

Civil & Environmental Engineering Structures Seminar

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Design and Construction of the Process Building Steel Structure for a Nuclear Waste Treatment Facility at the Idaho National Laboratory

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Abstract:

The Integrated Waste Treatment Unit (IWTU) is a new industrial structure on the Idaho National Laboratory that is designed to treat waste from nuclear weapons testing and development. This presentation will focus on the steel braced frame structure that encloses the concrete waste treatment cells, houses process and control equipment, and supports a 20 ton maintenance crane. Nuclear design standards require the structure to withstand very high seismic demands and an enhanced design wind speed. The construction team faced unique challenges during construction, including a remote project location and severe winter weather.

Bio:

Casey Stevenson joined Simpson Gumpertz & Heger in 2006. He has worked primarily in industrial structures, nuclear structures, crane-supporting structures, and construction engineering. He specializes in design and detailing of steel structures and connections, seismic analysis and retrofitting, dynamic analysis and vibration, and construction sequencing and troubleshooting.