

January 31, 2012

ORKA Preservation Taskforce

Dear Taskforce

ORKA (P-1021) is a proposal for an experiment to measure the rare $K^+ \rightarrow \pi^+ \nu \nu$, with the sensitivity to record of order 1000 signal events if the branching ratio is that expected in the Standard Model. The best option for siting the experiment appears to be in the CDF collision hall. The science case ($\sim 1000 K^+ \rightarrow \pi^+ \nu \nu$ signal events) was strongly supported by both P5 and Fermilab PAC. The Fermilab PAC feels that even in the constrained budget scenario, the Laboratory should explore how ORKA could be included in the full complement of Intensity-Frontier experiments.

The laboratory, therefore, would like to preserve an option to mount the ORKA experiment in the CDF collision hall.

I would like to ask this taskforce to analyze various scenarios for the ORKA detector to be installed in the CDF hall in the future. For each scenario, you are asked to provide a rough cost estimate and an analysis of technical difficulties.

I would greatly appreciate it if you could report to me your analysis with a written report by March, 2012 (this date will be discussed and determined at the Kick-off meeting).

Sincerely Yours,
Young-Kee Kim
Deputy Director, Fermilab

Taskforce Membership:

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