

Targetry Program 5 Year Plan

Muon Collaboration Meeting

LBNL

February 16, 2005

The CERN Experiment

The target effort for FY05,06, and 07 will focus on mounting and running the high-power target experiment at CERN. This experiment has successfully gone through the CERN approval process and now is in the hands of the CERN Director General who has sent signals that he will approve it.

The major remaining effort at CERN will be to secure the power supply for the 15T pulsed solenoid and install the cryo infrastructure.

CERN experiment (continued)

The principle activity outside of CERN will focus on receiving and testing the pulsed solenoid and developing the Hg jet system. A fully integrated test of the Hg jet and pulsed solenoid is planned.

At CERN we should achieve having a 20 TP beam with a 2 microsecond spill impinging on the Hg jet target.

The JPARC Initiative

We have the possibility of subsequently moving the experiment to JPARC where we have submitted a Letter of Intent. At JPARC we would be able to extend our testing to include 40 TP in a few 10's of ns spill and 300 TP in a 4 microsecond spill.

Material Studies Program

In parallel to the liquid Hg jet program, we will continue to pursue a program to test and identify materials which might be suitable for use in solid targets in a multi-MW facility.

This effort will focus on determining the physical properties of promising materials after exposure to radiation. We plan to irradiate our samples to the level of or beyond 1 DPA.

5 Year Budget Impact

	CERN experiment	JPARC experiment	Material studies
FY05	\$690K		\$10K
FY06	\$615K		\$25K
FY07	\$600K		\$25K
FY08		\$200K	\$200K
FY09		\$200K	\$200K