

TECHNICAL SUPPORT

PHENIX WEEKLY PLANNING



3/21/2013
Don Lynch

This Week

TECHNICAL SUPPORT NOTES

- Run 13 Continues: run support maintenance
- Yesterday's access:
 - DC East FEE module fixed
- Continue VTX strip pixel stave re-design
- Continue sPHENIX support
- Continue MPC-Ex design
- Future IR evolution modeling

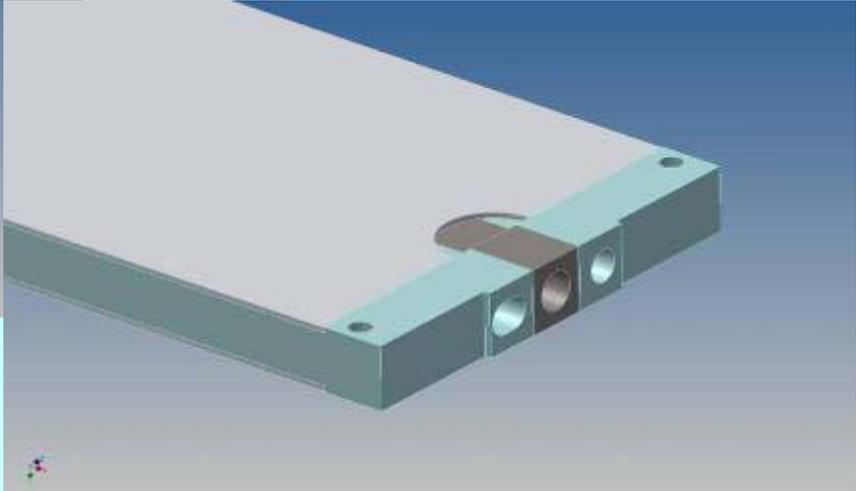
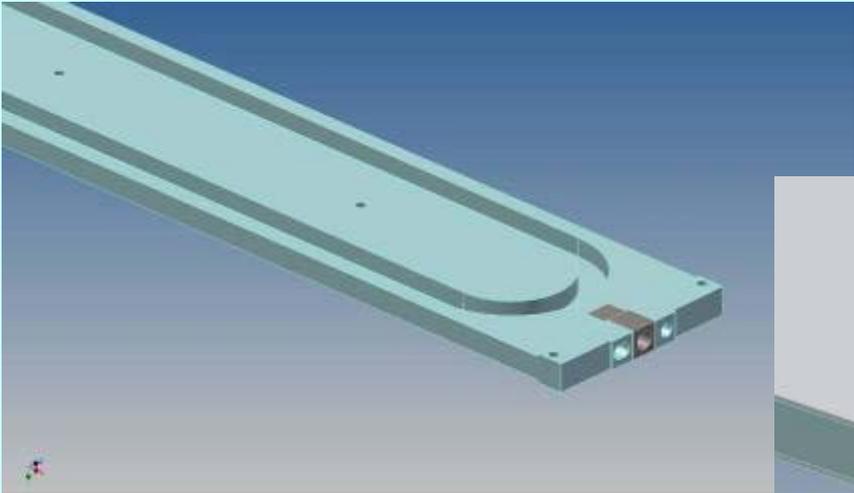
Next Week

- Run 13 Continues: run support maintenance
- Next scheduled maintenance day Wednesday 4/3
- Continue VTX strip pixel stave re-design
- Continue sPHENIX support
- Continue MPC-Ex design
- Future IR evolution modeling

TECHNICAL SUPPORT NOTES

Revised Carbon-Loaded PEEK Stave Design

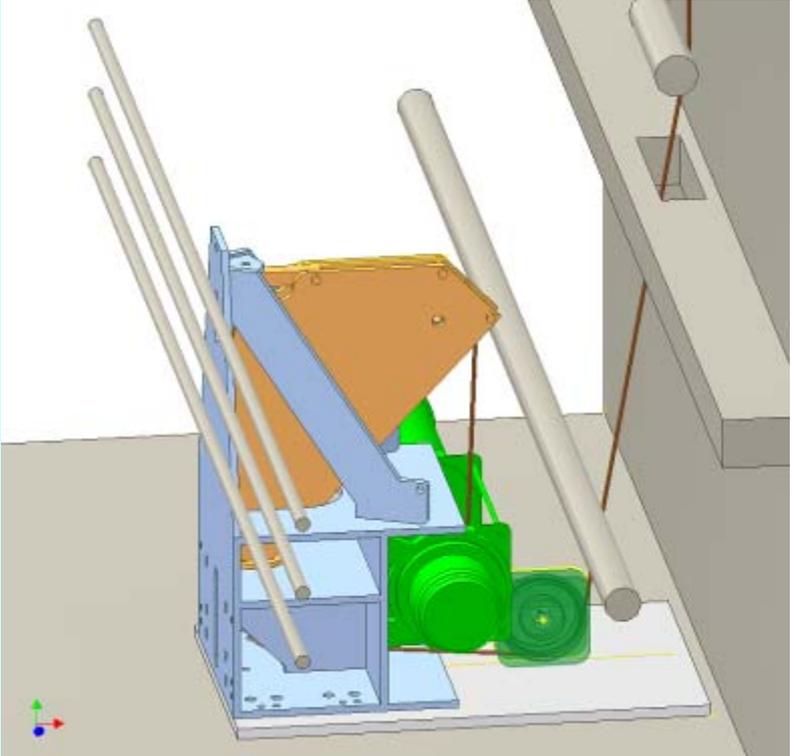
TECHNICAL SUPPORT NOTES



Prototypes of updated stave design are in progress expect to be testing by end of April

Window Washer Winch Upgrade

TECHNICAL SUPPORT 2013



Attention: Donald Lynch
 Company: Brookhaven National Lab
 Phone: 631-344-2253

Based on the information provided to us for an AC hoist to be used for lifting, we are pleased to propose the following:

Line	Qty.	Product:	Net Each	Extended
1	1	Columbia HF2100-2A17-L-03 AC Electric Hoist <ul style="list-style-type: none"> • 2.0 HP TEFC UL-listed brakemotor • 230/3/60 Input power • Automatic, load-suspending braking system • Permanently lubricated, high-efficiency planetary gear reduction • Argent gray enamel paint finish • Includes single speed low voltage controls <ul style="list-style-type: none"> ◦ Reversing motor starter in a NEMA 4X fiberglass enclosure ◦ UL-listed ◦ Includes NEMA 4X hand-held pendant control with UP/DOWN momentary contacts and up to 15' lead Does not include wire rope	\$5,022.00	\$5,022.00

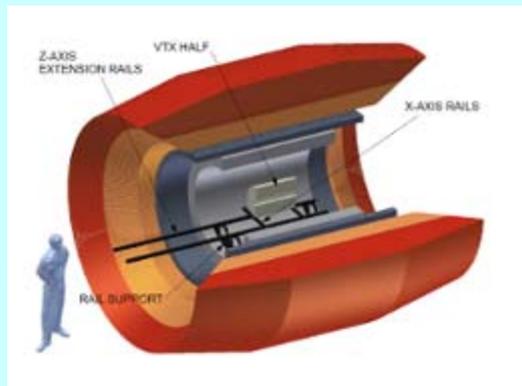
Options:

Line	Qty.	Product:	Net Each	Extended
2	1	AutoAdvance Line Spooler <ul style="list-style-type: none"> • Designed and built for Columbia HF2100-2A17-L-03 • Incoming line from front of spooler • Fabricated steel frame • Sheaves are steel construction, grooved for 5/16" line • Ensures proper line spooling regardless of fleet angle • Rope tension must be maintained for proper operation 	\$3,298.00	\$3,298.00

Line	Qty.	Product:	Net Each	Extended
3	1	VLS-6 Vertical Lead Sheave <ul style="list-style-type: none"> • 6,000 lbs load limit • Can be bolted down or welded for installation • Fabricated steel construction • Offset design allows for simple installation at any angle • Bronze bushed steel sheave grooved for 5/16" wire rope 	\$458.00	\$458.00

Line	Qty.	Product:	Net Each	Extended
4	1	Wire Rope <ul style="list-style-type: none"> • 200' of 5/16" galvanized aircraft cable with latching hoo • Supplied loose 	\$158.00	\$158.00

Total Estimated Material Cost: \$8396

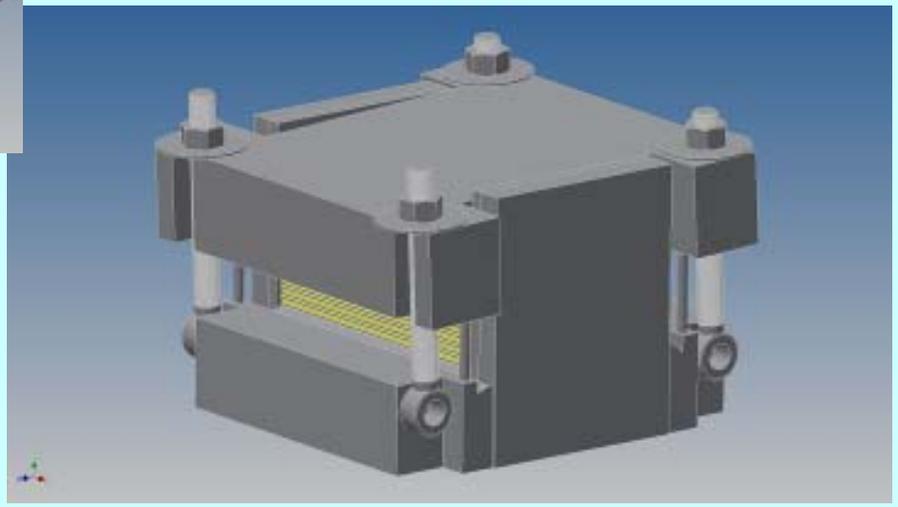
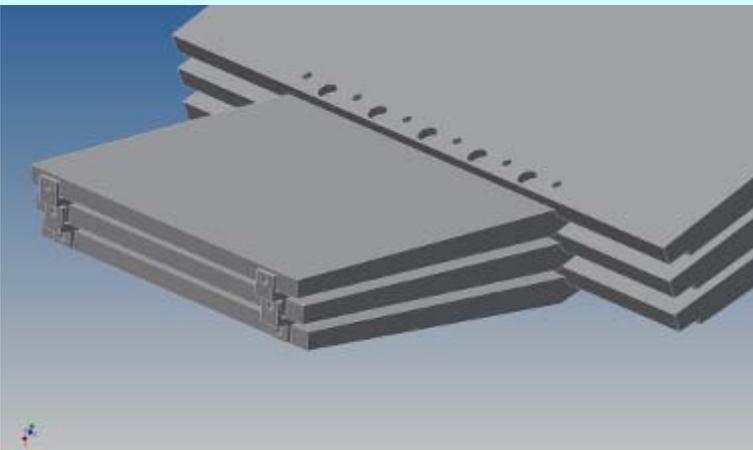


sPHENIX Proposed Upgrade

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

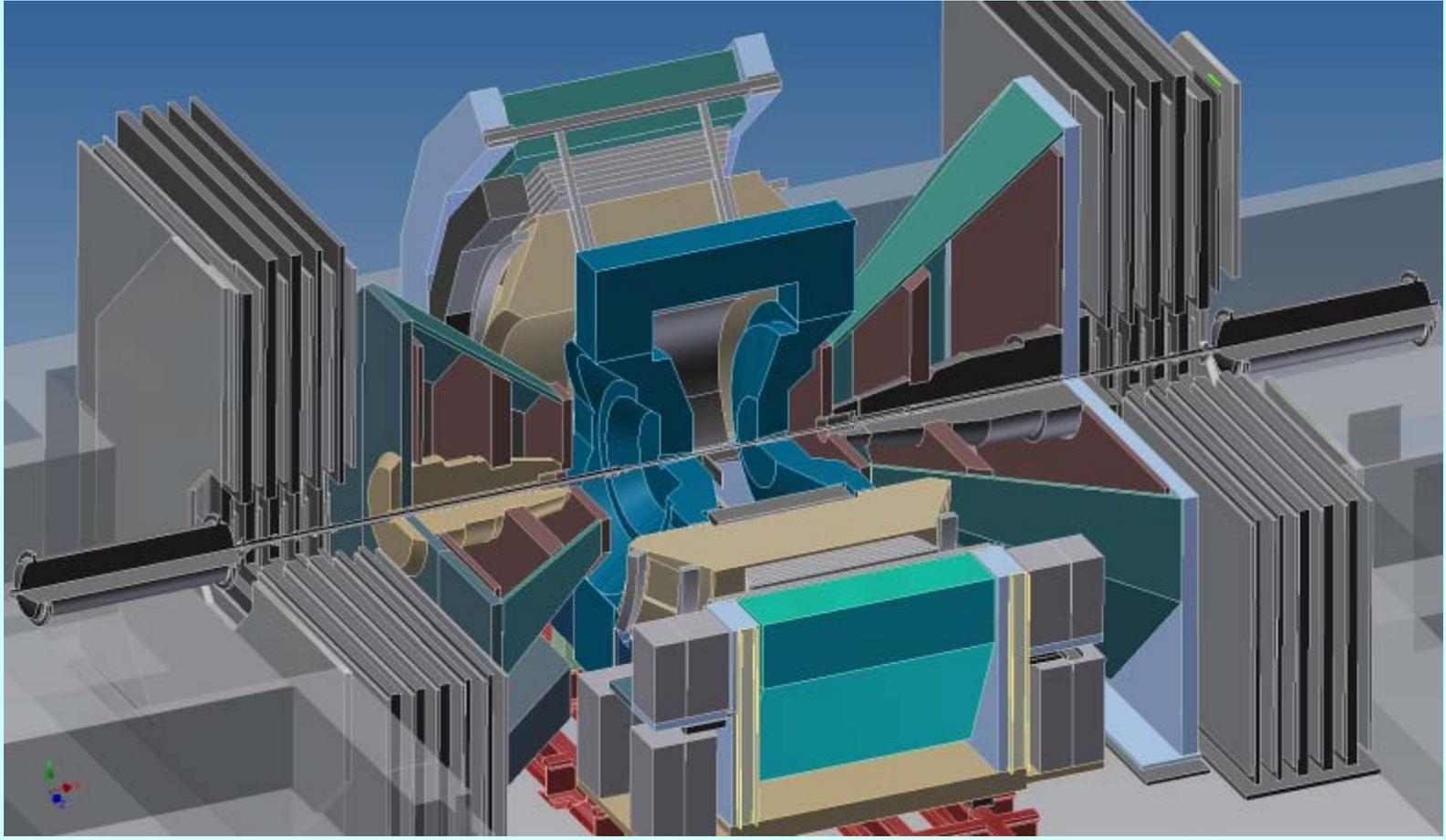
Prototype HCal and EMCAL in progress

Quote from ATLAS for HCal prototype steel expected next week



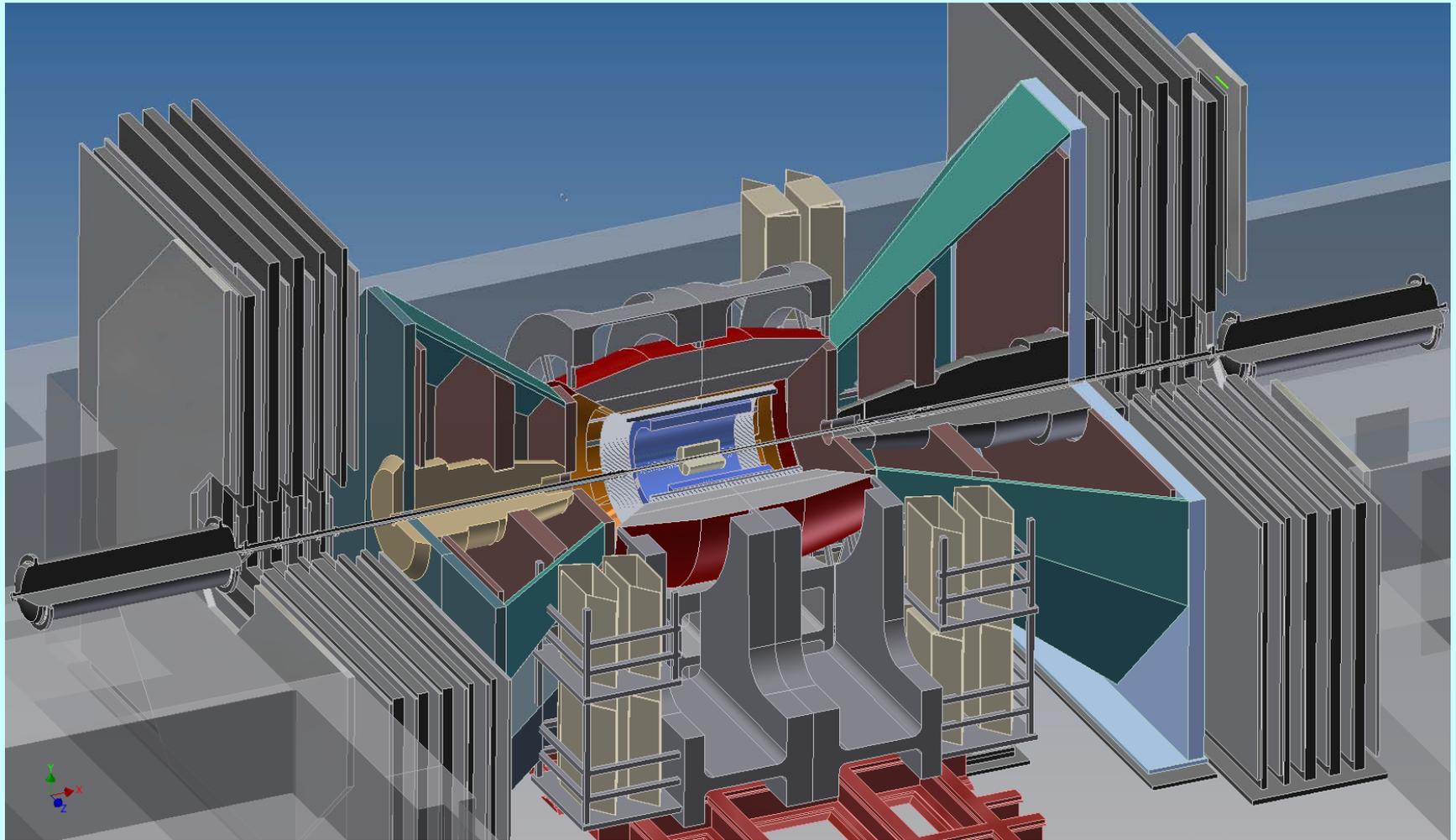
Current : PHENIX

TECHNICAL SUPPORT 2013



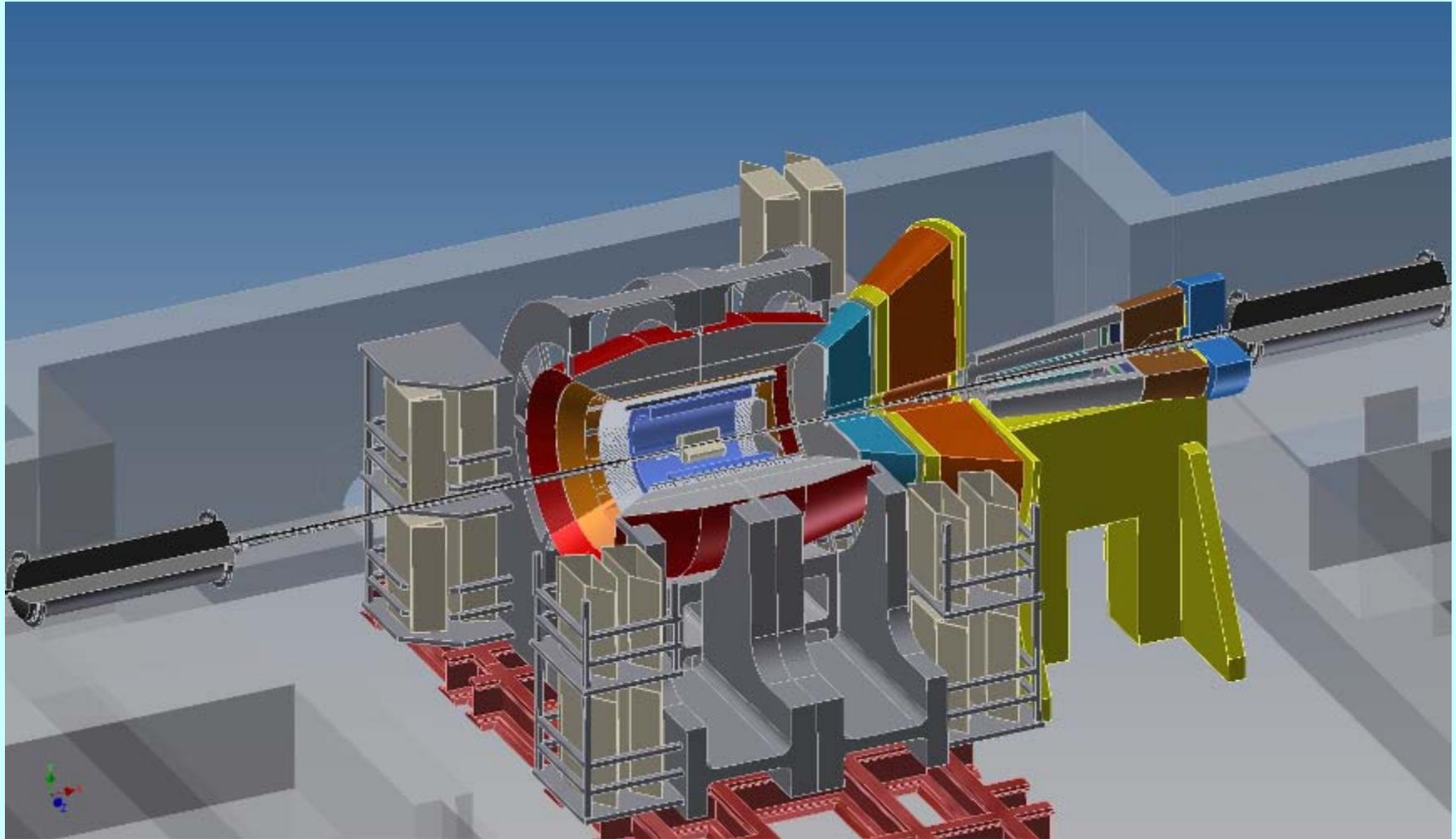
sPHENIX

TECHNICAL SUPPORT



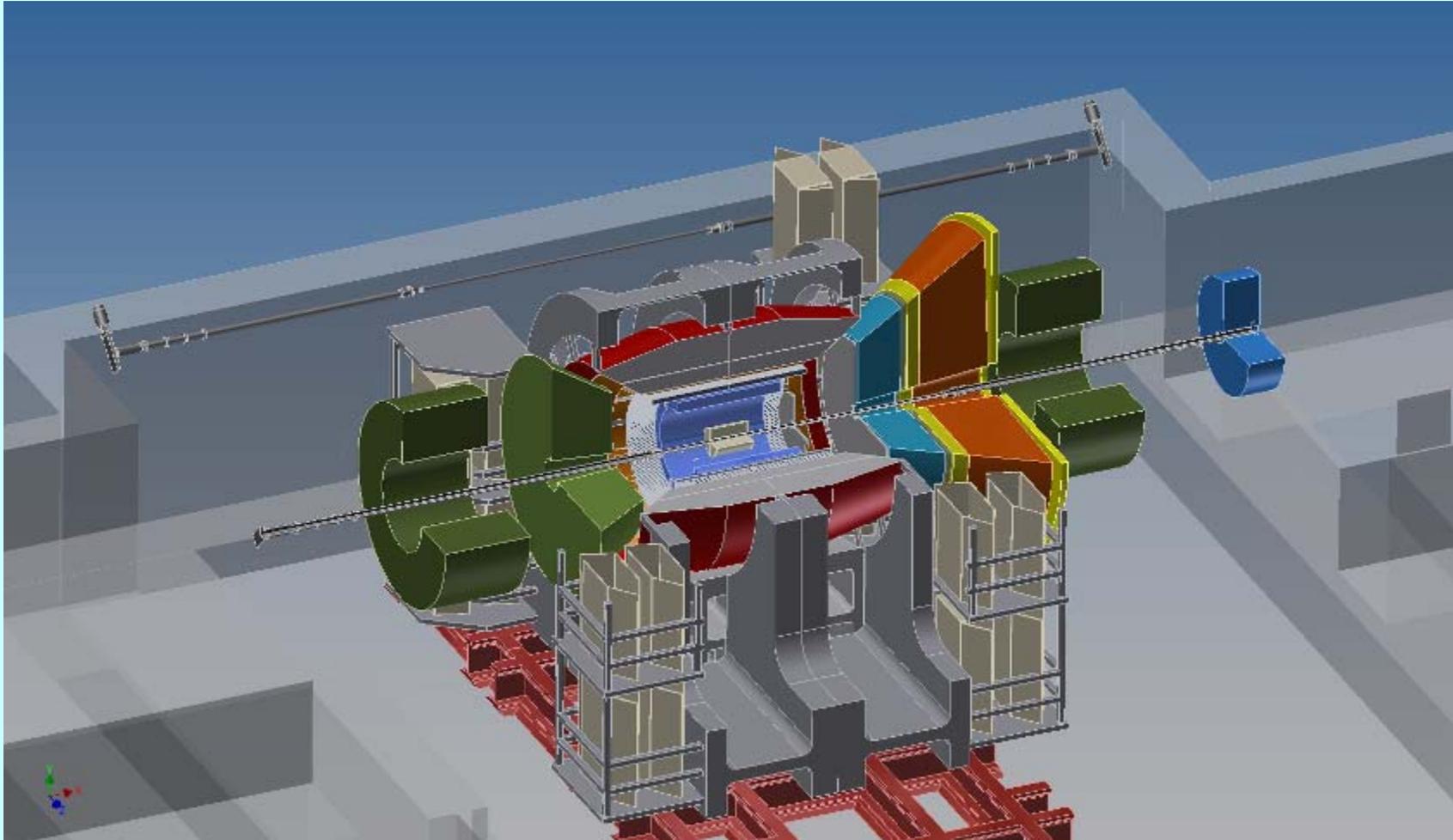
TECHNICAL SUPPORT - 2013

fsPHENIX



TECHNICAL SUPPORT 2013

ePHENIX



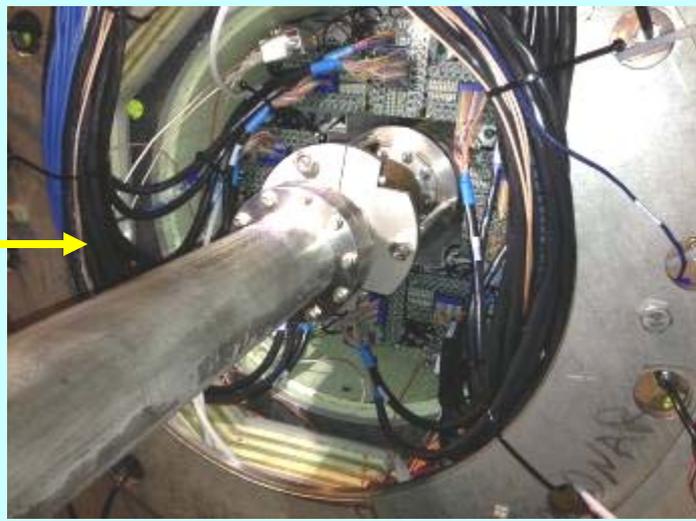
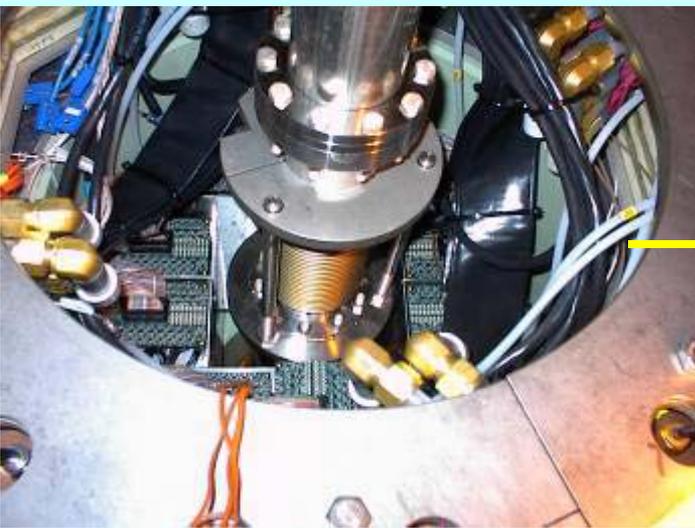
TECHNICAL SUPPORT NOTES



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.

TECHNICAL SUPPORT NOTES

Prep for 2013 shutdown	2/11-6/30/2013
Design, Fabricate MPC-Ex	
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and procedures	
Assembly and QA tests	
End of Run Party	6/28/2013
Run 12 Ends	6/30/2013
Shutdown Standard Tasks	6/30-7/19/2013
• Open wall, disassemble wall, Remove MuID Collars,	
• Move EC to AH, etc.	
Disassemble VTX/FVTX services	7/1-7/19/2013
July 4 th Holiday	7/4/2013
Remove VTX/FVTX and transport to Chemistry Lab	7/22/2013
Assemble, Test and Install MPC-Ex (North only?)	7/22-10/1/2013
Summer Sunday (8/5) Prep and teardown	8/1-8/??/2013
Other detector maintenance as required	As required
Infrastructure maintenance as required	As required
TBD prototype tasks	As required
Summer Sunday (RHIC)	8/??/13

TECHNICAL SUPPORT NOTES

Labor Day Holiday	9/2/2013
Repair upgrade, reassemble VTX/FVTX	7/23-10/13/2013
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	10/16-10/27/2013
Pre-run commissioning and prep for run 14	11/1-12/31/2012
Prep for EC roll in	11/1-11/9/2013
Roll in EC	11/10-11/12/2013
Prep IR for run	11/1-11/30/2013
Pink/Blue/White sheets	12/14-12/31/13
Start run 14	1/1/2014

Requests for shutdown work should be submitted as soon as possible .
 It is particularly important that we know when and if access is needed
 to (a) the front or back of the WC, (b) south station 1, (c) north
 station 1, (4) interior of MMS, (5) interior of MMN.



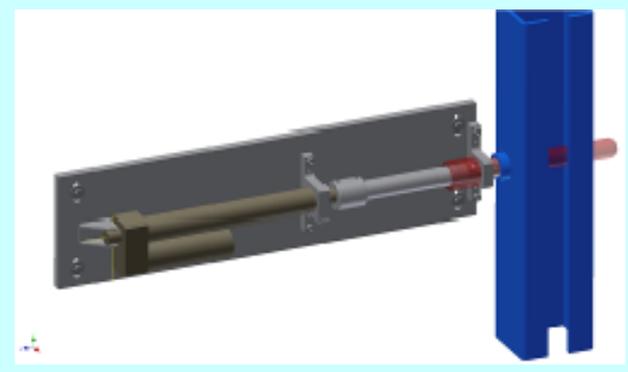
TECHNICAL SUPPORT NOTES

PHENIX Safety Initiatives

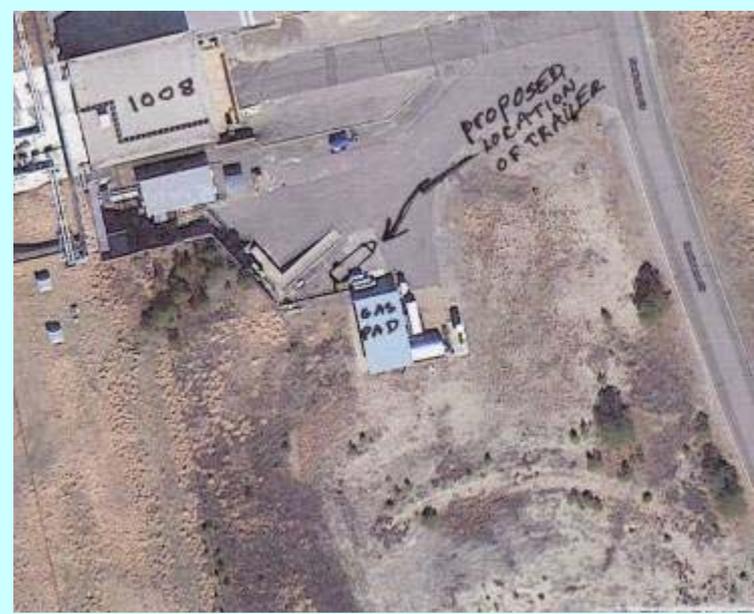
1. MuID Collar Support



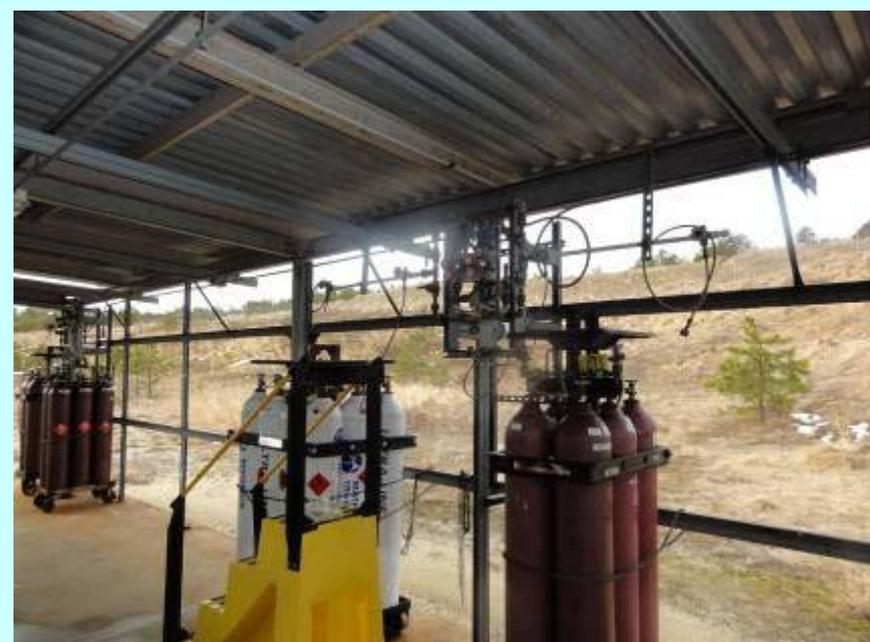
2. Window Washer Auto pin retractor



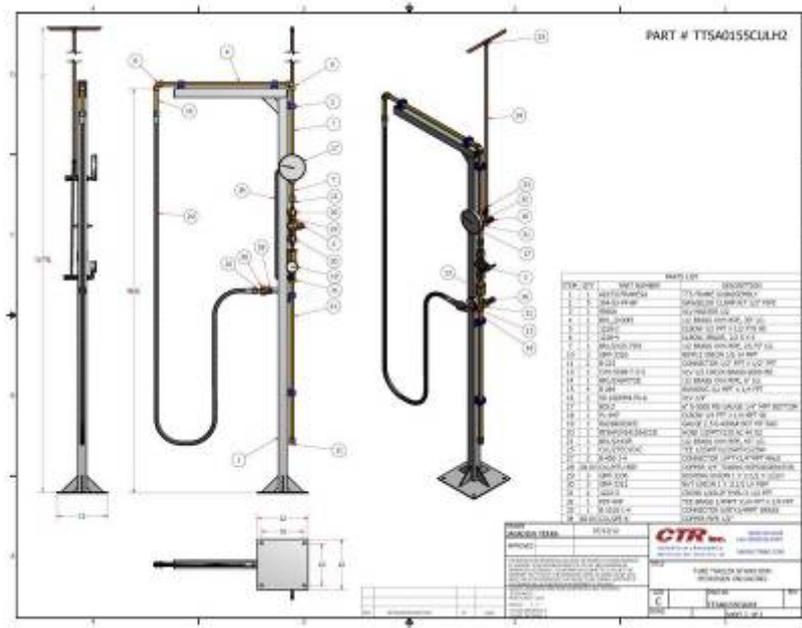
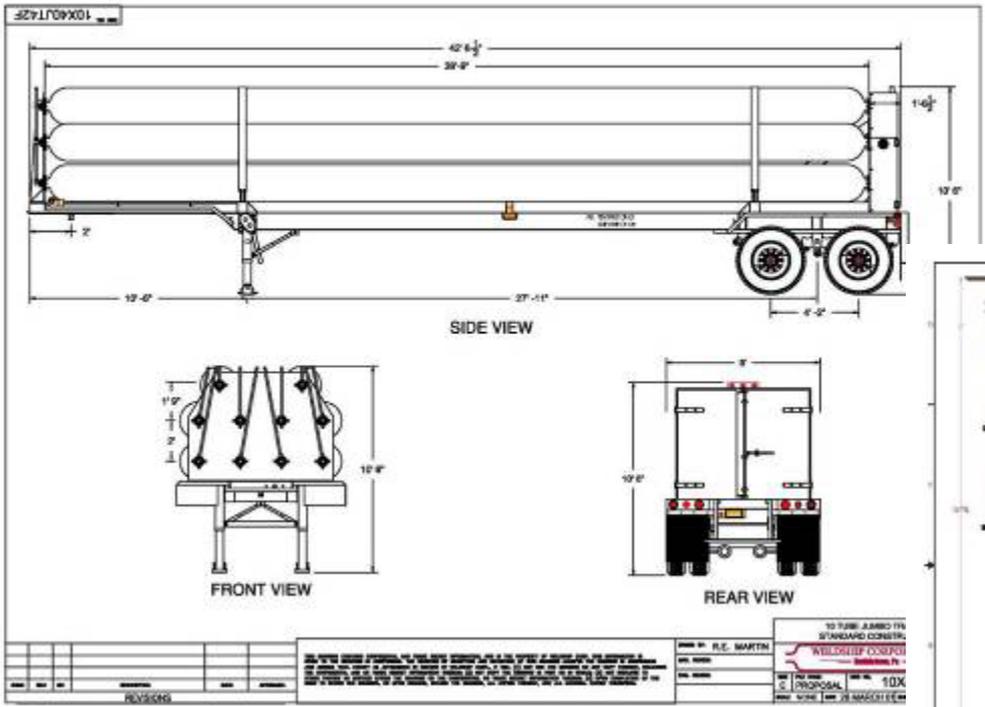
3. Ethane Tube trailer



TECHNICAL SUPPORT



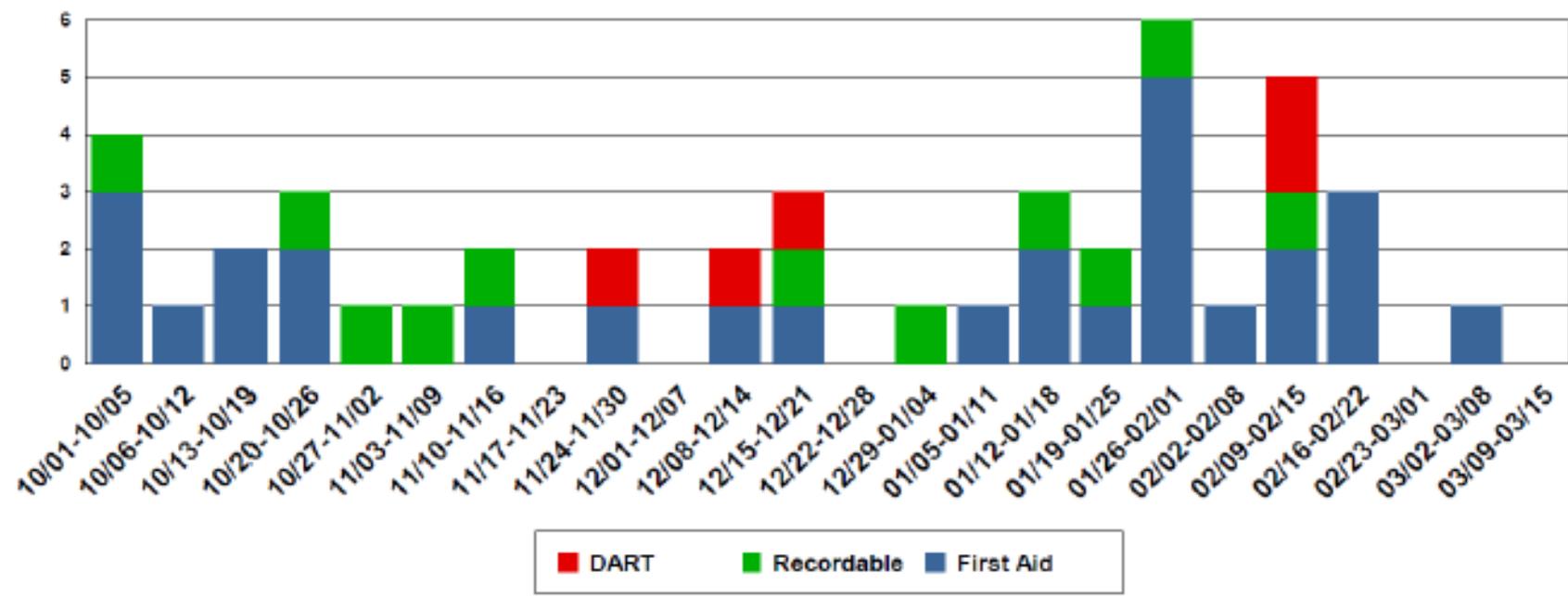
3/21/2013



- Pressure in the tanks = 540 psig
- Total Volume by weight = 12,000 lbs.
- Total Volume in cu. ft. = 154,8000
- We will use about 1/3 of this volume this run, about 1/2 next year.
- The cost savings are significant (~14%). About \$4,000.00 this year, more next year.
- The obvious safety benefit over cylinder packs.
- The trailer goes back to Airgas at the end of run.

TECHNICAL SUPPORT NO-3

Injuries Per Week (FY) As of 3/15/2013



Injury Status:

FY13 YTD: DART – 5, TRC – 16, First Aid – 28
 FY12: DART – 17, TRC – 35, First Aid – 70
 FY11: DART – 30, TRC – 44, First Aid – 45

FY13 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLInjuries.aspx>

Recent Injuries		
3/7/13	First Aid	An employee was injured lifting a pail of salt and reported to the OMC. At the OMC, first aid was given.



TECHNICAL SUPPORT NOTES

Recent Events	
	None



Where To Find PHENIX Engineering Info

TECHNICAL SUPPORT NEWS



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

