Abstract Submitted for the DNP13 Meeting of The American Physical Society

Heavy Gas Cerenkov Detector for Jefferson Lab Hall C<sup>1</sup> WEN-LIANG LI, University of Regina — The Thomas Jefferson National Accelerator Facility (JLab) has undertaken the 12 GeV Upgrade to double the accelerating energy of its electron beam. This attracts many interesting proposals to probe the quark-gluon nature of nuclear matter at higher energy therefore a new set of equipment are required. A new Super High Momentum Spectrometer (SHMS) is currently under construction for the experimental Hall C. University of Regina is assigned to construct the Heavy Gas Cerenkov Detector as part of SHMS focal plane detectors. This detector will be used as critical component for good pion identification in the SHMS experimental program. In this presentation, we will report the design, current status and expected performance.

<sup>1</sup>Supported by the Natural Sciences and Engineering Research Council of Canada (NSERC).

Garth Huber University of Regina

Date submitted: 28 Jun 2013

Electronic form version 1.4