

Reduction of Nuclide Leaching from Paraffin Waste Form
by Addition of Low Density PolyEthylene

Ju Youl Kim^a, Chang Lak Kim^b, Chang Hyun Chung^a

^aDepartment of Nuclear Engineering, Seoul National University,
San56-1 Shinrim-dong, Gwanak-gu, Seoul, 151-742, Korea

^bNuclear Environment Technology Institute, Korea Electric Power Corporation
150 Dukjin-dong, Yusong-gu, Taejon, 305-600, Korea

Abstract

Low-level liquid concentrate wastes have been immobilized with paraffin wax using concentrate waste drying system in Korean nuclear power plants. Small amount of low density polyethylene(LDPE) was added to increase the leaching resistance of the existing paraffin waste form and the influence of LDPE on the leaching behavior of waste form was investigated. It was observed that the leaching of nuclides immobilized within paraffin waste form remarkably reduced as the content of LDPE increased. The acceptance criteria of paraffin waste form associated with leachability index and compressive strength after the leaching test were met with the help of LDPE.

.....

Nuclear Energy in the Post-Genomic Era

Custer C. Deocaris and Alejandro Q. Nato, Jr.

Philippine Nuclear Research Institute
Commonwealth Avenue, Diliman 1101, Quezon City, Philippines

Abstraction

'Genomics,' the term first proposed in 1986, is the discipline of understanding genomes powered by an unprecedented accumulation of information on genetic sequences of a wide archive of life forms, foremost of which is the genome of man. After more than two decades of international effort in decoding life's alphabet and culminating with the first working draft of the human DNA this year, the 'post-genomic' era aims to annotate the existing genetic data, elucidate gene functions and find revolutionary applications in almost all branches of life and physical sciences, leaving no bough untouched, not even nuclear science.