



Shutdown '24

Paul Sampson

Date November 15th, 2024



Agenda



GENERAL
INFORMATION



STATUS



PROGRESS



SCHEDULES



SUMMARY

General Information:

- Late start due run extension
- Duration uncertain
- Injector programs ran to November

CAD Status

- EBIS running setup
- LINAC Booster and NSRL Shutdown began November 1st and continues
- AGS, AtR and RHIC Shutdown began October 21st and continues

RHIC HVAC

1004B Package unit #4- replacement for failed coil (warranty). Work to be completed this month.

1004B Package unit #3- replacement installation under way. A10 house

L18A package unit replacement underway

1007W Bard until replacement under way

1004A package unit shipping next week

1007 dehumidifier- repairs underway

Alcove units: maintenance, replacement and repair: 1A, 1B, 5A, 5B, 9A, 9B, 11A, 11B and 11C

Systems Status:

Cooling towers:

Mandatory cleanings and shutdown, as needed.

Tower 1010 on for sPHENIX 80k circulation**

Tower 7 off, cleaned awaiting contractor for switching gear recall remediation.

All RF systems secured.

Most magnet systems secured, some testing, NSRL and Booster towers on for EBIS tuning.

**Leak found in heat exchanger, isolated, sPHENIX magnet "floating" until remediation completed

Progress so far:

LINAC:

- Maintenance progressing on schedule.
- Upgrades schedule permitting
- 55 total jobs submitted and scheduled

EBIS:

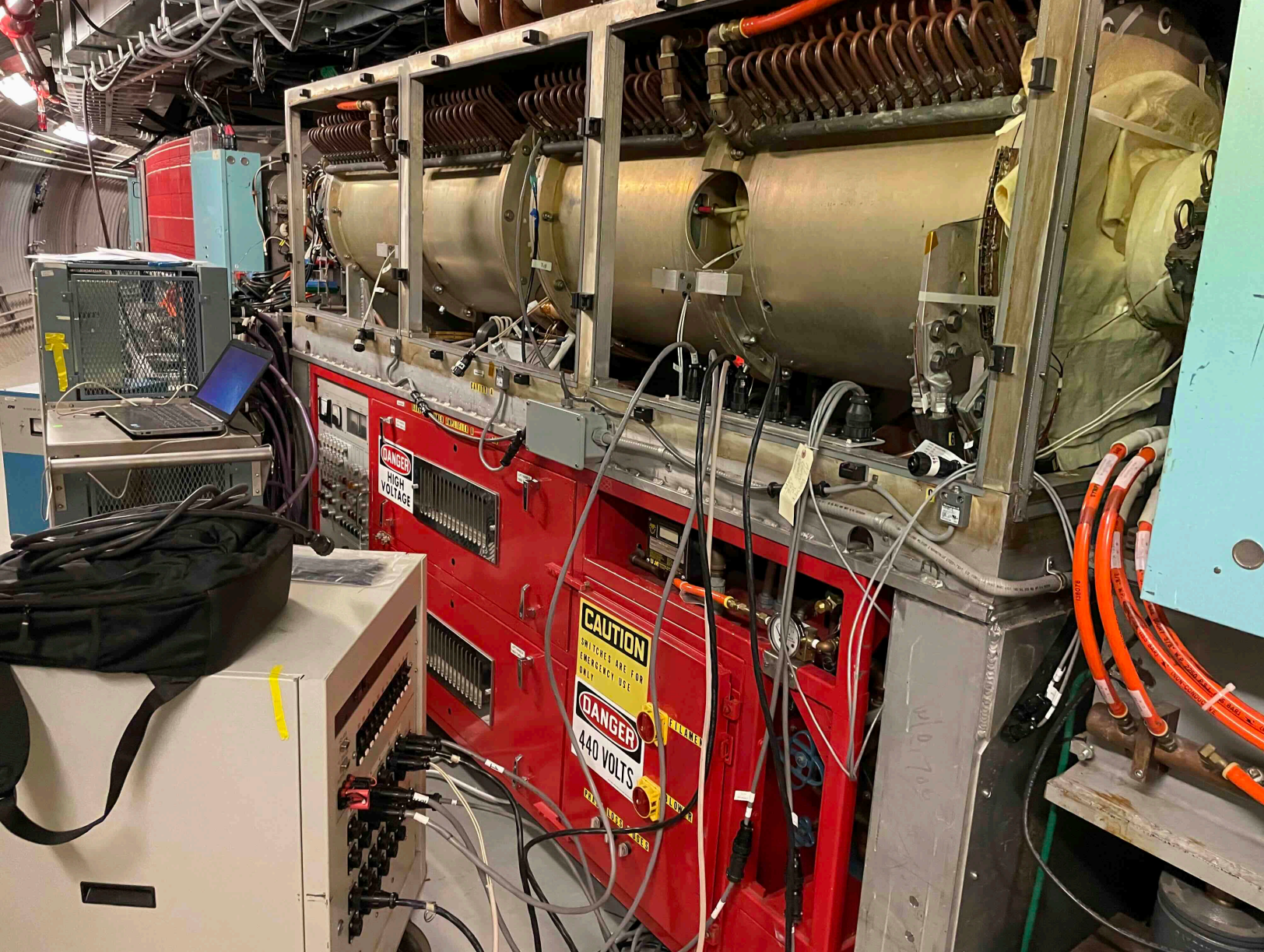
- Tuning with beam down EtB will continue.
- Cathode swap to follow.
- Trap aperture change to TBD.

Progress:

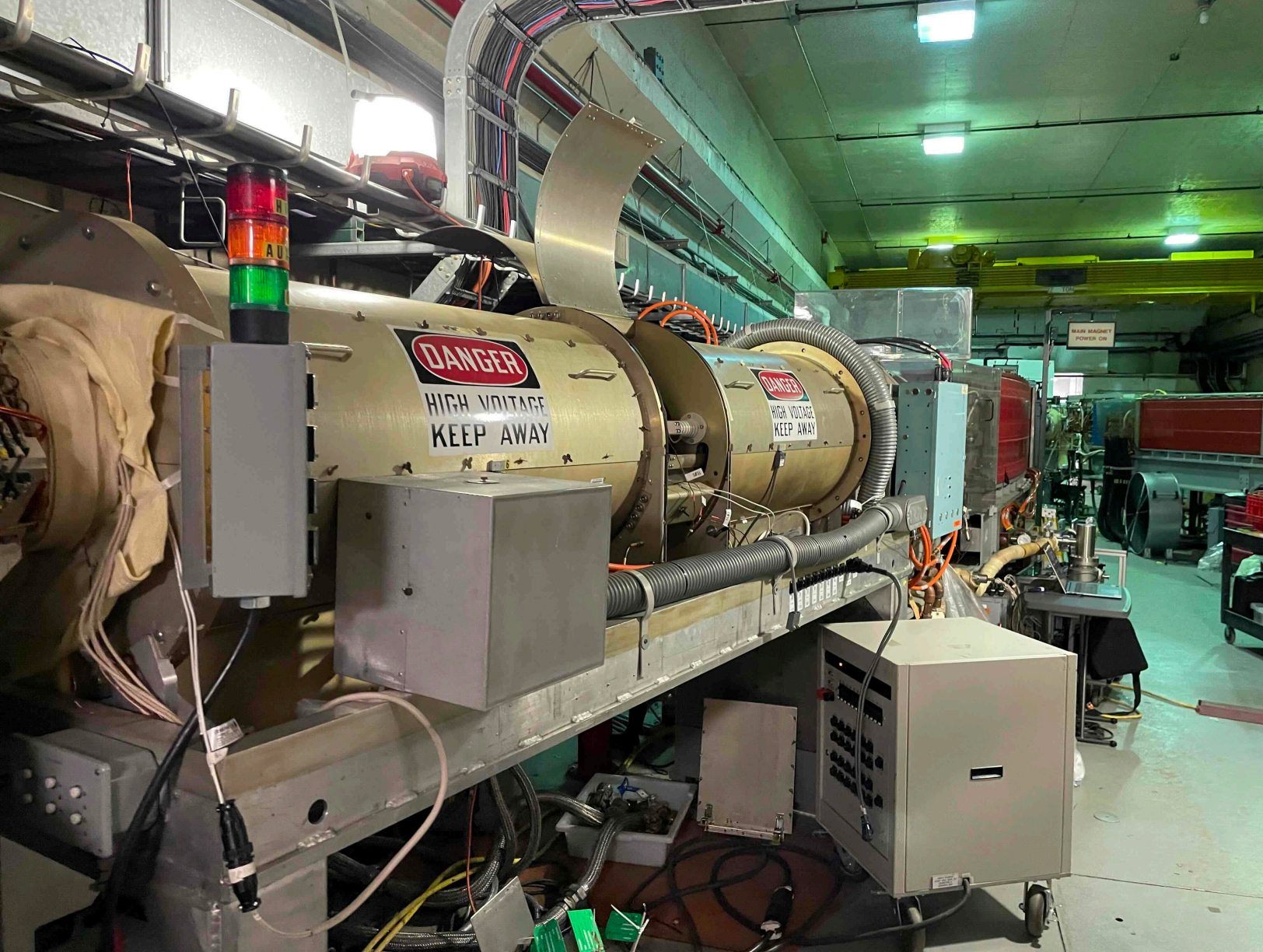
- EBIS – 19 weeks under way- Setup with beam at present.*
- LION – 9 weeks to start in December.
- LINAC maintenance continues.
- BLIP:
 - Target cooling upgrades on track for January 24th completion.
 - Lighting repair ongoing.
 - Windows replacement in December.
- Booster:
 - Vacuum (10 weeks) Under way.
 - RF PA replacement under way.
 - 911 chilled water tower: progressing well
- AGS : Cable trench remediation Is under way.
- RHIC: Y12 valve box repair, locate repair other leaks: Under way
- RHIC R&R:
 - E-Lens: Briefing meeting held, work to start today.

Booster and NSRL:

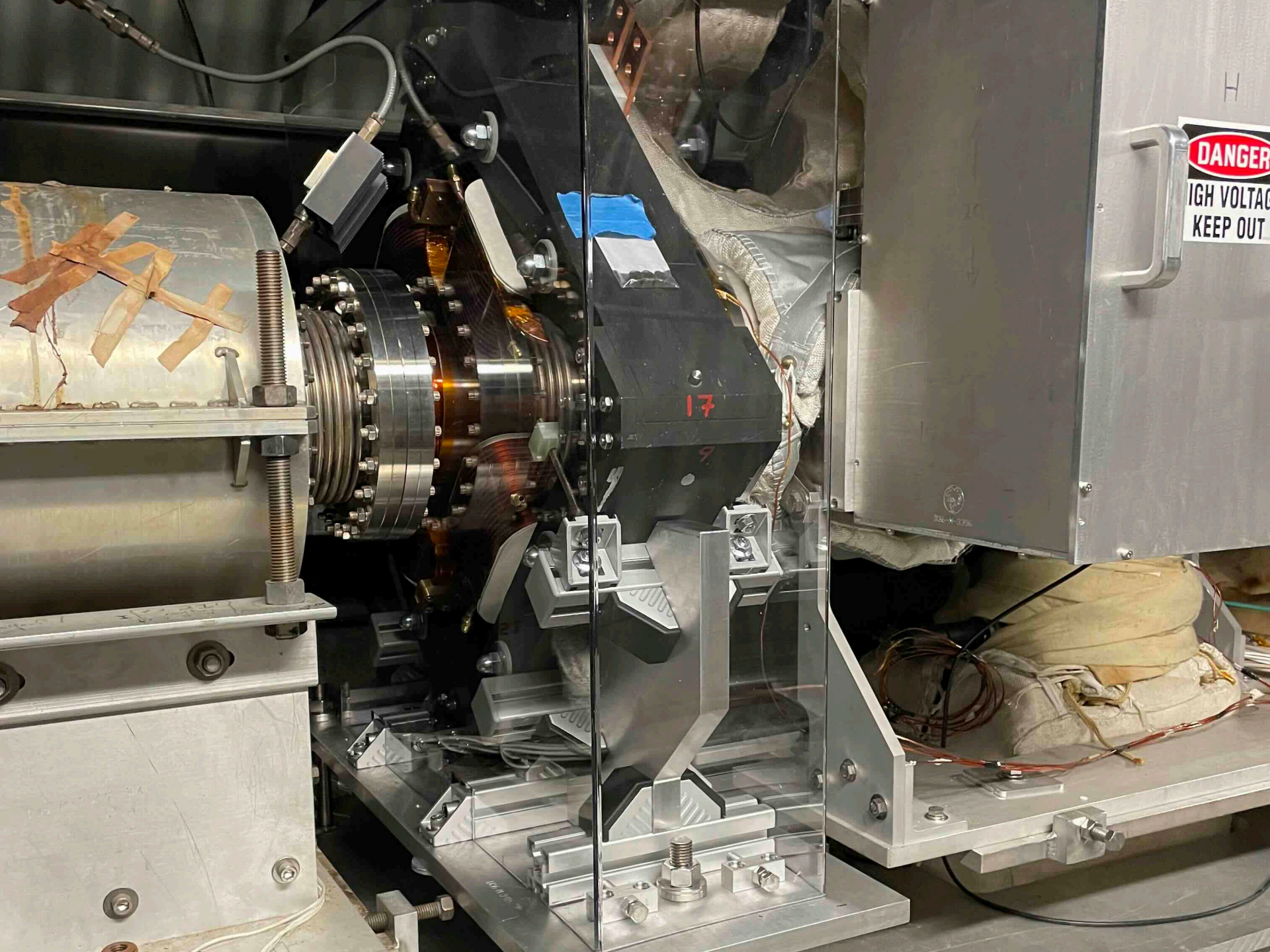
- Vacuum work in BtA & Sectors F going well.
- Bakeout as early as next week.
- RF A3 PA modification is underway.
- 911 Chilled water tower replacement installation progressing on schedule (Chilled water for BRF).
- NSRL tower temperature control valve replacement after EBIS is shutdown.
- E4 Skew Quad installation complete.
- 36 other jobs approved; work is progressing on schedule.











H
DANGER
HIGH VOLTAGE
KEEP OUT

17

AGS and AtR

L18A trench remediation is underway.

Tunnel lights are on!

RF work completed.

Snake cold head replacement awaiting delivery.

Main Magnet water drained and refilled (tritium remediation).

Annual Maintenance.

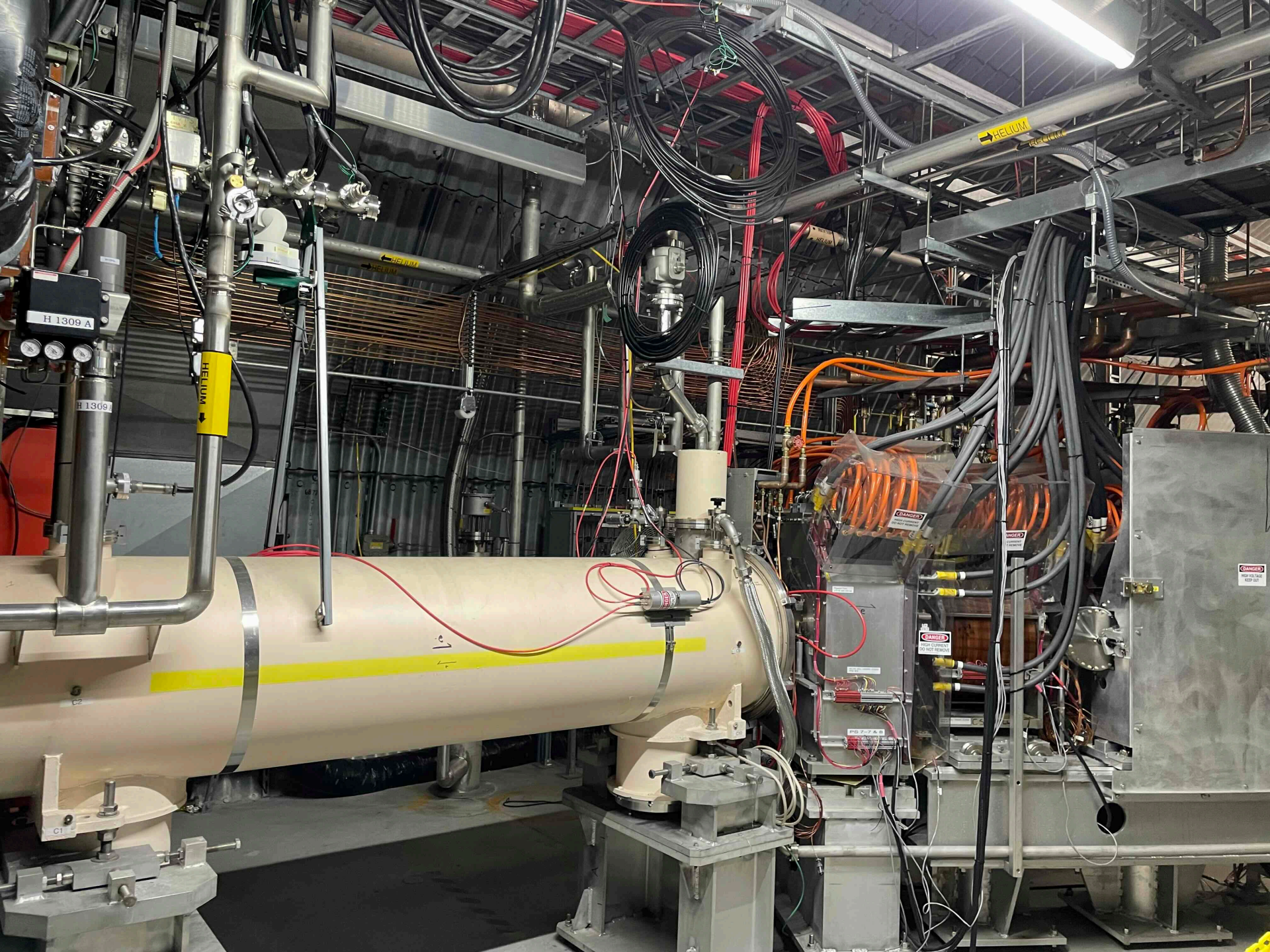
45 jobs total scheduled





RHIC

- Leak detection in the cryogenics system.
- Yellow Valve Box 12 leak repairs pending.
- e-Lens infrastructure removal started today.
 - Break vacuum, grind cryogenics only after assessment.
- Cryogenics Tower 7 cleaned and shut down.
 - Switchgear remediation (manufacturer's recall) to be addressed mid December.



Tower 7



End of shutdown schedule: Injectors

Shutdown 24 End

Prepared by: P. Sampson

Last edited: 9/26/24

Wed, 1/8/2025
 1 Days/column: 2
 0

TASK	PROGRESS	START	END	DAYS	Jan 6, 2025		Jan 14, 2025		Jan 22, 2025		Jan 30, 2025		Feb 7, 2025											
					6	8	10	12	14	16	18	20	22	24	26	28	30	1	3	5	7	9	11	13
					M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T
LINAC																								
ACS Cert	0%	11/19/24	11/22/24	3																				
RF NA	0%	1/8/25	1/24/25	16																				
NA Beam Start	0%	1/24/25	7/31/25	188																				
Tandem																								
ACS Cert	0%	1/15/25	1/20/25																					
TTB tuning	0%	1/20/25	1/27/25																					
Booster																								
ACS Cert	0%	1/13/25	1/17/25	4																				
Checkout NA	0%	1/20/25	1/27/25	7																				
Beam setup	0%	1/27/24	2/7/25	377																				
NSRL Users	0%	2/10/25	7/31/25	171																				

AGS and RHIC start Up

Shutdown 24 End

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Wed, 1/29/2025
 1 Days/column: 2
 0

TASK	PROGRESS	START	END	DAYS	Jan 27, 2025		Feb 4, 2025		Feb 12, 2025		Feb 20, 2025		Feb 28, 2025		Mar 8, 2025		Mar 16, 2025		Ma									
					27	29	31	2	4	6	8	10	12	14	16	18	20	22	24	26	28	2	4	6	8	10	12	14
AGS																												
ACS Cert	100%	11/13/24	11/19/24	6																								
Checkout	0%	3/3/25	3/10/25	7																								
Beam Setup	0%	3/10/25	3/27/25	17																								
RHIC																												
Scryo Scrub	0%	1/29/25	2/25/25																									
45k wave	0%	2/26/25	3/25/25																									
ACS Roll up	0%	3/17/25	3/18/25	1																								
RF and PS tests (NA)	0%	3/19/25	3/27/25	8																								
4k wave	0%	3/25/25	3/30/25																									
Setup with beam	0%	3/27/25	4/10/25	14																								

Early scenario?

Shutdown 24 End

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Wed, 1/29/2025	
1	Days/column: 2
	0

TASK	PROGRESS	START	END	DAYS	Jan 27, 2025		Feb 4, 2025		Feb 12, 2025		Feb 20, 2025		Feb 28, 2025		Mar 8	
					M	W	F	S	T	T	S	M	W	F	S	T
AGS																
ACS Cert	100%	11/13/24	11/19/24	6												
Checkout	0%	2/3/25	2/10/25	7												
Beam Setup	0%	2/10/25	2/27/25	17												
RHIC																
Scryo Scrub	0%	12/29/24	1/27/25													
45k wave	0%	1/27/25	2/24/25													
ACS Roll up	0%	2/17/25	2/20/25	3												
RF and PS tests (NA)	0%	2/19/25	2/27/25	8												
4k wave	0%	2/24/25	2/28/25													
Setup with beam	0%	2/26/25	4/10/25	43												

Full schedules and timelines:

Available on the web “This Week”.

Discussed at meetings:

Supervisor’s meeting (weekly).

Shutdown “Time” Meetings (bi-weekly).

Links:

- [This Week](#)
- [Shutdown Status](#)
- [JRS](#)
- [Web Status](#)
- [Overview Project](#)

Summary and comments:

This shutdown is evolving:

Work plans developed are dynamic and made able to adapt.

Large amount of work and coordination.

High risk jobs need careful scrutiny.

Resources:

Supervisor's meeting (weekly).

Shutdown "Time" Meetings (bi-weekly).

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Thank you