

RHIC Machine/Detector Planning Meeting

19 Jan 05

Agenda

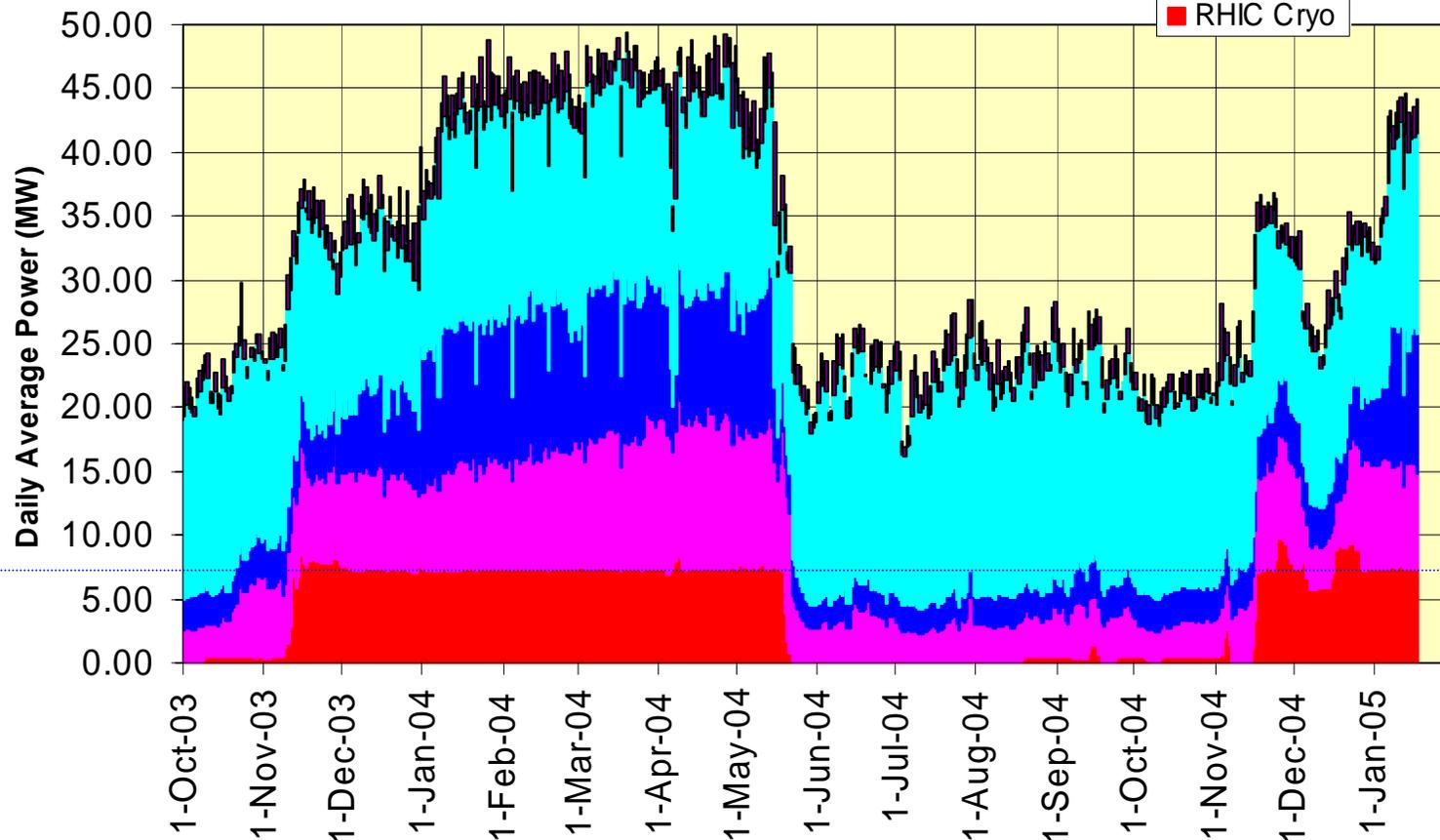
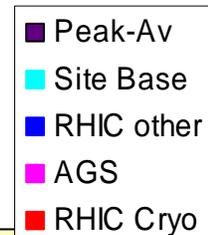
- **Schedule Issues – (Montag)**
- **Budget Update**
- **General Remarks (Makdisi)**
- **Report from Accelerators (Pilat)**
- **Polarized Proton Update (Bai)**
- **Report from experiments (STAR,PHOBOS,PHENIX,BRAHMS)**
 - **When will experiment be ready for physics?**
- **RCF Issues (Throwe)**
- **Other business**

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

as of 17 Jan

BNL Energy Use FY 2004-5

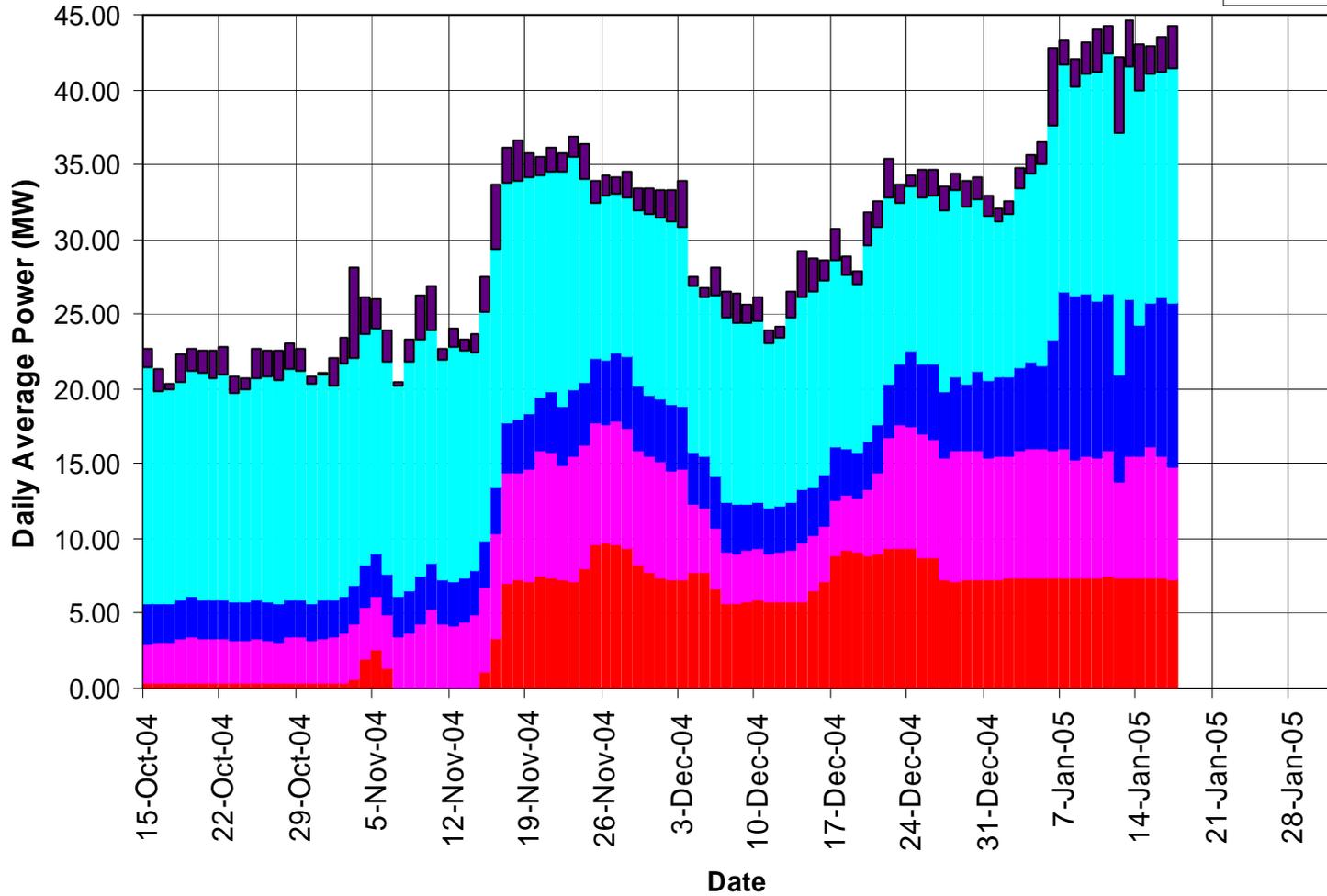
(C-AD Bldg power is in site base)



BNL Energy Use FY 2005

(C-AD Bldg power is in site base)

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



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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 - “2 week” RHIC setup with beam began**
 - **28-29 Dec 04 – found & fixed aperture problem in Yellow Ring (piece of Al foil)**
 - *5 Jan 05 – “2 week” ramp-up with colliding beams began*
 - *11 Jan 05 – 9+/- ? week physics with Cu-Cu began*
 - **15 Mar 05 – End of 9 week Cu-Cu run**
 - *15 Mar 05 – begin 3 week pp setup*
 - *5 Apr 05 – Begin 10.7+/- ? week pp Physics run*
 - *15 Jun 05 – BNL Power Curtailment Program begins?*
 - **19 Jun 05 – end 10.7 week pp run, RHIC Run 5 ends**
 - **26 Jun 05 – Cryo switch to LN₂ complete, 30 effective (31.4 actual) weeks of RHIC cryo operation ends**

We have a budget! Length of run TBD – till 30 June??

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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).

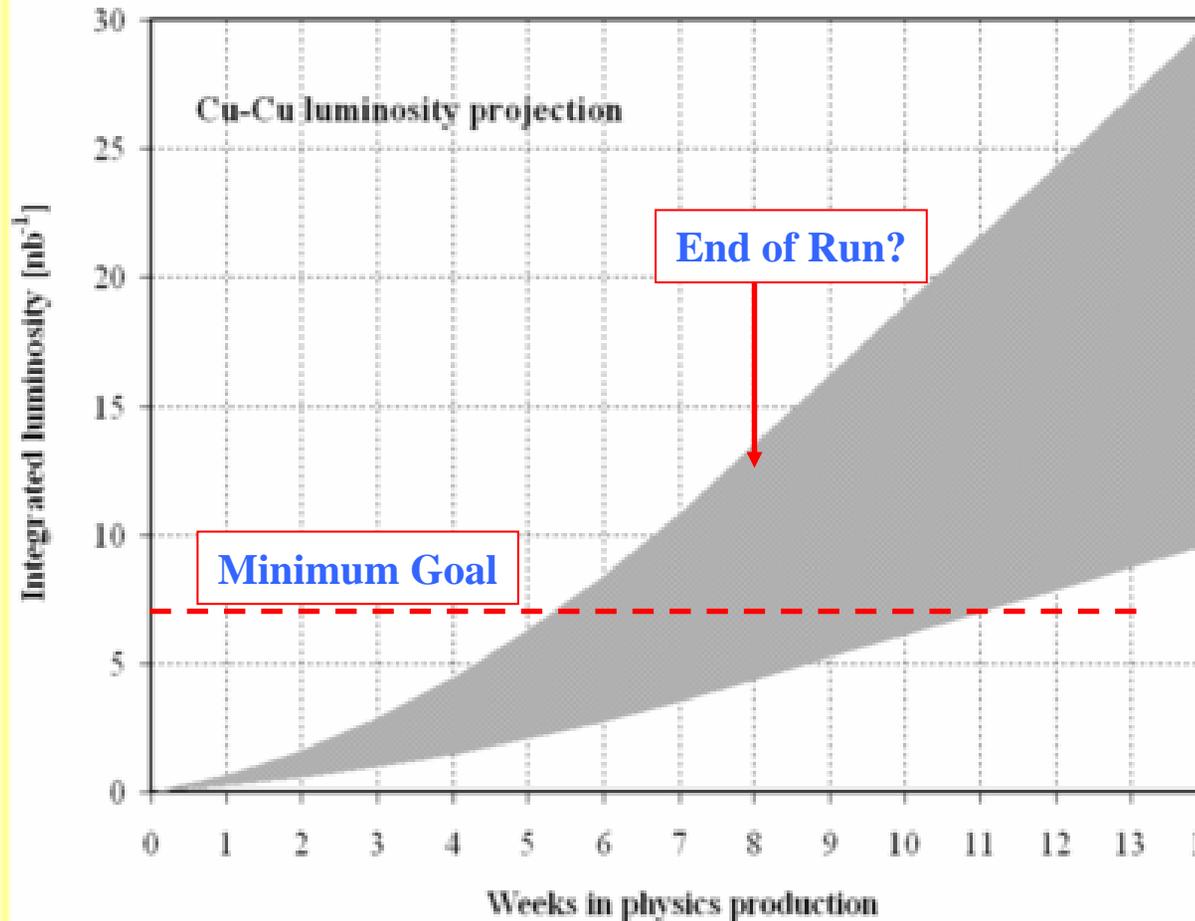
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PAC Recommendations (very short summary):

- 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