**143x Environmental Remediation of Cca Contaminated Wood Waste**

*JA Tim Broussard III*

Since the 1970's, the most widely used preservative in the wood preservation industry has been chromated copper arsenate, or CCA. Applications of CCA impregnated wood are worldwide and can vary all the way from utility poles to children's playground equipment. Until 2003, landfilling the out of service materials was a generally accepted method of disposal. Recently though, problems with soil and groundwater contamination have arisen, and the role of CCA impregnated wood waste in the matter has been confirmed. Due to landfilling policy changes, new legislation regarding the use and disposal of CCA contaminated products, and the projected 240 million tons of wood waste that will be available for disposal over the next 15 years, the need for an efficient and effective method of heavy metal separation from wood waste has become eminent. In this research, electrokinetic treatment of CCA impregnated wood will be examined. An induced current will be passed across carbon electrodes contained in different types of reactors under similar conditions. The ionic nature of the metal oxides contained in the CCA impregnated wood will allow for the metals to be mobilized and metal concentrations are expected to decrease in the waste wood while increasing in the proximity of the electrodes. Following treatment, mass balances will be performed and concentrations will be evaluated using ICP-AES analysis. In the extended research plan, the more effective reactor configurations will be subjected to further testing where the roles of independent variables such as reactor solution pH, particle size, current density, pressure, and treatment time will be examined. Target removals will be 99 percent of total metal content in these experiments. The ultimate goal of the research will be to present the feasibility of the electrokinetic treatment of CCA impregnated wood.