S7 operation update

Eric Dufresne, TRR group meeting, Nov. 3, 2004

- Dohn Arms completed the 7ID-A crate upgrade to PPC. He also installed new AD/DA IP carrier based hardware working on the 7ID-C crate.
- Don Walko reports that the ion gauge in L5-20 slit tank seems to work now following his shutdown work. The gauge reading previously was affected by X-rays and wasn't thrustworthy.
- Harold, DA and EL are currently recabling the 7ID-D hutch in preparation for the new laser enclosure. The work should be completed in time for the hybrid-singlet mode run.
- The Engineering group of Pat DenHartog completed the ray traces for 7ID because of the new Front End small aperture Be window assembly. Special thanks goes to Mark Erdmann, the project engineer.
- Commissioning the new Be window went well. Mark is also looking into fixing the stray radiation problem found on the P4 during the yearly radiation validation.
- Don Walko designed and built a new vacuum flight path in 7ID-B. It is great.

- The 7ID schedule has been posted on the web.
- ED has nearly completed a fist draft of S7 safety plan.

EPICS slick PV's from OAG

- OAG is now calculating source parameters and providing EPICS PV's for the machine parameters by source point (BM,ID). Examples below are shown for 7ID with the most useful in Bold letters. See OAG-TN-2004-006 for definitions and calculation formulas.
- S7IDAlphaX 0.008641
- S7IDAlphaY 0.009472
- S7IDBetaX 19.6835
- S7IDBetaY 2.93569
- S7IDEtaX 0.170538
- S7IDEtaY 0
- S7IDEtaSlopeX -3.3e-05
- S7IDEtaSlopeY 0
- **S7IDDivergenceX 10.8319** **RMS Hor. Divergence (urad)**
- **S7IDDivergenceY 2.9413** **RMS Vert. Divergence (urad)**
- **S7IDSizeX 268.574** **RMS Hor. Source size (um)**
- **S7IDSizeY 8.63434** **RMS Vertical Source size (um)**