998-06-60 **Rogelio Fernández-Alonso*** (`rojo99@prodigy.net.mx`), Sur 111-A #439, Col. Héroes de Churubusco, 09090 México, D.F., Mexico, and **Silvia Gavito** (`silvia_gavito@yahoo.com`), Mexico. *The Lattice of Preradicals over $\mathbb{Z}_{p^n}$.*

In the early 40's Kulikov proved a well-known structure theorem on p-groups. As a consequence, every bounded p-group is a direct sum of cyclic groups; so the $\mathbb{Z}_{p^n}$-modules are just direct sums of ideals of $\mathbb{Z}_{p^n}$. Therefore, any preradical over this ring is determined by its behavior on these ideals, which form a finite chain of length n. The order lattice of preradicals over $\mathbb{Z}_{p^n}$ is isomorphic to the order lattice of certain ascending paths over the plane $n \times n$-lattice. We present some of its properties: finite with cardinality 2^n, distributive, self-dual and graded with rank $\frac{n(n+1)}{2}$. We also describe the correspondent posets of (co)irreducible and (co)prime elements. (Received January 15, 2004)