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Periodic Review

There are no signatures or routes related to this business object.

Obsolescence Approval

There are no signatures or routes related to this business object.

* Printed versions are For Reference Only *

+ Indicates a task was reassigned from an original assignee

Obsolete



1.5T HM Magnets

Ramping Profile



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2. PURPOSE and SCOPE

This service note applies all FE's preparing to Ramping 1.5T HM magnets

3. REFERENCES

- A. This service note is owned by Florence IB team.
- B. Questions pertaining to this Service Note should be directed to Nick Logan, Desk Phone 843-664-1164



1.5T HM Magnets Ramping Profile



4. SAFETY



DANGER

POTENTIAL INJURY

MAKE SURE TO REVIEW, UNDERSTAND AND FOLLOW:
THE SAFETY MEASURES CONTAINED IN MAGNET AND CRYOGENS
SUBSYSTEM MANUAL CHAPTER 1, MR MAGNET – SAFETY REQUIREMENTS.



DANGER

EXPLOSION HAZARD!

LIQUID CRYOGENS CAN LIQUEFY ATMOSPHERIC OXYGEN, PRODUCING A
HIGHLY COMBUSTIBLE OXYGEN LIQUID. NO SMOKING IN MAGNET AND
CRYOGEN STORAGE ROOMS.

Chapter 1 of the Magnet and Cryogenics Subsystem Manual must be reviewed before working on or near the magnet. All safety procedures must be adhered to at all times while working on or near the magnet.

5. Change Description

- A. Prior to ramping 1.5T HM magnets please call the OLC to review current procedures and ensure thermal stability before ramping magnet.
- B. Contact resistance when ramping HM magnets:
 - The maximum allowable contact resistance is 100mV, DO NOT ramp if contact resistance is above this threshold.
 - 60mV or less (lower is better) is desirable.



1.5T HM Magnets Ramping Profile



C. Ramping profile

- Use this profile on all HM magnets for all ramps.

• 1.5T MR450w (HM Series) Alternative Ramping Profile

Stage	Main Coil Ramp Voltage	Main Coil Current Range	Magnet Field Strength
1	3.00 volts	0 to 600 amps	-
2	2.50 volts	600 to 650 amps	-
3	1.50 volts	650 to 675 amps	-
4	0.75 volts	675 to 700 amps	-
5	0.4 volts	700 to 720 amps	-
6	0.25 volts	720 to 735 amps	1.5000 Tesla
7	0.05 volts	735 and above	1.5010 Tesla (or 15010 Gauss)
8	Set voltage as required (<50mV) to maintain constant field for 15 minutes	-	15010 +/- 0.5 Gauss*
9	Turn off Main Heater and park the field		

* Recommended Site Parking Field in the Field Report (ATR)

6. APPENDICES

- A. Reference DOC1763078 and 5495018 for proper ramping procedures.



1.5T HM Magnets Ramping Profile



Revision History						
REV	Affected Page(s)	Description of Content Changed	Reason for Change or Change Control Number	Author	Effective date of Document	Periodic review date
02	ALL	Document routed for obsolescence	Ramping profile will revert back to version in the manual.	Nick Logan	My Workshop Release	Does not Apply to Service Notes
Yes	No	NA	Enter Validation Information or Rationale if "NO" or "NA" for Validation or Training			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Typo or Format Change	Additional information added to document footer.		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Regulatory Filing			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Validation	Referencing current manuals and documents. 5.C Ramp profile from Magnet Manual 5670004, Rev8		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Training	None required - using existing procedures		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Communication			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Labeling, (list)	Service Notes are classified as Labeling		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other Documents, (list)			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other (describe)			

