

PHENIX WEEKLY PLANNING



10/8/2009

Don Lynch

Completed Tasks

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Task

- Start of shutdown tasks
- Erected scaffolds in stations 1, 2 and 3 of MMS
- Tools for RPC Factory: tilt table and burn in test stand
- Designed and fabricated RPC installation components, fixtures
- Procedures and work permits
- Designed, fabricated and assembled PC1 repair fixture
- Installed station 1 MuTrigger FEE upgrades
- Repaired faulty DC FEMs
- Removed HBD East for repairs & Reinstalled
- Massive prep for installation of RPC3 North
- Replaced failed PC1 module and associated PC1 repairs
- Installed RPC3 North east & west bases
- DC East Repairs
- Installed 1st & 2nd RPC3 N $\frac{1}{2}$ octants

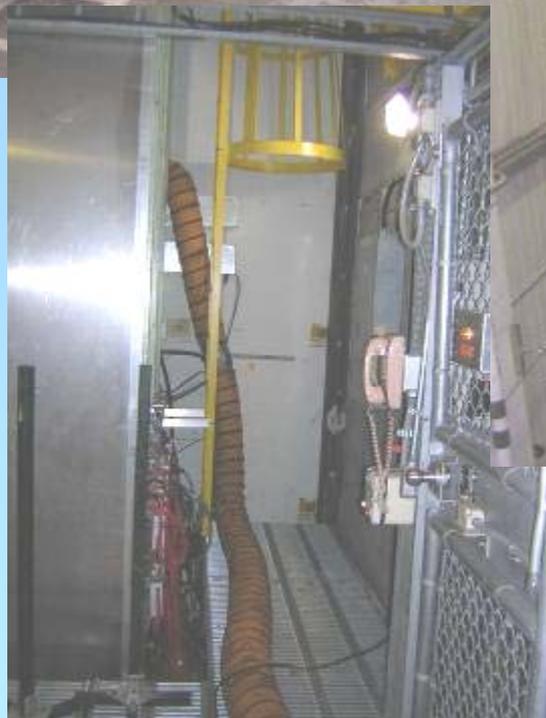
- Stencil/permanent mark RPC3 lifting fixtures
- Remove prototype absorber
- Install pedestal track and 6 wall tracks (pitch control)
- Install unistrut vertical rails on east and west bases
- Install 14 more $\frac{1}{2}$ octants
- Install gas system and distribution
- Install angle supports on top of MuID steel 5
- Restore gap 5 piping and wiring
- Install 2 Racks in west trough
- Install rack components and wire up $\frac{1}{2}$ - octants
- Install new vapor barrier
- Install heaters and thermostats
- Re-Install shielding
- Final wiring and commissioning

This Week 10/5-10/9

Task Start Date End Date

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Install MuTrigger FEE station 2/3 air & water plumbing and test	In Progress	10/9
Prep RPC3 N racks for installation	In Progress	10/9
Analyze and test EC dumbwaiter	In Progress	10/31
Install new gap5 N cable & pipe supports, cables and piping and leak test piping	In progress	10/31
MuTr HV and FEE test and evaluation as MuTrigger FEE's & RPC's are installed	In progress	11/30
RPC3 North Installation of remaining 14 $\frac{1}{2}$ -Octants	In Progress	10/31
Close MMN Hatch and closeout WP	10/26	10/26
Install 2 RPC3 N racks	10/1	10/30
Install rack components in RPC3 N racks	10/1	10/30
Attach cables to RPC3 N racks and to Detector $\frac{1}{2}$ octants	10/1	10/30



Grout Dust Exhaust System

Ready to grout in the RPC3 east & west bases

NOON 1207PCTC S DAPORT NOON





1st $\frac{1}{2}$ octant installation: load onto angled cart



1st $\frac{1}{2}$ octant installation: load angled cart onto air ride truck

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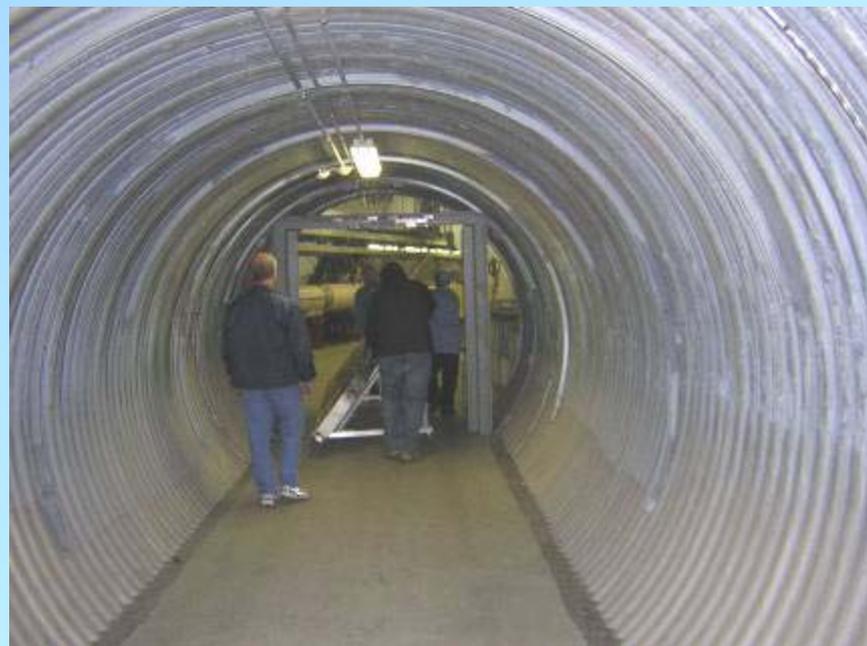
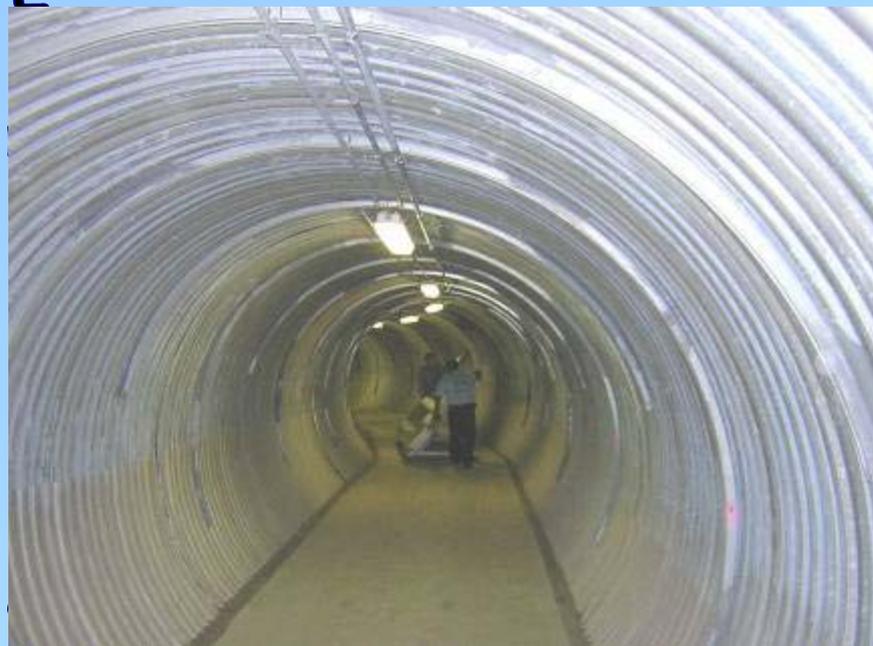


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1st $\frac{1}{2}$ octant installation: drive from factory to PHENIX

10/8/2009

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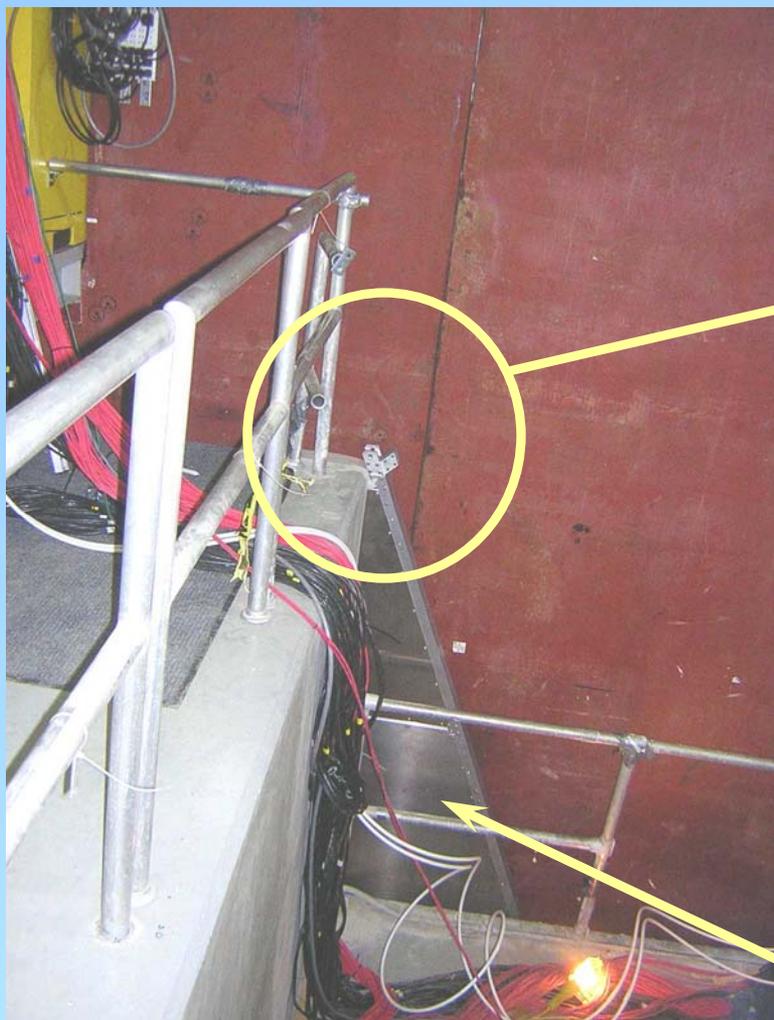
2nd 1/2 octant installation: roll on angled cart through access tunnel to main tunnel

9004



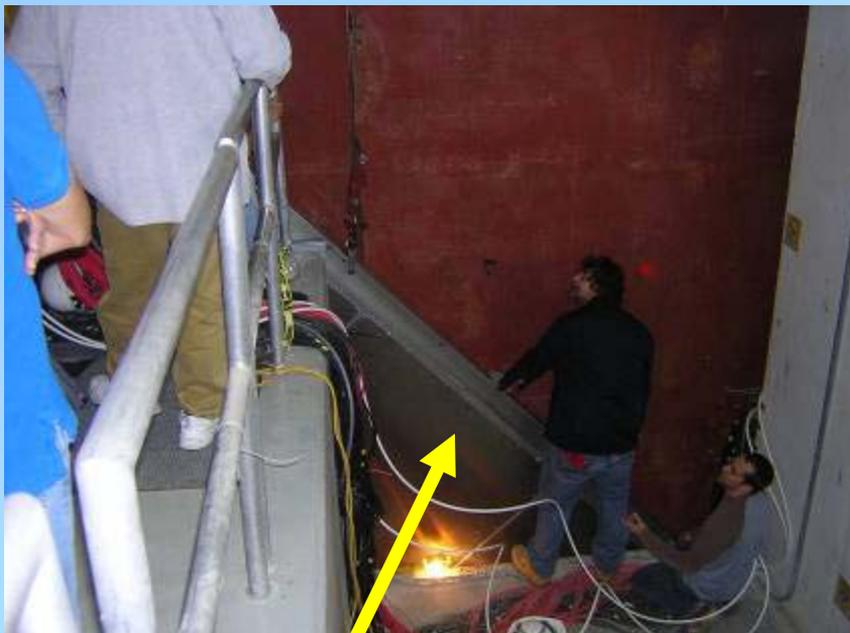
Riggers lift off angled cart and over beam pipe. Then install rollers to transport $\frac{1}{2}$ octant closer to gap 5.

Rollers also serve as $\frac{1}{2}$ octant rotating fixture used to orient $\frac{1}{2}$ octant into installed position.



Alignment mark: better than .060"

$\frac{1}{2}$ octant installed on moving base



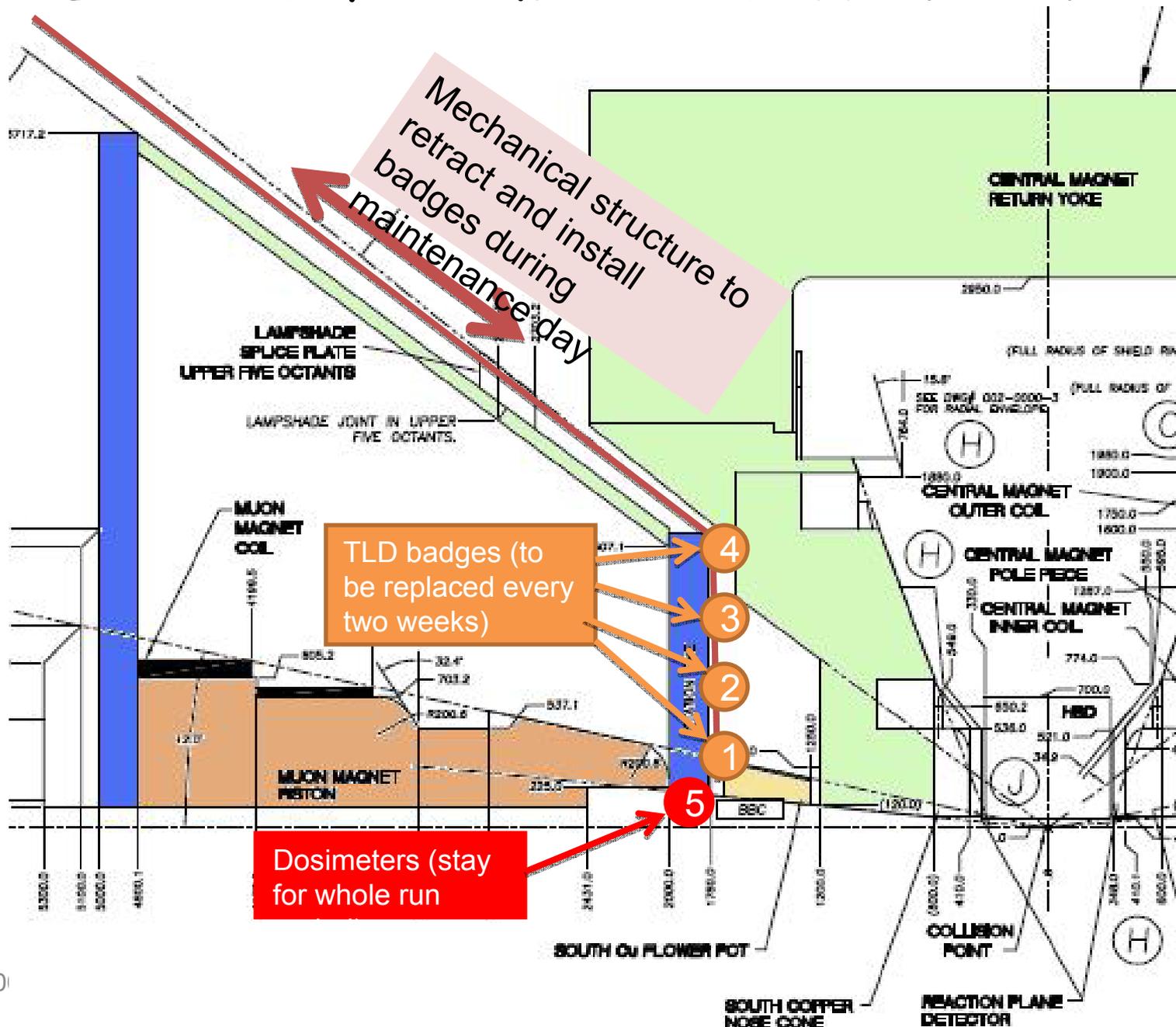
$\frac{1}{2}$ Octant W2 Installed



Alignment precision is $<.06''$



Location of dosimeters in MuTr.S St.1



Continuing Tasks currently underway (elec.)



Task

Start Date End Date

Task	Start Date	End Date
Add single-button ON/OFF controls to some LV GUIs	On Hold	On Hold
Install LV Dist modules in MuTrigger S.	In Progress	12/1
Remove temporary MegaPAC in sRPC1 rack and install new full MegaPAC and finish controls for it	7/20	12/1
VTX/FVTX LV Dist system evaluation (VTX Done)	In Progress	12/1
Prep for production of up to 39 boards in 4 crates (VTX/FVTX)	In Progress	12/1
VTX/FVTX cooling system interlock design	7/20	12/1
Evaluate possible design for 4x1 GL1 L1 triggers	In Progress	12/1
Test direct ethernet implementaion on Maszi's new HV control interface board	On Hold	On Hold
DCM rack electric prep	On Hold	On Hold
Rack room re-organization	In Progress	12/1
CM Power Upgrade	On Hold	On Hold
AH Crane 110 switch for lockout	In Progress	12/1
Test/replace rack transient suppression	7/20	12/1
UPS feeds for GTM and GL1 racks	On Hold	On Hold

PHENIX
 TECHNICAL SUPPORT
 900N

More Continuing Tasks currently underway (elec., cont'd.)

Task	Start Date	End Date
Cordless phones in tunnel	7/20	12/1
Individual relays on all HV supplies	7/20	12/1
More volts to EMCAL FEM's?	On Hold	On Hold
Revisit LV systemization/standardization of controls, etc.	On Hold	On Hold
Correct wiring of the DCM crates enables	On Hold	On Hold
Replace ECB1&2 (ADAM5000s) with a single new ADAM5000E	On Hold	On Hold
Replacement OPC server computers	In Progress	12/1
Replace old PCI type RS485 interface boards with USB-Fiber and Fiber-RS485 system	In Progress	12/1
Add BNL Fire Alarm Zone status lights in the PCR including alarms.	7/20	12/1
Move LCVS Fan and LCVS backup Fan control switches from the Bypass Box to rack PCR2	7/20	12/1
Re-organize/re-wire panel front on rack PCR2 to accommodate the above and allow for ease of use and readability by staff	7/20	12/1
Remove existing SMCS trip channel LED boxes and Reset switch/indicator panel from rack PCR2	7/20	12/1
Add new alarms into Ronan annunciator System and re-configure as necessary.	7/20	12/1
Install new camera electronics into rack PCR5	7/20	12/1

More Continuing Tasks currently underway (mechanical)

PHENIX
 MECHANICAL
 DEPARTMENT
 NOON

Task	Start Date	End Date
Design supports for Beampipe upgrade	In Progress	11/30
Fan Tray replacements (as time permits)	In Progress	11/30
DCM rack supply & Return plumbing	On Hold	On Hold
DCM rack internal plumbing	On Hold	On Hold
Design support for FOCal	In Progress	11/30
Design support for FVTX	In Progress	11/30
Design & Fabrication support for VTX	In Progress	11/30

Continuing Tasks currently underway (gas)

TECHNICAL SUPPORT NOON

Task

Start Date End Date

Install electronic and Gas PC for RPC in gas house

Get AC's installed in mixing house

Investigate shed/larger bottles for R134A

Replace damaged compressed air flowmeter

Add check valves to some supply lines (as needed)

Design and build heat exchanger for HBD system

Replace/ regenerate HBD purifier and driers (late Fall)

Send mass flowmeters out for recalibration (DC/PC, MuID, TOF.W)

Replace pad chamber flowmeters in IR, re-label

Investigate Mutr station 2 gas loss. Confirm labeling

Replace/upgrade gas house PC's

Re-route several gas lines in the RPC3 south gap

Run gas lines to North tunnel

Design and build gas humidifier

Layout and build North distribution panel

Build RPC gas rack for mixing house (do during run)



Done

Done

7/20

12/1

7/20

12/1

7/20

12/1

7/20

12/1

In Progress

12/1

In Progress

10/9

7/20

12/1

Postponed

Postponed

Postponed

Postponed

In Progress

12/1

Postponed

Postponed

7/20

12/1

In Progress

12/1

In Progress

12/1

Postponed

Postponed

October Schedule

Task

Start Date End Date

PHENIX
 CRISTAL
 PALACE
 TUNNEL
 NORTH

Commission RPC3 N racks and detectors	10/12	10/30
Install new Gas Pads for Ar Dewar & Empty bottle storage	10/15	10/30
Final leak test new Ar dewar/vaporizer and Closeout	10/15	10/31
Install Empties racks on gas pad	10/15	10/31
Remove Station 1 North scaffolding	10/26	10/28
Remove MMS Sta 2/3 scaffolding	10/26	10/30
Reinstall MMS lampshades	10/30	11/3
Install new PHENIX north tunnel thermal/vapor barrier replacing crystal palace	10/31	11/15

Expected IR Configuration During Shutdown '09

- Now-**10/30** MMS south, CM in run position, EC in AH
WC in west position (against wall), scaffolding
in station 1 and station 2/3 south
- 10/31**-11/10 MMS, CM & WC positions TBD, EC in AH
- 11/10-12/1 MMS & CM in run position, EC and WC can be
moved east west ~3 ft

These dates are approximate and subject to change

November Schedule

Task

Start Date End Date

900N
1200P
1300A
1400C
1500S
1600P
1700A
1800C
1900S
2000P
2100A
2200C
2300S
2400P

Task	Start Date	End Date
• Install heaters and thermostat(s) for RPC3N thermal control	11/2	11/6
• Reinstall PHENIX North tunnel shielding (3 days)	11/2	11/6
• Replace EC water hoses below EC and test	11/2	11/7
• Cooldown for Run 10 Starts	11/7	11/7
• Move MuID Collars to IR	11/7	11/7
• Disconnect electric & Fiber in EC	11/2	11/7
• Remove ladder & dumb waiter from EC & Fold up EC platforms in AH (1 day)	11/9	11/10
• Veterans Day Holiday - no work	11/11	11/11
• Remove IR Floor plates and move 12 ton cart to AH	11/12	11/12
• Move EC to IR	11/12	11/13
• Reconnect electric and fiber to EC	11/16	11/20
• Reinstall ladder & dumb waiter on EC & Fold down EC platforms in IR (1 day)	11/16	11/20
• Pink sheets, white sheets, blue sheets	11/16	12/1
• Move MMS north, Install MuID Collars	11/23	11/25
• Assemble shield wall base and wall in AH	11/23	11/30
• Thanksgiving Holiday - no work	11/26	11/27
• Roll in shield wall	11/30	11/30
• Start Run 10, All shutdown activities completed	12/1	12/1



2009 Building Maintenance Issues

PHENIX
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 170P
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- Roof leaks in utility bathroom at northwest corner behind tech offices and over door between rack room and assembly hall
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- Improved Rack Room AC performance: New AC on order
- General maintenance for Trailer Offices and Gas Mixing House stairs, ramps and siding, gutters, etc. (cleaning and repairing worn/rotted wood): Carter has placed work orders
- Icy conditions at mixing house north stairs: Need new Mixing House Gutter
- Purchase and install 2 AC's in Phenix Gas Mixing House
Suggested model : McMaster part number: 1817K89 (19.5 K btu)



1. Annual performance appraisals: Please get them to me by tomorrow.
2. New CAD OPM 2.4 on Postings deals with Non-Radiological warning signs, tags and labels. Basically tells you appropriate format (colors wording etc. that these postings need to follow to comply with OSHA standards. This OPM also tasks the CAD ESSHQ group as the point of contact to determine correctness.
3. Latest Tech Training status report sent today. Mostly up to date.

A few have JTA's & Required training overdue. LOTO affected for some, cybersec now annual, CA Exam for coming up for some.

Try to get up to date on all as soon as possible.

Where To Find PHENIX Engineering Info



Mercifully the season from hell
has ended for the Mets
(My prediction for playoffs:
Dodgers and Yankees make WS...
Dodgers win in 6)



So bring on the Jets!
(going for 4-1 on MNF next Monday)

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

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

