ABSTRACT. There has been much recent interest in studying various continuity criteria for the set-valued metric projection, P_V, onto a set V.

In this note we introduce some simpler and more general “radial” continuity criteria. Roughly speaking, these criteria require that the restriction of the metric projection to certain prescribed line segments be lower semicontinuous (l.s.c.) or upper semicontinuous (u.s.c.). It turns out that these criteria, which are formally much weaker than l.s.c. or u.s.c., are still strong enough to generalize a number of known results, and weak enough so that many of these theorems now have valid converses (which they did not have under the stronger hypotheses of l.s.c. or u.s.c.).