QA Program for a Siemens Virtual Wedge

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Our department recently installed a Virtual Wedge (VW) on our Siemens linacs. We have implemented a QA program to ensure proper operation of the VW. The program consists of daily checks and monthly verification measurements. The daily check uses the Victoreen "Double Check", which is also used for the normal daily linac output checks. Monthly measurements are also performed during the regular output measurements. The measurements are designed to confirm the constancy of (1) VW output factors, & (2) the VW wedge angles by measuring the beam ratios on both sides of the wedge and comparing them to ratios determined at acceptance. The program will be discussed in detail and results presented. In addition, the VW has a minimum number of MU which can be used with a field. Siemens has software to calculate the minimum MU. We have investigated this problem and confirmed the Siemens data.