

RHIC Machine/Detector Planning Meeting

29 December 2004

Agenda

- **Schedule Issues – update on yellow ring obstruction (Montag)**
- **Budget update (Lowenstein)**
- **General Remarks (Pile)**
- **Report from Accelerators (Pilat)**
- **Polarized Proton Update (Bai)**
- **Report from experiments (STAR,PHOBOS,PHENIX,BRAHMS)**
- **RCF Issues (Throwe)**
- **Other business**

Planning Meeting Web Site: http://server.c-ad.bnl.gov/esfd/RMEM/rhic_planning.htm

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- **Details – as run/planned (based on DOE expectation of 30 cryo weeks)**
 - **18 Nov 04 – Cool down begins**
 - **23 Nov 04 – Blue Ring Cold**
 - **28 Nov 04 – Yellow Cold**
 - **29 Nov 04 – Short in D6-D8 dipoles Yellow Ring, schedule delay**
 - **3 Dec 04 – quad bus-bus short in sector 12, shutdown to repair**
 - **27 Dec 04 – short problem resolved, rings at 4 degrees again**
 - **27 Dec 04 – find aperture problem in Yellow Ring - investigating**
 - **?? Dec 04 - “2 week” RHIC setup with beam begins**
 - **Through 27 Dec, 3.4 calendar weeks lost → 1.7 program weeks (est) → 5.6 calendar weeks used to this point – 1.7=4.0 program weeks used → 26 weeks to go (18 physics weeks)**
 - **?? Jan 05 – “2 week” ramp-up with colliding beams begins**
 - **?? Jan 05 – 9 week physics with Cu-Cu begins**
 - **28 Mar 05 – Nominal end of 9 week Cu-Cu run**
 - **28 Mar 05 – begin 3 week pp setup**
 - **18 Apr 05 – Begin 9 week pp Physics run**
 - **15 Jun 05 – BNL Power Curtailment Program begins?**
 - **20 Jun 05 – end 9 week pp run, RHIC Run 5 ends**
 - **27 Jun 05 – Cryo switch to LN₂ complete, 30 effective (31.6 actual) weeks of RHIC cryo operation ends**

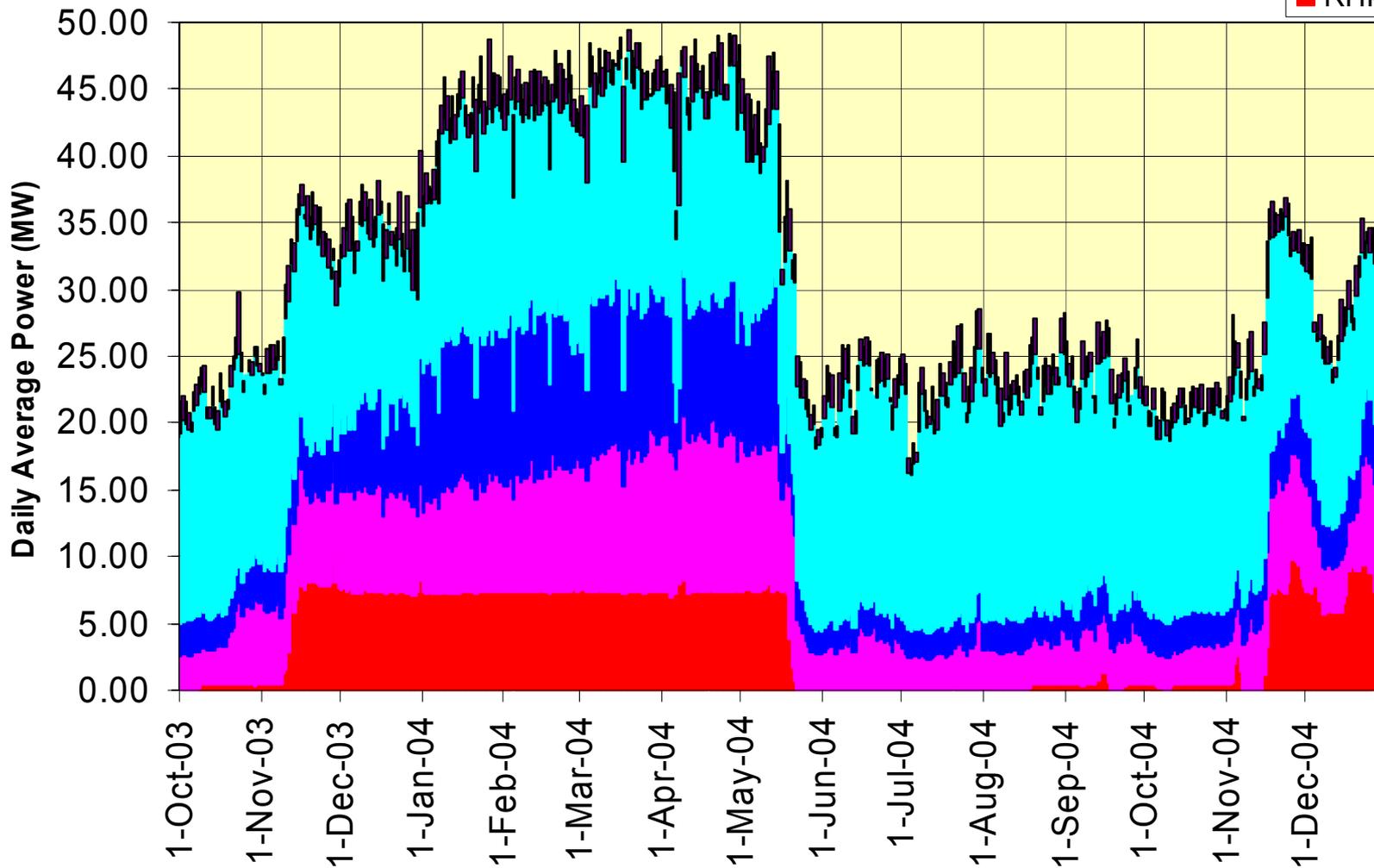
We'll develop an actual plan once we get a budget from DOE!

BNL Energy Use FY 2004-5

as of 27 Dec

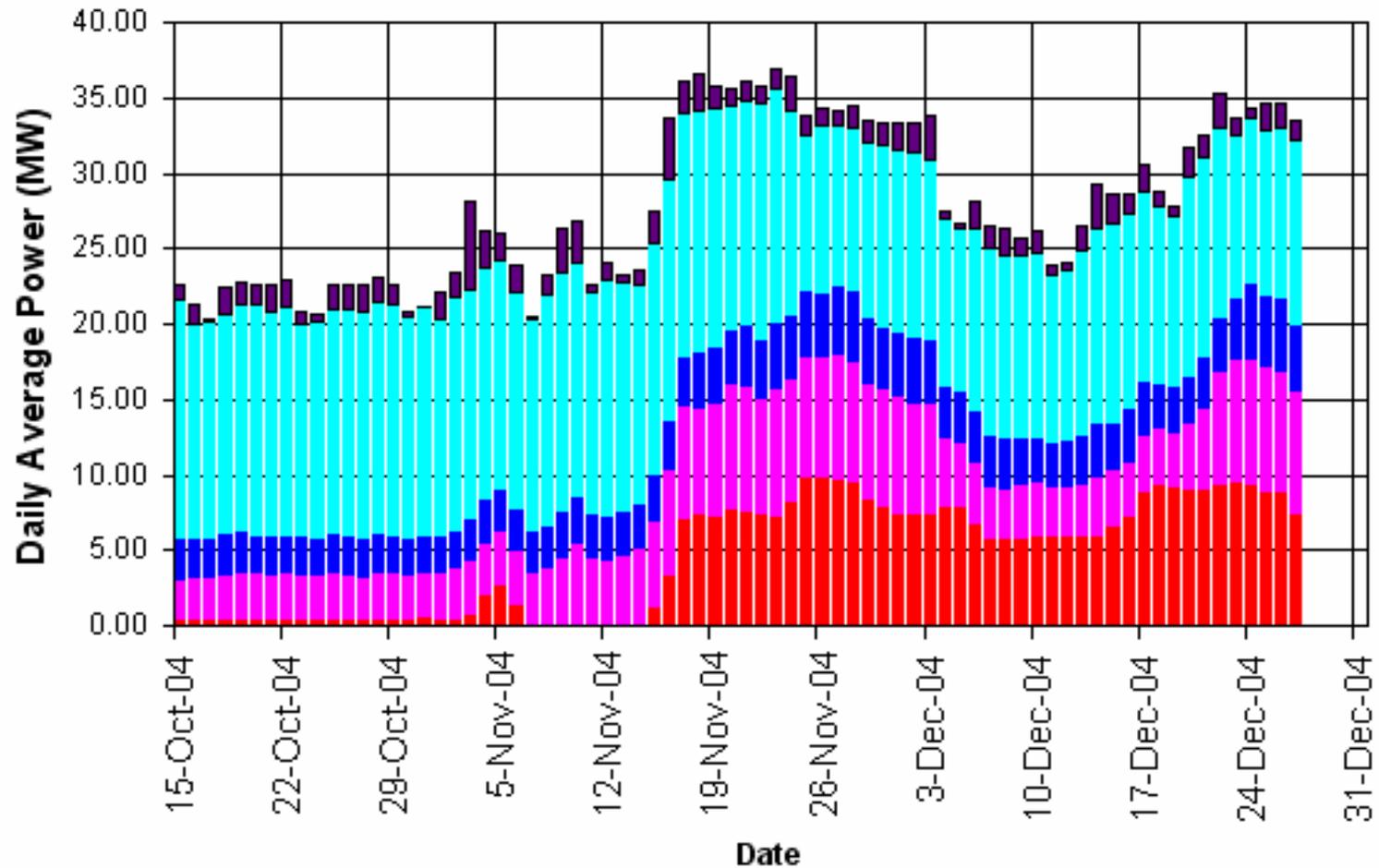
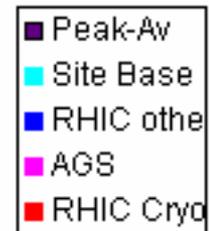
(C-AD Bldg power is in site base)

- Peak-Av
- Site Base
- RHIC other
- AGS
- RHIC Cryo



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(C-AD Bldg power is in site base)



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17 November 2004

Purpose of this meeting:

- To address issues and priorities relating to the optimization of physics output from RHIC experiments.
- To discuss and promulgate policy (when needed).

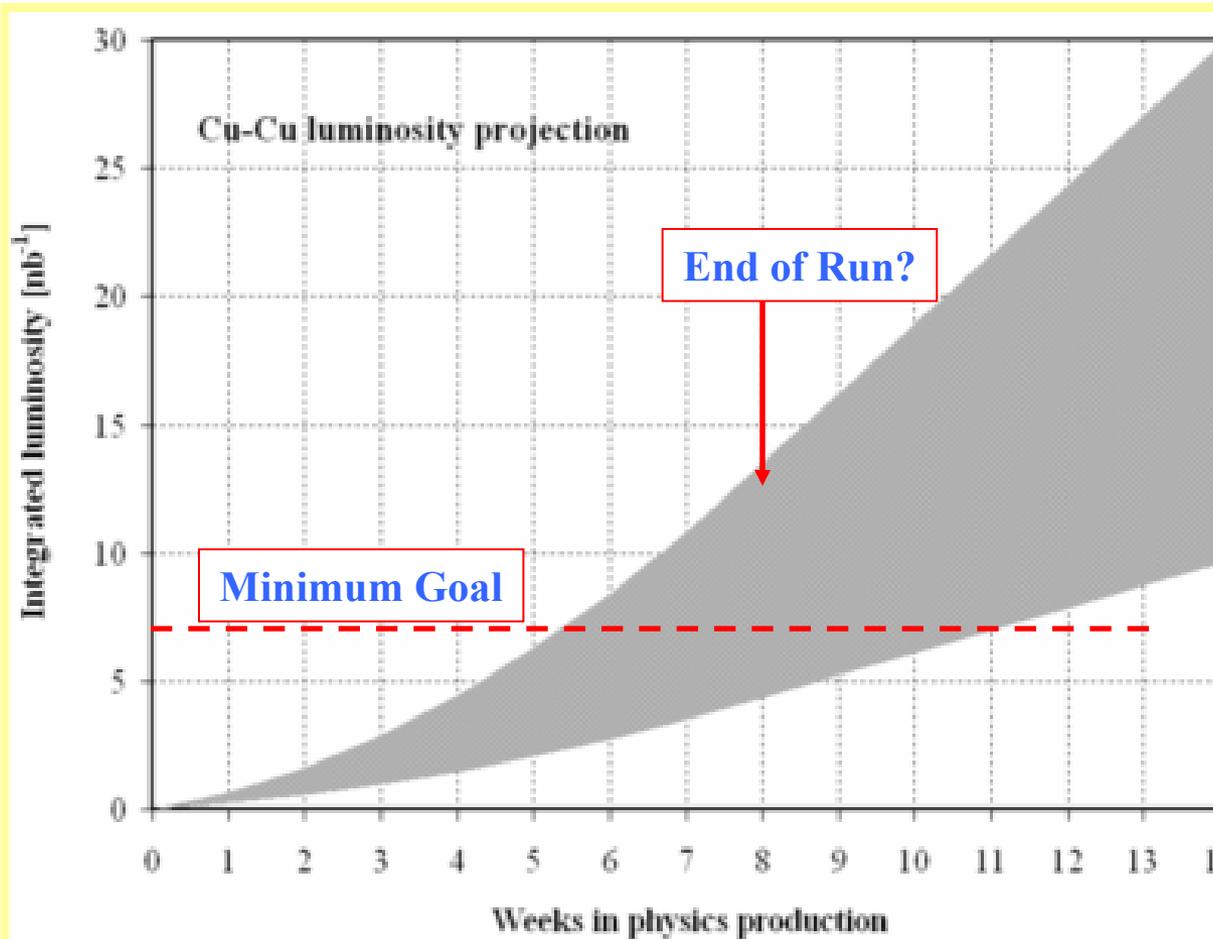
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PAC Recommendations (very short summary):

- 8-10 week pp run should have highest priority
- Cu-Cu run should accumulate an integrated delivered luminosity of at least 7 nb^{-1} at $\sqrt{s} = 200 \text{ GeV}$
- Cu-Cu at $\sqrt{s} = 62.4 \text{ GeV}$ and 1 day at injection is advisable if above goals are met
- 1-2 day pp (unpolarized) run at $\sqrt{s} = 400\text{-}500 \text{ GeV}$ desirable

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Projections based on the following beam intensity:

Minimum :
 $45 * 2.9 * 10^9$

Maximum:
 $28 * 6.6 * 10^9$

Luminosity evolution:
8 weeks ramp-up during physics production

$\beta^* = 1$ meter