The behavior of the category of $E_n$-local spectra simplifies in various ways as $p \to \infty$. For a collection of categories indexed by the prime numbers we construct a category 'at the infinite prime' that captures behavior of all but finitely many of the input categories. We then apply this construction to the $E_n$-local and $K(n)$-local situations and analyze the resulting categories. This talk represents joint work with Barthel and Schlank.