1023-11-1803 **Mark Kozek*** (kozek@math.sc.edu), Mathematics Department, University of South Carolina, Columbia, SC , and **Michael Filaseta** (filaseta@math.sc.edu), Mathematics Department, University of South Carolina, Columbia, SC. *On Composite Numbers That Remain Composite After Any Insertion of a Digit.*

The number $N = 25011$ has the property that if you "insert" any digit $x \in \{0, \ldots, 9\}$ "into" its decimal expansion, then the new number created by this insertion is always composite. That is, every number in the set $\{x25011, 2x5011, 25x011, 250x11, 2501x1, 25011x : 0 \leq x \leq 9\}$ is composite. In fact, 25011 is the smallest, composite, natural number, coprime to 10 that exhibits this property. We prove that there are infinitely many composite, natural numbers, N, coprime to 10, with the property that if you "insert" any digit $x \in \{0, \ldots, 9\}$ "into" the decimal expansion of N, then the new number created by this insertion is always composite. (Received September 27, 2006)