

PHENIX WEEKLY PLANNING

7/6/06

Don Lynch

This Week

- 4th of July Holiday
- EC prep for move to AH
- TOF W Hi Bay Tests: Install new HV connectors
- Em Cal East maintenance
- Finish/submit Work Permits
- Continue fabrication of RXNP, HBD, MPC N
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PHENIX Shutdown Overview



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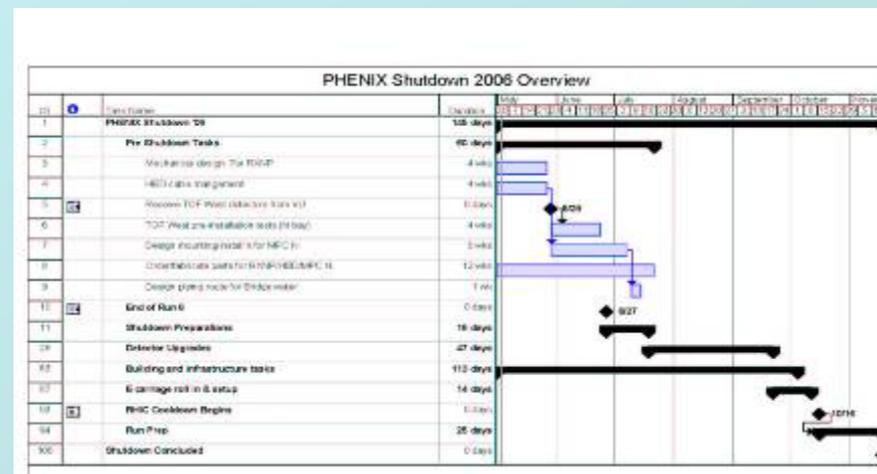
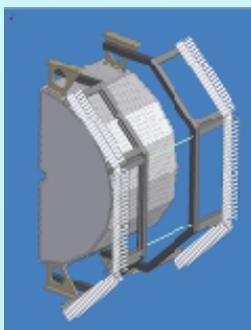
Task_Name	Duration	Start_Date	Finish_Date
PHENIX Shutdown '06	145 days	5/1/2006	11/17/2006
Pre Shutdown Tasks	60 days	5/1/2006	7/21/2006
End of Run 6	0 days	6/27/2006	6/27/2006
Shutdown Preparations	16 days	6/27/2006	7/18/2006
Detector Upgrades	47 days	7/19/2006	9/21/2006
Planned electrical power outage	5 days	7/24/2006	7/28/2006
Subsystem maint/repair tasks	47 days	7/19/2006	9/21/2006
Building and infrastructure tasks	113 days	5/1/2006	10/4/2006
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006

Prior To Shutdown

TECHNICAL SUPPORT 2006

Pre Shutdown Tasks

Mechanical design For RXNP	4 wks	Complete	SDR 6/22
HBD cable mangement	4 wks	Complete	
Receive TOF West detectors from VU	0 days	Here	
TOF West pre-installation tests (hi bay)	4 wks	In Progress	
Design mounting/install'n for MPC N	6 wks	In Progress	SDR 6/22
Order/fabricate parts for RXNP/HBD/MPC N	12 wks	In Progress	
Modify TEC connectors	2 wks	In Progress	
Design piping route for Bridge water	1 wk	TBD	
Work Permits	1 wk	6/26/06	6/30/06
End of Run 6	0 days		



Shutdown Prep

TECHNICAL SUPPORT 2006

Shutdown Preparations

Purge gas from all detectors

End of Run party

DAQ tests (no Flam. Gas)

Open up & prep

Open rolling door

Remove rolling wall and plug doors

Take down EC access ladder & fold platforms

Prepare EC for move to AH

Remove beampipe collar

Move MMS full south and restrain

Retract and remove EC to AH

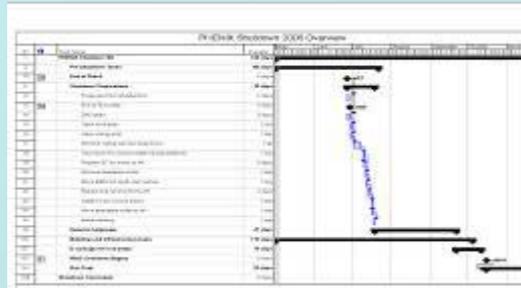
Install 12 ton cart on tracks

Move beampipe collar to AH

Install decking



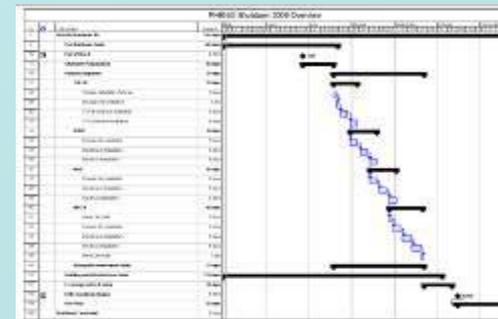
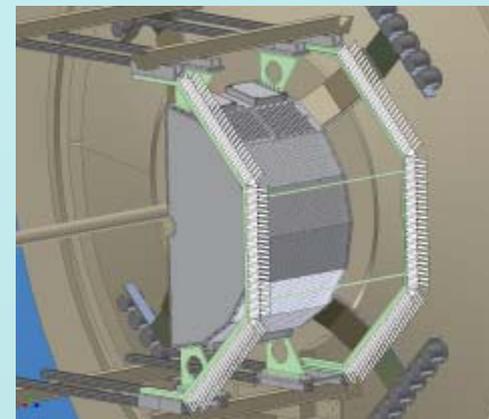
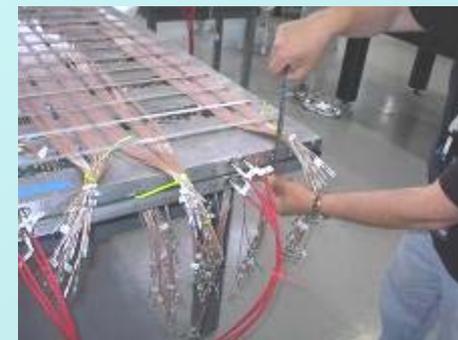
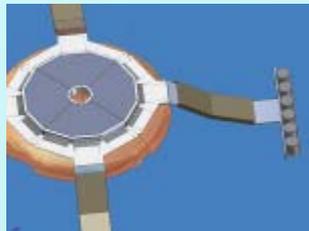
16 days	6/26/2006	7/18/2006
2 days	Done	Done
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3 days	6/27/2006	6/29/2006
1 day	Done	Done
1 day	Done	Done
1 wk	6/27/2006	6/30/2006
1 day	7/5/2006	7/5/2006
3 days	7/6/2006	7/10/2006
1 day	7/11/2006	7/11/2006
1 day	7/12/2006	7/12/2006
2 days	7/13/2006	7/14/2006
1 day	7/17/2006	7/17/2006
1 day	7/17/2006	7/17/2006
1 day	7/18/2006	7/18/2006



Detector Upgrades

T E C H N I C I A L S U P P O R T 2 0 0 6

TOF W		13 days	7/19/2006	8/4/2006
Prepare installation Fixtures		2 days	7/19/2006	7/20/2006
Mockup test installation		1 day	7/21/2006	7/21/2006
TOF Mechanical installation		2 days	7/31/2006	8/1/2006
TOF Electrical Installation		3 days	8/2/2006	8/4/2006
RXNP		15 days	7/31/2006	8/18/2006
Prepare for installation		5 days	7/31/2006	8/4/2006
Mechanical installation		5 days	8/7/2006	8/11/2006
Electrical installation		5 days	8/14/2006	8/18/2006
HBD		15 days	8/14/2006	9/1/2006
Prepare for installation		5 days	8/14/2006	8/18/2006
Mechanical installation		5 days	8/21/2006	8/25/2006
Electrical installation		5 days	8/28/2006	9/1/2006
MPC N		18 days	8/28/2006	9/20/2006
Move CM south		2 days	8/28/2006	8/29/2006
Prepare for installation		5 days	8/30/2006	9/5/2006
Mechanical installation		5 days	9/6/2006	9/12/2006
Electrical installation		5 days	9/13/2006	9/19/2006
Move CM North		1 day	9/20/2006	9/20/2006



Subsystems

TECHNICAL SUPPORT + 2006

Task	Duration	Start	End
Subsystem maint/repair tasks	109 days	5/1/06	9/28/06
Prepare EC for subsystems work	1 wk	7/19/06	7/25/06
Magnet subsystems tasks (TBD)	1 day	7/19/06	7/19/06
Aerogel tasks (TBD)	1 day	7/20/06	7/20/06
BBC tasks	50 days	7/21/06	9/28/06
Remove BBC South	2 days	8/21/06	8/22/06
Replace PMT's	13 days	8/23/06	9/12/06
Reinstall BBC South	2 days	9/13/06	9/14/06
Remove BBC North	2 days	8/28/06	8/30/06
Replace PMT's	5 days	8/31/06	9/6/06
Reinstall BBC North	2 days	9/7/06	9/8/06
DC			
HV/LV	2 wks	7/17/06	7/29/06
DC West wire repairs	1 week	9/15/06	9/19/06



Subsystems (continued)

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Task	Duration	Start	End
Subsystem maint/repair tasks	109 days	5/1/06	9/28/06
EmCal tasks (EC)	7 days	6/27/06	7/7/06
EmCal tasks (WC)	5 days	7/10/06	7/15/06
FCAL tasks (TBD)	1 day	7/27/06	7/27/06
MPC S repairs	2 wks	7/19/06	8/1/06
MuTr tasks	42 days	7/19/06	9/14/06
Remove lampshade(s)	1 day	7/19/06	7/19/06
Repair HV	8 wks	7/20/06	9/13/06
Reinstall lampshade(s)	1 day	9/14/06	9/14/06
MuID tasks (TBD)	1 day	8/2/06	8/2/06
PC tasks (TBD)	1 day	8/3/06	8/3/06
RICH tasks (TBD)	1 day	8/4/06	8/4/06
TEC tasks			
(General Maintenance)	9 wks	7/19/06	9/19/06
TOF E tasks (TBD)	1 day	8/7/06	8/7/06
ZDC tasks (TBD)	1 day	8/8/06	8/8/06
Subsystem Survey	3 wks	7/31/06	8/18/06
Other Subsystem tasks (TBD)	6 wks	8/9/06	9/19/06



Infrastructure Work

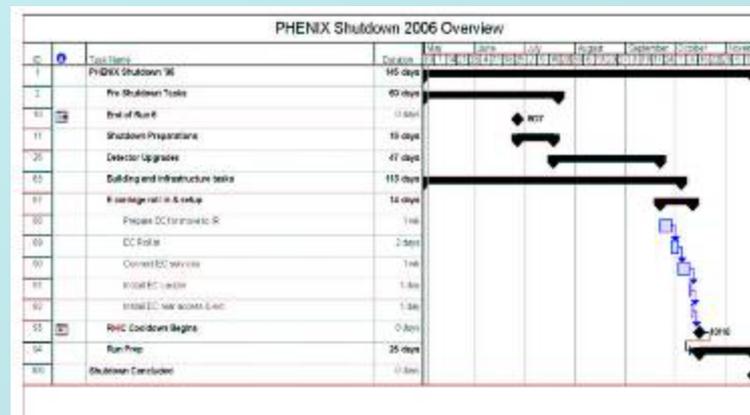


Building and infrastructure tasks	113 days	6/26/2006	10/4/2006
AH infrastructure tasks	113 days	6/26/2006	10/4/2006
TBD	1 day	6/26/2006	10/4/2006
IR infrastructure tasks	18 days	7/17/2006	8/9/2006
Repair water lines to Bridge	1 day	7/17/2006	7/17/2006
Replace emergency fan louvres	1 wk	7/19/2006	7/25/2006
Rewire/add IR Ceiling lights on emergency power	1 wk	7/26/2006	8/1/2006
Move WC away from Wall	1 day	8/2/2006	8/2/2006
Replace WC sliding platform hoisting cables	1 wk	8/3/2006	8/9/2006
Gas Pad	1 day	6/26/2006	10/4/2006
TBD	1 day	6/26/2006	10/4/2006
Gas Mixing House	1 day	6/26/2006	10/4/2006
Exhaust fan maintenance	1 day	6/26/2006	10/4/2006
TBD	1 day	6/26/2006	10/4/2006
Rack Room	1 day	6/26/2006	10/4/2006
TBD	1 day	6/26/2006	10/4/2006
Counting House	1 day	6/26/2006	10/4/2006
TBD	1 day	6/26/2006	10/4/2006
all other PHENIX infrastructure	113 days	6/26/2006	10/4/2006
New raw materials storage container – painting & doors needed	4 wk	6/26/06	7/21/06
Repair roof leaks	3 mo	6/22/06	9/22/06
Install bridge access platforms from EC & eyebrow	2 days	10/3/2006	10/4/2006
TBD	1 day	5/1/2006	10/4/2006

EC Roll-in

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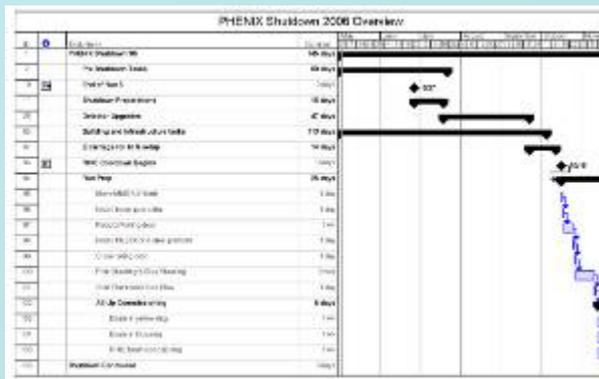
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
Prepare EC for move to IR	1 wk	9/22/2006	9/28/2006
EC Roll in	2 days	9/29/2006	10/2/2006
Connect EC services	1 wk	10/3/2006	10/9/2006
Install EC Ladder	1 day	10/10/2006	10/10/2006
Install EC rear access & ext.	1 day	10/11/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006



Prep for Run 7

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RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Move MMS full North	1 day	10/16/2006	10/16/2006
Install beam pipe collar	1 day	10/17/2006	10/17/2006
Rebuild Rolling door	1 wk	10/18/2006	10/24/2006
Install Plug Door & steel platform	1 day	10/25/2006	10/25/2006
Close rolling door	1 day	10/26/2006	10/26/2006
Pink Sheeting & Blue Sheeting	2 wks	10/27/2006	11/9/2006
Start Flammable Gas Flow	1 day	11/10/2006	11/10/2006
All Up Commissioning	5 days	11/13/2006	11/17/2006
Beam in yellow ring	1 wk	11/13/2006	11/17/2006
Beam in blue ring	1 wk	11/13/2006	11/17/2006
RHIC beam conditioning	1 wk	11/13/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006



Shutdown 2006

key dates

- MPC North & RXNP Safety Reviews June 22 [Done]
- Run ends June 26 [Done]
- End of Run Party June 29 [Done]
- Open Shield wall June 26 [Done]
- Prep and move EC July 10
- Install TOF W (start) July 17
- Planned electrical outage July 24th-28th (1 week)
- Install RXNP (start) July 31
- Install HBD (start no later than) Aug 14 (possibly as early as Aug 1)
- Install MPC North (start no later than) Aug 28
- Start EC roll in Sep. 22
- Start RHIC Cooldown Oct. 15
- Start of Run Party [Date and Time TBD]
- Start Physics data taking Nov. 17

Subsystems: Get requests for maintenance in early to get on the schedule

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- TOF W tests continue, modification decisions made?
- New HV connector for TOF W chosen, tested
- RXNP & HBD fabrication continues
- EC prepare to move
- Remove MuID collar
- Move MMS South
- Remove MuID collar
- Move EC to AH
- Move collar to AH
- Install 12 ton cart
- Prep for TOF W
- Road Trip to SB
- Check Fitup of scintillators and trays.
- Redo Bridge piping

Breaker Safety

Update on breaker analyses and equipment upgrade plans:

Fuse Issues

Siemens Allis Low Voltage Air Circuit Breaker



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TOF W

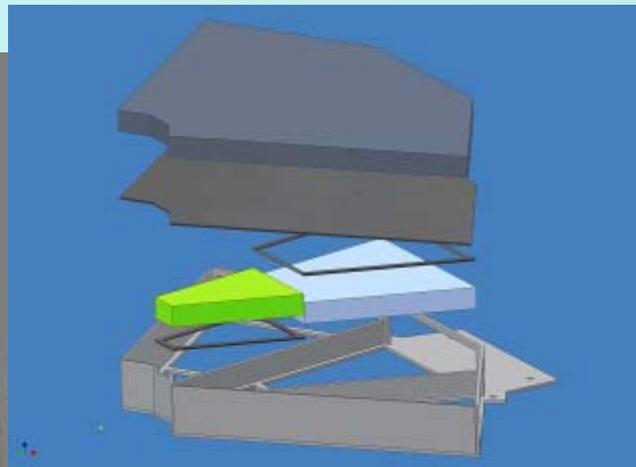
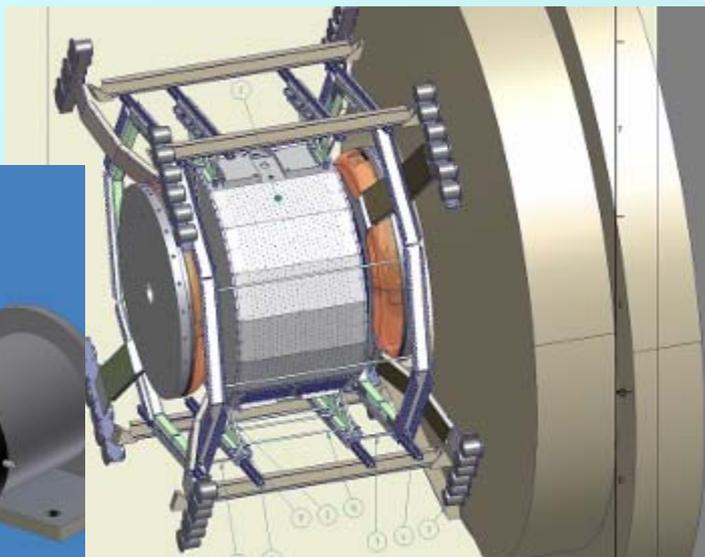
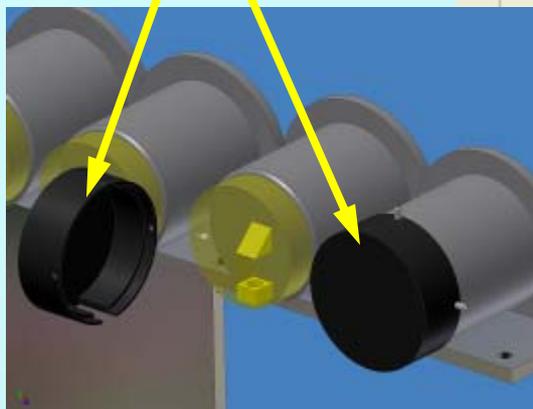
- Mounting holes finished
- HV connectors chosen to be replaced next week
- Adapters for HV connectors made
- Need final locations for detectors
- Remove/modify/reinstall rails?

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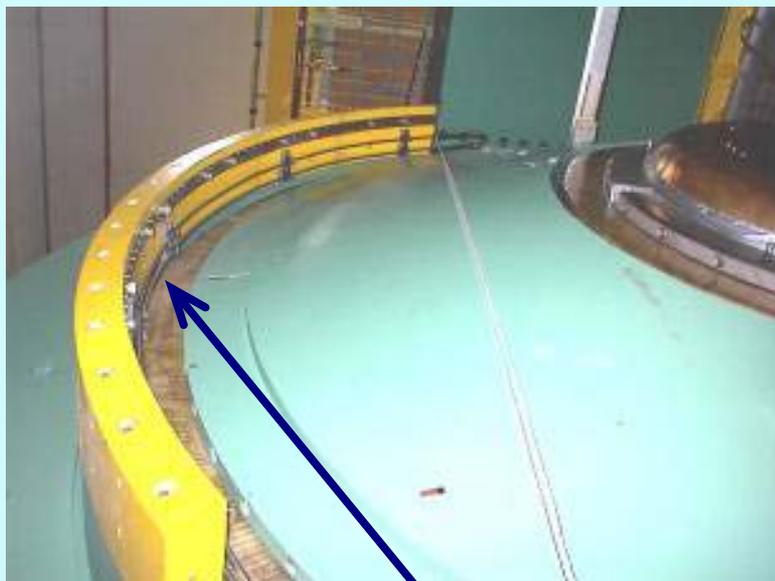
Prism holders?



LED Box location?

Safety review

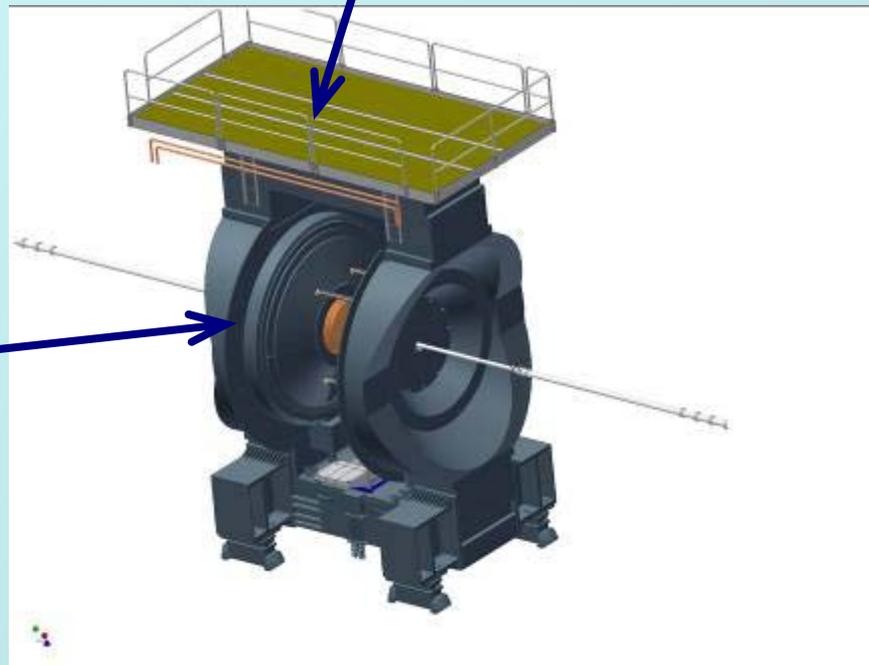
Shim machining problems



Cable Trays to be routed on inside of lead bricks at OD of CM pole faces

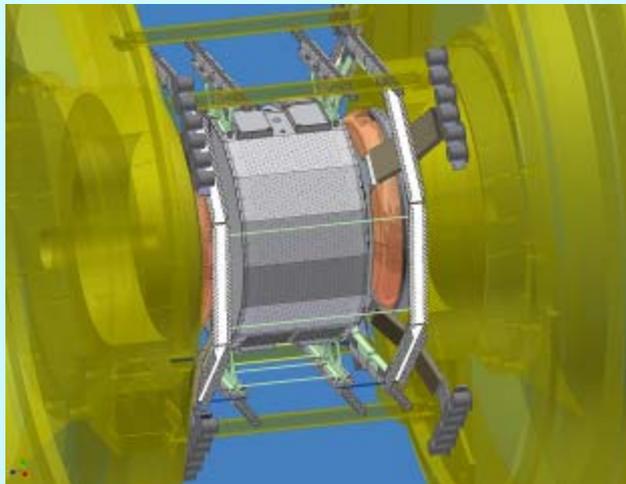
Cable routing plan to be finalized

RXNP Rack to be located on Bridge



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Purchasing List done

SB Road Trip

1st detector now at SB
2nd shipped from Weizmann Inst.

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1st detector arrives at SB



1st detector in glove box



2nd detector leaves Weizmann

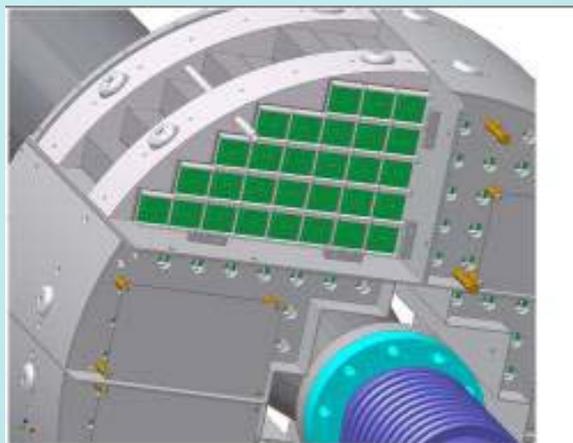
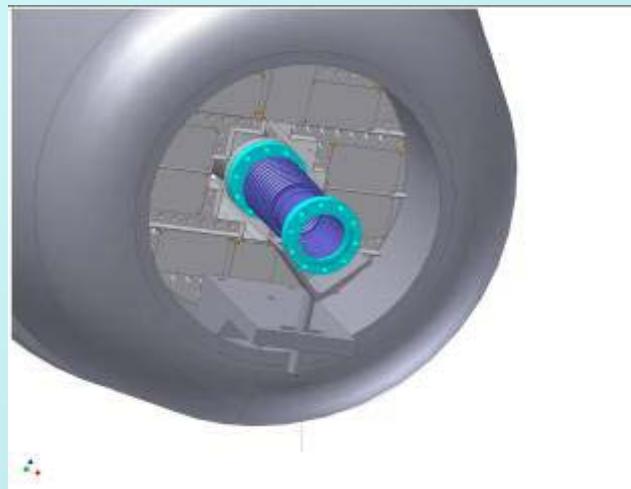
- **Supply gas**
 - Using argon boil off for prototype. Both O₂ and H₂O below 1ppm on input
 - Cf₄, high purity argon bottle, and argon dewar have same CGA. We can switch back and forth easily.
- **Gas Rack**
 - Currently ordering and cleaning final parts for the system
 - Most of the final orders sent to Ed for approval 3-4 weeks ago
 - Last large item is Matheson purifiers (\$10K)
 - Some minor items may still be needed.
 - Carter and I will start laying out and assembling what we can this summer.
 - Leonid currently building some custom low pressure regulators and controls.
 - Leonid and crew will come to BNL to work on electronics/PC control in October
 - Current straight through system will be left in place until then
- **Monitoring Hut**
 - Few hoses and valves need to be ordered once we see the monitor.
 - Work on adding valves and flow meters for second detector. Gas lines all installed



MPC North

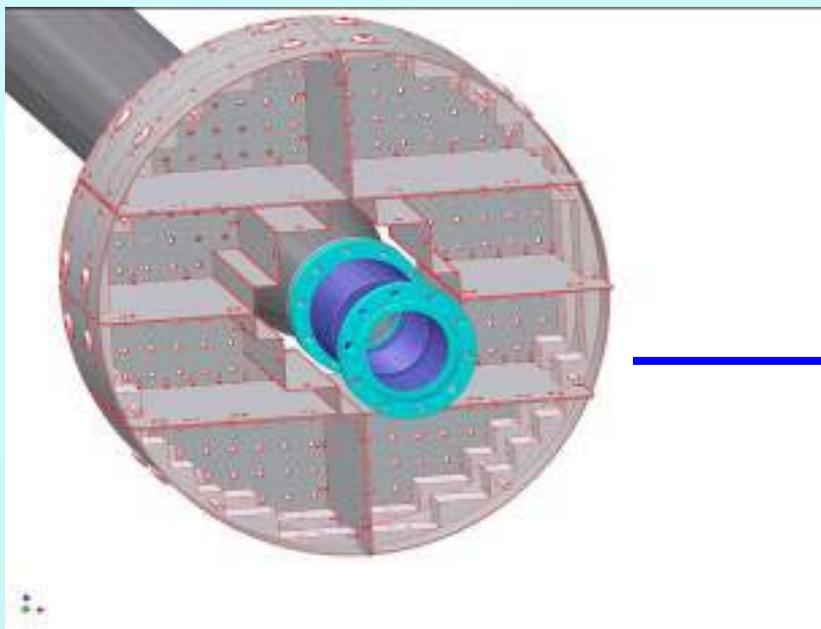
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- Model rec'd
- Manufacturing/Assembly drawings
- Rack final location?
- Cable routing plan
- UI techs assist in installation?

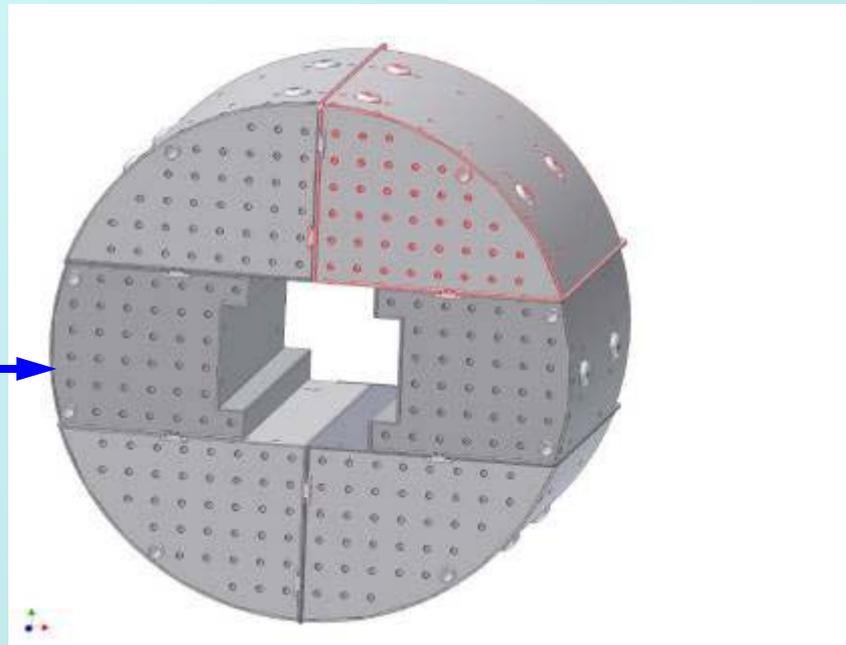


MPC North

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Version 1

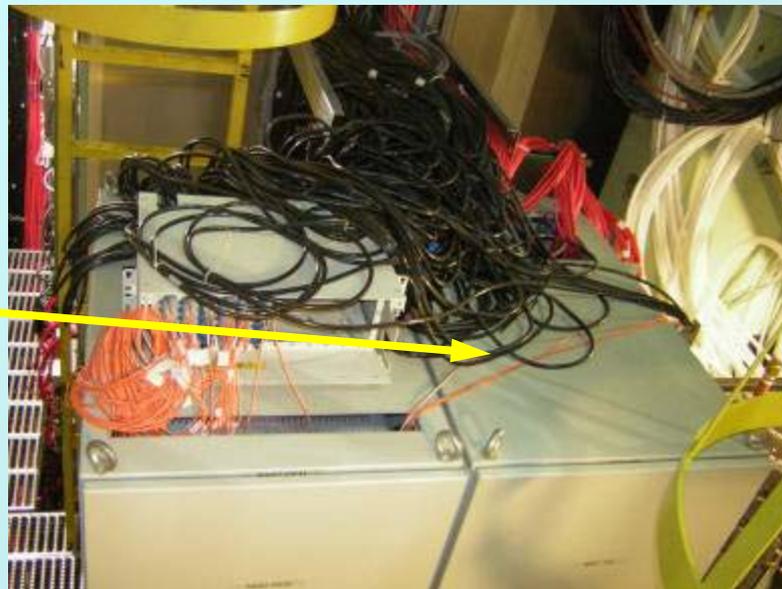


Version 2

MPC North

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MPC N rack to be mounted on top of MUID rack in NW of IR (on floor near west side of MMN)



Other locations are being considered.

Other Projects

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Muon RPC

- Nothing New

Beampipe design

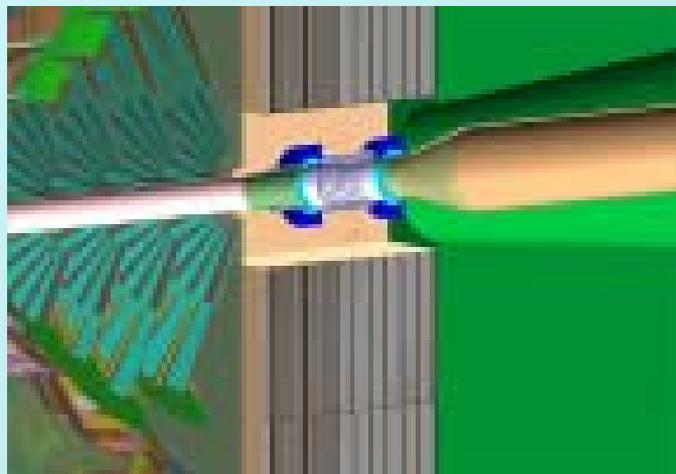
- Nothing new design concept in progress

New CM Crane

- Nothing new

Engineering Documentation

- Nothing new



Work Permits

New Detectors

- TOF West same as last year, update and submit [DONE]
- RXNP Need to finalize procedure [working on it]
- HBD (Med-low-low) [working on it]
- MPC N similar to last year, update and submit [working on it]

Maintenance

- MuTr - combine N & S confined space permit [DONE]
- DC Low-low-low? PHENIX permit/procedure [DONE]
- BBC Low-low-low? PHENIX permit/procedure [DONE]
- MPC S Low-low-low? PHENIX permit/procedure [DONE]
- EmCal Low-low-low? PHENIX permit/procedure [DONE]
- TEC Low-low-low? PHENIX permit/procedure [DONE]

Other Work

- No permit requirements identified?

C-A Tasks

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Current Tasks

- General run support/building services
- New storage trailer needs doors (paint?)
- Fix roof leaks
- HVAC troubleshooting/repair

Tasks for Shutdown 2006

- See Shutdown schedule



Where To Find PHENIX Technical Info

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Links for the shutdown schedule as well as weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found from the web site:

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