A Single Pulse Method for Determining the Release Curves of Radioactive Nuclear Beam J.R.J. BENNETT, CLRC Targets, Rutherford Laboratory - A simple new technique for measuring the release curves of radioactive nuclear beams produced by the impact of high energy protons on thick targets is described. It should allow the data for a complete release curve to be collected from the decay of the radioactive beam produced by one short pulse of protons on the target. The method should provide data more quickly than the conventional one, where individual points on the curve are taken in separate proton pulses at time intervals of several seconds or longer. Moreover, the accuracy should be at least as good, if not better in many cases.