



DTE Energy[®]

**Fermi 3 COLA
Combined License Mandatory Hearing
Safety – Panel 1**



SSI Analyses Demonstrate Acceptability of ESBWR Design for the Fermi Site

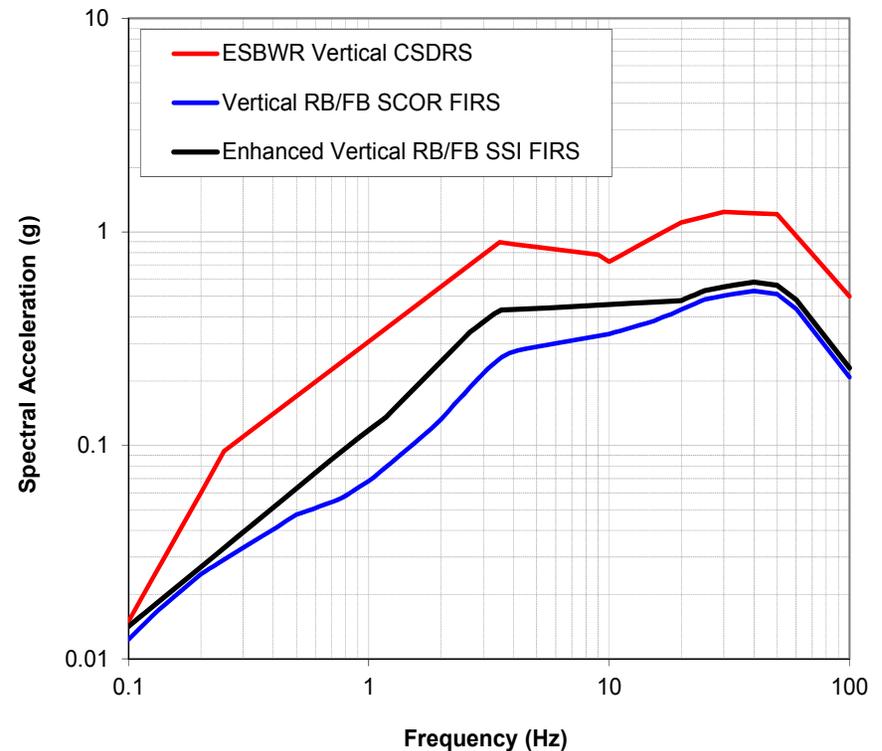
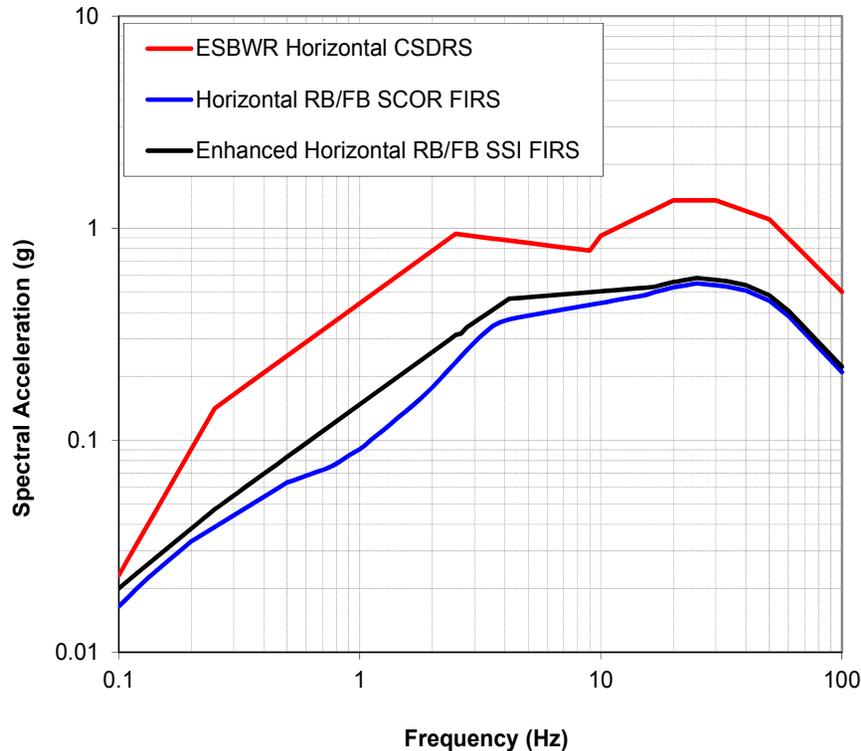


- In 2012, Fukushima Near Term Task Force Recommendation 2.1 required evaluation of the Central and Eastern US Seismic Source Characterization (CEUS SSC) model
- Fermi 3 site-specific SSI analyses were re-performed using CEUS SSC based inputs
- The Fermi 3 site-specific Soil-Structure Interaction (SSI) analyses address:
 - Partial embedment of Seismic Category I structures
 - Evaluation of side backfill for Seismic Category I structures as permitted by DCD
- Results demonstrate that the ESBWR design envelopes the Fermi 3 site with substantial margin

Analyses Demonstrate ESBWR Design Envelopes the Fermi 3 Site With Substantial Margin



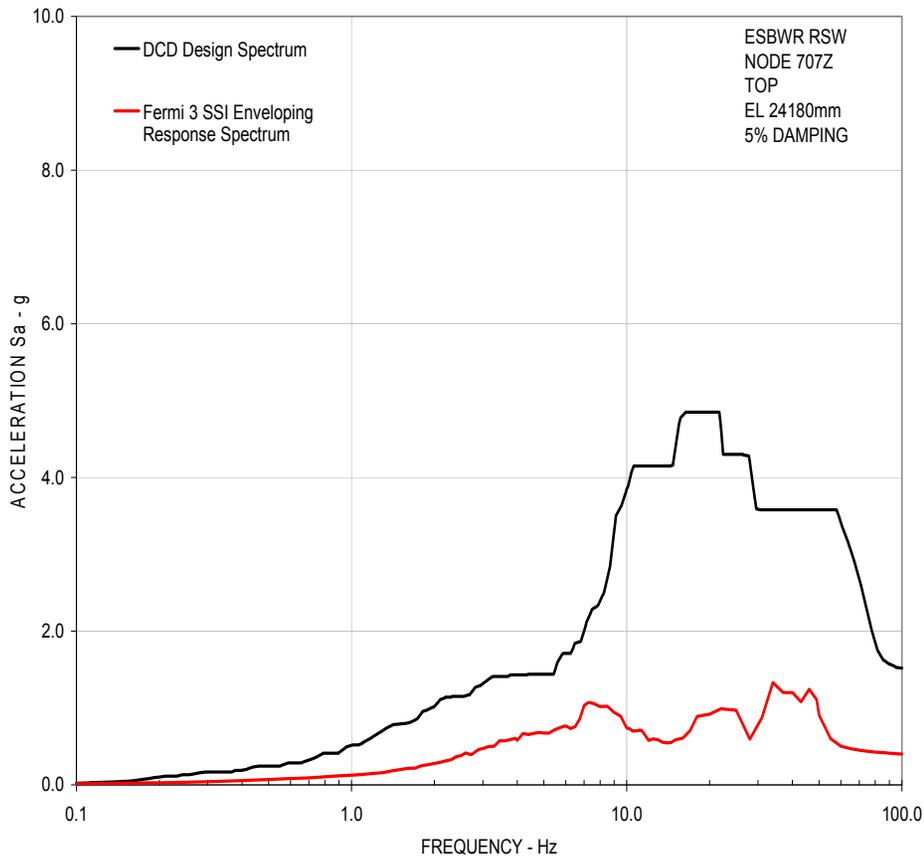
Fermi 3 RB/FB Foundation Input Response Spectra (FIRS) compared to ESBWR Certified Seismic Design Response Spectra (CSDRS) (5 percent damping)



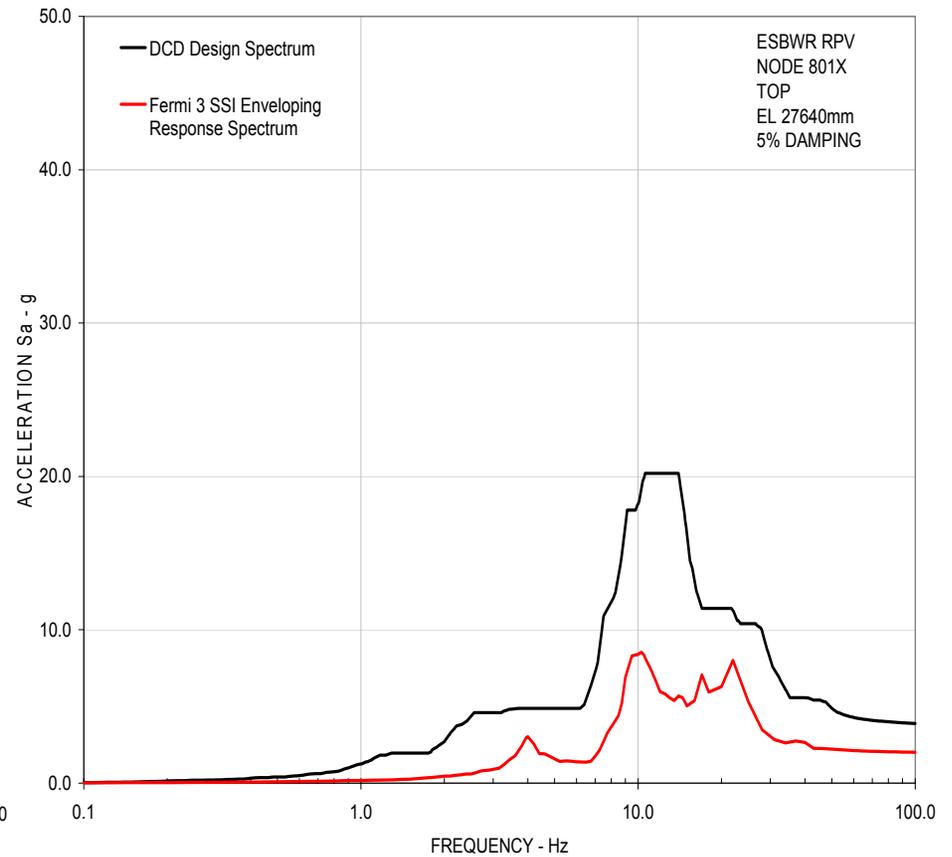
Analyses Demonstrate ESBWR Design Envelopes the Fermi 3 Site With Substantial Margin



Governing Comparison for Response Spectra



Vertical Response Spectra - RB/FB RSW Top
(Figure 3.7.2-209d)



Horizontal Response Spectra - RB/FB RPV Top
(Figure 3.7.2-207e)