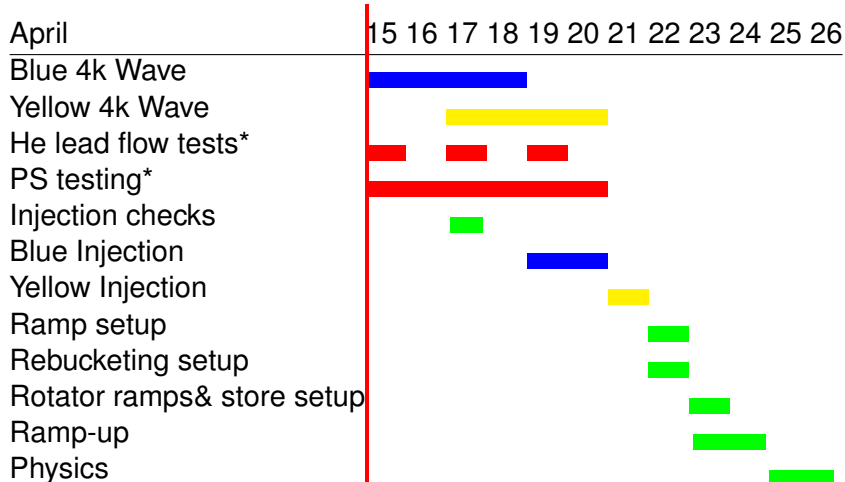


RHIC Run24 Preparations

Kiel Hock

April 9, 2024

RHIC Startup Schedule



* optimistic duration for testing given number of changes. Having an additional meeting this Friday to try and optimize the schedule.

RHIC Startup Status

Blue 4k wave started
Blue PS testing started
Blue helium lead flow tests started
Blue 4k wave completed
Blue helium lead flow tests completed
(Okay to ramp blue)
Blue PS testing completed (Hysteresis complete)
Injection checks
Injection into Blue
 Capture
 Instrumentation setup
 Feedback setup
 Polarimeter targets conditioned
Blue setup complete
Yellow 4k wave started
Yellow PS testing started
Yellow helium lead flow tests started
Yellow 4k wave completed

Yellow helium lead flow tests complete
(okay to ramp B&Y)
Yellow PS testing complete (Full hysteresis complete)
Injection into Yellow
 Capture
 Instrumentation setup
 Feedback setup
 Polarimeter targets conditioned
Yellow setup
Ramp setup complete
Rebucketing setup complete
Rotator ramps & store setup
 instrumentation setup
 collisions setup
 collimation setup
 polarimetry setup
 abort kicker optimized
Experimenter Setup & ramp up
Physics, setup complete

Physics Milestones

β squeeze at IP8

1.0e11 protons per bunch @physics

complete low-luminosity run for STAR

sPHENIX running with nominal store conditions

1.7e11 protons per bunch @physics (Run12 maximum)

2.0e11 protons per bunch @physics

2.4e11 protons per bunch @physics (Run15 maximum)

switch to alternate AGS setup

2.5e11 protons per bunch @physics

3.0e11 protons per bunch @physics

Injector Tracker

Injector Performance

OPPIS polarization is currently 10% below nominal

AGS Polarization is at 60% with $2e11$ protons as a result, a reduction in polarization to reduction at OPPIS.

OPPIS personnel suspect a magnetic field issue with the SC solenoid, trim magnet PS expected this week.

Skew quad commissioning status

All magnets have been installed and verified.

Commissioning ongoing outside of optimizing normal setup.