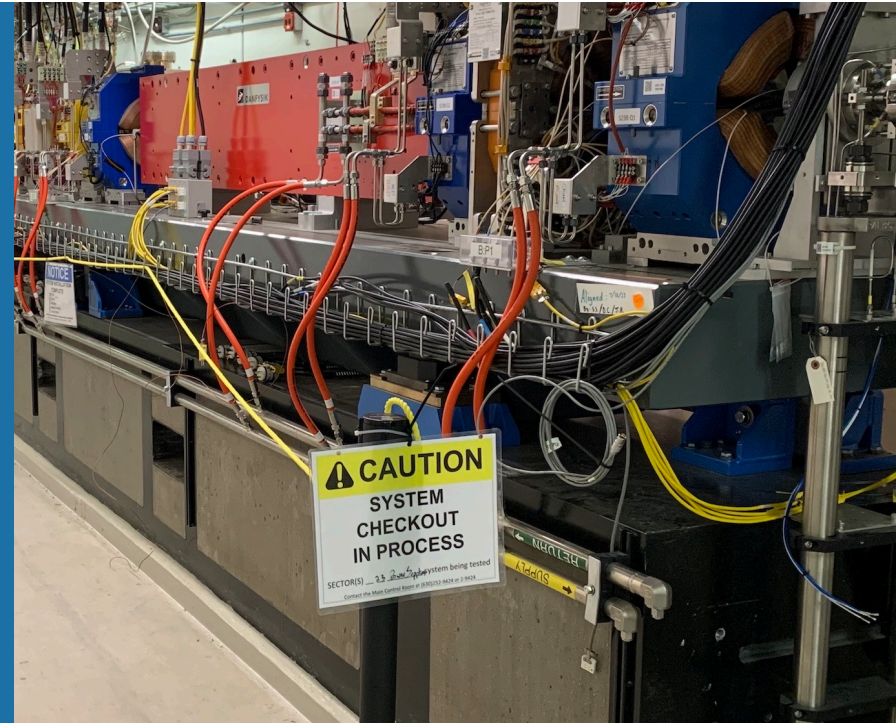


Test and checkout

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U.S. DEPARTMENT OF
ENERGY

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APS-U TEST AND CHECKOUT

- The project is entering a new phase—equipment in the SR sectors is being powered up and checked out
- Controls, Diagnostics, Vacuum, Interlocks, ID controls, ...
 - SR mezzanine, starting in sector 23
- Magnet + power supplies in sector pairs:
 - 58 magnets, 112 power supplies, ~150 kW highly regulated DC power per sector pair
 - SR mezzanine and tunnel, starting in sectors 22-23
- Access to the SR tunnel will be managed differently:
 - To protect people from new and unfamiliar hazards
 - To delineate equipment that has been checked out

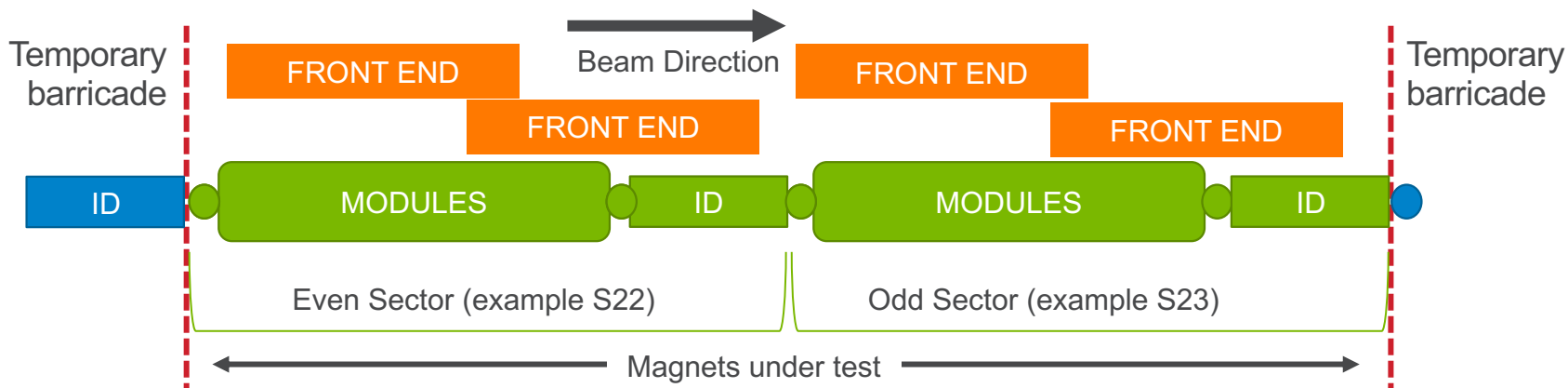


CAUTION

**Insulated and Non-magnetic Tools
Required
When Magnets are Energized**

APS-U ESH

MAGNET POWER TESTING – TUNNEL ACCESS



- SR tunnel will be handed over to test & checkout two sectors at a time
- Sectors will be barricaded and there will be no thoroughfare, HEC air-gaps with magnet power supplies will be closed and 480V LOTO will be released
- Only power supply group is authorized for access during power testing
- Once test & checkout is complete, any work in the area (if approved) will require a work request and associated LOTO

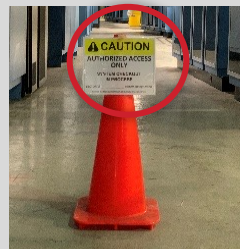
“SYSTEM CHECKOUT IN PROGRESS”



Interpretation

Test & Checkout teams:
‘PROCEED WITH CAUTION.’

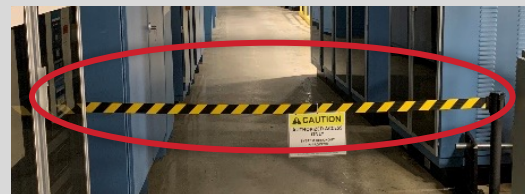
Everyone else: ‘NO ENTRY’



Interpretation

Everyone: ‘NO ENTRY’

....except if authorized to execute specific test & checkout procedures



LOTO UPDATE TO THE WEEK AHEAD

- We're continuing to expand bakeout procedures
- The Week Ahead graphic marks areas where no access is allowed or LOTO required
- Follow all signs in the tunnel and on the mezzanine
- If you don't understand a sign, ask for clarification



GREAT PROGRESS...MORE TO GO

- Transitioning to a new phase, expect frequent pauses for clarification and adjustments as required to ensure work is completed safely and appropriately
- Working hard to complete storage ring installation and test and checkout to meet January 2024 target date for commissioning
- Preparing for the ramp up of beamline installation & re-alignment efforts in 2024
- Thank you for the continued outstanding teamwork and safety performance as we work together to complete the APS-U Project

