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MAGNET TREE VALVE ALIGNMENT.

1. CLOSE MAGNET SUPPLY VALVE (24).
2. CLOSE CROSS OVER VALVE (26).
3. CLOSE AIR SUPPLY VALVE (A-1).
4. CLOSE MAGNET RETURN VALVE (30).
5. CLOSE MAGNET BLOW DOWN VALVE (B-1).
6. CONNECT MAGNET RETURN COUPLING (R-1) TO MAGNET.
7. CONNECT MAGNET SUPPLY COUPLING (S-1) TO MAGNET.
8. OPEN RETURN VALVE (48).
9. CLOSE CROSS OVER VALVE (33).
10. OPEN SUPPLY VALVE (21).
11. OPEN SUPPLY VALVE (22).
12. OPEN BLOW DOWN VALVE (B-1) AND PLACE HOSE IN WAIST CAN.

MAGNET IS NOW COUPLED AND READY FOR FLOW PURGE.

TURN HYDROTHERM SYSTEM ON WITH FLOW ONLY THRU IB-2 HEATERS FIRST THEN TO POTTING STATION.

1. HEATER SUPPLY VALVE (HS-1) OPEN.
2. HEATER RETURN VALVE (HR-2) OPEN.
3. MAGNET SUPPLY VALVE (MS-1) CLOSED.
4. MAGNET RETURN VALVE (MR-2) CLOSED.
5. OVEN SUPPLY VALVE (OS-1) CLOSED.
6. OVEN RETURN VALVE (OR-1) CLOSED.
7. RESERVOIR RETURN VALVE (RR-1) CLOSED.
8. NOW OPEN RETURN VALVE (MR-2).
9. NOW OPEN SLOWLY SUPPLY VALVE (M-1).

UNLESS OTHERWISE SPECIFIED			ORIGINATOR	R.RIHEL	4/25/94
FRACTIONS	DECIMALS	ANGLES	DRAWN	T.SKWERES	4/25/94
±	±	±	CHECKED	[illegible]	4/25/94
1.BREAK ALL SHARP EDGES 1/64 MAX. 2.DO NOT SCALE DWG. 3.DIMENSIONING IN ACCORD WITH ANSI Y14.5 STD's.			APPROVED	RK Rihel	4/25/94
			USED ON		
MAX. ALL MACHINED SURFACES			MATERIAL		

FERMI NATIONAL ACCELERATOR LABORATORY
U.S. DEPARTMENT OF ENERGY

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TURN HYDROTHERM SYSTEM ON WITH FLOW ONLY THRU IB-2 HEATERS FIRST THEN TO POTTING STATION.

1. HEATER SUPPLY VALVE (HS-1) OPEN.
2. HEATER RETURN VALVE (HR-2) OPEN.
3. MAGNET SUPPLY VALVE (MS-1) CLOSED.
4. MAGNET RETURN VALVE (MR-2) CLOSED.
5. OVEN SUPPLY VALVE (OS-1) CLOSED.
6. OVEN RETURN VALVE (OR-1) CLOSED.
7. RESERVOIR RETURN VALVE (RR-1) CLOSED.
8. NOW OPEN RETURN VALVE (MR-2).
9. NOW OPEN SLOWLY SUPPLY VALVE (M-1).

TO START MAGNET PURGE FLOW AT MAGNET TREE.

1. OPEN SUPPLY VALVE (24) PART WAY TO FLOW THROUGH. MAGNET AND INTO WAIST CAN TO PURGE MAGNET.
2. CLOSE SUPPLY VALVE (24).
3. CLOSE BLOW DOWN VALVE (B-1) AND CONNECT HOSE TO RESERVOIR PIPING.

TO FLOW THROUGH MAGNET.

1. OPEN RETURN VALVE (30).
2. OPEN SLOWLY SUPPLY VALVE (24).

UNLESS OTHERWISE SPECIFIED			ORIGINATOR	R.RIHEL	4/25/94
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±	±	±	CHECKED		
1.BREAK ALL SHARP EDGES 1/64 MAX. 2.DO NOT SCALE DWG. 3.DIMENSIONING IN ACCORD WITH ANSI Y14.5 STD's.			APPROVED		
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HYDROTHERM SYSTEM TEMPERATURE SET.

1. SET TEMPERATURE OF FLUID TO 240°F.
2. CHECK NITROGEN PRESSURE 24-25 PSIG.
3. TURN HEATERS ON.
4. CHECK TEMPERATURE FOR CORRECT REGULATION AT SET POINT.
5. CHECK NITROGEN PRESSURE REGULATION 23 TO 25 PSIG.
6. CHECK PUMP FOR CAVITATION (DROP IN SUPPLY PRESSURE).
7. OPERATING SUPPLY PRESSURE 70 TO 80 PSIG.
8. IF SUPPLY PRESSURE DROPS CRACK OPEN CROSS OVER VALVE (26) AT MAGNET TREE UNTIL OPERATING SUPPLY PRESSURE IS REACHED.

MAGNET FLOW SHUT DOWN.

1. TURN HYDROTHERM SYSTEM HEATERS OFF.
2. KEEP HYDROTHERM SYSTEM PUMP RUNNING UNTIL TEMPERATURE OF FLUID IS BETWEEN 100°F AND 150°F AT THE MAGNET TREE.
   (MAGNET TEMPERATURE 150° F OR LESS)
3. OPEN CROSS OVER VALVE (26).
4. CLOSE SUPPLY VALVE (24).
5. CLOSE RETURN VALVE (30).
6. OPEN BLOW DOWN VALVE (B-1) MAKE SURE HOSE IS CONNECTED TO RESERVOIR TANK LINE.
7. (AT DRAIN RESERVOIR TANK) OPEN INLET VALVE (V-04).
8. CONNECT AIR SUPPLY TO (A-1) DISCONNECT.
9. OPEN SLOWLY AIR SUPPLY VALVE (A-1).
   THIS BLOWS ALL FLUID OUT OF THE MAGNET AND INTO THE DRAIN RESERVOIR TANK.

UNLESS OTHERWISE SPECIFIED			ORIGINATOR	R.RIHEL	4/25/94
FRACTIONS	DECIMALS	ANGLES	DRAWN	T.SKWERES	4/25/94
±	±	±	CHECKED		
1.BREAK ALL SHARP EDGES 1/64 MAX. 2.DO NOT SCALE DWG. 3.DIMENSIONING IN ACCORD WITH ANSI Y14.5STD's.			APPROVED		
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10. CLOSE AIR SUPPLY VALVE (A-1).
11. CLOSE BLOW DOWN VALVE (B-1).
12. DISCONNECT THE MAGNET.
13. WHEN HYDROTHERM SYSTEM REACHES 100°F TO 150°F.
14. TURN HYDROTHERM SYSTEM PUMP OFF.
    CLOSE MAGNET SUPPLY VALVE (MS-1) AND RETURN VALVE (MR-1).
15. TURN CONTROL POWER AND DISCONNECT OFF.

SYSTEM IS SECURE.

UNLESS OTHERWISE SPECIFIED			ORIGINATOR	R.RIHEL	4/25/94
FRACTIONS	DECIMALS	ANGLES	DRAWN	T.SKWERES	4/25/94
±	±	±	CHECKED		
1. BREAK ALL SHARP EDGES 1/64 MAX. 2. DO NOT SCALE DWG. 3. DIMENSIONING IN ACCORD WITH ANSI Y14.5 STD's.			APPROVED		
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