**PROGRESS REPORT**
August 1st, 2006 – December 31st, 2006

**PROJECT TITLE:** The feasibility of removing inorganic arsenic from landfill leachate via sorption to mineral oxide surfaces.

**PRINCIPAL INVESTIGATOR(S):** Dr. Maya Trotz

**AFFILIATION:** Department of Civil and Environmental Engineering, University of South Florida

**COMPLETION DATE:** 1/23/07  **PHONE NUMBER:** 813-974-3172

Work accomplished during this reporting period:

1. Batch adsorption experiments have continued. Some experiments with Kemiron and various loadings of arsenic as a function of pH and ionic strength were repeated to verify the reverse ionic strength effect observed in previous experiments. These new experiments did not show a reversed ionic strength effect.
2. Kinetic data was collected on experiments using As(III) and (V) on Kemiron.
3. Method development for Se, Cd and Ni analysis using a VARIAN DUO AA was done and any interferences for systems containing As and one of these co-contaminants checked.
4. Batch adsorption experiments of Se and Cd as a function of pH and ionic strength on Kemiron are 50% complete.

**Information Dissemination Activities:** Project information has been updated on landfillinfo.net. A poster presentation was given by Douglas Oti on 11/22/06. Title of poster: Arsenic removal using Kemoxide, a commercially available iron oxide sorbent. Poster presentation made by Douglas Oti at the 2006 Florida AWMA conference in Atlantic Beach, Florida. [http://www.flawma.com/].

**TAG meetings:** There were no TAG meetings during this time period.