1024-05-39 **Fangjun Arroyo*** (farroyo@fmarion.edu), Department of Mathematics, Francis Marion University, Florence, SC 29501, and **Edward Arroyo** (earroyo@fmarion.edu), Department of Mathematics, Francis Marion University, Florence, SC 29501. *Generalized Mobius Inversions Involving Selberg-Multiplicative Functions.*

In [1], P. J. Shiue et. al. addressed the problem of finding the Mobius inversion formulae for a special class of Selberg-multiplicative functions. We extend their results to the general class of Selberg-multiplicative functions. More precisely, we show that for any given Selberg-multiplicative function F, a Dirichlet inverse G of F can be explicitly constructed so that there holds a general Mobius inversion with <F, G> as a reciprocal pair of generalized Mobius functions. Examples are given to illustrate our constructive method.

[1] Shiue, P. J. et. al. Generalized Mobius Inversions – Theoretical and Computational Aspects, The Fibonacci Quarterly, Volume 44.2, May 2006. (Received December 10, 2006)