The Massachusetts General Hospital (MGH) and Massachusetts Eye and Ear Infirmary have used proton beams at the Harvard Cyclotron Laboratory (HCL) to treat patients since 1961; over 7000 patients have been treated. Faraday Cup methods have provided the absorbed dose standard. For small treatment fields, diodes calibrated against a Faraday Cup served as absolute dosimeters. The advent of multi-institution proton clinical trials and the ICRU proton dosimetry protocol (in press) created an impetus for a re-examination of the Faraday Cup methodology. In a dosimetry intercomparison conducted at Loma Linda University by 13 institutions, an ionization chamber calibrated against the HCL Faraday Cup yielded absorbed dose measurements that were 6-8% lower than those from the other institutions which used Bragg-Gray ionization chamber methodology and cobalt-60 gas-mass determinations. In the interest of adopting common absolutedosimetry methods for proton clinical trials, in March, 1997, we stopped using the Faraday Cup for calibrating large-field proton beams and began calibrating against ionization chambers, based on the ICRU's recommendations, resulting in a 6.5% increase in the statement of absorbed dose. In early 1998, the eye-beam dosimetry was similarly converted, with a corresponding 3.8% increase in stated dose. The radiosurgery beamline dosimetry will be revised in 1998. We report on changes in HCL absorbed dose standards and their impact on the ongoing clinical protocols. We will use the ICRU protocol for ionization chambers in the Northeast Proton Therapy Center which opens at MGH in late 1998 and will validate the dosimetry with calorimetry.