

sPHENIX I&F milestones 2022-2023

Maria's summary based on Glenn's schedule/milestones Nov 14, 2022
Status Updated to January 10th, 2023

January 10, 2023



@BrookhavenLab

Milestones December 2022

Red=Critical path or <4 days to CP

(C)=Completed

(%)=% complete

(E)=Expected

Needs update

Week Dec 5-11	Week Dec 12-18	Week Dec 19-25 (XM)	Week Dec 26- 31 (New Year)
EMCAL: Complete sector installation: Russ/Toldo (PO) (C) EMCAL: Start cabling, Stoll (PO) (C)	I: Complete Rack Cooling water, lower platform: Vasquez (PO) (C) TPOT: Complete installation: Russ/Hugo (PO) (C) GAS: Layout/Schematic Drawings & Design, Specs Control Docs, Assem. & Detail Drawings for Det Gas, Pisani, PO (C) I: S345800 Complete installation on-detector safety systems, Vazquez (PO), (50%) (E=March 28) G&C: Cooling EMCAL SiPM N2 panel fabrication (30%) (E=Jan 9→Jan 23) cooling EMCAL PreAmp (60%) (E=Jan 11→Jan 31) Cooling system platform manifold (80 %), (E= Jan 13-->Jan 31) Pisani/Pontieri (PO) ES&H: USI and ASE ready for submission to RSC & ESRC, Filler (C-AD) (C)	I: S346234 Complete global interlock system Vasquez (needs on-detector VESDA) (PO) (87%) (E)=Feb 27→March 14 I: Complete Rack Cooling water (internal plumbing), middle platform: Vasquez (PO) (C) ES&H: USI and ASE approval from RSC, Filler (C-AD) (C)	I: complete installation of rack protection systems (upper platform) (97%needs last rack, E=Jan31), AC power (lower and middle (C), network installation (C), ECW water leak detection (96%-missing AH) E=Jan 31, test rack interlocks system (96%), Vasquez (PO) E=Jan 17 (after TPC install.)→Feb 1 I: complete wiring of chiller platform (basic wiring) (C), Albanese, C-AD) I: Complete off-carriage water lines (chiller piping sill (100%)/labyrinth (40%),(E=Jan 16) , Albanese (C-AD) GAS: TPC Ar-CF4 panel fabrication, Pisani/Pontieri (PO), (20%), (E=Jan 18) HCAL: check oHCAL/iHCAL with cDAQ, Bathe (PO) (C early Jan) EMCAL: Complete installation EMCAL cooling panels (E=Jan 13→Jan 20) & route lines (needs TPC installed E=Feb 3), Pisani/Pontieri (PO) EMCAL: Complete installation EMCAL Cables& services (C Jan 8), Stoll (PO)

* cDAQ=checks counting house DAQ

Milestones January 2023

Red=Critical path or <4 days to CP

(C)=Complete ()=% complete

(E = Expected) Needs update

Week Jan 2-8	Week Jan 9-15	Week Jan 16-22	Week Jan 23-29
- I: Complete installation electronics racks on carriage, Boose (PO) (C) TPOT: complete on-detector cable installation (C), tests cDAQ: Hugo/Takao (PO) (E=Jan9-15) EMCAL: Complete tests with cDAQ, Stoll (PO) (initial tests before TPC installation) (E=Jan 9-15) Gas&Cooling: TPC cooling system panel fabrication (30%), building will start Jan 3/4 Pisani/Pontieri (PO) E=Jan 24 ES&H: LESHG approval of USI and ASE (Lab ESH committee) (C)	- I: Complete installation of rack cooling water middle platform. Vasquez (PO) (C) - I: Off Carriage Water - Bridges to on-carriage panels, Albanese (C-AD) (10%) (E=Feb 22 TBC) I:GAS: TPC Laser N2 panel fabrication (50%), Pisani/Pontieri (PO) E=Jan 30 ES&H: ES&H ALD request approval to BSHO (on schedule)	Magnet Checkout After Power Testing: Yip (C) - I: Complete Rack Cooling water, upper platform: (92%-needs TPC rack) Vasquez (PO) (on schedule) TPC: transport to 1008 TPC: Complete installation TPC (Mechanical), Cacace, (PO)	- I: Complete installation AC power to Racks - Upper platforms (96%-needs TPC rack) Vasquez (C-AD) Checkout: In-Rack Safety System Check: Haggerty (PO) - I: Test global interlock system: Vasquez (PO) (E=Feb 5) I:GAS: TPOT Ar-Isobutane panel fabrication, Pisani/Pontieri (PO) (TBC) - I: Test global interlock system, Vazquez (PO)

Milestones February 2023

Red=Critical path or <4 days to CP
(C)=Complete

Week Jan 30-Feb 5	Week Feb 6-12	Week Feb 13-19	Week Feb 20-26
GAS: TPC & TPOT gas distribution Panels installed: Pisani/Pontieri (PO) (TBC) TPC: Complete TPC Cables and Services (gas/cooling)& cDAQ, Hemmick (PO) I:GAS: INTT N2 panel fabrication, Pisani/Pontieri (PO) I: Start hook up all new chillers (4 EMCal, CDU300, 2 INTT, 3 MVTX), Pisani/Pontieri (PO) ES&H: Approval revised ASE (BHSO)	I: complete installation off-platform safety systems (incl. VESDA part safety system), Albanese (C-AD), (99%) (C) Beam pipe: Install Central Beampipe (mechanical), Feder, C-AD – TBC	INTT: Complete INTT Installation fixtures and tests, Cacace (PO) I:GAS: MVTX N2 panel fabrication, Pisani (PO) Beam pipe: pumped-down and leak checked, Feder (C-AD), * cDAQ=checks counting house DAQ	Checkout: Check safety systems, interlocks, smoke, fire detectors, Filler (C-AD), MVTX: cooling System Panel Fabrication, Pisani (PO) I: Power up and load test all old chillers, Pisani/Pontieri (PO) - new Beam pipe: bakeout complete, Weiss/Feder (C-AD)

Milestones March 2023

Red=Critical path or <4 days to CP

(C)=Complete

Week Feb 27- Mar 5	Week Mar 6-12	Week Mar 13-19	Week Mar 20-26	Mar 27-April 2
• I: S346246 Complete VESDA north/south solenoid - piping (excluding sEPD area), Vasquez (C-AD) (on schedule) • I:GAS: MBD dry compressed air panel fabrication,(20%) Pisani/Pontieri (PO) E=March 16 • ES&H: NPP presentation of readiness of IRR to IRMC, Flillier, NPP	• INTT: Install INTT (mechanical), Cacace (PO)	• INTT: Install INTT Cables and Services & cDAQ*, Noucier (PO) • MVTX: Install MVTX Support, Kelsey (PO) • ES&H: complete IRR (close out report from IRR team), Flillier (C-AD)	• Beam pipe: Remove beampipe Temporary Support, Albanese, (C-AD) • MVTX: Install Half-Barrel 1, Kelsey (PO) • MVTX: Install Half-Barrel 2, Kelsey (PO)	• MVTX: Install MVTX Remaining Cables and Services , Liu (PO) • MVTX: cDAQ tests, Liu (PO) • MBD: Install MBD Installation fixtures, Pontieri (PO) • I: Complete hook up all new chillers (4 EMCal, CDU300, 2 INTT, 3 MVTX), Pisani (PO)/Pontieri –new • ES&H: Close IRR pre-start items, Flillier (C-AD)

* cDAQ=checks counting house DAQ

Milestones April 2023

Red=Critical path or <4 days to CP
(C)=Complete

April 3-9	April 10-16	April 17-23	April 24 – May 1
• MBD: Install Min Bias (mechanical) & cDAQ*, Chiu (PO) • MBD: cDAQ* tests, Chiu (PO) • sEPD: Install sEPD (mechanical), Reed (PO) • sEPD: Cables & cDAQ tests*, Reed (PO) • IR: Install shield wall, Albanese (C-AD) • ES&H: IRR committee approval for operation, IRR team	• GAS: MBD gas distribution Panels installed: Pisani (PO) • ES&H: Approval for sPHENIX operations, BHSO • sPHENIX Ready for beam, ALL		• Start of sPHENIX commissioning with beam 
* cDAQ=checks counting house DAQ			

sEPD: if ready on time and it does not interfere with schedule

Completed milestones

Milestones November 2022

(C)=Complete

(E = Expected)

Week Nov 14-20	Week Nov 21-27 (Thanksgiving)	Week Nov 28- Dec 4
• I: Install Line Electric Power Distribution Off Detector: Vasquez (PO) (C) • I: Complete Line Electric Power Distribution On Detector (C): Vasquez (PO) • TPC: Fabricate/Procure TPC Integration/Installation Tooling/Fixtures: Pontieri, PO (C)	• I: Install Non-IR Infrastructure, Albanese, C-AD (C)	• I: Complete Outer HCAL (C) inner HCAL Cables (C on detector side), Bathe (PO) • I: Install AC power to Racks - Lower platforms: Vasquez, (PO) (C) • I: Complete rack rack interlock system (36 racks) (C): Vasquez (PO) • I: Complete on-detector 24V-DC-distribution system, Vasquez (PO) (C)
* tests=checks with DAQ in the counting house		