



M John Plodinec, Ph.D. Short Biographical Sketch

After receiving his Ph.D. from the University of Florida, Dr. Plodinec began a career that has spanned nearly 50 years in research and development. His work on radioactive waste characterization and glass processing was an integral part of the design of the Defense Waste Processing Facility at the Department of Energy's Savannah River Site – the nation's first and the free world's largest facility incorporating high-level nuclear waste (HLW) in glass.

Dr. Plodinec also prepared the technical case that led the US Environmental Protection Agency to declare vitrification to be the Best Demonstrated Available Technology for HLW, and for heavy metals. He was named to the Department of Energy's Tanks Focus Area, and coordinated waste immobilization programs across the DOE complex, and internationally. He was the Department of Energy's primary author for the Waste Acceptance Product Specifications, which govern all of the HLW glass products produced in the US. He has regularly been consulted by several of the DOE sites (e.g., Hanford, Idaho, Fernald, Oak Ridge), by DOE headquarters, and by external groups such as the Defense Nuclear Facilities Safety Board, and the Nuclear Waste Technical Review Board.

Dr. Plodinec organized a team from Argentina, SRNL, and ORNL to demonstrate the destruction of nuclear reactor ion exchange resins via vitrification. This was the first project initiated under the US-Argentina Technical Exchange agreement signed in 1996. Dr. Plodinec also headed up a team helping the Indian glass and metal foundry industries to convert to natural gas from coal to prevent further deterioration of the Taj Mahal in India. As part of a NATO-sponsored team, he prepared recommendations that have been followed by the government of Estonia in cleaning up the Sillamae site, reputedly the most contaminated site in Europe.