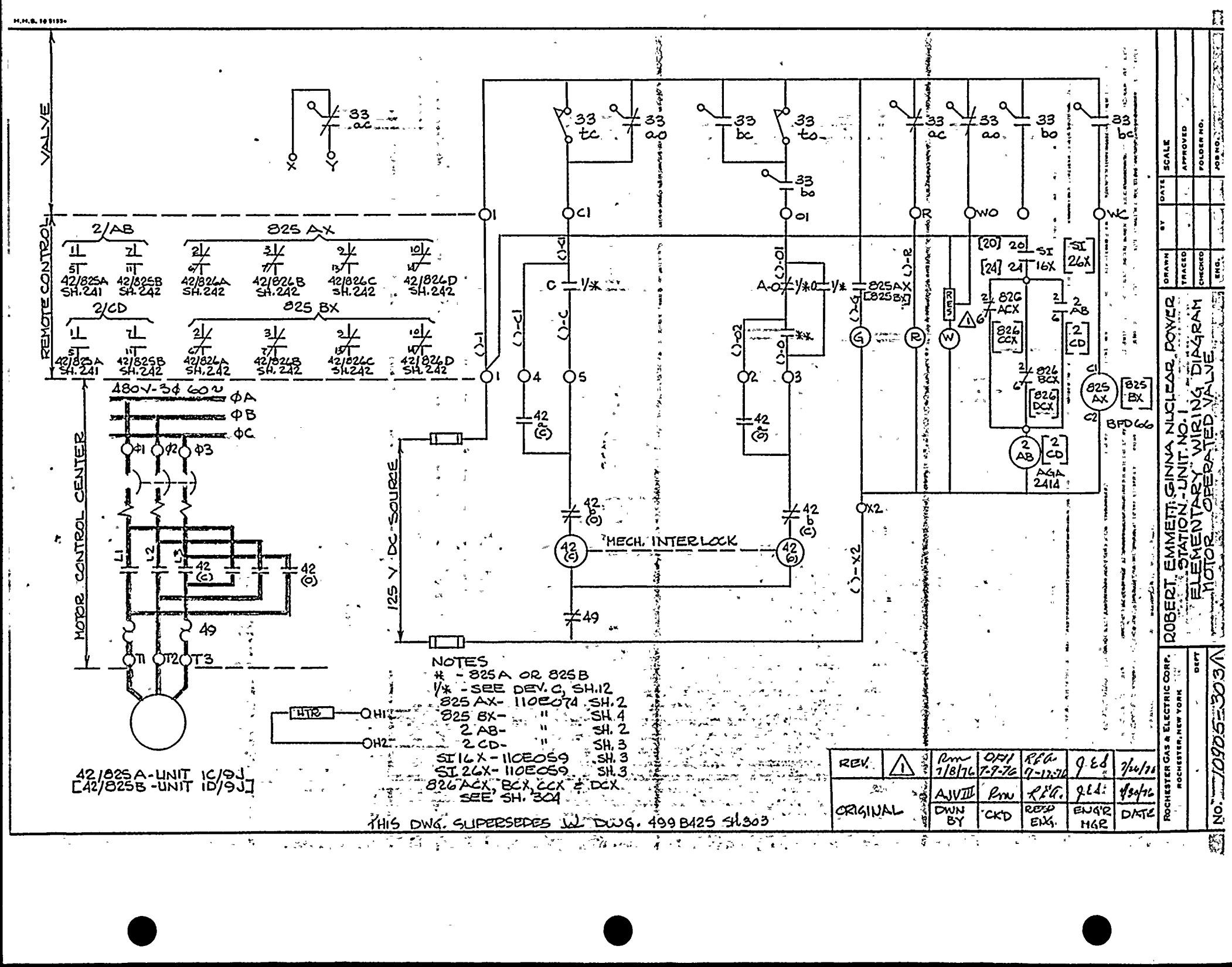
ROBERT E. GINNA NUCLEAR POWER STATION UNIT NO. 1

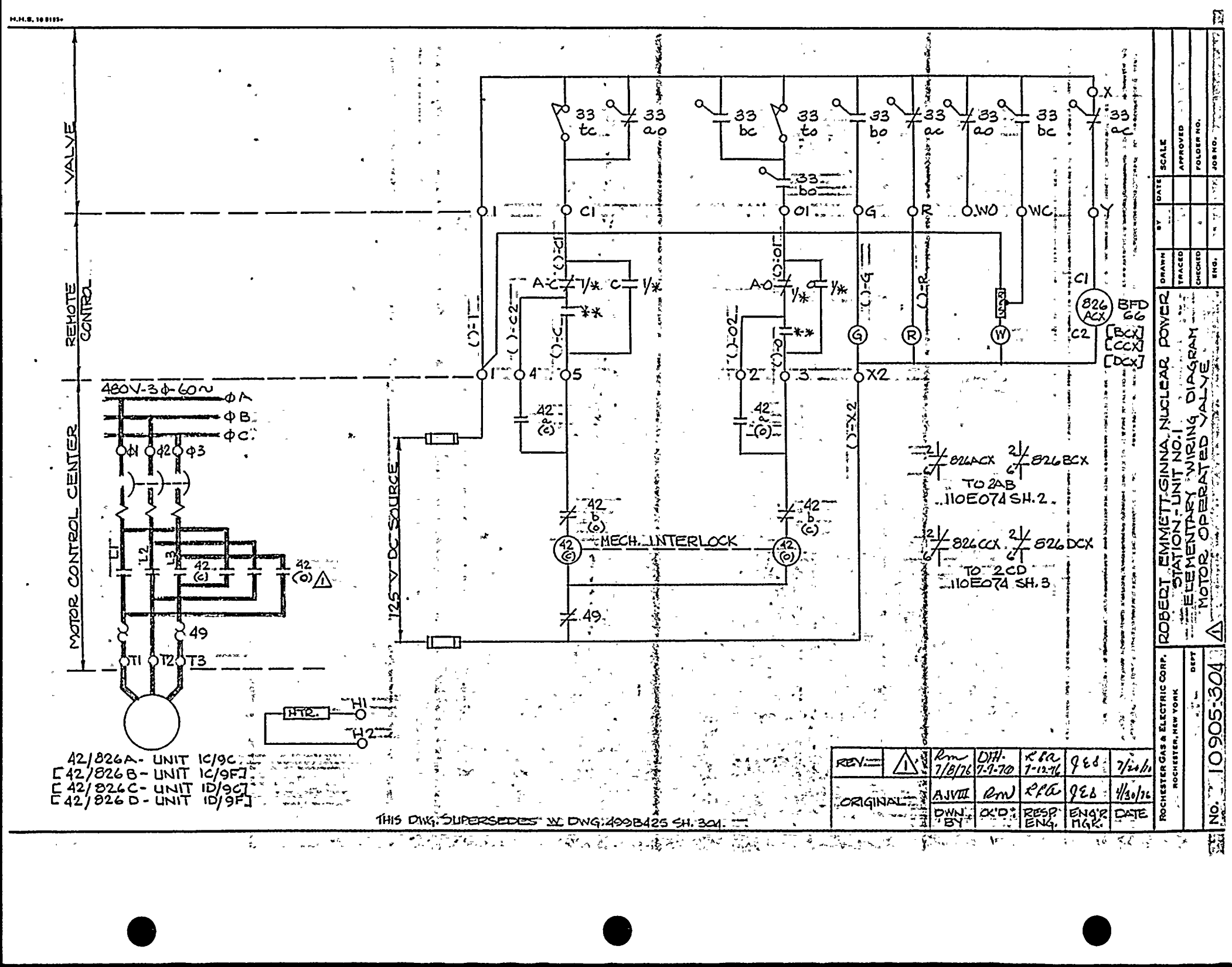
ELEMENTARY WIRING DIAGRAM

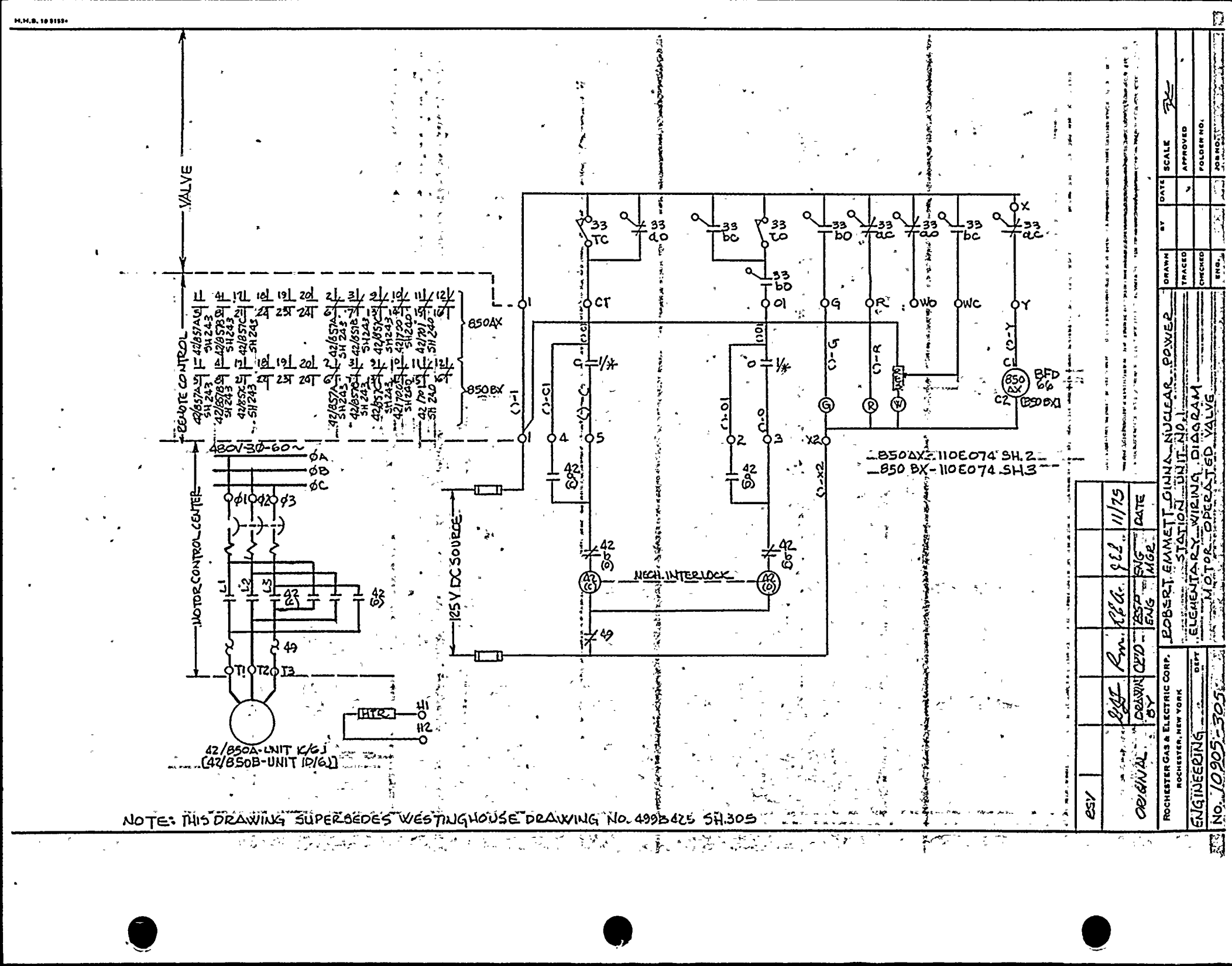
DRAWN | TRACED | CHECKED | ENG. | BY | DATE | SCALE NONE | APPROVED | FOLDER NO. | JOB NO.

NO. 10905-300


VALVE REMOTE CONTROL
125V DC SOURCE
3A
*P
G
R
W
I/S
I/DT
I/VH
20
33
bc
bo
ac
I/S - COMMON SWITCH ON CB FOR VALVES 951, 953, 955, 959, 966A, 966B, 966C
SEE DEV'c SHEET 314
I/VH COMMON SWITCH ON CB FOR VALVES 1786 & 1787
SEE DEV'A SHEET 314
FIG 35
I/DT COMMON SWITCH ON CB FOR VALVES 172, LCV-1003A & LCV-1003B SEE DEV'S SHEET 314
FIG 36
MANUAL CONTROL AUTO OVERIDE TO DE-ENERGIZE SOLENOID
FIG 37
RECEIVED
AUG 1969
R G & E
ENG. DEPT.
Westinghouse Electric Corporation
TITLE ROCHESTER GAS & ELECTRIC CORP.
ROBERT E. MANNETTA GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAG REMOTE CONTROL VALVES
M. HABERMAN
R. WILSON
ATOMIC POWER DIV. PITTSBURGH, PA. U.S.A.
499B425
SHEET 30


REMOTE CONTROL VALVE
2/AB
825 AX
42/825A SH.241
42/825B SH.242
42/826A SH.242
42/826B SH.242
42/826C SH.242
42/826D SH.242
2/CD
825 BX
480V-3φ 60~
φA
φB
φC
MOTOR CONTROL CENTER
125 V DC SOURCE
MECH. INTERLOCK
HTR
42/825A-UNIT 1C/9J
[42/825B-UNIT 1D/9J]
NOTES
* - 825A OR 825B
1/* - SEE DEV. C, SH.12
825 AX- 110E074 SH.2
825 BX- " SH.4
2 AB- " SH.2
2 CD- " SH.3
SI 16X - 110E059 SH.3
SI 26X - 110E059 SH.3
826 ACX, BCX, CCX & DCX SEE SH. 304
THIS DWG. SUPERSEDES W DWG. 499B425 SH.303
ROBERT EMMETT GINNA NUCLEAR POWER
STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
NO. 10065-303
REV. 1
ORIGINAL
DRAWN
TRACED
CHECKED
ENG.
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.


VALVE
REMOTE CONTROL
MOTOR CONTROL CENTER
480V-3φ-60~
φA
φB
φC
L1
L2
L3
49
T1
T2
T3
HTR.
H1
H2
125 V DC SOURCE
MECH. INTERLOCK
TO 2AB 110E074 SH. 2
TO 2CD 110E074 SH. 3
826ACX
826BCX
826CCX
826DCX
BFD 66
[BCX]
[CCX]
[DCX]
42/826A - UNIT 1C/9C
[42/826B - UNIT 1C/9F]
[42/826C - UNIT 1D/9C]
[42/826D - UNIT 1D/9F]
THIS DWG. SUPERSEDES W DWG. 499B425 SH. 304.
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
DRAWN
TRACED
CHECKED
ENG.
DATE
BY
SCALE
APPROVED
FOLDER NO.
JOB NO.
REV.
ORIGINAL
DWN BY
CK'D
RESP. ENG.
ENG'R MGR.
DATE
AJVIII
7/8/76
DTH
7-1-76
7-12-76
4/30/76
7/20/76
No. 10905-304



NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH.305

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING
ORIGINAL
DRAWN BY
CHKD
ESP ENG
MGR
DATE 11/75

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
MOTOR OPERATED VALVE

DRAWN | BY | DATE | SCALE
TRACED | | | APPROVED
CHECKED | | | FOLDER NO.
ENG. | | | JOB NO.

NO. 10905-305

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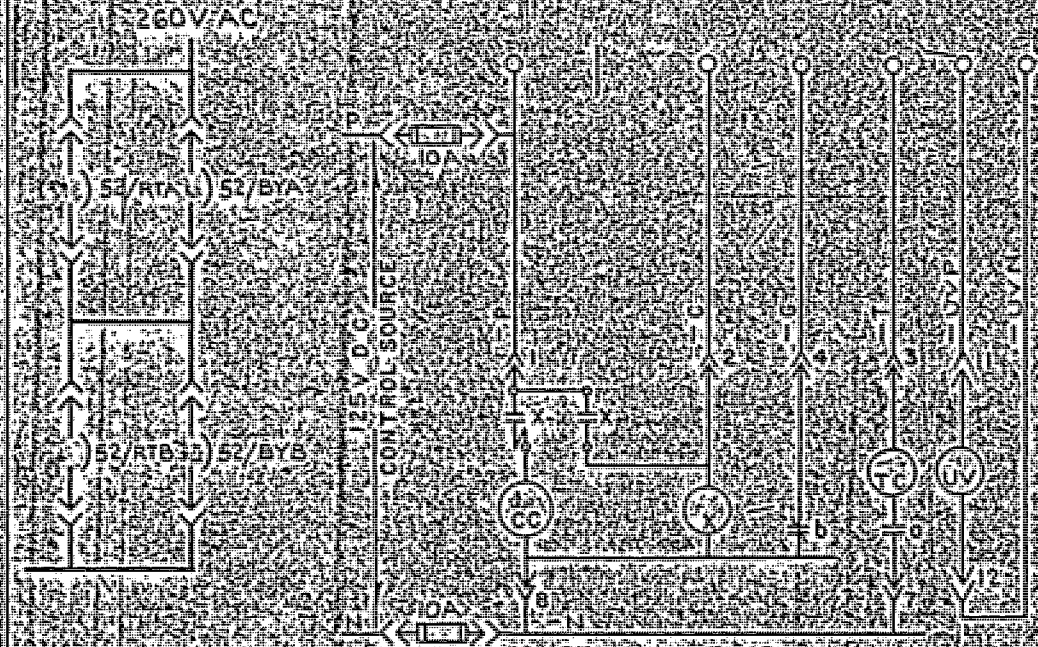
R.G.&E. — ENG. DEPT.

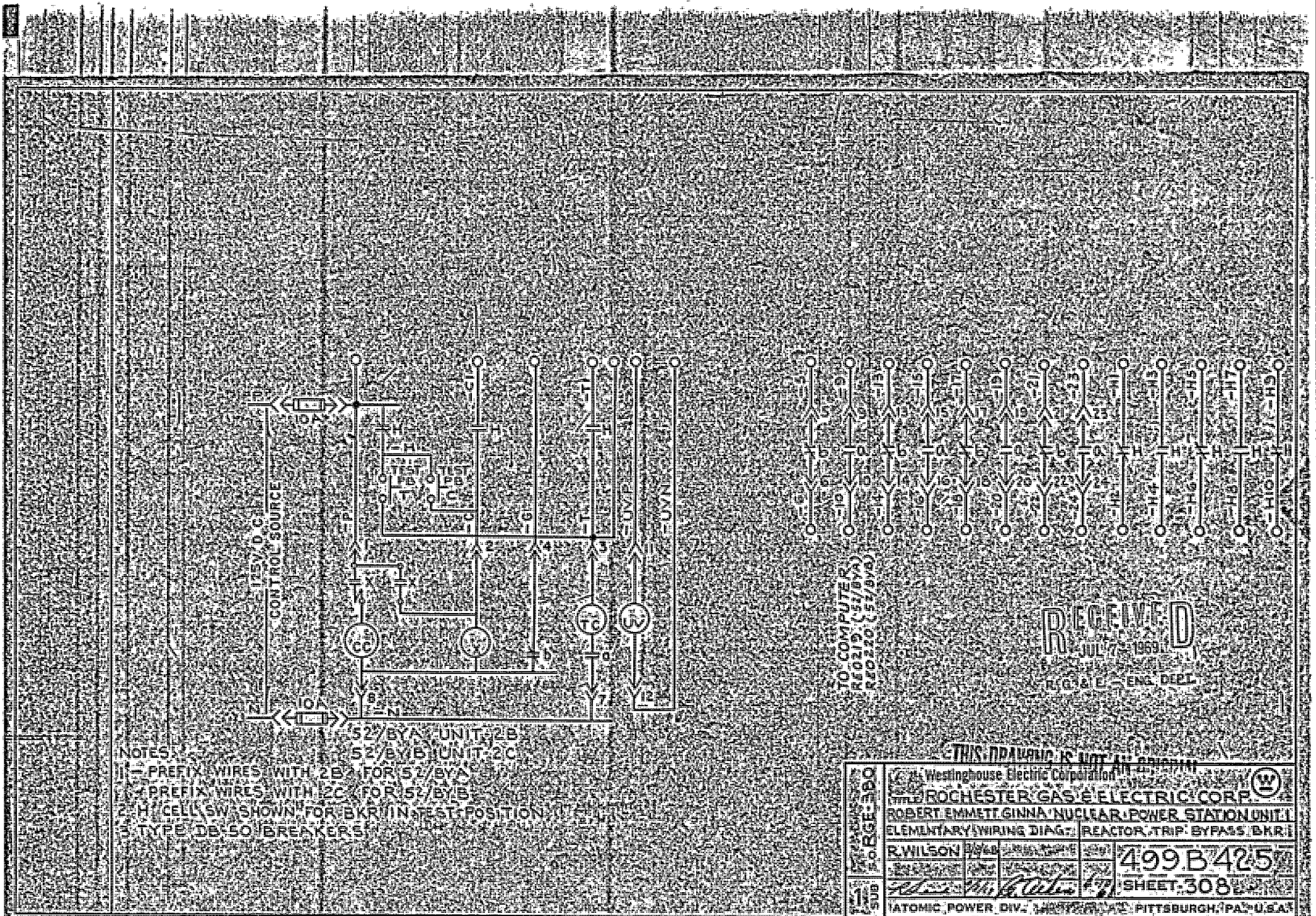


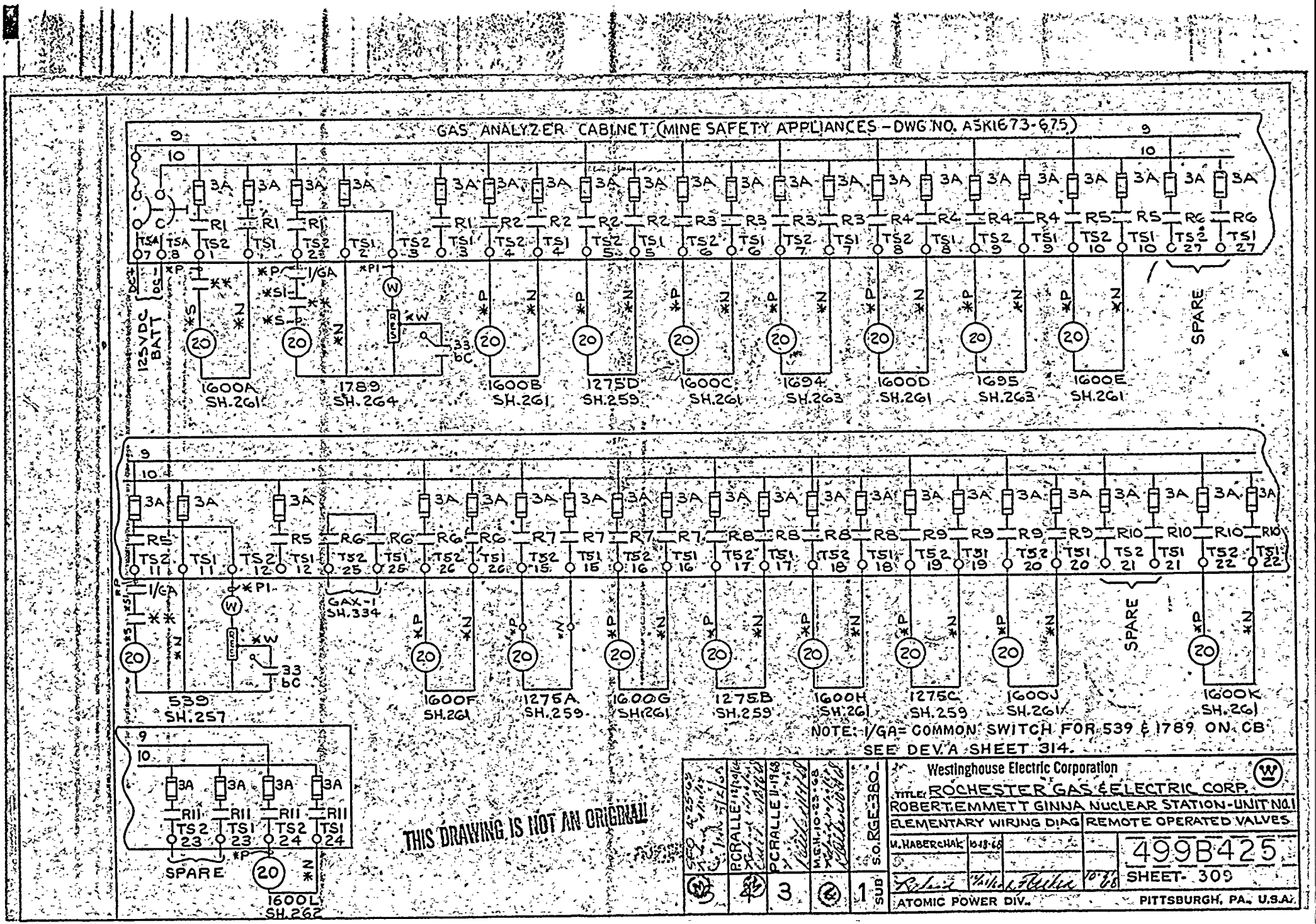
NOTES:
1. PREFIX WIRES WITH 1B FOR 52/RTA
PREFIX WIRES WITH 1C FOR 52/RTB
2. H CELL SW. SHOWN FOR BKR. IN TEST POSITION
3. TYPE DB-50 BREAKERS

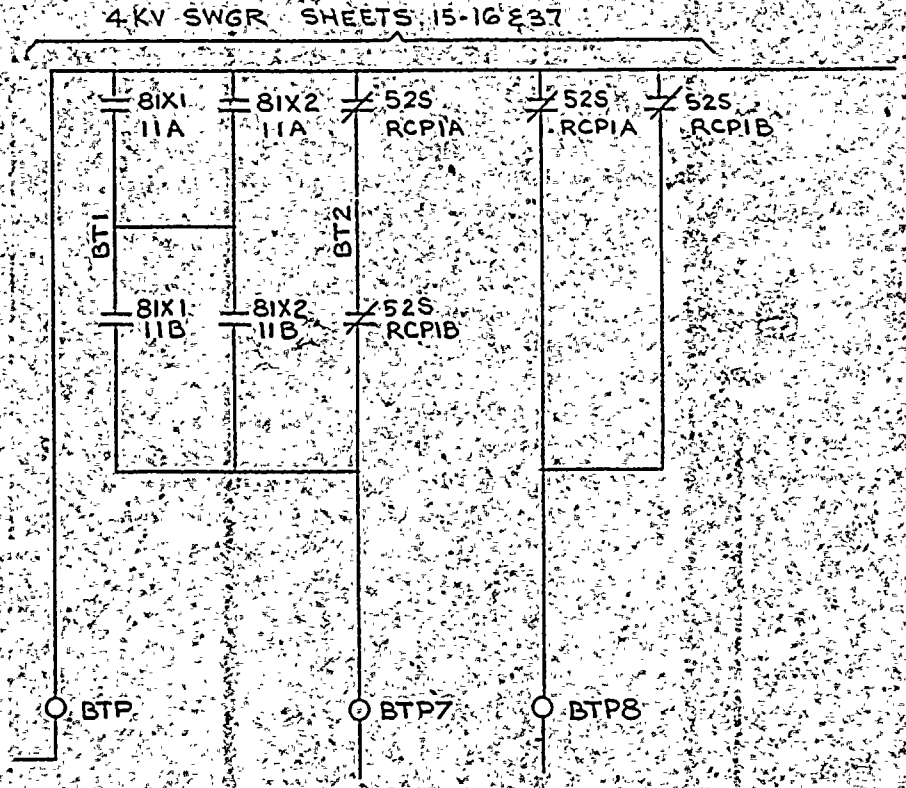
THIS DRAWING IS NOT AN ORIGINAL

1	ISSUED FOR USE		
	Westinghouse Electric Corporation		
	ROCHESTER GAS & ELECTRIC CORP.		
	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT 1		
	ELEMENTARY & WIRING DIAG.	REACTOR TRIP BKR.	
	R. WILSON		499B425
			SHEET 307

ATOMIC POWER DIV. C-I-P PITTSBURGH, PA. U.S.A.


10A
10A
125V D.C. CONTROL SOURCE
TEST PB
TEST PB
TO COMPUTER
RECEIVED
JUL 7 1969
R.G.&E. — ENG. DEPT.
52/BYA, UNIT 2B
52/BYB, UNIT 2C
NOTES:
1. — PREFIX WIRES WITH 2B FOR 52/BYA
— PREFIX WIRES WITH 2C FOR 52/BYB
2. H CELL SW. SHOWN FOR BKR IN TEST POSITION
3. TYPE DB-50 BREAKERS
THIS DRAWING IS NOT AS BUILT
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT 1
ELEMENTARY WIRING DIAG.: REACTOR TRIP BYPASS BKR. 1
R. WILSON
499B425
SHEET 308
ATOMIC POWER DIV. PITTSBURGH, PA. U.S.A.

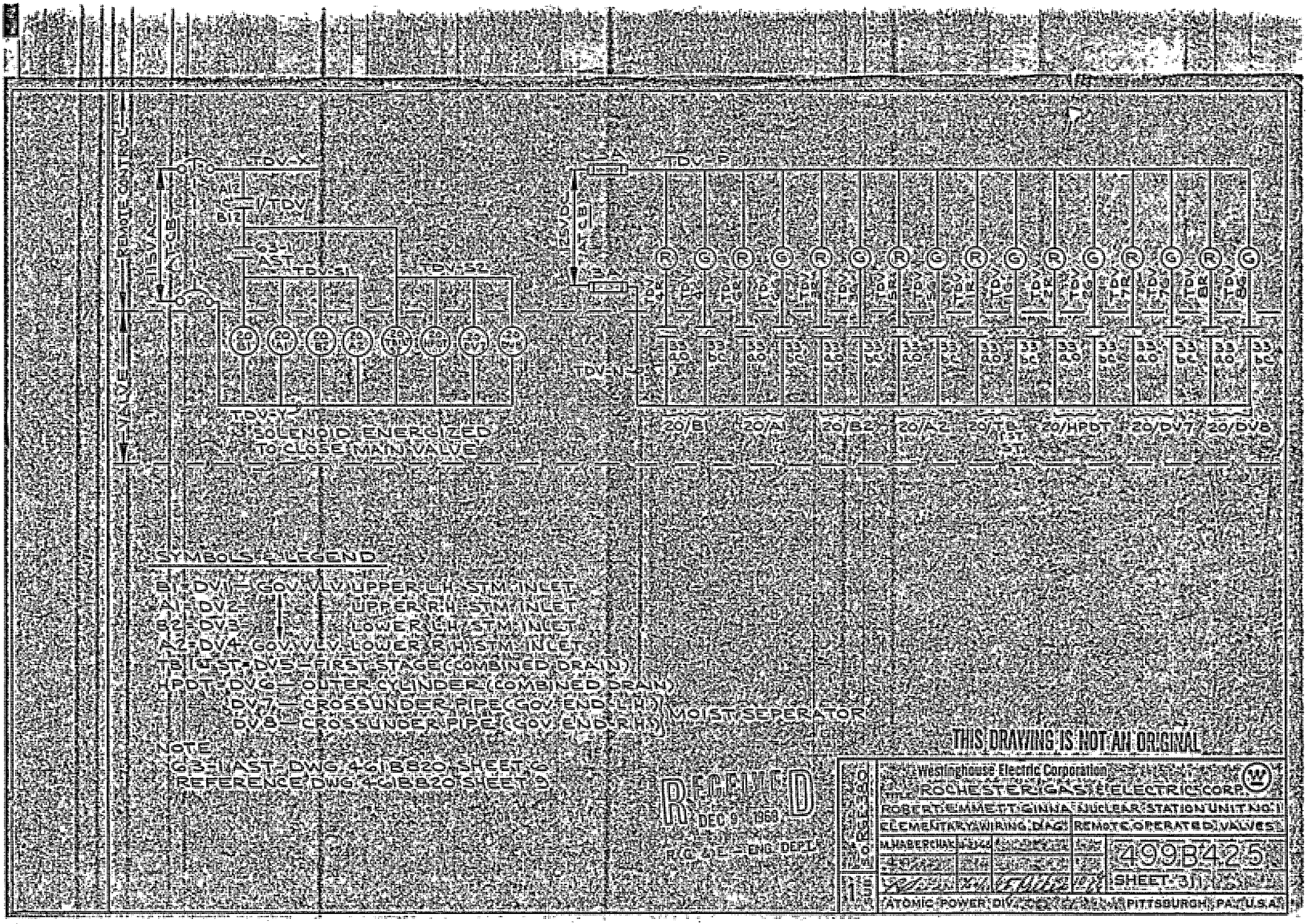

GAS ANALYZER CABINET (MINE SAFETY APPLIANCES - DWG NO. ASK1673-675)
125VDC BATT
1600A SH.261
1789 SH.264
1600B SH.261
1275D SH.259
1600C SH.261
1694 SH.263
1600D SH.261
1695 SH.263
1600E SH.261
SPARE
539 SH.257
GAX-1 SH.334
1600F SH.261
1275A SH.259
1600G SH.261
1275B SH.259
1600H SH.261
1275C SH.259
1600J SH.261
SPARE
1600K SH.261
SPARE
1600L SH.262
NOTE: I/GA = COMMON SWITCH FOR 539 & 1789 ON CB
SEE DEV. A SHEET 314.
THIS DRAWING IS NOT AN ORIGINAL!
Westinghouse Electric Corporation
TITLE: ROCHESTER GAS & ELECTRIC CORP.
ROBERT EMMETT GINNA NUCLEAR STATION-UNIT NO.1
ELEMENTARY WIRING DIAG
REMOTE OPERATED VALVES
M. HABERCHAK 10-18-68
499B425
SHEET- 309
10-68
ATOMIC POWER DIV.
PITTSBURGH, PA., U.S.A.
S.O. RGE-380
SUB 1
3

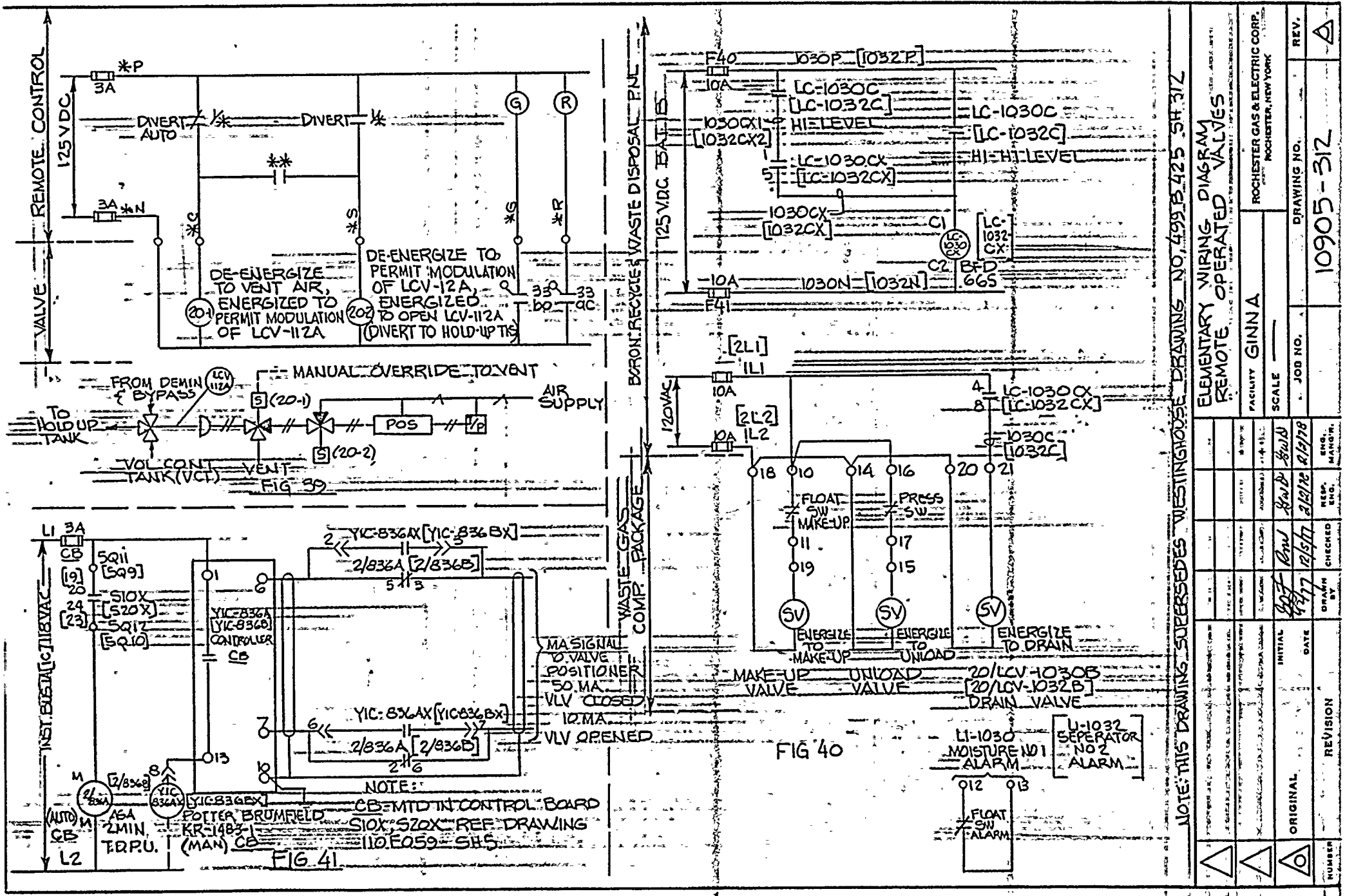


THIS DRAWING IS NOT AN ORIGINAL

Voided according to index

S.O. RGE-380	Westinghouse Electric Corporation				
	TITLE: ROCHESTER GAS & ELECTRIC CORP.				
	ROBERT EMMET GINNA NUCLEAR STATION - UNIT NO. 1				
	ELEMENTARY WIRING DIAG. 72/RTB BKR. TRIP CKT.				
	C.R. BOLLINGER	5/22/67			499B425
	R. WILSON	6/18/67			
1 SUB		6/21/67		11/27/67	SHEET-310
	ATOMIC POWER DIV.		PITTSBURGH, PA., U.S.A.		


TDV-X
TDV-P
TDV-Y
TDV-N
TDV-S1
TDV-S2
REMOTE CONTROL
VALVE
3A
3B
20/B1
20/A1
20/B2
20/A2
20/TB 1ST ST.
20/HPDT
20/DV7
20/DV8
SYMBOLS & LEGEND
B1 = DV1 — GOV. VLV. UPPER L.H. STM. INLET
A1 = DV2 — UPPER R.H. STM. INLET
B2 = DV3 — LOWER L.H. STM. INLET
A2 = DV4 — GOV. VLV. LOWER R.H. STM. INLET
TB = 1ST. DV5 — FIRST STAGE (COMBINED DRAIN)
HPDT = DV6 — OUTER CYLINDER (COMBINED DRAIN)
DV7 — CROSSUNDER PIPE (GOV. END L.H.)
DV8 — CROSSUNDER PIPE (GOV. END R.H.)
MOIST. SEPERATOR
NOTE
G3E1 AST - DWG. 4-61B820, SHEET 6
REFERENCE DWG. 4-61B820 SHEET 9
RECEIVED
DEC 9 1969
R(G&E) — ENG. DEPT.
THIS DRAWING IS NOT AN ORIGINAL
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT EMMETT GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAG.
REMOTE OPERATED VALVES
499B425
SHEET 31
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.



ELEMENTARY WIRING DIAGRAM REMOTE OPERATED VALVES

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

FACILITY GINNA

SCALE —

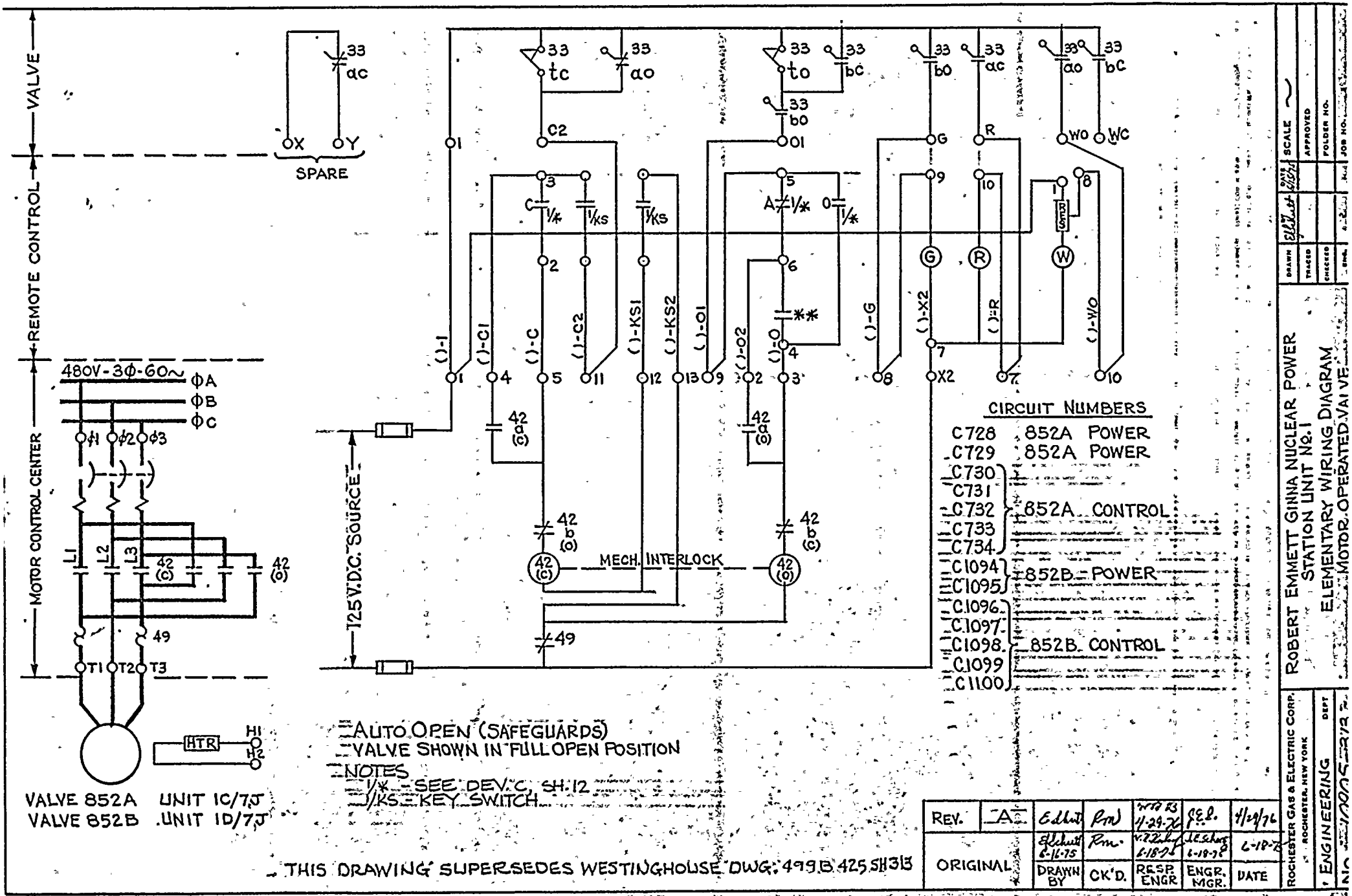
DRAWING NO. 10905-312

REV. 4

JOB NO.

NUMBER	REVISION	DATE	INITIAL
ORIGINAL			

	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
	Gnd 12/5/77	Gnd 12/5/77	Gnd 2/14/78	Gnd 2/14/78


VALVE
REMOTE CONTROL
MOTOR CONTROL CENTER
SPARE
33 ac
X
Y
480V-3Φ-60~
ΦA
ΦB
ΦC
Φ1 Φ2 Φ3
L1 L2 L3
42 (c)
49
T1 T2 T3
HTR
H1
H2
125 V.D.C. SOURCE
33 tc
33 ao
33 to
33 bc
33 bo
33 ac
33 ao
33 bc
C2
01
G
R
WO
WC
C 1/*
1/KS
1/KS
A 1/*
0 1/*
**
42 (a)
42 b (c)
MECH. INTERLOCK
( )-1
( )-C1
( )-C
( )-C2
( )-KS1
( )-KS2
( )-01
( )-02
( )-0
( )-G
( )-X2
( )-R
( )-W
( )-WO
CENTER
X2
CIRCUIT NUMBERS
C728 852A POWER
C729 852A POWER
C730
C731
C732
C733
C734
852A CONTROL
C1094
C1095
852B POWER
C1096
C1097
C1098
C1099
C1100
852B CONTROL
AUTO OPEN (SAFEGUARDS)
VALVE SHOWN IN FULL OPEN POSITION
NOTES
1/* - SEE DEV. C, SH. 12
1/KS - KEY SWITCH
VALVE 852A UNIT 1C/7J
VALVE 852B UNIT 1D/7J
THIS DRAWING SUPERSEDES WESTINGHOUSE DWG. 499B425 SH 313
REV. A
ORIGINAL
DRAWN BY
CK'D.
RESP. ENGR
ENGR. MGR.
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
MOTOR-OPERATED VALVE
DRAWN
TRACED
CHECKED
SCALE
APPROVED
FOLDER NO.
JOB NO.

CONTACT BLOCK	CIRCUIT POSITION	
	L	R
1st BLOCK (FRONT) TYPE-0T2M	NO	NO
2nd BLOCK TYPE-0T2M	NO	NO
3rd BLOCK TYPE-0T2M	NO	NO
4th BLOCK TYPE-0T2M	NO	NO

OPERATOR-0T2S1
2 POSITION
MAINTAINED

DEV-A

CONTACT BLOCK	CIRCUIT POSITION	
	L	R
1st BLOCK (FRONT) TYPE-0T2M	NO	NO
2nd BLOCK TYPE-0T2M	NO	NO

OPERATOR-0T2S1
2 POSITION
MAINTAINED

DEV-B

CONTACT BLOCK	CIRCUIT POSITION	
	L	R
1st BLOCK (FRONT) TYPE-0T2M	NO	NO
2nd BLOCK TYPE-0T2M	NO	NO
3rd BLOCK TYPE-0T2M	NO	NO
4th BLOCK TYPE-0T2M	NO	NO

OPERATOR-0T2S1
2 POSITION
MAINTAINED

DEV-C

CONTACT BLOCK	CIRCUIT POSITION	
	L	R
1st BLOCK (FRONT) TYPE-0T2M	NC	NC
2nd BLOCK TYPE-0T2M	NC	NC

OPERATOR-0T2S1
2 POSITION
MAINTAINED

DEV-D

THIS DRAWING IS NOT AN ORIGINAL

RECEIVED
DEC 9 1960
R.G.&E. — ENG. DEPT.

NO.	REVISIONS	DATE	APPROVED
2			
1			

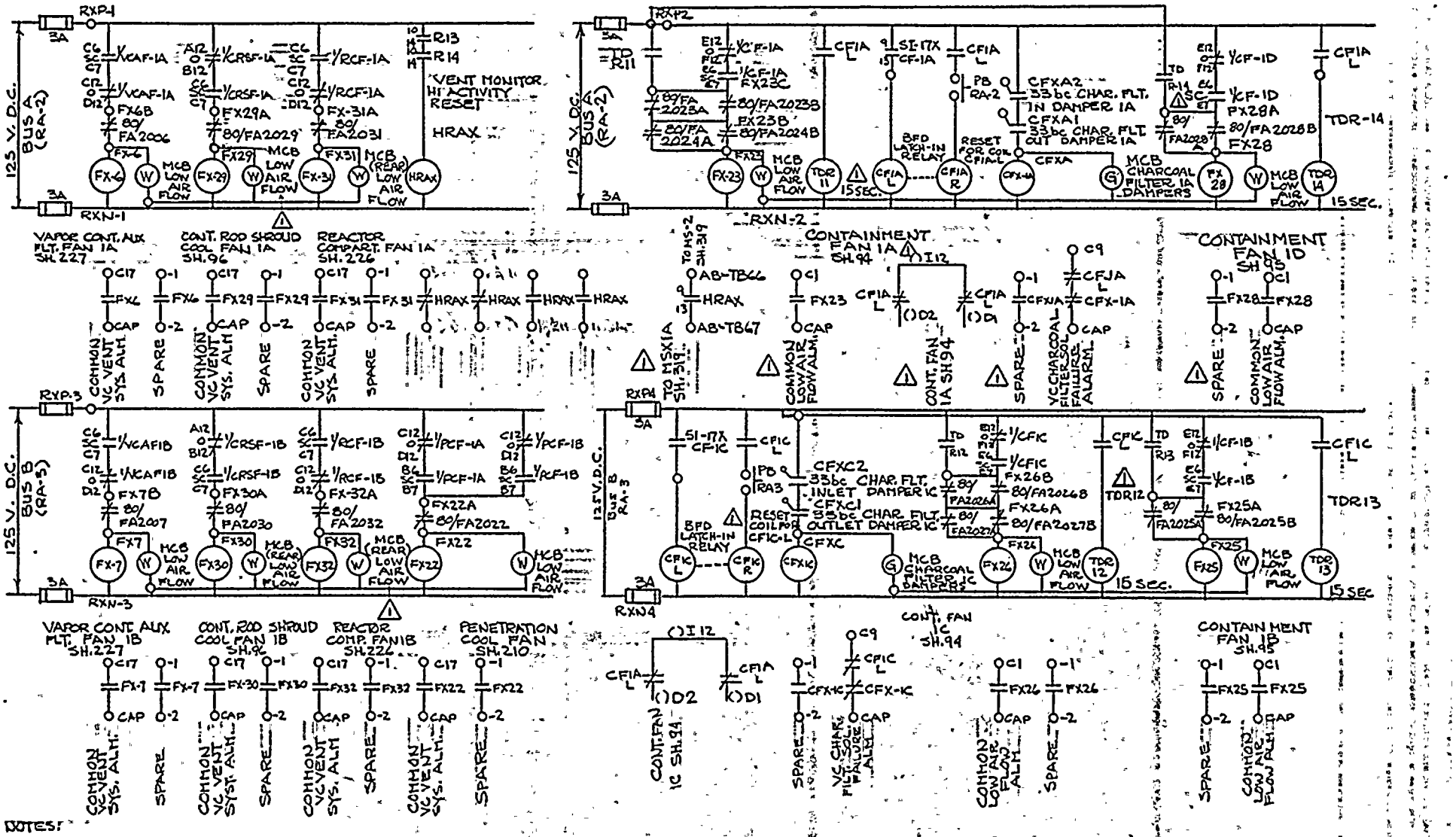
Westinghouse Electric Corporation

TITLE: ROCHESTER GAS & ELECTRIC CORP.
ROBERT E. MIDDLETT, GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SWITCH DEVELOPMENT

DRAWN	CHECKED	APPROVED	SCALE
A. LIEBERMAN			NONE

499B425
SHEET 3 OF 4

ATOMIC POWER DIV. — PITTSBURGH, PA., U.S.A.



NOTES:

SI 17X SI27X- W 110E059 SH. 3
CFIA-L & CFIC-L CONTACTS SHOWN RESET

THIS DWG. SUPERSEDES W DWG. 499B425 SH. 315

REV.		BY	DATE
ORIGINAL	1	7/8/76	7-9-76
		5/4/76	7-12-76
		DWN BY	CK'D

RTA	QES		7/28/76
RTA 5/24/76	QES		6/24/76
RESP. ENG.	ENG MGR		DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

DEPT

ROBERT E. GINNA NUCLEAR POWER STATION UNIT 1

ELEMENTARY WIRING DIAGRAM REACTOR AUXILIARY RELAYS

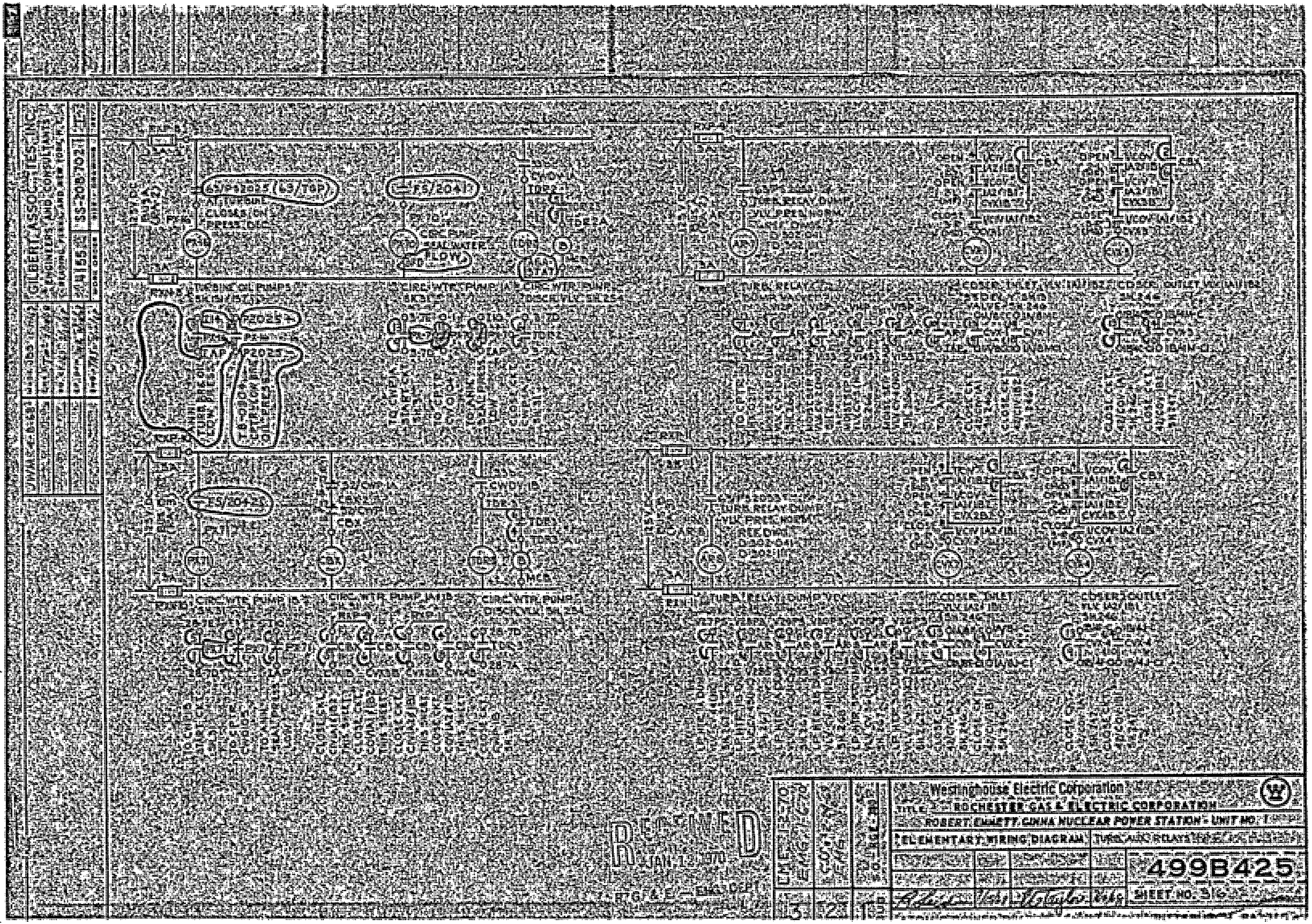
DRAWN | BY | DATE | SCALE

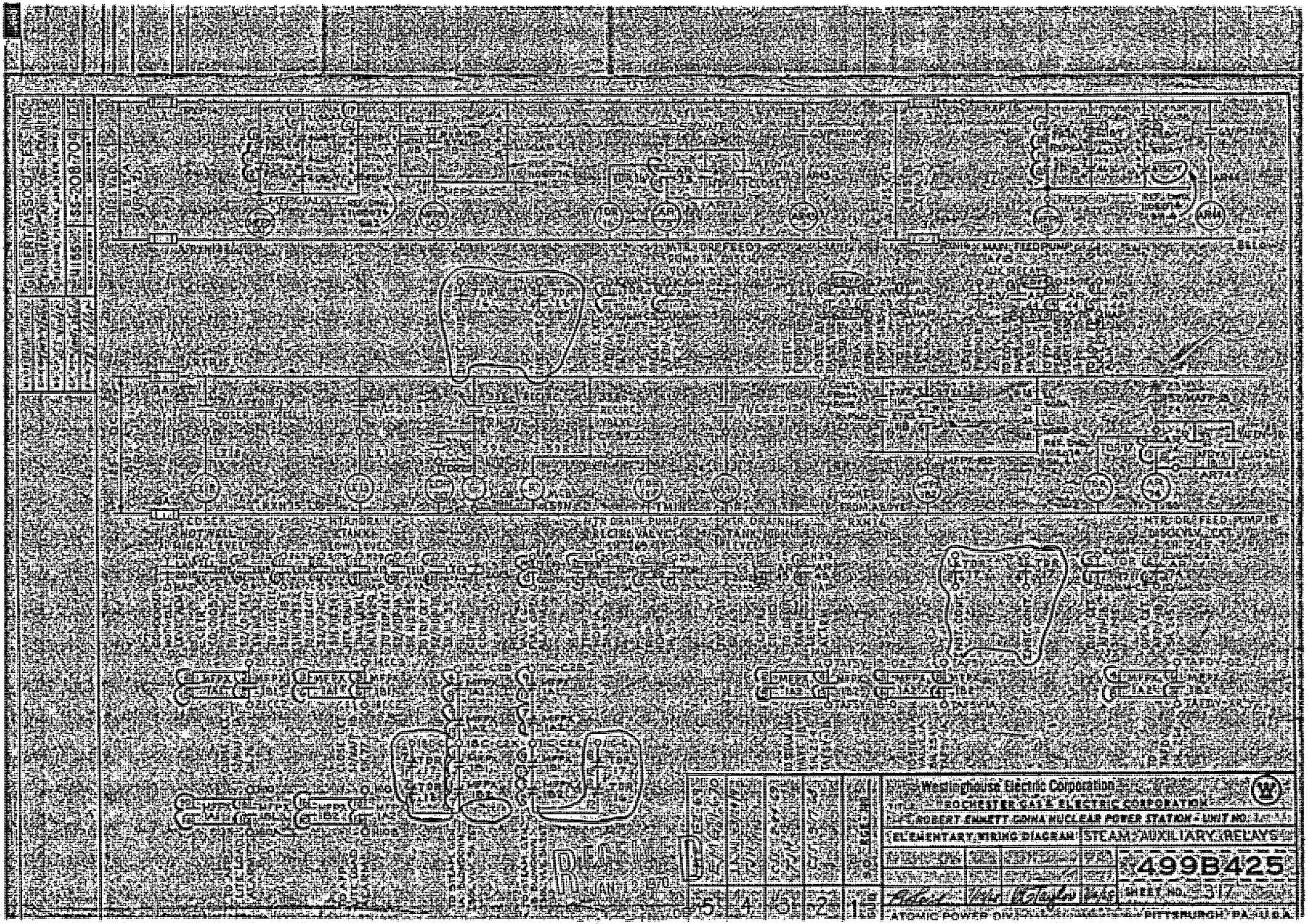
TRACED | APPROVED

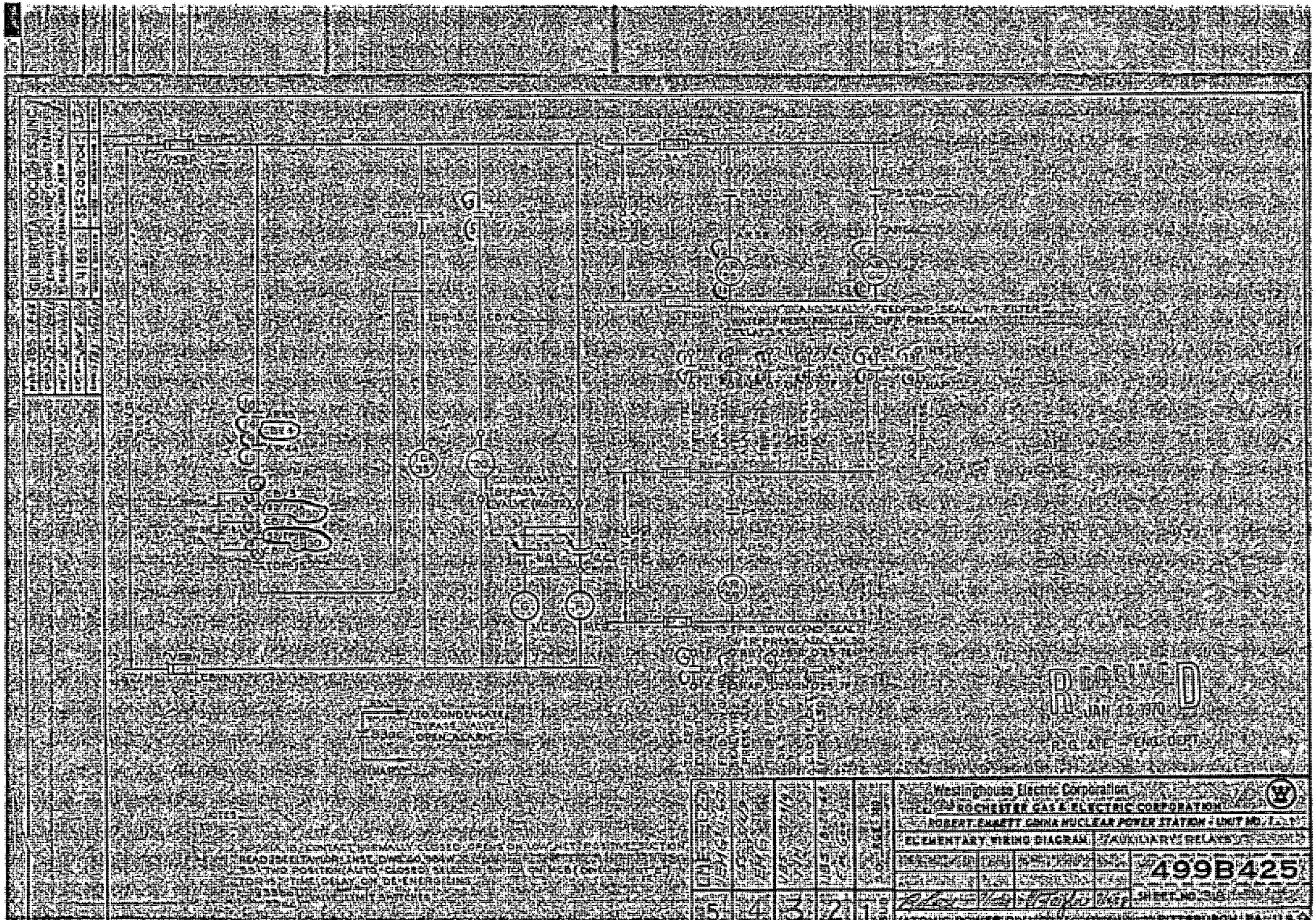
CHECKED | FOLDER NO.

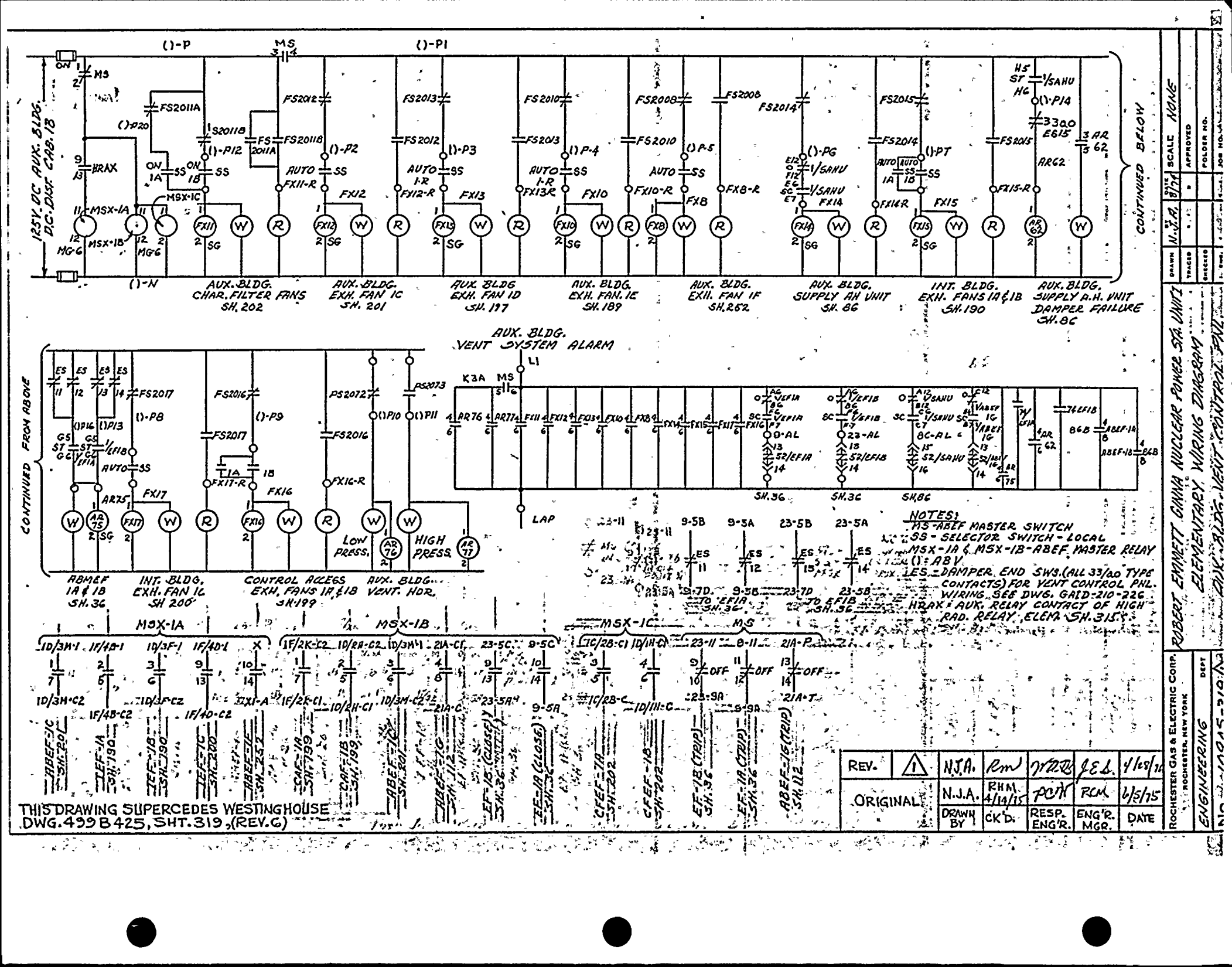
ENG. | JOB NO.

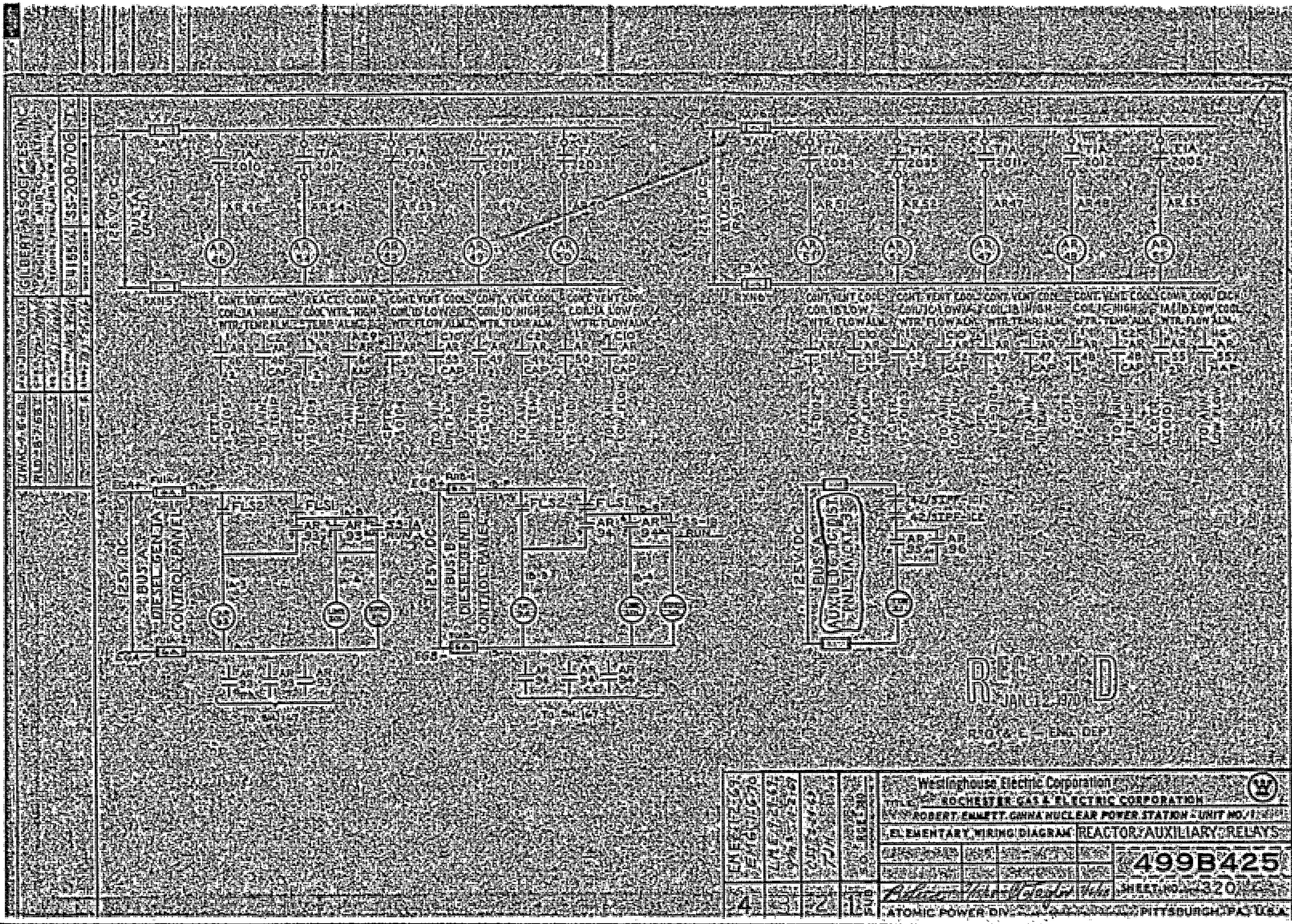
NO. 700S-5157


GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSULTANTS
TURBINE OIL PUMPS
CIRC. WTR. PUMP
TURB. RELAY DUMP
CNDSR. INLET
CNDSR. OUTLET
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
TURB. AUX RELAYS
499B425
SHEET NO. 3
RECEIVED
JAN 1 1970
R.G.&E.

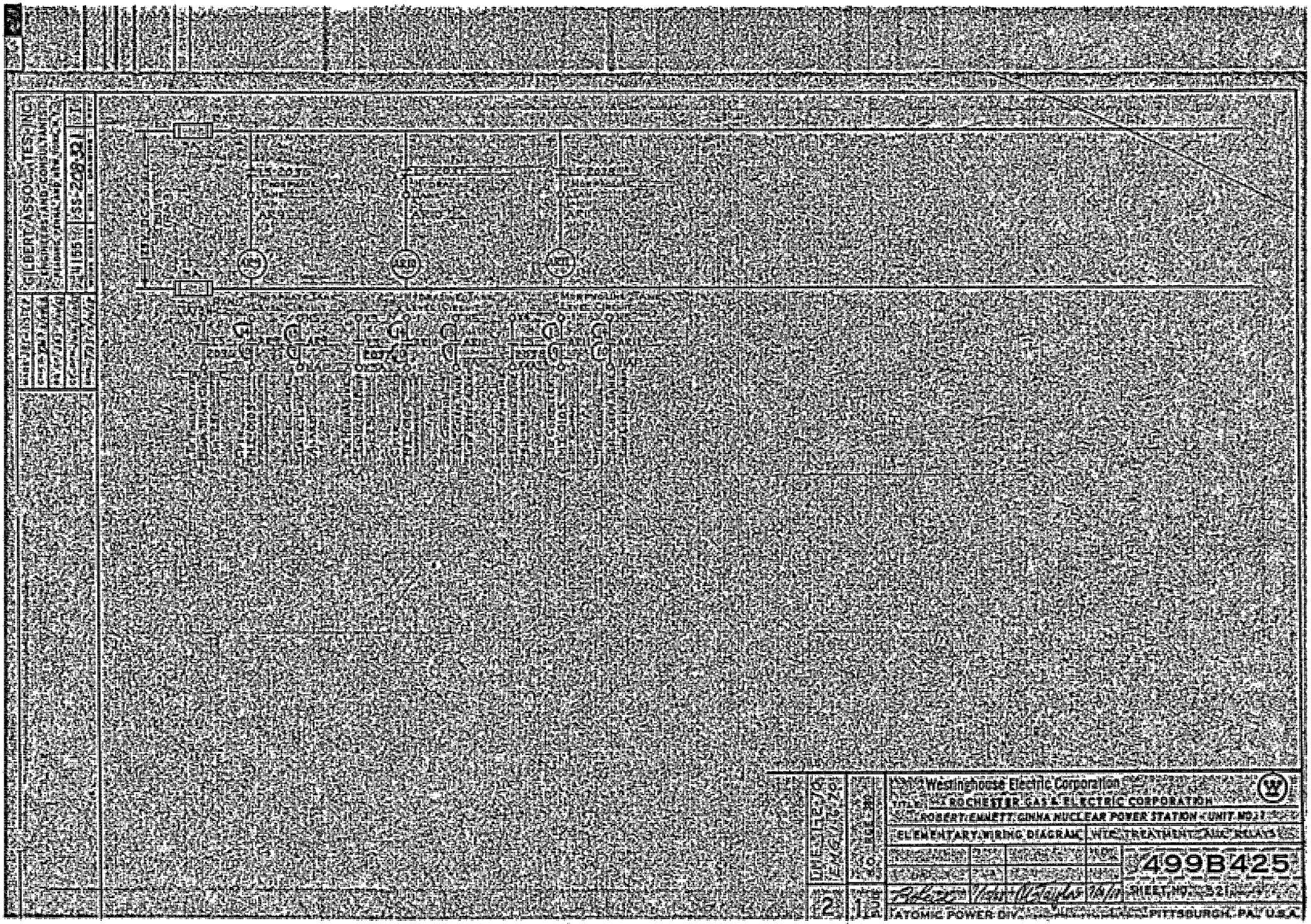

Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
STEAM AUXILIARY RELAYS
499B425
SHEET NO. 317
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.
DRAWING NO. 499B425
SHEET NO. 317
REVISIONS
DESCRIPTION
DATE
APPROVED
JAN 12 1970
GILBERT ASSOCIATES, INC.
READING, PENNSYLVANIA
CONTRACT NO. 1-1-1
DRAWING NO. 1-1-1
SHEET NO. 1-1-1
REVISIONS
DESCRIPTION
DATE
APPROVED
MOTOR-DRIVEN AUXILIARY FEEDWATER PUMP 1A DISCHARGE VALVE CONTROL
MOTOR-DRIVEN AUXILIARY FEEDWATER PUMP 1B DISCHARGE VALVE CONTROL
MAIN FEEDWATER PUMP 1A
MAIN FEEDWATER PUMP 1B
AUX. RECIRC. VALVE
HTR. DRAIN TANK RECIRC. VALVE
HTR. DRAIN PUMP
HTR. DRAIN TANK
CLOSED HOT WELL HIGH LEVEL
CLOSED HOT WELL LOW LEVEL
TAFDV-01
TAFDV-02
TAFDV-1A
TAFDV-1B
TAFDV-2A
TAFDV-2B

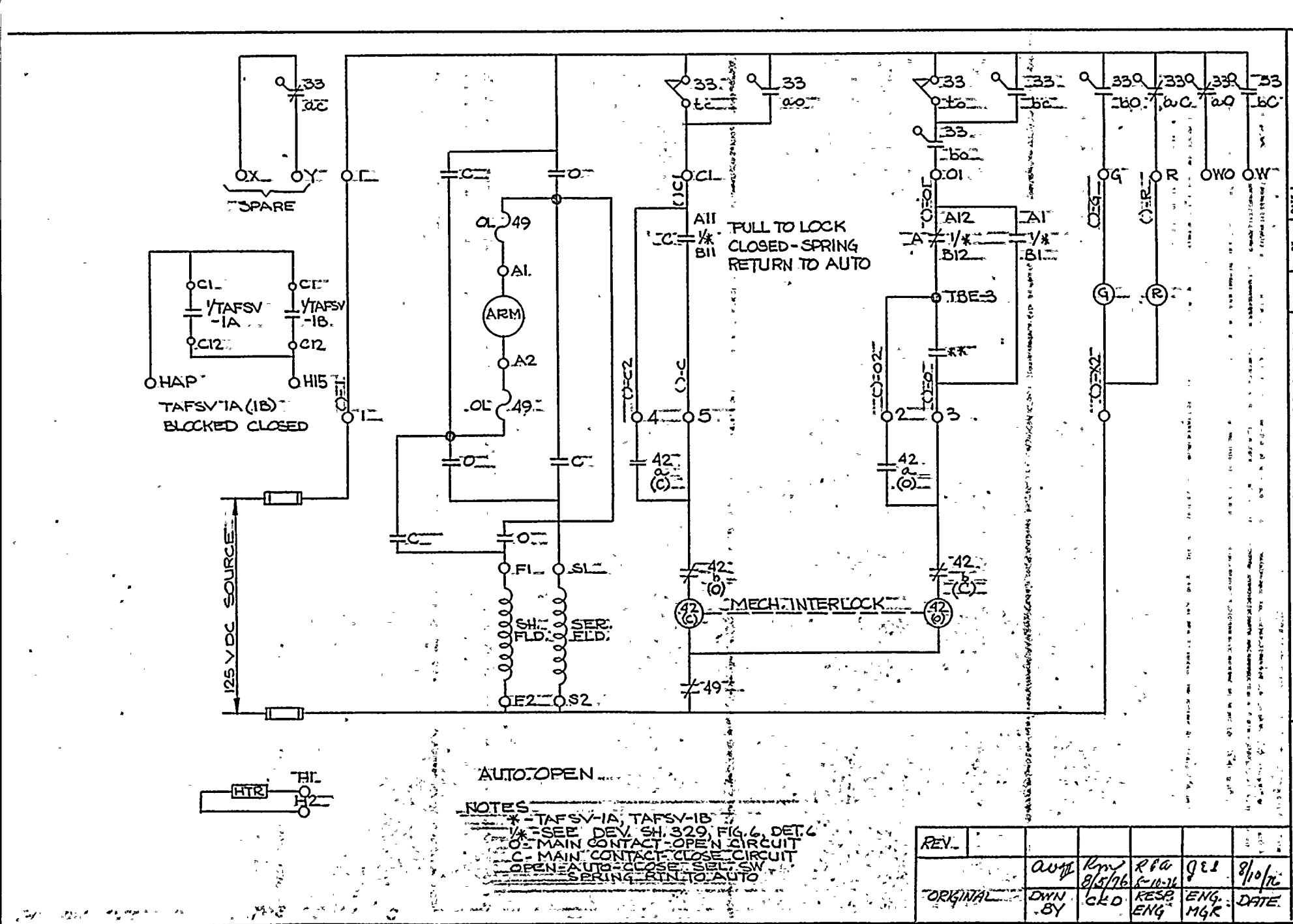

GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSTRUCTORS
READING, PENNSYLVANIA
ISSUED FOR CONSTRUCTION
ISSUED FOR BIDS
AS BUILT
LOW GRAND SEAL WTR FILTER
DIFF PRESS RELAY
TO CONDENSATE BYPASS VALVE OPEN ALARM
RECEIVED
JAN 12 1970
R.G. & E. ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT E. GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
AUXILIARY RELAYS
499B425
SHEET NO 3 B
PITTSBURGH, PA. U.S.A.

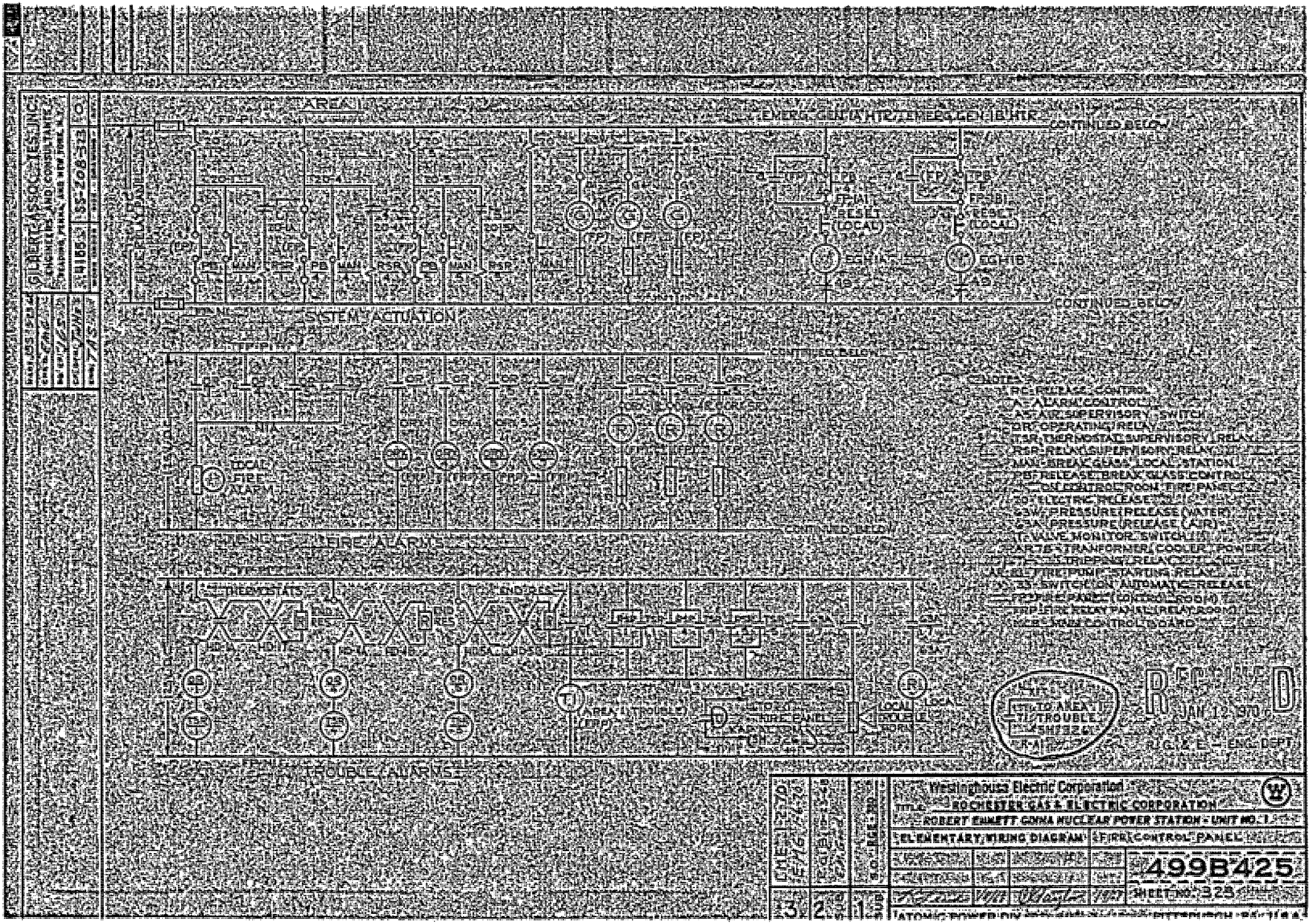

125V. DC AUX. BLDS. D.C. DISP. CAB. 18
()-P
MS
()-P1
()-N
AUX. BLDG. CHAR. FILTER FANS SH. 202
AUX. BLDG. EXH. FAN IC SH. 201
AUX. BLDG EXH. FAN ID SH. 197
AUX. BLDG. EXH. FAN. IE SH. 189
AUX. BLDG. EXH. FAN IF SH. 262
AUX. BLDG. SUPPLY AH UNIT SH. 86
INT. BLDG. EXH. FANS 1A & 1B SH. 190
AUX. BLDG. SUPPLY A.H. UNIT DAMPER FAILURE SH. 86
CONTINUED BELOW
AUX. BLDG. VENT SYSTEM ALARM
CONTINUED FROM ABOVE
ABMEF 1A & 1B SH. 36
INT. BLDG. EXH. FAN IC SH 200
CONTROL ACCESS EXH. FANS 1A & 1B SH. 199
AUX. BLDG. VENT. HDR.
LOW PRESS.
HIGH PRESS.
LAP
MSX-1A
MSX-1B
MSX-1C
MS
NOTES:
MS-ABEF MASTER SWITCH
SS - SELECTOR SWITCH - LOCAL
MSX-1A & MSX-1B-ABEF MASTER RELAY
()-ABV
LES - DAMPER END SWS. (ALL 33/30 TYPE CONTACTS) FOR VENT CONTROL PNL. WIRING SEE DWG. GAID-210-226
HRAX - AUX. RELAY CONTACT OF HIGH RAD. RELAY, ELEM SH. 315.
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499 B 425, SHT. 319, (REV. G)
REV. 1 N.J.A. RWM JEL 4/18/75
ORIGINAL N.J.A. RHM 4/14/75 PCH RCM 6/3/75
DRAWN CK'D. RESP. ENG'R. ENG'R. MGR. DATE
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
AUX. BLDG. VENT. CONTROL PNL.
DRAWN N.J.A. 8/74
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
DWG. NO. 33015-210

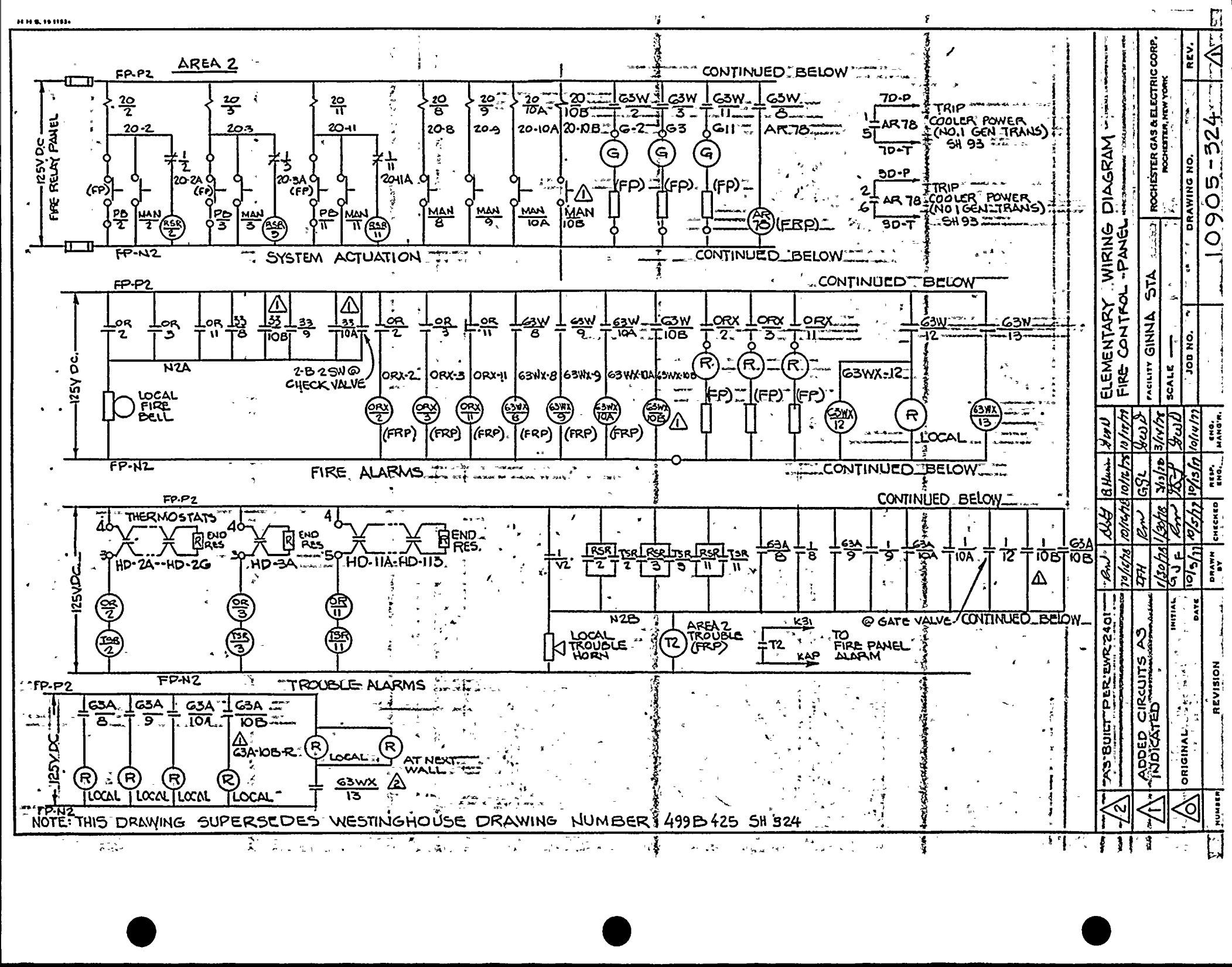


Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM REACTOR AUXILIARY RELAYS
499B425
SHEET NO. 320
ATOMIC POWER DIV. PITTSBURGH, PA. U.S.A.
RECEIVED JAN 12 1970
R.G.& E. ENG. DEPT.
GILBERT ASSOCIATES, INC.


GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSULTANTS
READING, PENNSYLVANIA
ISS-2070
ISS-2080
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
WITH TREATMENT AUX. RELAYS
499B425
SHEET NO. 321
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.


SPARE
TAFSV-1A (1B)
BLOCKED CLOSED
HAP
H15
ARM
125 VDC SOURCE
SH. FLD.
SER. FLD.
MECH. INTERLOCK
PULL TO LOCK
CLOSED - SPRING
RETURN TO AUTO
HTR
AUTO-OPEN
NOTES
*-TAFSV-1A, TAFSV-1B
1/*-SEE DEV. SH. 329, FIG. 6, DET. 6
O-MAIN CONTACT-OPEN CIRCUIT
C-MAIN CONTACT-CLOSE CIRCUIT
OPEN-AUTO-CLOSE-SEL. SW
SPRING RTN TO AUTO
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT 1
ELEMENTARY WIRING DIAGRAM
DC MOTOR OPERATED VALVE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
DRAWN
TRACED
CHECKED
APPROVED
FOLDER NO.
JOB NO. 7090S-3322
REV.
ORIGINAL
DWN BY
CKD
RESP. ENG.
ENG. MGR.
DATE
8/5/76
8/10/76


GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSULTANTS
READING, PENNSYLVANIA
SC-208-323
10
SYSTEM ACTUATION
FIRE ALARMS
TROUBLE ALARMS
RELEASE CONTROL
ALARM CONTROL
AS AIR SUPERVISORY SWITCH
OR OPERATING RELAY
TSR THERMOSTAT SUPERVISORY RELAY
RSR RELAY SUPERVISORY RELAY
MAN BREAK GLASS LOCAL STATION
PB RELEASE BREAK GLASS CONTROL
ON CONTROL ROOM FIRE PANEL
20 ELECTRIC RELEASE
23W PRESSURE RELEASE (WATER)
23A PRESSURE RELEASE (AIR)
TS VALVE MONITOR SWITCH
XFMR TRANFORMER (COOLER) POWER
TR TRIPPING RELAY
FP FIRE PUMP STARTING RELAY
33 SWITCH ON AUTOMATIC RELEASE
FP2 FIRE PANEL (CONTROL ROOM)
FRP FIRE PROTECTION RELAY PANEL (RELAY ROOM)
MCB MAIN CONTROL BOARD
TO AREA II TI TROUBLE SHT 326
JAN 12 1970
R.G.&E. — ENGG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
FIRE CONTROL PANEL
499B425
SHEET NO. 328
ATOMIC POWER DIV.
PITTSBURGH, PA.

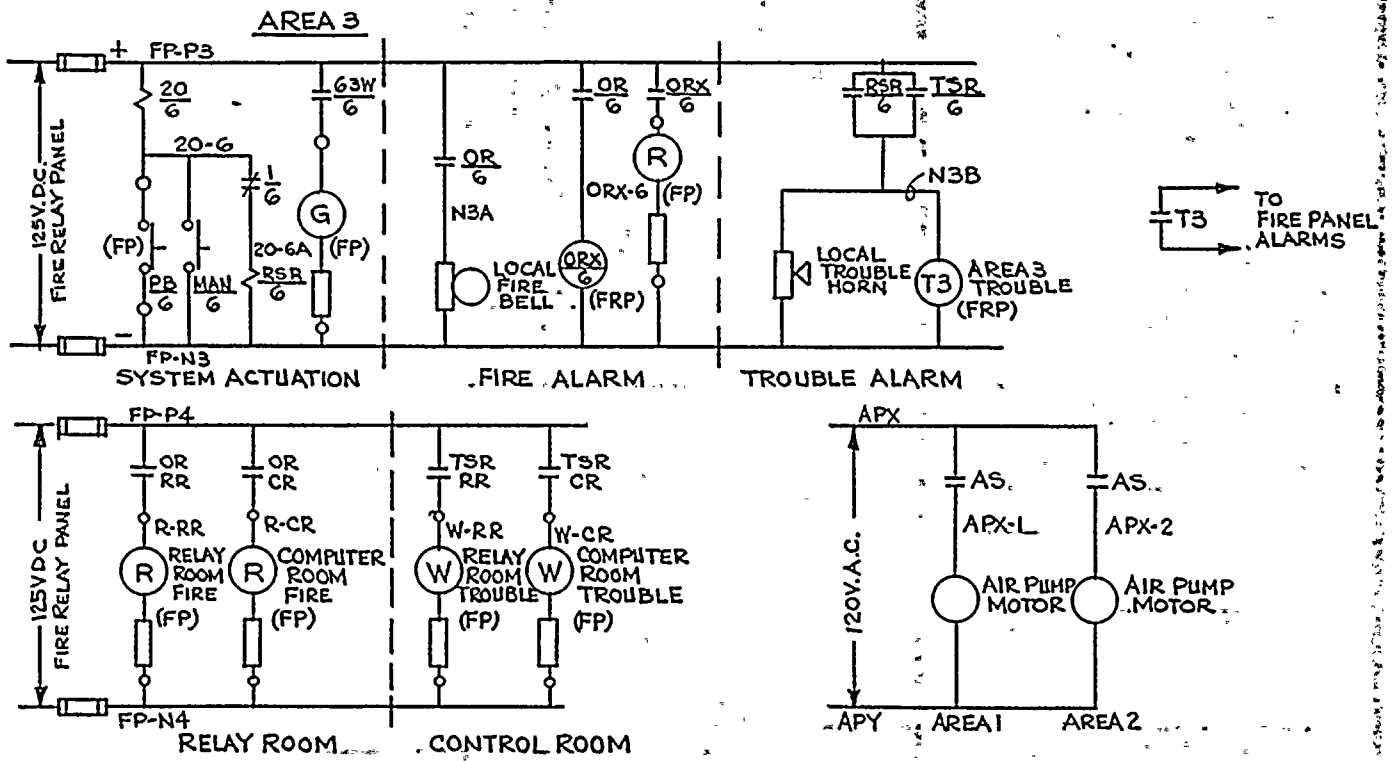


ELEMENTARY WIRING DIAGRAM
FIRE CONTROL - PANEL

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA
SCALE —
JOB NO.
DRAWING NO. 10905-324
REV. 2

NUMBER	REVISION	DATE	DRAWN BY	CHECKED	RESP. ENG'R.	ENG. MAN'GR.
2	AS-BUILT PER EWR 2401	7/16/76	BWJ	DLG	BHunt	KWD
1	ADDED CIRCUITS AS INDICATED	1/30/76	ZFH	BWJ	GSL	GWD
0	ORIGINAL	10/5/73	GJF	BWJ	JFD	GWD



NOTES:
1. THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425, SH. 325 (REV. 3).

Rev.						
ORIGINAL	Gilbert 4/14/75	RHM 4/14/75	ESchutt 4/23/75			
DRAWN BY	CK'D.	RESP. ENG'R	SCALE NONE			
TRACED			APPROVED			
CHECKED			FOLDER NO.			
			JOB NO.			

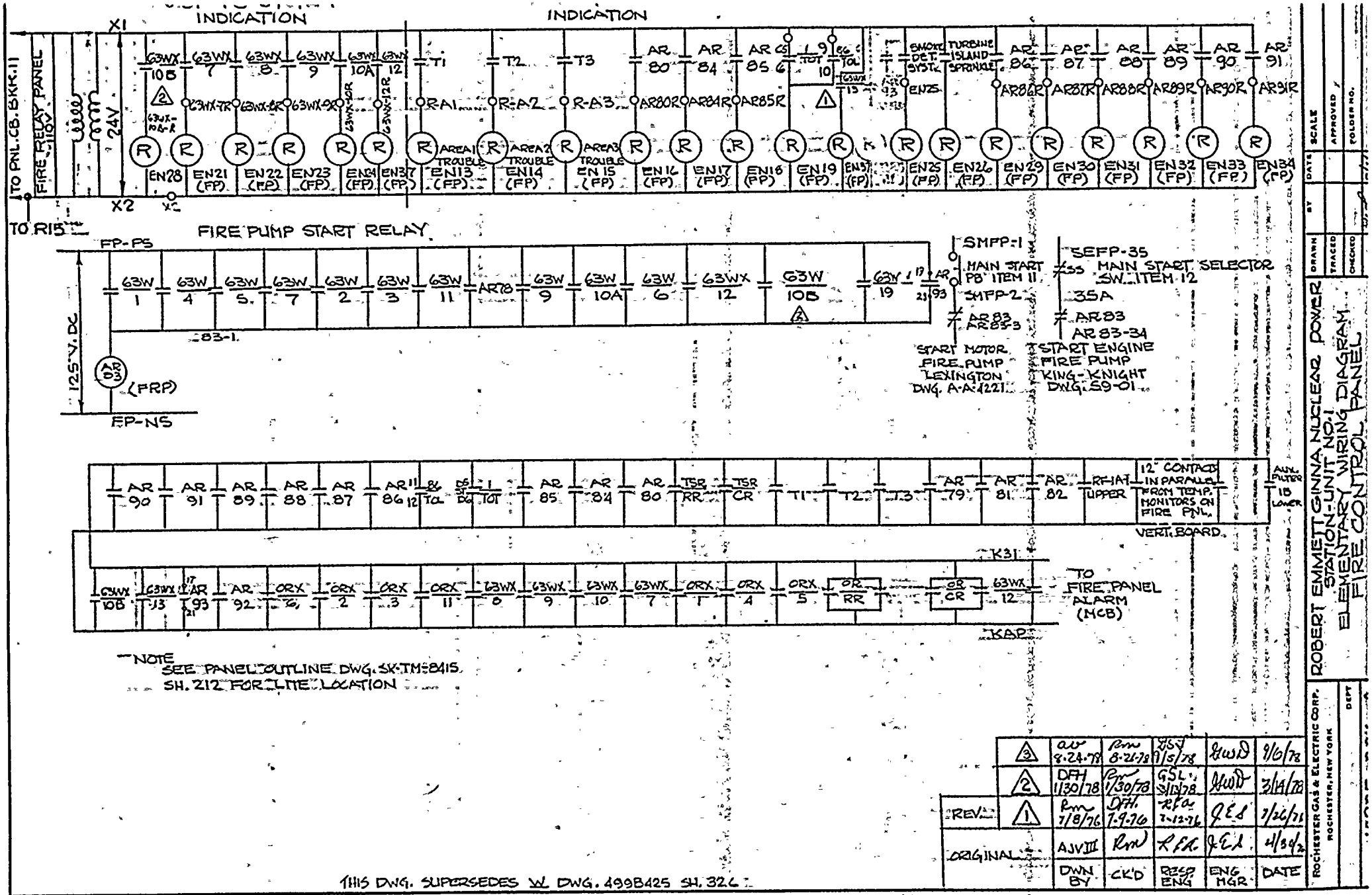
ROCHESTER GAS & ELECTRIC CORP. — ROCHESTER, NEW YORK

ENGINEERING — DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1

ELEMENTARY WIRING DIAGRAM FIRE CONTROL PANEL

No. 1915-325



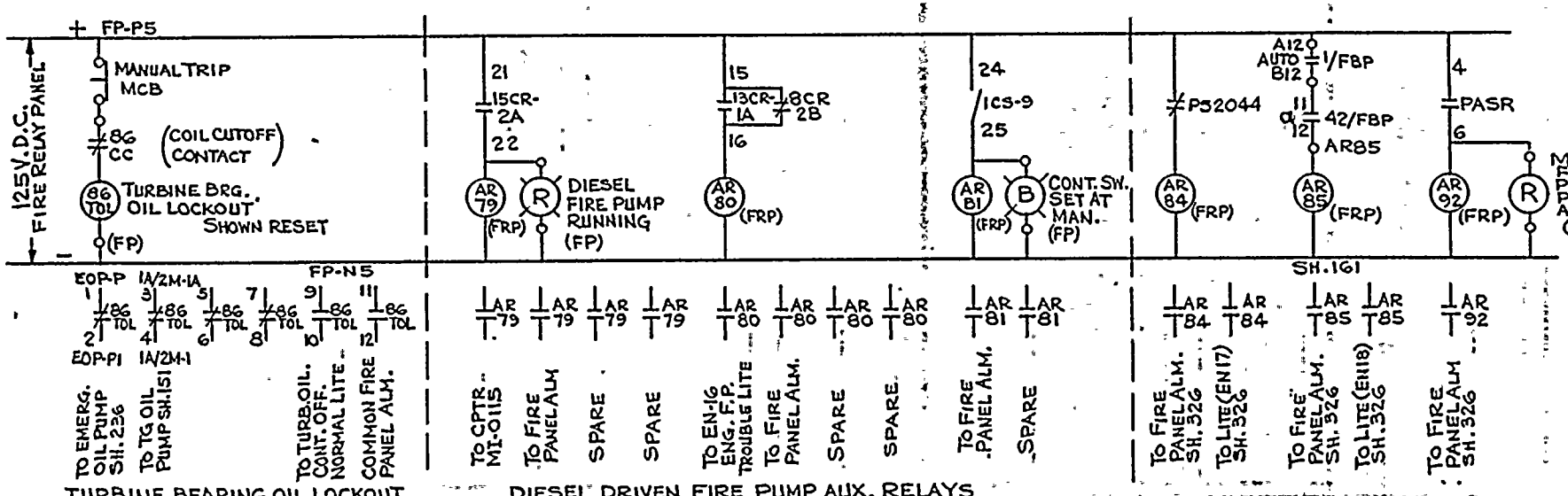
REV.						
	3	AV 8.24.78	RMW 8.24.78	GSL 9/5/78	HWD	9/6/78
	2	DFH 1/30/78	RMW 1/30/78	GSL 2/13/78	HWD	3/14/78
	1	RMW 7/8/76	DFH 7.9.76	RFA 7-12-76	JES	7/26/76
ORIGINAL		AJV III	RMW	RFA	JES	4/30/76
		DWN BY	CK'D	RESP ENG	ENG MGR	DATE

THIS DWG. SUPERSEDES W. DWG. 499B425 SH. 32C

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

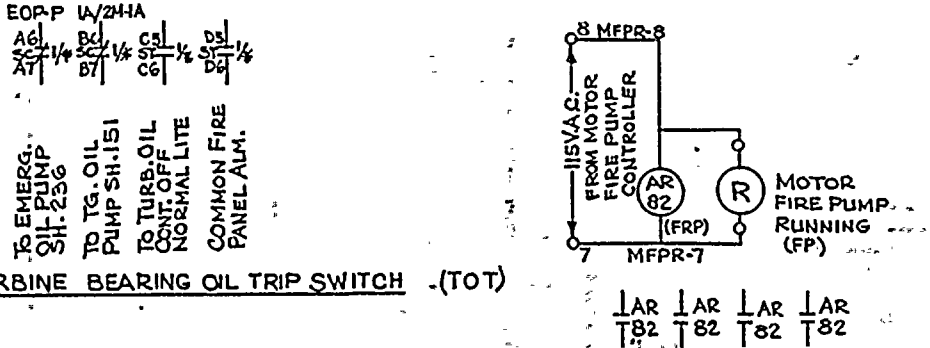
ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
FIRE CONTROL PANEL

DRAWN | TRACED | CHECKED | BY | DATE | SCALE | APPROVED | FOLDER NO.



TURBINE BEARING OIL LOCKOUT

DIESEL DRIVEN FIRE PUMP AUX. RELAYS
(REFERENCE KING-KNIGHT DWG. 59-01)



TURBINE BEARING OIL TRIP SWITCH (TOT)

NOTES:
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No 499B425, SH. 327 (REV. 3)

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No 1
ELEMENTARY WIRING DIAGRAM
FIRE CONTROL PANEL

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No 10905-327

REV.					
ORIGINAL		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.
	Schutt		RHM 4/19/67	ACT	Rau
					DATE 6/15/67

DRAWN E. Schutt DATE 9/23/66 SCALE None
TRACED
CHECKED
APPROVED
FOLDER NO.
JOB NO.

REV.		DWN BY	CK'D	RESP. ENGR	ENG. MNG'R	DATE
	2	AW 5-24-11	RW 6/2/11	RSJ 9/15/11	JGW	7/6/11
	1	DH.	RW 5/16/11	RSJ 5/18/11	JGW	6/28/11
ORIGINAL		AW	RW	RSJ	JGW	4/20/11

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT-NO.1
ELEMENTARY WIRING DIAGRAM
FIRE CONTROL PANEL

DRAWN | DATE | SCALE
TRACED | BY | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

NO. 10905-328

FIG. 5

CONTACT	RESET	—	AUTO	—	MAN
A11-B11	X	X			
A12-B12		X	X	X	
A1-B1				X	X
A2-B2	X	X			
A3-B3		X	X	X	
A4-B4				/	X
A5-B5	X	X			
A6-B6		X	X	X	
A7-B7				X	X
A8-B8	X	X			
A9-B9		X	X	X	
A10-B10				X	X
C11-D11	X	X			
C12-D12		X	X	X	
C1-D1				X	X
C2-D2	X	X			
C3-D3		X	X	X	
C4-D4				X	X
C5-D5	X	X			
C6-D6		X	X	X	
C7-D7				X	X
C8-D8	X	X			
C9-D9		X	X	X	
C10-D10				X	X
E11-F11	X				
E12-F12			X		
E1-F1					X
E2-F2	X				
E3-F3			X		
E4-F4					X
E5-F5	X				
E6-F6			X		
E7-F7					X
E8-F8	X				
E9-F9			X		
E10-F10					X
G11-H11	X				
G12-H12			X		
G1-H1					/
G2-H2	X				
G3-H3			X		
G4-H4					X
G5-H5	X				
G6-H6			X		
G7-H7					X
G8-H8	X				
G9-H9			X		
G10-H10					X

TYPE W2 S#787A827G01
SPRING RETURN FROM RESET TO AUTO

FIG. 2

CONTACT	POSITION			
	BORATE	AUTO	DILUTE	ALT. DILUTE
A11-B11	X			
A12-B12		X		
A1-B1			X	
A2-B2				X
A3-B3	X			
A4-B4		X		
A5-B5			X	
A6-B6				X
A7-B7	X			
A8-B8		X		
A9-B9			X	
A10-B10				X

TYPE W2 CS MAINTAINED
S#508A343G01

FIG. 6.

CONTACT	POSITION			
	PULL OUT	CLOSE	AUTO	OPEN
A11-B11	X	X		
A12-B12			X	
A1-B1				X
A5-B5	X	X		
A6-B6			X	
A7-B7				X
C12-C1	X			
D12-D1		X	X	X
C6-C7	X			
D6-D7		X	X	X

TYPE "W2" CS
SPRING RETURN TO AUTO
S#508A233G01

FIG. 3

CONTACT	POSITION	
	'R'	L
A12-B12	X	
A1-B1		X
A2-B2	X	
A3-B3		X
A4-B4	X	
A5-B5		X
A6-B6	X	
A7-B7		X
A8-B8	X	
A8-B9		X
A10-B10	X	
A11-D11		X
C12-D12	X	
C1-D1		X
C2-D2	X	
C3-D3		X
C4-D4	X	
C5-D5		X
C6-D6	X	
C7-D7		X
C8-D8	X	
C9-D9		X
C10-D10	X	
C11-D11		X

TYPE "W2"
S#505A659G01
HANDLE
S#501B787H01

FIG. 4

CONTACT	POSITION			
	1	2	3	4
A11-B11	X			
A12-B12		X		
A1-B1			X	
A2-B2				X
A3-B3	X			
A4-B4		X		
A5-B5			X	
A6-B6				X
A7-B7	X			
A8-B8		X		
A9-B9			X	
A10-B10				X

TYPE "W2" (MAINTAINED)
S# 508A343G01

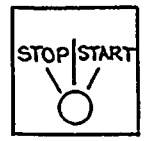
FIG. 1

CONTACT	POSITION				
	STOP	—	OFF	—	START
A11-B11	X				
A12-B12			X		
A1-B1					X
A5-B5	X				
A6-B6			X		
A7-B7					X
C11-D11	X				
C12-D12			X		
C1-D1					X
C5-D5	X	X			
C6-D6		X	X	X	
C7-D7				X	X
E11-F11	X	X			
E12-F12		X	X	X	
E1-F1				X	X
E5-F5	X	X			
E6-F6		X	X	X	
E7-F7				X	X

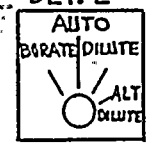
TYPE "W2" CS
3 POS SPRING RETURN TO OFF

SWITCH	FIG. NO.	DET.
1/BS	1	1
43/BS	2	2
43/PHBG	3	3
43/GDS	4	4
43/SD	5	5
1/TAFSN-1A	6	6
1/TAFSN-1B	6	6

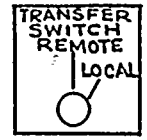
DET. 1



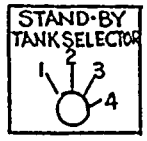
DET. 2



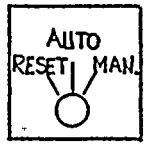
DET. 3



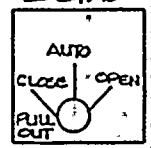
DET. 4



DET. 5



DET. 6



NOTES:
"X" INDICATES CONTACT CLOSED IN POSITION SHOWN.
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425, SH. 329 (REV. 4).

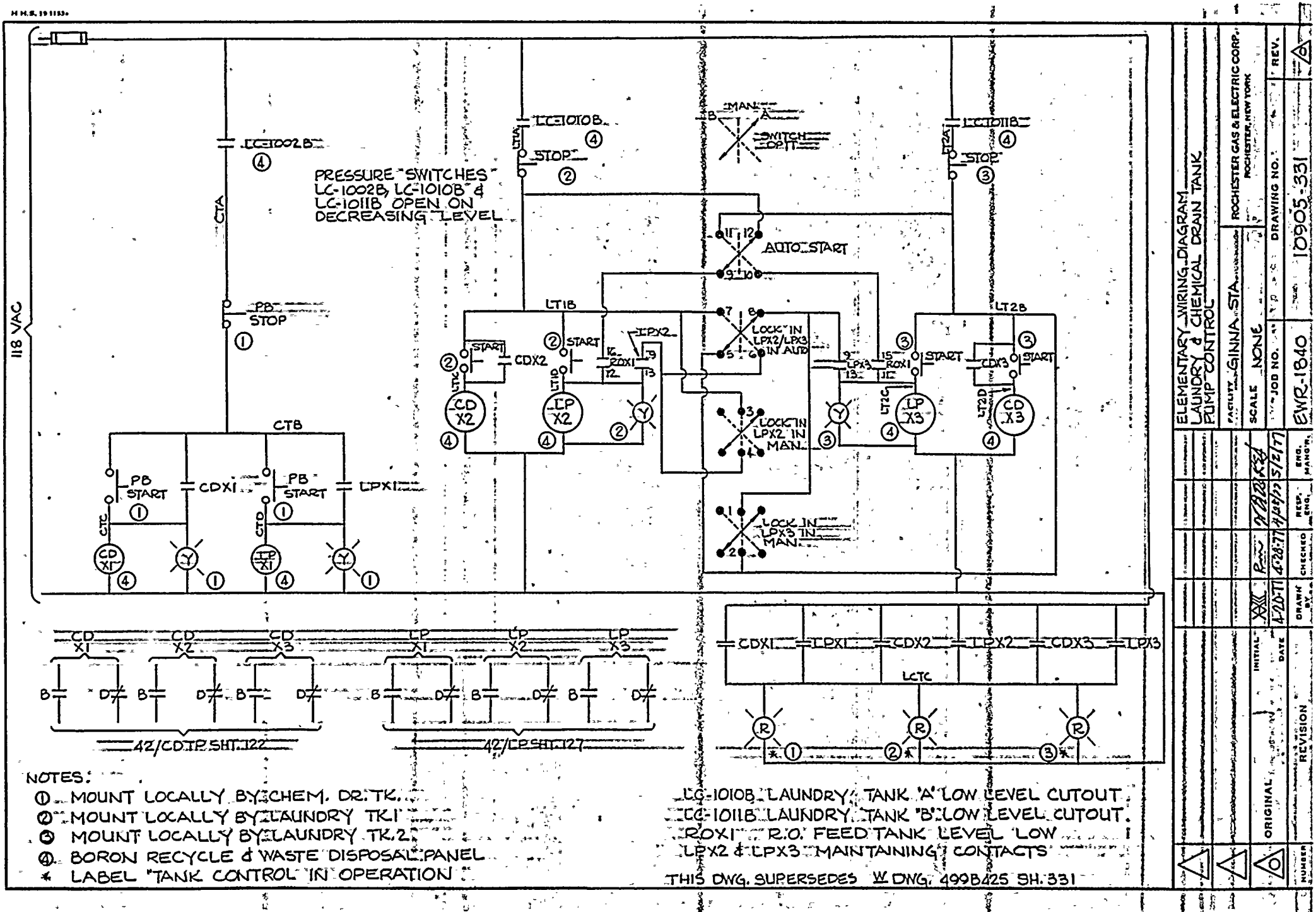
REV.	⚠1					
ORIGINAL	Effchart	RHM 4/13/75	ACK	RCW	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR	DATE

ROBERT EMMETT GINNA NUCLEAR POWER
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SWITCH DEVELOPMENT

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

DRAWN E.S. Scott 8/5/74
TRACED
CHECKED
APPROVED
SCALE NONE
FOLDER NO.
JOB NO. 7015-1329

CONTROL BOARD
MISC. RELAY RACK DWG. 1102074 SH. 2
120 V. AC IN RACK
BSX-1
BSX-2
BSX-3
BSX-4
BSX-4B
BSX-GTD
BSX-7TD
BSX 1 BFGGP
BSX 2 BFGGF
BSX 3 BF84F
BSX 4B
BSX 4 BF84F
BSX GTD AGASTAT 2414AD
BSX 7TD
TOTALIZER RESET COILS
TO SET POINT TRANSFER FOXBORO DWG. PW-19
SPARES
SPARE
42/BAT P1A SH. 121
42/BAT P1B SH. 121
42/MW P1A SH. 131
42/MW P1B SH. 131
20/FCV-110A SH. 270
20/FCV-110B SH. 270
20/FCV-110C SH. 270
20/FCV-111 SH. 270
ANN (G9) SHEET 393
ANN (G17) SHEET 394
20/FCV-110A SHEET 270
NOTE:
1/85 SEE DEV. SHEET-329
43/85 SEE DEV. SHEET-329
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 4998425 SH. 330
ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENG'R DEPT
REV. ORIGINAL
DH. drawn by
RW ckd
RCA resp. engr.
RE.1 engr'r Mag'r
5/4/70 date



NOTES:

① MOUNT LOCALLY BY CHEM. DR. TK.
② MOUNT LOCALLY BY LAUNDRY TK. 1
③ MOUNT LOCALLY BY LAUNDRY TK. 2
④ BORON RECYCLE & WASTE DISPOSAL PANEL
* LABEL "TANK CONTROL IN OPERATION"

LC-1010B LAUNDRY TANK 'A' LOW LEVEL CUTOUT
LC-1011B LAUNDRY TANK 'B' LOW LEVEL CUTOUT
ROX1 R.O. FEED TANK LEVEL LOW
LPX2 & LPX3 MAINTAINING CONTACTS

THIS DWG. SUPERSEDES W DWG. 499B425 SH. 331

ELEMENTARY WIRING DIAGRAM
LAUNDRY & CHEMICAL DRAIN TANK
PUMP CONTROL

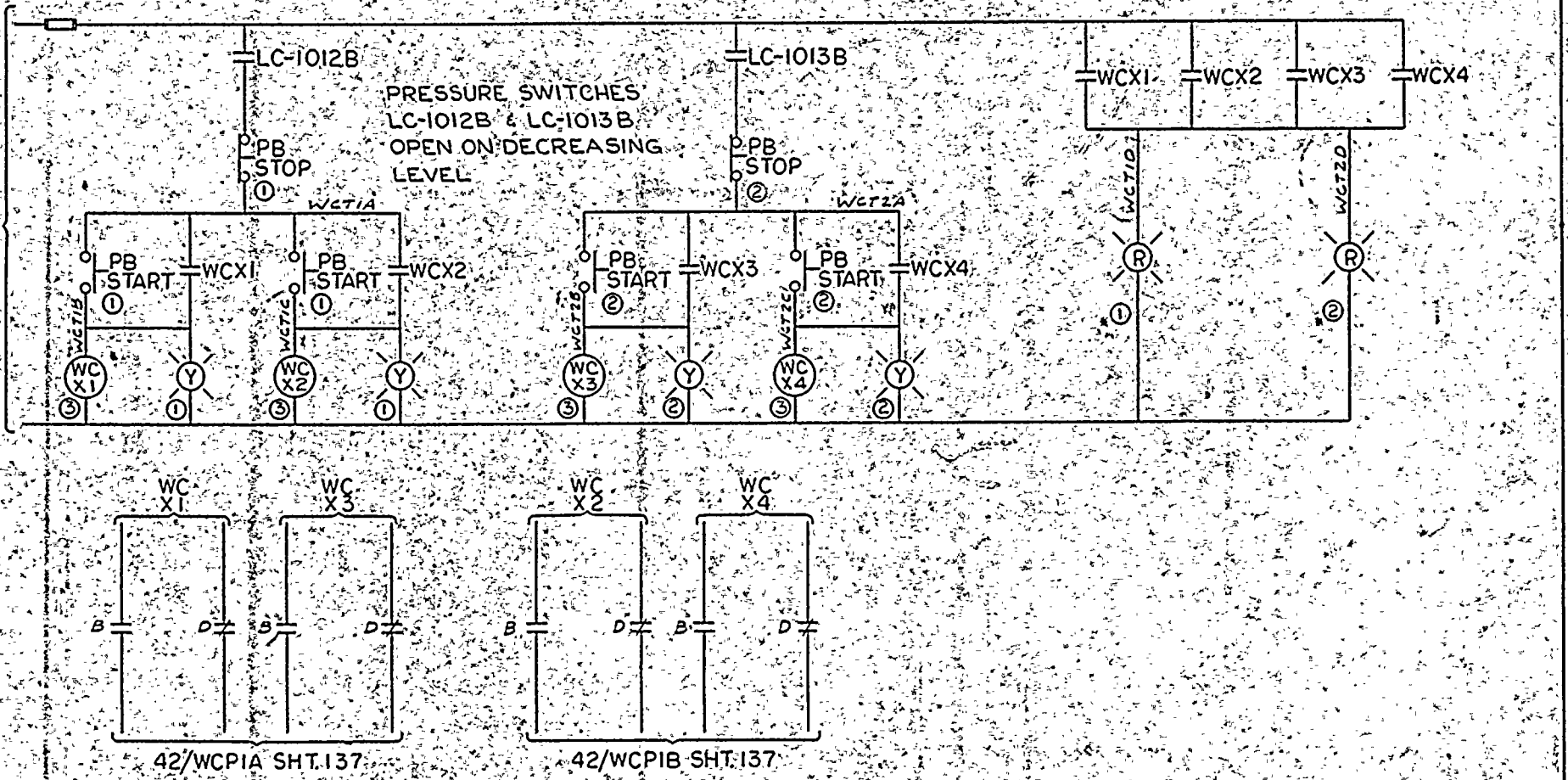
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK

FACILITY GINNA STA.
SCALE NONE
JOB NO.
DRAWING NO. 10905-331
REV. 6

EWR-1840

NUMBER	REVISION	DATE	INITIAL
0	ORIGINAL	4/20/71	XXX

DRAWN BY XXX
CHECKED R.W. 4-28-71
RESP. ENG. Clifford 4/28/71
ENG. MAN'R.



THIS DRAWING IS NOT AN ORIGINAL

NOTES:

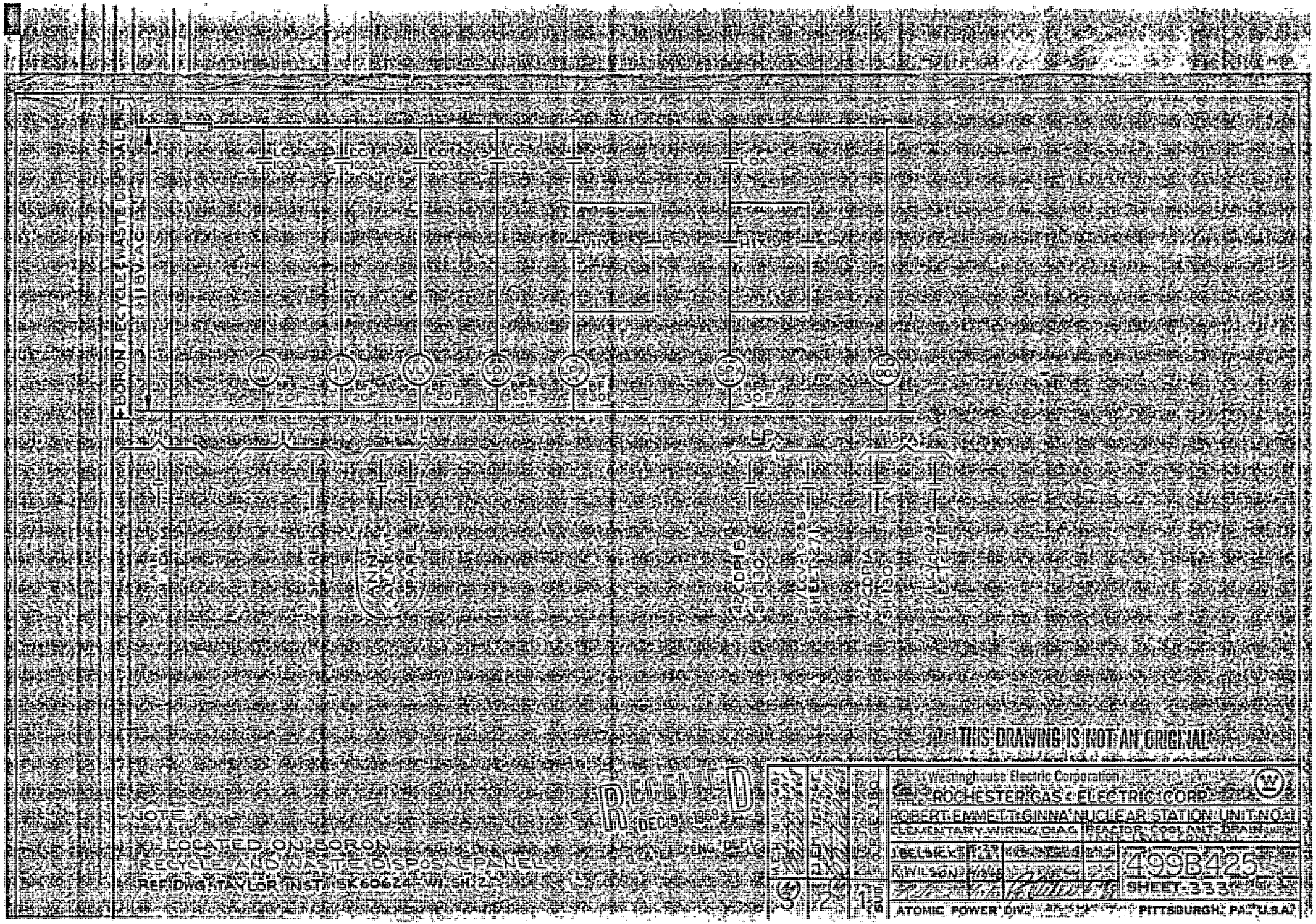
① MOUNT LOCALLY BY WASTE COND. TANK NO. 1

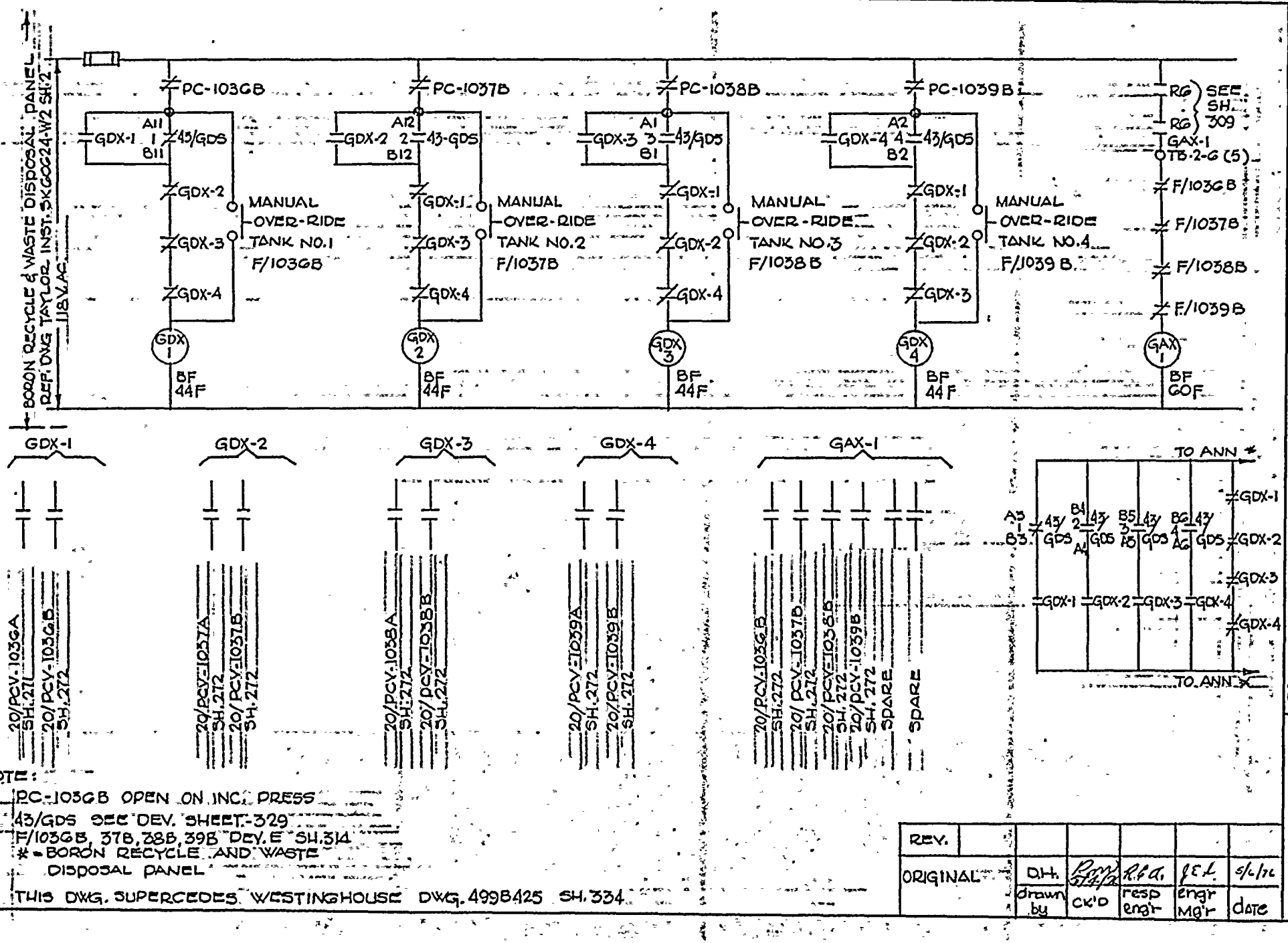
② MOUNT LOCALLY BY WASTE COND. TANK NO. 2

③ BORON RECYCLE & WASTE DISPOSAL PANEL

* LABEL "TANK CONTROL IN OPERATION"

SFO 4-25-69	S.O. RGE-380	Westinghouse Electric Corporation	
		TITLE: ROCHESTER GAS & ELECTRIC CORP.	
		ROBERT EMMETT GINNA NUCLEAR STATION UNIT NO. 1	
		ELEMENTARY WIRING DIAGRAM — WASTE CONDENSATE PUMP CONTROL	
J. BELSICK 5-25-68			
R. WILSON 5-27-68			499B425
			SHEET-332
SUB 1		ATOMIC POWER DIV.	PITTSBURGH, PA., U.S.A.

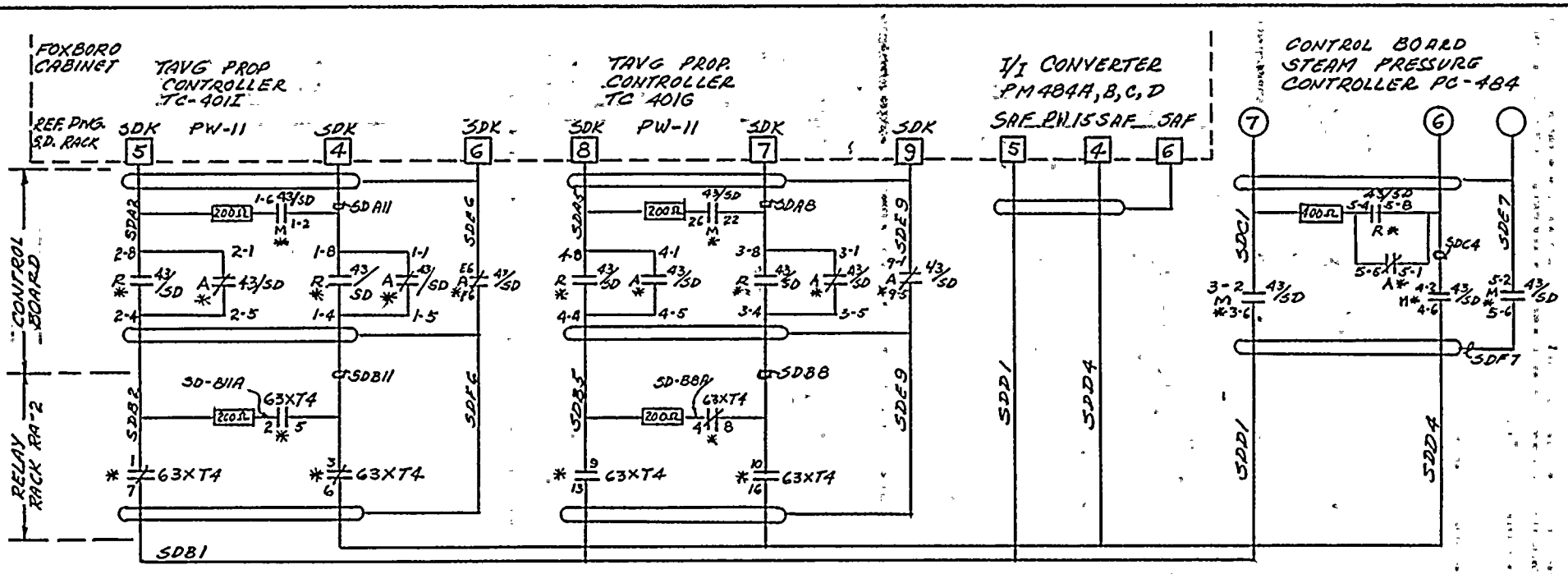

BORON RECYCLE / WASTE DISPOSAL PNL
11B-VAC
LC 100A
LCC 100A
LCC 100B
LCC 100B
LOX
LOX
VHX
LPX
HIX
LPX
VHX
HIX
VLX
LOX
LPX
SPX
LC 100
20F
20F
20F
20F
6F
30F
6F
30F
VHX
HIX
VLX
LPX
SPX
(42 CDP-B SH 130 SHEET 27)
(42 CDP-A SH 130 SHEET 27)
SPARE
SPARE
SPARE
SPARE
NOTE:
1. LOCATED ON BORON RECYCLE AND WASTE DISPOSAL PANEL.
REF DWG: TAYLOR INST. SK 60624-WI, SH. 2
RECEIVED
DEC 9 1959
E-ENG. DEPT.
THIS DRAWING IS NOT AN ORIGINAL
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORP.
ROBERT E. MECHLER & GINNA NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAG
REACTOR COOLANT DRAIN TANK CONTROL
J. BELSICK
R. WILSON
499B425
SHEET-333
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.



NOTE:
PC-103GB OPEN ON INC. PRESS
43/GDS SEE DEV. SHEET-329
F/103GB, 37B, 38B, 39B DEV. E SH.314
#=BORON RECYCLE AND WASTE DISPOSAL PANEL
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 4998425 SH. 334

REV.						
ORIGINAL	D.H.	Ray Stapp	R.E.A.	J.E.L.	5/1/72
	drawn by	ck'd	resp engr	engr Mg'r	date

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENG'R DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO.1
ELEMENTARY WIRING DIAGRAM
DRAWN D.H. 4/72 SCALE
TRACED APPROVED
CHECKED FOLDER NO.
JOB NO.



NOTES:

* = MAKE BEFORE BREAK

43/SD = SEE DEV. SH. 329

C3XT4 = SH 114

2-8 (2 IS DECK NO & 8 IS TERM. NO.)

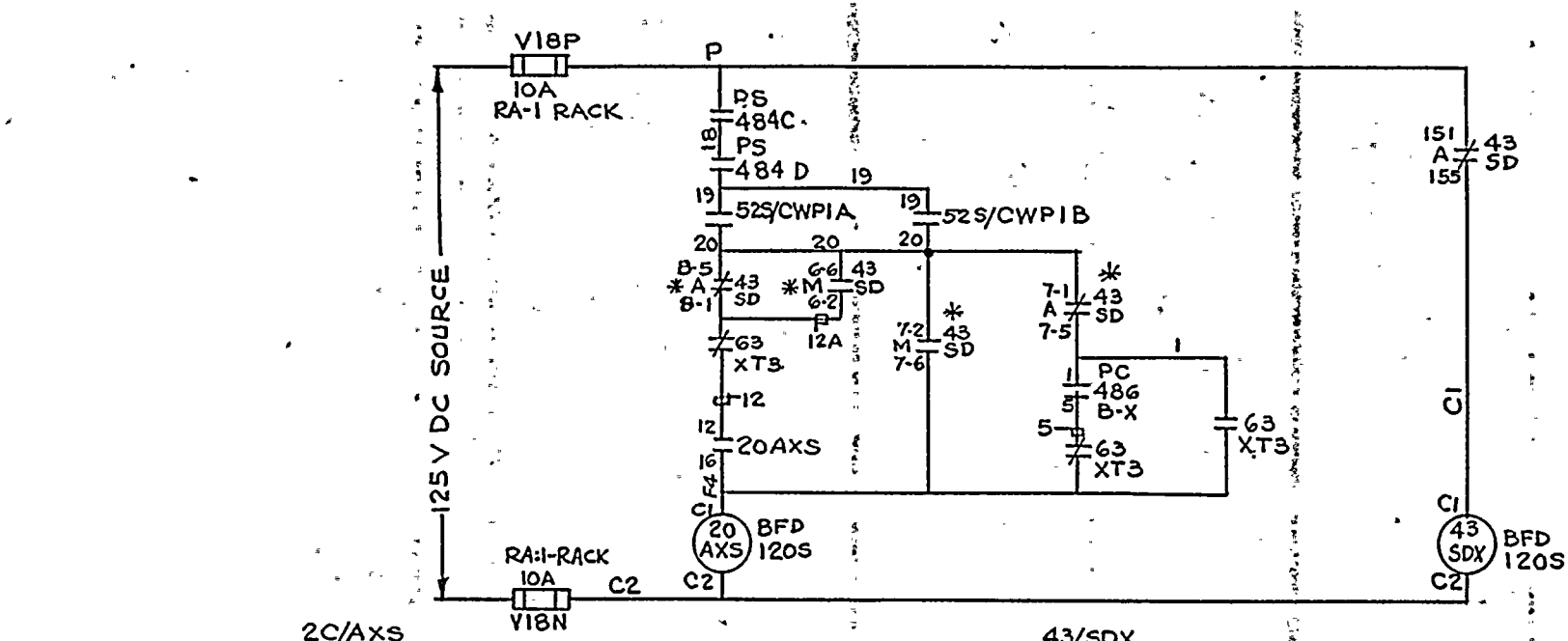
THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425, SHT. 335 (REV. 2)

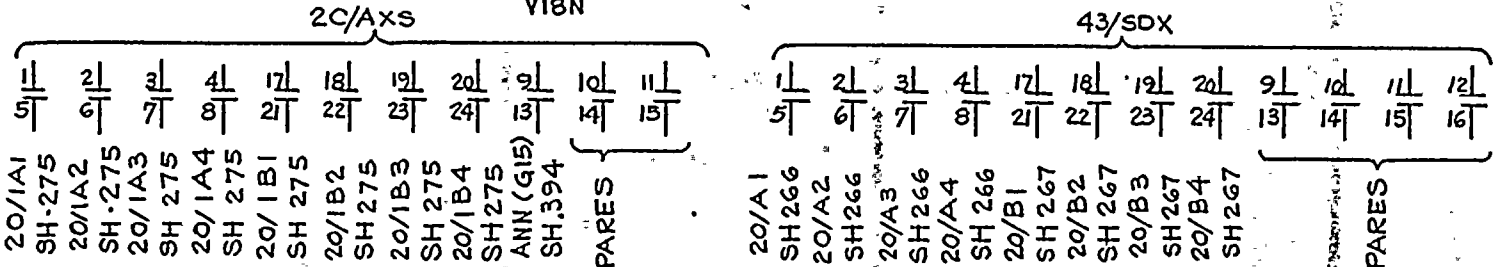
REV.						
ORIGINAL	N.J.A.	RHM 4/14/75	PCK	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. • ROCHESTER, NEW YORK — DEPT ENGINEERING — NO. 10905-335

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT I — ELEMENTARY WIRING DIAGRAM — STEAM PUMP CONTROLLER

DATE 9-74 | SCALE NONE | DRAWN N.F.A | APPROVED | TRACED | FOLDER NO. | CHECKED | JOB NO. | ENG.





8-5 (8 IS DECK NO. & 5 IS TERM. NO.)

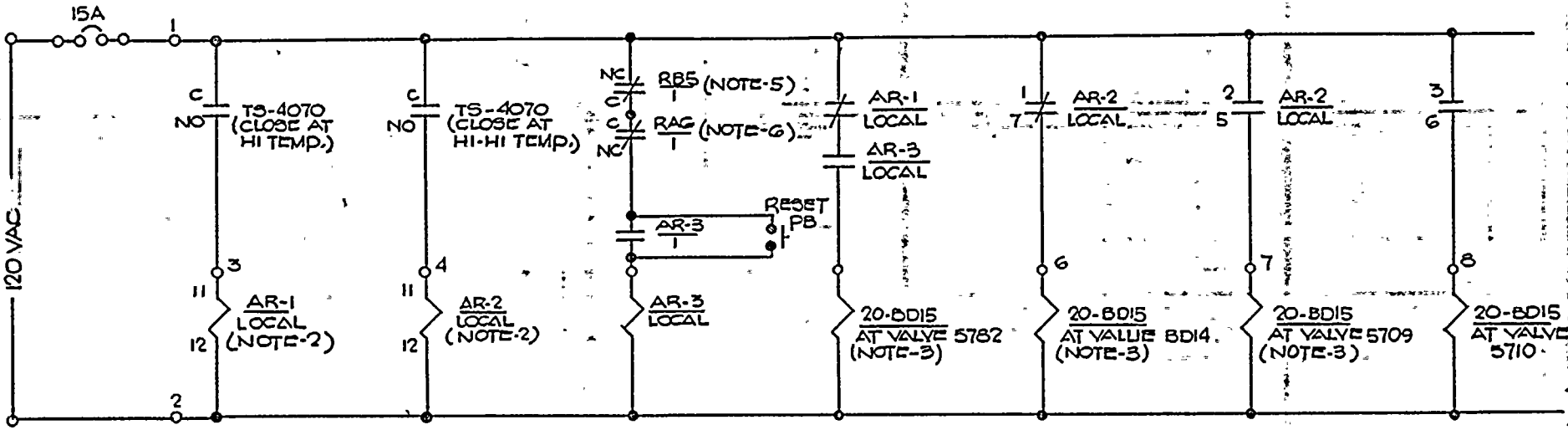
NOTES:
1. 43/SD - SEE DEV. SH 329 ON CONTROL BOARD.
2. * MAKE BEFORE BREAK CONTACTS
3. PS484C & PS484D AT CONDENSERS.
4. 52S/CWP1A & 1B SH. 31
5. 63XT3 SHT 114
6. PC486B-X DWG. 110E074 SHT 4
7. 20AXS & 43SDX DWG 110E074 SH 4
8. THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425, SH. 336 (REV. 5)

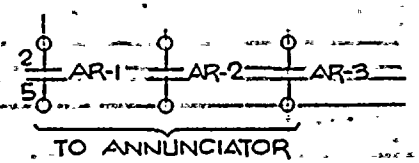
REV.						
ORIGINAL						
	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR	DATE	
		RHM 4/14/75		RCM	6/5/75	

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
STEAM DUMP AUX. RELAYS

DRAWN | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.





NOTES:

1- RELAY AR-3 ARE WESTINGHOUSE TYPE MG-G WITHOUT MANUAL RESET.

2- RELAYS AR-1 AND AR-2 ARE WESTINGHOUSE TYPE MG-G WITH GLASS WINDOW COVER AND MANUAL RESET; STYLE #289B36A17

3- SOLENOIDS ARE ASCO# 8320A107

4- TEMPERATURE SWITCH TS 4070 IS A U.E. SERIES 800-02-785

5- CONTACT RB5-1 OPENS DURING DEMINERALIZER UNIT-B REGENERATION. ILLINOIS DWG. FE-2045-15D SH.2

6- CONTACT RAG-1 OPENS DURING DEMINERALIZER UNIT-A REGENERATION. ILLINOIS DWG. FE-2045-15D SH.2

REFERENCE DWGS:

CIRCUIT SCHEDULE S-212-013 (W35)

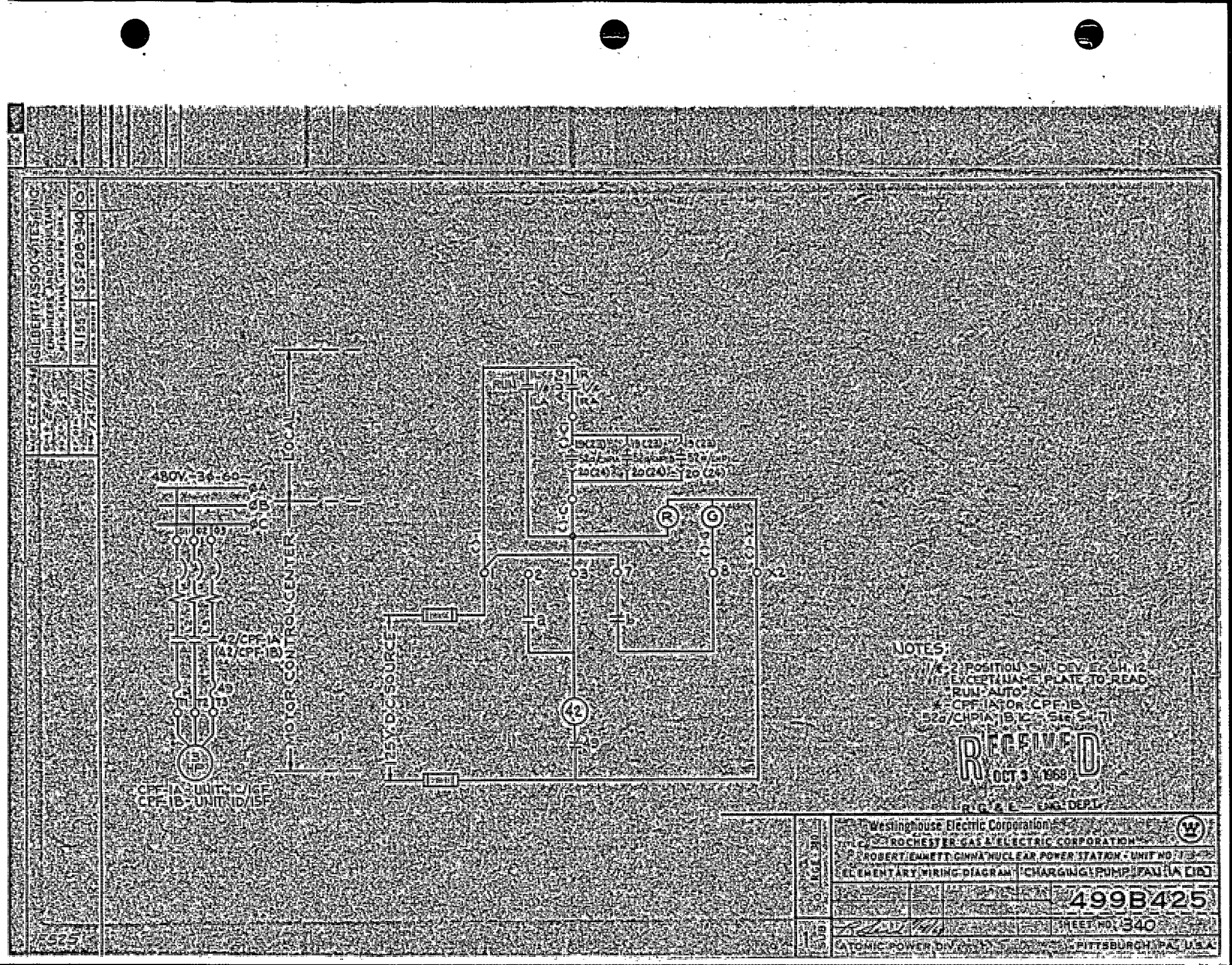
PIPING FLOW DIAGRAM D-381-106

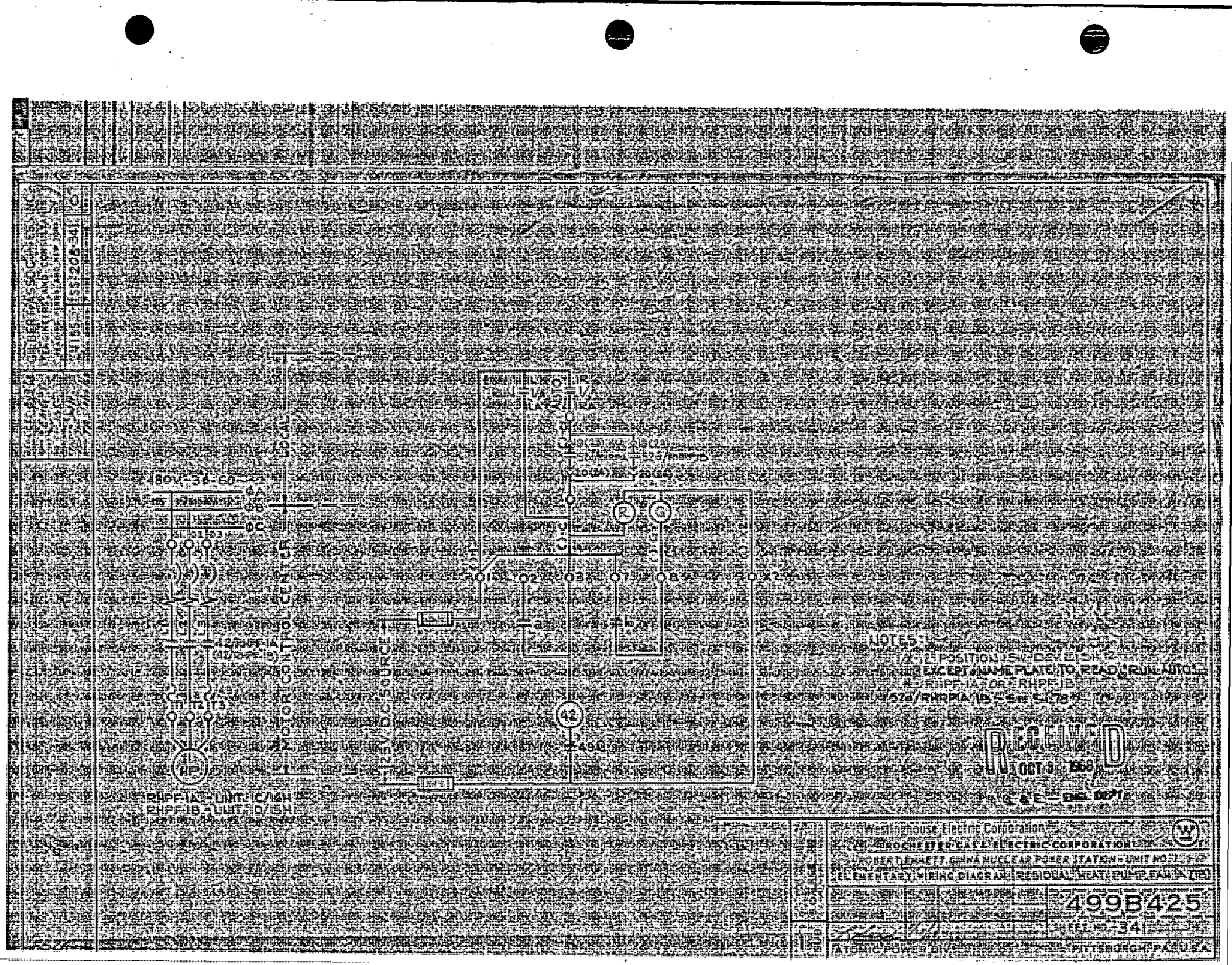
REV.						
	EWR 1615	DFT.	9/13/76	9/13/76	9/13/76	9/13/76
	ORIGINAL	DRAWN BY	CK'D	RESP. ENGR.	ENGR MANG.	DATE

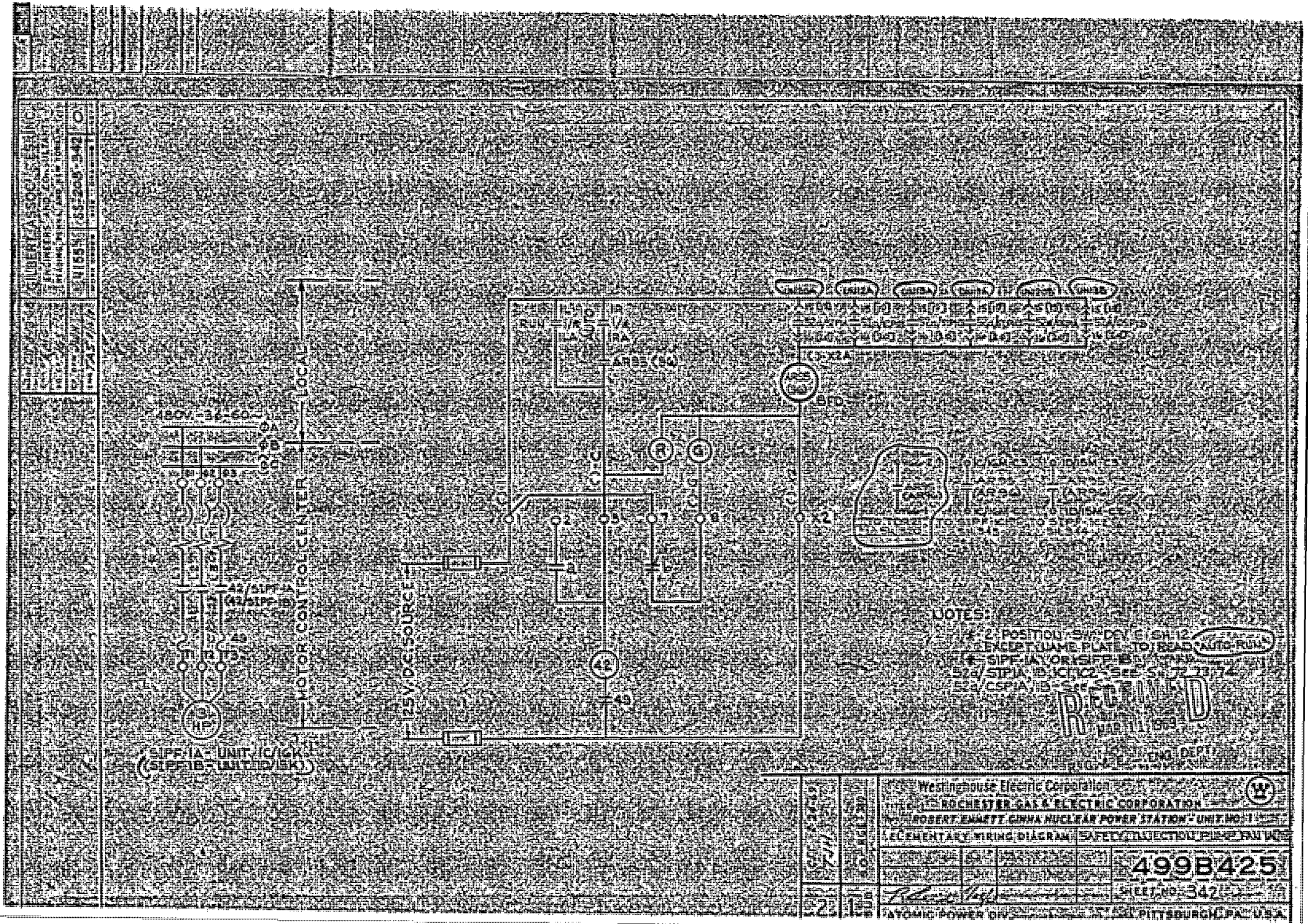
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENG'R
No. 10905-337

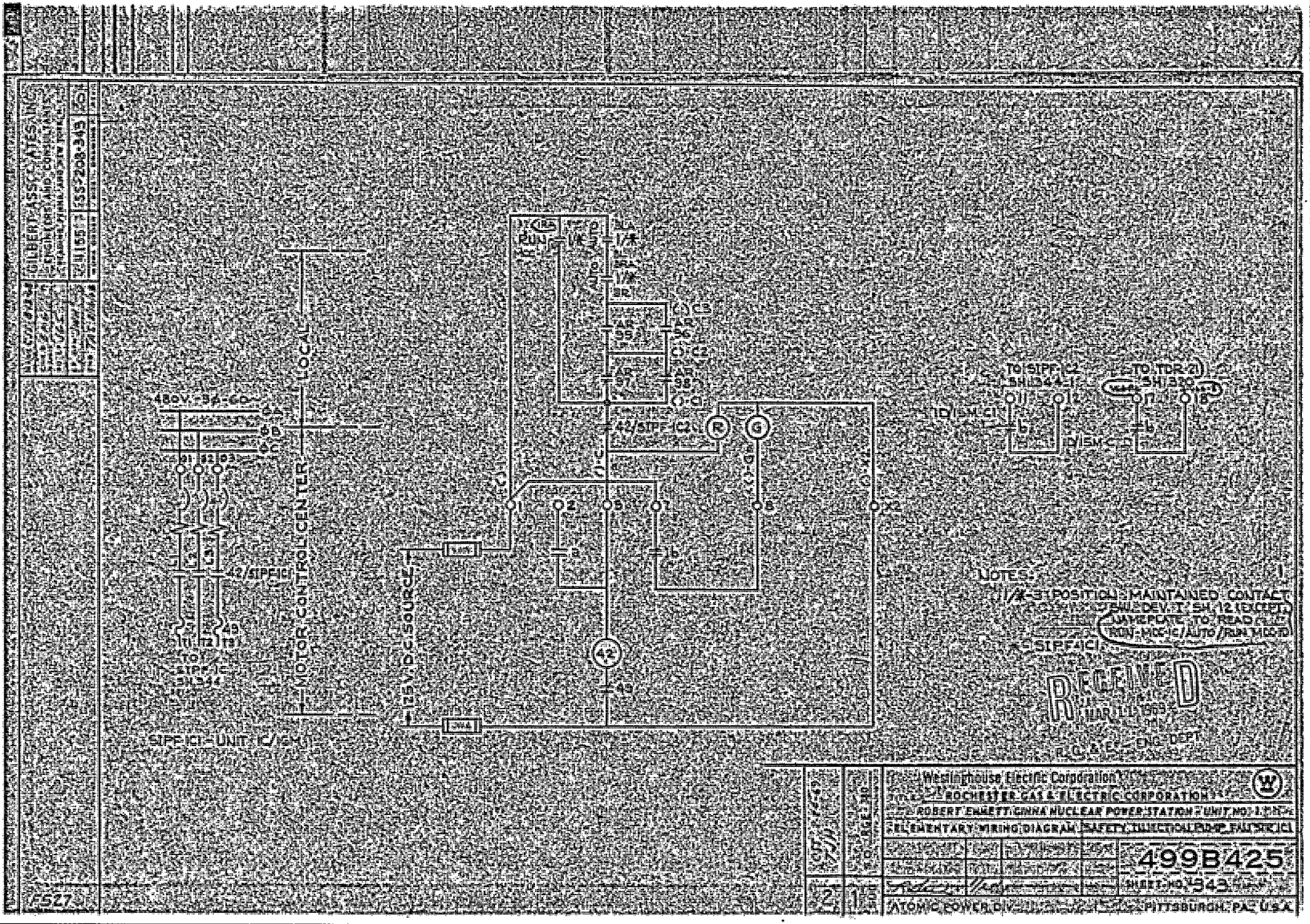
ROBERT EMMETT GINNA NUCLEAR
POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
BLOWDOWN HEAT RECOVERY VALVES

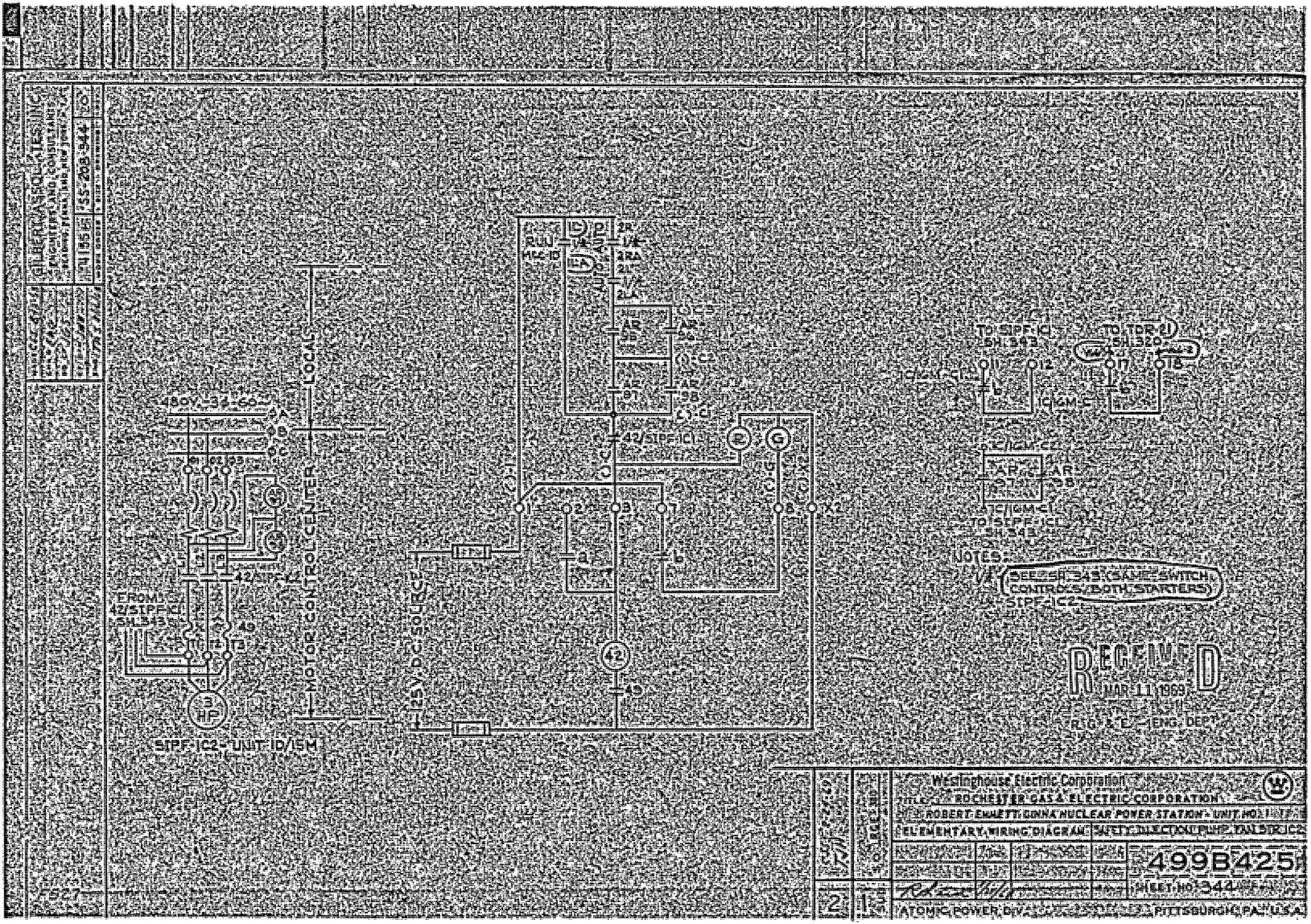
BY | DATE | SCALE
DRAWN | APPROVED
TRACED | FOLDER NO.
CHECKED | JOB NO.
ENG.

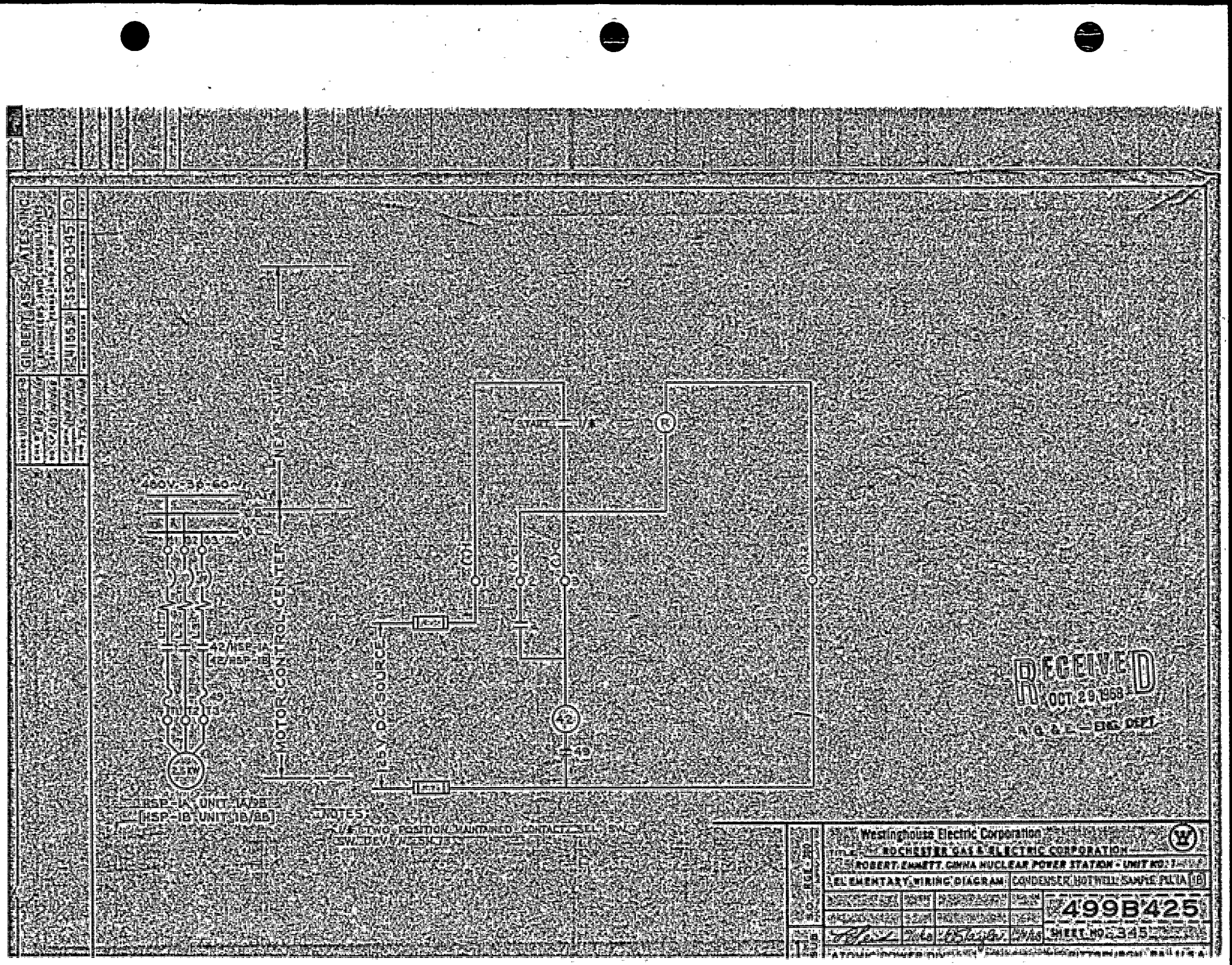

480V.-3φ-60~
φA
φB
φC
42/CPF-1A
(42/CPF-1B)
49
(B HP)
CPF-1A - UNIT-1C/14F
CPF-1B - UNIT-1D/15F
MOTOR CONTROL CENTER
CONTROL CIRCUIT
SAFETY INJECTION SIGNAL
IR
IRA
IA
R
G
CLOSE
TRIP
42
49
NOTES:
2 POSITION SW. DEV. EC-CH. 12
EXCEPT NAME PLATE TO READ
"RUN-AUTO"
CPF-1A OR CPF-1B
52a/CHP1A-1B-1C-Sht. 5-7
RECEIVED
OCT 3 1968
R.G.&E. — ENGR. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
R. E. GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CHARGING PUMP FAN 1A 1B
499B425
SHEET NO. 340
ATOMIC POWER DIVISION
PITTSBURGH, PA., U.S.A.
GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSTRUCTORS
READING, PENNSYLVANIA
SS-208-340
0
525

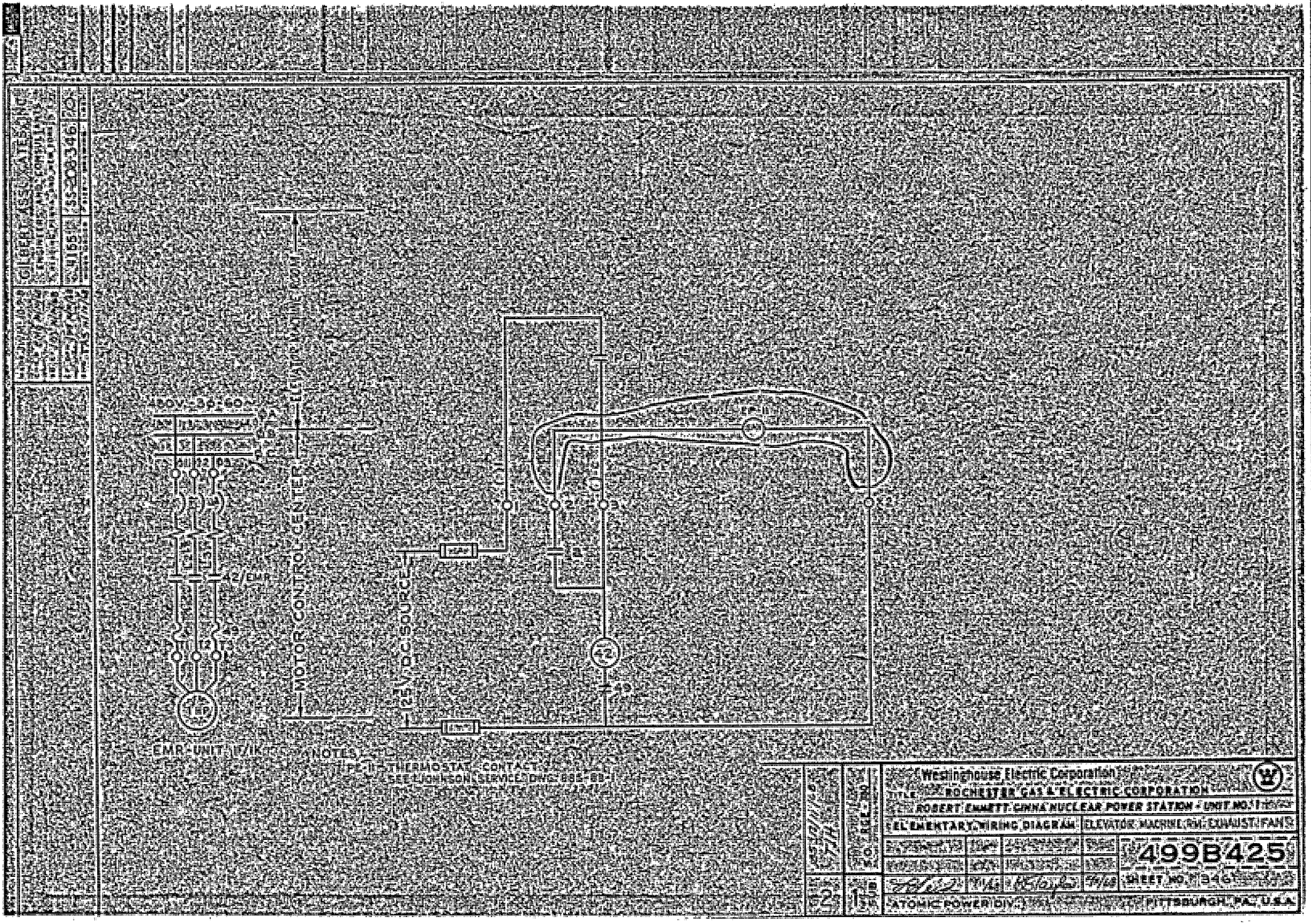

480V-3Φ-60~
ΦA
ΦB
ΦC
42/RHPF-1A
(42/RHPF-1B)
MOTOR CONTACTOR
MOTOR CIRCUIT
CONTROL CIRCUIT
RHPF-1A - UNIT C/15H
RHPF-1B - UNIT D/15H
NOTES:
1. 2 POSITION SW DEVICE (SH 2)
EXCEPT NAME PLATE TO READ "RUN-AUTO"
2. RHPF-1A OR RHPF-1B
52a/RHRPF1A,1B - SEE SH 78
RECEIVED
OCT 3 1968
P. G. & E. — ENG. DEPT.
Westinghouse Electric Corporation
(ROCHESTER GAS & ELECTRIC CORPORATION)
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM RESIDUAL HEAT REMOVAL PUMP FAN 1A (1B)
499B425
SHEET NO. 34
ATOMIC POWER DIV. PITTSBURGH, PA. U.S.A.
GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSTRUCTORS
READING, PENNSYLVANIA
ELEMENTARY WIRING DIAGRAM
UNIT NO. 1
ISSUED 20 SEP 68

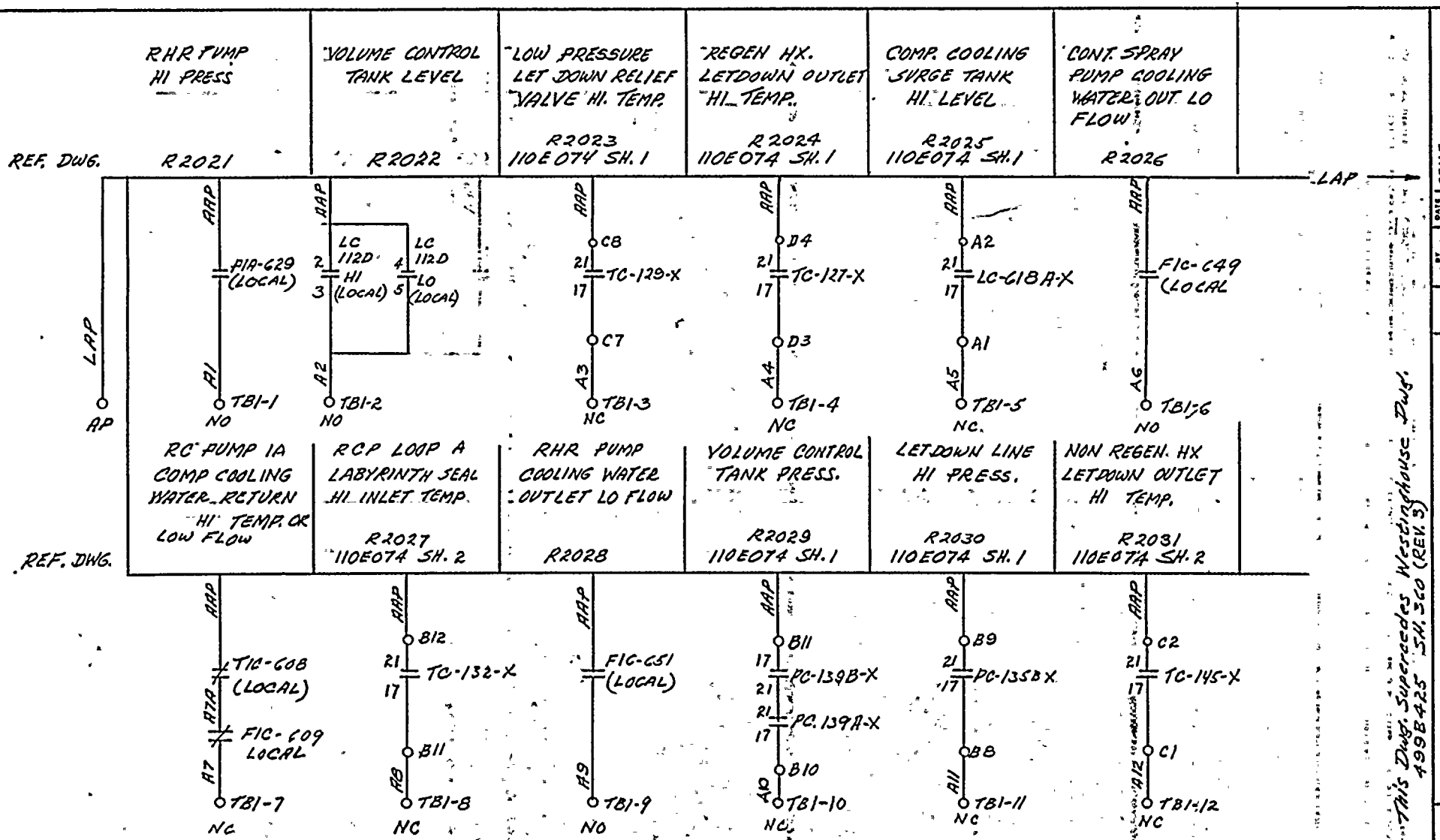

480V.-3Φ-60~
ΦA
ΦB
ΦC
MOTOR CONTROL CENTER
125V DC SOURCE
SIPF-1A - UNIT 1C/1GK
(SIPF-1B - UNIT 1D/1BK)
RUN
1A
1R
1VA
1RA
ARBB (94)
BFD
42/SIPF-1A
(42/SIPF-1B)
49
NOTES:
2 POSITION SWITCH DEVICE 51 CH 12
EXCEPT (NAME PLATE TO READ "AUTO-RUN")
SIPF-1A OR SIPF-1B
52a/SIPJA, 1B, 1C1, 1C2 - See Sh 72, 73, 74
52a/CSPJA, 1B - See
RECEIVED
MAR 11 1969
ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SAFETY INJECTION PUMP AND VALVE
499B425
SHEET NO. 342
PITTSBURGH, PA. U.S.A.
GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSTRUCTORS
U165%
85-205-342


480V-3Ø-60~
42/SIPF-IC
49
TO SIPF-IC 3H344
SIPF-IC1 - UNIT IC/GH
TO CONTROL CENTER
TO CONTROL CENTER
RUN
42/SIPF-IC2
CB
TO SIPF-IC2 SH 3H344
TO ISM-C1
ISM-C1
TO TDR-21 SH 3H330
NOTES:
1. 1/*-3 POSITION MAINTAINED CONTACT SWITCH DEV. 17, SH. 12 (EXCEPT AS NOTED ON NAMEPLATE) TO READ (1/*-HOA-IC/AUTO/RUN MODE)
2. *SIPF-IC1
REVIEWED
MAR 11 1969
R.G.&E. ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM SAFETY INJECTION PUMP FAN SIPF-IC1
499B425
SHEET NO. 943
ATOMIC POWER DIV. PITTSBURGH, PA. U.S.A.
GILBERT ASSOCIATES, INC.
ESSZ288-345


480V-3Ø-60~
LOCAL
MOTOR CONTROL CENTER
42/SIPF-IC1
SH 343
FROM 42/SIPF-IC1 SH 343
3 HP
SIPF-IC2-UNIT 1D/1SM
TO SIPF-IC1 SH 343
TO TDR-2D SH 320
TO SIPF-IC1 SH 343
NOTES:
1. SEE SH 343 (SAME SWITCH CONTROLS BOTH STARTERS) SIPF-IC2
RECEIVED
MAR 11 1969
R.G.&E.-ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
SAFETY INJECTION PUMP TRAIN 1C
499B425
SHEET NO. 344
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.


480V, 3φ, 60~
START
42/HSP-1A
42/HSP-1B
HSP-1A, UNIT 1A/B
HSP-1B, UNIT 1B/B
NOTES:
SW. DEVICE SHOWN
RECEIVED
OCT 29 1958
R. G. & E. — ENG. DEPT.
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT E. GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
CONDENSER HOTWELL SAMPLE PUMP 1A 1B
499B425
SHEET NO. 345


480V-3Ø-60
MOTOR CONTROL CENTER
125V DC SOURCE
EMR-UNIT
NOTES
PE-11 THERMOSTAT CONTACT
(SEE JOHNSON SERVICE DWG. 685-88)
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC CORPORATION
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ELEVATOR MACHINE RM. EXHAUST FAN
499B425
SHEET NO. 346
ATOMIC POWER DIV.
PITTSBURGH, PA. U.S.A.
GILBERT ASSOCIATES, INC.
4165
35-C-B 346
R0



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

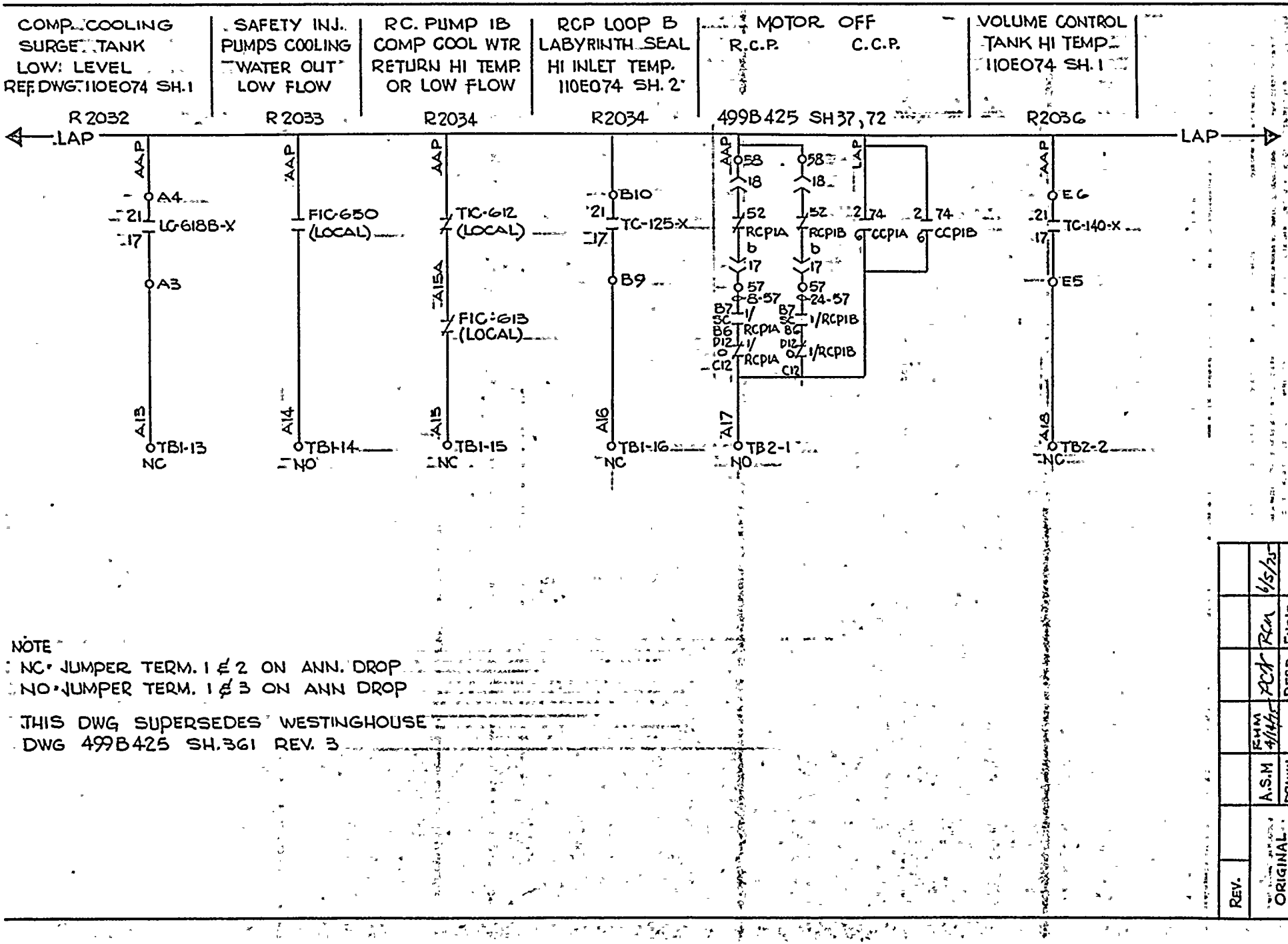
This Dwg. Supercedes Westinghouse Dwg. 499B425 SH. 360 (REV. 3)

REV.						
ORIGINAL	N.J.A.	R.H.M. 4/14/75	XXX	TRM	4/15/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-360

ROBERT EMMETT GINNA NUCLEAR STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL A

DRAWN N.J.A. DATE 8-74
TRACED
CHECKED
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.



NOTE
NC - JUMPER TERM. 1 & 2 ON ANN. DROP
NO - JUMPER TERM. 1 & 3 ON ANN DROP

THIS DWG SUPERSEDES WESTINGHOUSE DWG 499B425 SH. 361 REV. 3

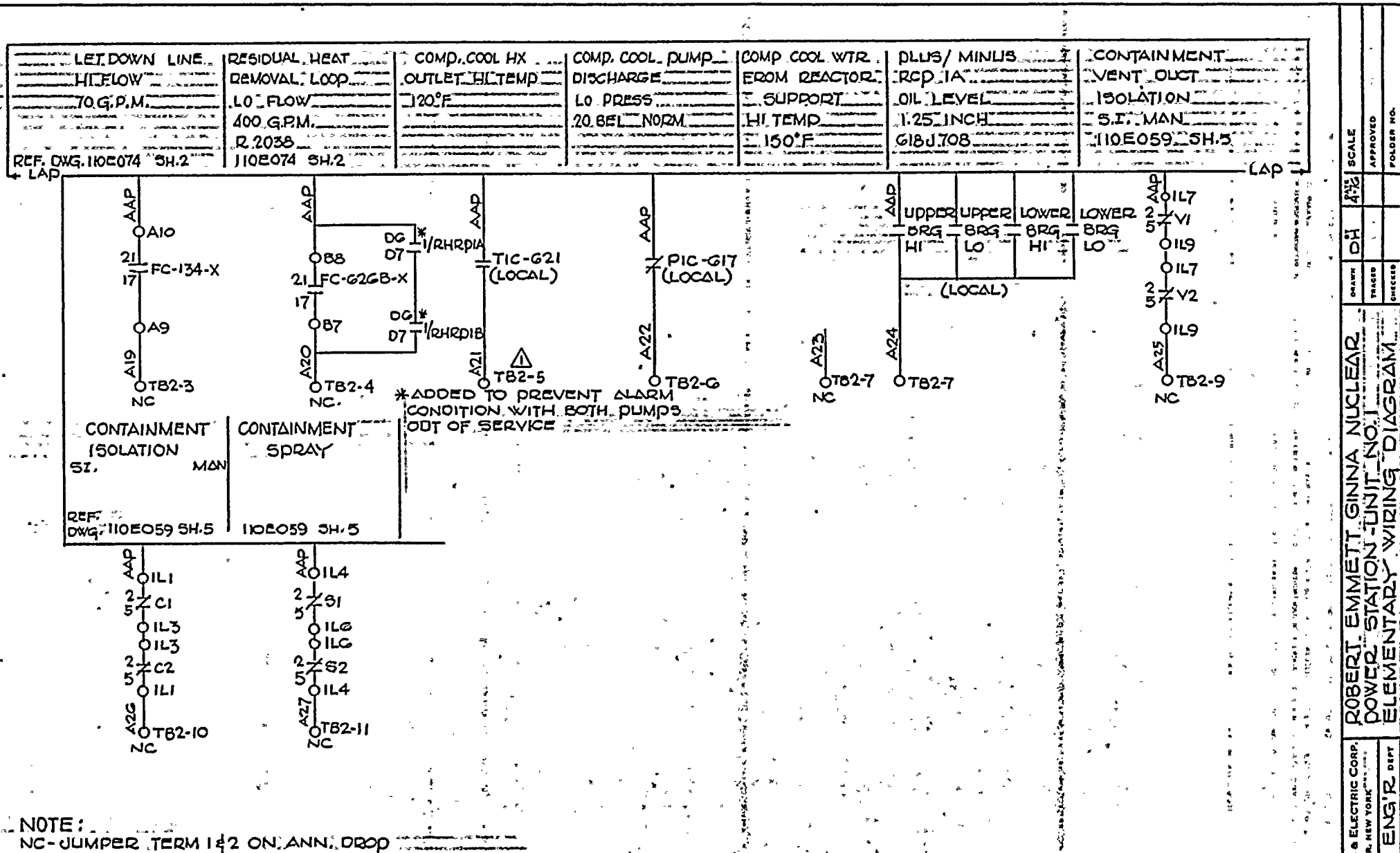
REV.						
ORIGINAL	A.S.M	FHM 4/14/75	RESP. ENGR.	ENG'R MGR.	RCM	6/5/75
	DRAWN BY	CK'D				DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STA. UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL "A"

DRAWN	A.S.M	8/14/74	SCALE	NONE
TRACED			APPROVED	
CHECKED			FOLDER NO.	
ENG.			JOB NO.	

No. 110905-361


LET DOWN LINE HI FLOW 70 G.P.M.
REF. DWG. 110E074 SH.2
RESIDUAL HEAT REMOVAL LOOP LO FLOW 400 G.P.M. R.2038
110E074 SH.2
COMP. COOL HX OUTLET HI TEMP 120°F
COMP. COOL PUMP DISCHARGE LO PRESS 20 BEL NORM
COMP COOL WTR FROM REACTOR SUPPORT HI TEMP 150°F
PLUS/MINUS RCP 1A OIL LEVEL 1.25 INCH G18J708
CONTAINMENT VENT DUCT ISOLATION S.I. MAN 110E059 SH.5
LAP
AAP
A10
21
FC-134-X
17
A9
A19
TB2-3
NC
B8
FC-626B-X
B7
A20
TB2-4
NC
DG D7 1/RHRP1A
DG D7 1/RHRP1B
TIC-621 (LOCAL)
A21
TB2-5
PIC-617 (LOCAL)
A22
TB2-6
UPPER BRG HI
UPPER BRG LO
LOWER BRG HI
LOWER BRG LO
(LOCAL)
A23
TB2-7
NC
A24
TB2-7
IL7
V1
IL9
V2
A25
TB2-9
NC
CONTAINMENT ISOLATION SI. MAN
REF. DWG. 110E059 SH.5
CONTAINMENT SPRAY
110E059 SH.5
IL1
C1
IL3
C2
A26
TB2-10
NC
IL4
S1
IL6
S2
A27
TB2-11
NC
*ADDED TO PREVENT ALARM CONDITION WITH BOTH PUMPS OUT OF SERVICE
NOTE:
NC-JUMPER TERM 1&2 ON ANN. DROP
NO-JUMPER TERM 1&3 ON ANN. DROP
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425 SH. 3G2.
REV: 1
ORIGINAL
drawn by D.H.
ck'd RPM 5/4/76
resp. eng'r R.E.A.
eng'r Mg'r R.E.S.
date 6/6/72
RPM 7/18/76
DFH 7-9-76
R.E.A. 7-12-76
R.E.S. 7/24/76
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENG'R DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ANNUNCIATOR PANEL A ELEMENTARY WIRING DIAGRAM
DRAWN D.H.
TRACED
CHECKED
SCALE 4½"
APPROVED
FOLDER NO.
JOB NO.
NO. 110GR-7427

CONTAINMENT SPRAY
CHANNEL ALERT
R2201, R2199

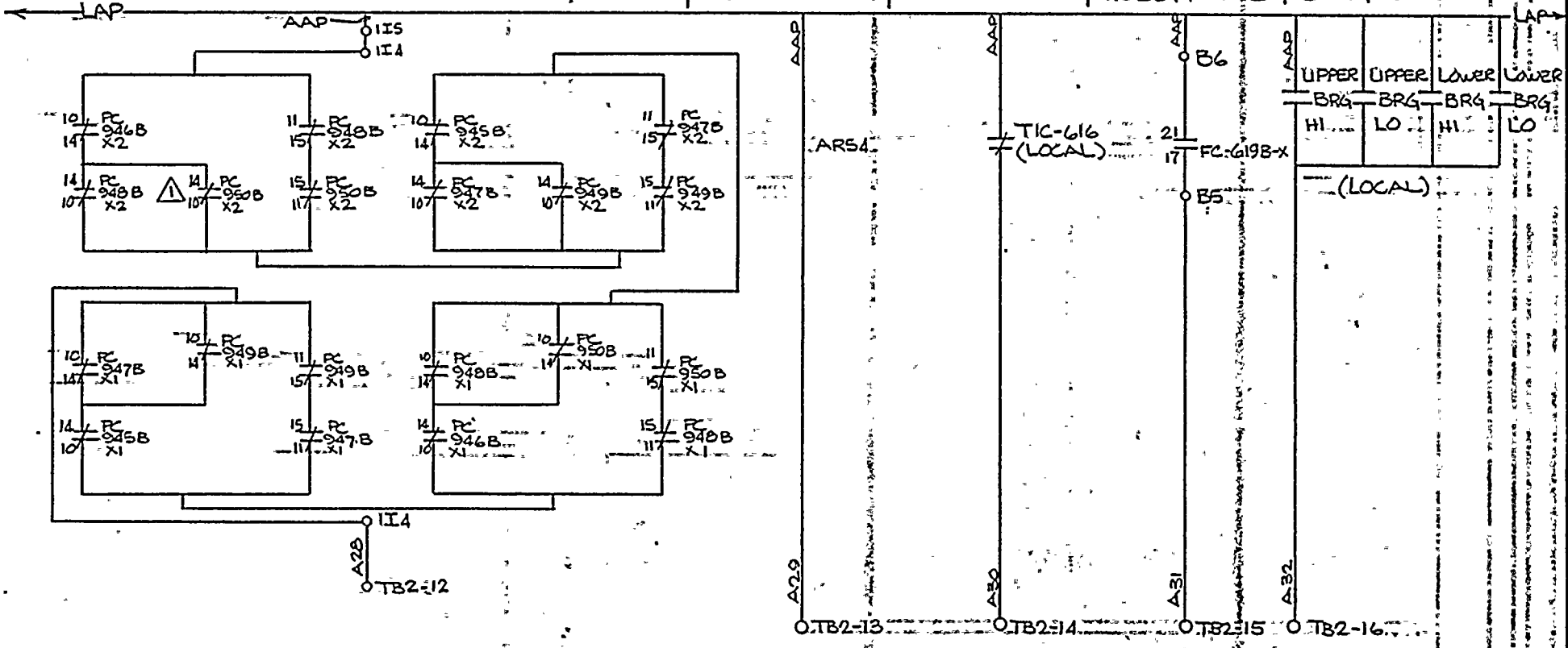
REF. DWG.. 110E059 SH. 1

COOLING FAN REACTOR CAVITY COOLER WATER OUTLET HI TEMP 150°F
G 533
499B425 SH. 320

COMP. COOL PUMP INLET HEADER HI TEMP 150°F
R 2047

COMP COOL LOOP LO FLOW. 1800 GPM
R 2046
110E074 SH. 2

PLUS/MINUS RCP 1B OIL LEVEL 1.25 INCH
R2044, R2045
618J708



NOTE
NC - JUMPER TERM. 1 & 2 ON ANN. DROP
NO - JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERSEDES W2 DWG. 499B425 SH. 563

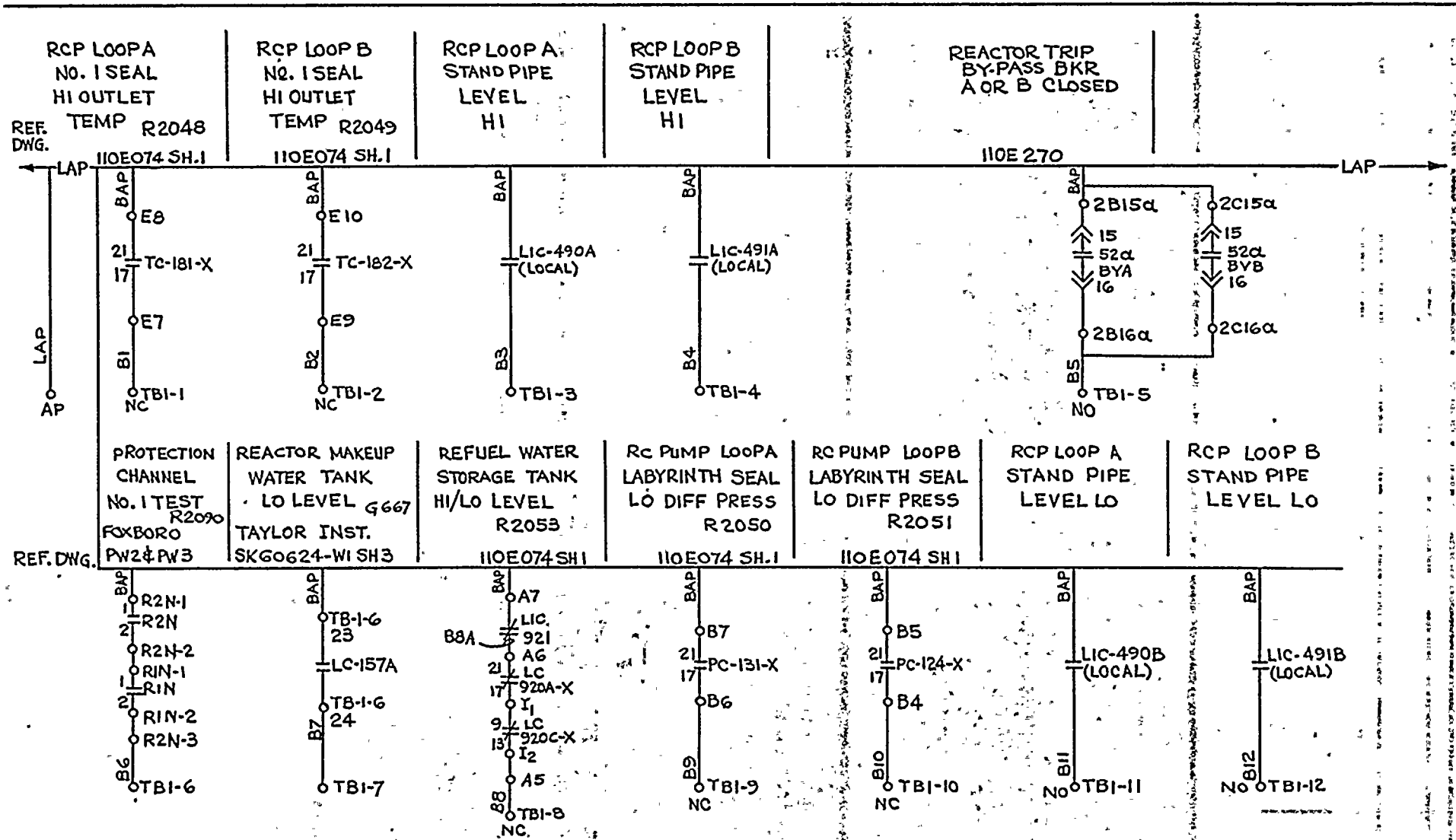
REV.	⚠1	RMW 7/7/76	OFH 7-9-76	RFA 7-9-76	JEL	7/9/76
ORIGINAL		AW	RMW	RGG.	JEL	4/30/76
		DWN. BY	CK'D	RESP. ENGR.	ENG. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL A

DRAWN | DATE | SCALE
TRACED | BY | APPROVED
CHECKED | | FOLDER NO.
ENG. | | JOB NO.

NOTICE



NOTE:
NC. = JUMPER TERM. 1 & 2 ON ANN. DROP.
NO. = JUMPER TERM. 1 & 3 ON ANN. DROP.

THIS DWG SUPERCEDES WESTING HOUSE DWG 499 B 425, SH. 365 (REV. 4)

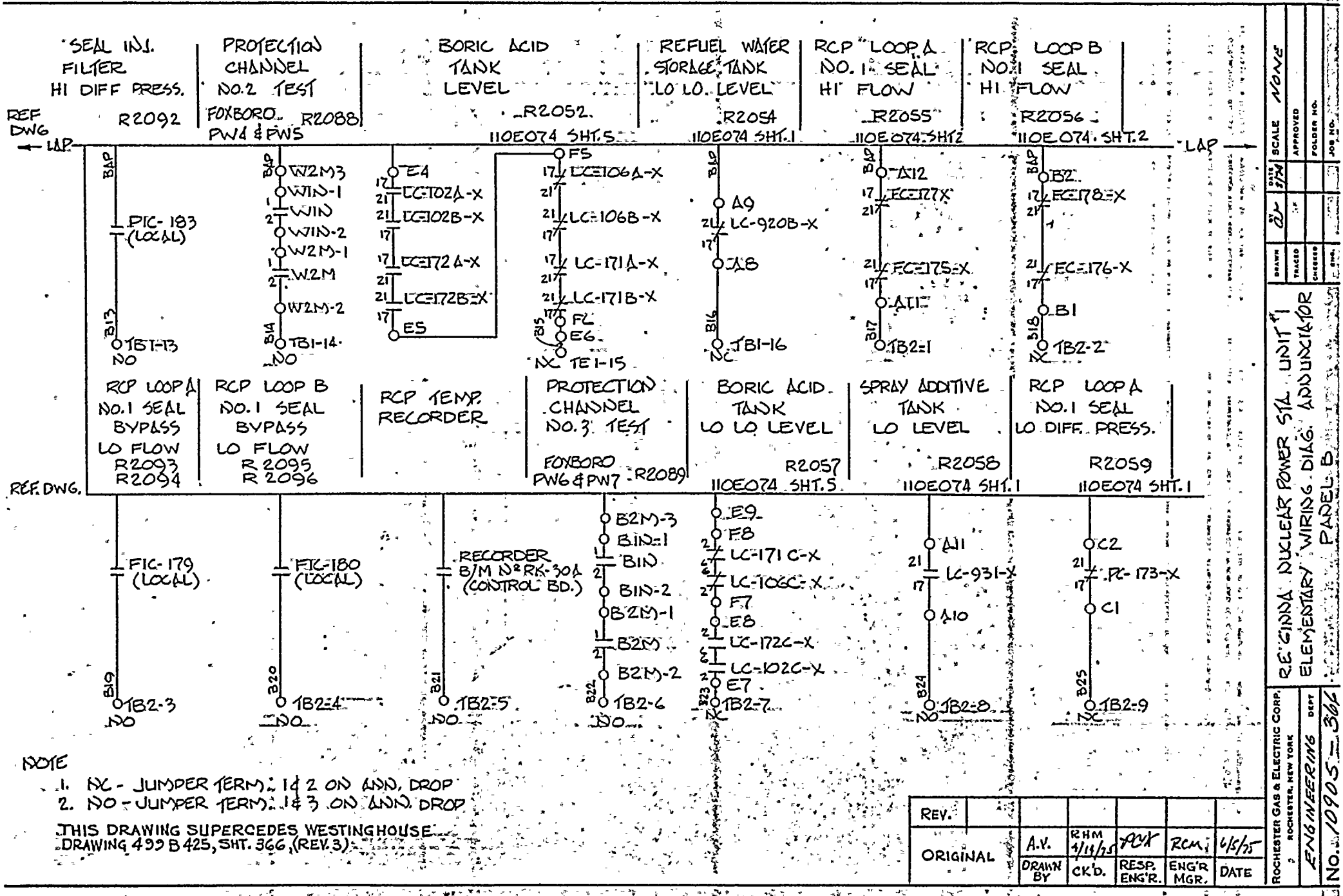
REV.						
ORIGINAL		EJM 6/4/75	RHH 4/14/75	PCR	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL B

DRAWN | TRACED | CHECKED | ENG. | SCALE NONE | APPROVED | FOLDER NO. | JOB NO.

NO. 10945-365



NOTE

1. NC - JUMPER TERM. 1 & 2 ON AND, DROP
2. NO - JUMPER TERM. 1 & 3 ON AND DROP

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499 B 425, SHT. 366, (REV. 3)

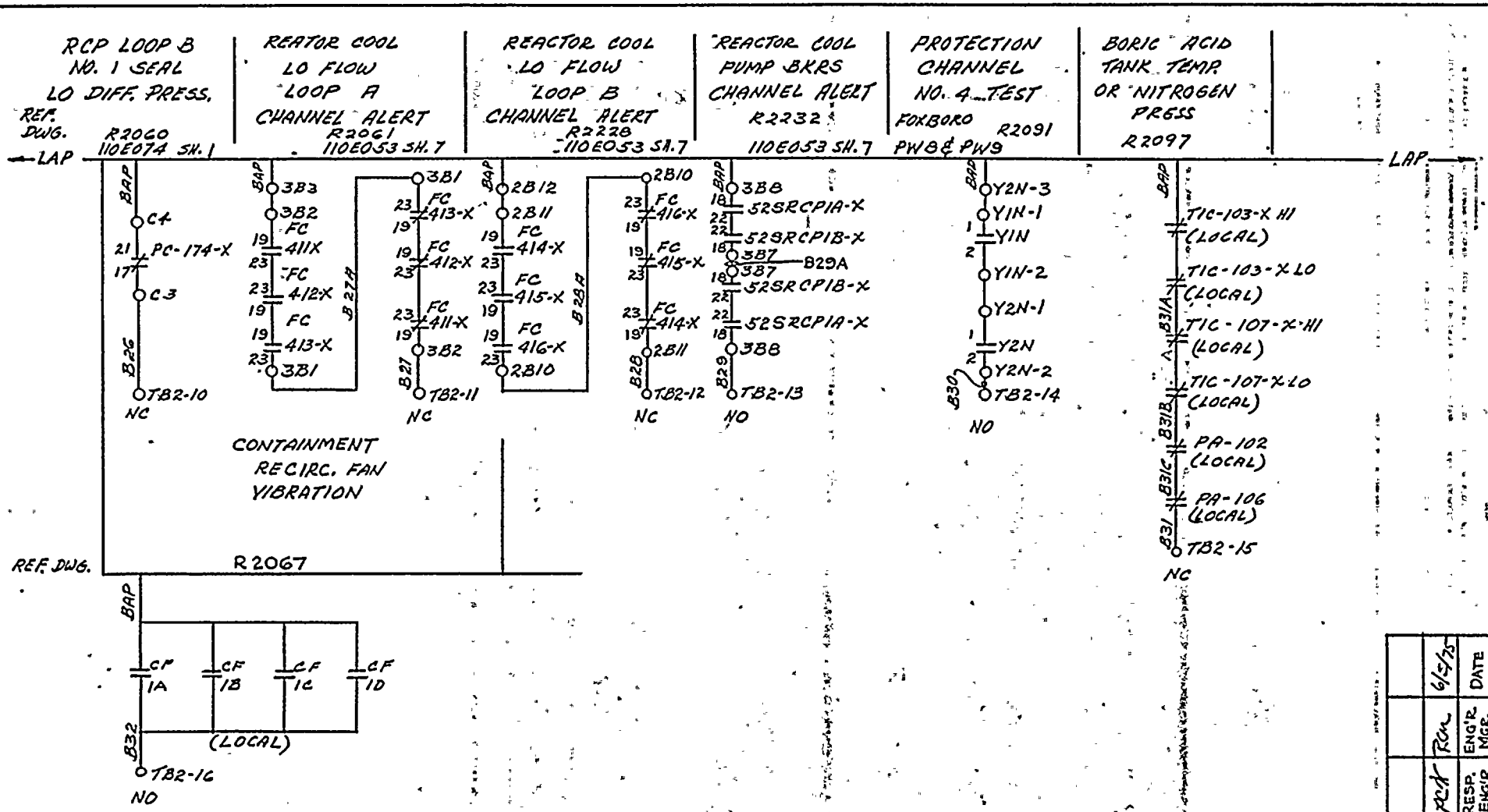
REV.						
ORIGINAL	A.V.	RHM 4/14/75	RCK	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT

R.E. GINNA NUCLEAR POWER STA. UNIT #1
ELEMENTARY WIRING DIAG. ANNUNCIATOR PANEL B

DRAWN AV | DATE 3/74 | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENGR. | JOB NO.

NO. 10905-366



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

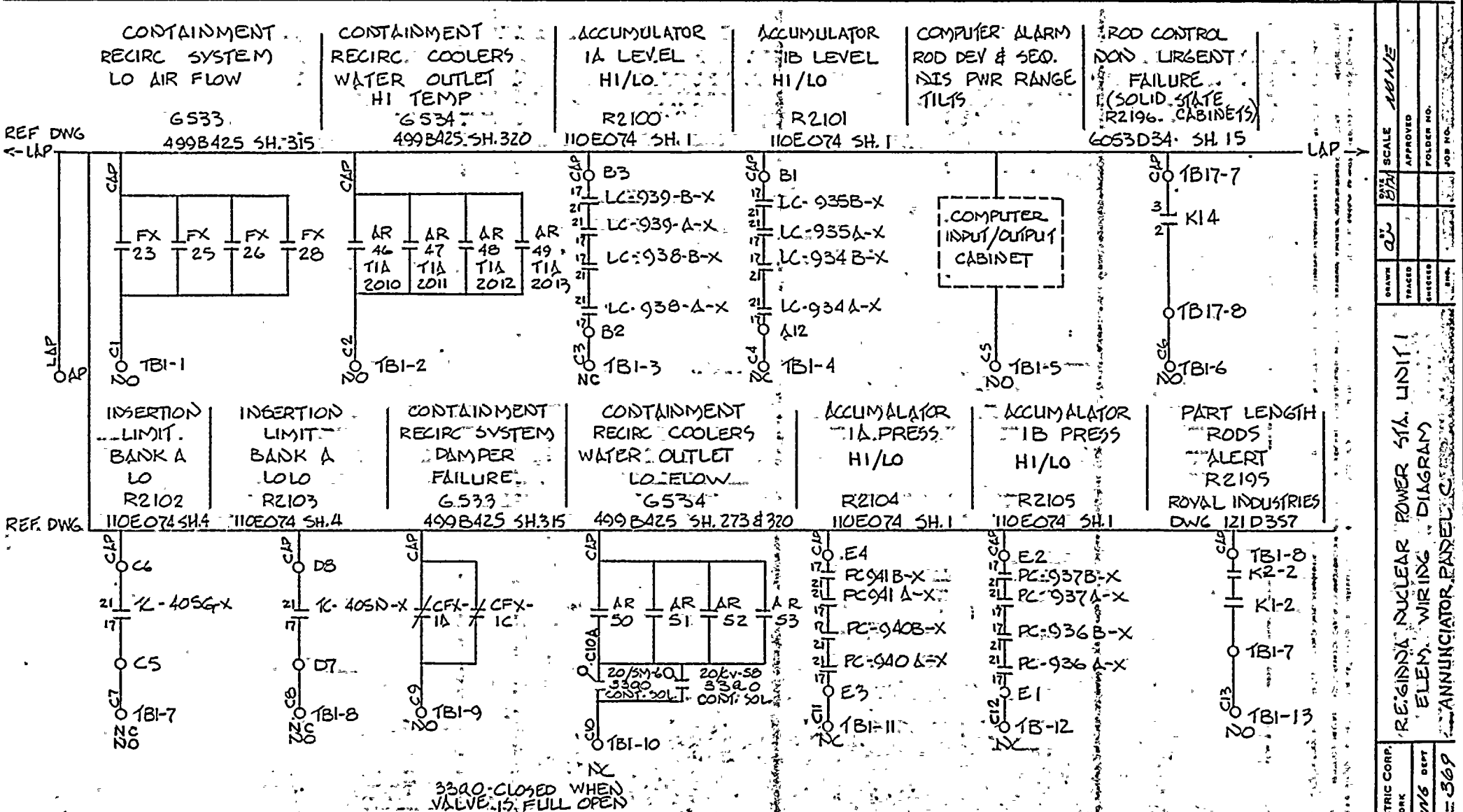
THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499 B425, SHT. 367, (REV. 3)

REV.						
ORIGINAL						
		N.J.A.	RHM 4/14/75			
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR.	DATE
				Kdr	Ran	6/5/75

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGINEERING
NO. 10905-367

ROBERT EMMETT GINNA NUCLEAR STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL 'B'

DRAWN	N.J.A.	DATE 5/74	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.


CONTAINMENT RECIRC SYSTEM LO AIR FLOW
G533
499B425 SH. 315
CONTAINMENT RECIRC. COOLERS WATER OUTLET HI TEMP
G534
499B425 SH. 320
ACCUMULATOR 1A LEVEL HI/LO
R2100
110E074 SH. 1
ACCUMULATOR 1B LEVEL HI/LO
R2101
110E074 SH. 1
COMPUTER ALARM ROD DEV & SEQ. DIS PWR RANGE TILTS
ROD CONTROL NON URGENT FAILURE (SOLID STATE CABINETS)
R2196
6053D34 SH. 15
REF DWG
LAP
FX 23
FX 25
FX 26
FX 28
AR 46 TIA 2010
AR 47 TIA 2011
AR 48 TIA 2012
AR 49 TIA 2013
B3
LC-939-B-X
LC-939-A-X
LC-938-B-X
LC-938-A-X
B2
B1
LC-935B-X
LC-935A-X
LC-934B-X
LC-934A-X
A12
COMPUTER INPUT/OUTPUT CABINET
1B17-7
K14
1B17-8
TB1-1
TB1-2
TB1-3
TB1-4
TB1-5
TB1-6
INSERTION LIMIT BANK A LO
R2102
110E074 SH.4
INSERTION LIMIT BANK A LOLO
R2103
110E074 SH.4
CONTAINMENT RECIRC SYSTEM DAMPER FAILURE
G533
499B425 SH.315
CONTAINMENT RECIRC COOLERS WATER OUTLET LO-LOW
G534
499B425 SH. 273 & 320
ACCUMALATOR 1A PRESS HI/LO
R2104
110E074 SH. 1
ACCUMALATOR 1B PRESS HI/LO
R2105
110E074 SH. 1
PART LENGTH RODS ALERT
R2195
ROYAL INDUSTRIES
DWG 121D357
REF. DWG
C6
K-405G-X
C5
TB1-7
D8
K-405D-X
D7
TB1-8
CFX-1A
CFX-1C
TB1-9
AR 50
AR 51
AR 52
AR 53
C10A
20/SM-60 3390 CONT. SOL
20/SV-50 3390 CONT. SOL
C10
TB1-10
E4
PC-941B-X
PC-941A-X
PC-940B-X
PC-940A-X
E3
TB1-11
E2
PC-937B-X
PC-937A-X
PC-936B-X
PC-936A-X
E1
TB1-12
TB1-8
K2-2
K1-2
TB1-7
TB1-13
3390-CLOSED WHEN VALVE IS FULL OPEN
NOTES
NC = JUMPER TERM. 1 & 2 ON AND. DROP
NO = JUMPER TERM 1 & 3 ON AND. DROP.
THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425, SHT. 369, (REV. 3)
REV.
ORIGINAL
A.V.
DRAWN BY
RHM 4/14/75
CK'D.
RESP. ENG'R.
RCM
ENG'R. MGR.
6/5/75
DATE
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEM. WIRING DIAGRAM
ANNUNCIATOR PANEL C
NO. 10925-369
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
DRAWN
TRACED
CHECKED
DATE 6/3/75

ROD BOTTOM ROD STOP

MAGNETICS, INC.
REF. DWG. KD-8202-17 SH. 6

INSERTION LIMIT BANK B LO R2106
110E074 SH. 4

INSERTION LIMIT BANK B LO LO R2107
110E074-SH4

LAP

CAP — RPI #2 -I7 — 11CR — 10CR — 9CR — 8CR — 7CR — RPI #2 -I8 — C14 — TB1-14 NO

CAP — C8 — 21 TC-405H-X 17 — C7 — C15 — TB1-15 NO

CAP — D6 — 21 TC-405M-X 17 — D5 — C16 — TB1-16 NO

LAP →

CONTAINMENT VENT SYSTEM

CONTAINMENT SUMP A PUMP AUTO START
C1276A
C1276 C937
499B425 SH. 180

CONTAINMENT SUMP A HI LEVEL
C936
C937
C1276
GAI DWG 55308-642

REF. DWG. L101 L91 C243 C347 G537
499B425 SHTS 96, 222, 223 & 315

CAP — 52/CRSF1A b — 6 CAL — B7 SC B6 1/CRSF1A — D12 C12 1/CRSF1A — C17 — TB2-1 NC

CAP — 52/CRSF1B b — 5 CAL — B7 SC B6 1/CRSF1B — D12 C12 1/CRSF1B

CAP 12 — 42/PSF1A — PEF1A-CSP1A 11 11 — B7 SC B6 1/PSF1A — D12 C12 1/PSF1A

CAP 12 — 42/PEF1A

CAP 12 — 42/PSF1B — PEF1B-AL 11 11 — B7 SC B6 1/PSF1B — D12 C12 1/PSF1B

CAP 12 — 42/PEF1B

CAP — FX23 — FX30 — FX31 — FX32 — FX22 — FX6 — FX7 — FX 1E/1D-14

CAP 9 — 42 VSP1A 10 — C6 ST C5 1/VSP 1A D12 C12 1/VSP 1A — C18 — TB2-2 NO

CAP 9 — 42 VSP1B 10 — C6 ST C5 1/VSP 1B D12 C12 1/VSP 1B — 1D/2B-14

CAP — LAH 2045 — LAH 2046 — G659 — C19 — TB2-3 NO

NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

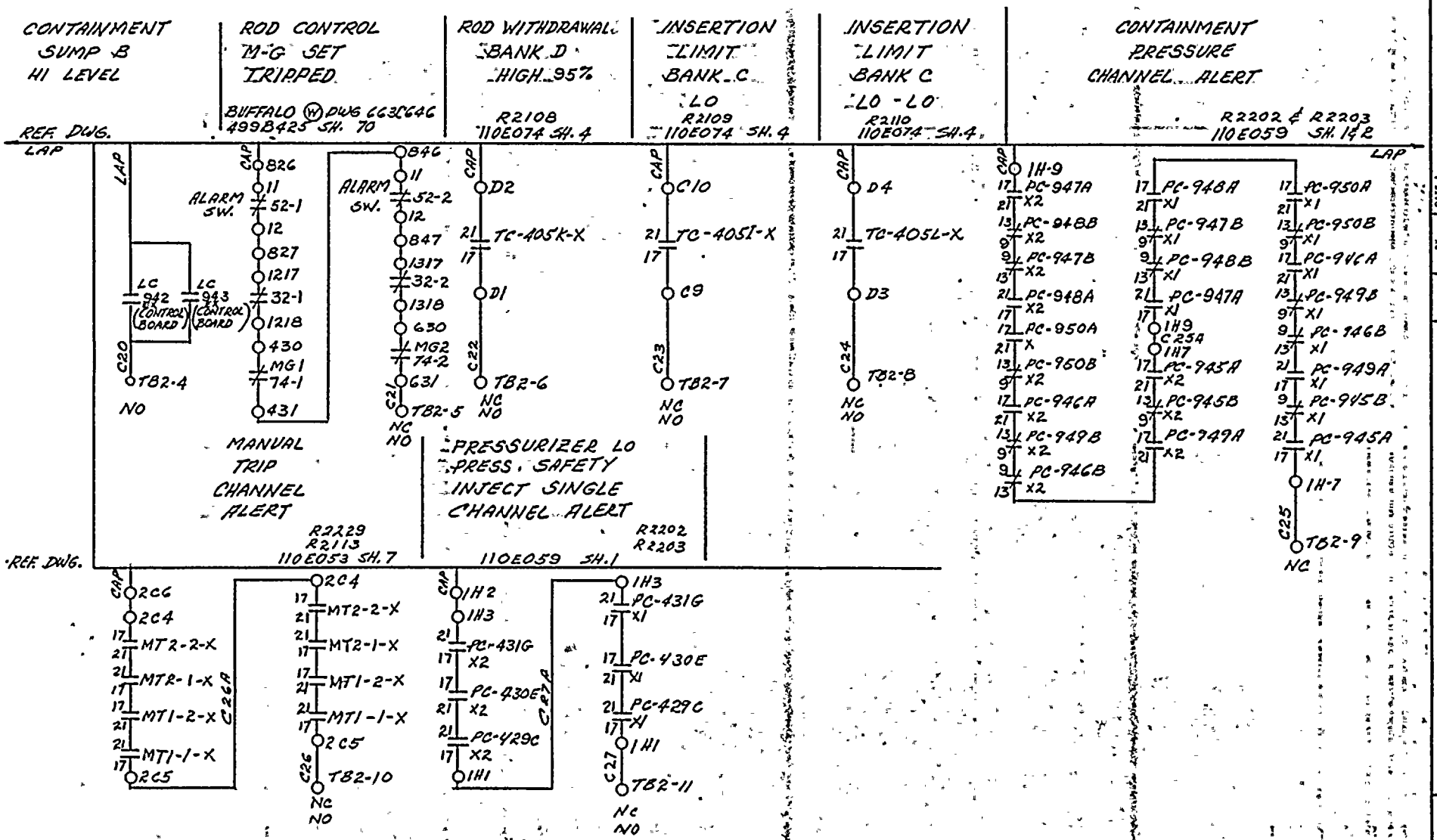
THIS DWG. SUPERCEDES WESTINGHOUSE DWG 499B425, SH. 370 (REV. 3)

REV.						
ORIGINAL	E.J. Schmidt	RHM 9/19/75	PCK	RCW	6/3/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

DRAWN E. Schmidt 6/27/75 | TRACED | CHECKED | SCALE NONE | APPROVED | FOLDER NO. | JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL C

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-370



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM 1 & 3 ON ANN. DROP

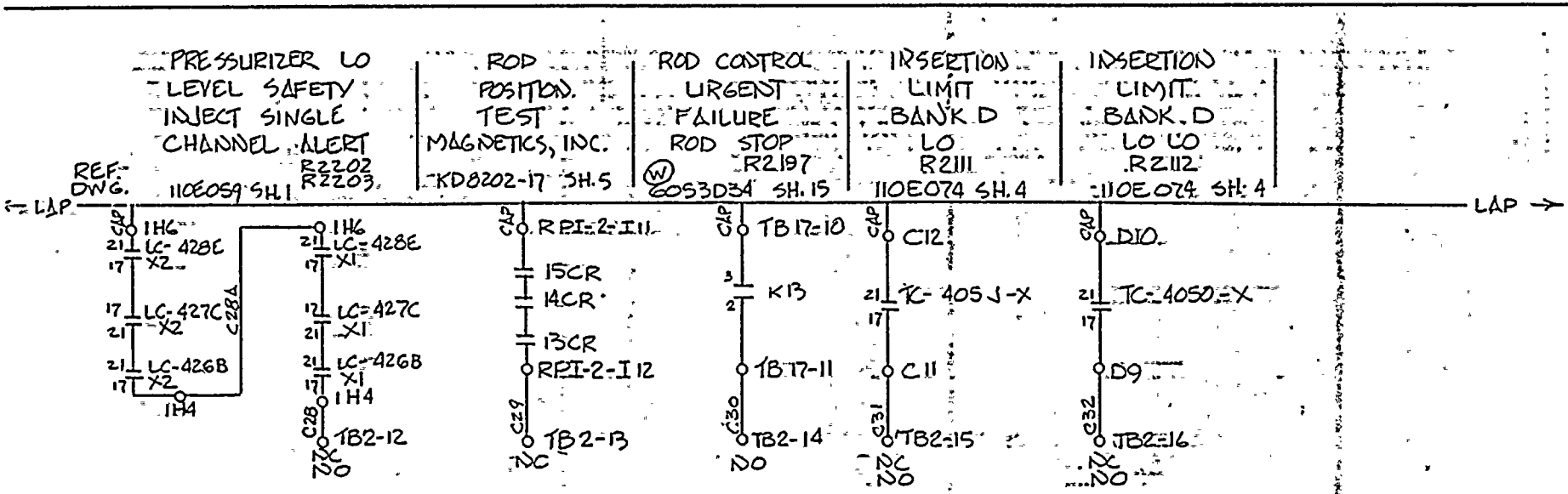
THIS DRAWING SUPERCEDES WESTINGHOUSE, DWG. 499B425, SHT. 371, (REV. 3)

REV.						
ORIGINAL	N.J.A.	RHM 4/19/75	PCK	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT
ENGINEERING
NO. 10905-371

ROBERT EMMETT GINNA NUCLEAR STA. UNIT 1 – ELEMENTARY WIRING DIAGRAM ANNUNCIATOR PANEL C

DRAWN N.J.A. DATE 8/74 | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.



NOTES

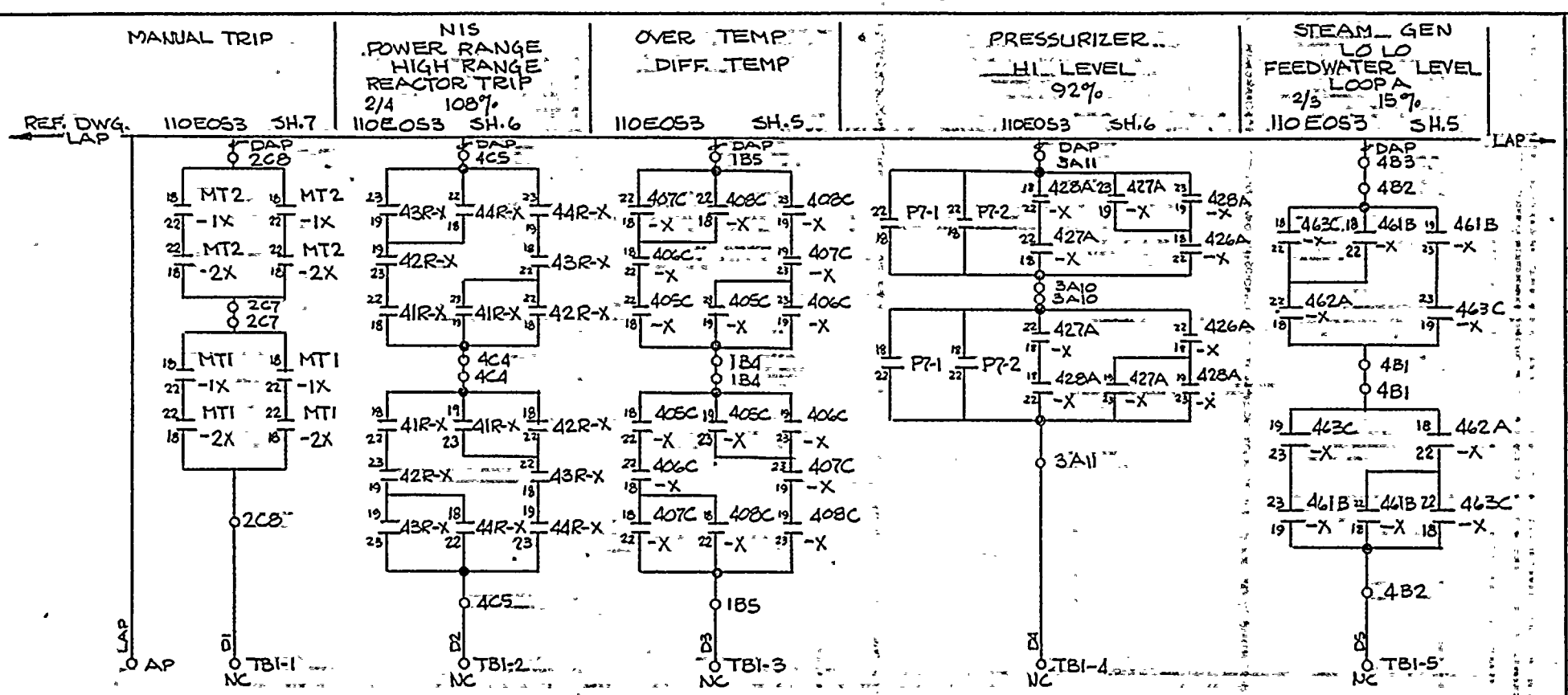
N.C.=JUMPER TERM. 1 & 2 ON ANN. DROP.
N.O.=JUMPER TERM. 1 & 3 ON ANN. DROP.
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT. 372, (REV. 3)

REV.								
ORIGINAL	A.V.	EHM 4/11/72	DCK	Rue	6/5/72	DATE
	DRAWN BY	CK'D	RESP. ENG'R.	ENG'R. MGR.		

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-372

R.E. GINNA NUCLEAR POWER STA. UNIT #1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL C

DRAWN	DF	DATE 8/72	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

REVS						
ORIGINAL		AW	RMW	R.E.G.	J.E.L.	4/30/76
		DWN BY	CK'D	RESP ENG	ENG MGR	DATE

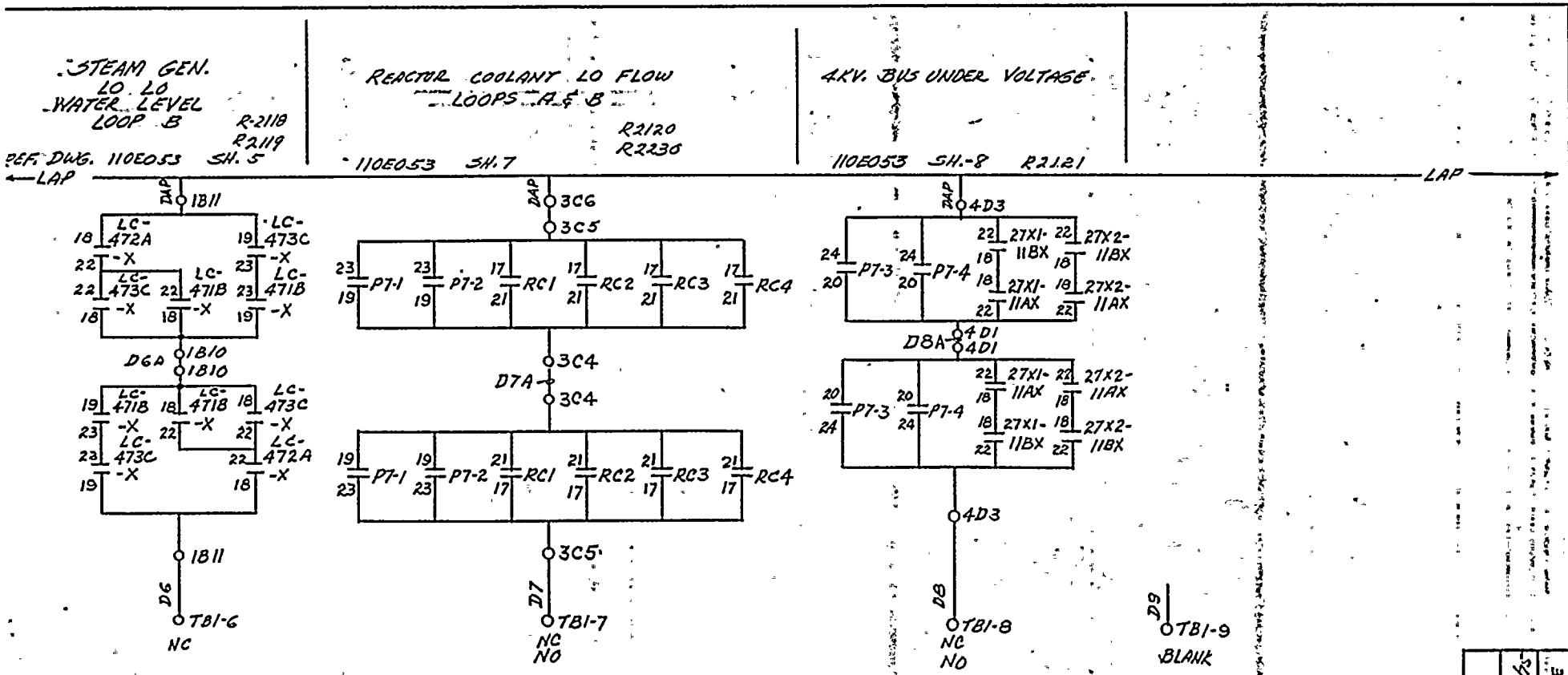
THIS DWG. SUPERSEDES W DWG. 499B425 SH. 374

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D

DRAWN | BY | DATE | SCALE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENGR. | JOB NO.

NO. 10905-374



NOTE:
NC: JUMPER TERM 1 & 2 ON ANN DROP
NO: JUMPER TERM 1 & 3 ON ANN DROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499 B425, SHT. 375, (REV. 2)

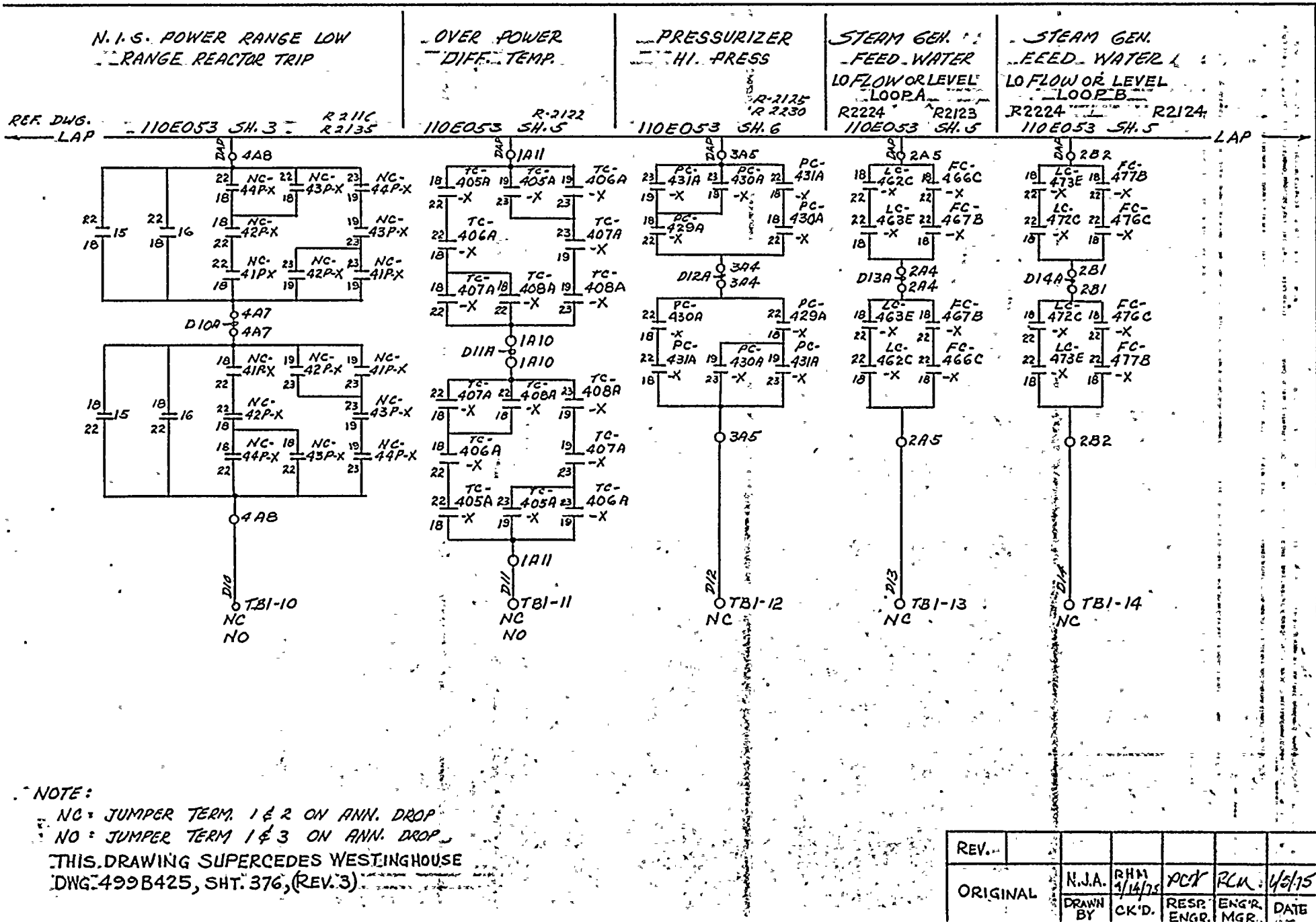
REV.							
ORIGINAL	N.J.A.	RHM 4/14/67	ACM	RCM			6/5/68
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.			DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D

DRAWN N.J.A. | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

NO. 10905-375



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM 1 & 3 ON ANN. DROP

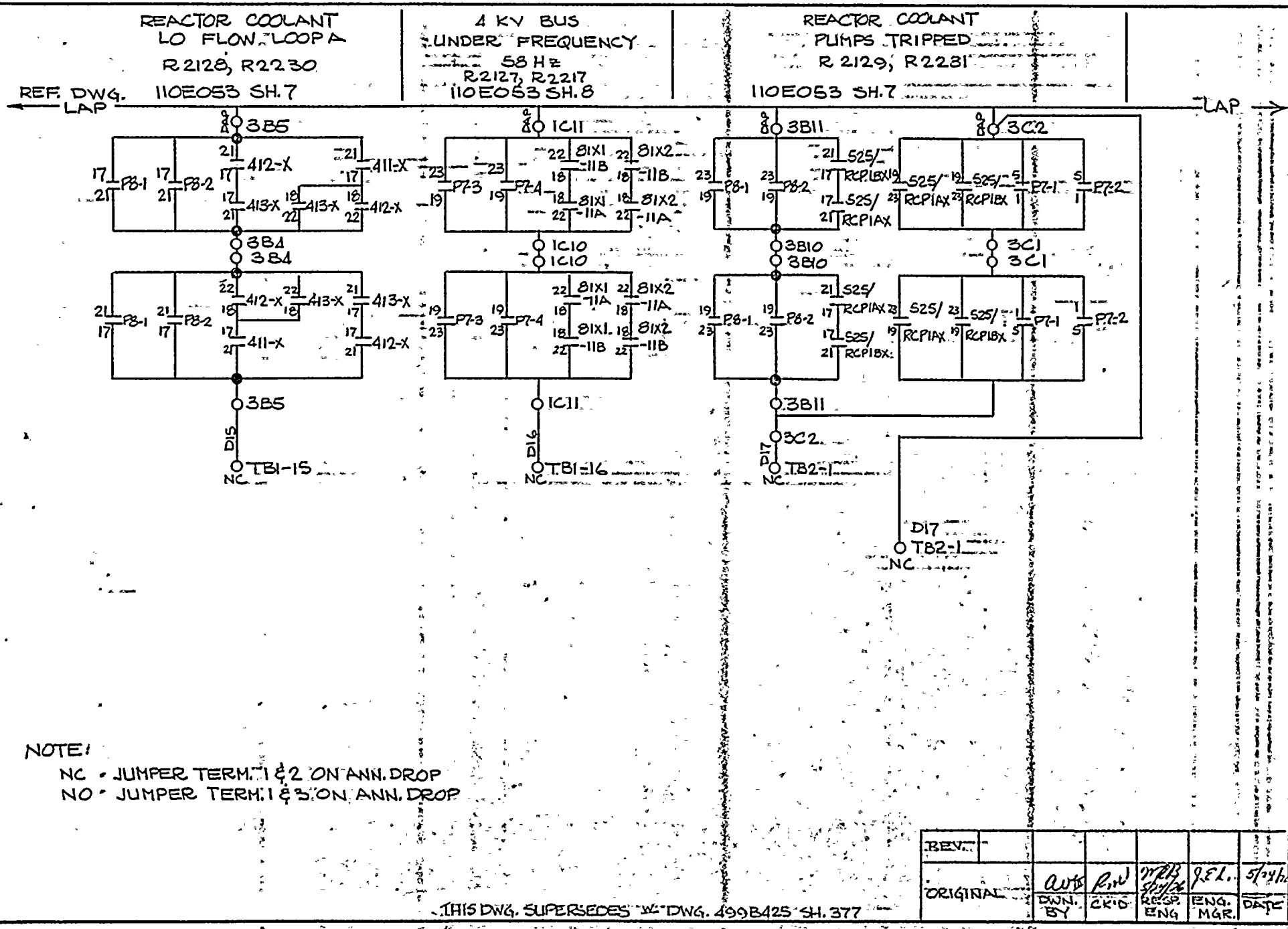
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT. 376, (REV. 3)

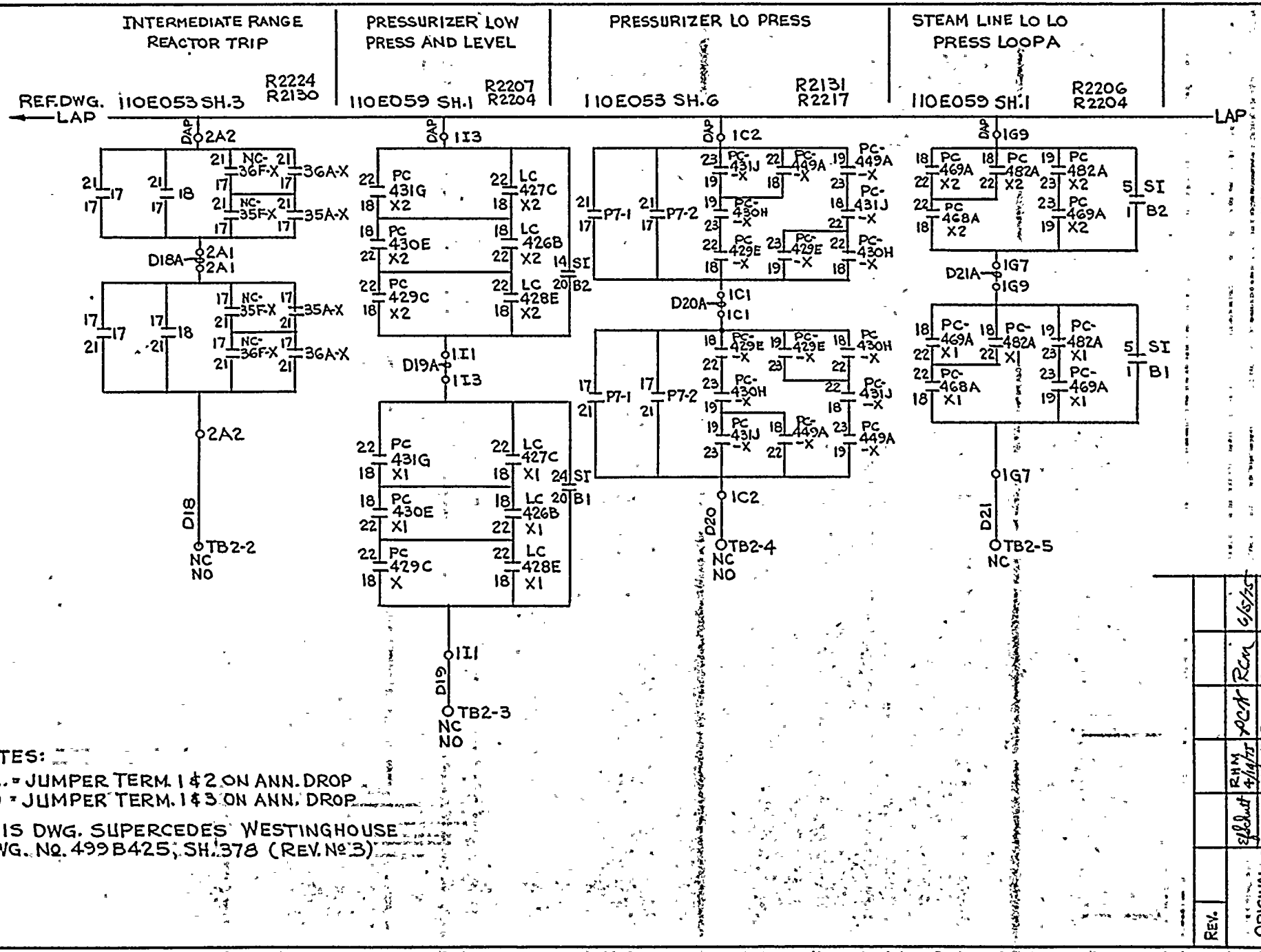
REV.						
ORIGINAL	N.J.A.	RHM 1/14/75	PCR	RCM	4/6/75
	DRAWN BY	CK'D.	RESP. ENGR.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING
NO. 10905-376

ROBERT EMMETT GINNA NUCLEAR STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D

DRAWN NEL
DATE 7/20
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
TRACED
CHECKED


REACTOR COOLANT LO FLOW LOOP A
R 2128, R 2230
REF. DWG. 110E053 SH. 7
4 KV BUS UNDER FREQUENCY
58 Hz
R 2127, R 2217
110E053 SH. 8
REACTOR COOLANT PUMPS TRIPPED
R 2129, R 2231
110E053 SH. 7
LAP
3B5
3B4
1C11
1C10
3B11
3B10
3C2
3C1
412-X
411-X
413-X
81X1
81X2
11A
11B
525/ RCP1AX
525/ RCP1BX
P8-1
P8-2
P7-3
P7-4
P7-1
P7-2
D15
D16
D17
TB1-15
TB1-16
TB2-1
NC
NOTE:
NC - JUMPER TERM. 1 & 2 ON ANN. DROP
NO - JUMPER TERM. 1 & 3 ON ANN. DROP
THIS DWG. SUPERSEDES W/ DWG. 499B425 SH. 377
REV.
ORIGINAL
DWN. BY
CK'D
RESP. ENG
ENG. MGR.
DATE
ROBERT EMMETT GINNA NUCLEAR POWER STATION
UNIT #1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
DRAWN
TRACED
CHECKED
ENG.
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.
NO. 10905-877



NOTES:

NC. = JUMPER TERM. 1 & 2 ON ANN. DROP

NO = JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425, SH. 378 (REV. No. 3)

REV.					
ORIGINAL	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE
	E.S. Schmitt	R.H.M. 4/19/57	ACM	RCM	6/5/57

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1

ELEMENTARY WIRING DIAGRAM ANNUNCIATOR PANEL D

DRAWN	CHECKED	ENGINEERED	ENGR.
E.S. Schmitt			

DATE 3-28-57

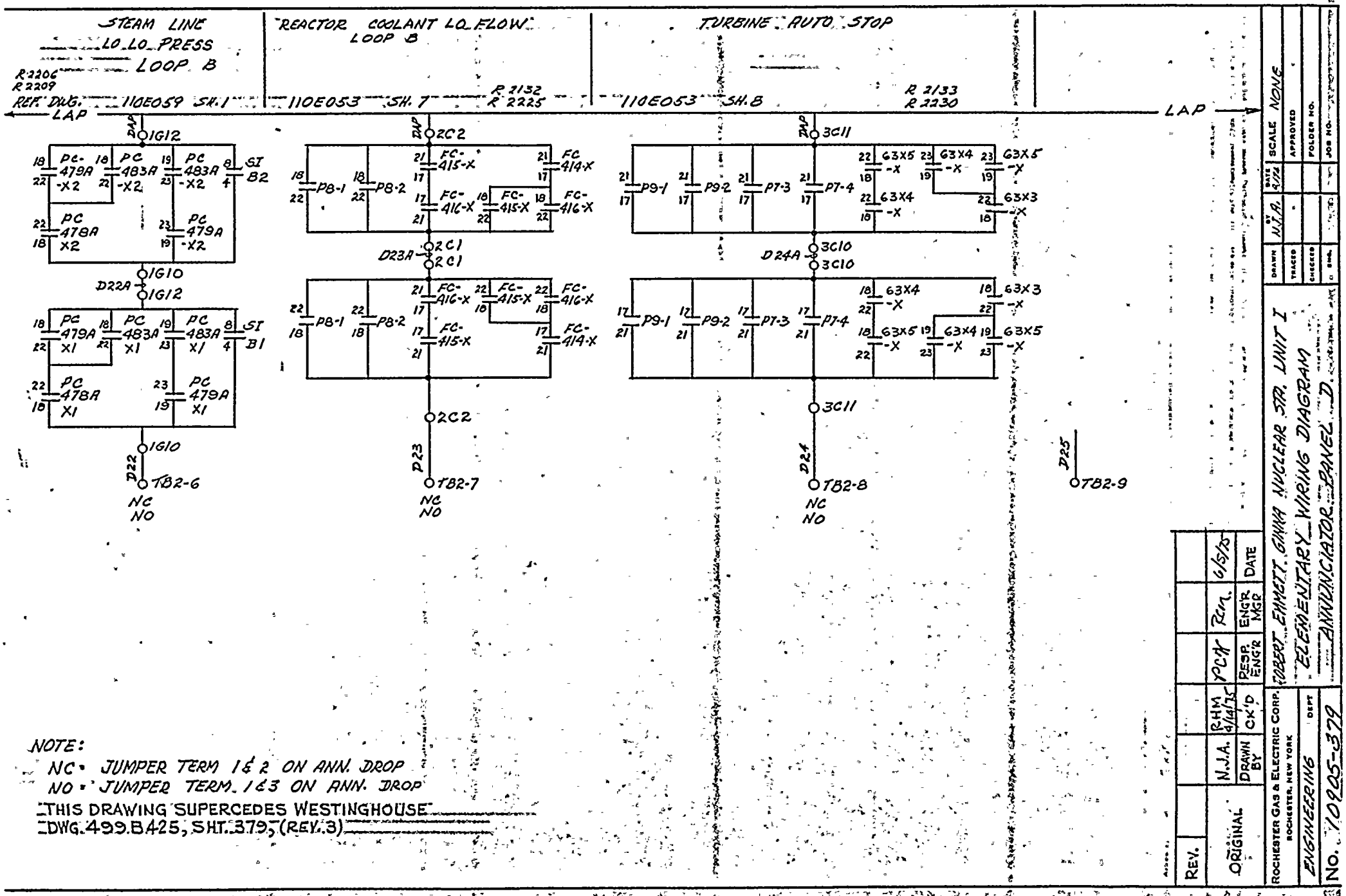
SCALE NONE

APPROVED

FOLDER NO.

JOB NO.

No. 10925-378



NOTE:
NC = JUMPER TERM 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499.B425, SHT. 379, (REV. 3)

REV.								
ORIGINAL	N.J.A.	RHM 4/14/75	XPCH	Rm.	6/5/75			
	DRAWN BY	CK'D	PESR. ENG'R	ENG'R MGR	DATE			

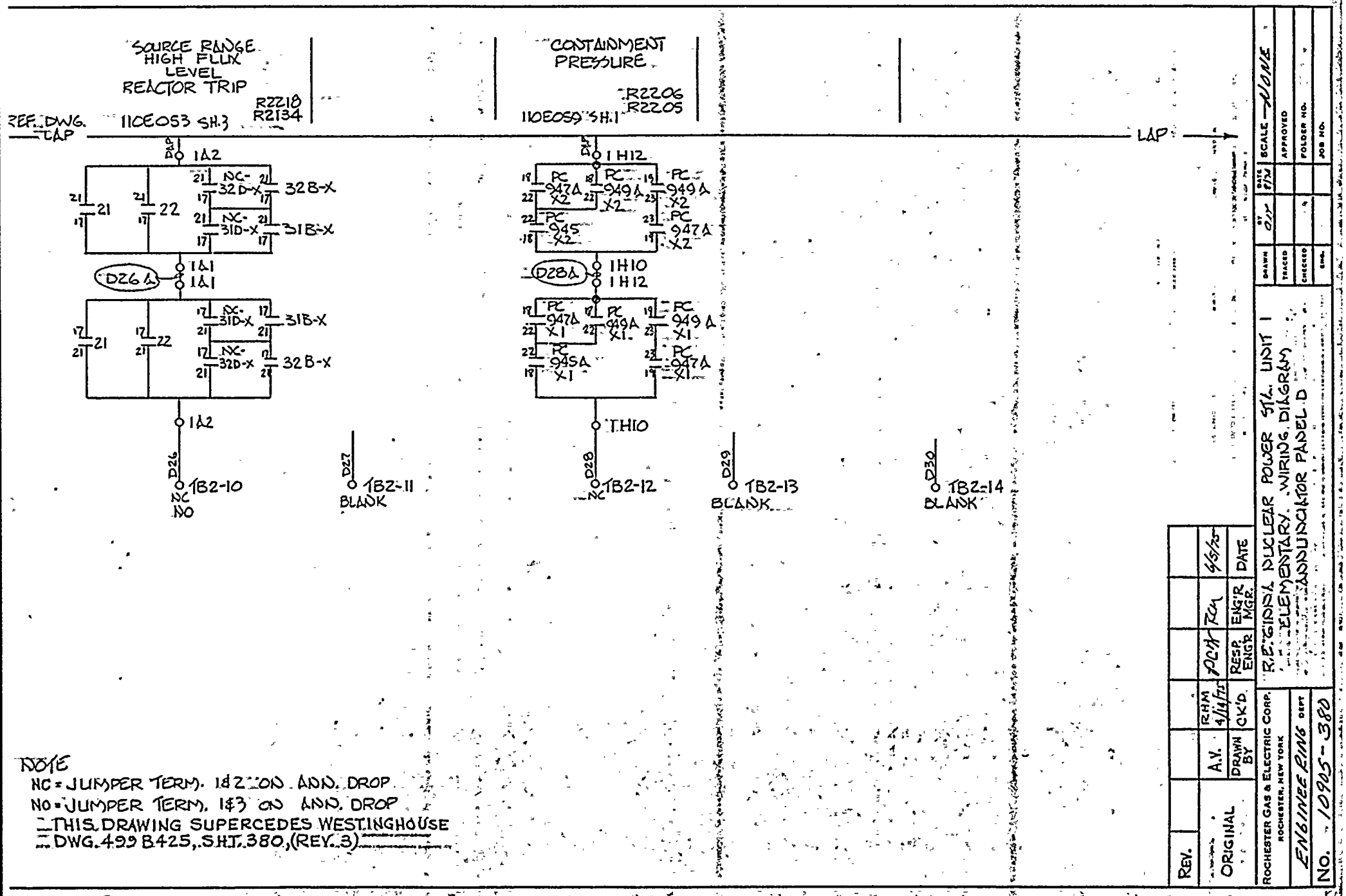
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT, GINNA NUCLEAR STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D

DRAWN N.J.A. | TRACED | CHECKED | BY | DATE 4/74 | APPROVED

SCALE NONE
FOLDER NO.
JOB NO.

No. 10905-379



NOTE
NC = JUMPER TERM. 1&2 ON ANN. DROP
NO = JUMPER TERM. 1&3 ON ANN. DROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499 B425, SHT. 380, (REV. 3)

REV.					
ORIGINAL	A.V.	RHM 4/14/75	ACM	RCM	4/5/75
	DRAWN BY	CK'D	RESP. ENGR	ENGR MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D

DRAWN	BY	DATE	SCALE — NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
			JOB NO.

NO. 10905-380

MANUAL SAFETY INJECTION

TURBINE VALVES

R2135
R2217

REF. DWG. 110E059SH.3

110E053 SH. 8

NOTE:

1. NC- JUMPER TERM 1 & 2 ON ADD. DROP.
2. NO- JUMPER TERM 1 & 3 ON ADD. DROP.
3. THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 492 B425, SH. 381, REV. 3.

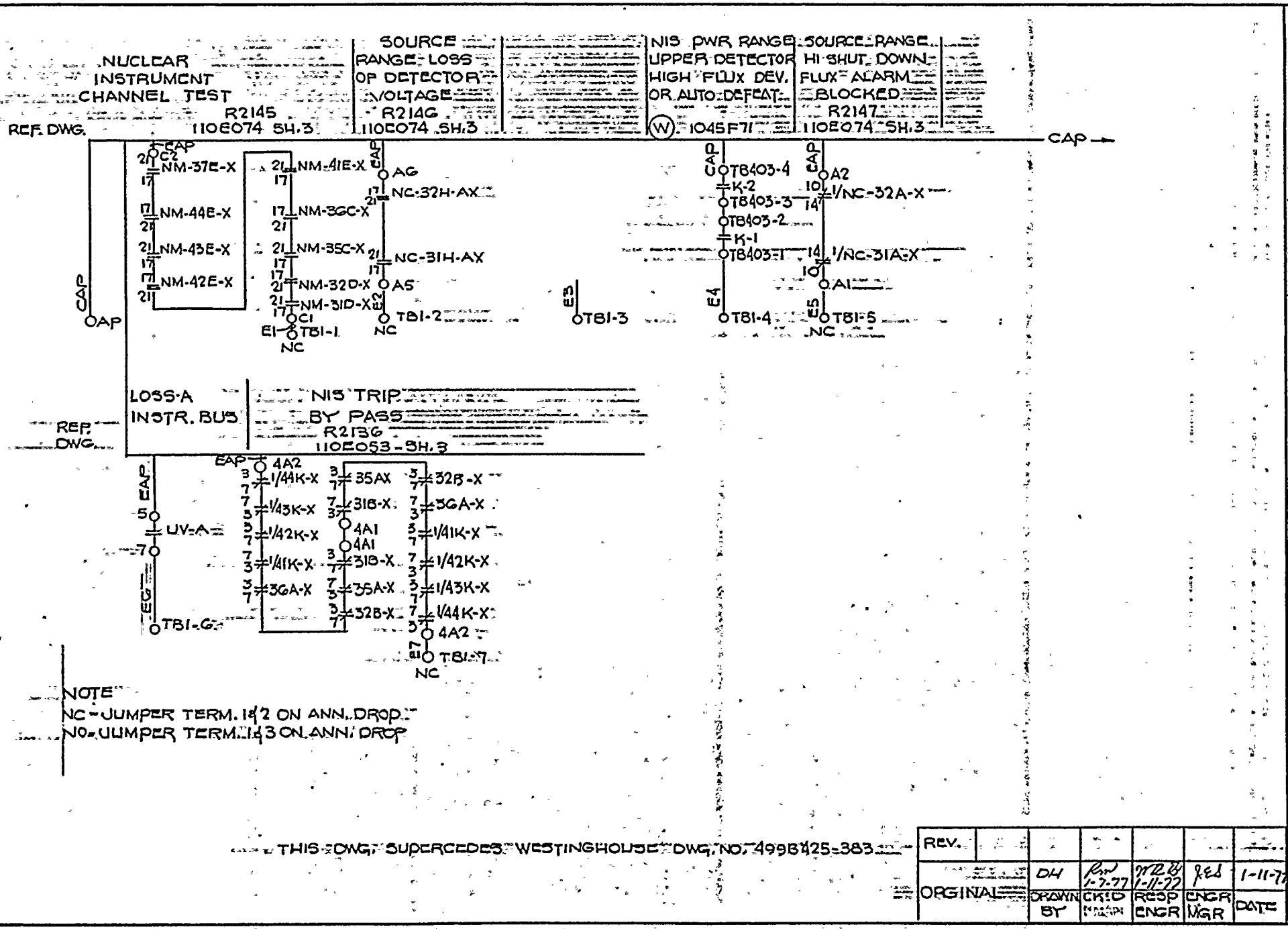
REV.							
ORIGINAL	A.V.	RHM 4/14/75	ACR	RCM	6/5/75	DATE	
	DRAWN BY	CK'D.	RESP. ENGR.	ENG'R. MGR.			

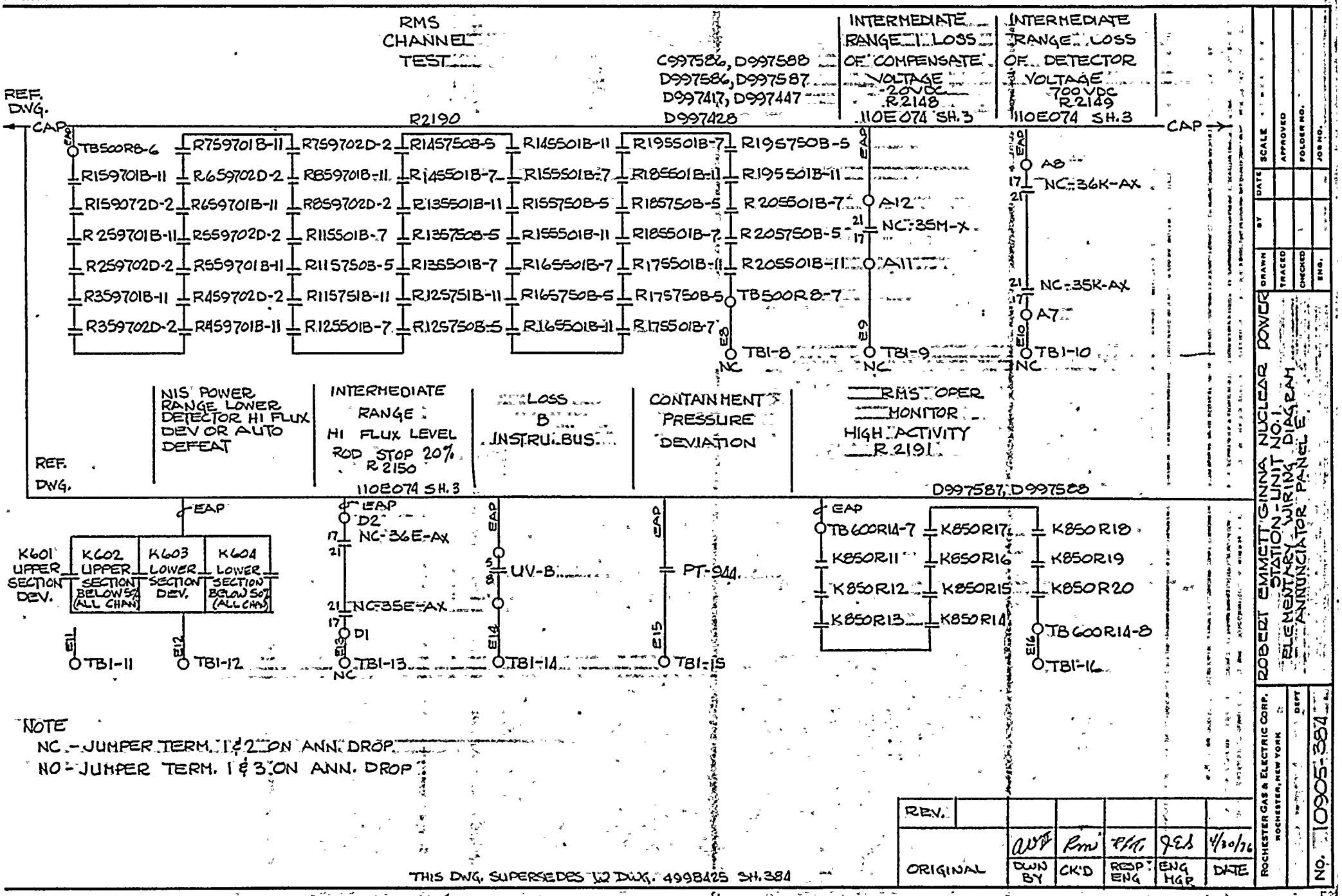
DRAWN	DJY	DATE 5/75	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

R.E. GINNA NUCLEAR POWER PLANT UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL D

No. 10905-381


NUCLEAR INSTRUMENT CHANNEL TEST
R2145
REF. DWG. 110E074 SH.3
SOURCE RANGE LOSS OF DETECTOR VOLTAGE
R2146
110E074 SH.3
NIS PWR RANGE UPPER DETECTOR HIGH FLUX DEV. OR AUTO DEFEAT
(W) 1045F71
SOURCE RANGE HI SHUT DOWN FLUX ALARM BLOCKED
R2147
110E074 SH.3
CAP
NM-37E-X
NM-44E-X
NM-43E-X
NM-42E-X
NM-41E-X
NM-36C-X
NM-35C-X
NM-32D-X
NM-31D-X
AG
NC-32H-AX
NC-31H-AX
A5
TB1-1
TB1-2
NC
TB1-3
TB403-4
K-2
TB403-3
TB403-2
K-1
TB403-1
A2
1/NC-32A-X
1/NC-31A-X
A1
TB1-4
TB1-5
LOSS-A INSTR. BUS
NIS TRIP BY PASS
R2136
110E053-SH.3
REF. DWG.
EAP
4A2
1/44K-X
1/43K-X
1/42K-X
1/41K-X
3GA-X
35AX
31B-X
4A1
35A-X
32B-X
32B-X
3GA-X
1/41K-X
1/42K-X
1/43K-X
1/44K-X
UV-A
TB1-6
TB1-7
NOTE
NC - JUMPER TERM. 1 & 2 ON ANN. DROP
NO - JUMPER TERM. 1 & 3 ON ANN. DROP
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-383
REV.
ORGINAL
DRAWN BY
CK'D
RESP ENGR
ENGR MGR
DATE
DH
Rpw 1-7-77
WRB 1-11-77
RES
1-11-77
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 109053383
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL E
DRAWN
TRACED
CHECKED
ENGR.
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.



NOTE
NC - JUMPER TERM. 1 & 2 ON ANN. DROP
NO - JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERSEDES W2 DWG. 4998425 SH. 384

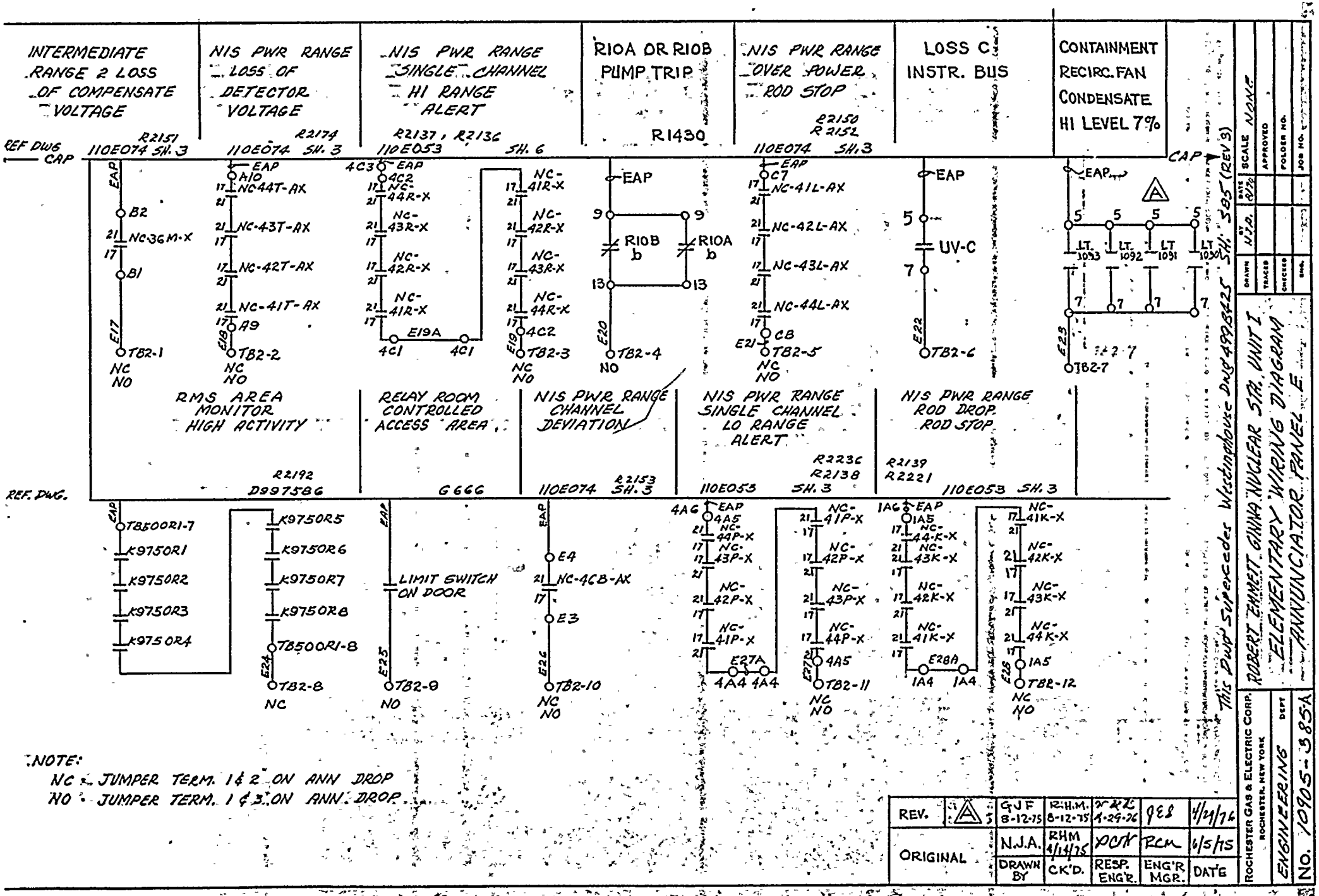
REV.						
ORIGINAL	DWN BY	CK'D	RESP ENG	ENG MGR	DATE
	AWH	RMW	RHT	JES	4/30/76

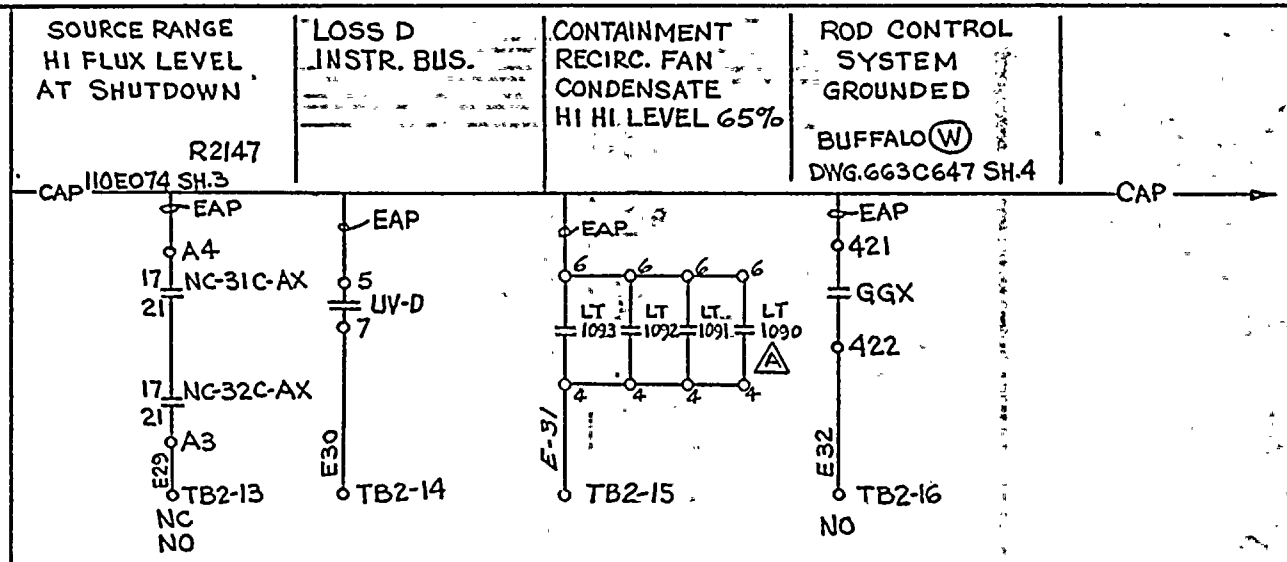
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL E

DRAWN | TRACED | CHECKED | ENG.
BY | DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.

No. 10905-384


INTERMEDIATE RANGE 2 LOSS OF COMPENSATE VOLTAGE
NIS PWR RANGE LOSS OF DETECTOR VOLTAGE
NIS PWR RANGE SINGLE CHANNEL HI RANGE ALERT
R10A OR R10B PUMP TRIP
R1430
NIS PWR RANGE OVER POWER ROD STOP
LOSS C INSTR. BUS
CONTAINMENT RECIRC. FAN CONDENSATE HI LEVEL 7%
REF DWG
CAP
R2151
110E074 SH. 3
R2174
110E074 SH. 3
R2137, R2136
110E053 SH. 6
R2150
R2152
110E074 SH. 3
EAP
B2
NC-36M-X
B1
E17
TB2-1
NC
NO
A10
NC-44T-AX
NC-43T-AX
NC-42T-AX
NC-41T-AX
A9
E18
TB2-2
4C3
4C2
NC-44R-X
NC-43R-X
NC-42R-X
NC-41R-X
E19A
4C1
4C1
NC-41R-X
NC-42R-X
NC-43R-X
NC-44R-X
4C2
E19
TB2-3
9
R10B b
13
E20
TB2-4
NO
C7
NC-41L-AX
NC-42L-AX
NC-43L-AX
NC-44L-AX
CB
E21
TB2-5
5
UV-C
7
E22
TB2-6
A
LT. 1093
LT. 1092
LT. 1091
LT. 1090
E23
TB2-7
RMS AREA MONITOR HIGH ACTIVITY
RELAY ROOM CONTROLLED ACCESS AREA
NIS PWR RANGE CHANNEL DEVIATION
NIS PWR RANGE SINGLE CHANNEL LO RANGE ALERT
NIS PWR RANGE ROD DROP ROD STOP
REF. DWG.
R2192
D997586
G666
110E074
R2153
SH. 3
110E053
R2236
R2138
SH. 3
R2139
R2221
110E053 SH. 3
TB500R1-7
K9750R1
K9750R2
K9750R3
K9750R4
K9750R5
K9750R6
K9750R7
K9750R8
TB500R1-8
E24
TB2-8
NC
LIMIT SWITCH ON DOOR
E25
TB2-9
NO
E4
NC-4CB-AX
E3
E26
TB2-10
NC
NO
4AG
4A5
NC-44P-X
NC-43P-X
NC-42P-X
NC-41P-X
E27A
4A4 4A4
NC-41P-X
NC-42P-X
NC-43P-X
NC-44P-X
4A5
E27B
TB2-11
NC
NO
1AG
1A5
NC-44K-X
NC-43K-X
NC-42K-X
NC-41K-X
E28A
1A4 1A4
NC-41K-X
NC-42K-X
NC-43K-X
NC-44K-X
1A5
E28
TB2-12
NC
NO
NOTE:
NC - JUMPER TERM. 1 & 2 ON ANN DROP
NO - JUMPER TERM. 1 & 3 ON ANN DROP
REV.
ORIGINAL
GJF 8-12-75
N.J.A.
DRAWN BY
R.H.M. 8-12-75
RHM 4/14/76
CK'D.
RESP. ENG'R.
ENG'R MGR.
DATE
4/21/76
6/5/75
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
NO. 10905-385-A
DRAWN
TRACED
CHECKED
ENG.
BY N.J.A.
DATE 6/76
APPROVED
SCALE NONE
FOLDER NO.
JOB NO.
ROBERT EMMETT GINNA NUCLEAR STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL E
This Dwg Supersedes Westinghouse Dwg 4998425 Sh. 385 (Rev 3)



NOTES:
NC - JUMPER TERM. 1 & 2 ON ANN. DROP.
NO - JUMPER TERM. 1 & 3 ON ANN. DROP.

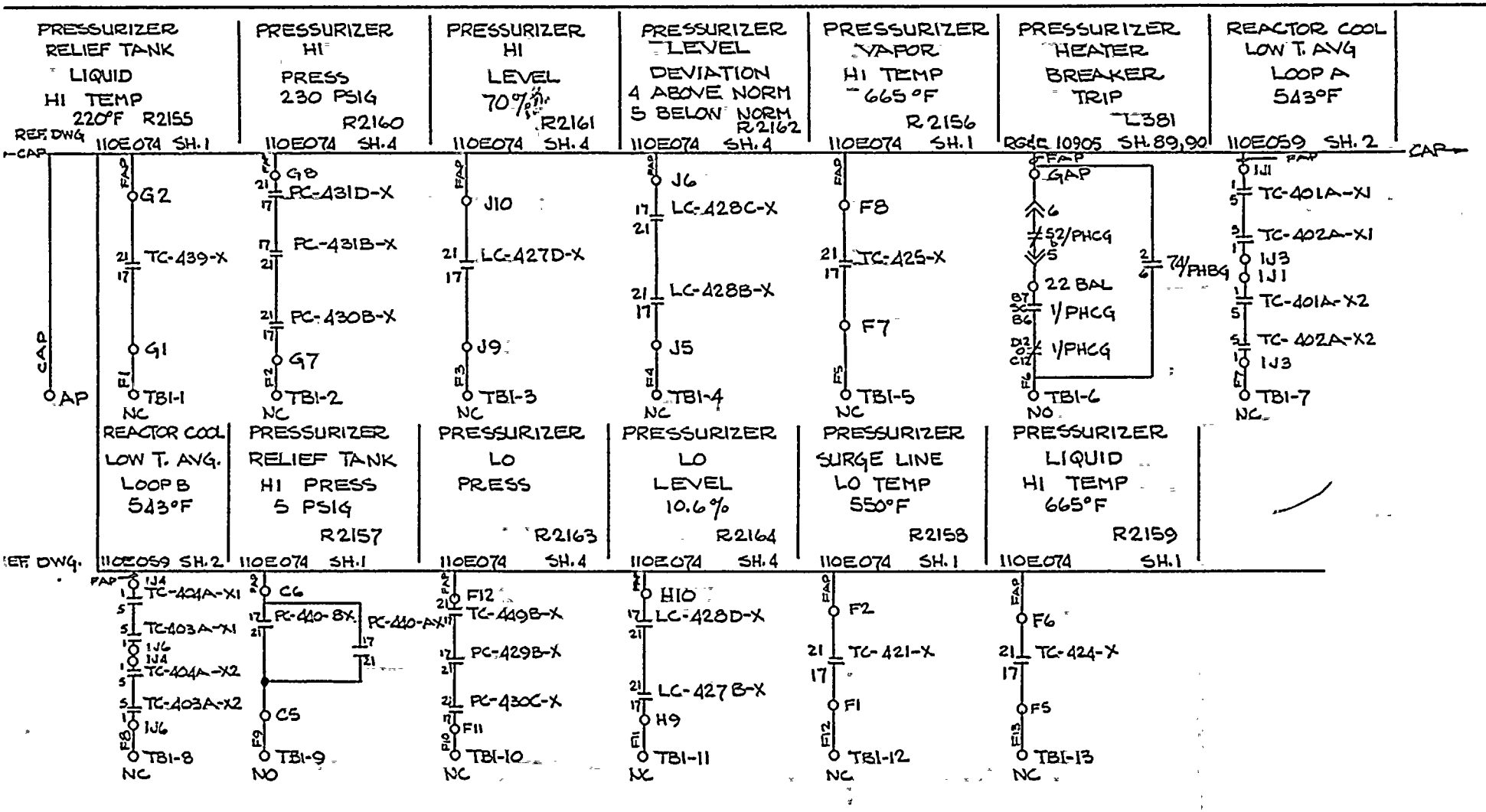
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425, SH. 386 (REV. NO. 3)

REV.		DRAWN BY	CK'D.	ENG'R. MGR.	RESP. ENG'R	DATE
ORIGINAL		George Fassinger 8/15/74	R.H.M. 4/14/75	Run	JCR 4-29-76	6/5/75
		Edward H.				11/1/76

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-386 Δ

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL "E"

DRAWN E.S.C.H. 8-23-74 | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.



NOTE

NC = JUMPER TERM. 1 & 2 ON ANN. DROP

NO = JUMPER TERM. 1 & 3 ON ANN. DROP

REV.	-					
ORIGINAL		aw	Rmw	PEG	JEA	4/30/76
		DWN BY	CK'D	RESP ENGR	ENGR MGR	DATE

THIS DWG SUPERSEDES W. DWG. 4995425 SH. 388

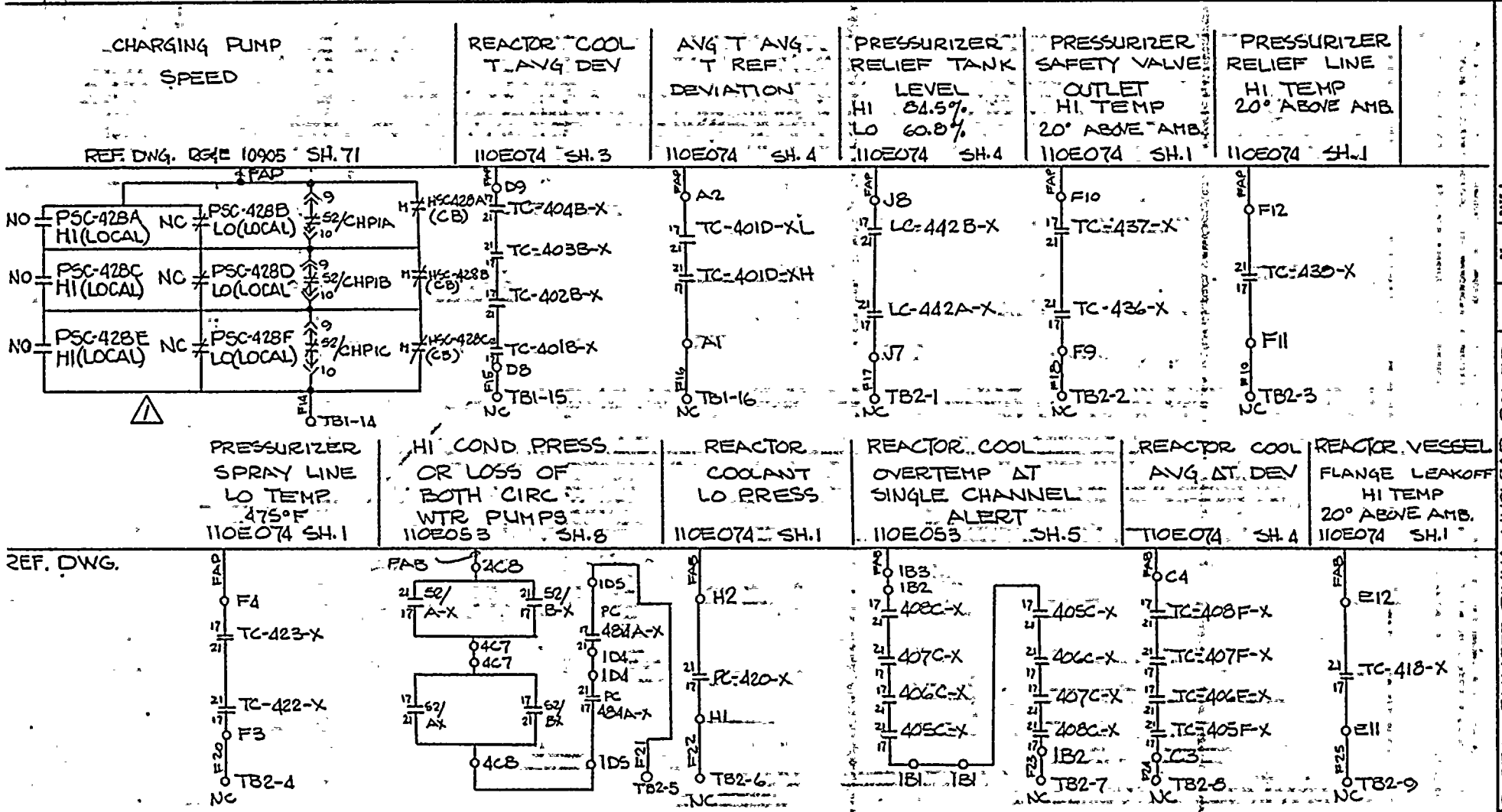
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

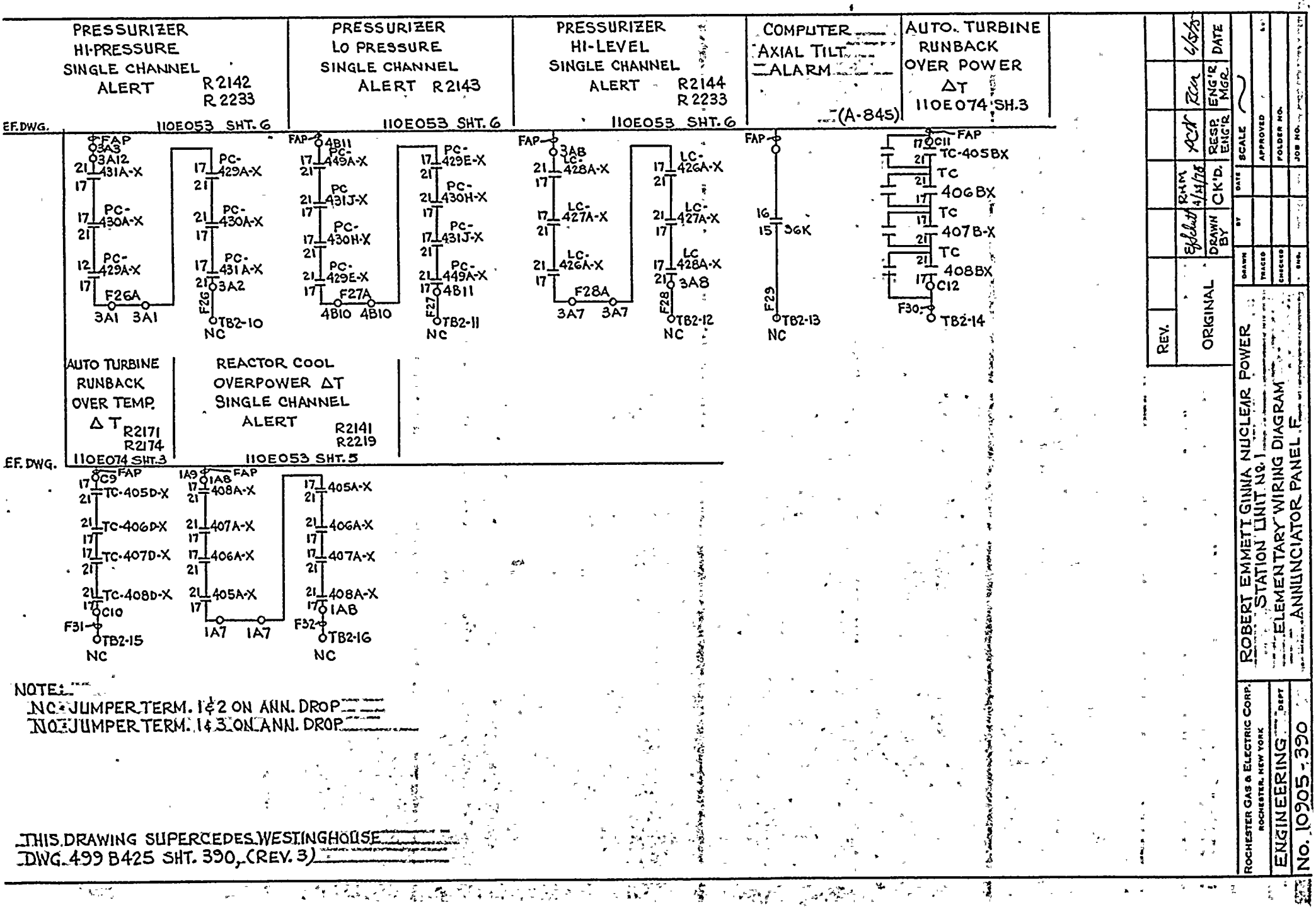
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1

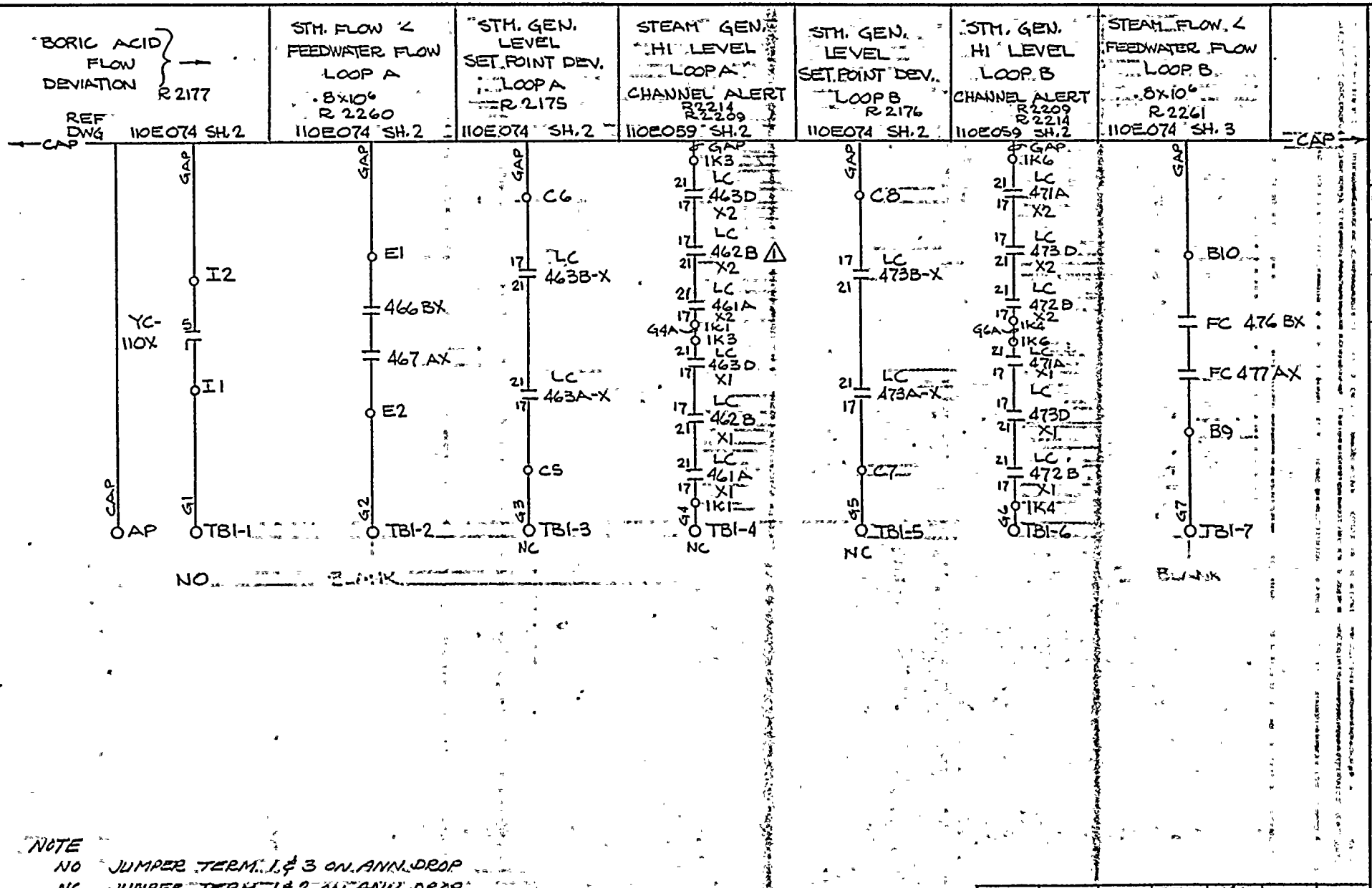
ELEMENTARY WIRING DIAGRAM ANNUNCIATOR PANEL F

DATE | BY | SCALE | APPROVED | DRAWN | TRACED | CHECKED | ENGR | FOLDER NO. | JOB NO.

No. 10905-388


CHARGING PUMP SPEED
REF. DWG. RGE 10905 SH. 71
REACTOR COOL T AVG DEV
110E074 SH. 3
AVG T AVG T REF DEVIATION
110E074 SH. 4
PRESSURIZER RELIEF TANK LEVEL HI 84.5% LO 60.8%
110E074 SH. 4
PRESSURIZER SAFETY VALVE OUTLET HI TEMP 20° ABOVE AMB
110E074 SH. 1
PRESSURIZER RELIEF LINE HI TEMP 20° ABOVE AMB
110E074 SH. 1
FAP
NO PSC-428A HI(LOCAL) NC PSC-428B LO(LOCAL) 52/CHPIA
NO PSC-428C HI(LOCAL) NC PSC-428D LO(LOCAL) 52/CHPIB
NO PSC-428E HI(LOCAL) NC PSC-428F LO(LOCAL) 52/CHPIC
TB1-14
TC-404B-X
TC-403B-X
TC-402B-X
TC-401B-X
TB1-15
TC-401D-XL
TC-401D-XH
TB1-16
LC-442B-X
LC-442A-X
TB2-1
TC-437-X
TC-436-X
TB2-2
TC-430-X
TB2-3
PRESSURIZER SPRAY LINE LO TEMP 475°F
110E074 SH. 1
HI COND PRESS OR LOSS OF BOTH CIRC WTR PUMPS
110E053 SH. 8
REACTOR COOLANT LO PRESS
110E074 SH. 1
REACTOR COOL OVERTEMP ΔT SINGLE CHANNEL ALERT
110E053 SH. 5
REACTOR COOL AVG ΔT DEV
110E074 SH. 4
REACTOR VESSEL FLANGE LEAKOFF HI TEMP 20° ABOVE AMB.
110E074 SH. 1
REF. DWG.
TC-423-X
TC-422-X
TB2-4
52/A-X
52/B-X
52/AX
52/BX
PC 484A-X
PC-420-X
TB2-5
TB2-6
408C-X
407C-X
406C-X
405C-X
TB2-7
TC-408F-X
TC-407F-X
TC-406E-X
TC-405F-X
TB2-8
TC-418-X
TB2-9
NOTE
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP
EWR 1859
REV. 1 JF RWW 5/6/77 RCA 5/9/77 RCL 5/9/77
ORIGINAL AO RWW RCA JEA 4/30/76
DWN BY CK'D RESP ENG ENG MGR DATE
THIS DWG. SUPERSEDES W DWG. 499B425 SH. 389
ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM ANNUNCIATOR PANEL F
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT
SCALE
APPROVED
FOLDER NO.
JOB NO.
DRAWN BY DATE
TRACED
CHECKED
ENG.
No. 10905-389 1


PRESSURIZER HI-PRESSURE SINGLE CHANNEL ALERT R2142 R2233
EF.DWG. 110E053 SHT. 6
FAP
3A3
3A12
21 431A-X 17
17 PC-430A-X 21
12 PC-429A-X 17
F26A
3A1 3A1
17 PC-429A-X 21
21 PC-430A-X 17
17 PC-431A-X 21
3A2
F26
TB2-10
NC
PRESSURIZER LO PRESSURE SINGLE CHANNEL ALERT R2143
EF.DWG. 110E053 SHT. 6
FAP
4B11
17 PC-449A-X 21
21 PC 431J-X 17
17 PC-430H-X 21
21 PC-429E-X 17
F27A
4B10 4B10
17 PC-429E-X 21
21 PC-430H-X 17
17 PC-431J-X 21
21 PC-449A-X 17
4B11
F27
TB2-11
NC
PRESSURIZER HI-LEVEL SINGLE CHANNEL ALERT R2144 R2233
EF.DWG. 110E053 SHT. 6
FAP
3AB
21 LC-428A-X 17
17 LC-427A-X 21
21 LC-426A-X 17
F28A
3A7 3A7
17 LC-426A-X 21
21 LC-427A-X 17
17 LC-428A-X 21
3A8
F28
TB2-12
NC
COMPUTER AXIAL TILT ALARM (A-845)
FAP
16 15 3GK
F29
TB2-13
NC
AUTO. TURBINE RUNBACK OVER POWER ΔT 110E074 SH.3
FAP
17 C11
21 TC-405BX 21
TC 406BX 17
TC 407B-X 21
TC 408BX 17
C12
F30
TB2-14
AUTO TURBINE RUNBACK OVER TEMP. ΔT R2171 R2174
EF.DWG. 110E074 SHT.3
REACTOR COOL OVERPOWER ΔT SINGLE CHANNEL ALERT R2141 R2219
EF.DWG. 110E053 SHT. 5
FAP
17 C9
21 TC-405D-X 21
21 TC-406D-X 17
17 TC-407D-X 21
21 TC-408D-X 17
C10
F31
TB2-15
NC
FAP
1A9 1A8
17 408A-X 21
21 407A-X 17
17 406A-X 21
21 405A-X 17
1A7 1A7
17 405A-X 21
21 406A-X 17
17 407A-X 21
21 408A-X 17
1AB
F32
TB2-16
NC
NOTE:
NO JUMPER TERM. 1 & 2 ON ANN. DROP
NO JUMPER TERM. 1 & 3 ON ANN. DROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499 B425 SHT. 390, (REV. 3)
REV.
ORIGINAL
DRAWN BY Eglish
CK'D. R.H.M. 4/15/76
RESP. ENG'R. JCR
ENG'R MGR. Zan
DATE 4/5/76
DRAWN BY DATE
TRACED BY
CHECKED
ENG. BY
SCALE
APPROVED BY
FOLDER NO.
JOB NO.
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL F
No. 10905-390



NOTE
NO JUMPER TERM. 1 & 3 ON ANN. DROP
NC JUMPER TERM. 1 & 2 ON ANN. DROP

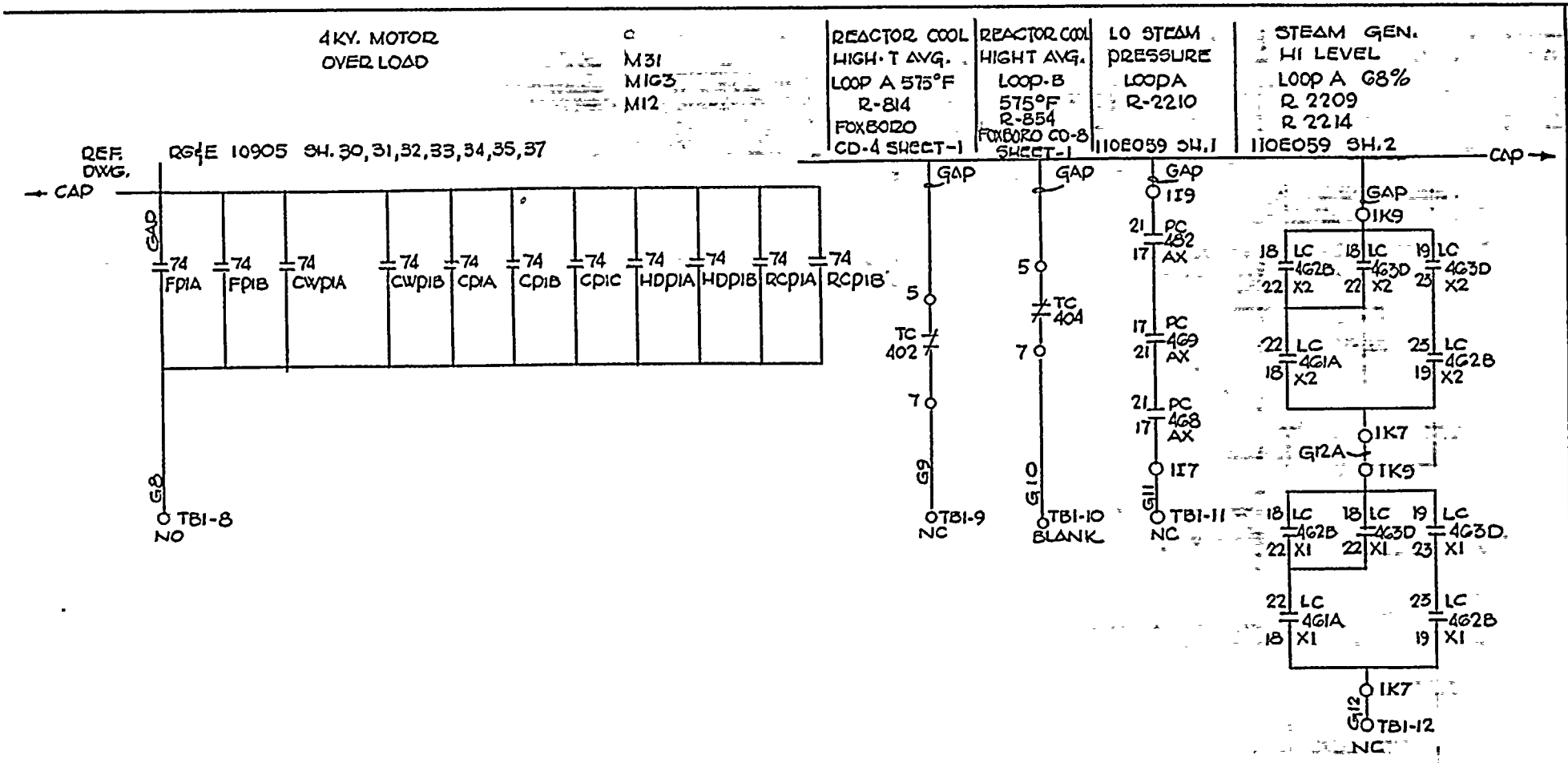
THIS DWG. SUPERSEDES W DWG. 4998485 SH. 392

REV.						
	1	RJW 7/6/76	DFH 7-9-76	KEO 7-9-76	JEJ	7/9/76
ORIGINAL		AV	RJW	RJG	JEJ	4/30/76
		DWN BY	CK'D	RESP. ENG.	ENG. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGINEERING
NO. 10005-392 Δ

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL G

DRAWN	BY	DATE	SCALE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTES:
NC = JUMPER TERM 1&2 ON ANN. DROP
NO = JUMPER TERM 1&3 ON ANN. DROP

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. 499B425, SH.393

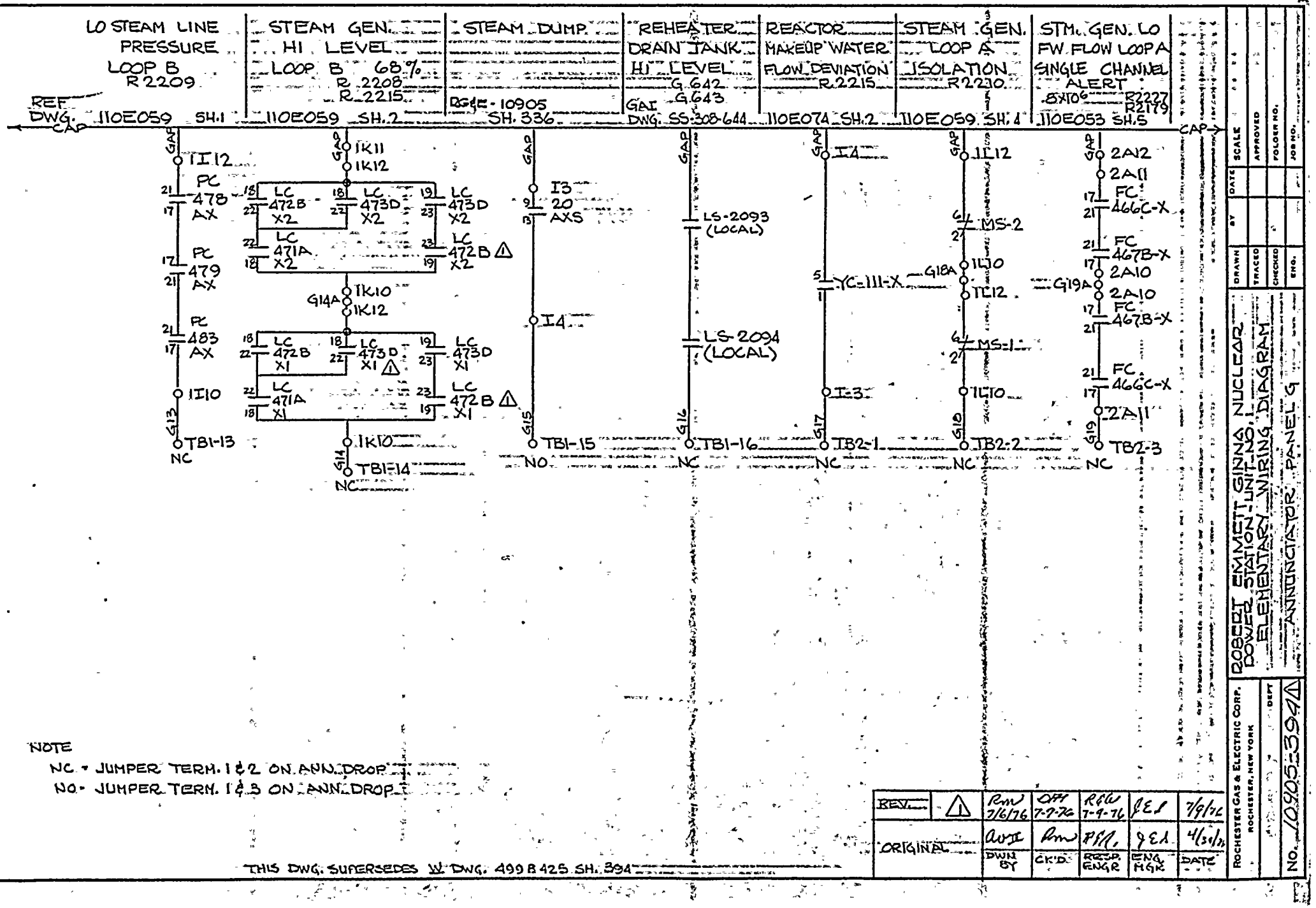
REV.						
ORIGINAL	D.W.	[illegible] 5/4/72	R.E.G.	J.E.A.	5/6/72
	drawn by	ck'd	resp. engr.	engr Mang.	date

DATE | SCALE | DWN. | APPROVED | DRAWN | TRACED | CHECKED | FOLDER NO. | JOB NO.

ROBERT EMMETT GINNA NUCLEAR
POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATION PANEL-G

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT

No. 10905-393



NOTE

NC - JUMPER TERM. 1 & 2 ON ANN. DROP

NO - JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERSEDES W DWG. 499 B 425 SH. 394

REV.						
	⚠	RMW 7/16/76	OFF 7-9-76	R&W 7-9-76	JEL	7/9/76
ORIGINAL		AWL	RMW	PFM	JEL	4/30/76
		DWN BY	CK'D	RESP. ENGR	ENG. MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1

ELEMENTARY WIRING DIAGRAM

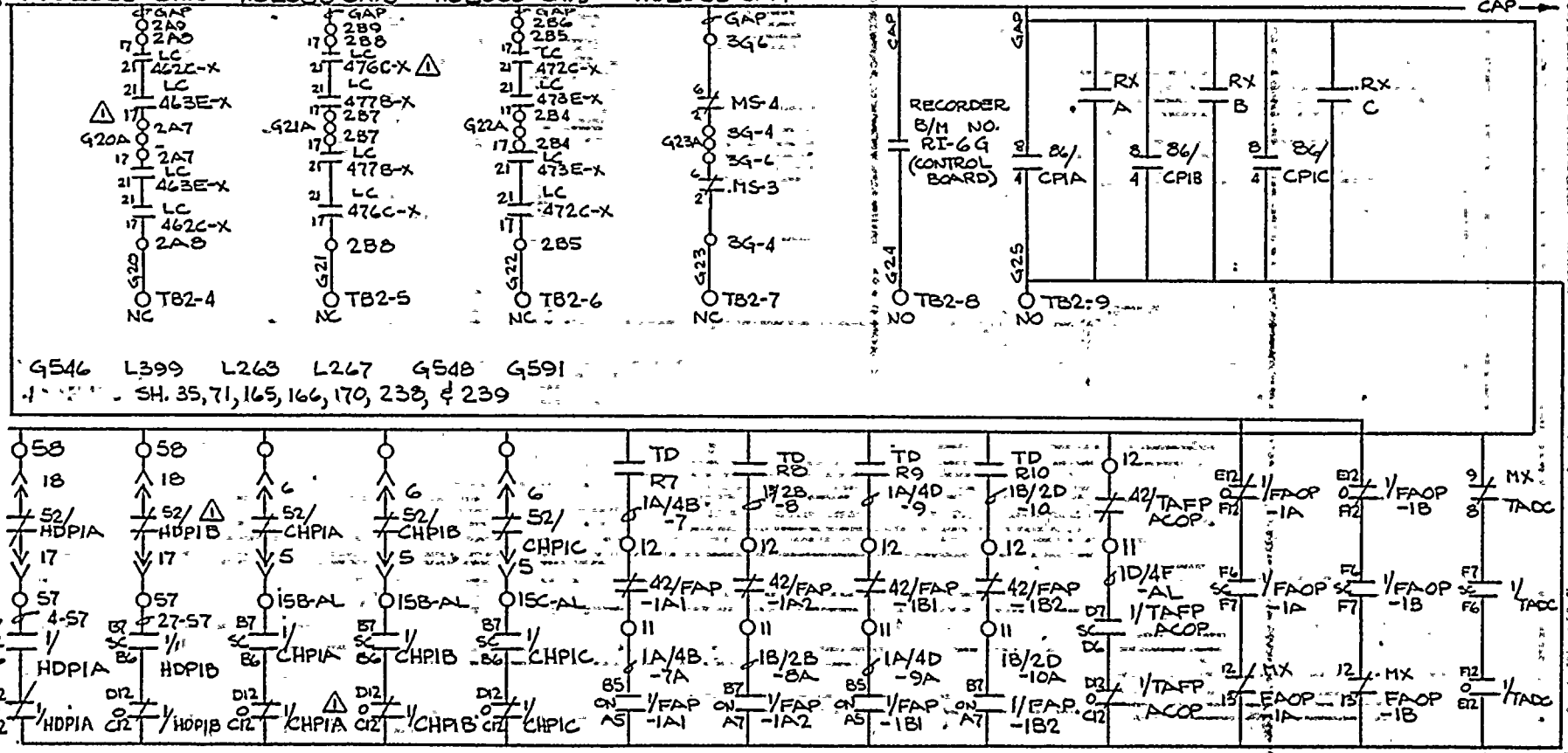
ANNUNCIATOR PANEL 9

DRAWN | DATE | BY | SCALE | APPROVED | TRACED | FOLDER NO. | CHECKED | JOB NO. | ENG.

NO. 10905E394 ⚠

M.M.S. 10 5135-

R2224, R2180	STEAM GEN. LO LEVEL LOOP A	STM. GEN. LO FW FLOW LOOP B	STEAM GEN LO LEVEL LOOP B	STM GEN LOOP B ISOLATION R2213 R2211	pH RECORDER	MOTOR OFF
REF DWG	CHANNEL ALERT R2276 R2201	SINGLE CHANNEL ALERT	CHANNEL ALERT R2226 R2182			[ALL PUMPS ON CENTER SECTION EXCEPT FPIA, 1B, AND MAFPIA, 1B] M48 M163 M31 M163, RGE 10905 SH. 32, 33 & 34
CAP	8X10 110E053 SH.5	110E053 SH.5	110E053 SH.5	110E053 SH.4		CAP



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

REV.	DWN BY	CK'D	RESP. ENGR	ENGR MGR	DATE
1	RMW 7-6-76	DFH 7-9-76	RGU. 7-9-76	QEA	7/9/76
ORIGINAL	AWH	RMW	RFA.	QEA	11/30/71

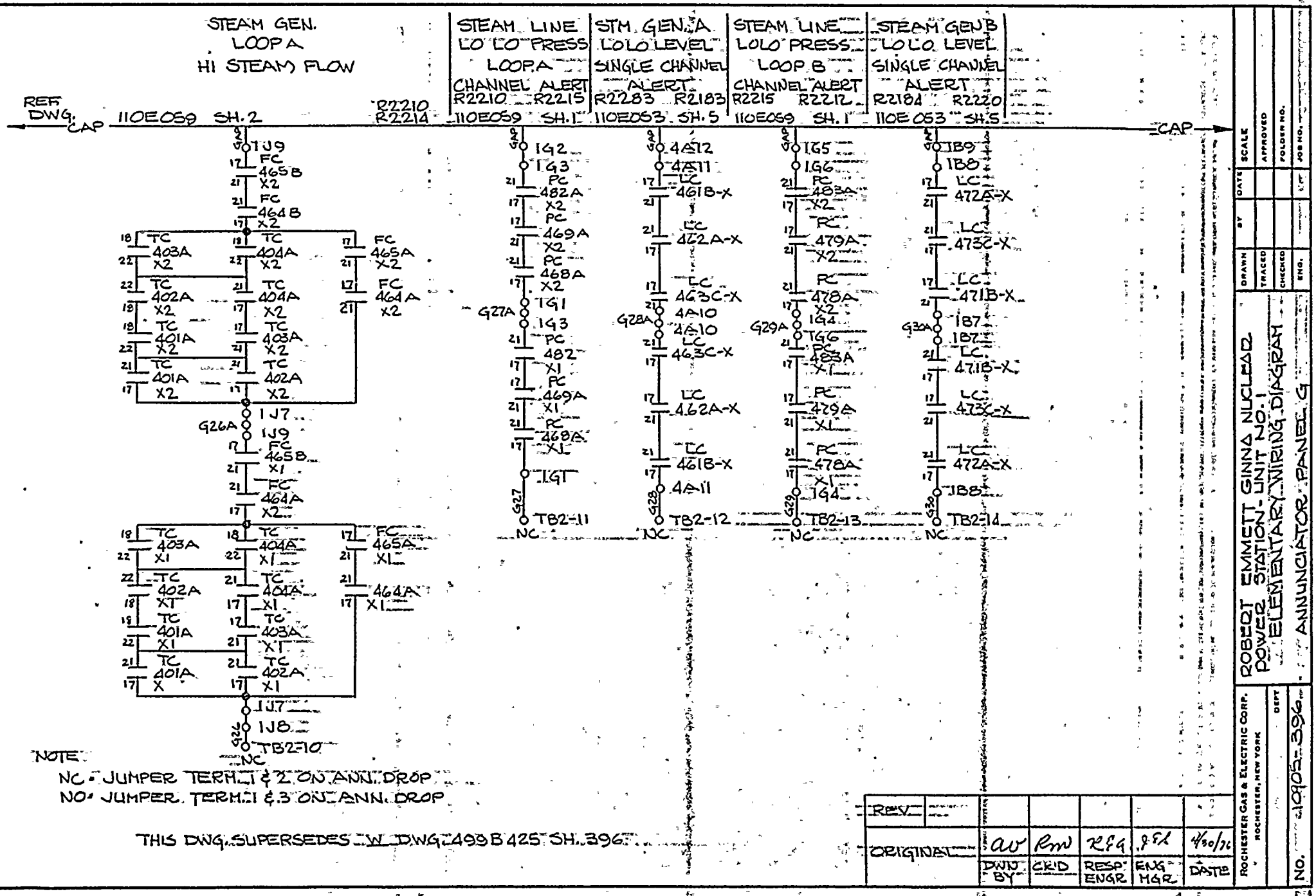
THIS DWG. SUPERSEDES W. DWG. 4998 425 SH. 395

ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO.1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL G

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

DRAWN | TRACED | CHECKED | ENG. | BY | DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.

No. 10905-395 1



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERSEDES W DWG. 499B425 SH. 396

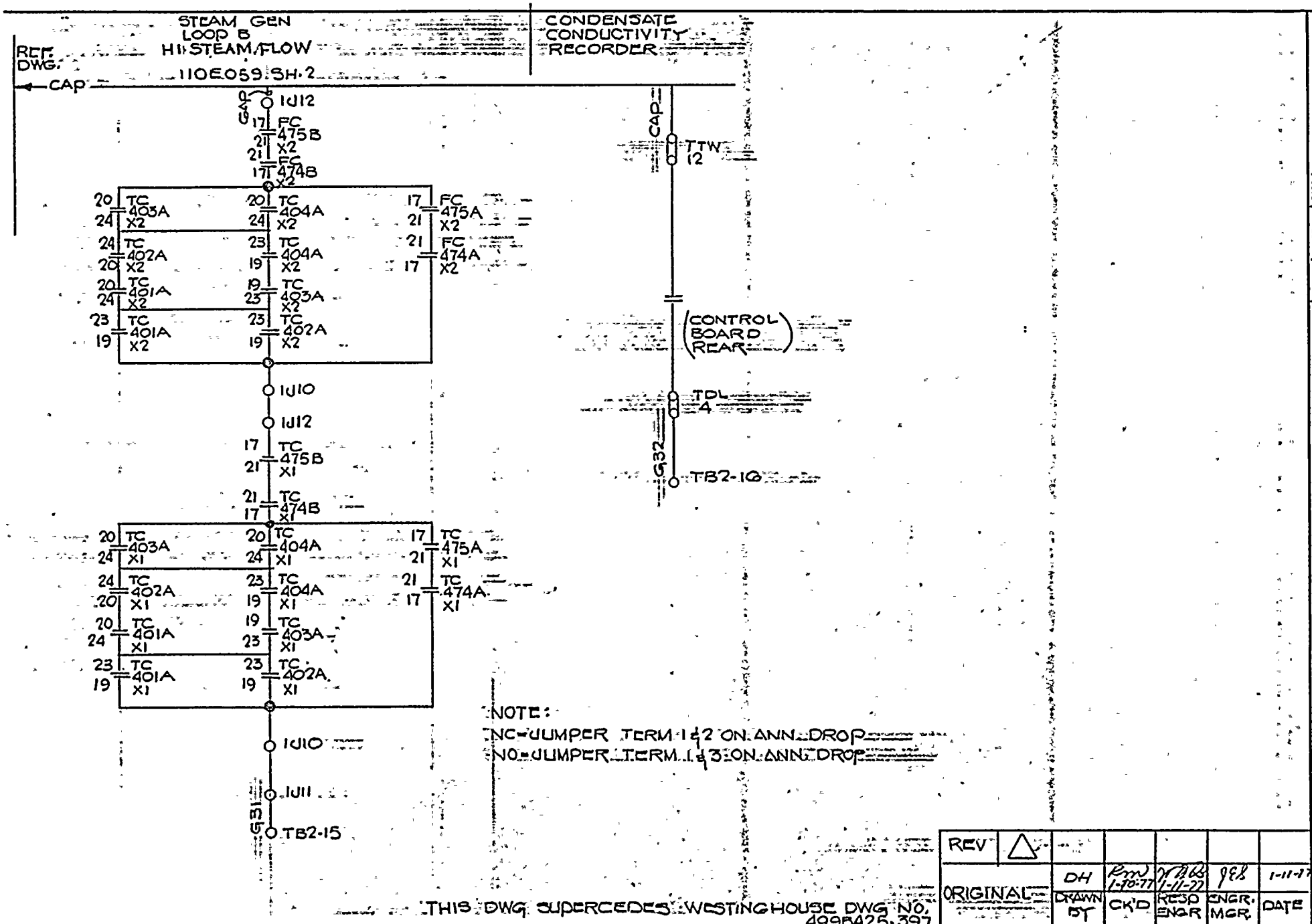
REV						
ORIGINAL	AV	RMW	RFG	JFL	4/30/76
	DWN BY	CKD	RESP ENGR	ENG MGR	DATE

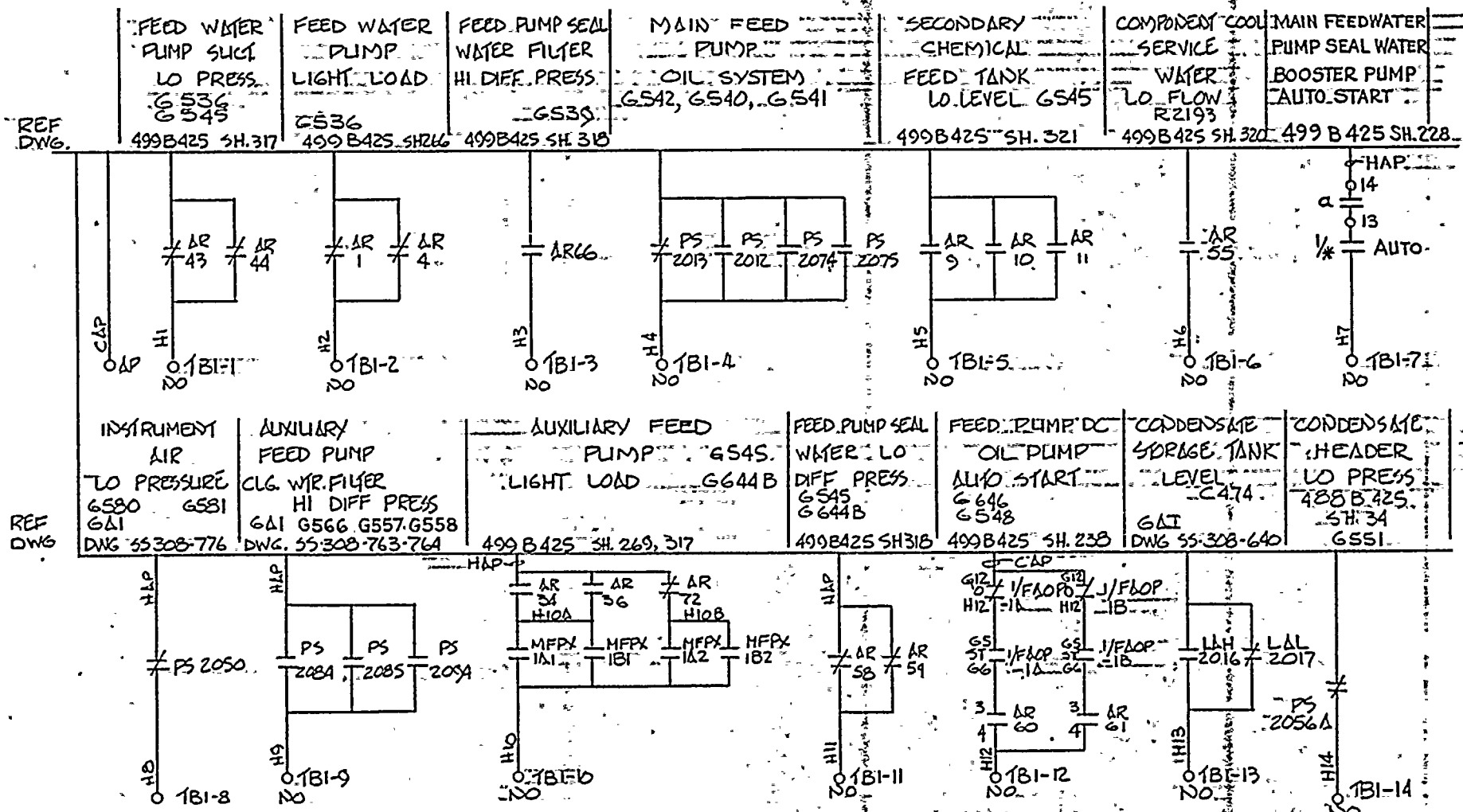
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL G

DRAWN | DATE | SCALE
TRACED | BY | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

NO. 10905-396


STEAM GEN LOOP B HI STEAM FLOW
CONDENSATE CONDUCTIVITY RECORDER
REF. DWG. 110E059 SH. 2
CAP
GAP
1J12
17 FC 475B 21 X2
21 FC 474B 17 X2
20 TC 403A 24 X2
20 TC 404A 24 X2
17 FC 475A 21 X2
24 TC 402A 20 X2
23 TC 404A 19 X2
21 FC 474A 17 X2
20 TC 401A 24 X2
19 TC 403A 23 X2
23 TC 401A 19 X2
23 TC 402A 19 X2
1J10
1J12
17 TC 475B 21 X1
21 TC 474B 17 X1
20 TC 403A 24 X1
20 TC 404A 24 X1
17 TC 475A 21 X1
24 TC 402A 20 X1
23 TC 404A 19 X1
21 TC 474A 17 X1
20 TC 401A 24 X1
19 TC 403A 23 X1
23 TC 401A 19 X1
23 TC 402A 19 X1
1J10
1J11
G31
TB2-15
CAP
TTW 12
(CONTROL BOARD REAR)
TDL 4
G32
TB2-16
NOTE:
NC-JUMPER TERM 1 & 2 ON ANN. DROP
NO-JUMPER TERM 1 & 3 ON ANN. DROP
THIS DWG SUPERCEDES WESTINGHOUSE DWG NO. 4998425-397
REV
ORIGINAL
DH
DRAWN BY
RMW 1-10-77
CK'D
WRB 1-11-77
RESP ENGR
JES
ENGR. MGR.
1-11-77
DATE
DRAWN
TRACED
CHECKED
ENGR.
BY
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.
ROBERT EMMETT GINNA NUCLEAR POWER—STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL G
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-397



NOTES

1. JUMPER TERM 1&2 ON AND. DROP
2. JUMPER TERM 1&3 ON AND. DROP

THIS DWG SUPERSEDES 499 B425 SH 399 REV. 5 (W) DWG

REV.						
ORIGINAL	A.V.	RHM 6/11/75	PCR	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R	ENGR MGR	DATE

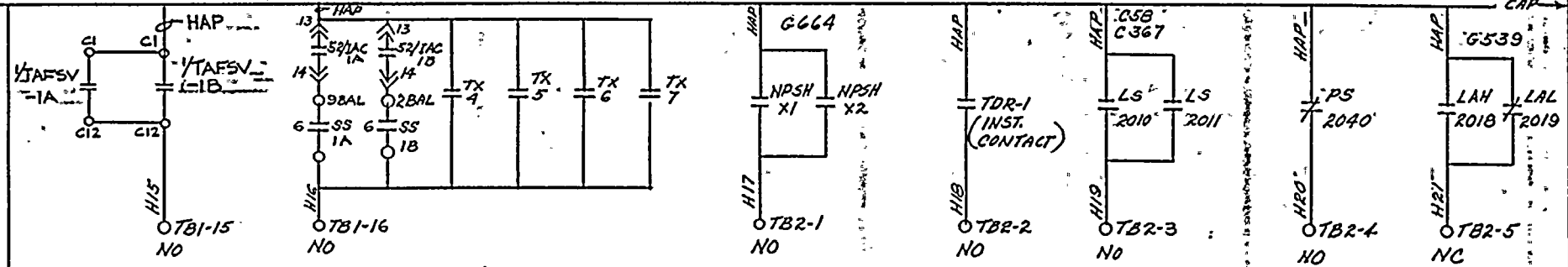
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING

R.E. GINNA NUCLEAR POWER STA. UNIT I
ELEMENTARY WIRING DIAGRAM ANNUNCIATOR PANEL-H

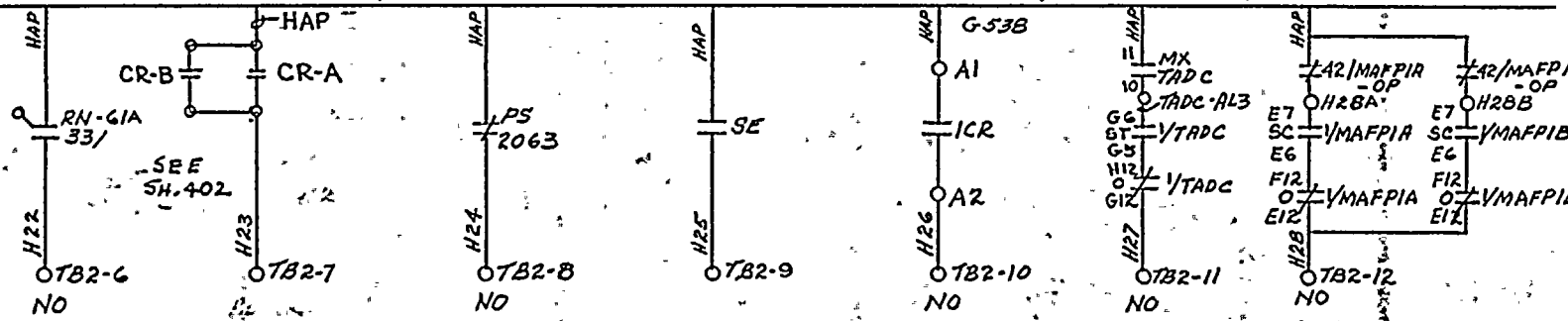
DRAWN | TRACED | CHECKED | ENGR. | APPROVED | SCALE NONE | DATE 6/72 | BY | FOLDER NO. | JOB NO. | NO. 11905-399

TAFSV 1A 1B BLOCKED CLOSED	INSTRUMENT AIR COMP	FEED PUMP NET POSITIVE SUCTION HEAD	HEATER DRAIN PUMP RECIRC. VALVE OPEN	FEED PUMP SEAL DRAIN TANK HI LEVEL	TURBINE DRIVE FEED PUMP LO OIL PRESS.	CONDENSER HOTWELL LEVEL
	RG&E 10905 SH. 83 L 21 LIC1	TAYLOR INSTR. SK. 60984W	G539 499B425 SH 317	G.A.I. G544 DWG. 55-380-640	GAI E195 E196 DWG 55-380-761	GAI G590, G562 DWG 55-308-640 499B425 SH 317

REF. DWG. CAP



CONDENSATE HI TEMP	CONTAINMENT RECOMBINER URGENT FAILURE B7	STATION SERVICE AIR LO. PRESS. G582, G583 GAI DWG 55-308-762	ANNUNCIATOR NORMAL SUPPLY OFF	INSTRUMENT AIR DRYER TRANSFER FAILURE PALL-TRINITY DWG. C3418-16RS	TURBINE DRVN. FP DC OIL PUMP AUTO START E195 499B425 SH. 239	MOTOR DRVN. AUX. FEED PUMP OIL PUMP OFF C587, C591 499B425 SH. 169
REF DWG GAI B/M NO RN-61A			RG&E 10905-431			



NOTE:
NC = JUMPER TERM. 1&2 ON ANN. DROP
NO = JUMPER TERM. 1&3 ON ANN DROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499 B425, SHT. 400, (REV. 3)

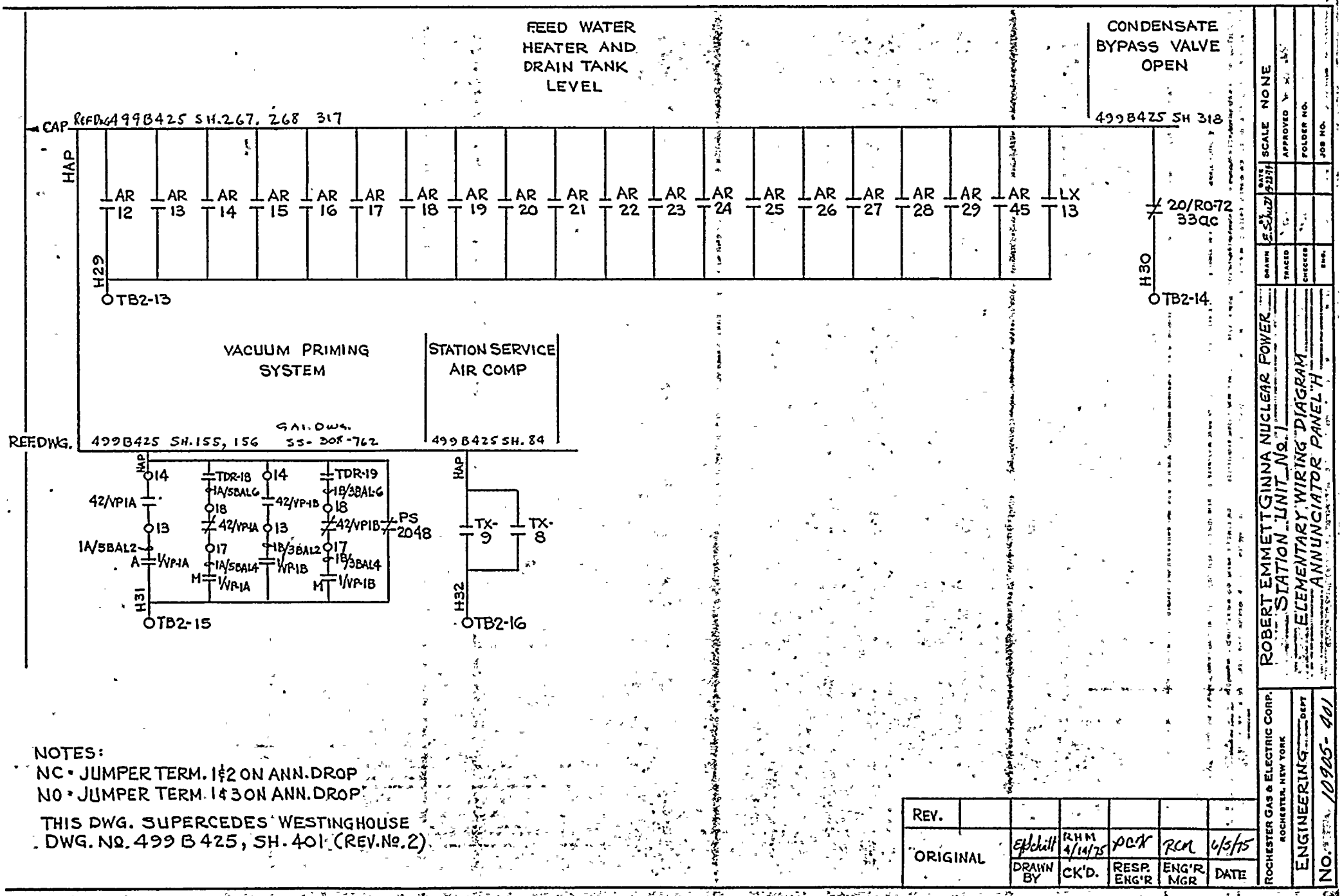
REV.	⚠					
ORIGINAL		N.J.A.	RHM 8/5/76	RCW 8-10-76	REL	8/10/76
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT ENGINEERING

ROBERT EMMETT GINNA NUCLEAR STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL "H"

DRAWN N.J.A. DATE 8/76 | TRACED | CHECKED | ENG'R | SCALE NONE | APPROVED | FOLDER NO. | JOB NO.

NO. 10905-400



NOTES:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499 B 425, SH. 401 (REV. NO. 2)

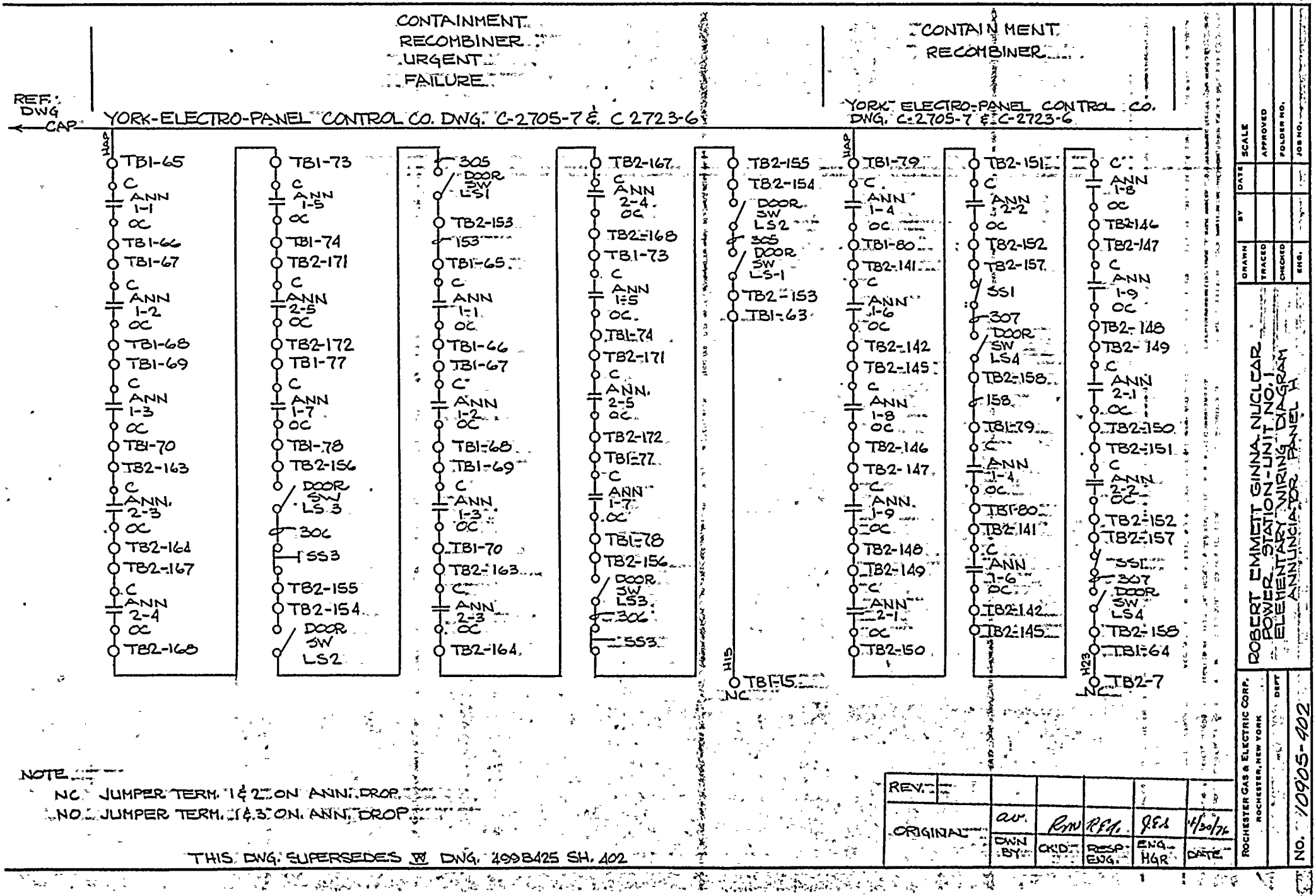
REV.						
ORIGINAL		Epschill	RHM 4/14/75	PCR	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10925-401

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL "H"

DRAWN E. Schultz 4-23-71 | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

H.H.S. 10 5151



NOTE:
NC JUMPER TERM. 1 & 2 ON ANN. DROP.
NO JUMPER TERM. 1 & 3 ON ANN. DROP.

THIS DWG. SUPERSEDES W DWG. 499B425 SH. 402

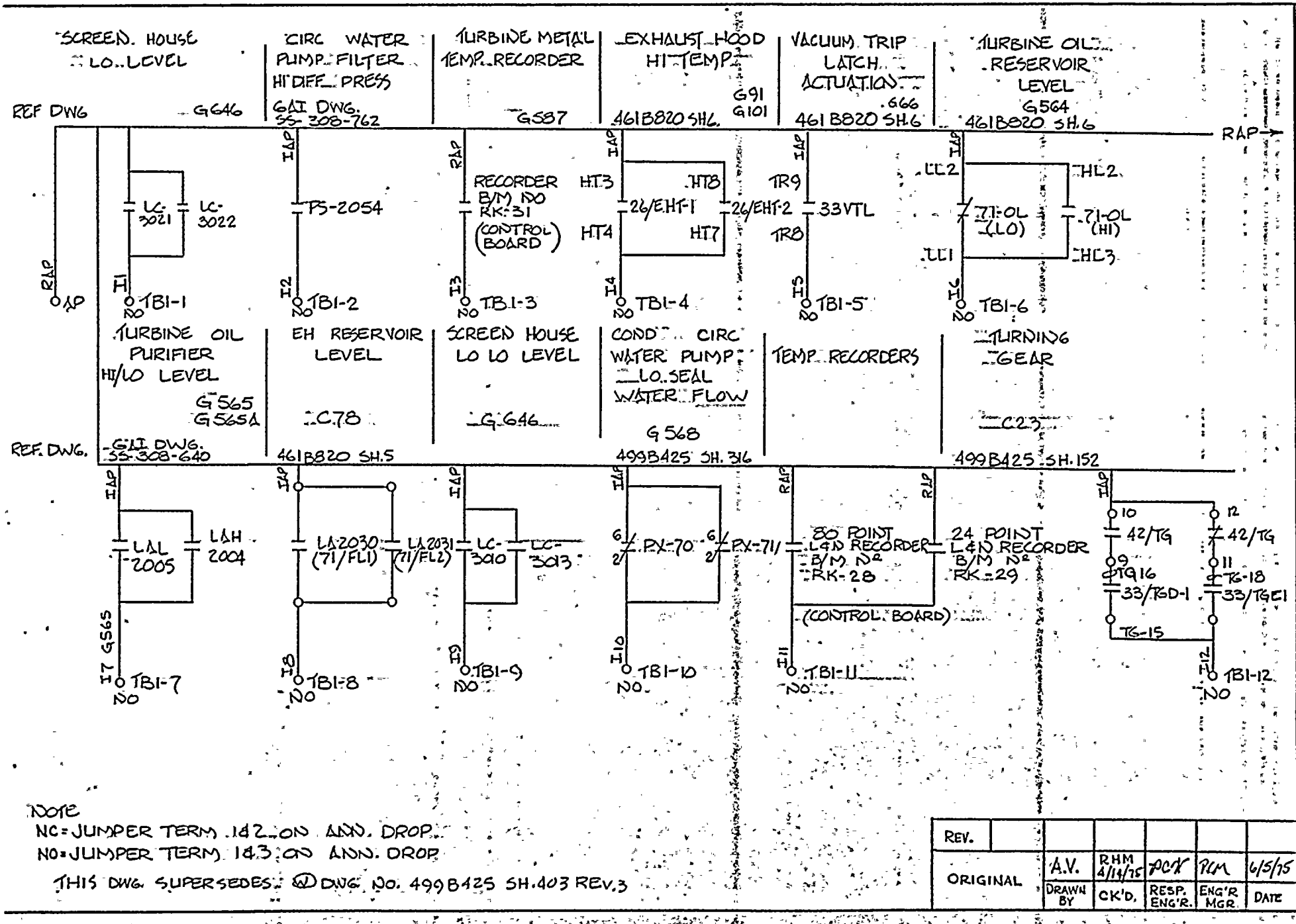
REV.						
ORIGINAL		a.v.	R.W.	R.E.L.	J.E.S.	4/30/74
		DWN BY	CKD.	RESP. ENG.	ENG. MGR.	DATE

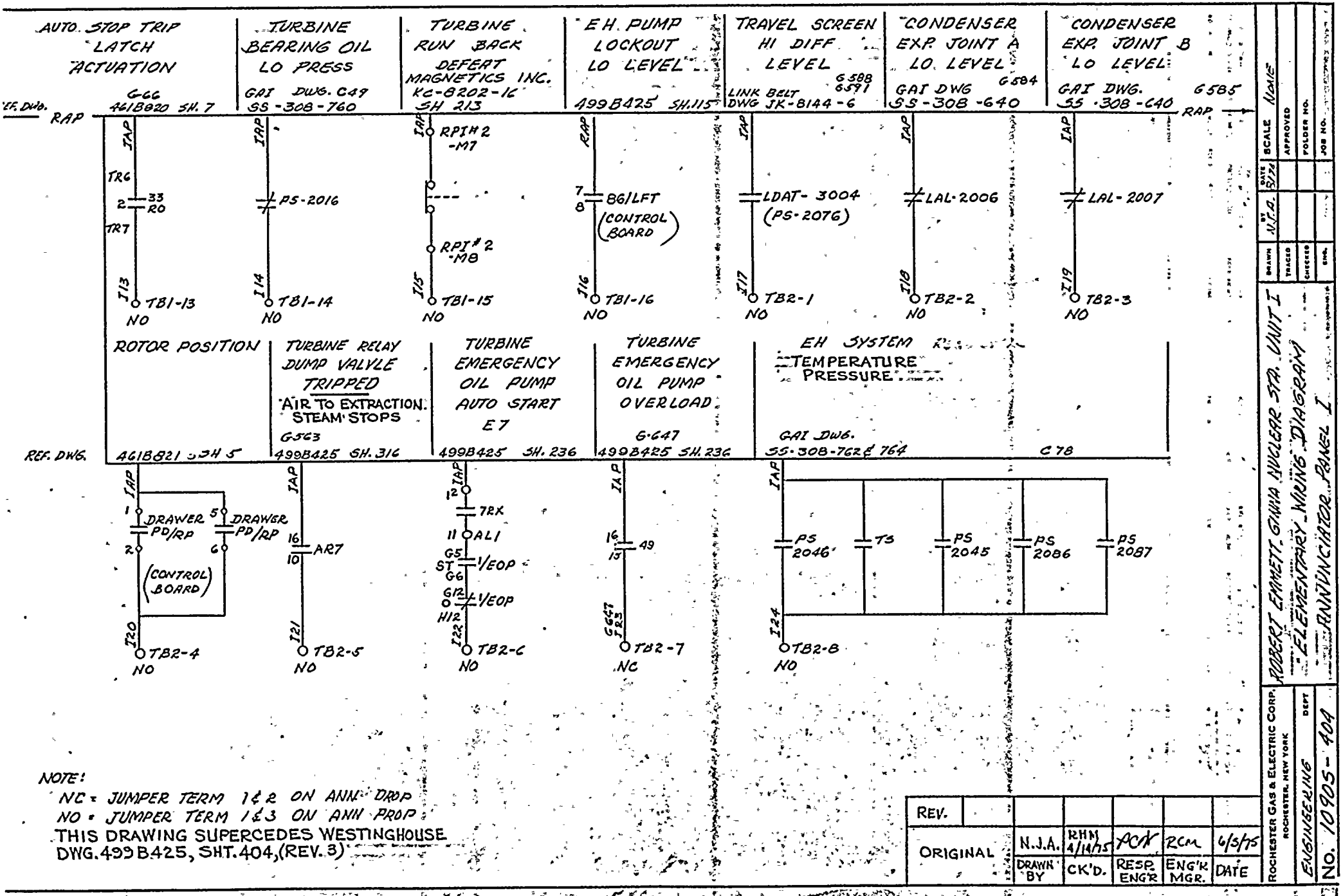
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

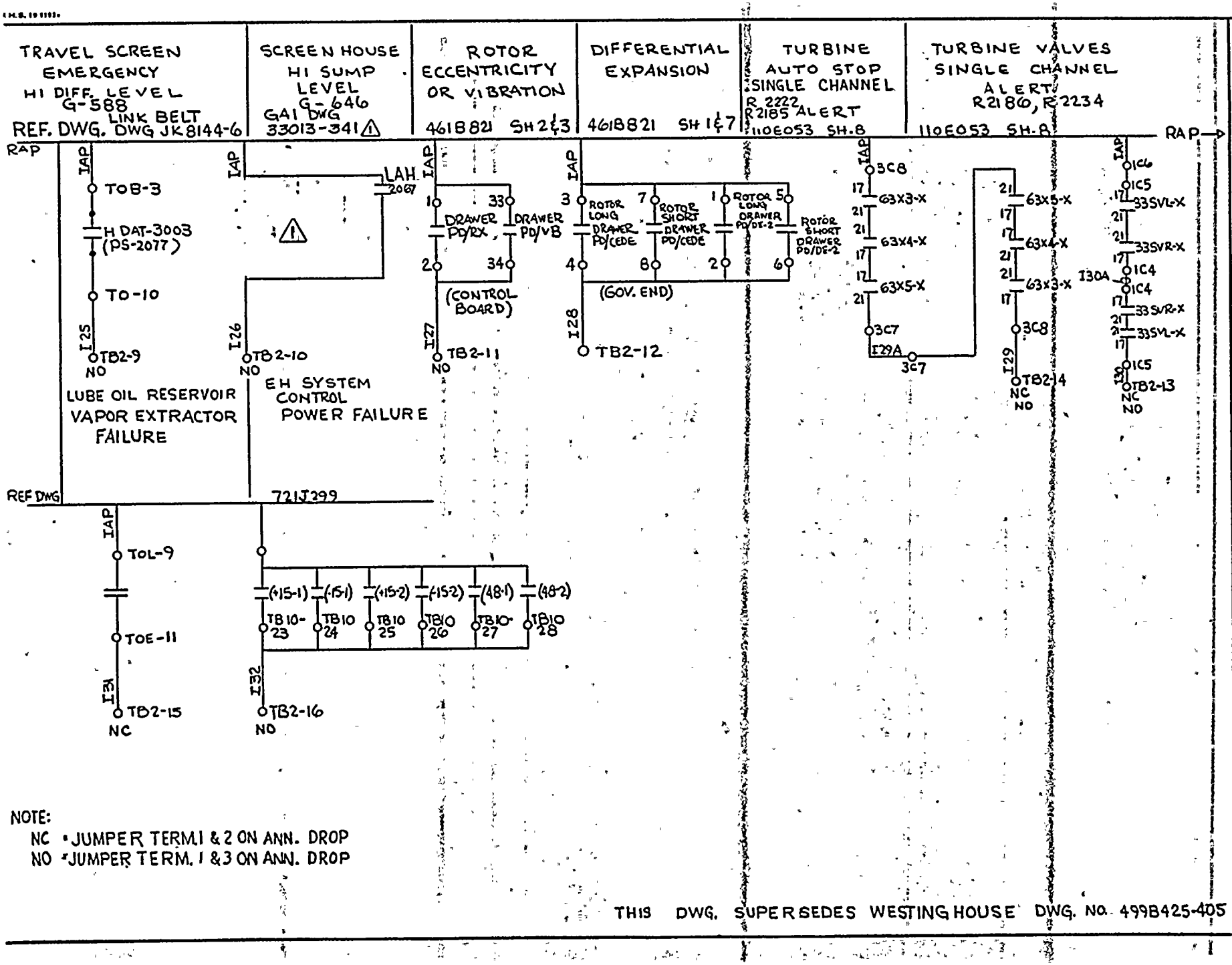
ROBERT EMMETT GINNA NUCLEAR POWER STATION-UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL H

DRAWN | TRACED | CHECKED | ENG. | BY | DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.

NO. 1099S-402


SCREEN HOUSE LO LEVEL
REF DWG G646
LC-3021
LC-3022
TBI-1
CIRC WATER PUMP FILTER HI DIFF PRESS
G&I DWG. 55-308-762
PS-2054
TBI-2
TURBINE METAL TEMP RECORDER
G587
RECORDER B/M NO RK-31 (CONTROL BOARD)
TBI-3
EXHAUST HOOD HI TEMP
461B820 SH.6
G91
G101
HT3
HT8
HT4
HT7
26/EHT-1
26/EHT-2
TBI-4
VACUUM TRIP LATCH ACTUATION
.666
461B820 SH.6
TR9
TR8
33VTL
TBI-5
TURBINE OIL RESERVOIR LEVEL
G564
461B820 SH.6
RAP
LL2
LL1
71-OL (LO)
71-OL (HI)
HL2
HL3
TBI-6
TURBINE OIL PURIFIER HI/LO LEVEL
G565
G565A
REF. DWG. G&I DWG. 55-308-640
LAL 2005
LAH 2004
I7 G565
TBI-7
EH RESERVOIR LEVEL
C78
461B820 SH.5
LA-2030 (71/FL1)
LA-2031 (71/FL2)
TBI-8
SCREEN HOUSE LO LO LEVEL
G646
LC-3010
LC-3013
TBI-9
COND CIRC WATER PUMP LO SEAL WATER FLOW
G568
499B425 SH. 316
PX-70
PX-71
TBI-10
TEMP RECORDERS
80 POINT L&D RECORDER B/M NO RK-28
24 POINT L&D RECORDER B/M NO RK-29
(CONTROL BOARD)
TBI-11
TURNING GEAR
C23
499B425 SH.152
42/TG
TG16
33/TGD-1
TG-15
TG-18
33/TGE1
TBI-12
NOTE
NC=JUMPER TERM 1&2 ON ANN. DROP
NO=JUMPER TERM 1&3 ON ANN. DROP
THIS DWG SUPERSEDES DWG NO. 499B425 SH.403 REV.3
REV.
ORIGINAL
A.V.
DRAWN BY
RHM 4/14/75
CK'D.
PCK
RESP. ENG'R.
PCM
ENG'R MGR.
6/5/75
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
R.E. GINNA NUCLEAR POWER STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL I
NO. 10905-403
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
DRAWN
TRACED
CHECKED
ENG.


AUTO. STOP TRIP LATCH ACTUATION
G66
4618820 SH. 7
TURBINE BEARING OIL LO PRESS
GAI DWG. C49
SS-308-760
TURBINE RUN BACK DEFEAT MAGNETICS INC.
KC-8202-16
SH 213
E.H. PUMP LOCKOUT LO LEVEL
499B425 SH.115
TRAVEL SCREEN HI DIFF LEVEL
G588
G591
LINK BELT DWG JK-8144-6
CONDENSER EXP. JOINT A LO LEVEL
GAI DWG G584
SS-308-640
CONDENSER EXP. JOINT B LO LEVEL
GAI DWG. G585
SS-308-640
REF. DWG.
RAP
IAP
TRG
2 33 RO
TR7
J13
TB1-13
NO
PS-2016
I14
TB1-14
RPI#2 -M7
RPI#2 -M8
I15
TB1-15
7 8 86/LFT (CONTROL BOARD)
I16
TB1-16
LDAT-3004 (PS-2076)
I17
TB2-1
LAL-2006
I18
TB2-2
LAL-2007
I19
TB2-3
ROTOR POSITION
TURBINE RELAY DUMP VALVLE TRIPPED
AIR TO EXTRACTION STEAM STOPS
G563
499B425 SH. 316
TURBINE EMERGENCY OIL PUMP AUTO START
E7
499B425 SH. 236
TURBINE EMERGENCY OIL PUMP OVERLOAD
G-647
499B425 SH. 236
EH SYSTEM TEMPERATURE PRESSURE
GAI DWG.
SS-308-762 & 764
C78
4618821 SH 5
1 DRAWER PD/RP
5 DRAWER PD/RP
2 6 (CONTROL BOARD)
I20
TB2-4
NO
16 10 AR7
I21
TB2-5
NO
12 TRX
11 AL1
G5 ST G6 1/EOP
G12 H12 1/EOP
I22
TB2-6
NO
16 13 49
G647 F23
TB2-7
NC
PS 2046
T3
PS 2045
PS 2086
PS 2087
I24
TB2-8
NO
NOTE:
NC = JUMPER TERM 1 & 2 ON ANN PROP
NO = JUMPER TERM 1 & 3 ON ANN PROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT. 404, (REV. 3)
REV.
ORIGINAL
N.J.A.
DRAWN BY
RHN 4/14/75
CK'D.
ACK
RESP. ENG'R
RCM
ENG'K MGR.
6/3/75
DATE
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
ENGINEERING
ROBERT EMMETT, GINNA NUCLEAR STA. UNIT I
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL I
NO. 10905-404
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
DRAWN
TRACED
CHECKED
ENG.
DATE 5/74
BY N.J.A.

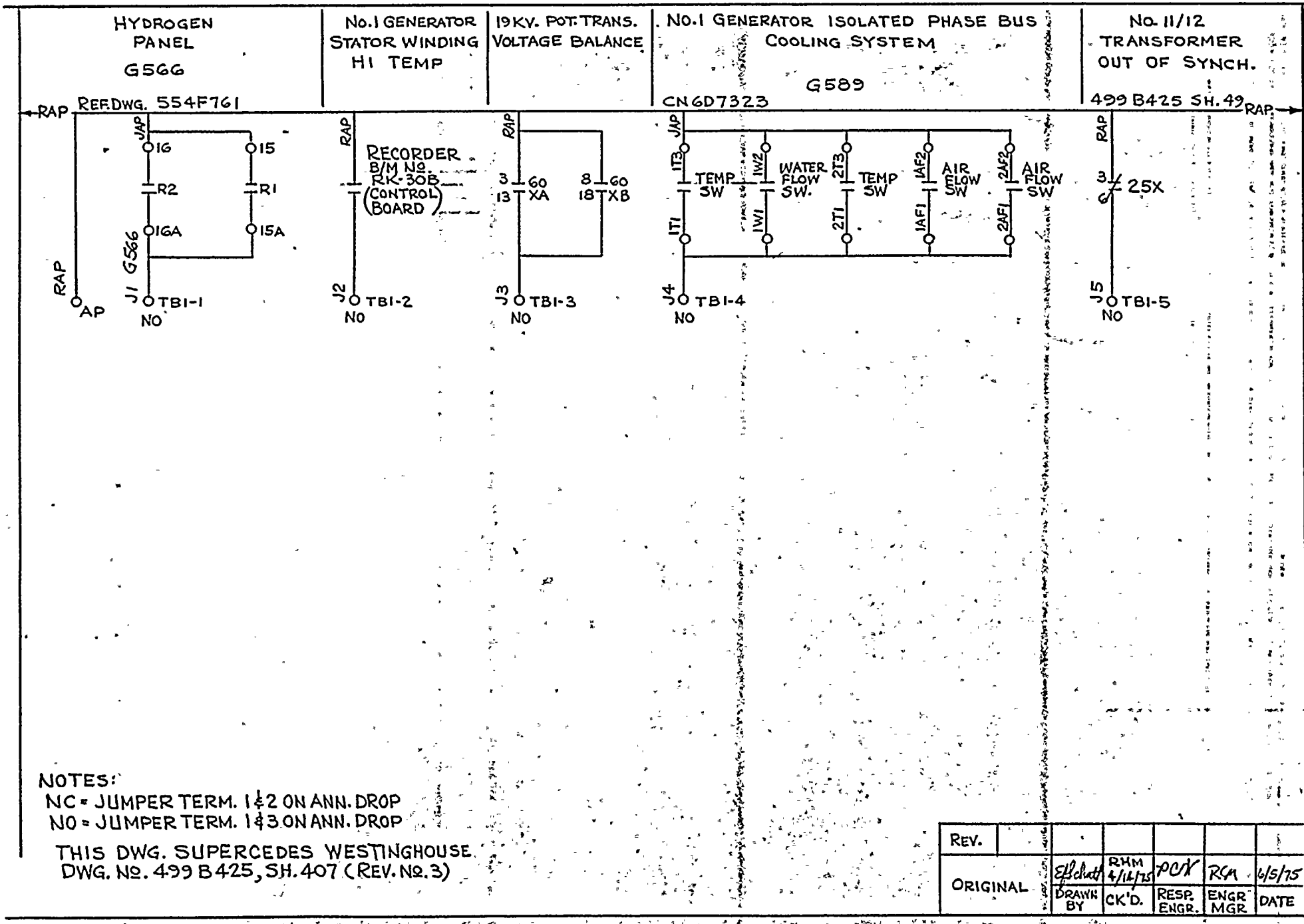


NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DWG. SUPERSEDES WESTINGHOUSE DWG. NO. 499B425-405

ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL I
FACILITY GINNA STATION
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
SCALE
JOB NO.
DRAWING NO. 10905-405
REV. 0

NUMBER	REVISION	INITIAL	DATE	DRAWN BY	CHECKED	RESP. ENG.	ENG. MANGR.
1	REVISED PER PLANT EWR 2196	BMJ	10/5/78	TMB	BM	GWD	RLS
0	ORIGINAL		3/31/77	TMB	BM	GWD	RLS



NOTES:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

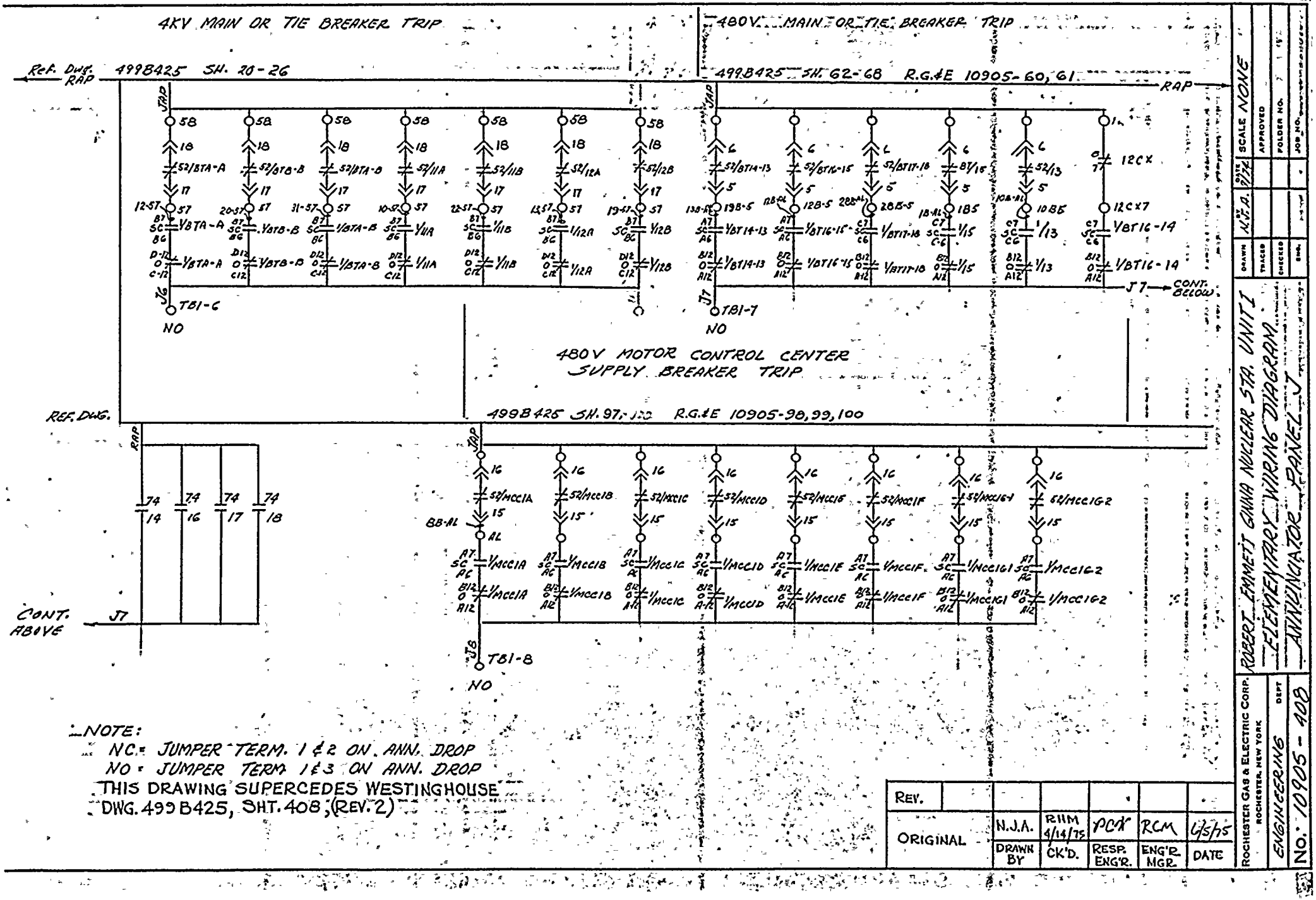
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499 B425, SH. 407 (REV. No. 3)

REV.						
ORIGINAL		EJSchutt	RHM 4/14/75	PCK	RCA	4/5/75
		DRAWN BY	CK'D.	RESP. ENGR.	ENGR MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL J

DRAWN EJSchutt 2/28/74 | TRACED | CHECKED | APPROVED | SCALE NONE | FOLDER NO. | JOB NO. | No. 10905-407



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM 1 & 3 ON ANN. DROP
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SHT. 408, (REV. 2)

REV.						
ORIGINAL	N.J.A.	RHM 4/14/75	PCK	RCM	4/15/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

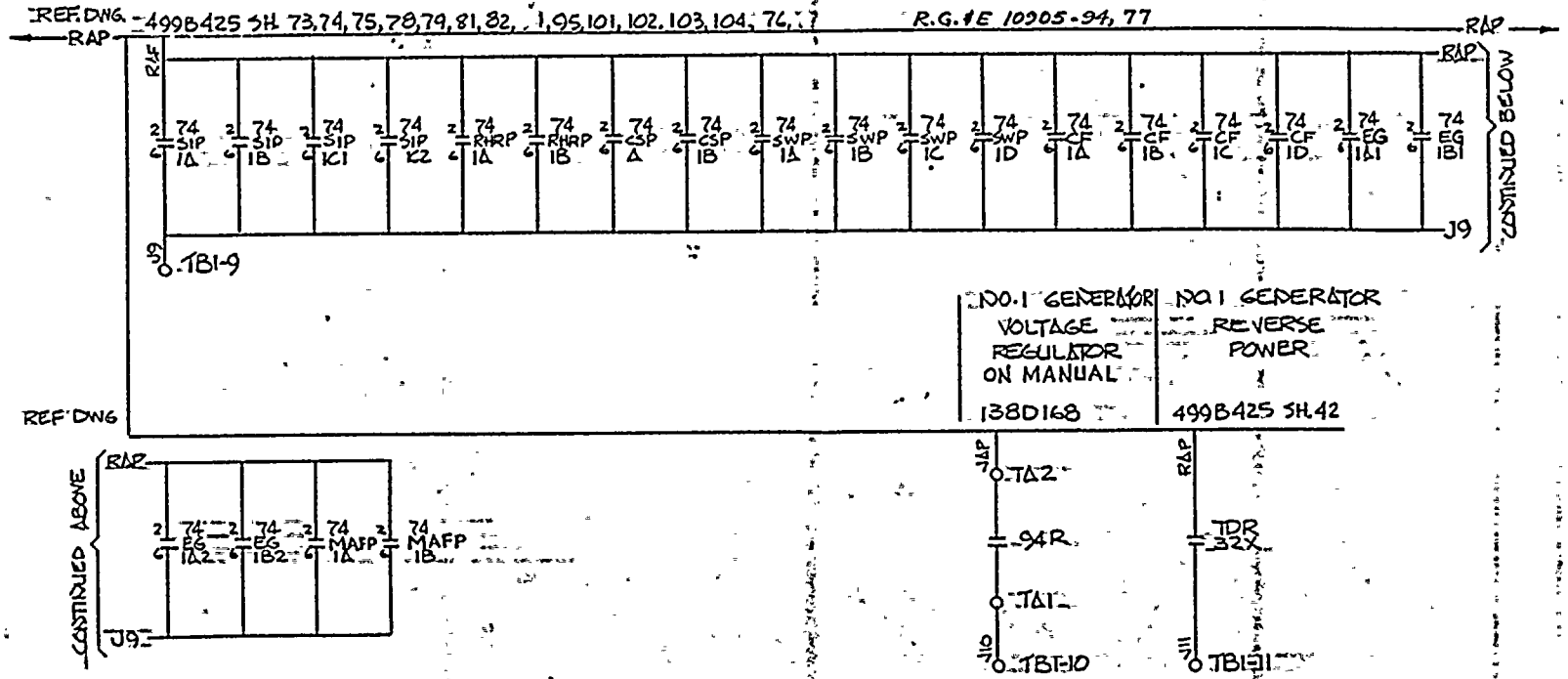
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905 - 408

ROBERT EMMETT GINNA NUCLEAR STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL J

DRAWN	N.J.A.	DATE 9/74	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

SAFEGUARD BREAKER TRIP

REF. DWG. - 499B425 SH 73,74,75,78,79,81,82, 1,95,101,102,103,104, 76, R.G.&E 10905-94, 77



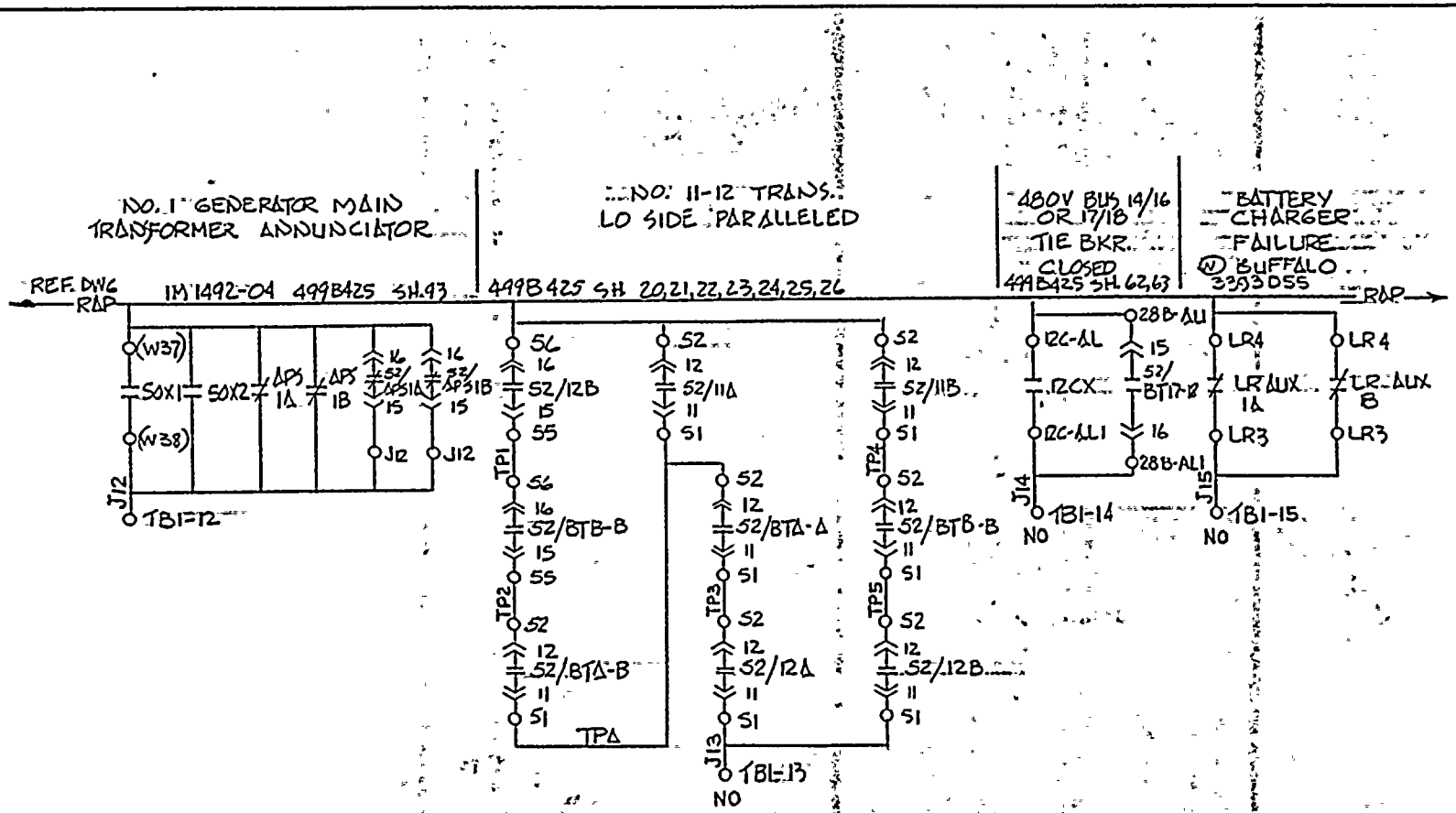
NOTE
NC = JUMPER TERM. 1 & 2 ON ADD. DROP
NO = JUMPER TERM. 1 & 3 ON ADD. DROP
THIS DWG. SUPERSEDES Ⓦ DWG. 499B425 SH.409 REV. 2

REV.						
ORIGINAL	A.V.	RHM 4/18/75	PCR	RCM	6/5/75
	DRAWN BY	CK.D.	RESP. ENG'R.	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT
Engineering
NO. 10905 408

R.E.GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL J

DRAWN | DATE 8/74 | SCALE
TRACED | | APPROVED
CHECKED | | FOLDER NO.
ENG. | | JOB NO.



NOTES
1. NC = JUMPER 1&2 ON ADD. DROP
2. NO = JUMPER 1&3 ON ADD. DROP

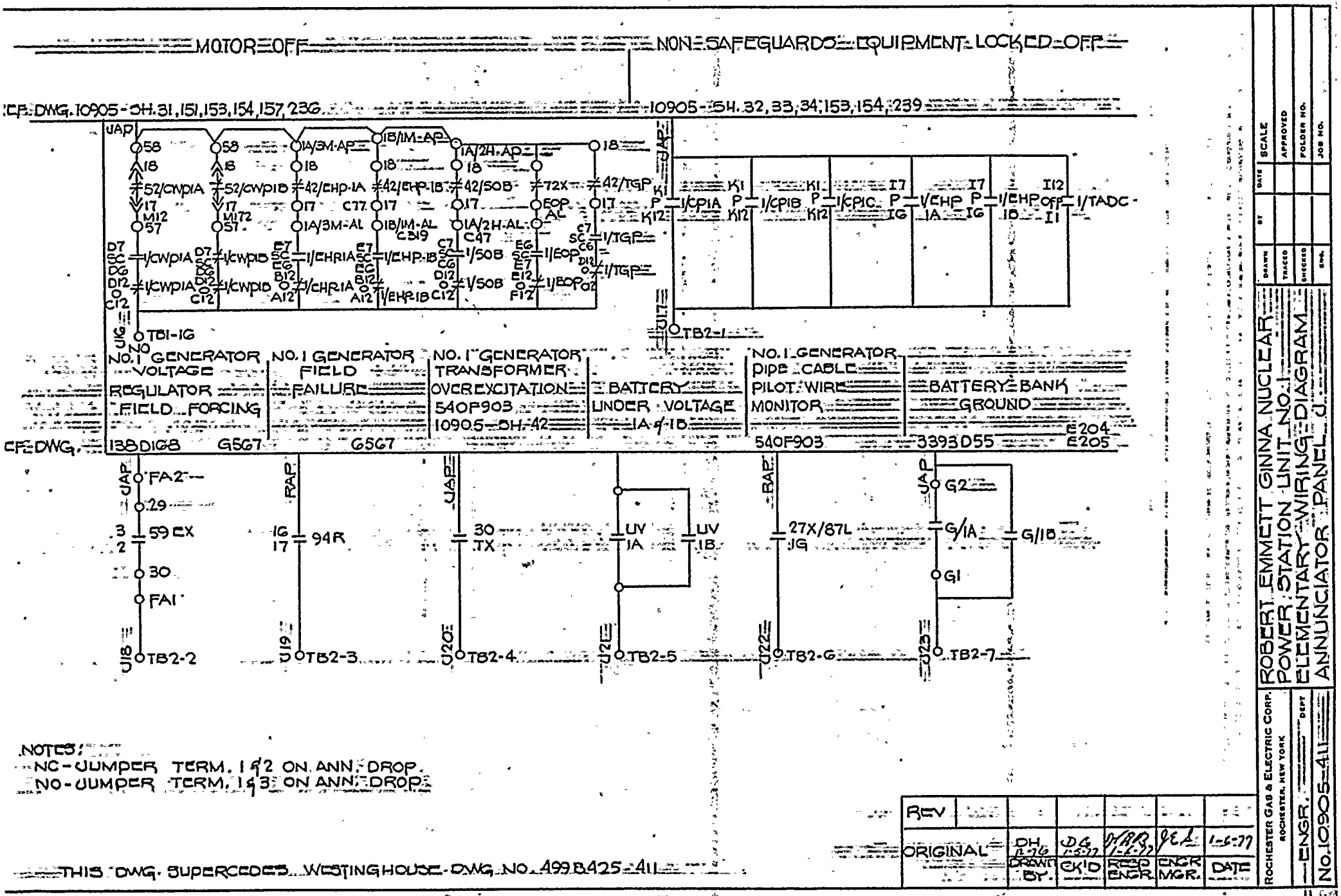
THIS DRAWING SUPERSEDES Ⓦ DWG. 499B425 SH 40 REV. 2

REV.						
ORIGINAL	A.Y.	RHM 4/14/75	PCK	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT
ENGINEERING
NO. 10905-410

R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL

DRAWN | DATE 6/4/74 | SCALE NONE
TRACED | APPROVED
CHECKED | FOLDER NO.
ENG. | JOB NO.

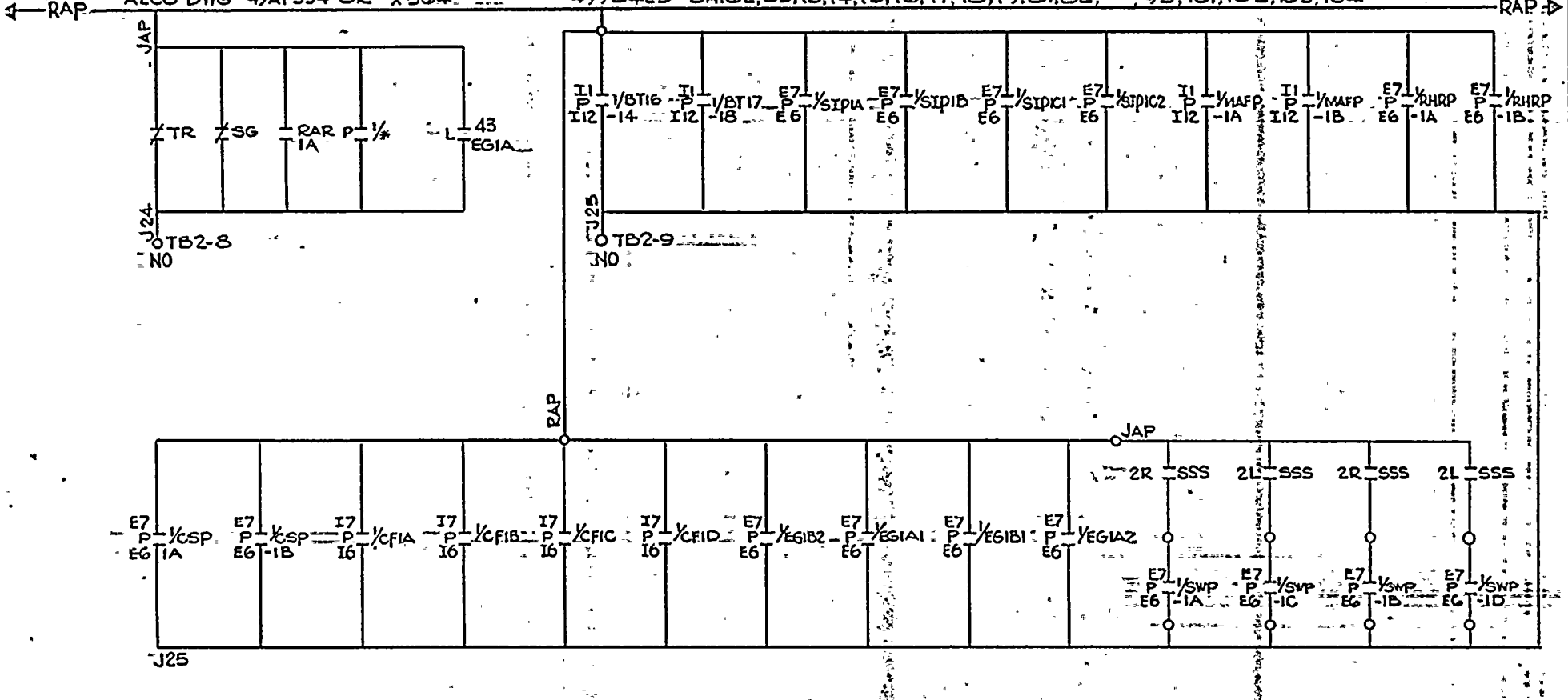

MOTOR OFF
NON SAFEGUARDS EQUIPMENT LOCKED OFF
CF: DWG. 10905-SH. 31, 151, 153, 154, 157, 236
10905-SH. 32, 33, 34, 153, 154, 239
UAP
58
18
52/CWP1A
52/CWP1B
42/CHP-1A
42/CHP-1B
42/50B
72X
42/TGP
I7
M12
M172
57
C77
C319
C47
EOP
AL
1/CWP1A
1/CWP1B
1/CHR1A
1/CHP-1B
1/50B
1/EOP
1/TGP
TB1-1G
TB2-1
K1
K12
I7
IG
IA
IB
I11
I12
1/CP1A
1/CP1B
1/CP1C
1/CHP
1/EHP
1/TADC
No. 1 GENERATOR VOLTAGE REGULATOR FIELD FORCING
No. 1 GENERATOR FIELD FAILURE
No. 1 GENERATOR TRANSFORMER OVEREXCITATION 540F903 10905-SH. 42
BATTERY UNDER VOLTAGE 1A & 1B
No. 1 GENERATOR PIPE CABLE PILOT WIRE MONITOR
BATTERY BANK GROUND
CF DWG. 138D168 G567 G567 540F903 3393D55 E204 E205
FA2
29
3
2
59 EX
30
FA1
TB2-2
16
17
94R
TB2-3
30 TX
TB2-4
UV 1A
UV 1B
TB2-5
27X/87L JG
TB2-6
G2
G/1A
G/1B
G1
TB2-7
NOTES:
NC - JUMPER TERM. 1 & 2 ON ANN. DROP.
NO - JUMPER TERM. 1 & 3 ON ANN. DROP.
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425-411
REV
ORIGINAL
DH 1-76
DRAWN BY
DG 1-5-77
CK'D
WARR 1-6-77
RESP ENGR
JEL 1-6-77
ENGR MGR.
DATE
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
DEPT ENGR.
NO. 10905-411
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL J
DRAWN BY
TRACED
CHECKED
ENG.
DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.

EMERGENCY DIESEL GEN 1A
PANEL
L831

SAFE GUARDS EQUIPMENT LOCKED-OFF

R.G.&E. 10905-77,-94

REF DWG ALCO DWG 49A7334 OR X564 — 499B425 SH. 62,63,73,74,75,76, , 78,79,81,82, , 95,101,102,103,104.

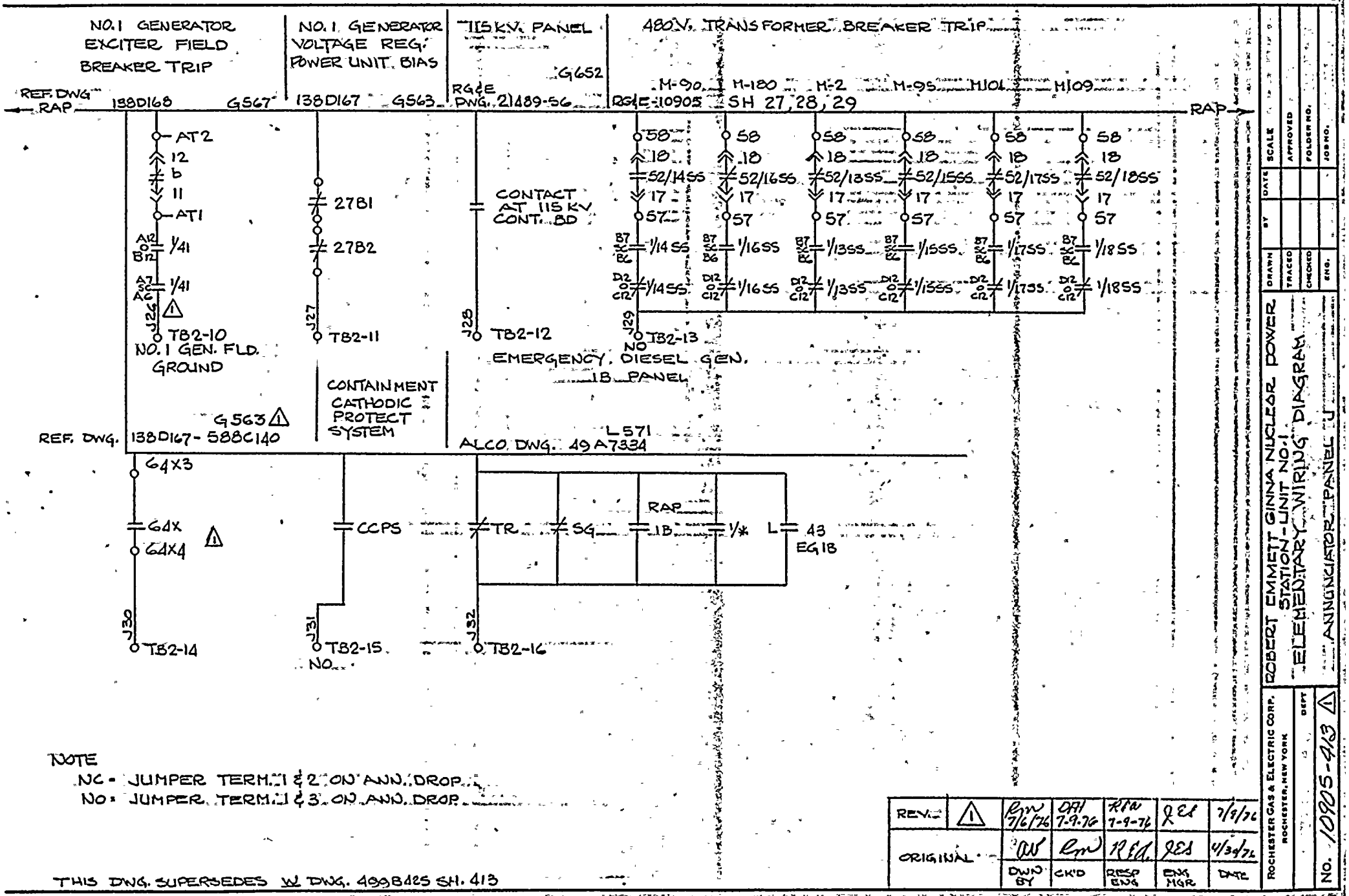


NOTE:
NC. = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP

THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING
499B425 SHEET 412 REV. 3

REV.						
ORIGINAL	A.S.M.	RHM 4/14/75	[illegible]	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENGR.	ENG'R. MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT.
ROBERT EMMETT GINNA NUCLEAR PWR STA. UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL "J"
DRAWN A.S.M. TRACED CHECKED ENG.
SCALE None APPROVED FOLDER NO. JOB NO.
NO. 10905-412



NOTE
NC = JUMPER TERM. 1 & 2 ON ANN. DROP.
NO = JUMPER TERM. 1 & 3 ON ANN. DROP.

THIS DWG. SUPERSEDES W DWG. 499B425 SH. 413

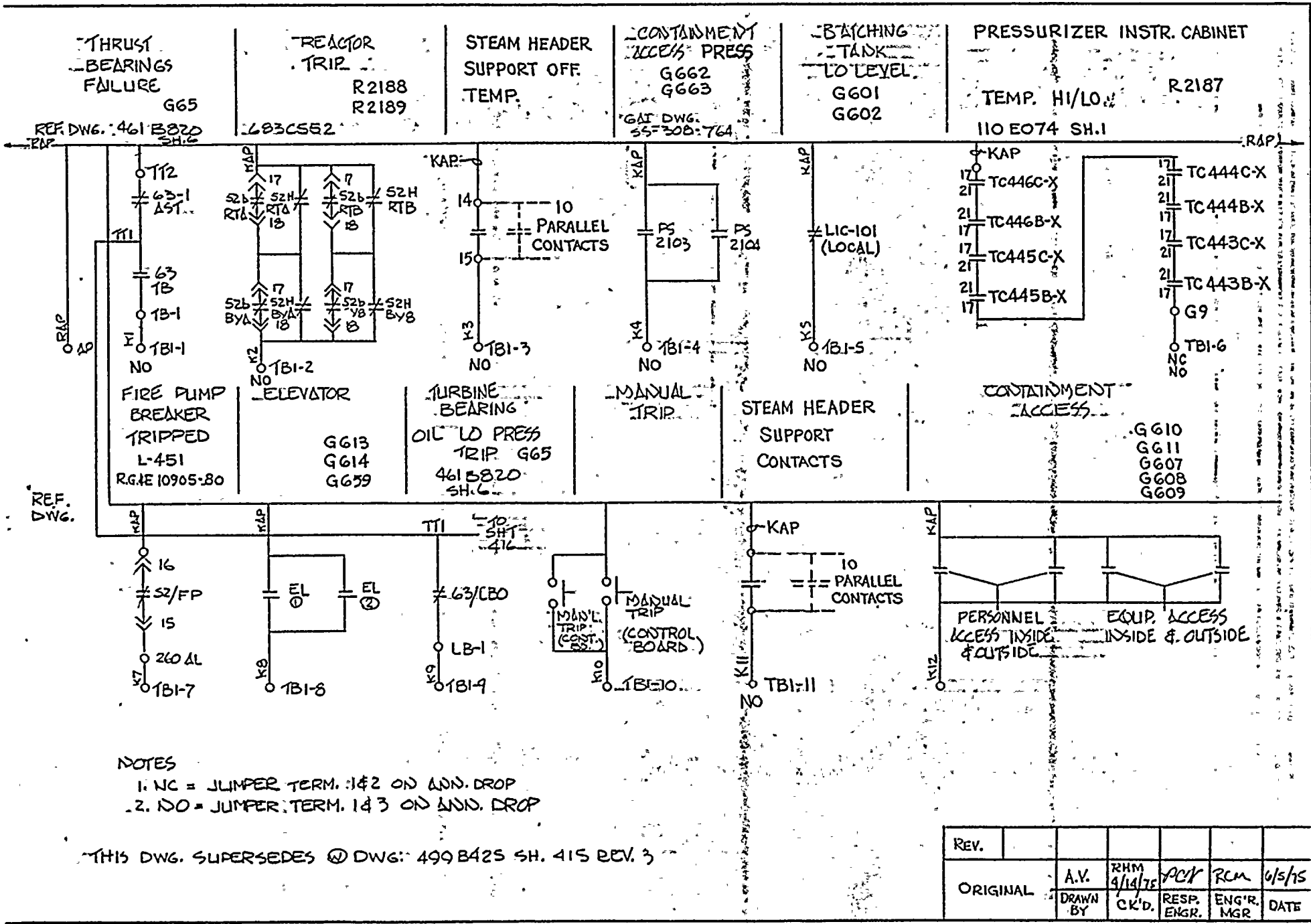
REV.		DWN BY	CK'D	RESP ENG	ENG MGR	DATE
	1	RW 7/6/76	DAI 7-9-76	RTA 7-9-76	JEL	7/9/76
ORIGINAL		DW	RW	RTA	JES	4/30/74

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT

ROBERT EMMETT GINNA NUCLEAR POWER STATION - UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL "J"

DRAWN BY DATE | SCALE | APPROVED | TRACED | FOLDER NO. | CHECKED | JOB NO. | ENG.

NO. 10905-413 1



NOTES

1. NC = JUMPER TERM. 1&2 ON ANN. DROP
2. NO = JUMPER TERM. 1&3 ON ANN. DROP

THIS DWG. SUPERSEDES Ⓦ DWG. 499 B425 SH. 415 REV. 3

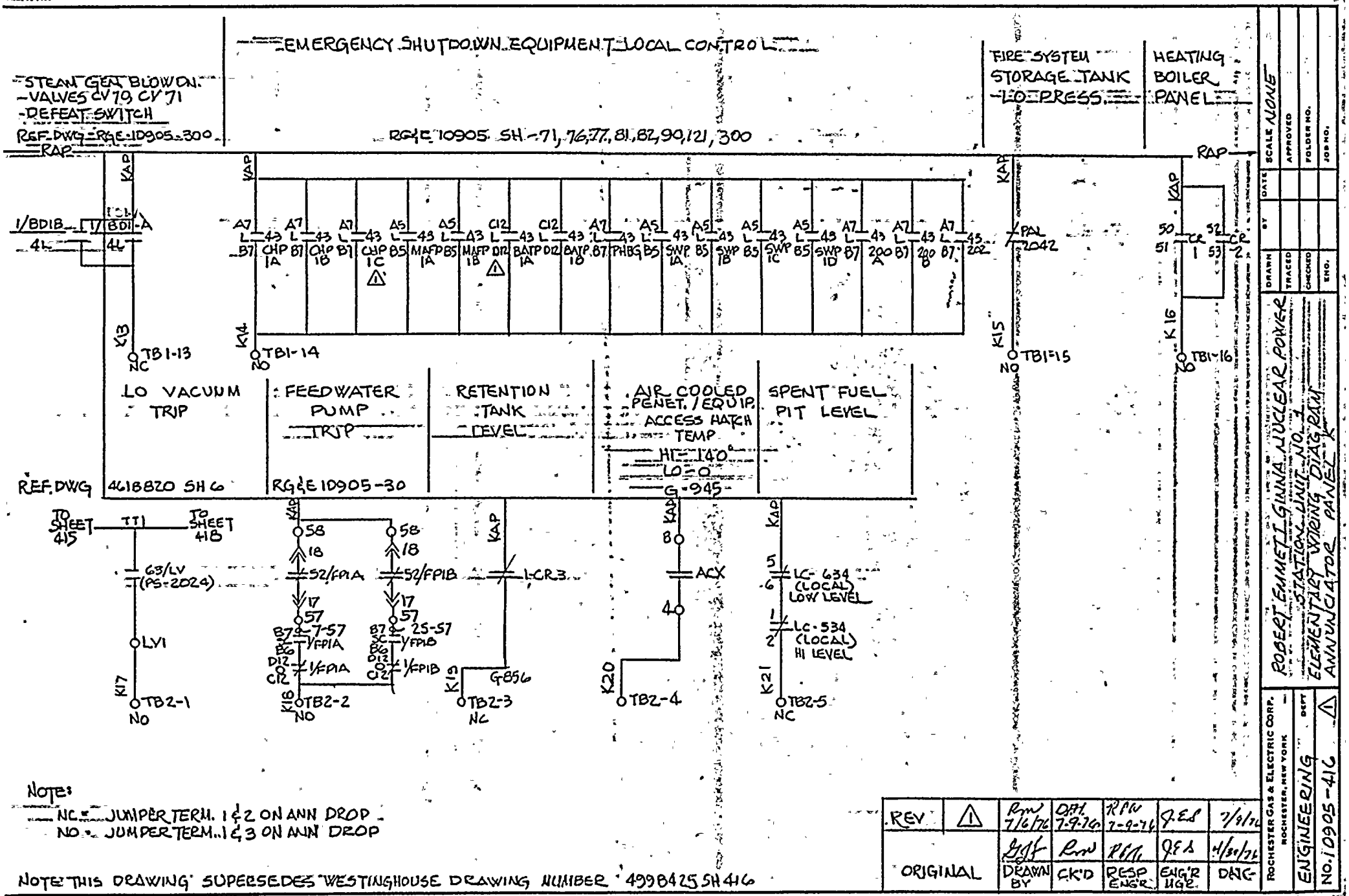
REV.						
ORIGINAL	A.V.	RHM 4/14/75	PCV	RCM	6/5/75
	DRAWN BY	CK'D.	RESP. ENGR.	ENG'R. MGR	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT Engineering

R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL K

DRAWN | TRACED | CHECKED | APPR. | DATE 6/5/75 | SCALE None | APPROVED | FOLDER NO. | JOB NO.

NO. 10905-415



NOTE:
NC = JUMPER TERM. 1 & 2 ON ANN DROP
NO = JUMPER TERM. 1 & 3 ON ANN DROP

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NUMBER 4998425 SH 416

REV	⚠					
		RMW 7/6/76	DFI 7-9-76	RPW 7-9-76	J.E.S	7/9/76
ORIGINAL		GJF	RMW	RPW	JES	4/30/76
		DRAWN BY	CK'D	RESP ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-416 ⚠

ROBERT EMMET GINNA NUCLEAR POWER PLANT
STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL K

SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
DRAWN BY DATE
TRACED
CHECKED
ENG.

HEAT TRACING SYSTEM

FIRE SYSTEM STORAGE TANK LO LEVEL
G579
GAI DWG. G577
SS-308-642

REF. DWG. ← RAP

RAP →

KAP

RECORDER 1 (LOCAL)

RECORDER 2 (LOCAL)

RECORDER 3 (LOCAL)

K22

TB2-6

NO

KAP

LAL 2052

K23

TB2-7

NO

WATER TREATMENT PANEL

REF. DWG. ILCO DWG. FE-204515C & FE-204515D ...W184

KAP

J35

K24

J3C

TB2-8

NO

NOTE

NC = JUMPER TERM 1&2 ON ANN. DROP
NO = JUMPER TERM 1&3 ON ANN. DROP

THIS DWG. SUPERSEDES Ⓦ DWG. 499B425 SH. 417 REV. 3

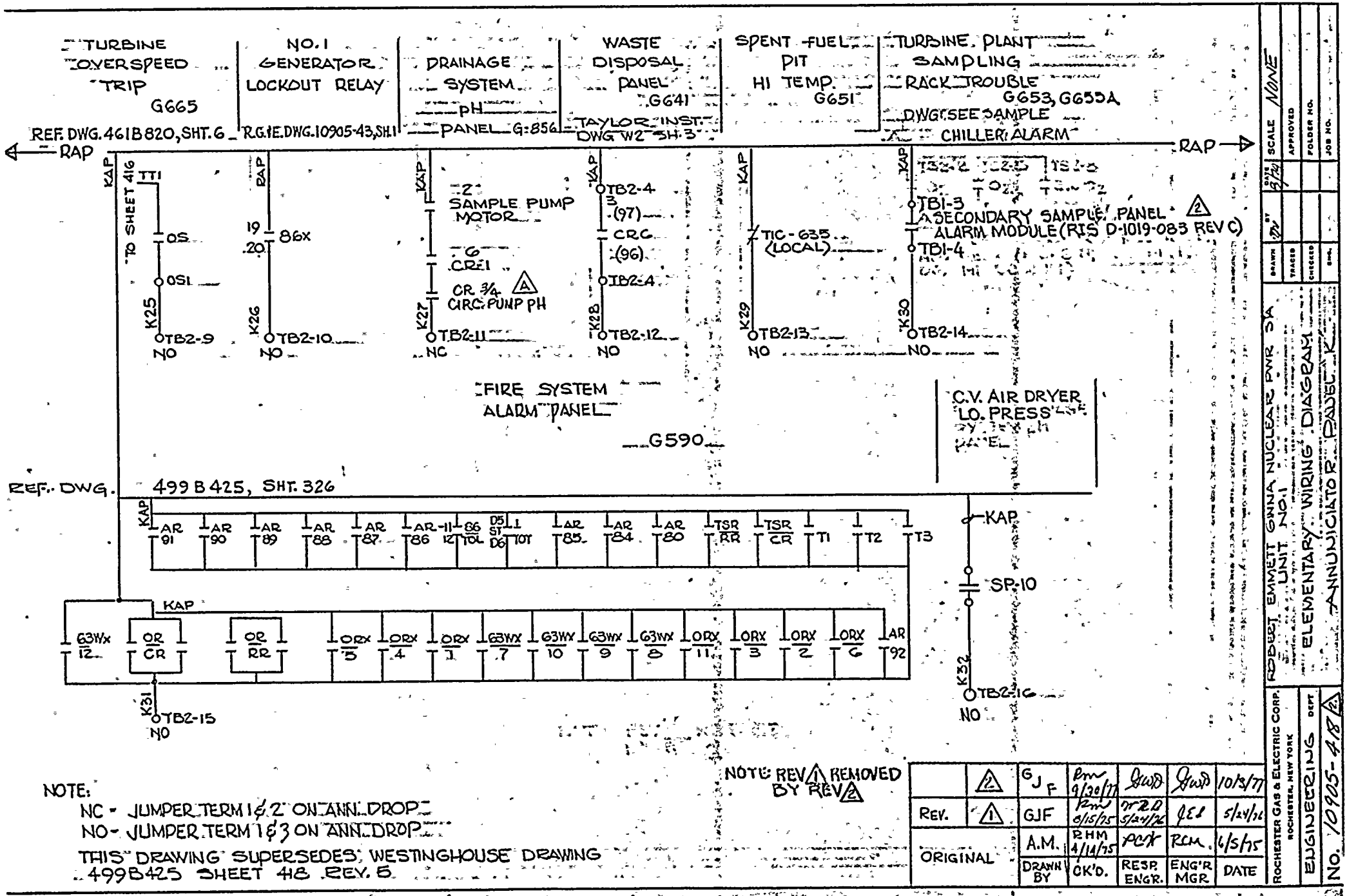
REV.		DRAWN BY	CK'D	RESP. ENG'R	ENG'R. MGR.	DATE
ORIGINAL		A.V.	RHM 4/14/75	PCT	RCM	6/9/75

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT Engineering

R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL K

DRAWN av DATE 8/74 SCALE Same
TRACED
CHECKED
APPROVED
FOLDER NO.
JOB NO.

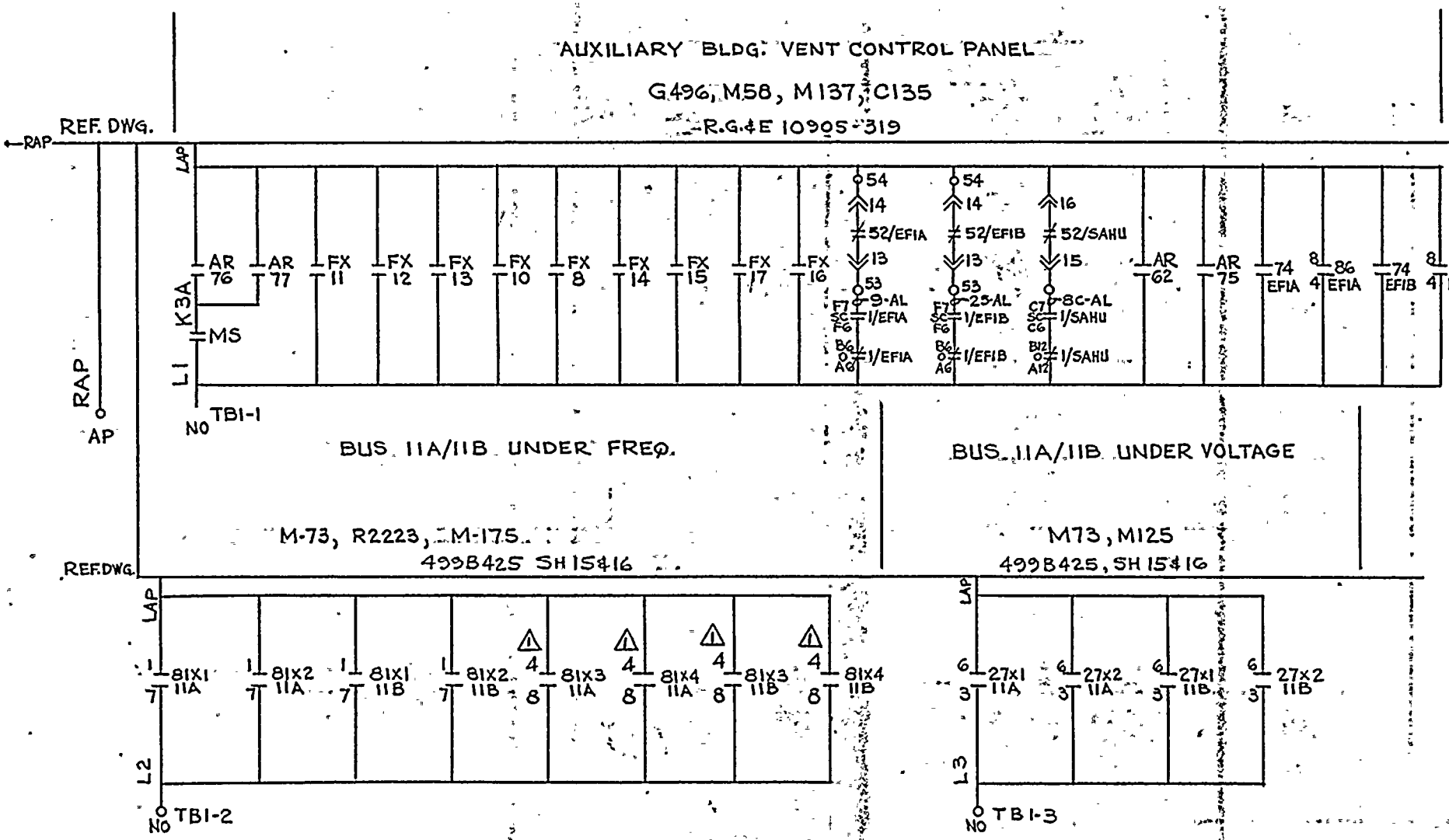
No. 10905-417


TURBINE OVERSPEED TRIP G665
NO.1 GENERATOR LOCKOUT RELAY
DRAINAGE SYSTEM pH PANEL G-856
WASTE DISPOSAL PANEL G641
SPENT FUEL PIT HI TEMP. G651
TURBINE PLANT SAMPLING RACK TROUBLE G653, G655A
REF. DWG. 461B820, SHT. 6
R.G.&E. DWG. 10905-43, SH. 1
TAYLOR INST. DWG W2 SH. 3
DWG. SEE SAMPLE CHILLER ALARM
RAP
KAP
TO SHEET 416
TT1
OS
OSI
K25
TB2-9
NO
RAP
19
20
86X
K26
TB2-10
NO
KAP
2 SAMPLE PUMP MOTOR
6
CR E1
CR 3/4 CIRC. PUMP PH
K27
TB2-11
NC
KAP
TB2-4
3
(97)
CRC
(96)
TB2-4
K28
TB2-12
NO
KAP
TIC-635 (LOCAL)
K29
TB2-13
NO
KAP
TB1-3
SECONDARY SAMPLE PANEL ALARM MODULE (RIS D-1019-083 REV C)
TB1-4
K30
TB2-14
NO
FIRE SYSTEM ALARM PANEL
G590
C.V. AIR DRYER LO. PRESS
REF. DWG. 499B425, SHT. 326
KAP
AR 91
AR 90
AR 89
AR 88
AR 87
AR 86
AR-11 12
66 TOL
D5 S1 D6
1 T01
AR 85
AR 84
AR 80
TSR RR
TSR CR
T1
T2
T3
KAP
63WX 12
OR CR
OR RR
ORX 5
ORX 4
ORX 1
63WX 7
63WX 10
63WX 9
63WX 8
ORX 11
ORX 3
ORX 2
ORX 6
AR 92
K31
TB2-15
NO
KAP
SP-10
K32
TB2-16
NO
NOTE: REV 1 REMOVED BY REV 2
NOTE:
NC - JUMPER TERM 1 & 2 ON ANN. DROP
NO - JUMPER TERM 1 & 3 ON ANN. DROP
THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SHEET 418 REV. 5
2 GJF 9/30/77 DWD DWD 10/3/77
REV. 1 GJF 6/15/75 5/24/76 JEL 5/24/76
ORIGINAL A.M. 4/14/75 PCK RCM 6/5/75
DRAWN BY CK'D. RESP. ENG'R ENG'R MGR DATE
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
ROBERT EMMETT GINNA NUCLEAR PWR STA UNIT NO.1
ELEMENTARY WIRING DIAGRAM ANNUNCIATOR PANEL K
DRAWN TRACED CHECKED ENG.
DATE 9/24 SCALE NONE
APPROVED
FOLDER NO.
JOB NO.
NO. 10905-418 2

AUXILIARY BLDG. VENT CONTROL PANEL

G.496, M58, M137, C135

R.G.&E 10905-319



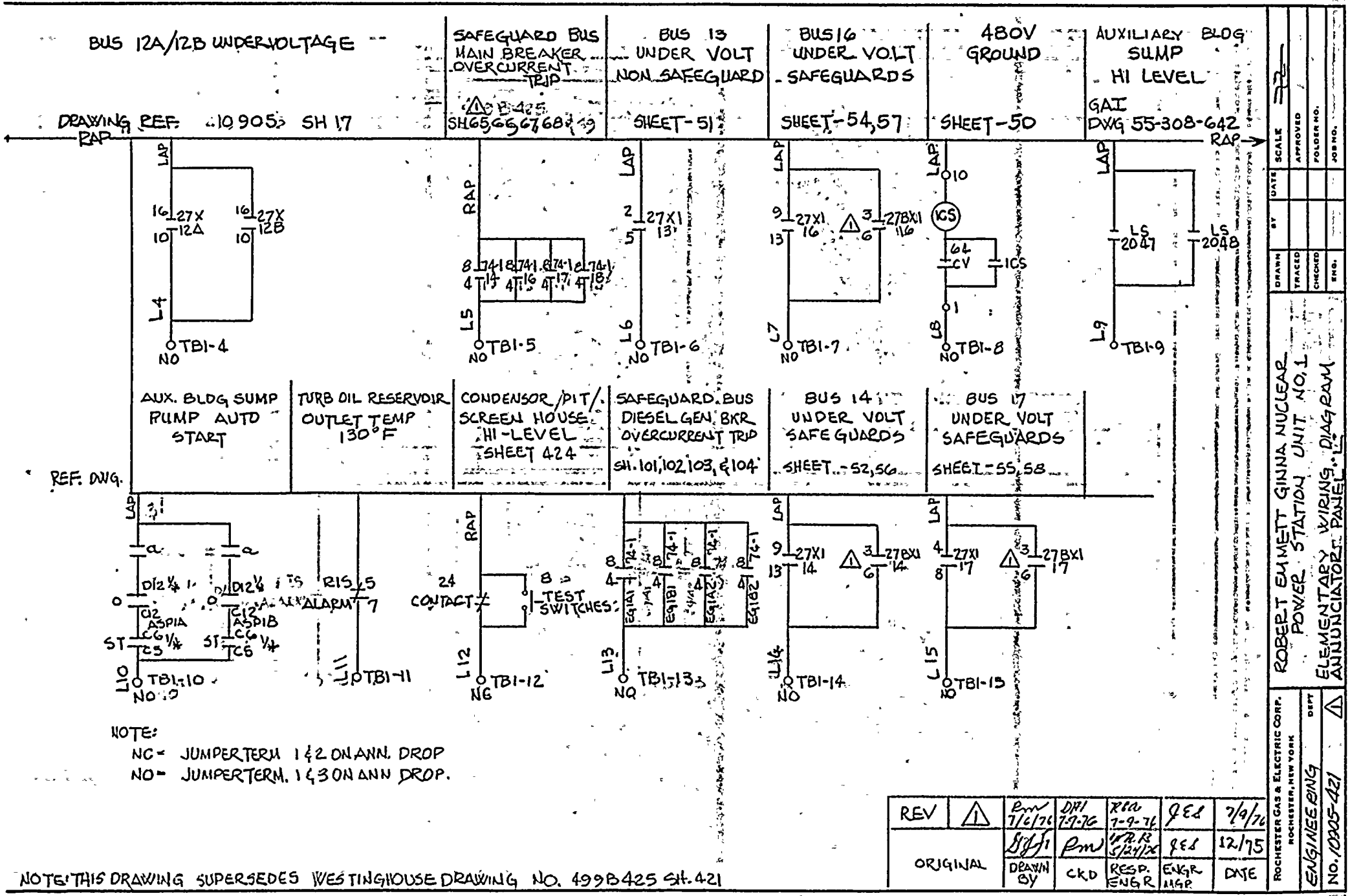
NOTES:
NC = JUMPER TERM. 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN. DROP
THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499 B425, SH. 420 (REV. 3)

REV.	⚠1	DRW 7/6/76	DFH 7-9-76	RFW 7-9-76	GEL	7/9/76
ORIGINAL		efschutt	RHM 4/19/75	PCV	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
NO. 10905-420

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
⚠1 ANNUNCIATOR PANEL L

DRAWN	E.Schutt	DATE 6/5/75	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.



NOTE:
NC = JUMPER TERM 1 & 2 ON ANN. DROP
NO = JUMPER TERM. 1 & 3 ON ANN DROP.

NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING NO. 499B425 SH. 421

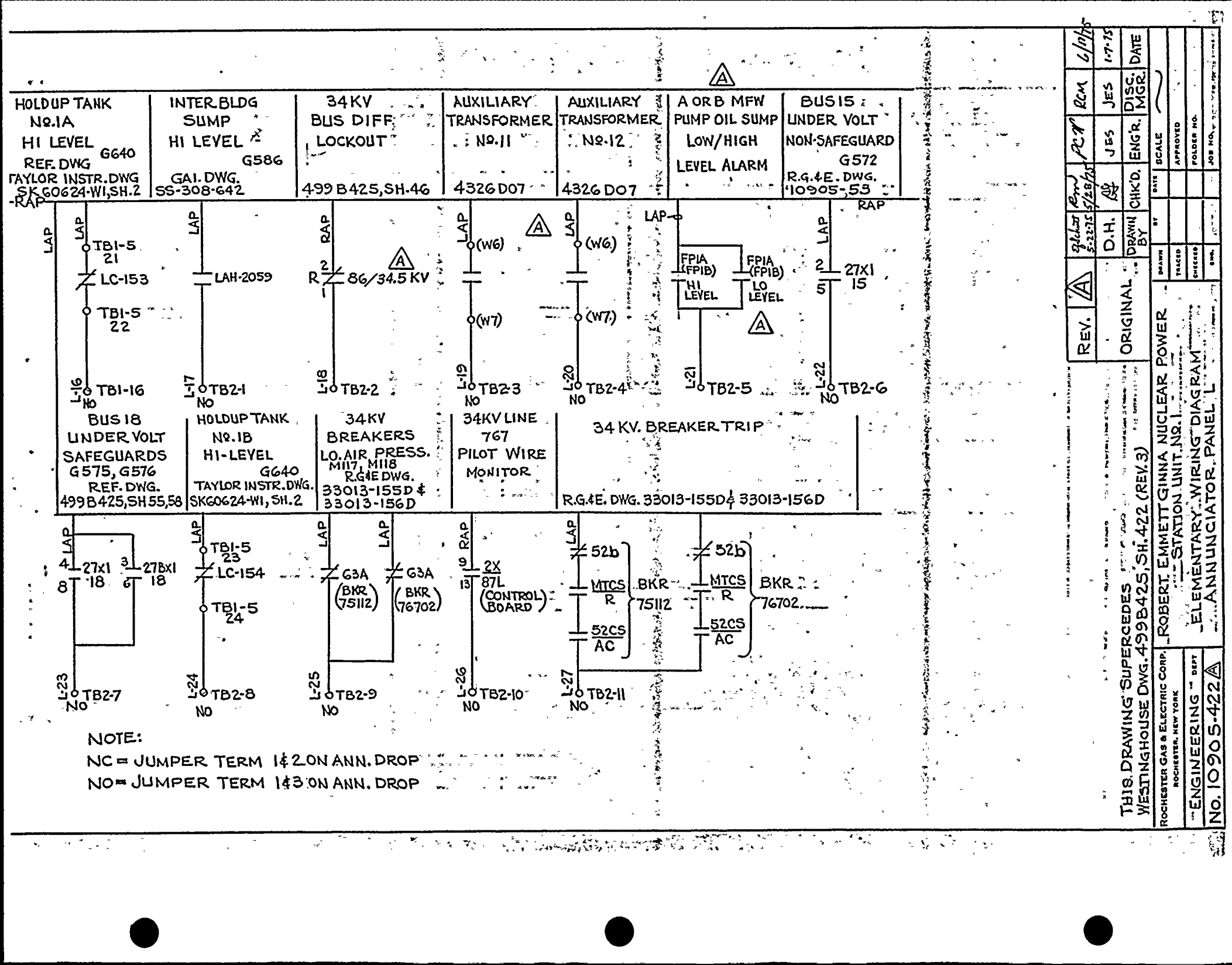
REV						
	1	pmw 7/6/76	DHI 7-9-76	RCA 7-9-76	JES	7/9/76
ORIGINAL		GJJ 1	pmw	W.R.R. 5/24/76	JES	12/75
		DRAWN BY	CK'D	RESP. ENGR	ENGR MGR	DATE

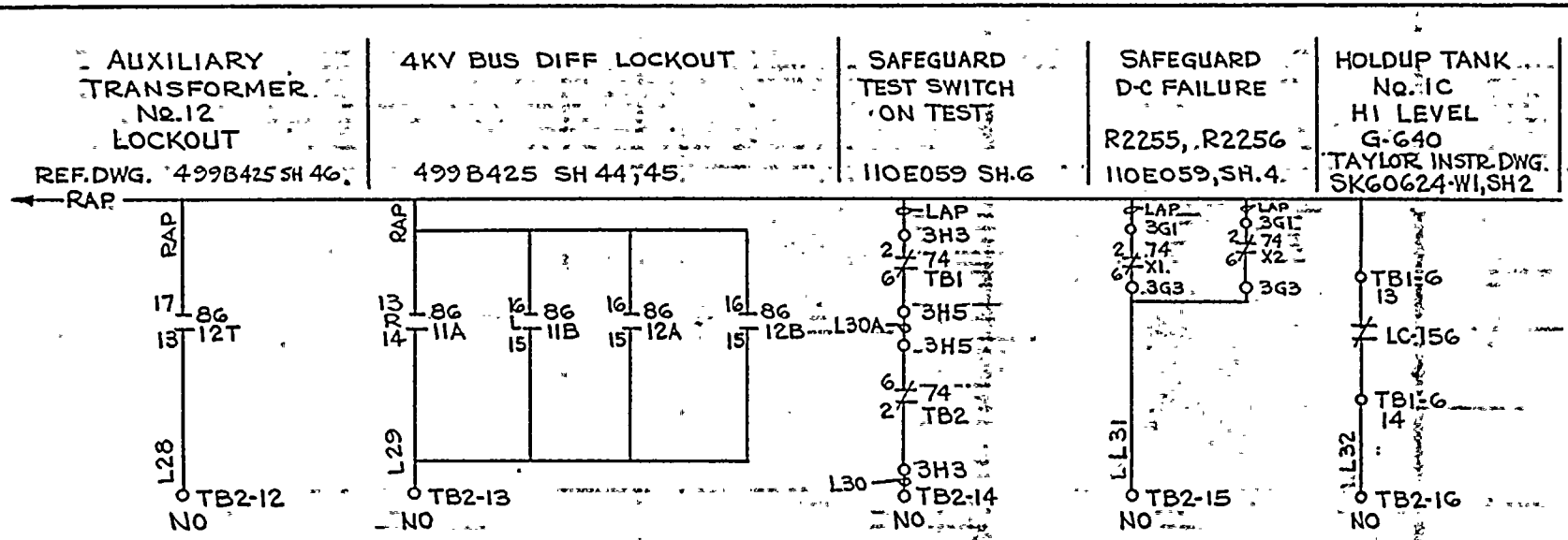
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK DEPT. ENGINEERING

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL

NO. 10305-421

DRAWN | TRACED | CHECKED | ENG. | BY | DATE | SCALE | APPROVED | FOLDER NO. | JOB NO.


HOLDUP TANK NO.1A HI LEVEL
REF. DWG G640
TAYLOR INSTR. DWG SK60624-W1, SH.2
INTER. BLDG SUMP HI LEVEL
GAI. DWG. SS-308-642
34KV BUS DIFF. LOCKOUT
499B425, SH-46
AUXILIARY TRANSFORMER NO.11
4326D07
AUXILIARY TRANSFORMER NO.12
4326D07
A OR B MFW PUMP OIL SUMP LOW/HIGH LEVEL ALARM
BUS 15 UNDER VOLT NON-SAFEGUARD
G572
R.G.&E. DWG. 10905-53
LAP
TB1-5 21
LC-153
TB1-5 22
L-16 TB1-16 NO
LAH-2059
L-17 TB2-1 NO
RAP
R 2 86/34.5 KV
L-18 TB2-2
(W6)
(W7)
L-19 TB2-3 NO
(W6)
(W7)
L-20 TB2-4 NO
FPIA (FPIB) HI LEVEL
FPIA (FPIB) LO LEVEL
L-21 TB2-5
2 51 27X1 15
L-22 TB2-6 NO
BUS 18 UNDER VOLT SAFEGUARDS G575, G576
REF. DWG. 499B425, SH 55, 58
HOLDUP TANK NO.1B HI-LEVEL
G640
TAYLOR INSTR. DWG. SKG0624-W1, SH.2
34KV BREAKERS LO. AIR PRESS. M117, M118
R.G.&E. DWG. 33013-155D & 33013-156D
34KV LINE 767 PILOT WIRE MONITOR
34 KV. BREAKER TRIP
R.G.&E. DWG. 33013-155D & 33013-156D
4 8 27X1 18 3 6 27BX1 18
L-23 TB2-7 NO
TB1-5 23
LC-154
TB1-5 24
L-24 TB2-8 NO
63A (BKR 75112)
63A (BKR 76702)
L-25 TB2-9 NO
9 13 2X 87L (CONTROL BOARD)
L-26 TB2-10 NO
52b MTCS R 52CS AC BKR 75112
52b MTCS R 52CS AC BKR 76702
L-27 TB2-11 NO
NOTE:
NC = JUMPER TERM 1 & 2 ON ANN. DROP
NO = JUMPER TERM 1 & 3 ON ANN. DROP
REV. A ORIGINAL
DRAWN BY D.H. CHK'D. JES ENG'R. JES DISC. MGR. RCM DATE 6/10/75
DRAWN BY DATE 5-22-75
TRACED BY DATE 5-28-75
CHECKED BY DATE 6/2/75
ENG. BY DATE
SCALE
APPROVED
FOLDER NO.
JOB NO.
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-422 A
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO.1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL L
THIS DRAWING SUPERCEDES WESTINGHOUSE DWG. 499B425, SH. 422 (REV. 3)



NOTES:

1. NC = JUMPER TERM. 1 & 2 ON ANN. DROP
   NO = JUMPER TERM. 1 & 3 ON ANN. DROP
2. THIS DWG. SUPERCEDES WESTINGHOUSE DWG. NO. 499B425, SH. 423 (REV. NO. 3)

REV.						
ORIGINAL	DRAWN BY	CK'D.	RESP. ENGR.	ENGR. MGR.	DATE
	gbl 4/14/65	RHM 4/14/65	pcw	RLM	4/15/65

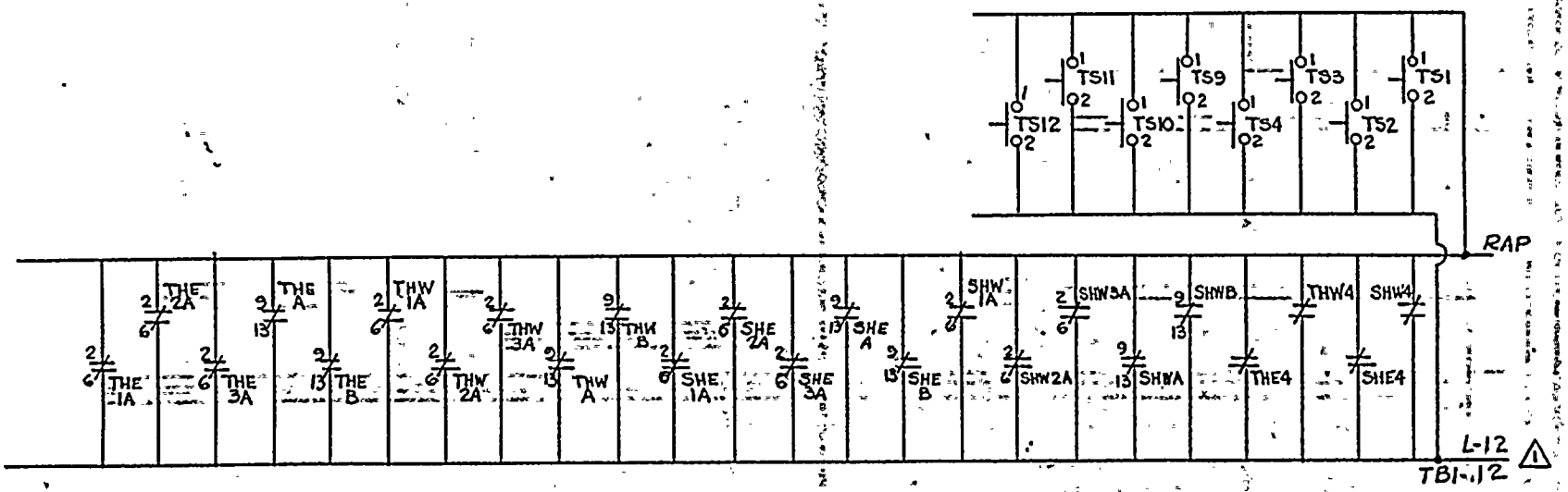
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-423

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL L

DRAWN	TRACED	CHECKED	ENG.
ESL 6/22/65			

SCALE NONE
APPROVED
FOLDER NO.
JOB NO.

HIGH LEVEL CONDENSER PIT OR
SCREEN HOUSE OR LOGIC FAILURE



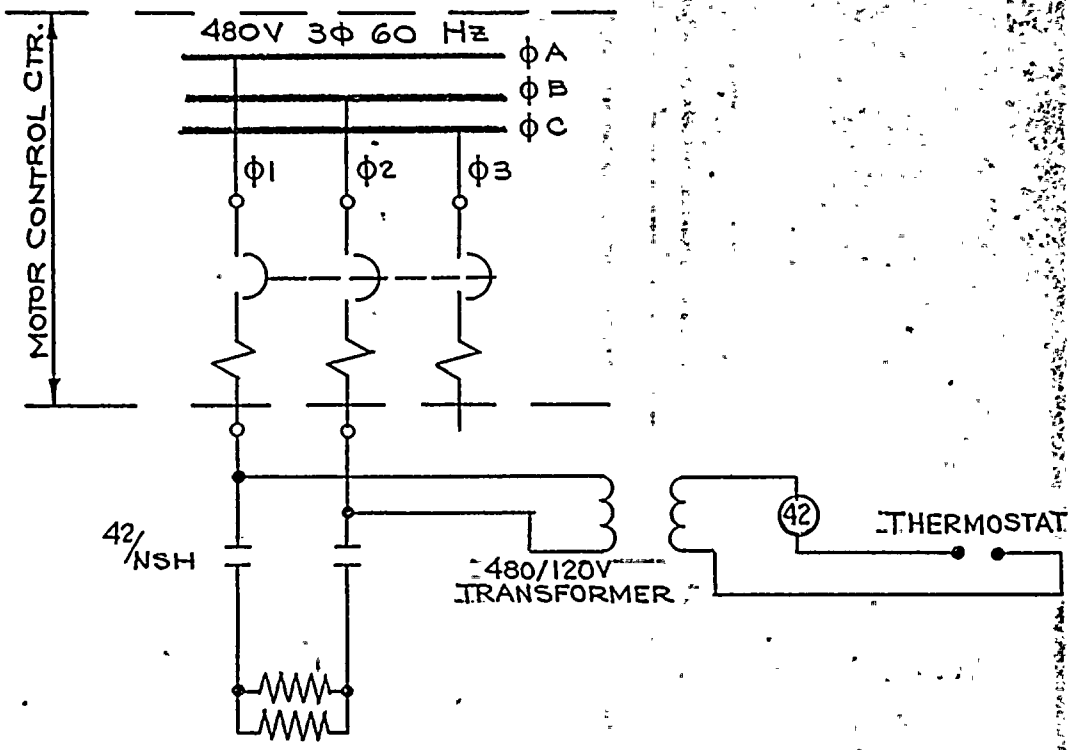
NOTES:
THIS DWG. SUPERCEDES WESTINGHOUSE
DWG. Nº 499 B 425, SH. 424, (REV. Nº 1)

REV.	⚠1	RMW 7/7/76	DFH 7-9-76	RFG 7-9-76	[illegible]	7/9/76
ORIGINAL		[illegible]	RHM 1/14/75	PCK	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R. MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-424

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT Nº 1
ELEMENTARY WIRING DIAGRAM
⚠ ANNUNCIATOR PANEL L

DRAWN	C. Schmidt	DATE 1/30/74	SCALE NONE
TRACED		APPROVED	
CHECKED		FOLDER NO.	
ENG.		JOB NO.	



NSH-UNIT NO. 1E/8KK

NOTES:

1. THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425, SH. 425 (NO REV.)

REV.								
ORIGINAL								
DRAWN	E.Schutt	9/27/74	RESR. ENG'R.	PCT	ENG'R. MGR.	RM	DATE	6/5/75
TRACED			SCALE	NONE				
CHECKED			APPROVED					
ENG.			FOLDER NO.					
			JOB NO.					

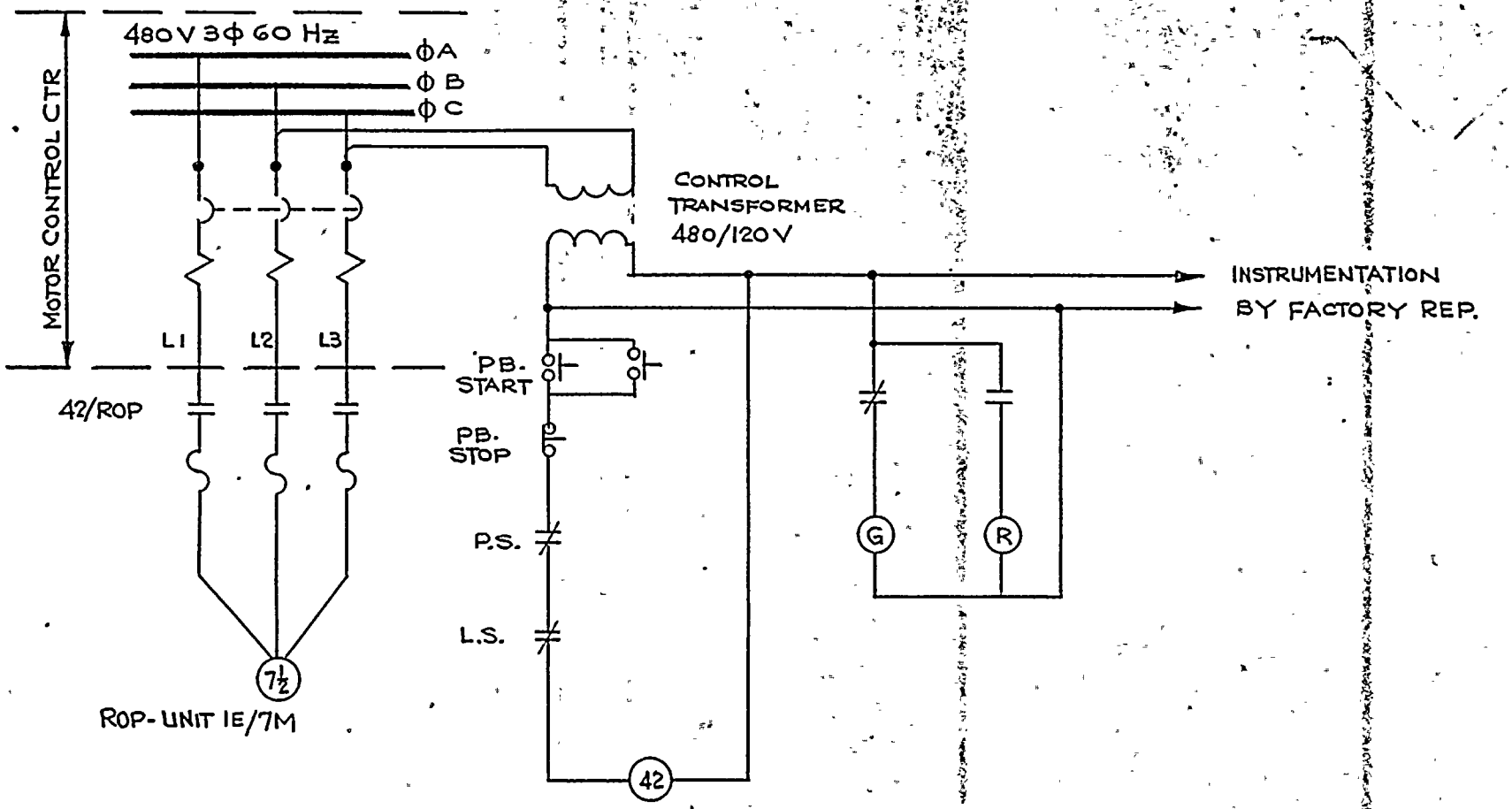
ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1

ELEMENTARY WIRING DIAGRAM

NITROGEN STORAGE BLDG. HEATER

No. 10905-435



NOTES:

. P.S.- PRESSURE SWITCH-OPERATES ON HIGH PRESSURE

. L.S.- LEVEL SWITCH-OPERATES ON LOW LEVEL IN HOLDING TANK.

. THIS DWG. SUPERCEDES WESTINGHOUSE DWG. No. 499B425, SH. 426 (NO REV.)

REV.						
ORIGINAL						
	Eplust	R.H.M. 4/14/75	PGR	ZCM	6/5/75	DATE
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.		

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK

ENGINEERING DEPT

No. 10905 - 426

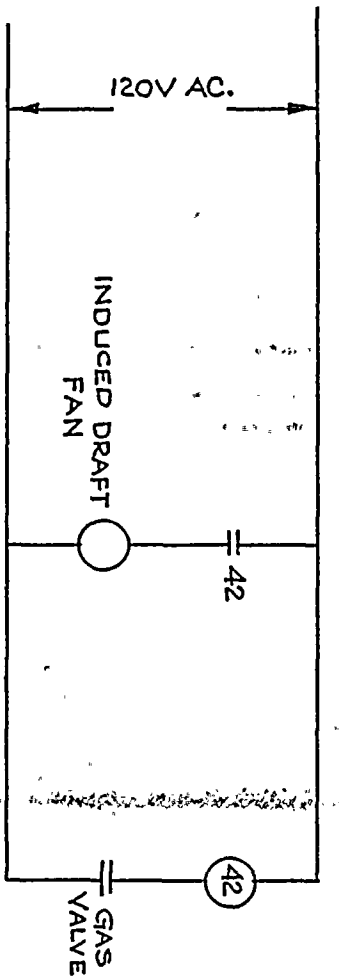
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No 1

ELEMENTARY WIRING DIAGRAM

REVERSE OSMOSIS PUMP

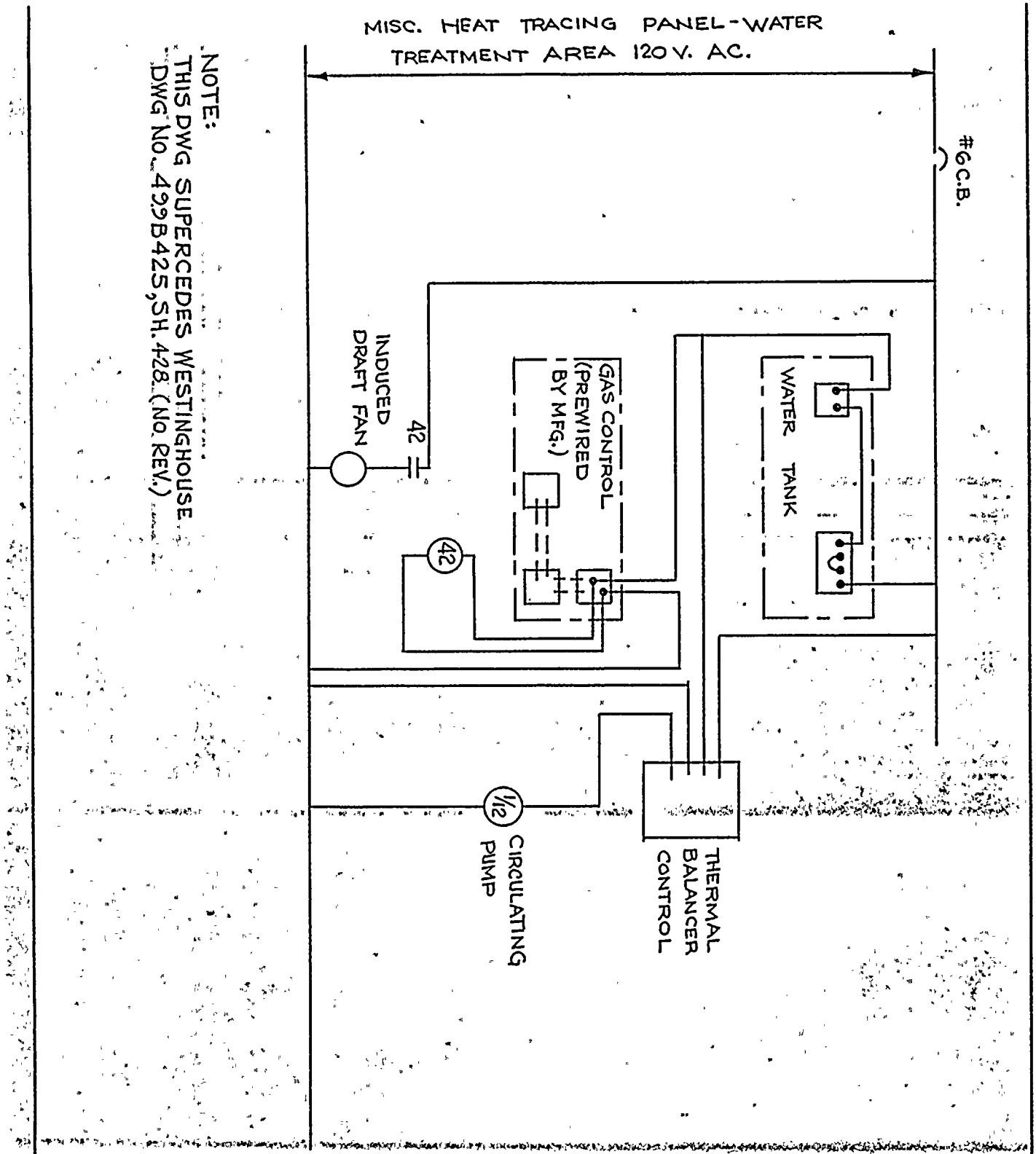
DRAWN	L. Schultz	DATE 3/27/74	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.

THIS DRAWING SUPERCEDES WESTINGHOUSE DRAWING 499B425, SHT. 427 (REV. 0)



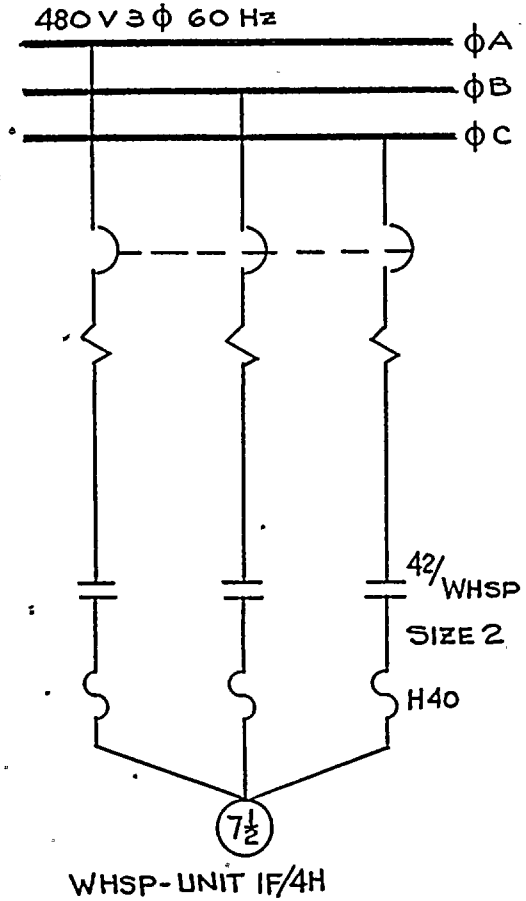
REV.						
ORIGINAL	E.Schutt	RHM 4/14/75	PCK	RAM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R. MGR.	DATE

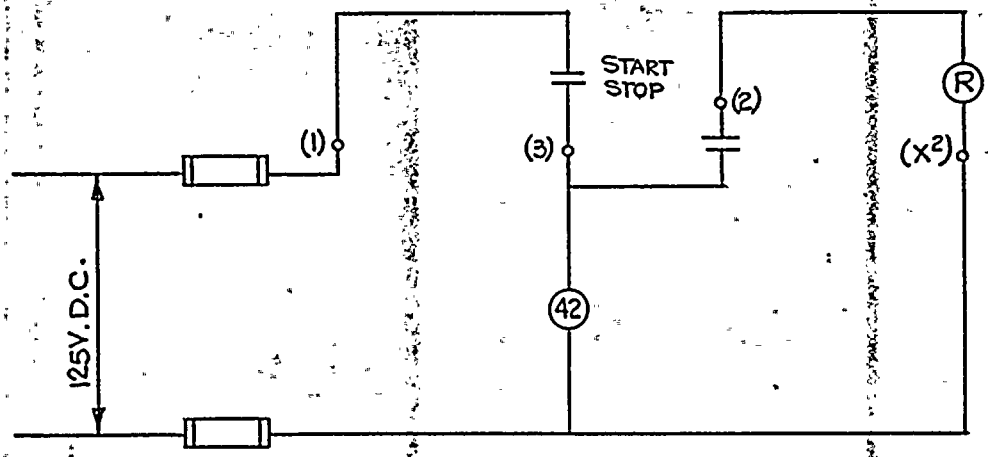
ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1	DRAWN E.Schutt DATE 9/5/74	SCALE NONE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM	TRACED	APPROVED
NO. 10905-427	INDUCED DRAFT FAN - REDUCED OSMOSIS	CHECKED	FOLDER NO.
		ENG.	JOB NO.



REV.						
ORIGINAL		E.J. Schmitt	RHM 4/19/75	PCK	RCM	6/5/75
		DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP. ROCHESTER, NEW YORK	ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1	DRAWN BY E. Schmitt 5/27/74	SCALE NONE
ENGINEERING DEPT	ELEMENTARY WIRING DIAGRAM WATER HEATER	TRACED	APPROVED
		CHECKED	FOLDER NO.
NO. 10905-428		ENG.	JOB NO.





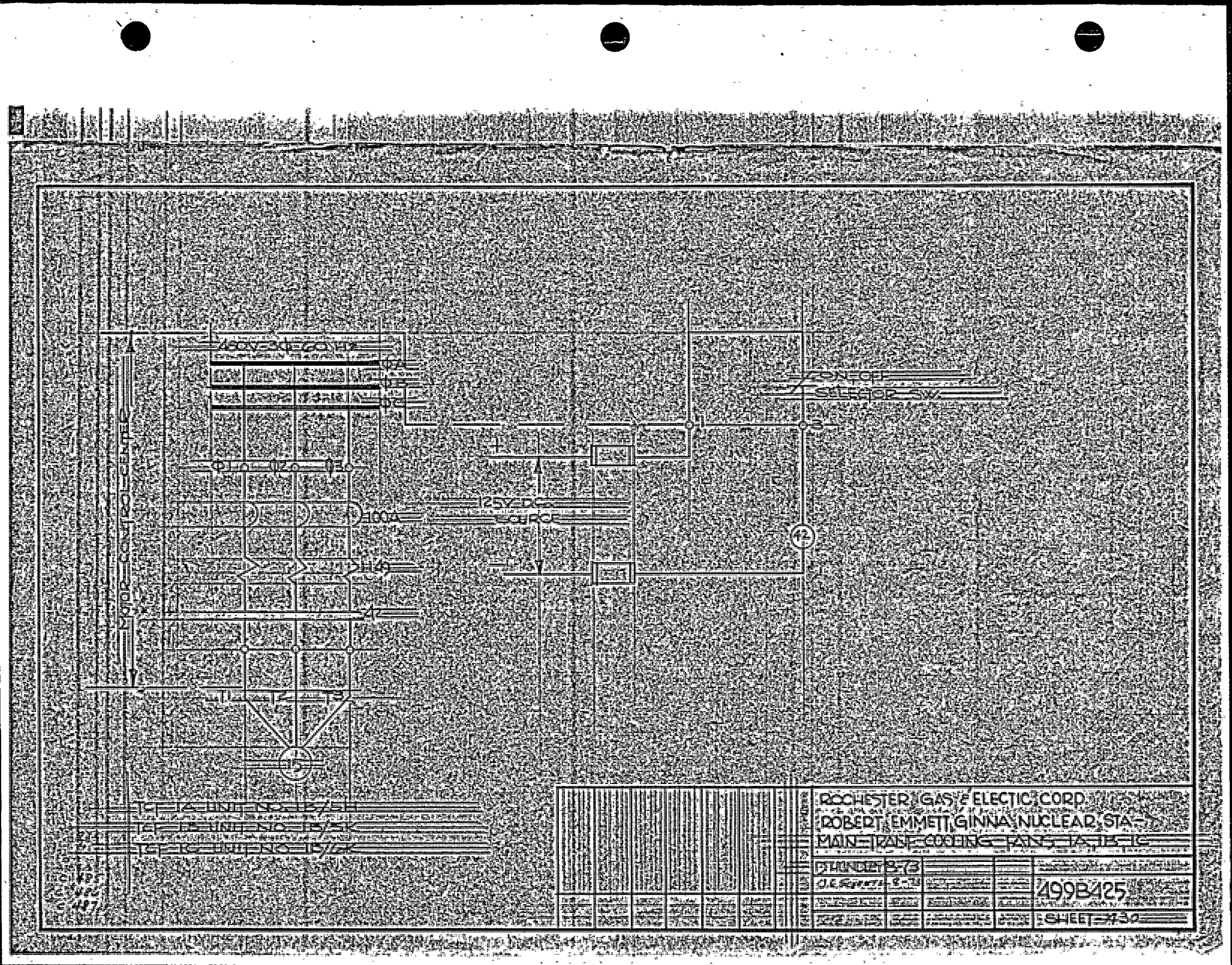
NOTE:
THIS DWG. SUPERCEDES WESTINGHOUSE
DWG. No. 499 B 425, SH. 429, (No REV.)

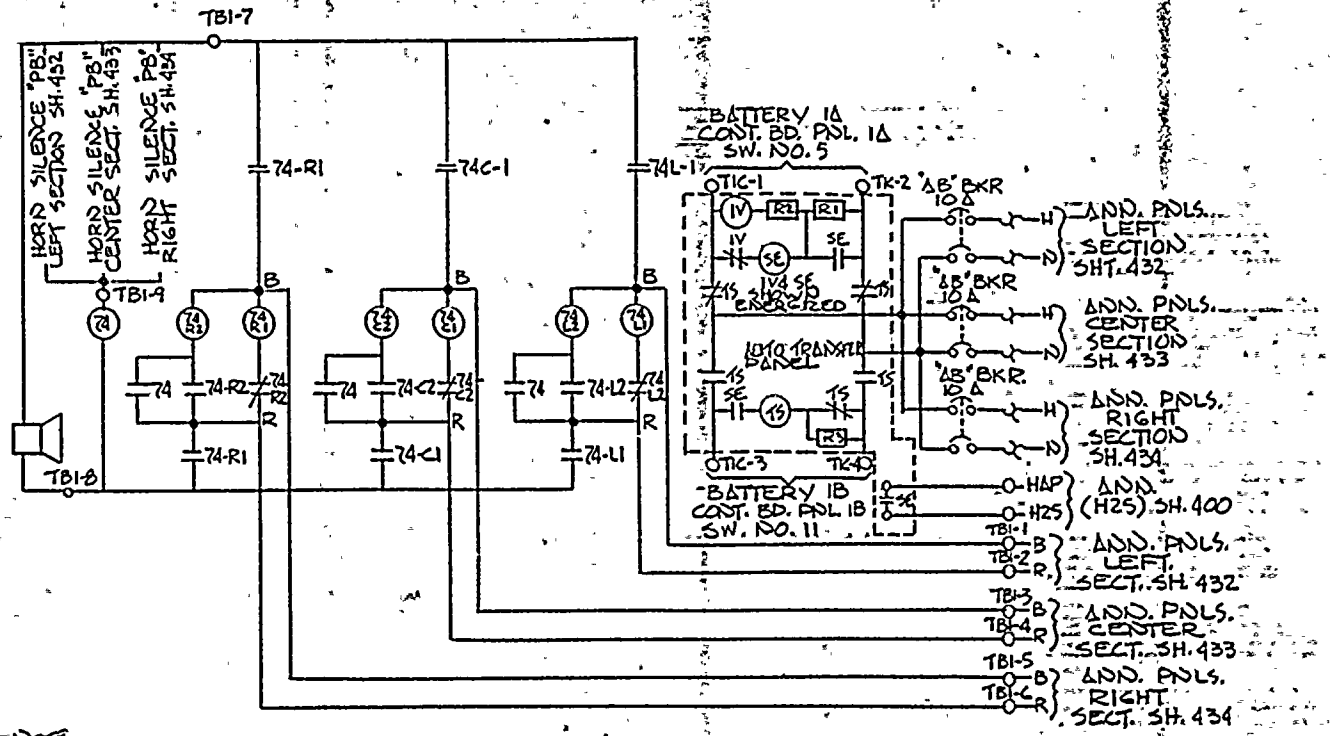
REV.								
ORIGINAL	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR.	DATE
	E.L.Schaff	RHM 4/14/75	ACH	RMM	6/5/75

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT
No. 10905-439

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT No. 1
ELEMENTARY WIRING DIAGRAM
WATER HEATER SUPPLY WATER PUMP

DRAWN	E.L.Schaff	SCALE	NONE
TRACED		APPROVED	
CHECKED		FOLDER NO.	
ENG.		JOB NO.	


ROCHESTER GAS & ELECTRIC CORP.
ROBERT EMMETT GINNA NUCLEAR STA.
MAIN TRANSFORMER COOLING FANS 1A 1B 1C
499B425
SHEET 30
125V DC
SOURCE
ONE OF
SELECTOR SW.
TO FAN UNIT NO. 1B/1K
TO FAN UNIT NO. 1B/2K
TO FAN UNIT NO. 1B/3K



NOTE
1. 74 RELAYS ARE LINE ELECTRIC CO. AHTR-3D 24 VDC COIL
2. AUTO TRANSFER PANEL AUTOMATIC SWITCH CO. CATALOG NO. 4620

THIS DWG. SUPERSEDES Ⓦ DWG. 499B425 SH. 431 REV. 2

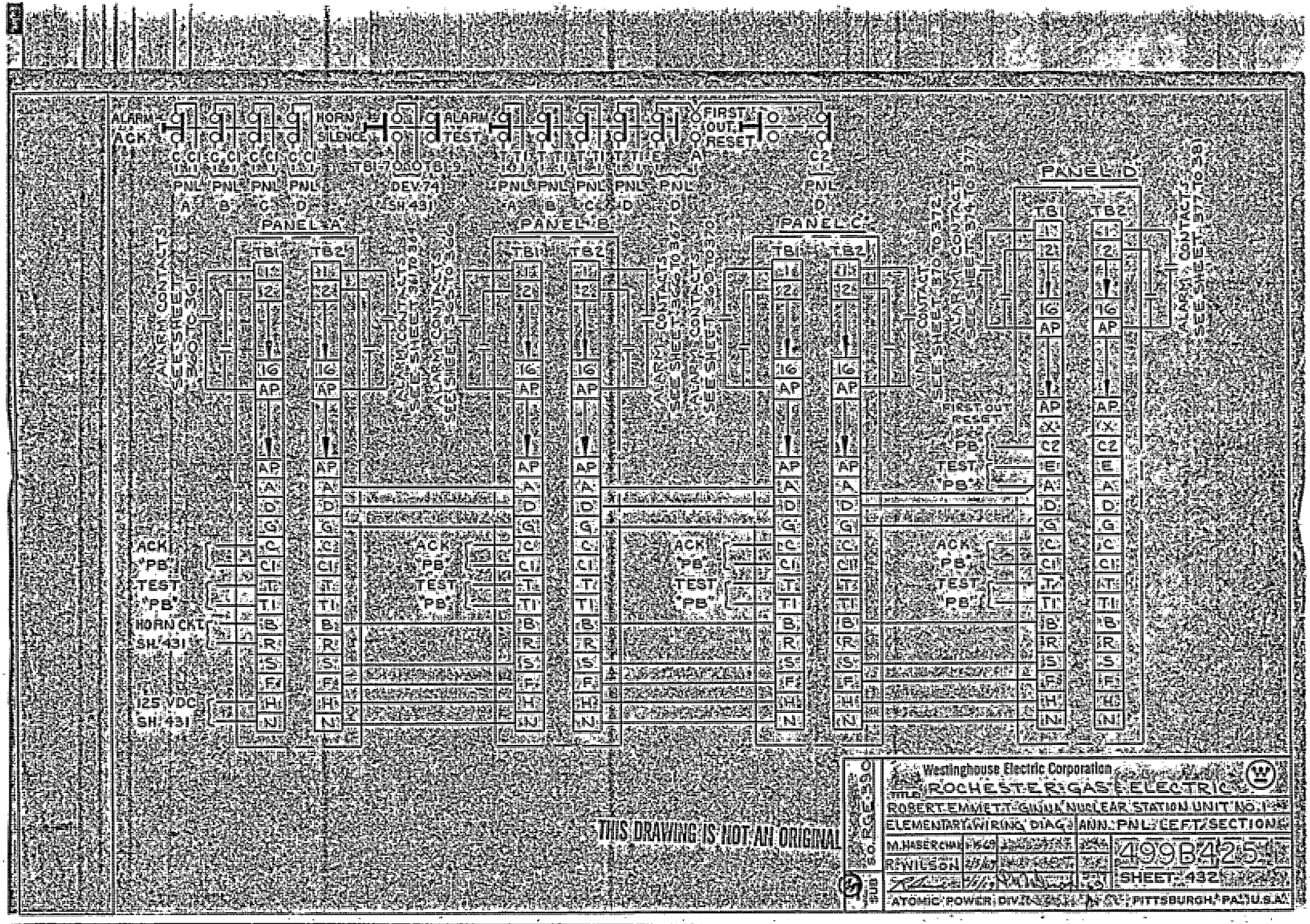
REV.							
ORIGINAL	DRAWN BY A.V.	CK'D. RHM 4/14/75	RESP. ENGR. RCM	ENGR. MGR. [illegible]	DATE 6/5/75		

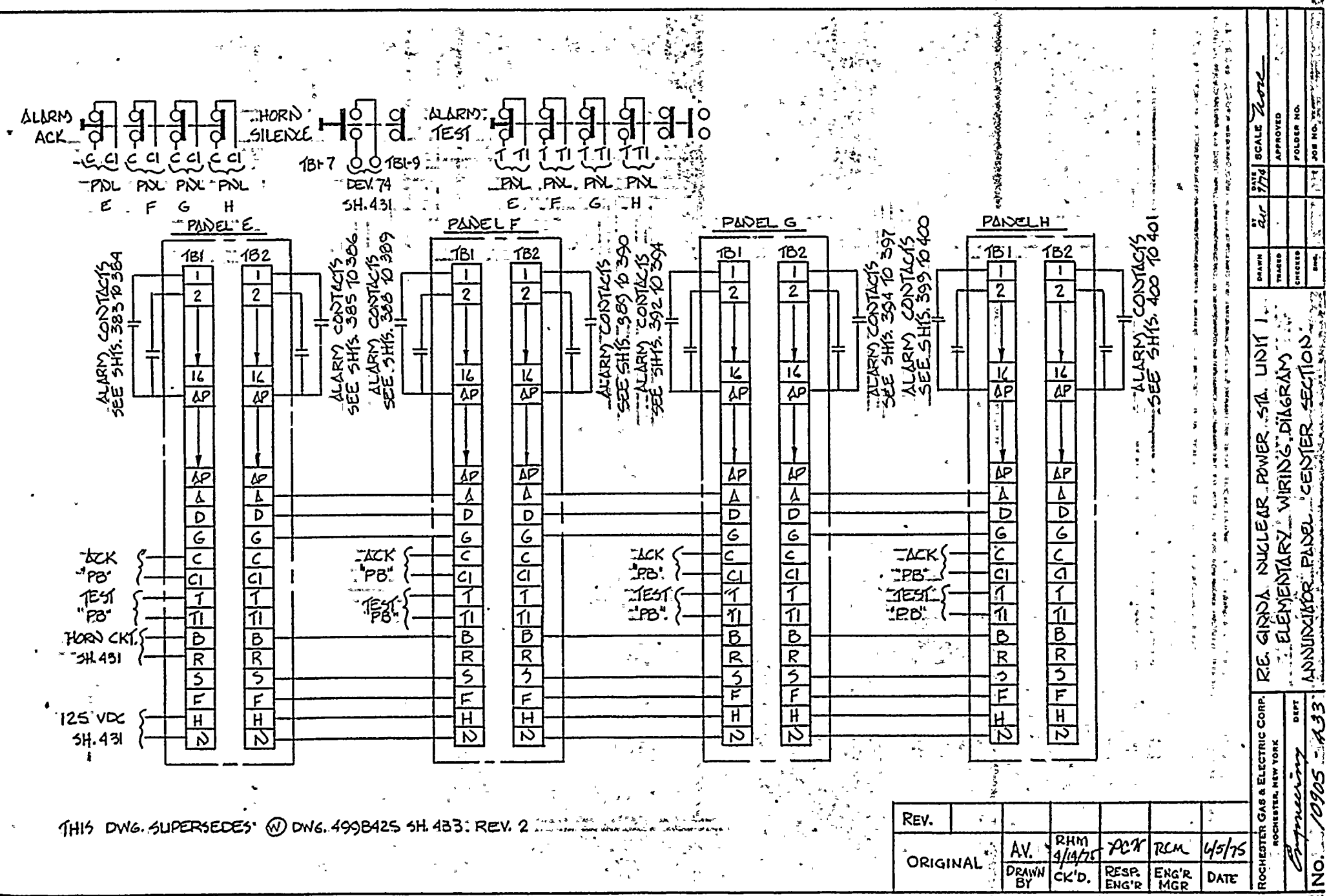
DRAWN	BY	DATE
TRACED		
CHECKED		
ENG.		

SCALE
APPROVED
FOLDER NO.
JOB NO.

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. Engineering
NO. 10905-431

R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ADD. PWR. TRANS. & HORN SILENCE


ALARM ACK
HORN SILENCE
ALARM TEST
FIRST OUT RESET
PANEL A
PANEL B
PANEL C
PANEL D
TB1
TB2
ACK "PB"
TEST "PB"
HORN CKT SH 431
125 VDC SH 431
ALARM SYSTEM SHEET 1 OF 2
ALARM SYSTEM SHEET 2 OF 2
ALARM CONTACT SHEET 1 OF 2
ALARM CONTACT SHEET 2 OF 2
SEE SHEET 5 OF 7
SEE SHEET 6 OF 7
SEE SHEET 7 OF 7
SEE SHEET 3 OF 7
SEE SHEET 4 OF 7
TBI-7 TO TB1-9 DEV. 74 (SH 431)
THIS DRAWING IS NOT AN ORIGINAL
Westinghouse Electric Corporation
ROCHESTER GAS & ELECTRIC
ROBERT EMMETT SINNOTT NUCLEAR STATION UNIT NO. 1
ELEMENTARY WIRING DIAG. ANN. PNL. CE FT. SECTIONS
M. HABERCOM
R. WILSON
499B4254
SHEET 432
ATOMIC POWER DIVISION
PITTSBURGH, PA. U.S.A.



THIS DWG. SUPERSEDES Ⓦ DWG. 499B425 SH. 433: REV. 2

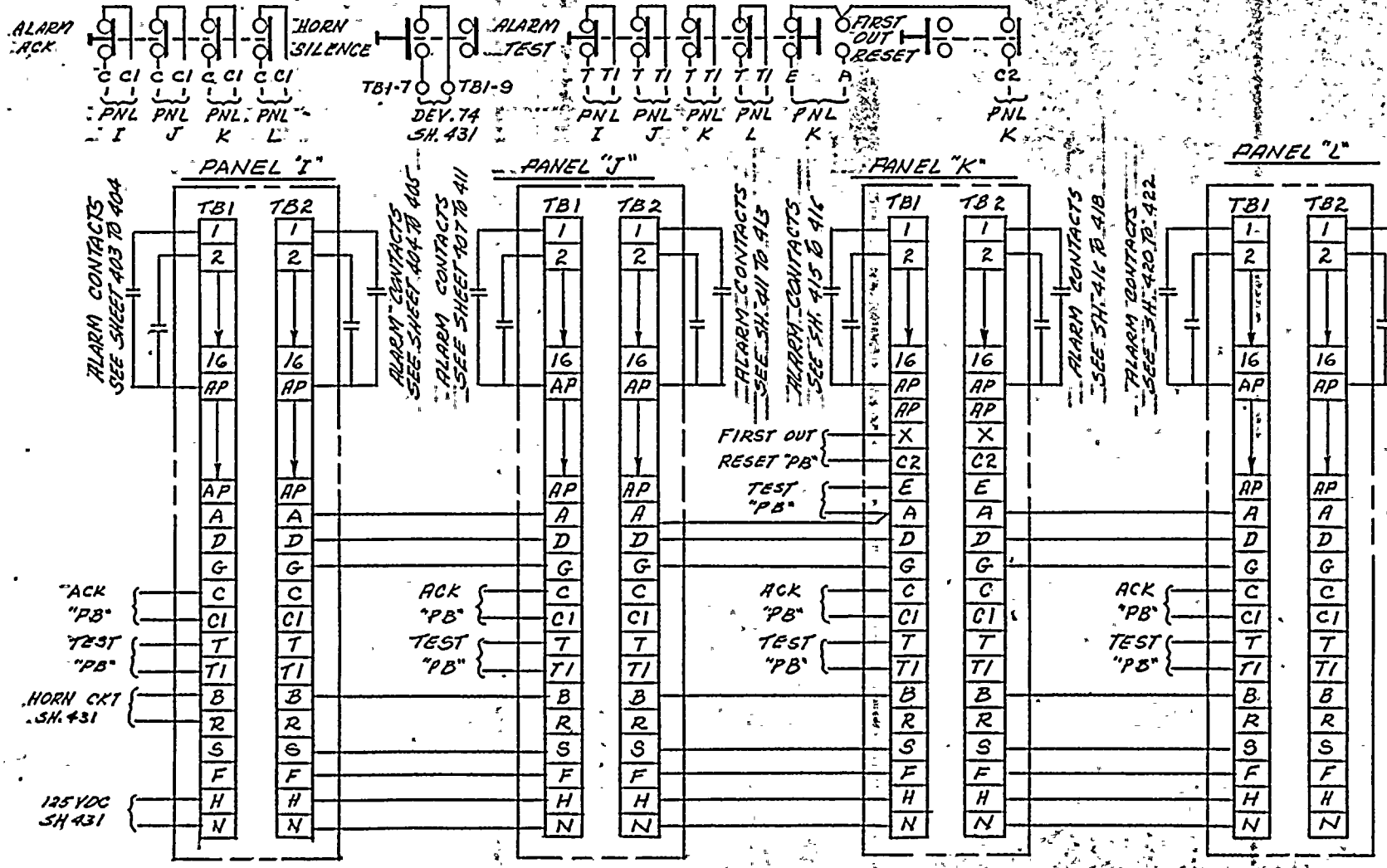
REV.						
ORIGINAL	A.V.	RHM 4/14/75	ACK	RCM	4/5/75
	DRAWN BY	CK'D.	RESP. ENG'R	ENG'R MGR	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
ENGINEERING DEPT

R.E. GINNA NUCLEAR POWER STA. UNIT 1
ELEMENTARY WIRING DIAGRAM
ANNUNCIATOR PANEL CENTER SECTION

DRAWN av DATE 3/74
TRACED
CHECKED
ENG.
SCALE None
APPROVED
FOLDER NO.
JOB NO. 1905

NO. 10905-A33



REV.						
ORIGINAL	N.J.A.	RHM 4/14/75	PCK	RLM	6/5/75
	DRAWN BY	CK'D.	RESP. ENG'R.	ENG'R MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
NO. 10905-434

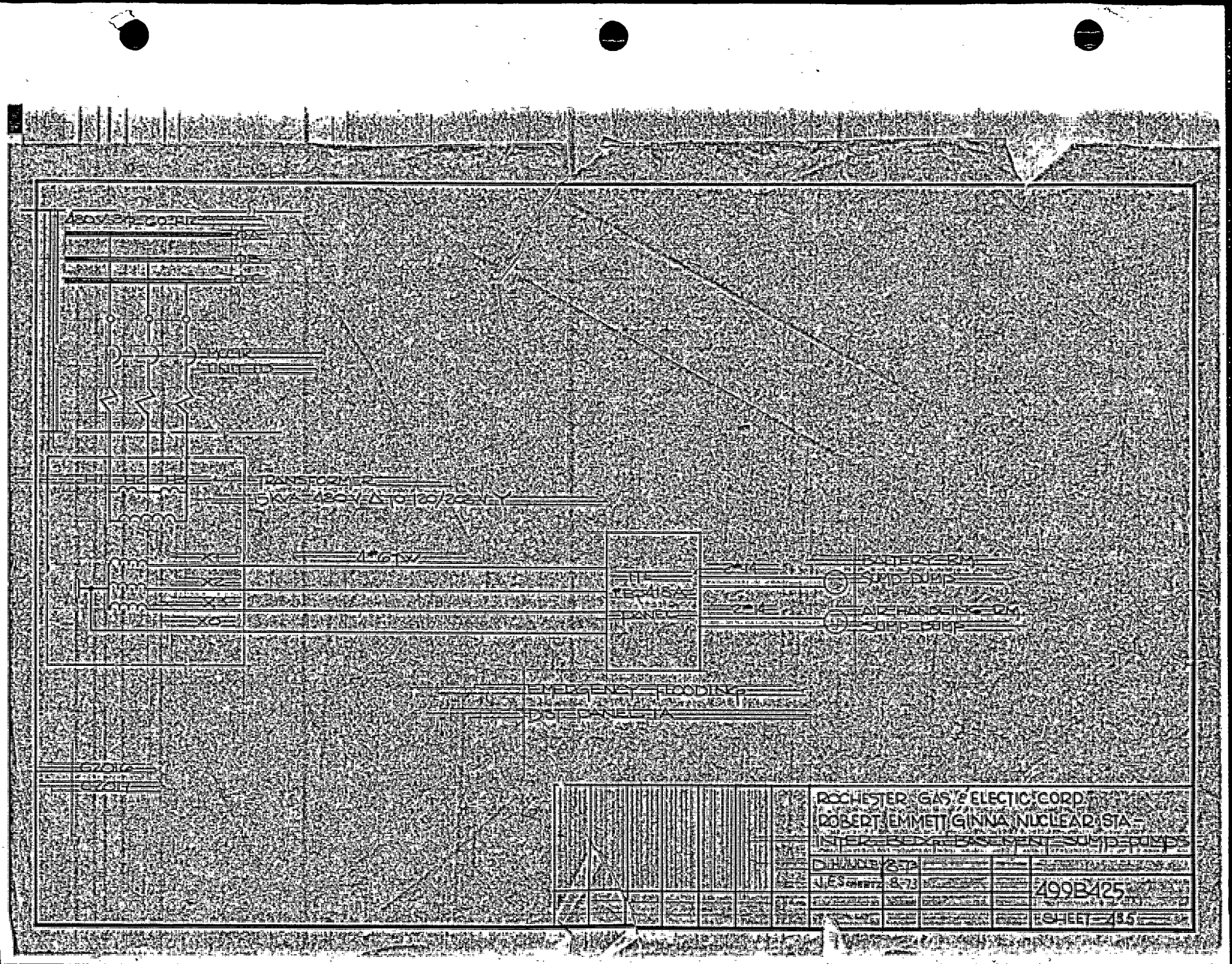
THIS DWG. SUPERCEDES Westinghouse Dwg 4P2422F SH. 434 REV. 2

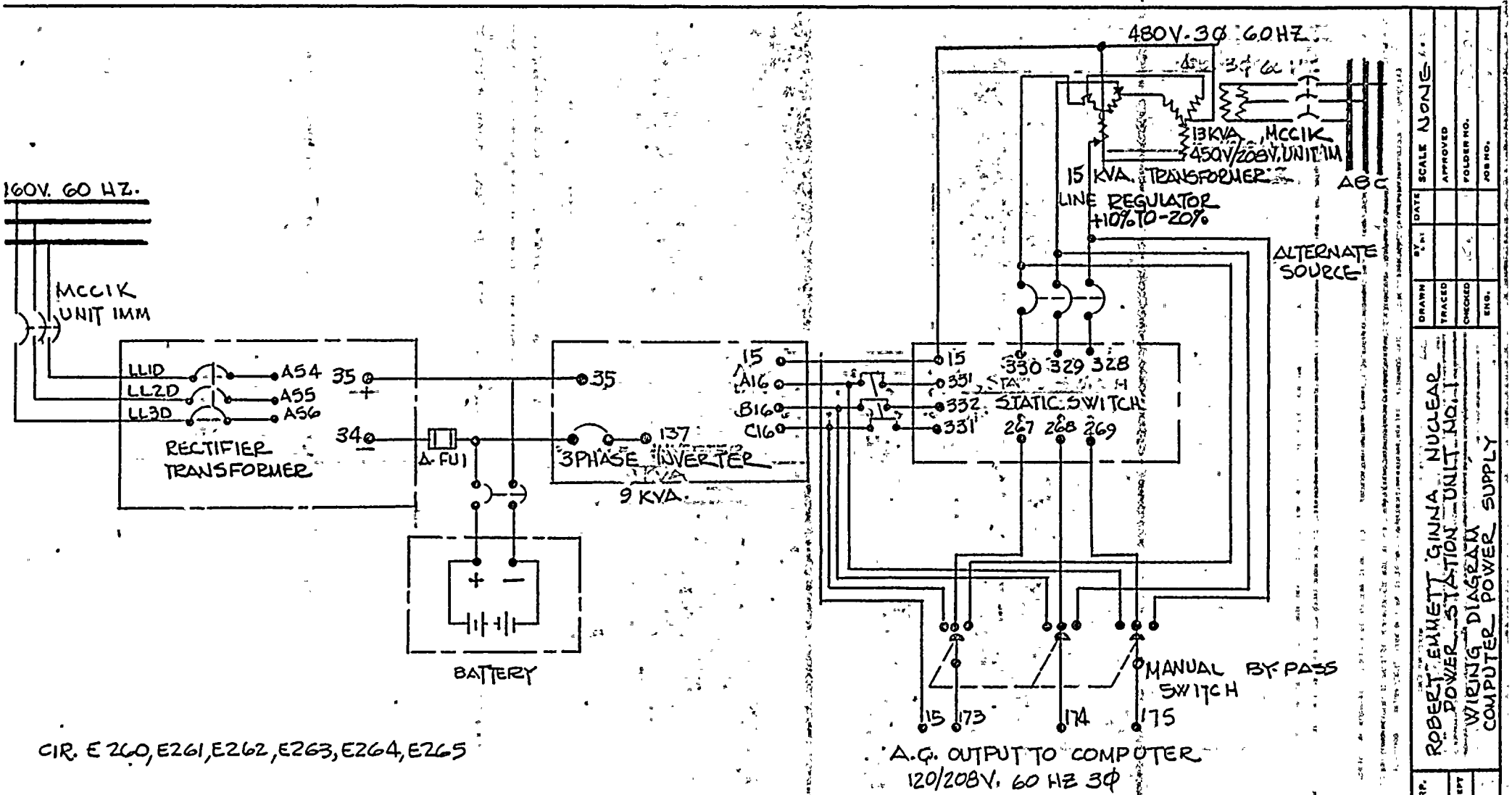
ROBERT EMMETT — GINNA NUCLEAR STA. UNIT I

ELEMENTARY WIRING DIAGRAM

ANN. PANEL RT. SECTION

DRAWN	N.F.A.	DATE 6/76	SCALE NONE
TRACED			APPROVED
CHECKED			FOLDER NO.
ENG.			JOB NO.


480V 3Ø 60HZ
TRANSFORMER
5KVA 480V/Δ TO 120/208V
1Ø 6 I/V
TERMINAL
EMERGENCY FLOODING
DOE PANEL 1A
SUMP PUMPS
AIR HANDLING RM
SUMP PUMP
ROCHESTER GAS & ELECTIC CORP
ROBERT EMMETT GINNA NUCLEAR STA
INTERFACE BASEMENT SUMP PUMPS
499B425
SHEET 45



CIR. E260, E261, E262, E263, E264, E265

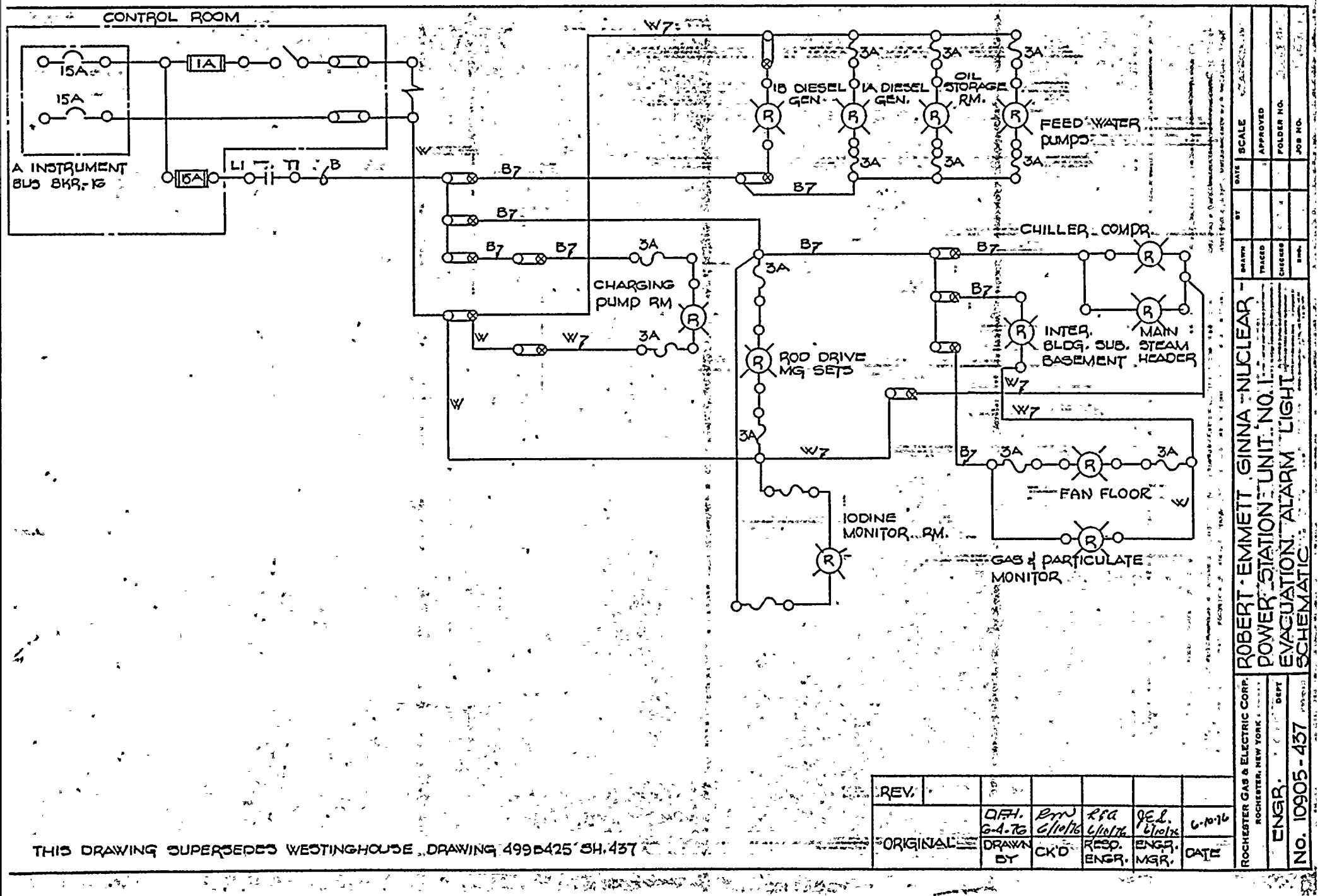
NOTE: THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH 436

REV.						
ORIGINAL		DBF	RMV.	JFB 5/21/12	JES	5/21/12
		DRAWN BY	CK'D	RESP. ENG'R	ENGR MGR.	DATE

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT ENGINEERING
No. 10905 - 436

DRAWN | TRACED | CHECKED | ENG.
BY | DATE
SCALE NONE
APPROVED
FOLDER NO.
JOB NO.

ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
WIRING DIAGRAM
COMPUTER POWER SUPPLY



THIS DRAWING SUPERSEDES WESTINGHOUSE DRAWING 499B425 SH. 437

REV.						
ORIGINAL	DRAWN BY: A.F.H. 6-4-76	CK'D: [illegible] 6/10/76	RESP. ENGR.: R.F.A. 6/10/76	ENGR. MGR.: J.E.L. 6/10/76	DATE: 6-10-76	

ROCHESTER GAS & ELECTRIC CORP.
ROCHESTER, NEW YORK
DEPT. ENGR.
No. 10905-437

ROBERT E. EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1
EVACUATION ALARM LIGHT SCHEMATIC

DRAWN BY | DATE | SCALE
TRACED BY | APPROVED
CHECKED BY | FOLDER NO.
ENG. | JOB NO.