

Liquid nuclear waste disposal studied

Sounds a reasonable idea for low level liquids

M&C Science and Nature
February 23, 2006

Penn State University and federal researchers have developed an alternate method to dispose of liquid nuclear waste by turning it into a solid form.

The solidified form -- developed at Penn State and the Savannah River National Laboratory -- is called a hydroceramic. The process uses low temperatures to solidify and stabilize high alkali, low-activity radioactive waste.

Scientists said the resulting form is strong, durable and has the potential to hold minor radioactive components in its zeolitic structure.

'Our research will give (the U.S. Department of Energy) a viable alternative to consider for treating their low-activity wastes,' said lead researcher Yun Bao.

Researchers say they are also developing an equivalent hydroceramic concrete that could be used to fill empty nuclear liquid waste tanks at DOE sites.

The research appears in the Journal of the American Ceramic Society