FILE FOLDER

DESCRIPTION ON TAB:

Rifle Range

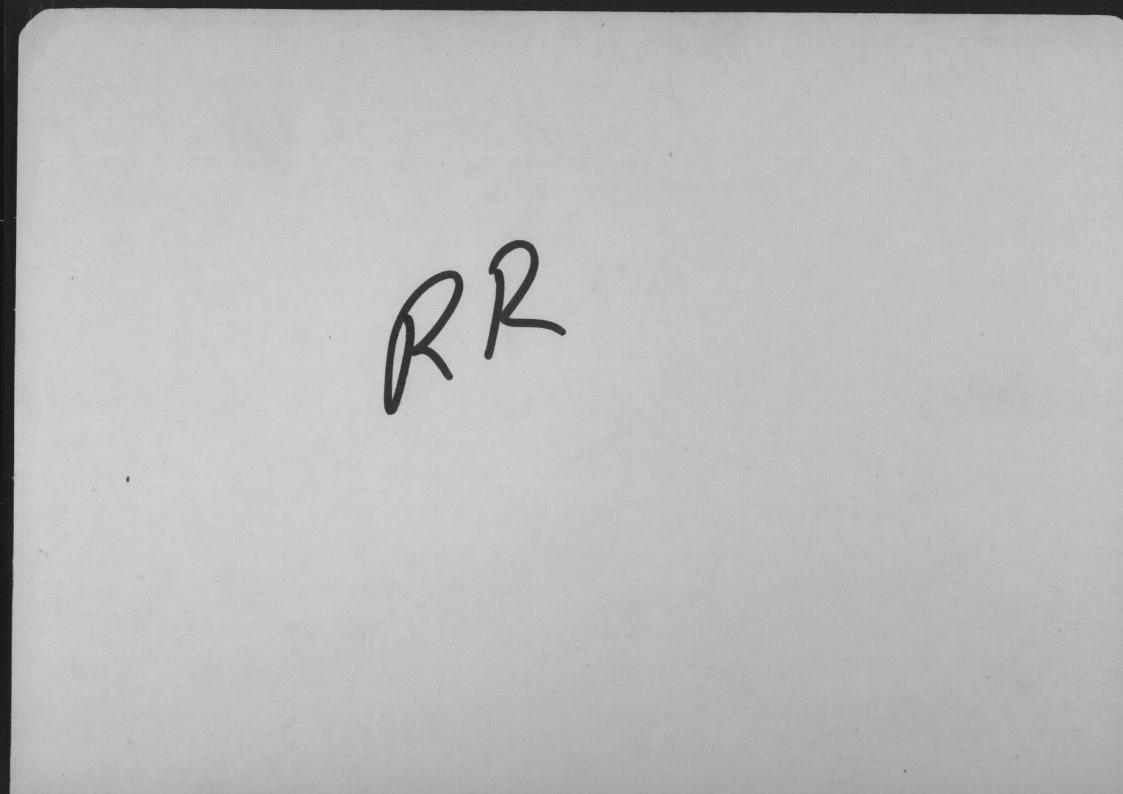
Water Plant BIDG. 85

Outside/inside of actual folder did not contain hand written information

Outside/inside of actual folder did contain hand written information *Scanned as next image

Confidential Records Management, Inc. New Bern, NC 1-888-622-4425 9/08

A



FILE FOLDER

DESCRIPTION ON TAB:

Rifle Bange RR-85

Water Plant

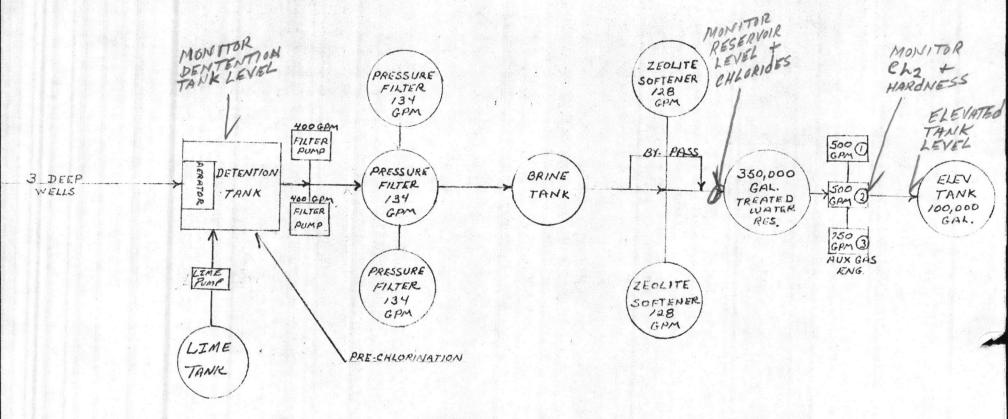
Outside/inside of actual folder did not contain hand written information

Outside/inside of actual folder did contain hand written information *Scanned as next image

Confidential Records Management, Inc. New Bern, NC 1-888-622-4425 9/08



RIFLE RANGE BLDG. RR-85 CAPACITY 600,000 GPD WITH 3 DEEP WELLS ZEOLITE SOFTENING PLANT



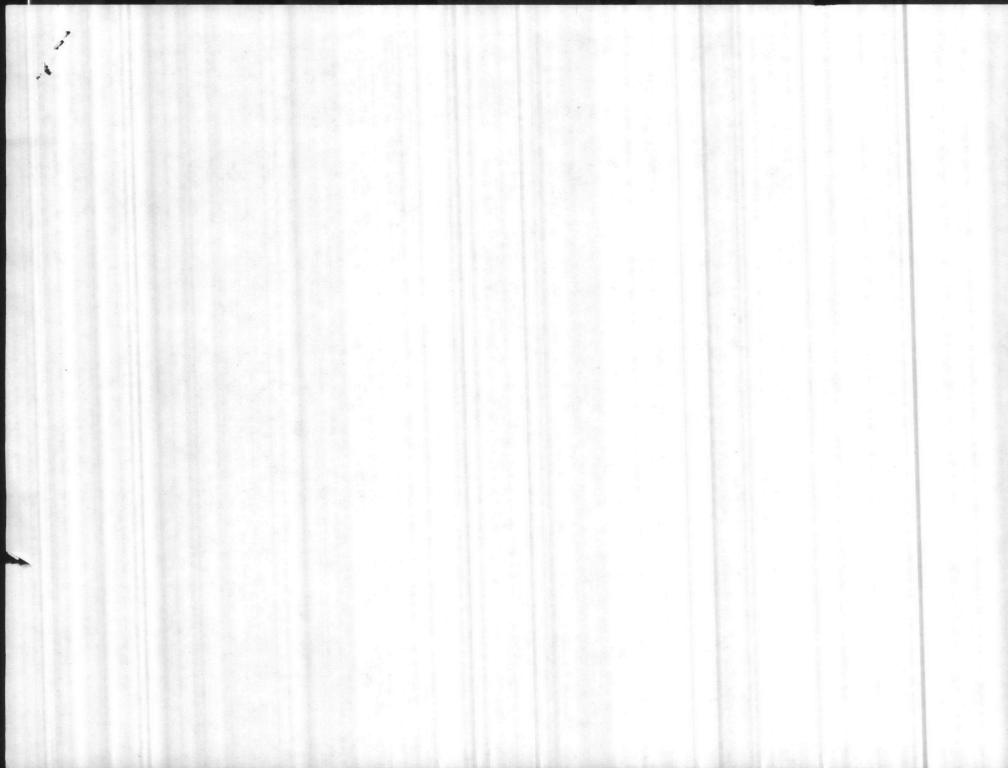


Table III C 3

WELL SURVEY SHEET*

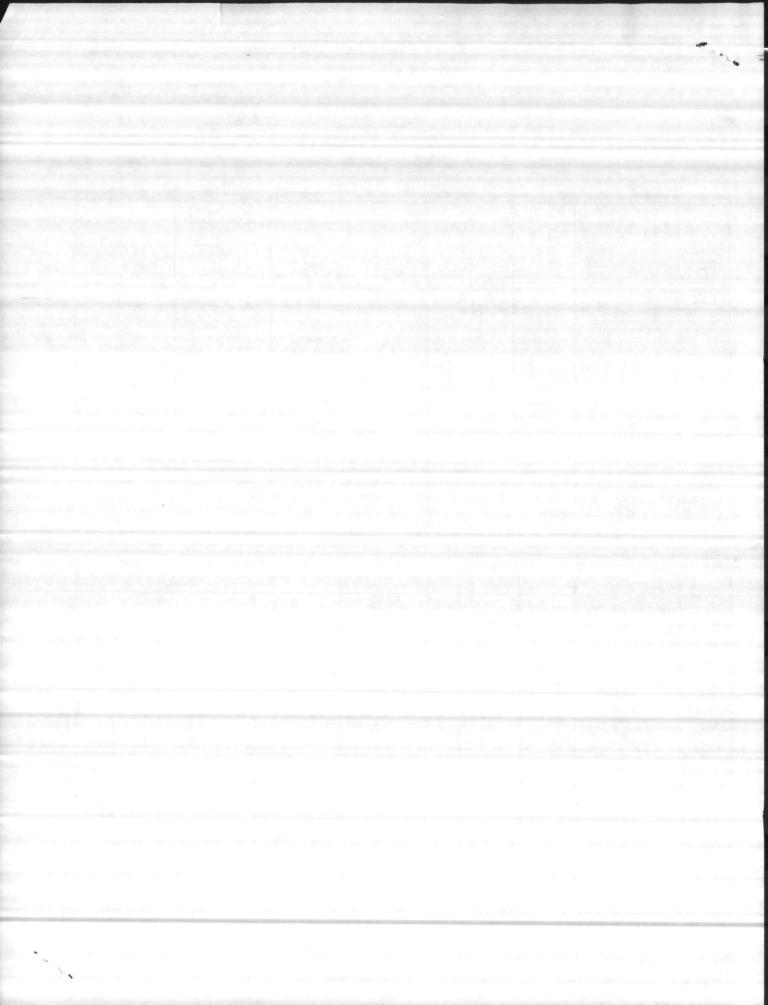
Sheet No. 9

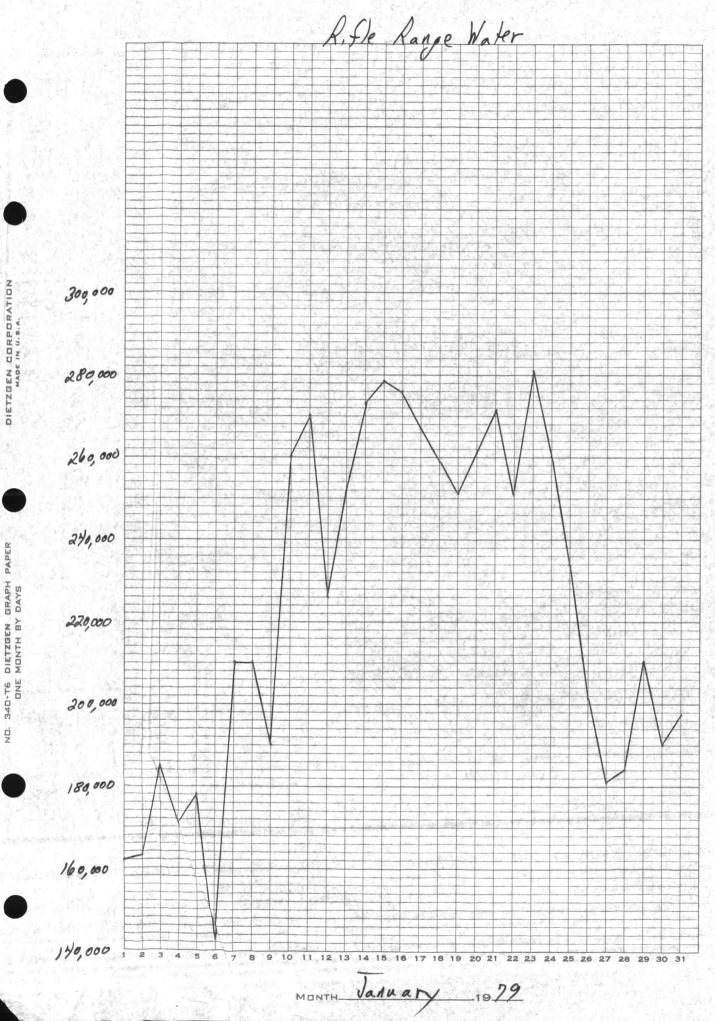
3-3-77 DATE:

WELL NO.	WELL TYPE	DRILLED DEPTH ft.	STATIC LEVEL (ft)	CASING SIZE (in.)	STAGES	DRAWDOWN AT RATED CAPACITY (feet)	RATED CAPACITY (gpm)	PRESENT CAPACITY (GPM)
RR-45 RR-47 RR-227	DRILLED DRILLED DRILLED	130' 85' 77'	27 ' 11 ' 13 '	8" 8" 8"	10 7 10	8' 6' 10'	140 250 200	100 175 50

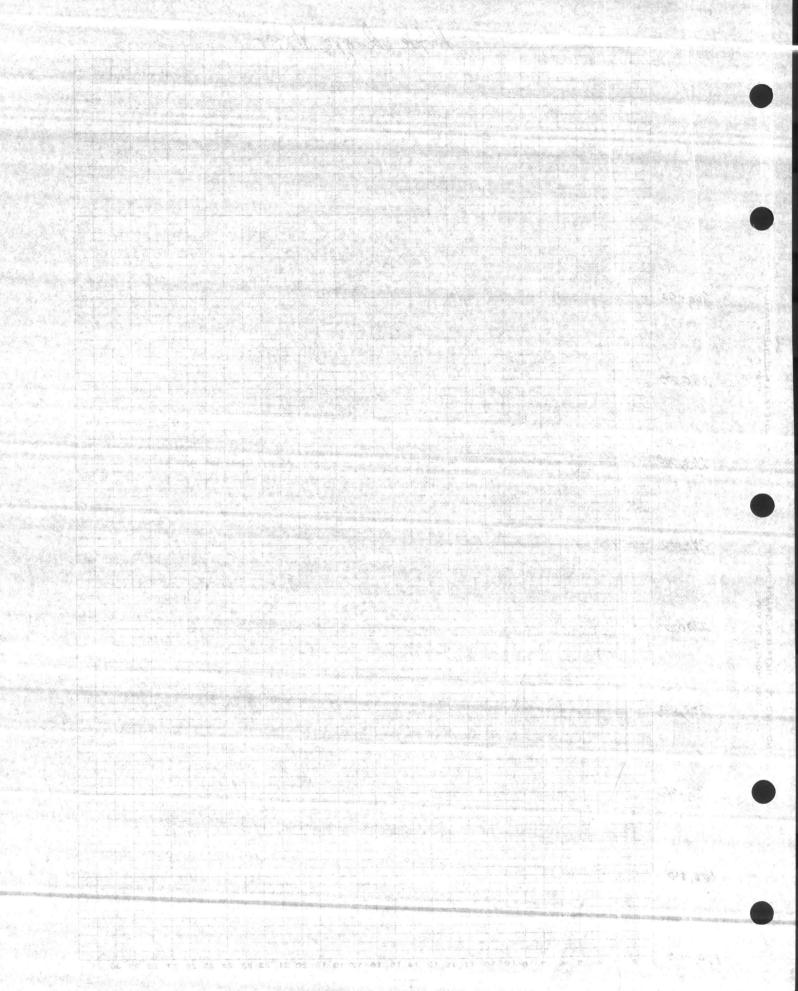
WELL NO.	SPECIFIC CAPACITY (gpm/ft of drawdown)	PUMP HEAD (ft)	MOTOR H. P.	CHLORINATION (AMOUNT)	RESIDUAL CHLORINE (ppm)	AUXILIARY POWER (type)	D F0 710	
RR-45 RR-47 RR-227	17.5 41.7 20.0	205' 190' 190'	15.0 20.0 10.0			CASOLINE GASOLINE		
						•		

III-C-9





340-T6 DIETZGEN GRAPH PAPER ONE MONTH BY DAYS ż



Con Vistin Harris

Refinite WATER CONDITIONING COMPANY

P.O. BOX 11676, PADDOCK PARKWAY, ROCK HILL, S.C. 29730, PHONE (803) 324-7600

December 23, 1986 JS-63

Mr. Gary Horne Department Of The Navy Officer In Charge Of Construction Resident Officer In Charge Of Construction Naval Facilities Engineering Command Contracts Camp Lejeune, N.C. 28542

SUBJECT: REFINITE WATER TREATMENT RR85

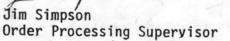
Dear Mr. Horne:

Please find enclosed "As Built" information on the above referenced job compiled after our last trip to Camp Lejeune on December 15th and 16th, 1986. This information includes:

- 1. Logic for the GE Series One Programmable Controller in the control panel.
- 2. Refinite wiring diagram on drawings RF10-26 through RF10-31.
- Operational sequence of filters and softeners along with instructions concerning actions that should be taken in case of a power failure.
- Refinite drawings RF910-1F and RF910-5 showing the external views of the filters and softeners.

We are also forwarding a recommended spare parts list for the control panel and multiport valyes.

Sincerely:



JS/th

Enclosures



RR-85

MACK, I AM LEAVING THIS NIGHTMARE FOR

YOU, MAY BETHAT YOU CAN THINK OF SOMETHING TO

DO WITH IT WRP

MANUAL

I.

A. TURN ALL FILTER SWITCHES TO "H" POSITION.B. FILTER 1

- 1. PRESS MANUAL START PUSHBUTTON.
- 2. INFLUENT VALVE CLOSES.
- 3. MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 4. MULTIPORT VALVE ROTATES TO BACKWASH POSITION.
- 5. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 6. BACKWASH VALVE AND SURFACE WASH VALVE OPEN.
- 7. SURFACE WASH VALVE CLOSES AFTER 5 MINUTES.
- 8. BACKWASH VALVE CLOSES AFTER 8 MINUTES.
- 9. MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 10. MULTIPORT VALVE ROTATES TO RINSE POSITION.
- 11. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 12. INFLUENT VALVE OPENS.
- 13. INFLUENT VALVE CLOSES AFTER 5 MINUTES.
- 14. MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 15. MULTIPORT VALVE ROTATES TO SERVICE POSITION.
- 16. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 17. INFLUENT VALVE OPENS.

nGarman

AS BUILT CONDITIONS SATISFACTORY TO AROLOC: DATE SATUSTACTORY TO INSPECTOR: DATE SATISFACTORY TO AROLOC: CWC PhC CONTRACTOR 80-1454

- C. FILTER 2
 - 1. PRESS MANUAL START PUSHBUTTON.
 - 2. INFLUENT VALVE CLOSES.
 - 3. MULTIPORT RELIEF SOLENOID VALVES OPEN.
 - 4. MULTIPORT VALVE ROTATES TO BACKWASH POSITION.
 - 5. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
 - 6. BACKWASH VALVE AND SURFACE WASH VALVE OPEN.
 - 7. SURFACE WASH VALVE CLOSES AFTER 5 MINUTES.
 - . 8. BACKWASH VALVE CLOSES AFTER 8 MINUTES.
 - 9. MULTIPORT RELIEF SOLENOID VALVES OPEN.
 - 10. MULTIPORT VALVE ROTATES TO RINSE POSITION.
 - 11. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
 - 12. INFLUENT VALVE OPENS.
 - 13. INFLUENT VALVE CLOSES AFTER 5 MINUTES.
 - 14. MULTIPORT RELIEF SOLENOID VALVES OPEN.
 - 15. MULTIPORT VALVE ROTATES TO SERVICE POSITION.
 - 16. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
 - 17. INFLUENT VALVE OPENS.

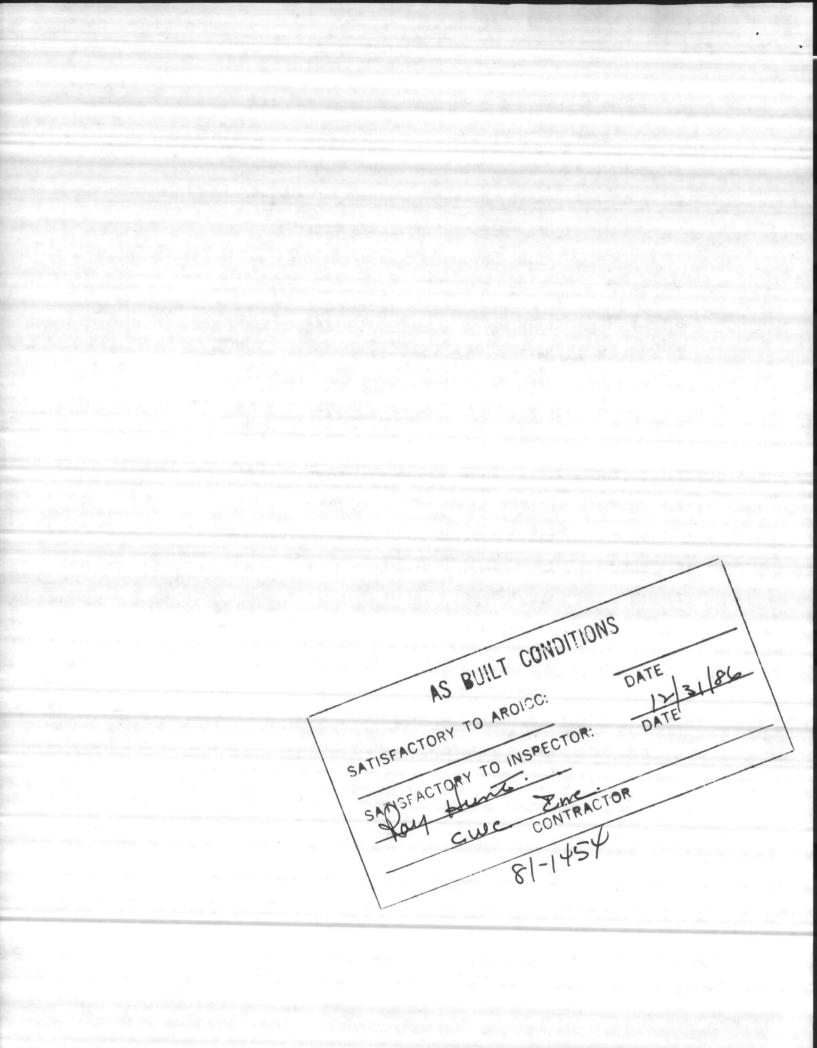
AS BUILT CONDITIONS DATE 1231 86 DATE SATISFACTORY TO AROUSC: SATOFACTORY TO INSPECTOR: CWC Encactor CONTRACTOR 81-1454

D. FILTER 3

- 1. PRESS MANUAL START PUSHBUTTON.
- 2. INFLUENT VALVE CLOSES.
- 3. MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 4. MULTIPORT VALVE ROTATES TO BACKWASH POSITION.
- 5. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 6. BACKWASH VALVE AND SURFACE WASH VALVE OPEN.
- 7. SURFACE WASH VALVE CLOSES AFTER 5 MINUTES.
- 8. BACKWASH VALVE CLOSES AFTER 8 MINUTES.
- 9. MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 10. MULTIPORT VALVE ROTATES TO RINSE POSITION.
- 11. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 12. INFLUENT VALVE OPENS.
- 13. INFLUENT VALVE CLOSES AFTER 5 MINUTES.
- 14. MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 15. MULTIPORT VALVE ROTATES TO SERVICE POSITION.

3,4

- 16. MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 17. INFLUENT VALVE OPENS.



II. AUTOMATIC

1. TURN ALL FILTER SWITCHES TO "A" POSITION.

2. DIFFERENTIAL PRESSURE CLOSES.

3. FILTER 1 INFLUENT VALVE CLOSES.

4. FILTER 1 MULTIPORT RELIEF SOLENOID VALVES OPEN.

5. FILTER 1 MULTIPORT VALVE ROTATES TO BACKWASH POSITION.

6. FILTER 1 MULTIPORT RELIEF SOLENOID VALVES CLOSE.

7. FILTER 1 BACKWASH VALVE AND SURFACE WASH VALVE OPEN.

8. FILTER 1 SURFACE WASH VALVE CLOSES AFTER 5 MINUTES.

9. FILTER 1 BACKWASH VALVE CLOSES AFTER 8 MINUTES.

10. FILTER 1 MULTIPORT RELIEF SOLENOID VALVES OPEN.

11. FILTER 1 MULTIPORT VALVE ROTATES TO RINSE POSITION.

12. FILTER 1 MULTIPORT RELIEF SOLENOID VALVES CLOSE.

13. FILTER 1 INFLUENT VALVE OPENS.

14. FILTER 1 INFLUENT VALVE CLOSES AFTER 5 MINUTES.

15. FILTER 1 MULTIPORT RELIEF SOLENOID VALVES OPEN.

16. FILTER 1 MULTIPORT VALVE ROTATES TO SERVICE POSITION.

17. FILTER 1 MULTIPORT RELIEF SOLENOID VALVES CLOSE.

18. FILTER 1 INFLUENT VALVE OPENS.

19. FILTER 2 INFLUENT VALVE CLOSES.

20. FILTER 2 MULTIPORT RELIEF SOLENOID VALVES OPEN.

21. FILTER 2 MULTIPORT VALVE ROTATES TO BACKWASH POSITION.

22. FILTER 2 MULTIPORT RELIEF SOLENOID VALVES CLOSE.

23. FILTER 2 BACKWASH VALVE AND SURFACE WASH VALVE OPEN.

24. FILTER 2 SURFACE WASH VALVE CLOSES AFTER 5 MINUTES.

25. FILTER 2 BACKWASH VALVE CLOSES AFTER 8 MINUTES.

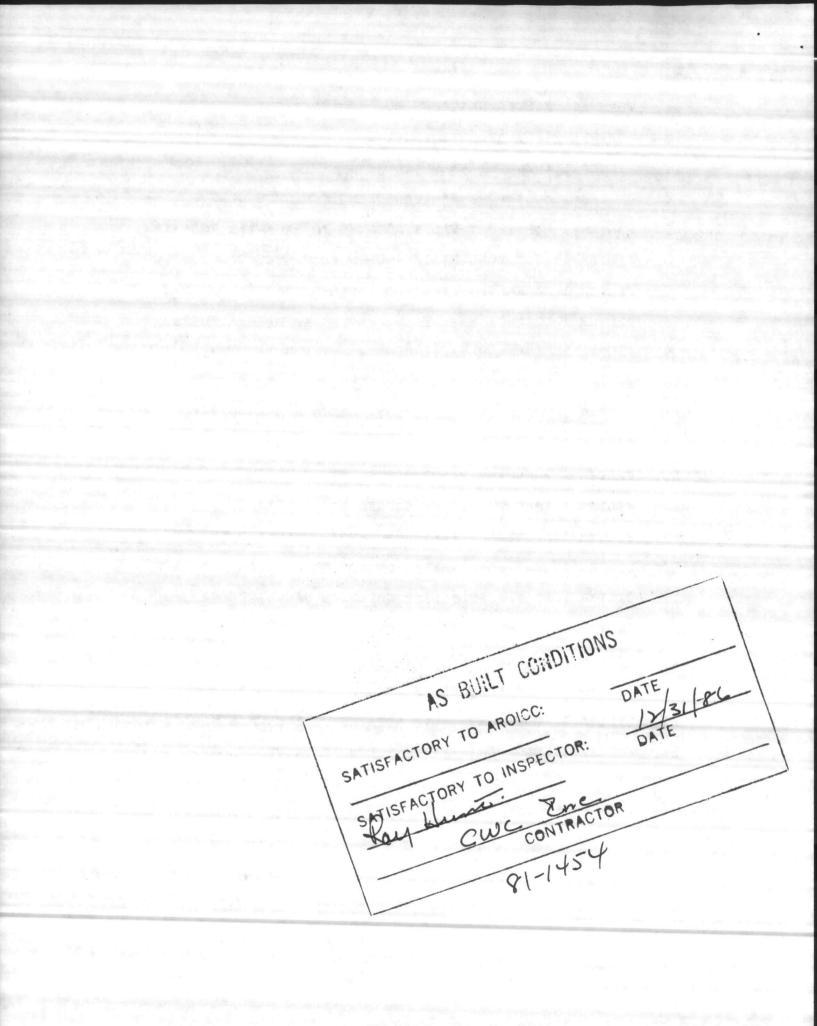
26. FILTER 2 MULTIPORT RELIEF SOLENOID VALVES OPEN.

27. FILTER 2 MULTIPORT VALVE ROTATES TO RINSE POSITION.

28. FILTER 2 MULTIPORT RELIEF SOLENOID VALVES CLOSE.

29. FILTER 2 INFLUENT VALVE OPENS.

30. FILTER 2 INFLUENT VALVE CLOSES AFTER 5 MINUTES.



- 31. FILTER 2 MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 32. FILTER 2 MULTIPORT VALVE ROTATES TO SERVICE POSITION.

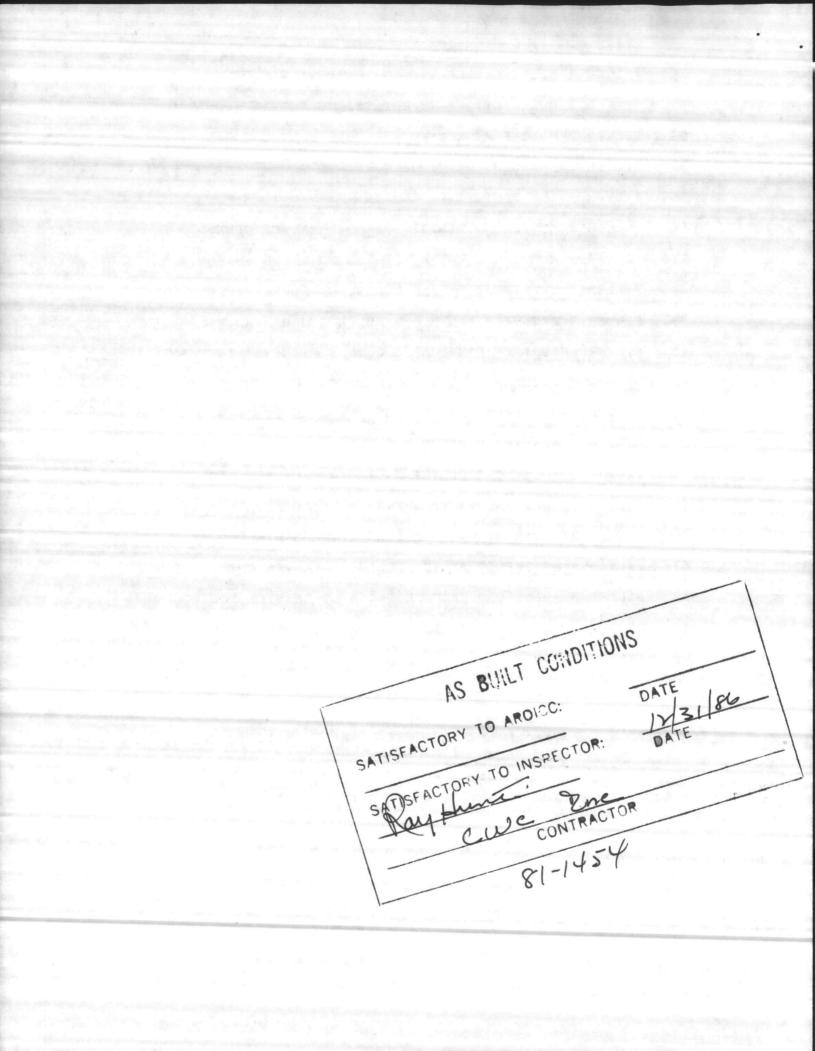
33. FILTER 2 MULTIPORT RELIEF SOLENOID VALVES CLOSE.

- 34. FILTER 2 INFLUENT VALVE OPENS.
- 35. FILTER 3 INFLUENT VALVE CLOSES.
- 36. FILTER 3 MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 37. FILTER 3 MULTIPORT VALVE ROTATES TO BACKWASH POSITION.
- 38. FILTER 3 MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 39. FILTER 3 BACKWASH VALVE AND SURFACE WASH VALVE OPEN.
- 40. FILTER 3 SURFACE WASH VALVE CLOSES AFTER 5 MINUTES.
- 41. FILTER 3 BACKWASH VALVE CLOSES AFTER 8 MINUTES.
- 42. FILTER 3 MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 43. FILTER 3 MULTIPORT VALVE ROTATES TO RINSE POSITION.
- 44. FILTER 3 MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- .45. FILTER 3 INFLUENT VALVE OPENS.
- 46. FILTER 3 INFLUENT VALVE CLOSES AFTER 5 MINUTES.
- 47. FILTER 3 MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 48. FILTER 3 MULTIPORT VALVE ROTATES TO SERVICE POSITION.
- 49. FILTER 3 MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 50. FILTER 3 INFLUENT VALVE OPENS.

NOTES:

- 1. FILTERS WILL NOT BACKWASH IF A SOFTNER IS REGENERATING.
- 2. IF FILTER PUMPS ARE OFF AT START OF BACKWASH CYCLE, THEY WILL START AUTOMATICALLY AND RUN UNTIL BACKWASH CYCLE IS COMPLETED. FILTER PUMP/S SWITCH MUST BE IN "AUTO" POSITION.

CCB - 12/17/86



SOFTNER OPERATION

- 1. MANUAL PUSHBUTTON WITH SWITCH IN "H" POSITION OR BADGER METER WITH SWITCH IN "A" POSITION INITIATES REGEN CYCLE
- BRINE LEVEL MUST BE AT LEVEL SWITCH.
- INFLUENT VALVE CLOSES.
- MULTIPORT RELIEF SOLENOID VALVES OPEN.
- 5. MULTIPORT VALVE ROTATES TO BACKWASH POSITION.
- MULTIPORT RELIEF SOLENOID VALVES CLOSE.
- 7. INFLUENT VALVE OPENS.
- 8. SOFTNER BACKWASHES FOR 10 MINUTES.
- 9. INFLUENT VALVE CLOSES.
- 10. MULTIPORT RELIEF VALVES OPEN.
- 11. MULTIPORT VALVE ROTATES TO BRINE/RINSE POSITION.
- 12. MULTIPORT RELIEF VALVES CLOSE.
- 13. INJECTOR SOLENOID VALVE AND BRINE SOLENOID VALVE OPEN.
- 14. BRINE IS INJECTED FOR 16.5 MINUTES AND BRINE SOLENOID VALVE CLOSES.
- 15. INJECTOR SOLENOID VALVE REMAINS OPEN FOR 120 MINUTE RINSE CYCLE THEN CLOSES.
- 16. MULTIPORT RELIEF VALVES OPEN.
- 17. MULTIPORT VALVE ROTATES TO SERVICE POSITION.
- 18. MULTIPORT RELIEF VALVES CLOSE.
- 19. INFLUENT VALVE OPENS.

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NOTES:

- 1. ONLY ONE (1) SOFTNER WILL REGEN AT A TIME.
- 2. SOFTNER WILL NOT REGEN IF A FILTER IS IN BACKWASH.
- 3. IF FILTER PUMPS ARE OFF AT START OF REGEN CYCLE, THEY WILL START AUTOMATICALLY AND RUN UNTIL REGEN CYCLE IS COMPLETED. FILTER PUMP/S SWITCH MUST BE IN "AUTO" POSITION.

CCB - 12/17/86

AS BUILT CONDITIONS SATISFACTORY TO AROLCC: DATE SATEFACTORY TO INSPECTOR: DATE SATISFACTORY TO AROLCC: Que Ene CONTRACTOR 81-1454

FILTER/SOFTNER

POWER FAILURE INSTRUCTIONS

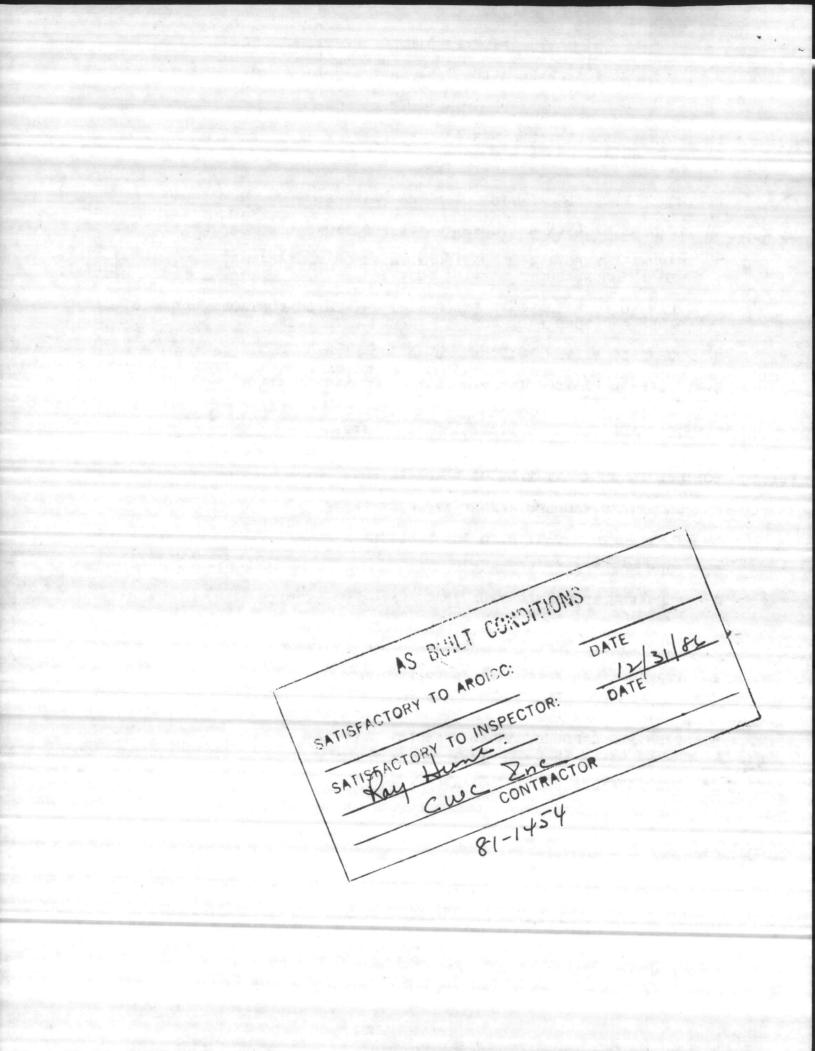
- IF FILTERS AND SOFTNERS WERE ALL IN SERVICE AT TIME OF POWER FAILURE, NO ACTION IS REQUIRED.
- II. FILTER IN BACKWASH AT TIME OF POWER FAILURE.
 - A. TURN ALL FILTER SWITCHES TO "O" POSITION.
 - B. MANUALLY REPOSITION MULTIPORT VALVE OF FILTER THAT WAS IN BACKWASH TO SERVICE POSITION.
 - C. TURN "OFF" MAIN POWER DISCONNECT SWITCH ON CONTROL PANEL AND TURN BACK "ON" TO RESET CONTROLLER.
 - D. TURN ALL FILTER SWITCHES TO "H" POSITION.
 - E. BACKWASH FILTERS INDIVIDUALLY USING MANUAL START PUSHBUTTONS.
 - F. TURN ALL FILTER SWITCHES TO "A" POSITION.

III. SOFTNER IN REGEN AT TIME OF POWER FAILURE.

- A. CLOSE RED HANDLED MANUAL EFFLUENT VALVE.
- B. TURN SOFTNER SWITCH TO "O" POSITION.
- C. TURN "OFF" FILTER PUMPS.
- D. MANUALLY REPOSITION MULTIPORT VALVE TO SERVICE POSITION.
- E. TURN FILTER PUMP SWITCHES TO "AUTO" POSITION.
- F. TURN SOFTNER SWITCH TO "H" POSITION.
- G. REGEN SOFTNER USING MANUAL START PUSHBUTTON.
- H. OPEN RED HANDLED MANUAL EFFLUENT VALVE AFTER REGEN CYCLE IS COMPLETED.
- "I. TURN SOFTNER SWITCH TO "A" POSITION.

CCB - 12/17/86

I.



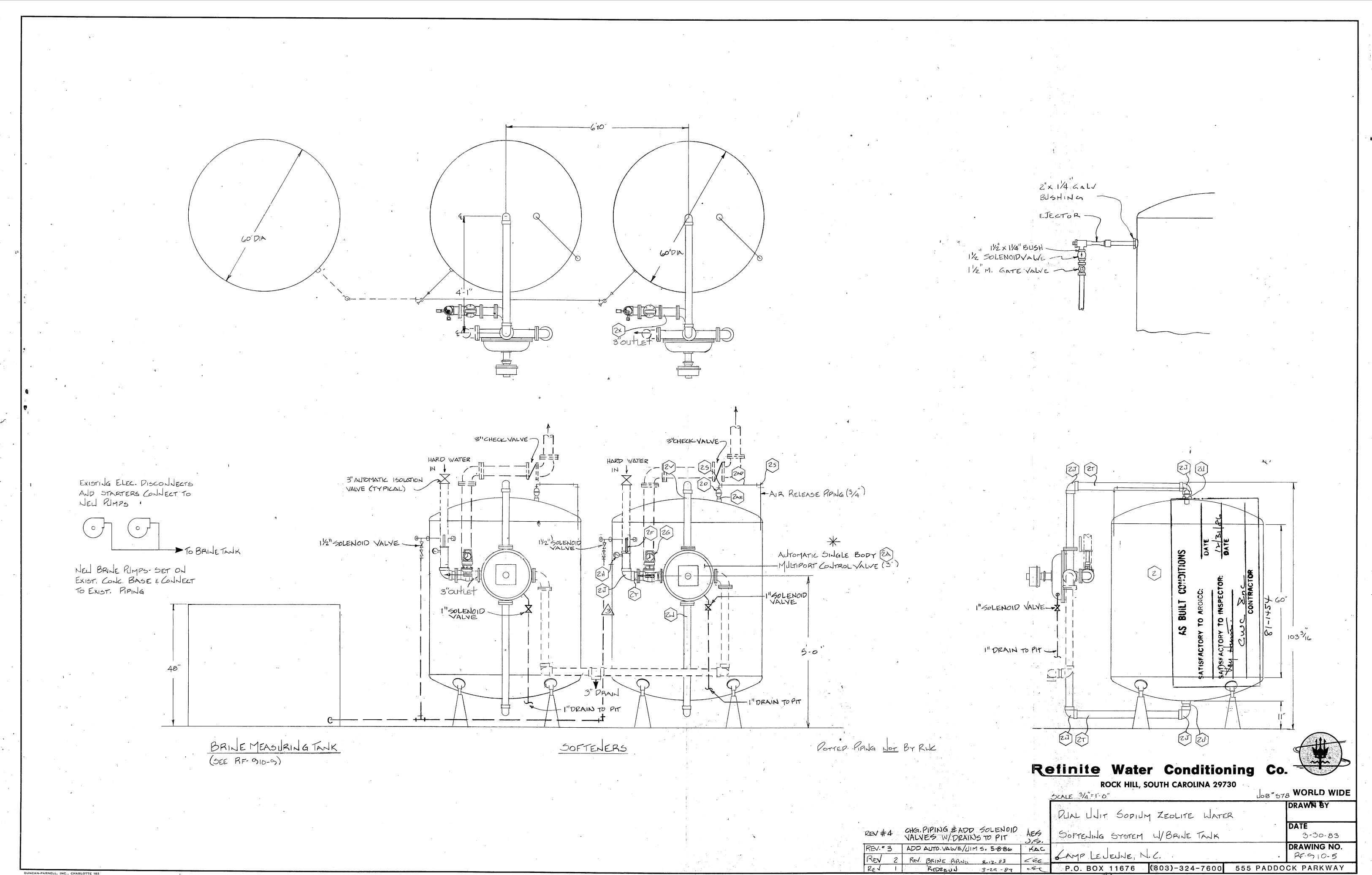
CONTROL PANEL SPARE PARTS FOR CAMP LEJEUNE RR-85

QTY.	
25	SCBA LAMP #A-948-99
1	IDEC RELAY #RH2B-U-120AC
1	IDEC RELAY #RR3B-U-120AC
1	GE INPUT MODULE #IC610MDL125A
1	GE OUTPUT MODULE #IC610MDL180A
1	GE CPU #IC610CPU101C WITH 2K IC
1	GE RACK WITH POWER SUPPLY #IC610CHS120A
1	ARTISAN TIME CAPSULE #438USA
1	CORCOMEMI FILTER #6A,115/250V,50/BOH2 (6W1?)
5	BUSS FUSE #FNM10
5	GE FUSE #E-03B/S1

FILTER AND SOFTENER SPARE PARTS FOR CAMP LEJEUNE RR-85

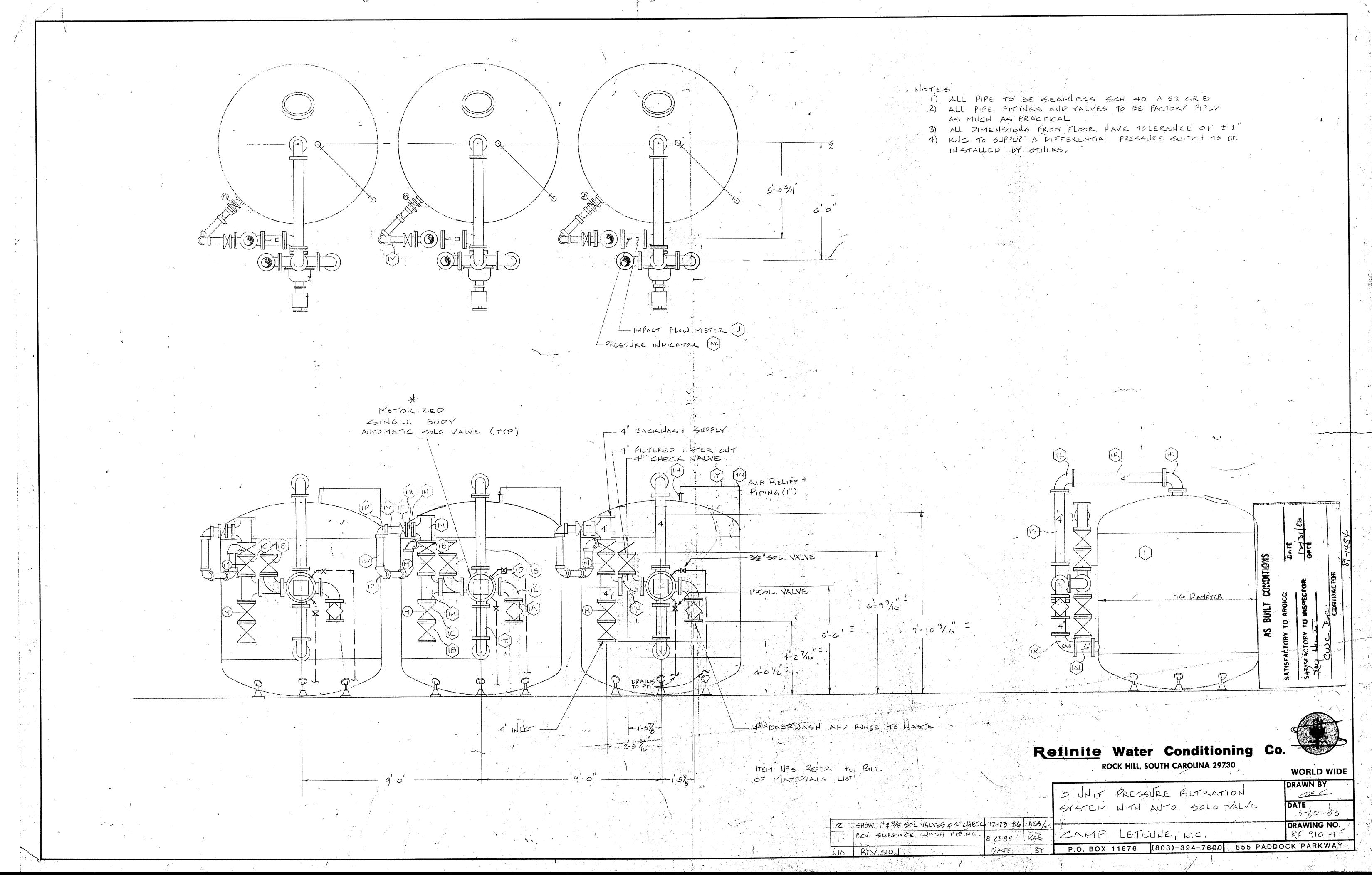
- 1 TELEMECANIQUE XCN-L W/ZCK-L1 MICRO SW (SELECTOR VALVE)
- 2 11/2" ASCD MAGNETIC VALVE CAT #8210856 120 VOLT (BRINE)
- 1 1" ASCO MAGNETIC VALVE CAT #821004 (DRAIN)
- 1 COIL ONLY 120 YOLT FOR ASCO CAT #8344A72 (SELECTOR VALVE)

AS BUILT CONDITIONS SATISFACTORY TO INSPECTOR: DATE SATISFACTORY TO AROICC: CW CONTRACTOR CONTRACTOR 81-1454 (Night)



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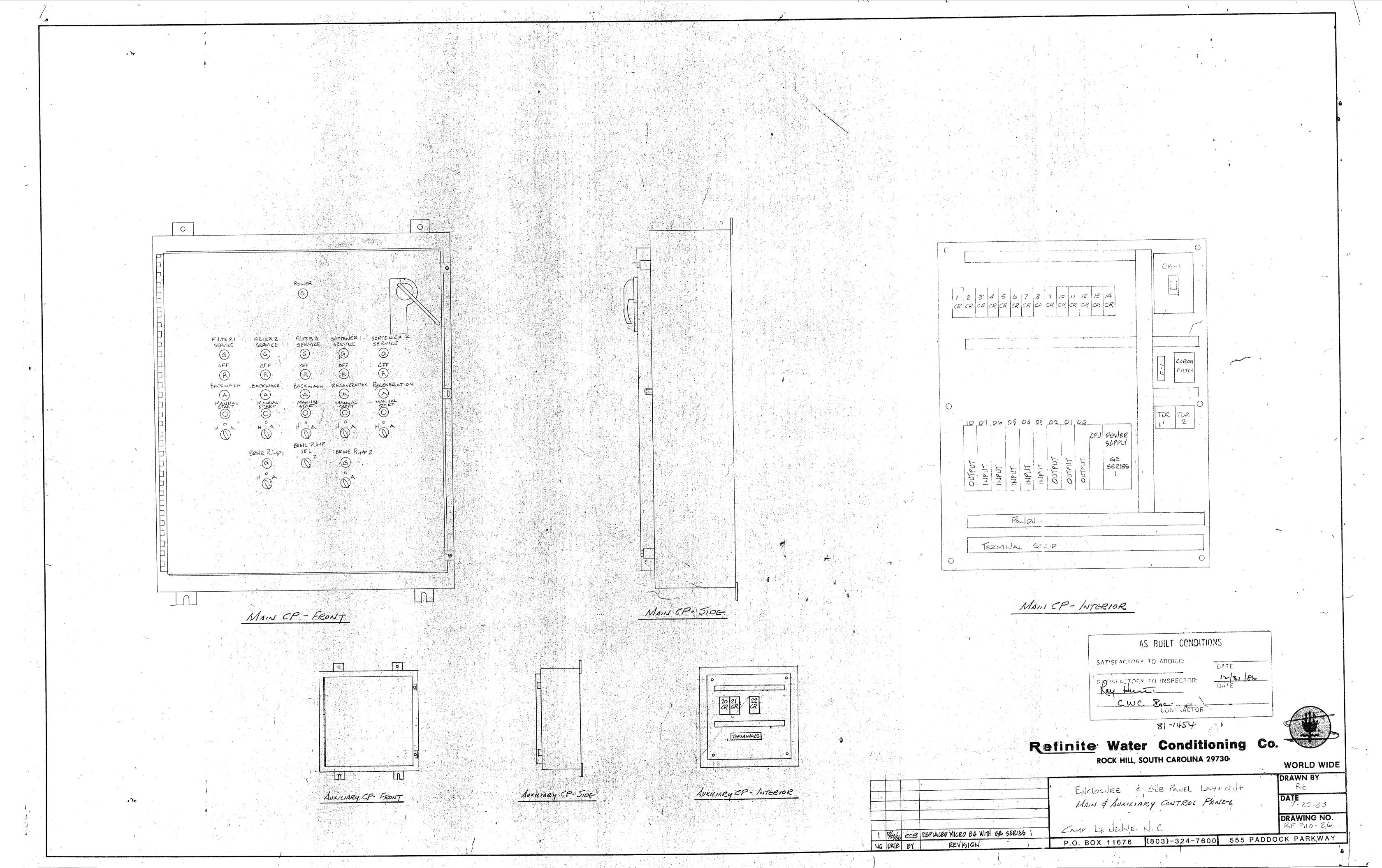
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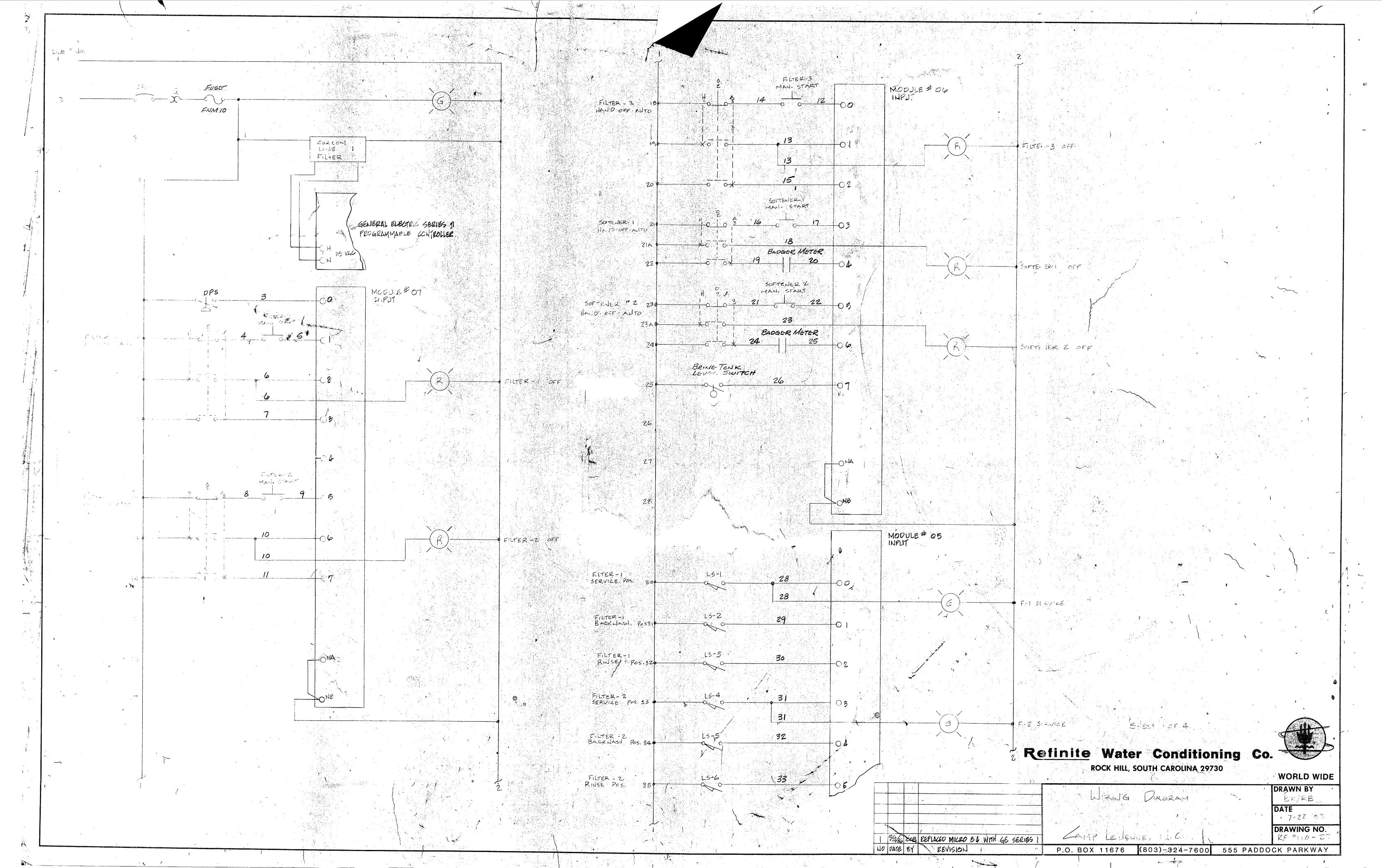
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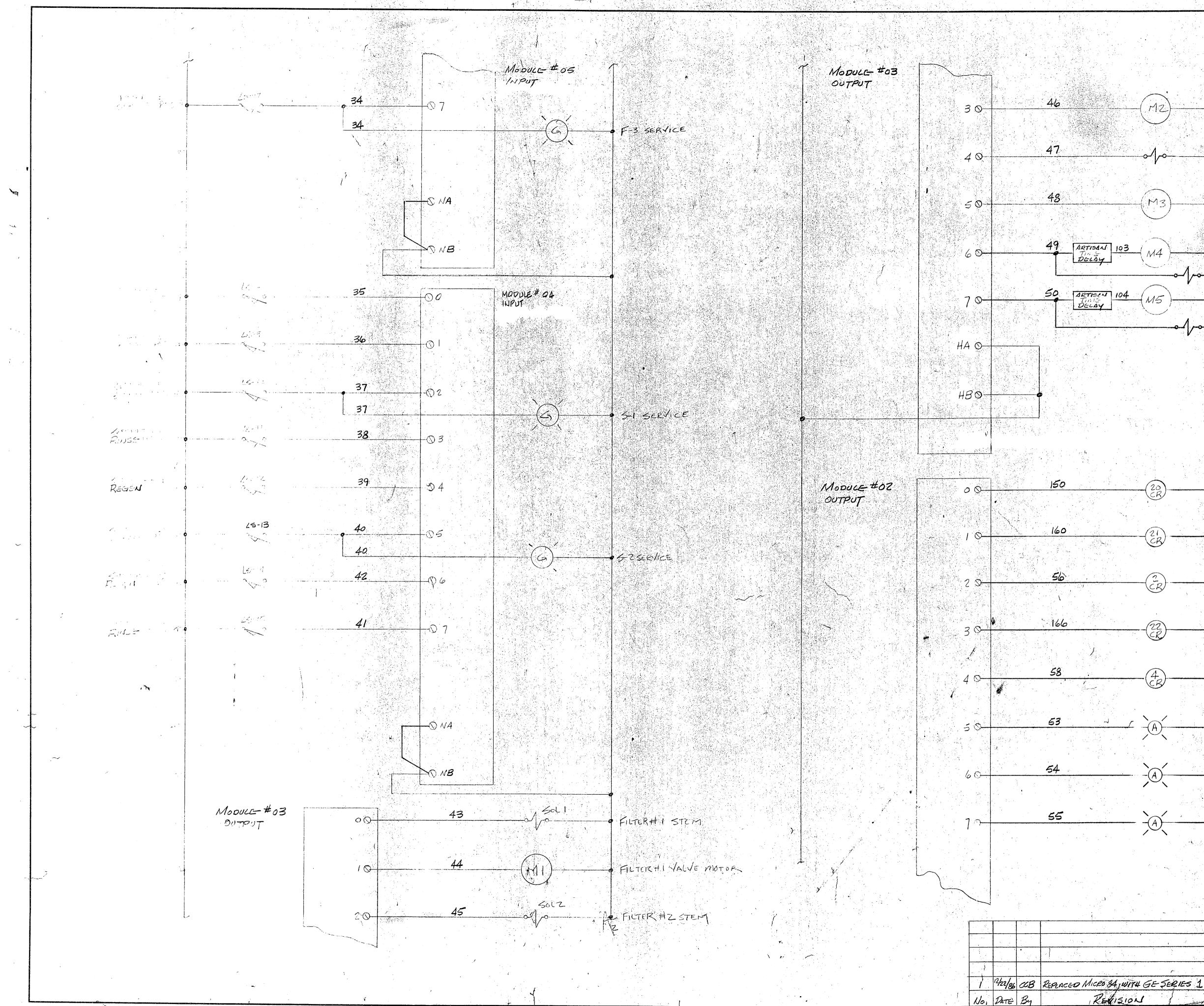
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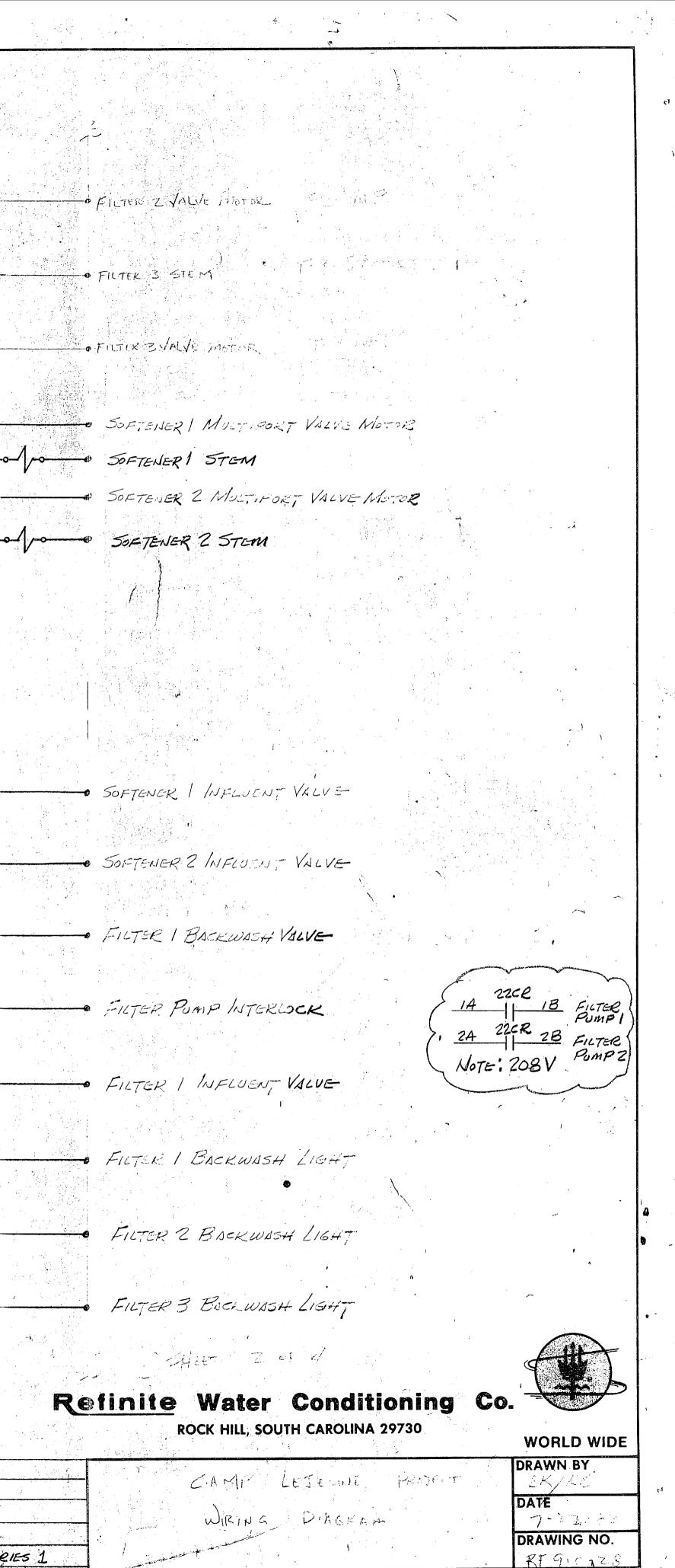


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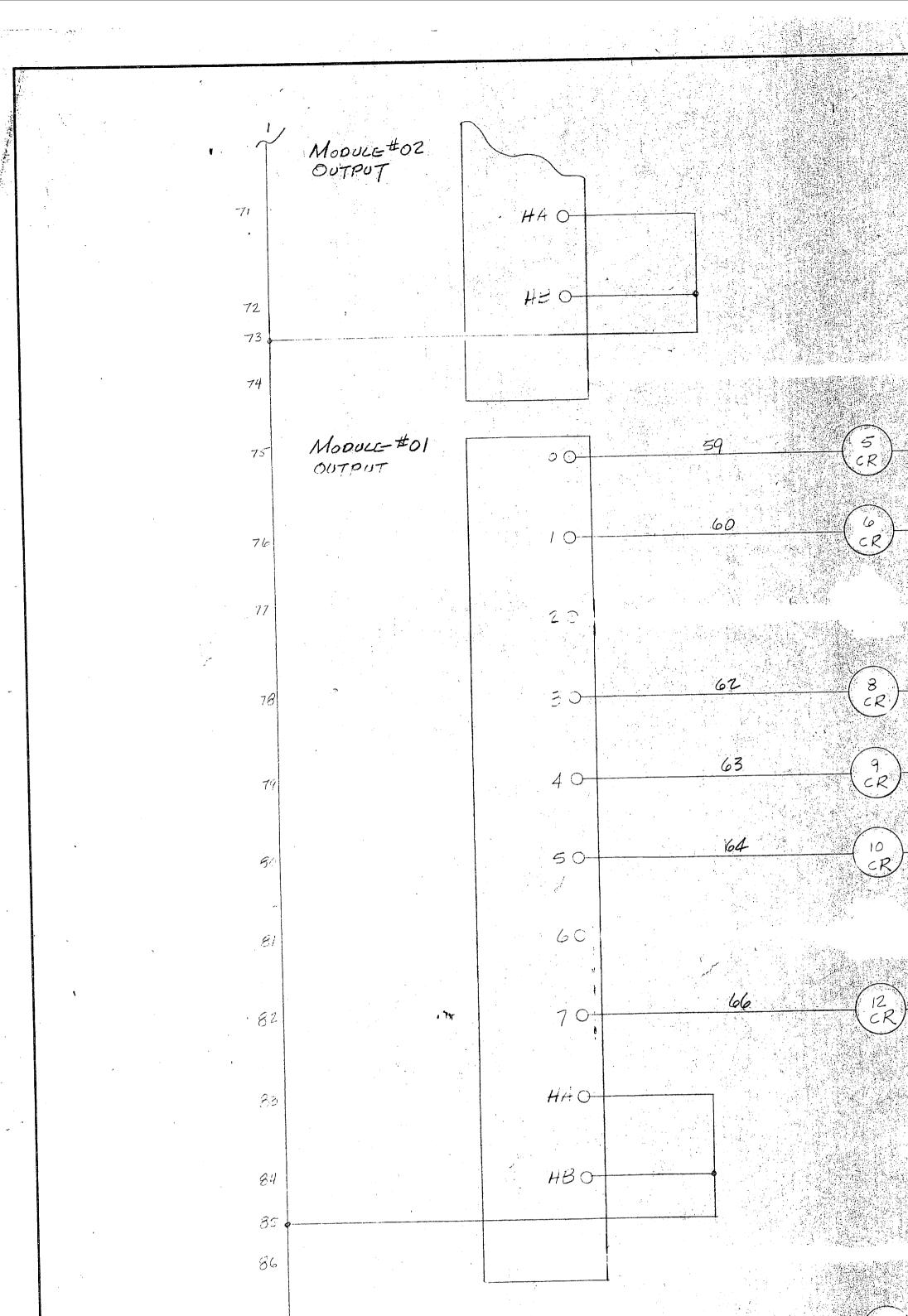


555 PADDOCK PARKWAY (803)-324-7600 P.O. BOX 11676

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MODULE #00 67 0.0-OUTPUT 68 1° 02 20-21 BRINE PUMPS ~ ~ 2 39 91 3CR 71 _____

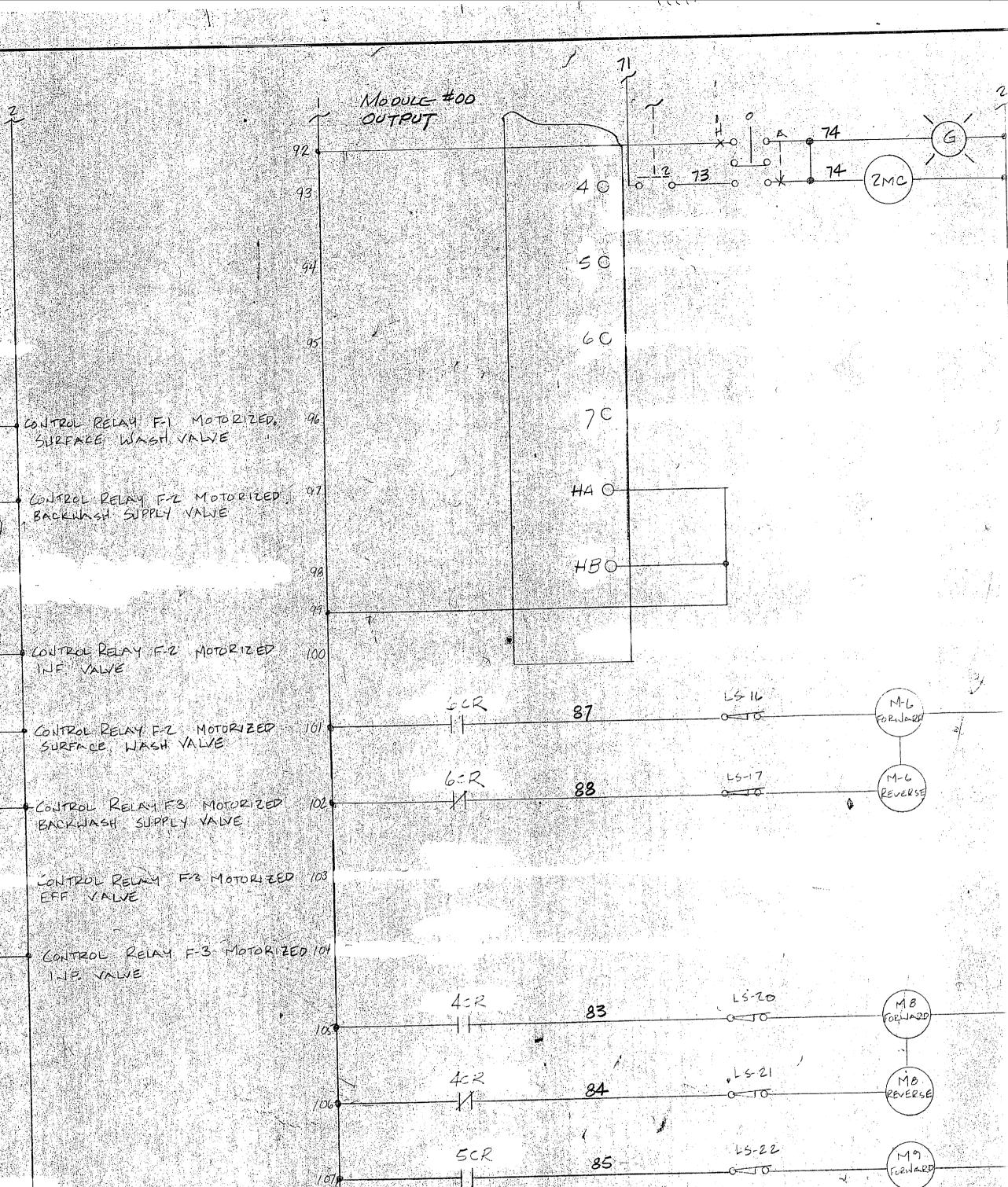
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CR/

IM4

70

70



5CR

CONTROLL RELAT F-3 MOTORIZED 108 SURFACE WASH VALVE

SAV-3 IN LECTOR WATER IN SHI SAV-4 NJECTOR WATER IN S-2

BRINE PUMP #1 CONTACTOR

12/23/86 CCB REPLACED MICEO 84 WITH GE SERIES 1 REVISION No. DOTE BY

LS-23

000

Mg

REVERSE

BRIJE PLIMP #2 CONTACTOR

F-1 BACKWASH SUPPLY VALVE MOTOR

F-1 INF. VALVE

WASH VALVE SURFA-CE Fal

SHEET 3 OF

Refinite Water Conditioning Co. ROCK HILL, SOUTH CAROLINA 29730 WORLD WIDE DRAWN BY B.K.

LIRILE PRERAM DATE DRAWING NO. REDIC-29 ELNE N. AMP LEJ 555 PADDOCK PARKWAY (803)-324-760 P.O. BOX 11676

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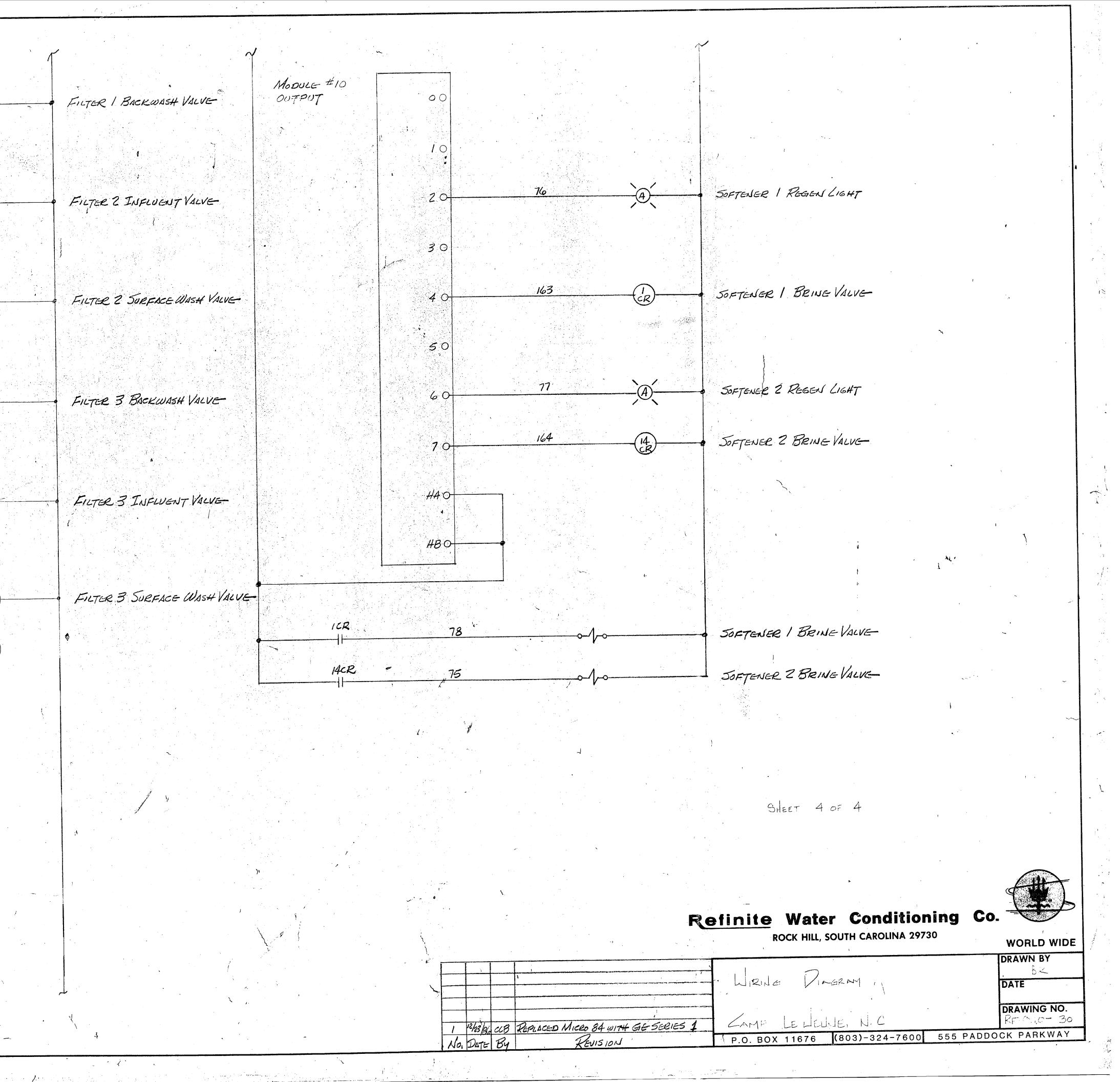
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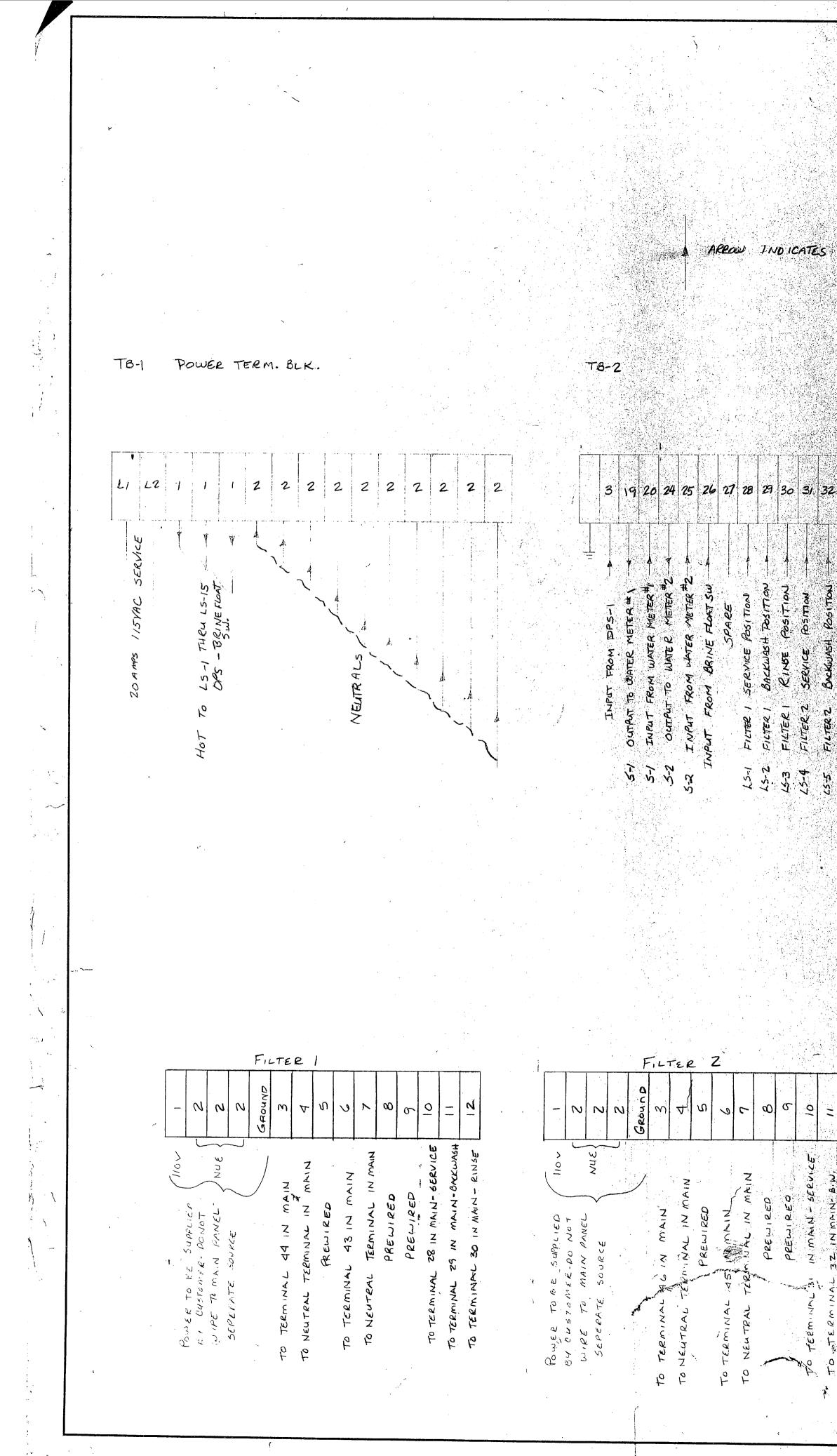
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		2CR	79	L-5-24	(MID FORMARD-
-		11 2CR		L 5-25	MID
			80	0-10	REVERSE
			91	L5-26	(FORLARD)
		8-R	92	1 5-27	(2E-2525)
	·				KE KL 3-
		9eR	93	LS-28 00	MIZ FROWARD
		9CB	94	15-29	(MIZ REVERSE
	()	- IDER	•	LG-30	
4.			95		FORWARD
•		IDER	96	L5-31	(MI3 REVERSE)
		17 12CR		LS-32	
			99	<u> </u>	
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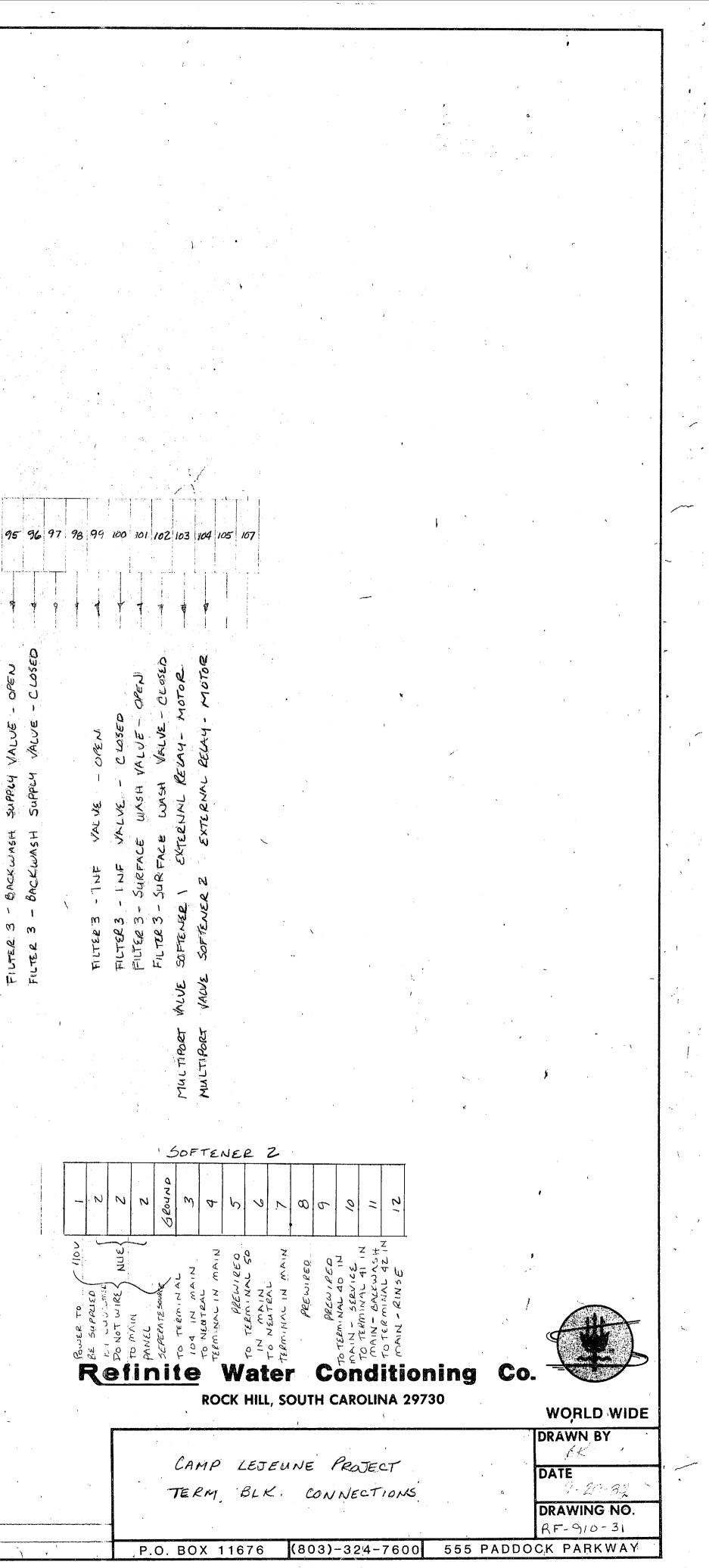


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FILTER'Z BACKWASH ROSTRON 8	RINSE ROSITION	34	35	159 FILTER RINE POSITION N W		Softwere I BACKWASH POSITION	Red. Pasitron	SERVICE POSITION +	Bickwissel Bistian -	LS-15 Sottenkez, leg. Position -	EXTERNAL RELAY - STEM -	VALUE FILTER I EXTERNAL RELAY - MOTOR -	2 EXTERNAL RELAY - STEM -	EXTERNAL RELAY - MOTOR -	External Reay- Stern	Extrada Recan - Motol	VALUE SOFTENTER I EXTERNAL RELAY - STEM -	2 EXTERIAL RELAY - STEM-		No Cantection	IMECTOR HALVE	E -	# MOTOR STR. COIL	SOFTENER #2 BRINE INLET VALVE	BRINE INLET VALUE	FLER 1 - BACKWASH SUPPLY INLVE - OPEN	SUPPLY VALVE - OLOSED		INF WLVE - OPEN	INT VALUE - CLOSED	FILTER 1 - SURFACE WASH MILUE - ORN	ćD	2			VALVE - OPEND	- CLOSED	WASH WALVE - OREN	35£D	
TO TERMINAL 32 IN MAIN BW	TO TEEN WALL 23 IN MAINI PINCE 12				Power to be supplied from	EY CUSTOMER-DONOT	USIEE TO MAIN PANEL / NUE	PERATE STORE	COUND TO THE PROPERTY OF	M		•	YEWIKEN	10 JERMINAL 47 IN MAIN	TO NEUTRAL TERMINAL IN MAIN /	REWIRED	PREW PECO	To TEEMINAL 341N MAIN - SERVICE 10	To TERMINAL 35 IN MAIN - GACKWASH 11	TO TEEM+WAL 36 IN MAIN- RINSE 12					rower to be supplied (100 1		WIEE TOMAIN DANSU SNUE 2 2	GEONND	To TEEMINAL 103 IN MAIN 3	TO NEUTRAL TERMINAL IN MAIN 4 R	PREWIRED 5 -	TO TERMINIAL 49 IN MAIN		OPENING TERMINGEN MENN	Phenice	TO TERMIMAL	15km val 58 IN MAIN BACKWASH	10 TERMINAL 37 IN MAIN ' EINSE / - /		



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