generation

mPower

B&W mPower™ Reactor Seismic Update and Hydrology Discussions

17 May, 2012

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All Rights Reserved. This document is the property of Babcock & Wilcox Nuclear Energy, Inc. (B&W) and Bechtel Power Corporation and is "CONFIDENTIAL AND PROPRIETARY" to B&W and Bechtel Power Corporation. Recipient and/or its representatives have, by receiving same, agreed to maintain its confidentiality and shall not reproduce, copy, disclose or disseminate the contents, in whole or in part, to any person or entity other than the Recipient and/or Recipient's representatives without the prior written consent of B&W and Bechtel Power Corporation.

This is a pre-application document and includes preliminary B&W mPower Reactor design or design supporting information and is subject to further internal review, revision, or verification.

generation mPower

Seismic Update and Hydrology Discussions

- Plant Layout
- Recap of May 2011 Seismic Meeting
---Break
- EPRI CEUS Seismic Source Report
- SSI Analysis Using SASSI
---Lunch
- SSI Modeling Studies
- Nuclear Island SSI Model
- Structural Analysis and Design Plan
- Considerations for Groundwater and Probable Maximum Flood
- Recap

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

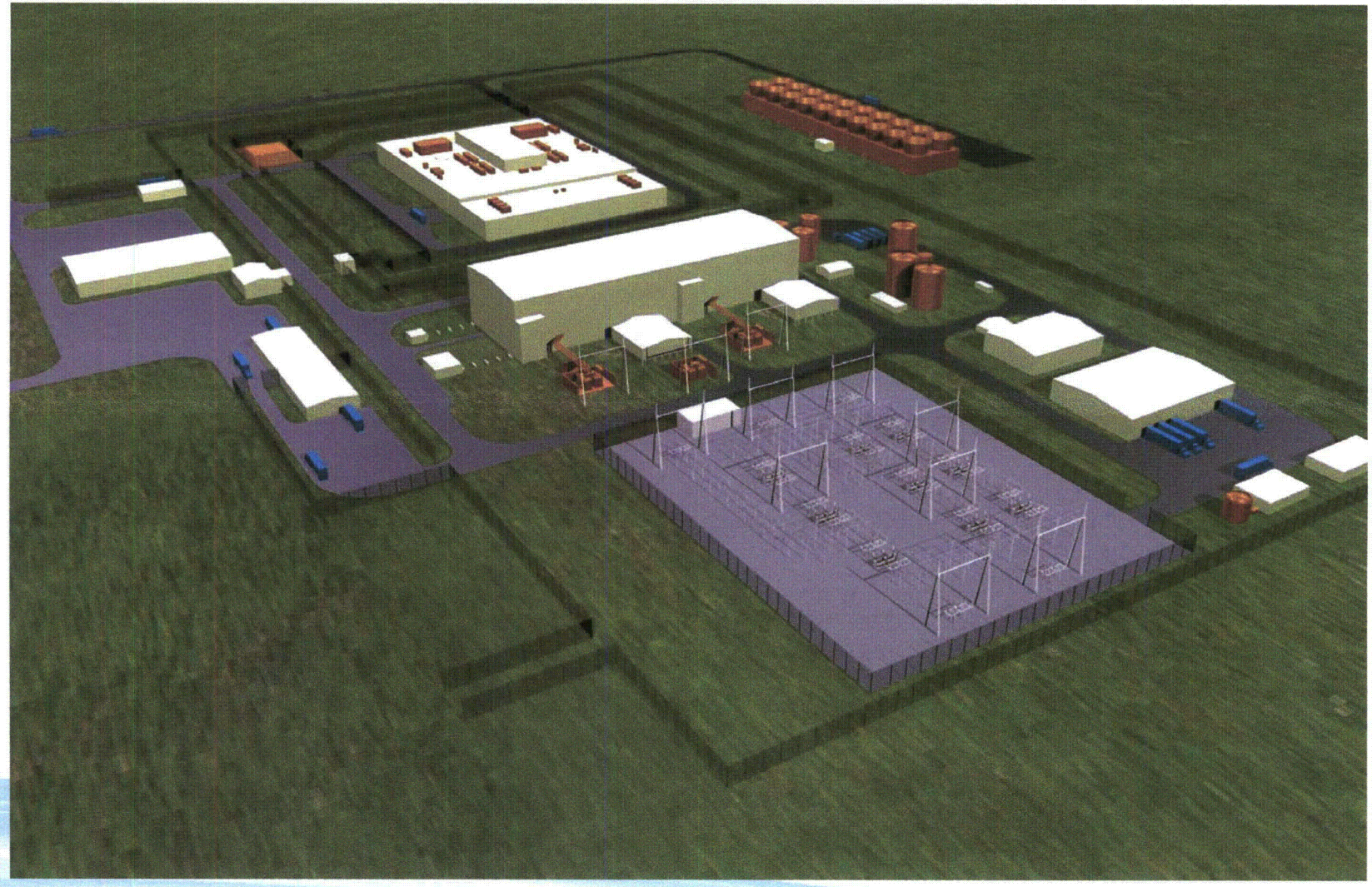
Plant Layout

Martin Reifschneider

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Site Overview Looking South



© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Plot Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Model Cut Looking West

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower [

RCB Looking West

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

RCB Looking North

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

RCB Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

RCB Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

RCB Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

RCB Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

RCB Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Looking West

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Looking North

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB-Annex) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB-Annex) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (RSB-Annex) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island (Radwaste) Plan El. [ ]

[CCI per Affidavit 4(a)-(d)]

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

Recap of May 2011 Seismic Meeting

Mike McHood

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Recap of May 2011 Seismic Meeting

- Soil Profiles for Generation mPower (GmP) standard plant
- Development of Certified Seismic Design Response Spectra (CSDRS) for GmP
  - FIRS from other DCDs and COL Applications
  - Ground Response
- USGS PSHA
- Eastern Tennessee
- V/H

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Soil Profile Selection Strategy

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

CSDRS Evaluation

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

CSDRS Selection

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

WUS CSDRS Input

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

CEUS CSDRS Input

[

]

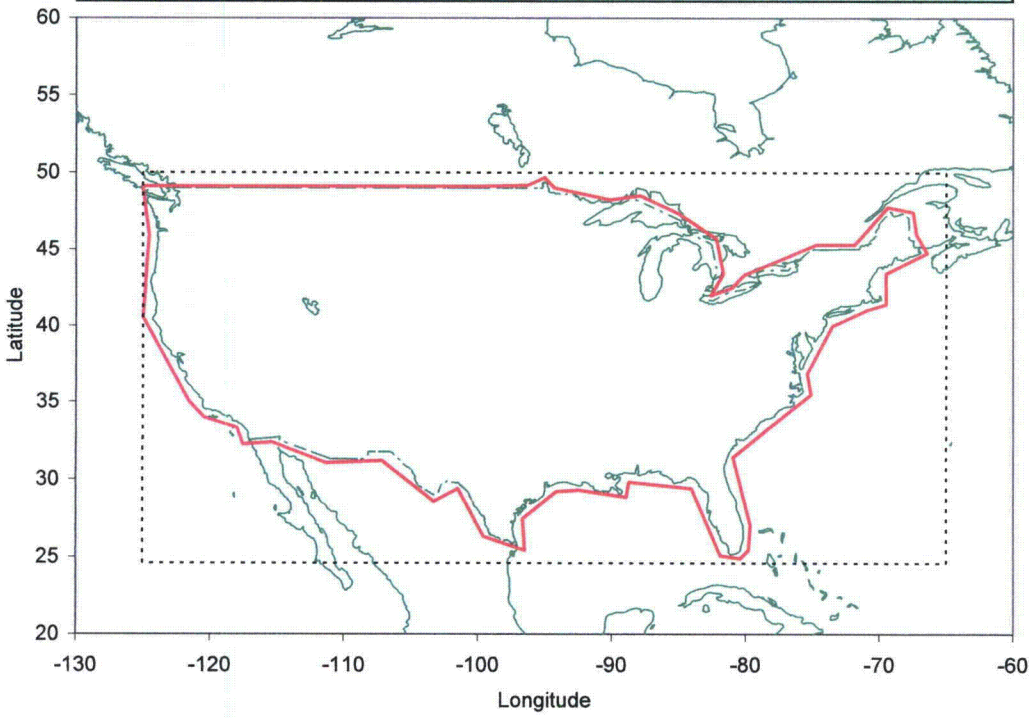
[CCI per Affidavit 4(a)-(d)]

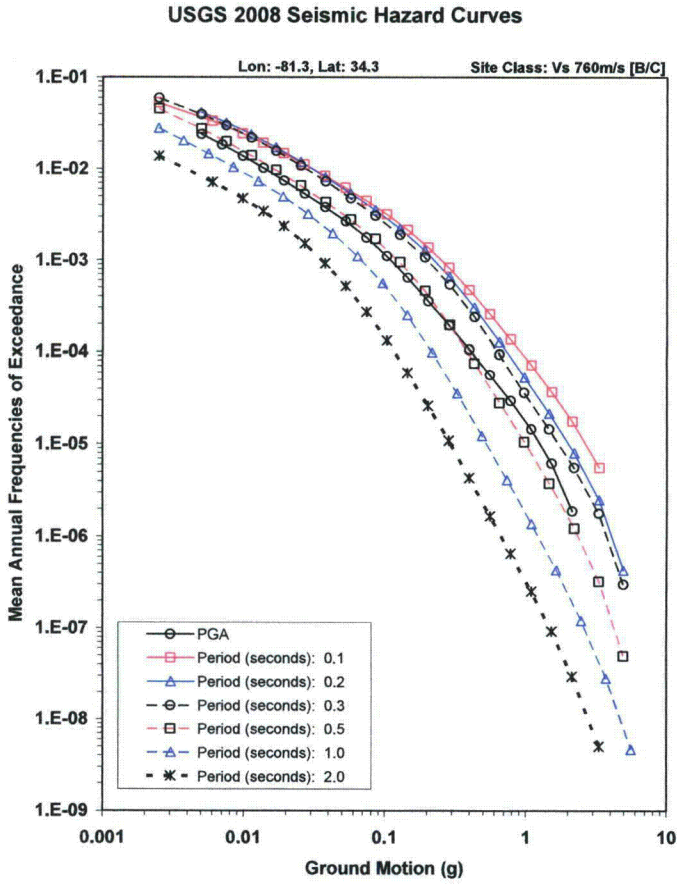
© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

USGS 2008 Seismic Hazard Data

http://earthquake.usgs.gov/hazards/products/conterminous/2008/data/





- Originally, **611,309** grid locations spaced at 0.05°, filtered to **362,509** land-only values
- Originally, NEHRP Site Class B/C seismic hazard curves
- Use amplification factors from Petersen et al. (2008) to convert to hard rock ["Site Class A"] hazard curves
- PGA and 6 response spectral periods: 0.1, 0.2, 0.3, 0.5, 1.0, and 2.0 seconds

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

USGS 2008 Seismic Hazard Data

Regulatory Guide 1.208: Definition of the GMRS/FIRS

The site-specific PSHA seismic hazard curve slope factor $A_R(f)$ is determined from:

$$A_R(f) = Sa(f \mid 10^{-5}) / Sa(f \mid 10^{-4}) \quad \text{Eq. 1}$$

where *f* is frequency and $Sa(f \mid 10^{-4})$ and $Sa(f \mid 10^{-5})$ are response spectral acceleration values for the hazard levels of 10^{-4} and 10^{-5}, respectively.

The "Design Factor" DF(f), based on A_R, is given by:

$$DF(f) = \textit{maximum}\ \{\ 1.0,\ 0.6 \times A_R(f)^{0.80}\ \} \quad \text{Eq. 2}$$

Finally, design response spectrum DRS(f) is given by:

$$\begin{aligned} DRS(f) &= Sa(f \mid 10^{-4}) \times DF(f) && \text{for } A_R(f) \leq 4.2 \\ &= 0.45 \times Sa(f \mid 10^{-5}) && \text{for } A_R(f) > 4.2 \end{aligned} \quad \text{Eq. 3}$$

where the design response spectrum [DRS(f)] is, depending on subsurface horizon and design intent, the GMRS or Foundation Input Response Spectra (FIRS).

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

USGS 2008 Seismic Hazard Data
(Reflects Bechtel Calculations)

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

CSDRS vs Eastern Tennessee

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Design Spectra for Eastern Tennessee

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Recommended V/H

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

CEUS Recommended V/H

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

WUS Recommended V/H

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Recommended V/H

- V/H ratios from NRC guidance are typically applied to surface or near surface spectra

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

CEUS Seismic Input Motion

- For each design spectrum GmP has fit a 3-component set of time histories as allowed by current NRC guidance

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

EPRI CEUS Seismic Source Report

Joe Litehiser

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

PSHA Studies Other than USGS (2008)

Composite EPRI-USGS Hybrid (60 CEUS NPP sites)

- USGS (2008) source model
  - (Geographic distribution of recurrence, Mmax distribution.)
- EPRI (2004, 2006) ground motion prediction equations
  - (SA (M, D), aleatory and epistemic uncertainty, CAV.)
- EPRI (2005, 2008) site-specific amplification factors
  - (Based on subsurface profiles for NRC licensing documents.)
  - (Used to develop five general site conditions.)

EPRI CEUS-SSC Follow-up (60 CEUS NPP sites)

- Site-specific amplification factors at several elevations
  - (For UHS and FIRS)
- Additional PSHA using interim NGA-East GMPEs?

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

EPRI Study Demonstration Sites

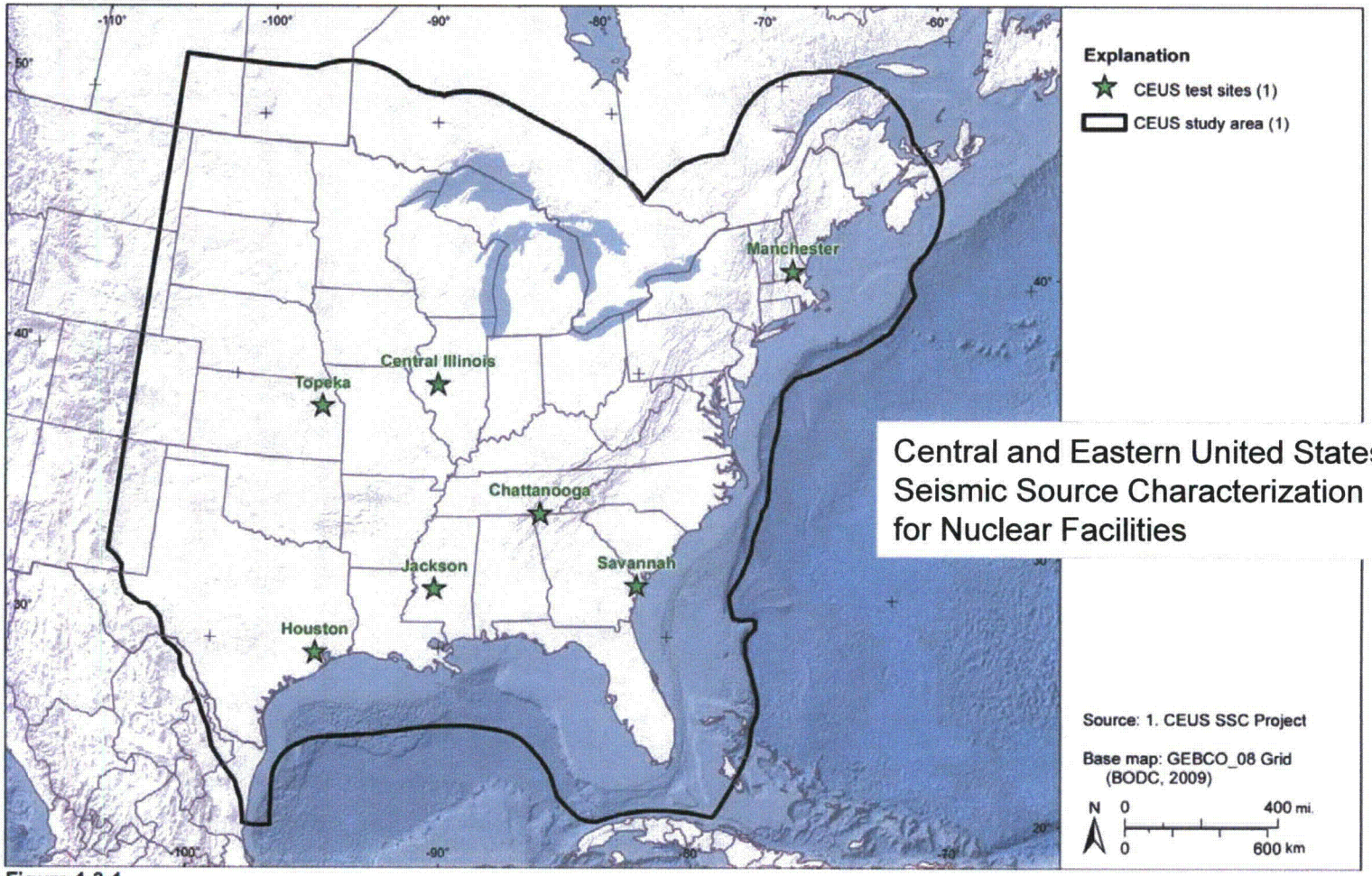


Figure 1.3-1
Map showing the study area and test sites for the CEUS SSC Project

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

USGS Seismic Hazard
(Reflects Bechtel Calculation)

[

]

[CCI per Affidavit 4(a)-(d)]

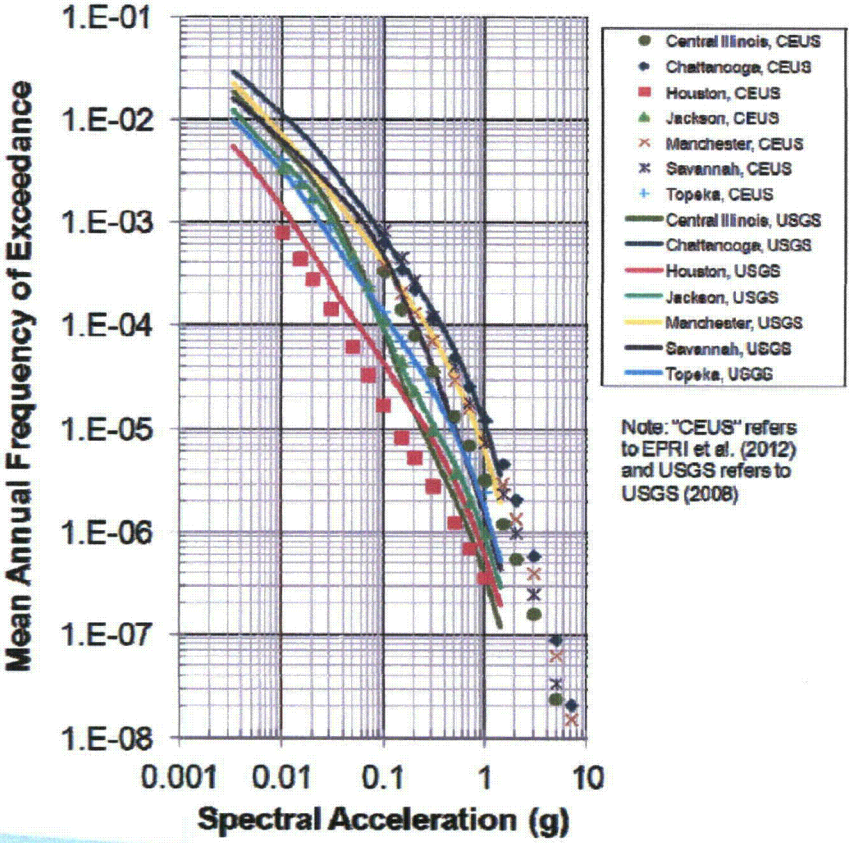
© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

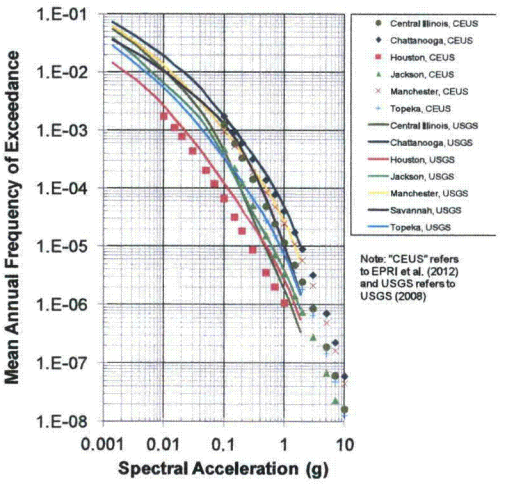
EPRI Rock Hazard Curves

[

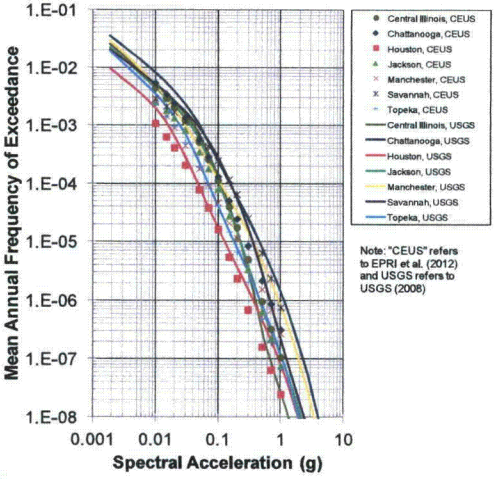
PGA Rock Hazard Curves



10 Hz Rock Hazard Curves



1 Hz Rock Hazard Curves



]

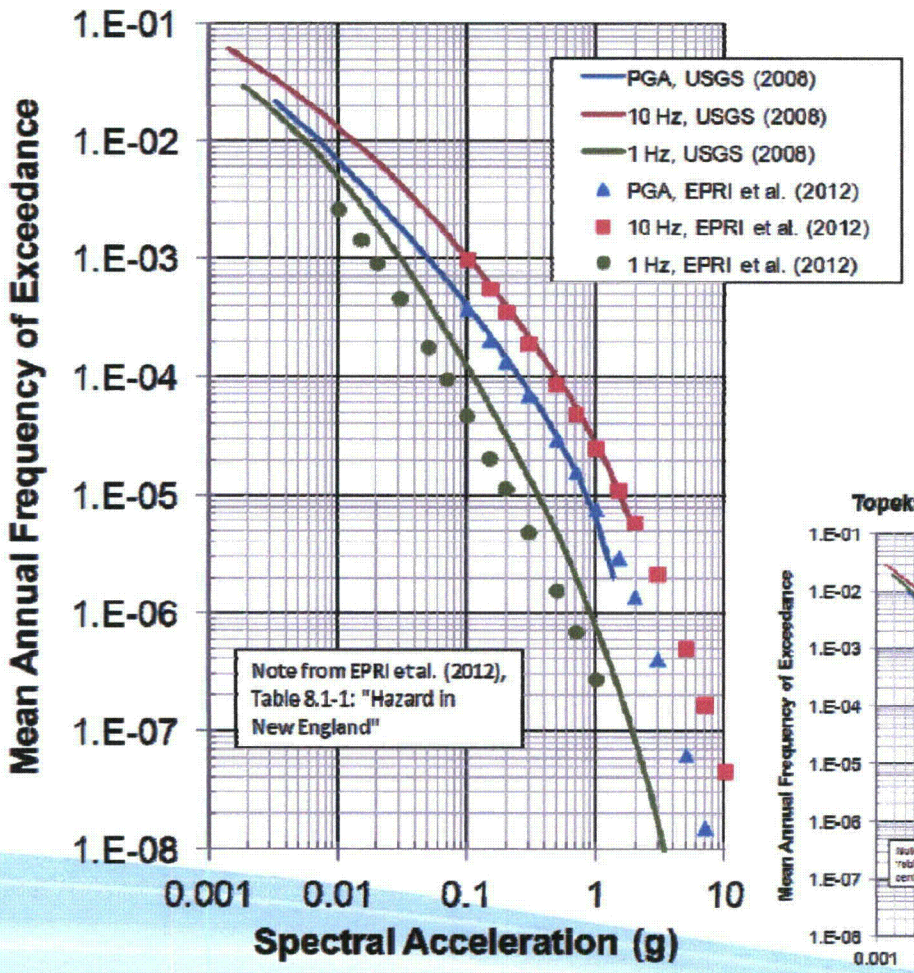
[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

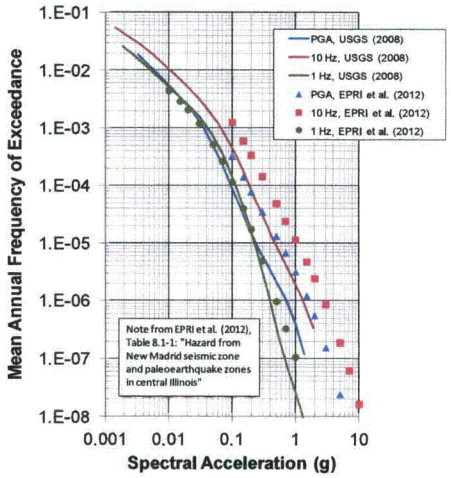
generation mPower

EPRI Rock Hazard Curves

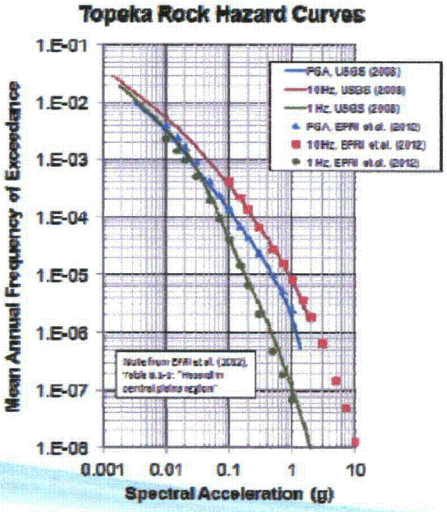
Manchester Rock Hazard Curves



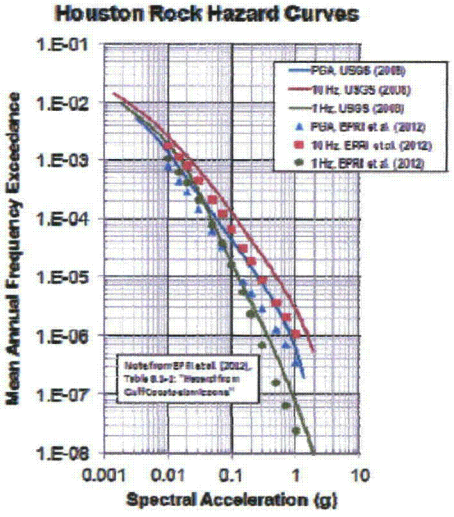
Central Illinois Rock Hazard Curves



Topeka Rock Hazard Curves



Houston Rock Hazard Curves



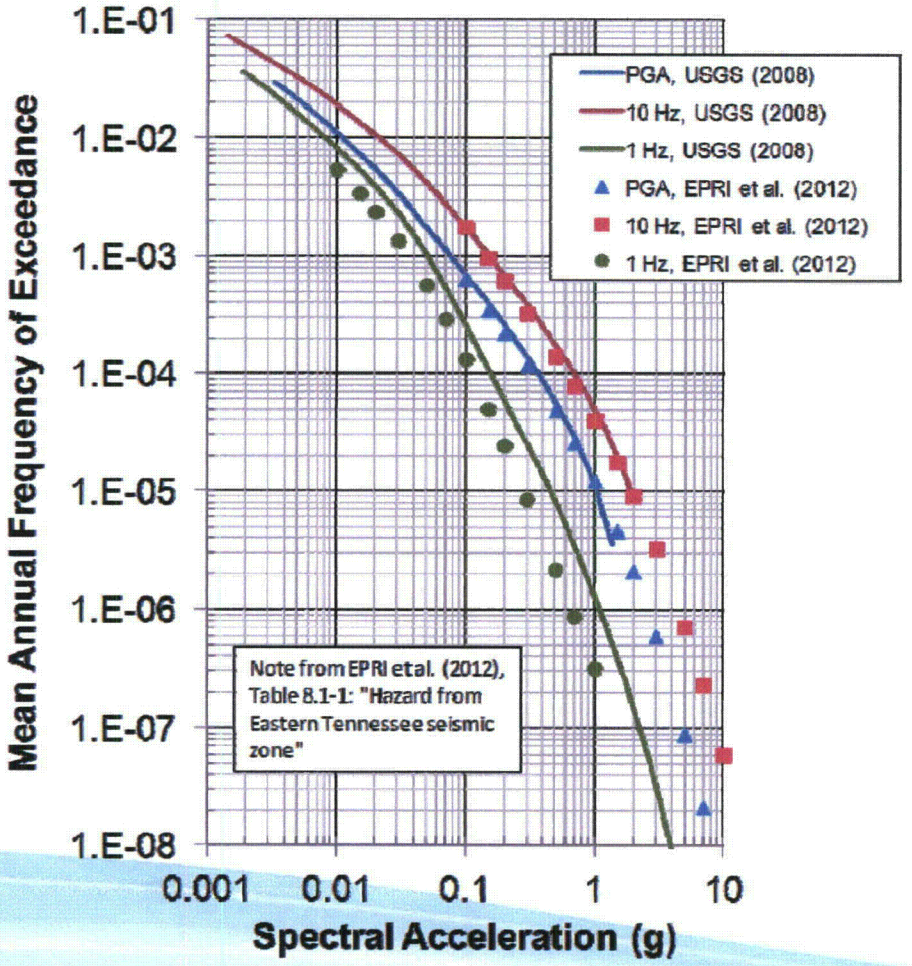
© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

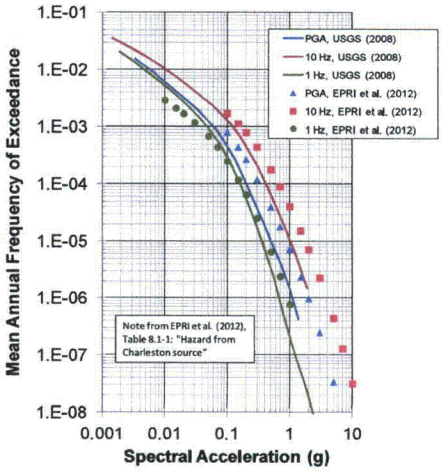
EPRI Rock Hazard Curves

[

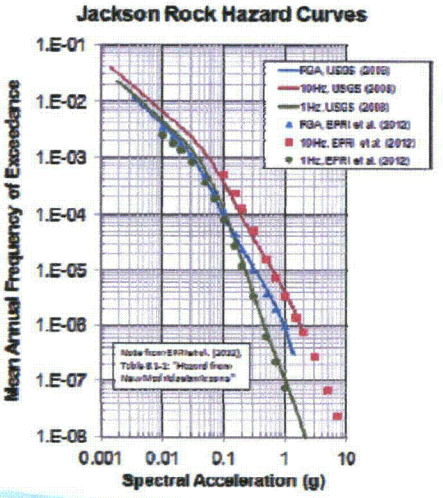
Chattanooga Rock Hazard Curves



Savannah Rock Hazard Curves



Jackson Rock Hazard Curves



]

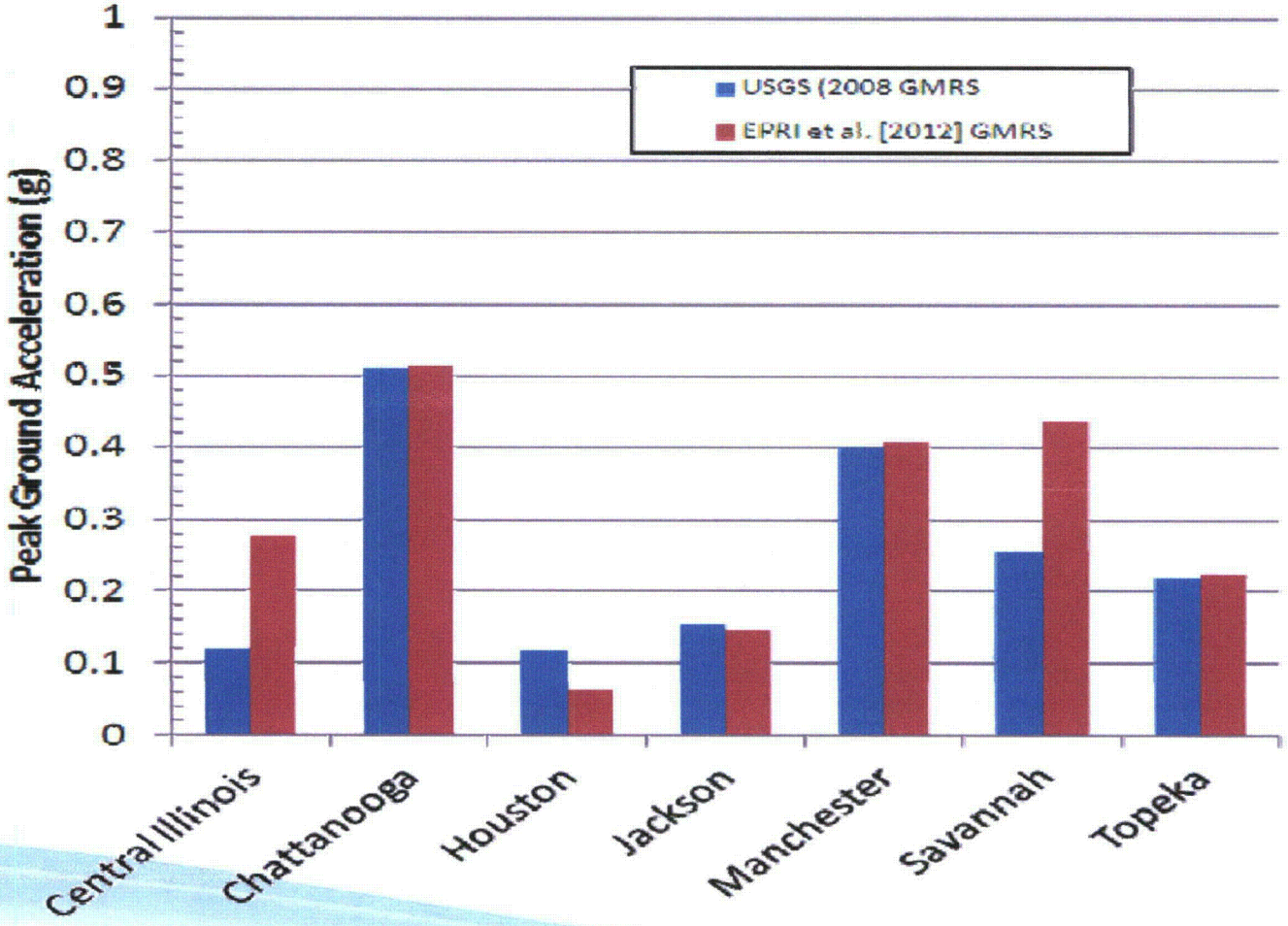
[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

USGS-EPRI PGA Comparison

[



]

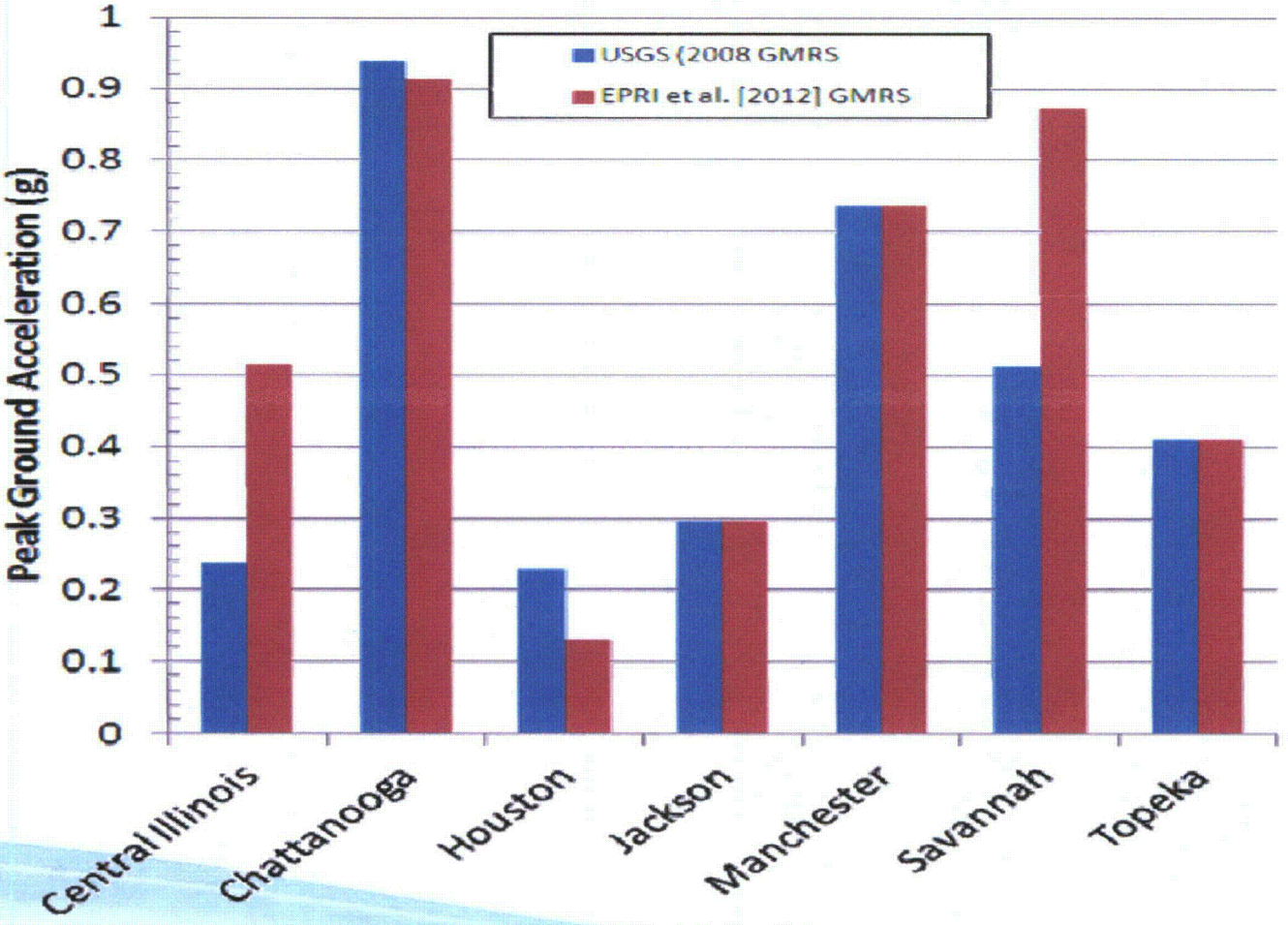
[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

USGS-EPRI 10 Hz Comparison

[



]

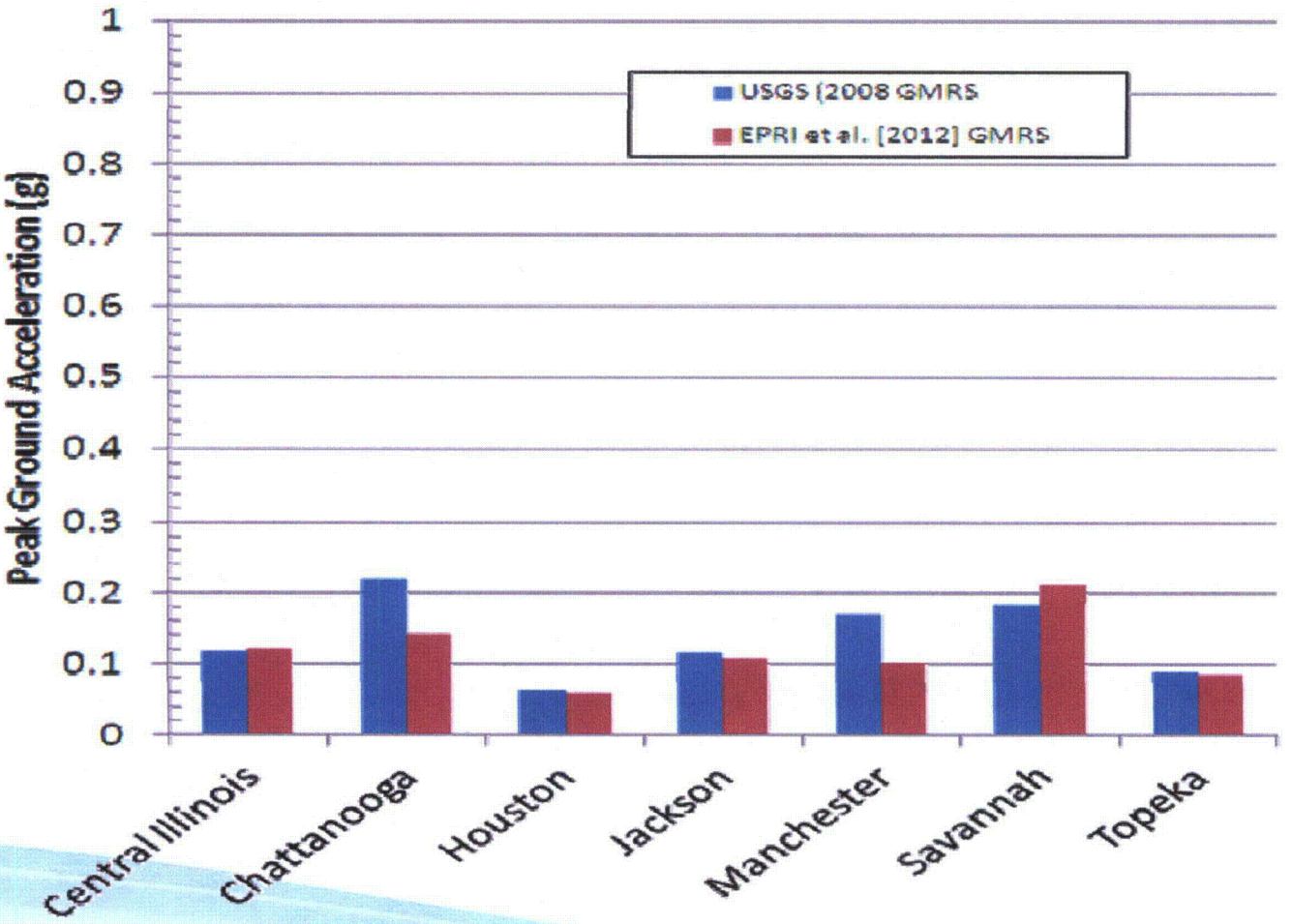
[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

USGS-EPRI 1Hz Comparison

[



]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Rock GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Manchester GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Central Illinois GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Topeka GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Houston GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Jackson GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Savannah GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Chattanooga GMRS

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

SSI Analysis Using SASSI

Farhang Ostadan

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Analysis

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Analysis Approach

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Analysis

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Analysis

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI2010 - RVT

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI Subtraction Method

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI Subtraction Method

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SASSI Subtraction Method

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

SSI Modeling Studies

Lisa Anderson

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Studies

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

2-D Planar Model

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Backfill Retaining Wall Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Backfill Retaining Wall Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Eastern Tennessee Input Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Eastern Tennessee Input Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Berm Configuration Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Berm Configuration Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Separation Distance Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Separation Distance Study

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Studies

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island SSI Model

Mike McHood

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island SSI Model

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Nuclear Island SSI Model

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

SSI Modeling Overview

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

Structural Analysis and Design Plan

Jack Demitz

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Analysis Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Analysis Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Analysis Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Analysis Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Analysis Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Design Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Structural Design Plan

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation
mPower

Considerations for Groundwater and Probable Maximum Flood

Jack Demitz

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Considerations for Groundwater & PMF

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Considerations for Groundwater & PMF

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

Recap

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Recap

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.

generation mPower

Recap

[

]

[CCI per Affidavit 4(a)-(d)]

© 2012 Babcock & Wilcox Nuclear Energy, Inc. and Bechtel Power Corporation. All rights reserved.