## Nuclear Trendir



Perfetti



Loewen

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Moderated by ANS past president Eric Loewen (2011-12), this presentation was built to be an accessible and informative Nuclear Waste 101 offering as part of the Society's broader effort to develop a program specifically tailored to educating K-12 teachers.

Perfetti's talk had a broad scope, chiefly attending to defining nuclear waste, clarifying the amount the United States has produced, and explaining the impacts of different methods of disposal. While taking the audience through these points, Perfetti also advocated for nuclear power as the solution to the country's need for cheap, clean energy, reminding the audience of the orders of magnitude between nuclear's small amount of waste and the waste generated by fossil fuels.

Much of the webinar focused on waste disposal, with Perfetti briefly recapping the history and specifics of the Yucca Mountain project. He explained the multilayered protection that would be built to contain nuclear waste in a deep geologic repository, as well as the geological and geographic factors that make Yucca Mountain particularly wellsuited to storing waste.

Acknowledging that the project is unlikely to ever be completed, Perfetti explored other methods of disposal. Notably, he explained that fuel reprocessing may be the most viable option to deal with waste, especially if used in conjunction with a deep geologic repository. Perfetti explained that reprocessing has the benefits of giving us more fuel and reducing the total volume of waste while also producing useful medical isotopes. Perfetti also touched upon ocean and space disposal, while noting these are significantly less feasible options for waste disposal.

The full, in-depth discussion on the basics of nuclear waste is available for on-demand viewing at ans.org/webinars/.

