

PHENIX WEEKLY PLANNING



TECHNICAL SUPPORT ZONE

10/25/12
Don Lynch

This Week

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- Sta 1, 2 and 3 S Upgrades - Done
- Remove work platforms from MMS - Done
- Continue MPC N Repairs - Done
- Continue Repairs & Upgrades for MuTr Stations 2&3 N
- Continue VTX/FVTX Repairs
- Continue VTX Cooling System Upgrade
- Continue RPC3 Gas Recirculation Upgrade
- Install MPC North
- Install Thermocouples on RPC1 North
- Upgrade RPC1 North Cooling
- Substation breaker upgrade/test (CAD) ~Breaker Broke
- Continue working on RPC3 shielding
- sPHENIX design support
- MPC-Ex design support
- Window Washer safety upgrades
- MuID Collar IR staging area support

Next Week

TECHNICAL SUPPORT ROOM

- Continue Repairs & Upgrades for MuTr Stations 2&3 N
- Continue VTX/FVTX Repairs
- Continue VTX Cooling System Upgrade
- Continue RPC3 Gas Recirculation Upgrade
- Complete MPC North Install
- Complete Thermocouples on RPC1 North Install
- Complete RPC1 North Cooling Upgrade
- Install MMS East Vertical Lampshade (Dave P.)
- RPC1 South Cooling Upgrade
- Reinstall North beampipe support
- Survey Beampipe at North support
- Remove station 1 scaffolding
- Move CM to run position
- Substation breaker upgrade/test (CAD) ~Breaker Broke
- Continue working on RPC3 shielding
- sPHENIX design support
- MPC-Ex design support
- Window Washer safety upgrades
- MuID Collar IR staging area support

Substation breaker upgrade/test (CAD)



Upgrade & Test to be performed 10/21-22. P. Giannotti to prepare drawings/wiring schemes to CAD for review and config manag. Paul will be present and work with line crew to implement. CAD witness for test?

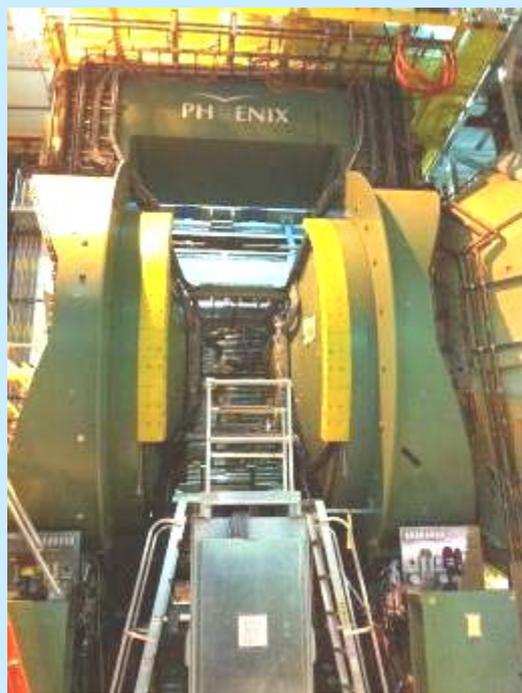


Upgrade partially implemented;
Waiting for new breaker to finish job, test not yet performed

- This week: Install Cooling manifolds and TC's, Test B1 west, Mate BO & B1, Mate West Pixel barrels with strips, Attach and Test bigwheels
- Next Week: Install FVTX cages, Test FVTX west, prep for survey
- Week of Nov 5: Survey get ready to move to 1008
- Week of Nov 12: Install at 1008.
- Week of Nov 19: Survey and services



VTX/FVTX



Repairs and testing
in Progress at Chemistry Department

Scaffolding Storage

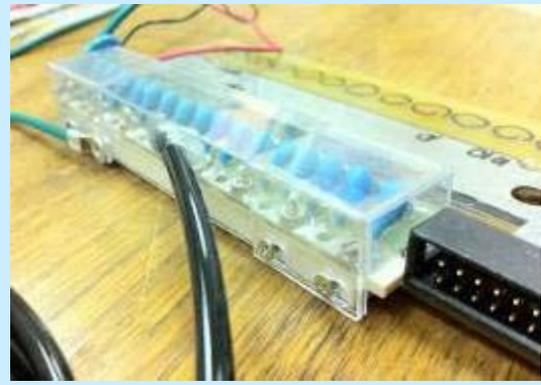


Clamp-on Terminator Installation on North & South Station-3

TECHNICAL SUPPORT NON

Lower clamp-on terminators already installed for both north and south sta-3 (bottom 4 octants)

With new work platforms that reaches all of sta-3; install remaining (upper) clamp-on terminators. **South Done, North In Progress**



MPC Repairs -

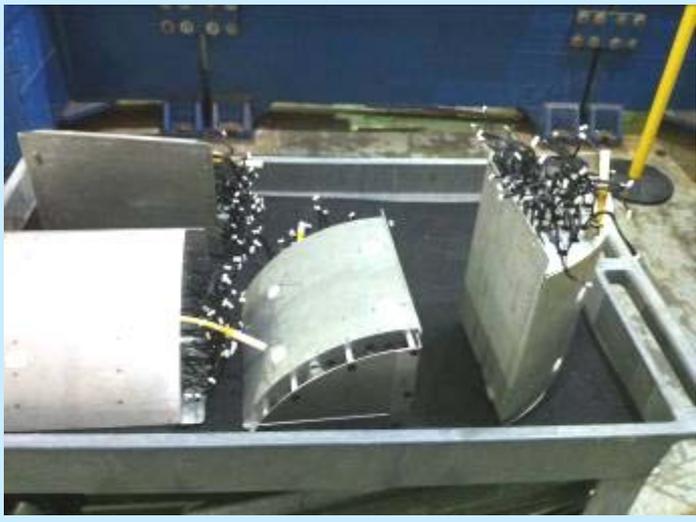


North MPC: At PHYSICS for repairs
To be reinstalled by 10/26

South MPC: Repairs completed,
reinstalled, testing and new cables in
progress



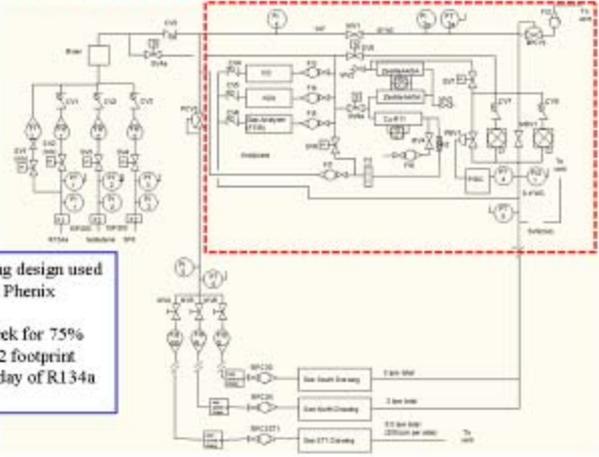
Completed



10/25/2012

TECHNICAL SUPPORT

Run 12 Shutdown Work Overview Gas/Cooling Systems
Recirculating Upgrade to RPC Gas System



- Based on working design used for many years at Phenix
- Save money
 - \$3k per week for 75%
- Reduces lab CO2 footprint
 - 60 lbs per day of R134a

June 20, 2012

15

RPC Recirculation Upgrade

Recirculation Piping installation - In Progress

GMH rack moving along Purification system controls assembly, installation and testing - November

PC upgrade - November

Analyzer procurement not yet approved



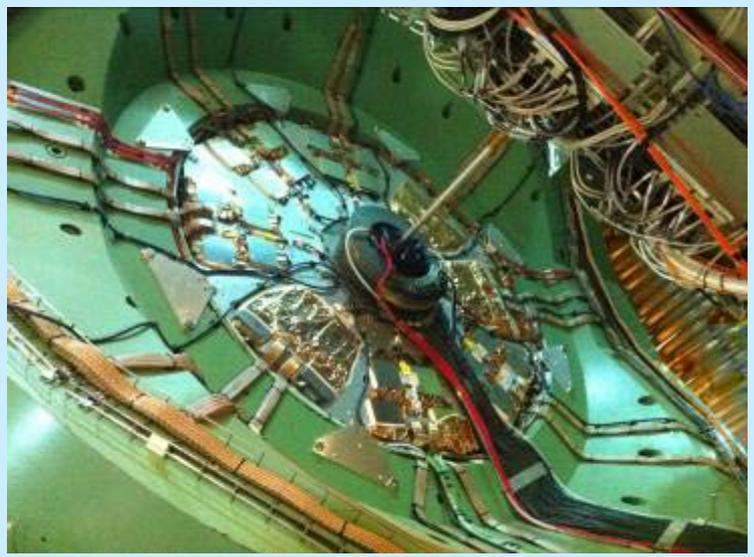
VTX/FVTX Cooling Upgrade

- Piping 90% done
- New filtration system in place, neds to be connected
- Big Wheel manifolds assembled ready for installation
- Chiller 1 repair parts here, need AC tech to Distribution upgrade

RPC Station 1 North and South Cooling Upgrade & Monitoring



South



North

South to be completed after North, Start on North next week

RPC Background Attenuation Project

TECHNICAL SUPPORT ZONE



Looking towards RPC3 North
← East West →

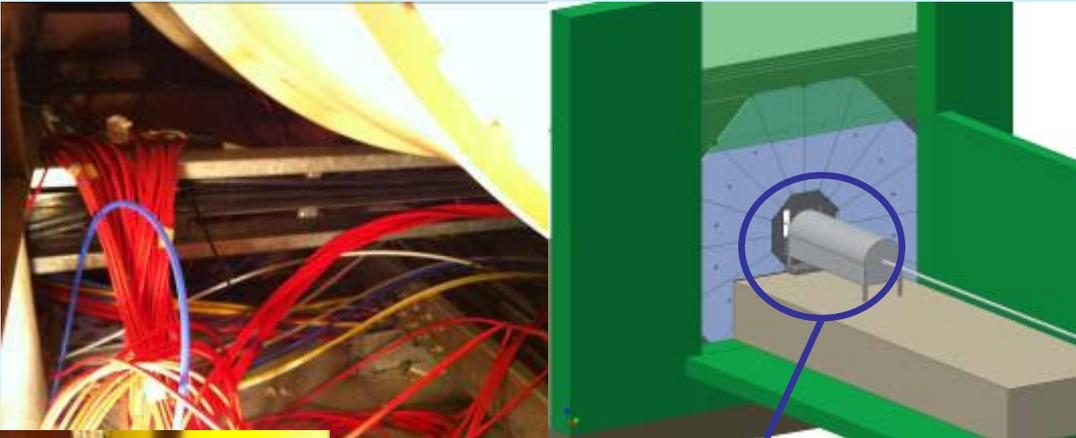
Looking towards RPC3 South
← West East →

Large shielding modifications at Q2 upstream north and south to be planned and installed by CA-D (Dave Phillips) by 12/14/2012

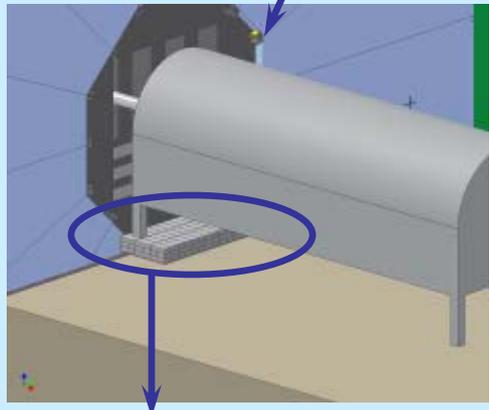
RPC Background Attenuation Project

TECHNICALS

Under DX at RPC3 North
← East West →



Under DX at RPC3 South
← West East →



144 Steel bricks, 2x4x8,
stacked in 3 high, 16 wide, 3
rows, respectively by 11/21



TECHNICAL SUPPORT NON

MuID Collar IR Holding Area Support



- Structural support improvements designed
- Parts to be ordered
- Installation this fall prior to EC roll in

Window Washer Remote Pin Removal and Winch/spooler safety upgrades

Space available:
16.5" x 27" x 28" h



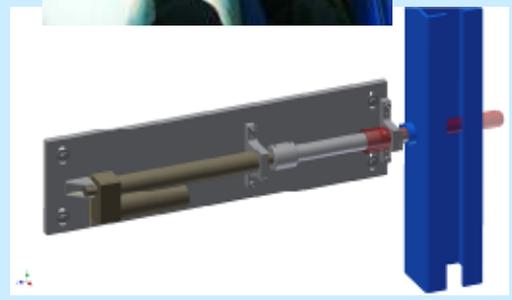
COLUMBIA WINCH & HOIST
Manufactured by Allied Power Products, Inc.

AutoAdvance LINE SPOOLER
ALL FRAME SIZES

Create perfect line spooling for any winch or hoist.

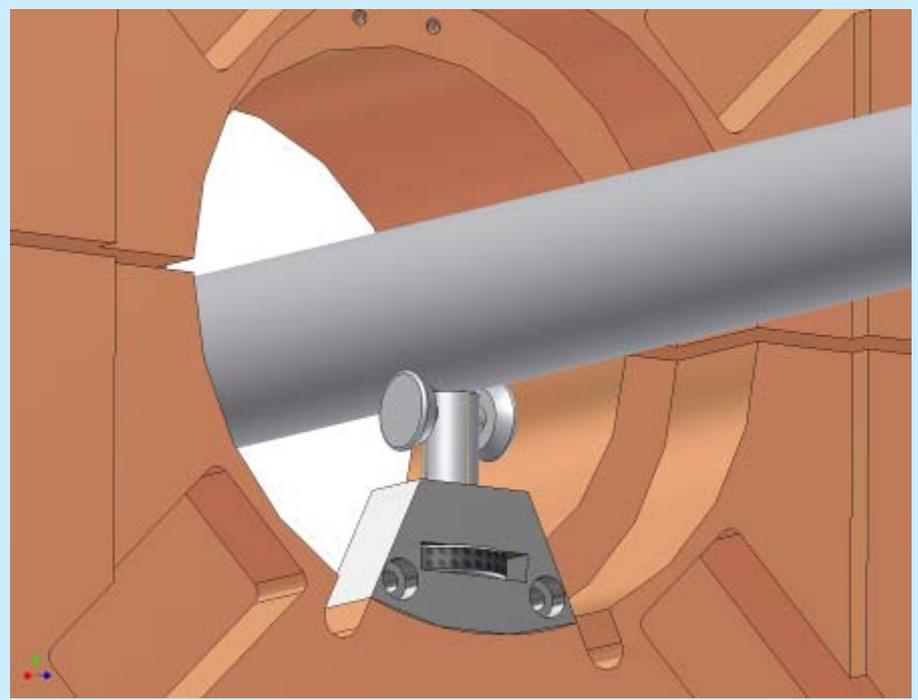
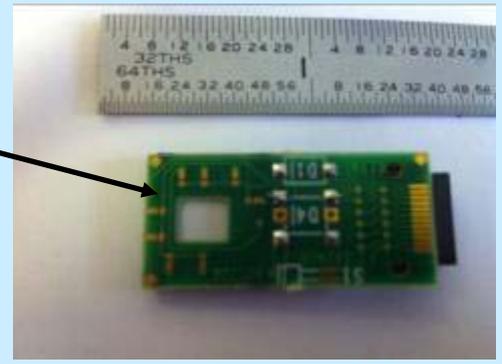
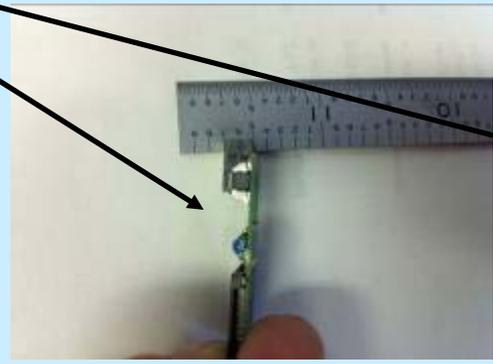
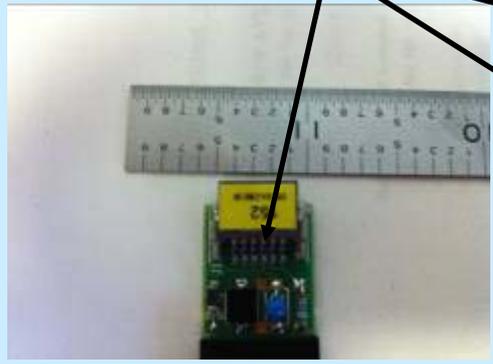
Auto Advance Line Spoolers eliminate the need for a fixed sheave precisely located in relationship to the drum to achieve proper line spooling.

Auto Advance Line Spoolers work with any size of line and even with differing sizes of line on the same drum to create optimal line spooling. Large diameter sheaves in the Auto Advance Line Spooler ensure the line is not damaged by small radius bends.



Rad monitor sensors

VTX/FVTX Radiation Monitoring Test



Mount 6 Rad monitor sensors in the south nosecone cavity, 2 sets of 3 at different z, at 3.5, 8.5 and 16.2 mm radially from nominal beam axis

Other Subsystem Work and Future Upgrades related Work

TECHNICAL SUPPORT 2012

New Electrical Work for 2012 Shutdown, to be accomplished as time is available

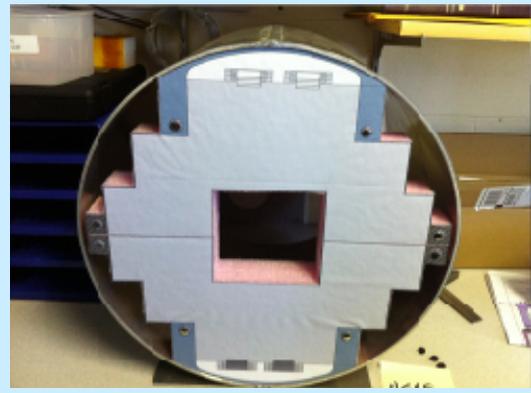
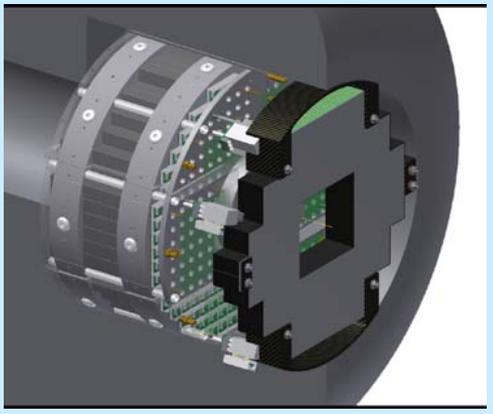
- 1. Add Transient Surge Suppressor to 3 phase power panel on the Central Magnet Bridge. - Done
- 2. Remote breaker switch - parts ready install re-scheduled for 10/21-22/2012

PHENIX Electronics Upgrades

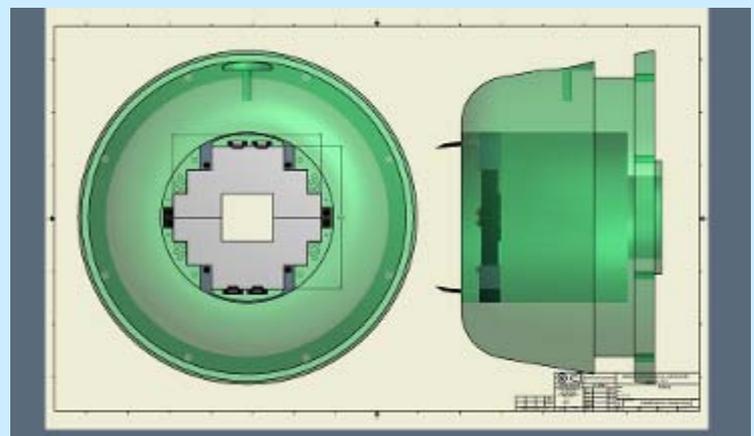
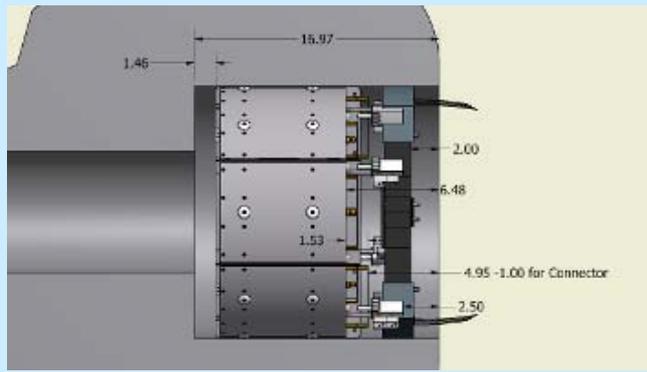
- 1. Install second MODBUS server in counting house. - TBD
- 2. Install MTP patch bay and jumpers for FVTX in counting house. - November
- 3. Add several backup MTP fibers from CH to IR - November

Additional Work for 2012, not yet scheduled, to be fit in as available

- 1. Replaced aging magnet hoses (CM only) - In Progress
- 2. identify obsolete services passing through sill and remove them. - As time is available
- 3. Cover for services coming from IR through sill. - After Shutdown
- 4. Plan for stripping out TEC electronics and services to free up TEC racks. - As time is available



Foam Mockup



MPC-Ex approved, design work in progress, new cables for MPC South installed

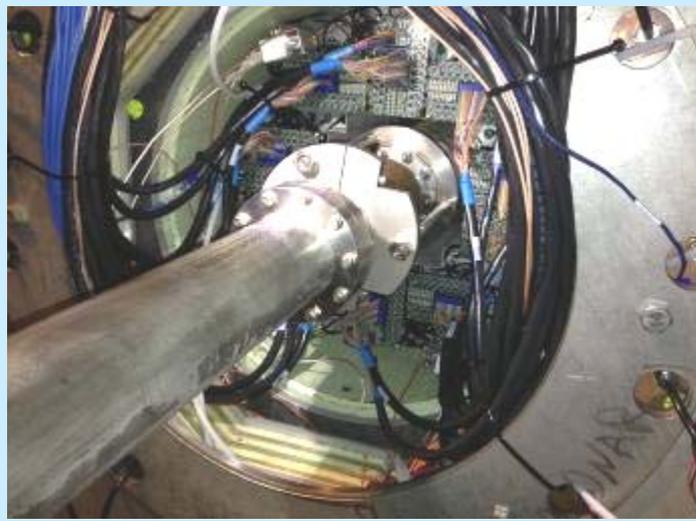
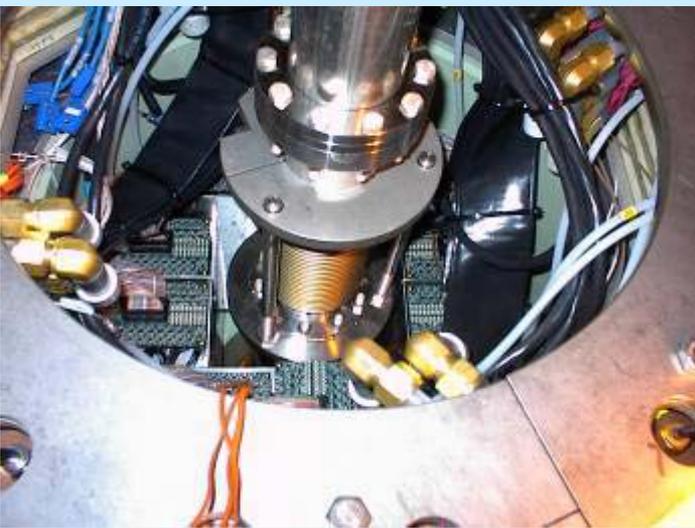
TECHNICAL SUPPORT NON



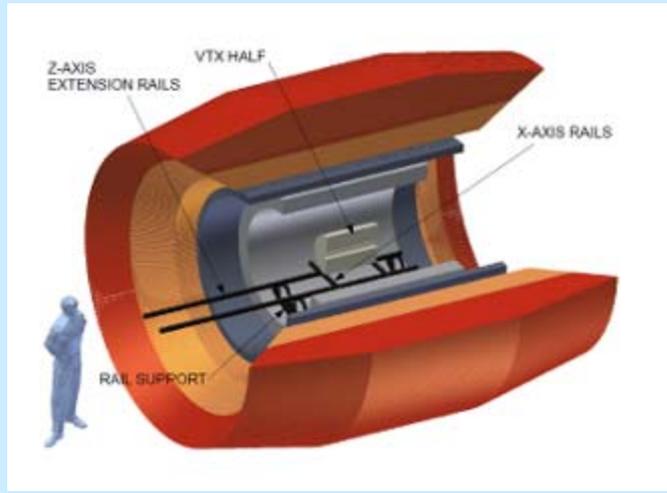
Existing vacuum bellows anti-squirm
In MPC S Cavity



Proposed vacuum bellows anti-squirm
In MPC S Cavity to accommodate MPC-Ex



MPCS Flat cables replaced with round cables.

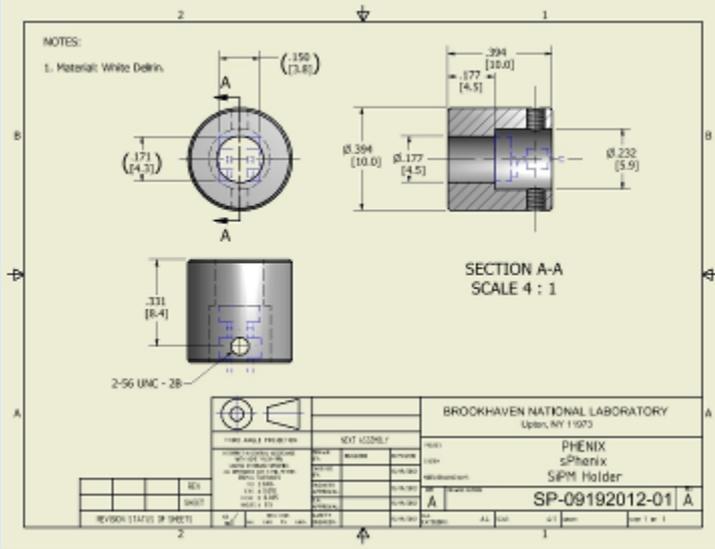
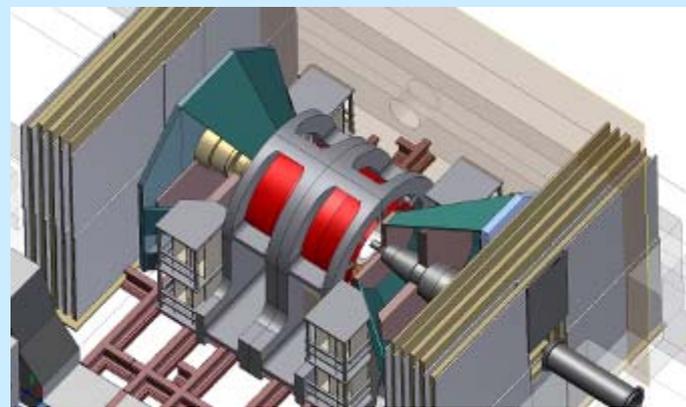


sPHENIX Proposed Upgrade

Work continues evaluating engineering tradeoffs for EMCal and HCal design, materials, etc.

BNL Review last week

Prototype HCal and EMCal in progress



Silicon Photo Multiplier Holder

TECHNICAL SUPPORT ZONE

Remaining Work Permits/Procedures for Shutdown 2012

- RPC Background Attenuation Shielding @ DX Magnets - In Progress
- Window Washer autospool and remote pin removal upgrade
- MuID Collar IR Holding Area Support
- End of Shutdown (PHENIX)

TECHNICAL SUPPORT

Re-capacitation and air manifold upgrades	
Remove Station 2/3 South scaffolding	Done
Re-install MMS lampshade	10/31/12
St 3 North Capacitor Clamps and air manifolds	11/9/2012
Remove station 2/3 North scaffolding	11/16/2012
Install Station 1 North Scaffolding	Done
Reinstall MPC North	10/26/2012
RPC 1 North cooling upgrade	10/26/2012
RPC1 North Thermocouple monitoring upgrade	10/26/12
Remove Station 1 North scaffolding	10/31/12
Move CM To run position, Open station 1 South	11/2/12
RPC 1 South cooling upgrade	11/16/2012
VTX Cooling System Upgrades	11/15/2012
RPC Recirculation Upgrade	11/15/2012
Repair upgrade, reassemble VTX/FVTX	In Progress - 10/31
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	10/26-11/12/2012
VTX/FVTX and final beampipe Survey at 1008	10/21/2012
Substation breaker upgrade/test (CAD)	10/19-??/2012
RPC Shielding under DX magnets	11/21/2012
RPC tunnel Shielding (Dave Phillips)	12/14/2012

TECHNICAL SUPPORT ZONE

Window Washer pin & spool upgrades	11/21/2012
MuID IR storage support	11/21/2012
Veterans Day Holiday	11/12/2012
Re-install MMN access panel on lampshade	11/21/2012
Pre-run commissioning and prep for run 13	11/1-12/31/2012
Prep for EC roll in	11/12-11/21/2012
Thanksgiving Holidays	11/22-23/2012
Roll in EC	11/26-11/30/2012
Prep IR for run	12/3-12/7/2012
Pink/Blue/White sheets	12/7-12/21/2012
Christmas Holidays	12/24-25/2012
Start run 13	1/1/2013



Training: Training update sent out earlier this week.

JTA's almost all up to date.

CA-Access due in next few weeks for several

ODH1 ad ODH1—TRG due for a few : Don't need this until cooldown.

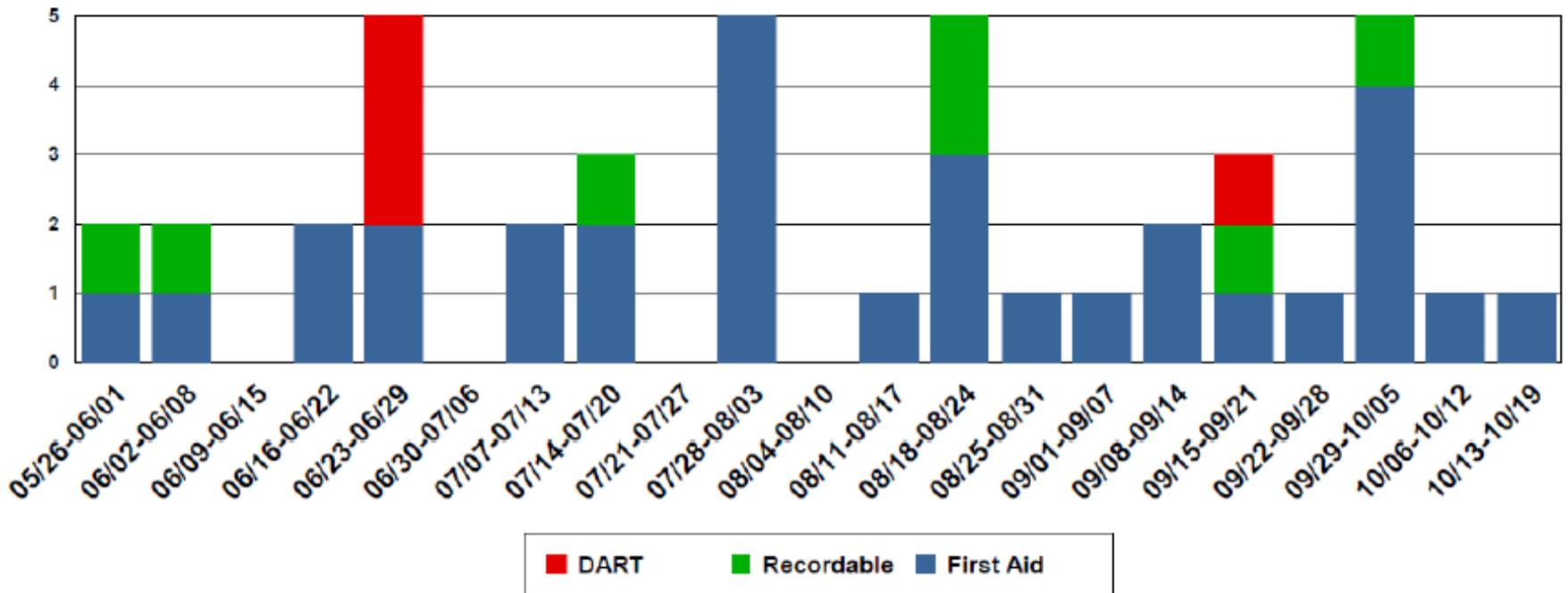
Anyone who uses manlift must take TQ-AERIAL2012 before using the manlift. This does not show up on the update. This will soon be incorporated into the normal TQ-AERIAL training.

From Ray Karol:

SECURITY: There has been a significant increase in the number of doors found blocked open by BNL Police after hours and weekends. Please ensure at the end of the day that all doors to your office and work buildings are closed and locked. This should become routine to you every day.

LADDER SAFETY: If someone goes to a vertical ladder that is not painted and/or tagged, they must not use the ladder to comply with the BNL edict and to protect themselves from possible injury. No Exceptions.

Injuries Per Week As of 10/19/2012



Injury Status:

FY13 YTD: DART – 0, TRC – 1, First Aid – 6
 FY12: DART – 17, TRC – 35, First Aid – 70
 FY11: DART – 30, TRC – 44, First Aid – 45

FY12 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/Occlnj/BNLInjuries.aspx>

Recent Injuries

10/17/12	First Aid	An employee received a minor burn to their finger when trying to clear a jam in a copier. At the OMC, first aid was given. (Event Link)
10/5/12	First Aid	An employee injured a leg while walking down a handicapped ramp. At the OMC, first aid was given.

Recent Events

10/18/12	Non-Reportable	In response to raccoon problems in Bldg 197, a hav-a-heart trap had been set up over the drop ceiling in the hall way. This is a routine practice to catch raccoons in this area. Sometime between close of business on Wednesday Oct. 17 and the morning of Thursday Oct. 18, a raccoon was caught in the trap. The raccoon clawed at the ceiling tile through the openings in the wire cage trap, eventually causing the ceiling to collapse and the caged raccoon to fall to the floor. When building occupants arrived to work on Thursday morning, they noted the caged raccoon on the floor and contacted Site Resources. Pest Management was contacted to remove the caged raccoon. Pest Management Specialists have been instructed that to prevent this from happening again in the future, any trap that is placed above ground must be secured. This can be done by several means, such as placing plywood under the trap and securing the trap to the building structure. (Event Link)
10/18/12	SC-BNL	The field team observed an elevated radiation baseline at the Manhole 192 (~ 100 counts). A sample was collected and ISOCs conducted. Iodine 131 was identified. Later in the afternoon the levels pegged the meter at the STP (> 1000 counts), a second sample was collected and I-131 was again confirmed at levels 4 – 6 times higher than the earlier sample. As designed, the STP has gone into automatic diversion. Environmental Protection has discussed the matter with Radiological Control management and this is most likely patient excreta from someone undergoing thyroid treatment. Discussions with the Medical Dept confirm no use of I-131 (some I-125 is used). Facility Support reps and technicians will be alert for information on anyone that may be undergoing treatment. Environmental Protection will continue to monitor the radiation levels at the STP inlet and manhole 192, to determine the extent of the issue. Update on 10/19: Investigation into the source has determined that the source was a medical isotope as a result of patient treatment. (Event Link)
10/16/12	Non-Reportable	A two vehicle accident occurred at the intersection of Cornell Ave. and Upton Rd, involving two BNL employees in their private vehicles. One individual had an injured shoulder, and was transported to Mather Hospital. The second individual refused medical treatment. The second individual later reported to the OMC. He was treated with ice and ibuprofen and sent back to work. (Event Link)
10/12/12	Non-Reportable	The Gamma Beam Irradiator (a Radiation Generating Device) at the RCFA in Building 348 failed to actuate and expose the CS-137 source, as expected, under normal operation. (Event Link)

Where To Find PHENIX Engineering Info

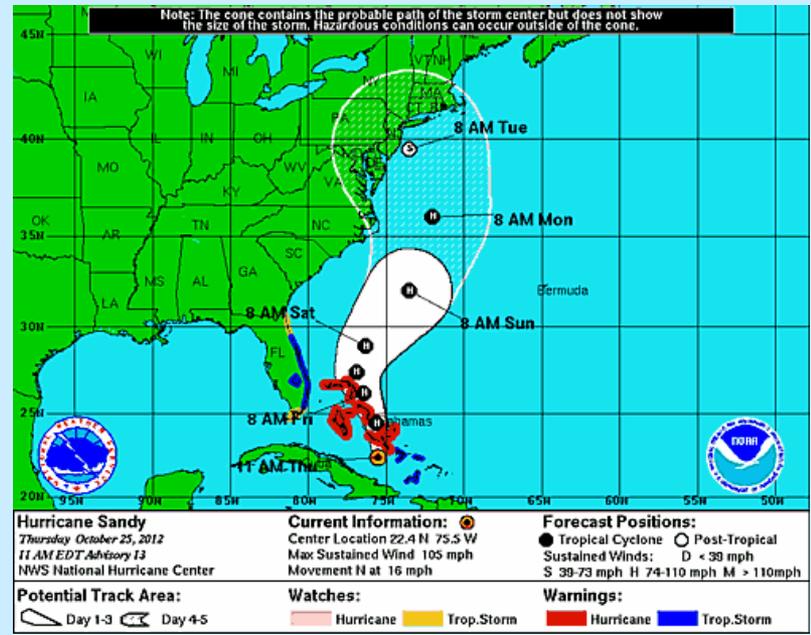
TECHNICAL SUPPORT ZONE

2 Scary Events for next week:

Halloween



Hurricane Sandy



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

