Comprehensive Component Based Screening Curve Library

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Abstract

ABS Consulting, Inc. has developed a new comprehensive building database to enhance the fidelity of the screening level facility siting study. The building database includes 46 typical industrial building types, which are classified according to their structural frame, wall and roof systems. Building damage levels are determined based on the predicted damage levels of the primary and secondary components. A single-degree-of-freedom structural dynamics program (SBEDS) was used to evaluate the component damage level curves. The result is a more comprehensive building type database.

The intent is to provide a more inclusive collection of buildings that are common to industrial facilities as well as utilize more refined damage level criterion in their evaluation.

Presenter Biography: William C. LeBoeuf – Mr. William LeBoeuf graduated from The University of Texas at San Antonio with a Bachelor’s Degree in Civil Engineering and a Master’s Degree in Civil Engineering. Mr. LeBoeuf has six years of experience performing analysis, design, and testing of blast-resistant structures and blast effects.

Presenter Biography: Mehmet C. Ozbey, Ph.D. – Dr. Mehmet Ozbey graduated from The Bogazici University, Turkey with a Masters Degree in Earthquake Engineering and The University of Texas at Austin with a Doctor of Philosophy in Civil Engineering. Dr. Ozbey has experience in seismic, blast, and wind-resistant design of structures.