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**Richard Erwin Hasenauer\*** ([richard.hasenauer@ndsu.edu](mailto:richard.hasenauer@ndsu.edu)), NDSU Mathematics Department #2750, PO Box 6050, Fargo, ND 58108-6050. *Normsets of almost Dedekind domains and atomicity.*

Let  $D$  be an almost Dedekind domain. Hence for each maximal ideal  $M$ , we have  $D_M$  being a Noetherian valuation domain. Using these local valuations we create a global norm. The set of these norms, called the normset, is used to classify which almost Dedekind domains are atomic. We also introduce the idea of a legitimate domain, and as a corollary show that a glad domain is atomic if and only if it is a semilocal Dedekind domain (hence a semilocal PID). (Received September 06, 2011)