## David Manglano

There is no true disposal of a radionuclide that is not decay, fission, or fusion of the radionuclide to a nonradioactive isotope or complete antimatter annihilation of the radionuclide. The plan at the Hanford Site does not plainly include the use of fast neutron reactors or another technology to make what is currently radioactive something that is not radioactive. The ongoing risk to human life and ecology is therefore not properly mitigated. The use of natural decay for the disposal of the Hanford Site nuclides is not an appropriate response to the knowledgeable and intentional production of concentrated industrial radionuclides. We cannot guarantee that vitrified waste will not be dispersed irreversibly by a volcano or an earthquake. Volcanic distribution of vitrified material is a possible outcome of unknown consequence. We cannot guarantee that the inhabitants of the future will be capable of understanding warnings about vitrified waste, nor can we guarantee that they will be capable of properly disposing of vitrified waste. We cannot guarantee that silica will be available for vitrification disposal at present. Silica is not considered renewable, its nuclei will be contaminated by the vitrification process, and humanity utilizes silica for things such as windows and the purification of drinking water. Silica should not be relied upon as a vehicle for disposal of radioactive substances. The reasonable, scientific process for disposal of the Hanford site waste is a controlled reaction to a non-radioactive substance. Scientific literature about the nuclear waste fuel loop is plain about the realities of the waste, of non-reprocessed uranium fuel, and so on. The harm done to the public by vitrifying waste which could have been reacted into non-radioactive substances is not reversible. The burden of the pseudoscience of "nuclear waste disposal" that does not reduce the amount of radioactive material by a means other than natural decay must be lifted from the American public. Despite decades of research indicating that nuclear fission fuels can be fully utilized by reprocessing reactors and fast neutron reactors, not only has the United States failed to fully react and dispose of its nuclear waste, but I further recall that as a boy in a public school the false-disposal method of vitrification was proposed to me by a person presenting a public-school assembly during which the speaker also challenged the veracity of the Warren Commission report to a room of children. I believe it is immoral and unconscionable to support the claims that waste vitrification is a form of nuclear waste disposal. The United States deserves a safe and scientific resolution to its scientific processes including but not limited to nuclear research. The United States should reasonably pursue legal action against any party claiming that there is a disposal of radionuclides which is not a complete decay, fission, or fusion into non-radioactive particles or a complete antimatter annihilation of the radionuclide. The state of Washington deserves a true, non-radioactive outcome to the wastes at Hanford State, and the other 49 US States deserve that outcome to the betterment of Washington and their union with it.