

Deep Disposal Well Applications for Uranium Operations

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Deep disposal wells (DDWs) have been used for decades in many industries to manage wastewater in a safe and environmentally protective manner. Historically, wastewater has been managed in various ways, but DDWs have been the primary method of removing wastewater from the environment. To enhance protection of underground sources of drinking water, the USEPA in 1980 passed the Underground Injection Control (UIC) regulations as part of the Safe Drinking Water Act. This presentation will include an introductory discussion of (1) the definition of deep injection wells, how common they are, and what classes of wells there are; (2) the major advantages of DDWs compared to alternative methods; (3) the range of fluids that can be managed with DDWs; (4) how DDWs are regulated and permitted; (5) DDW permitting and applications specific to ISR or other mining operations; (6) drilling and completion approaches and construction standards; (7) installation and operational costs; (8) current challenges with permitting (technical issues, state regulations, government comment and NGO comments/legal challenges); and (9) feasibility, well siting and operational considerations.