1035-11-1254 **Curtis Cooper*** (cooper@ucmo.edu), Dept. of Math. & Comp. Sci., University of Central Missouri, Warrensburg, MO 64093. *On the Natural Density of the k-Zeckendorf Niven Numbers.*

The k-generalized Fibonacci numbers are defined as

$$F_n^{(k)} = \begin{cases} 0, & \text{for } n < k-1 \\ 1, & \text{for } n = k-1 \\ \sum_{i=1}^{k} F_{n-i}^{(k)}, & \text{for } n \geq k. \end{cases}$$

The k-Zeckendorf representation of a positive integer is defined as

$$n = \sum_{i \geq k} \epsilon_i F_i^{(k)},$$

where $\epsilon_i \in \{0,1\}$ and for all $i \geq k$ we have $\epsilon_i \epsilon_{i+1} \cdots \epsilon_{i+k-1} = 0$. Given this representation of a number n we say the k-Zeckendorf digital sum of n is $z_k(n) = \sum_{i \geq k} \epsilon_i$ and if $z_k(n) | n$ then n is called a k-Zeckendorf Niven number. We prove that the natural density of the k-Zeckendorf Niven numbers is zero. (Received September 19, 2007)