Proton Source Workshop

December 7 and 8, 2010

For the purpose of exposing and discussing on a broad front and from two perspectives, accelerator physics and the condition of the accelerator systems, what are the statuses and open questions of the Linac and the Booster that now seem relevant to operations for the next fifteen years.

The deliverable of the retreat is a report summarizing the findings. That report along with the Proton Source Task Force Report, dated August 17, 2010, will form the basis for defining tasks and assignments that will culminate in a Proton Improvement Plan to "improve the reliability and performance of the Pre-Acc, Linac, and Booster... to accommodate as much of the proposed program as possible. (Roger Dixon)"

Agenda

Day 1 --- Operational and Accelerator Physics Issues

- 8:30 – 9:00 -- **Opening** –
    - Workshop Purpose, Charge, Protocol – Bob Webber
    - Defining the Objectives of the Proton Improvement Plan – Stuart Henderson
- 9:00 – 9:30 -- **Overview of Proton Source Task Force** – Bill Pellico
- **Machine Operating Descriptions** --
    - 9:30 – 9:50 **Preaccelerator** - Dan Bollinger
    - 9:50 – 10:10 -- **BREAK**
    - 10:10- 10:40 – **Linac** – Fernanda Garcia
    - 10:40 – 11:10 – **Booster** – Todd Sullivan
- 11:10 – 11:40 -- **Booster Beam Notching and Cogging** – Bill Pellico
- 11:40 – 12:00 -- **Linac and Booster Radiation Shielding Status, Plans and Constraints** – John Anderson
- 12:00 – 1:00 -- **LUNCH** (on your own)
- 1:00 – 1:30 -- **Linac/Booster Beam Interface** – Valeri Lebedev
- 1:30 – 2:00 -- **Linac and Booster beam Diagnostics Systems** – Craig Drennan
- 2:00 – 2:30 -- **Collimation and Shielding** – Nikolai Mokhov
- 2:30 – 3:00 -- **Booster Acceptance, Apertures, and Alignment** – Kiyomi Seiya
- 3:00 – 3:30 -- **BREAK**
- 3:30 – 4:00 -- **Booster Optics and Chromaticity Understanding** – Yuri Alexahin
- 4:00 – 4:30 -- **Beam Dynamics and Instabilities** – Dave McGinnis

Day 2 --- Accelerator Hardware Systems Issues

- 8:30 – 9:00 – **PreAcc/Linac Downtime Statistics and Reliability** – Fernanda Garcia
- 9:00 – 9:30 -- **Booster Downtime Statistics and Reliability** – Todd Sullivan
- 9:30 – 10:00 -- **Linac Beam Dump Problem** – Rob Reilly
- 10:00 – 10:30 -- **BREAK**
- 10:30 – 11:00 -- **Linac Power Tube Status and Outlook** – Fernanda Garcia
- 11:00 – 11:30 -- **Linac Front-end Upgrade Plan** – CY Tan
- 11:30 – 12:00 -- **Booster Magnet Status and Outlook** – Jim Lackey
- 12:00 – 1:00 -- **LUNCH** (on your own)
- 1:00 – 2:00 -- **Booster RF** – John Reid
    - Booster solid-state RF upgrade project
    - Modifications required to achieve Booster 15 Hz beam capability
    - Booster RF cavity tuner issues
    - Other RF reliability and equipment aging concerns
- 2:00 – 2:30 -- **Linac RF Modulators and Related RF Power Systems** – Trevor Butler
- 2:30 – 3:00 -- **BREAK**
- 3:00 – 3:30 -- **Electrical Utilities and Power Infrastructure** – Steve Hays
- 3:40 – 4:00 -- **Water Systems** – Maurice Ball
- 4:00 – 4:30 -- **Closing** – Bob Webber