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Minxian Zhu* (minxian@math.rutgers.edu), 110 Frelinghuysen Road, Department of Mathematics, Rutgers University, Piscataway, NJ 08854. *Vertex operator algebras associated to modified regular representations of the Virasoro algebra.*

We give an abstract construction, based on the Belavin-Polyakov-Zamolodchikov equations, of a family of vertex operator algebras of rank 26 associated to the modified regular representations of the Virasoro algebra. The vertex operators are obtained from the products of intertwining operators for a pair of Virasoro algebras. We explicitly determine the structure coefficients that yield the axioms of VOAs. In the process of our construction, we obtain some hypergeometric identities. (Received September 13, 2010)