1053-13-160 **Bruce Olberding*** (olberdin@nmsu.edu), Department of Mathematical Sciences, Las Cruces, NM 88003-8001. *Stable rings and generic formal fibers of local Noetherian domains.* Preliminary report.

Bass proved in 1963 that if every ideal of a ring can be generated by 2 elements, then each ideal is projective over its ring of endomorphisms. Calling rings with the latter propery *stable*, Sally and Vasconcelos gave an example of a local Noetherian domain that is stable but which has an ideal that cannot be generated by 2 elements. They showed that such an example could only occur if R is analytically ramified; i.e., R is a "bad" stable domain. Their ring was an underring of a ring of convergent power series over a certain field of characteristic 2. In 1992, Heinzer, Lantz and Shah showed that this same construction could produce examples of multiplicity n for any choice of $n > 0$. These examples, as well as structural properties, suggest that the class of such rings should be rather small. However, we show that these rings are not as rare as they might first seem. We characterize these rings and discuss how to find examples in any characteristic and multiplicity as overrings of affine domains. We discuss also how the existence of bad stable domains as overrings of a local Noetherian domain A of dimension $d > 0$ is equivalent to whether the dimension of the generic formal fiber of A is $d - 1$. (Received September 01, 2009)