

SeabrookLANPEm Resource

From: Poole, Justin
Sent: Thursday, August 24, 2017 7:43 AM
To: 'Deborah Grinnell'
Subject: RE: Re: NextEra meeting with NRC
Attachments: 2017_08_24_NEE_PublicMeeting.pdf

Debbie,

Here are NextEra's slides for the public meeting.

Justin C. Poole
Project Manager
NRR/DORL/LPL I
U.S. Nuclear Regulatory Commission
(301)415-2048

-----Original Message-----

From: Poole, Justin
Sent: Tuesday, August 22, 2017 4:22 PM
To: 'Deborah Grinnell' <grinnelldebbie2@gmail.com>
Subject: RE: Re: NextEra meeting with NRC

Debbie,

Here are the staff's slides that we'll present at the public meeting and below is the conference line information. The meeting focus is on their stage 3 building evaluations.

Participant passcode: 46681#
Toll Free Number: 1-888-790-7136

Justin C. Poole
Project Manager
NRR/DORL/LPL I
U.S. Nuclear Regulatory Commission
(301)415-2048

-----Original Message-----

From: Deborah Grinnell [mailto:grinnelldebbie2@gmail.com]
Sent: Tuesday, August 22, 2017 4:18 PM
To: Poole, Justin <Justin.Poole@nrc.gov>
Subject: [External_Sender] Re: NextEra meeting with NRC

Justin,

What is the content of your meetin with NextEra g..the outline of your questions.

Thank you,

Debbie

> On Aug 22, 2017, at 4:12 PM, Deborah Grinnell <grinnelldebbie2@gmail.com> wrote:

>

> Hello Justin

>

> I will listen, follow, and may speak with C-10 on the Aug 24th 2017 meeting you will have with NextEra on August 24 at 1-3PM.

>

> Debbe Grinnell

Hearing Identifier: Seabrook_LA_NonPublic
Email Number: 1112

Mail Envelope Properties (5e249936a04b4efc84ad28a4787a1a3d)

Subject: RE: Re: NextEra meeting with NRC
Sent Date: 8/24/2017 7:42:31 AM
Received Date: 8/24/2017 7:42:27 AM
From: Poole, Justin

Created By: Justin.Poole@nrc.gov

Recipients:
"Deborah Grinnell" <grinnelldebbie2@gmail.com>
Tracking Status: None

Post Office: HQPWMSMRS01.nrc.gov

Files	Size	Date & Time
MESSAGE	1329	8/24/2017 7:42:27 AM
2017_08_24_NEE_PublicMeeting.pdf		387865

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Seabrook Station License Amendment Request 16-03 ASR Structural Evaluation Methodology

Ken Browne, Mike Collins

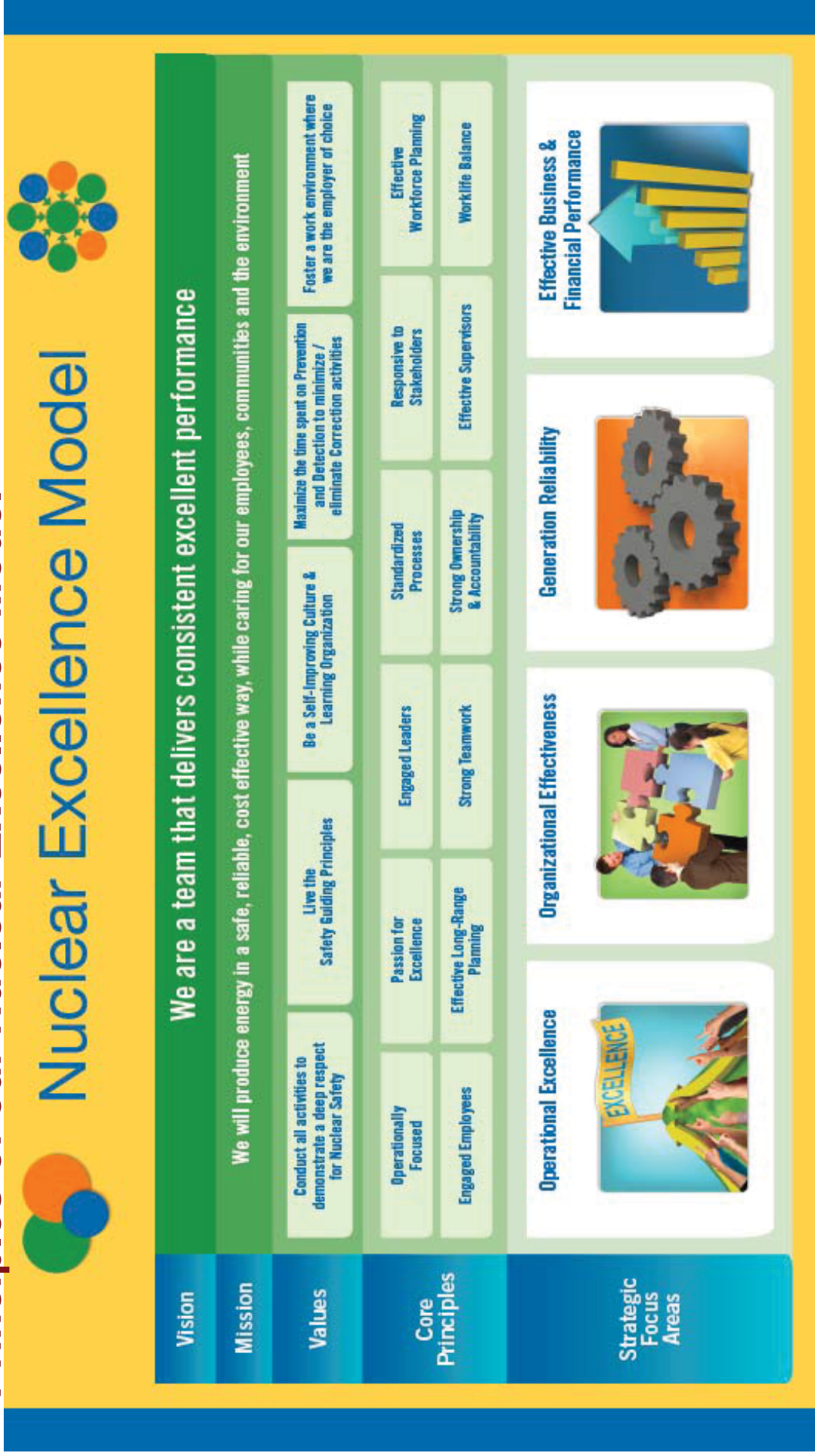
24 August 2017

NextEra Energy's nuclear fleet is 4th largest in MW generation and number of reactors in the U.S.



NextEra Energy's nuclear plants represent approximately 27 percent of our generation

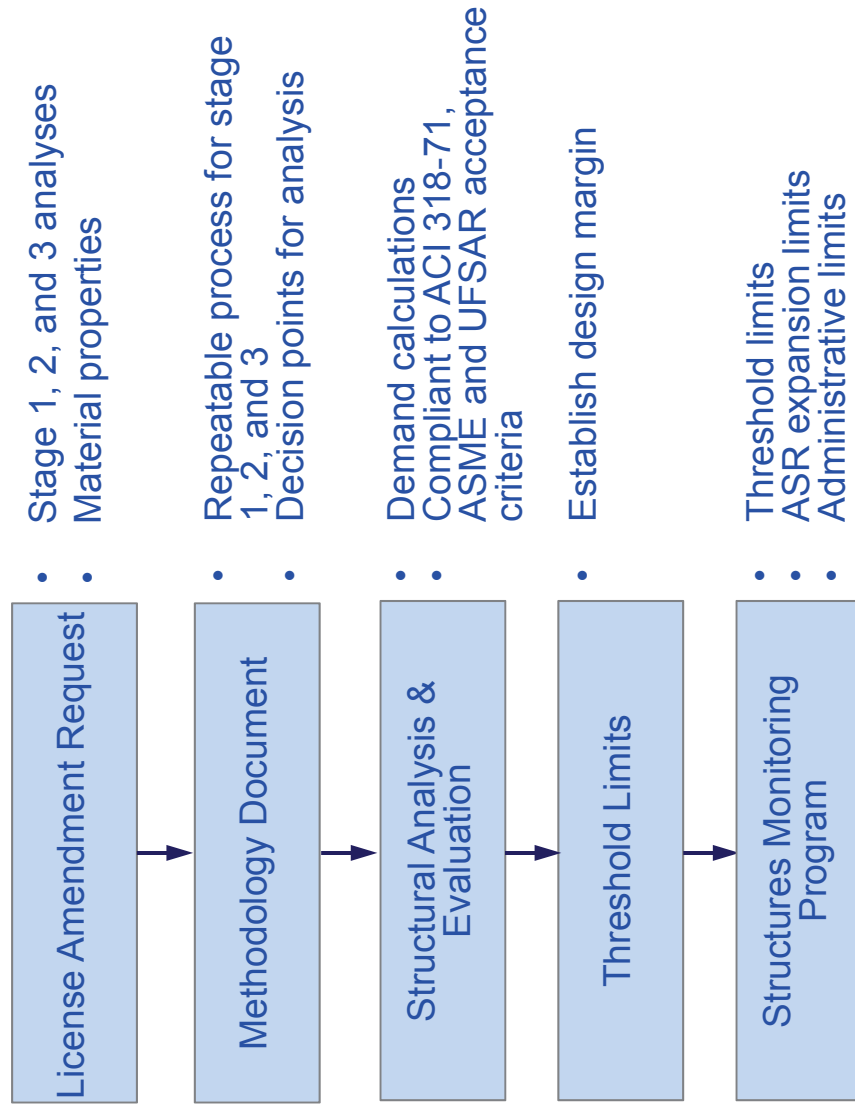
The foundation for everything we do are the Values and Core Principles of our Nuclear Excellence Model



Objective

- **Understand staff expectations for methodology**
- **Address comments on LAR Stage 3 methodology**
- **Discuss methodology document**
- **Show consistency of applied methodology**
- **Schedule & path forward**

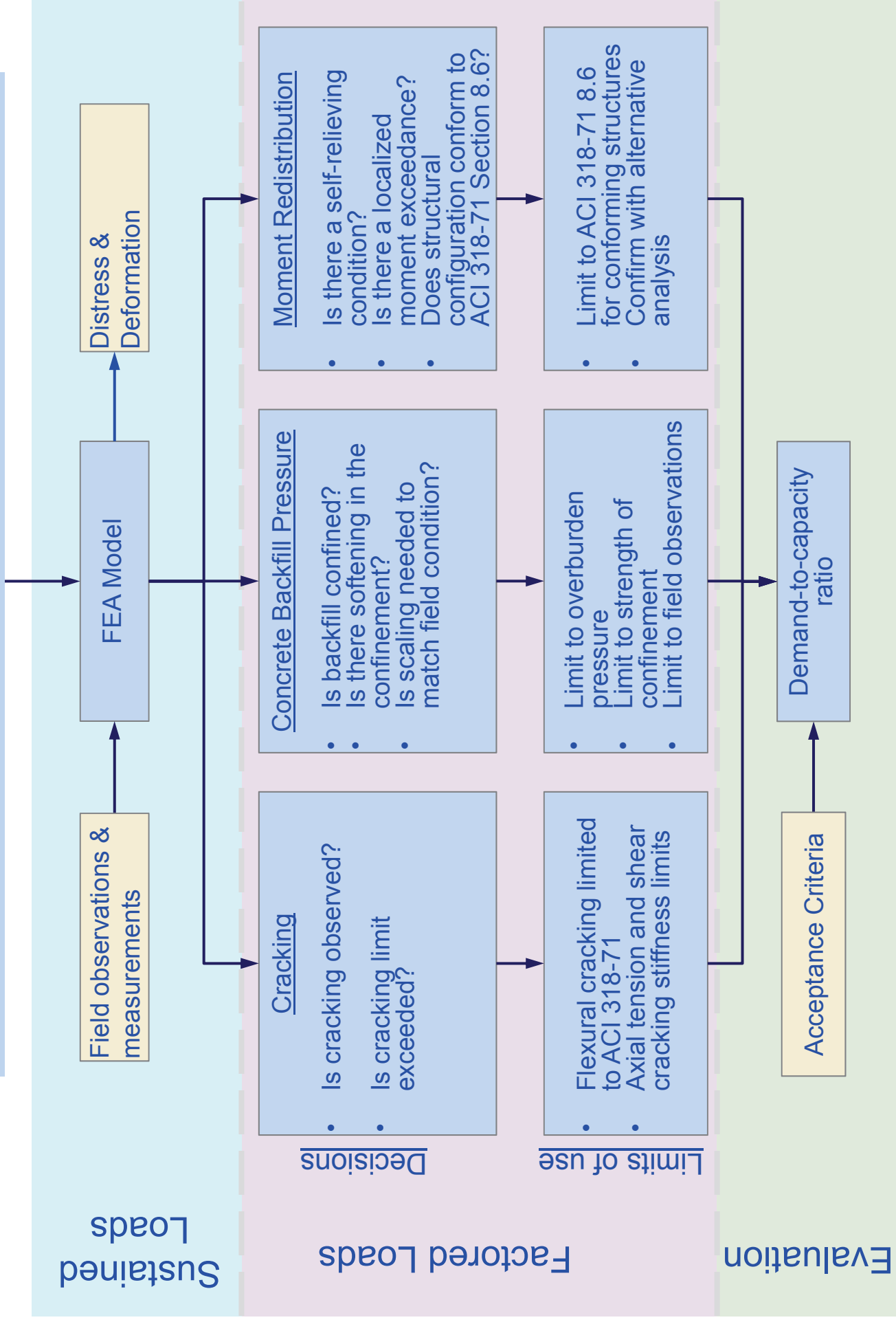
Overview of ASR Evaluation Process



Overview of Methodology Document

- **Overview**
- **Codes and Standards**
- **Materials**
- **Load and load combinations**
- **Analysis**
 - Stage One and Stage Two
 - Stage Three
 - Correlation of model to field conditions
 - Decision points
- **Acceptance Criteria**
- **ASR Threshold Limits and Monitoring**

Stage Three Evaluation Process

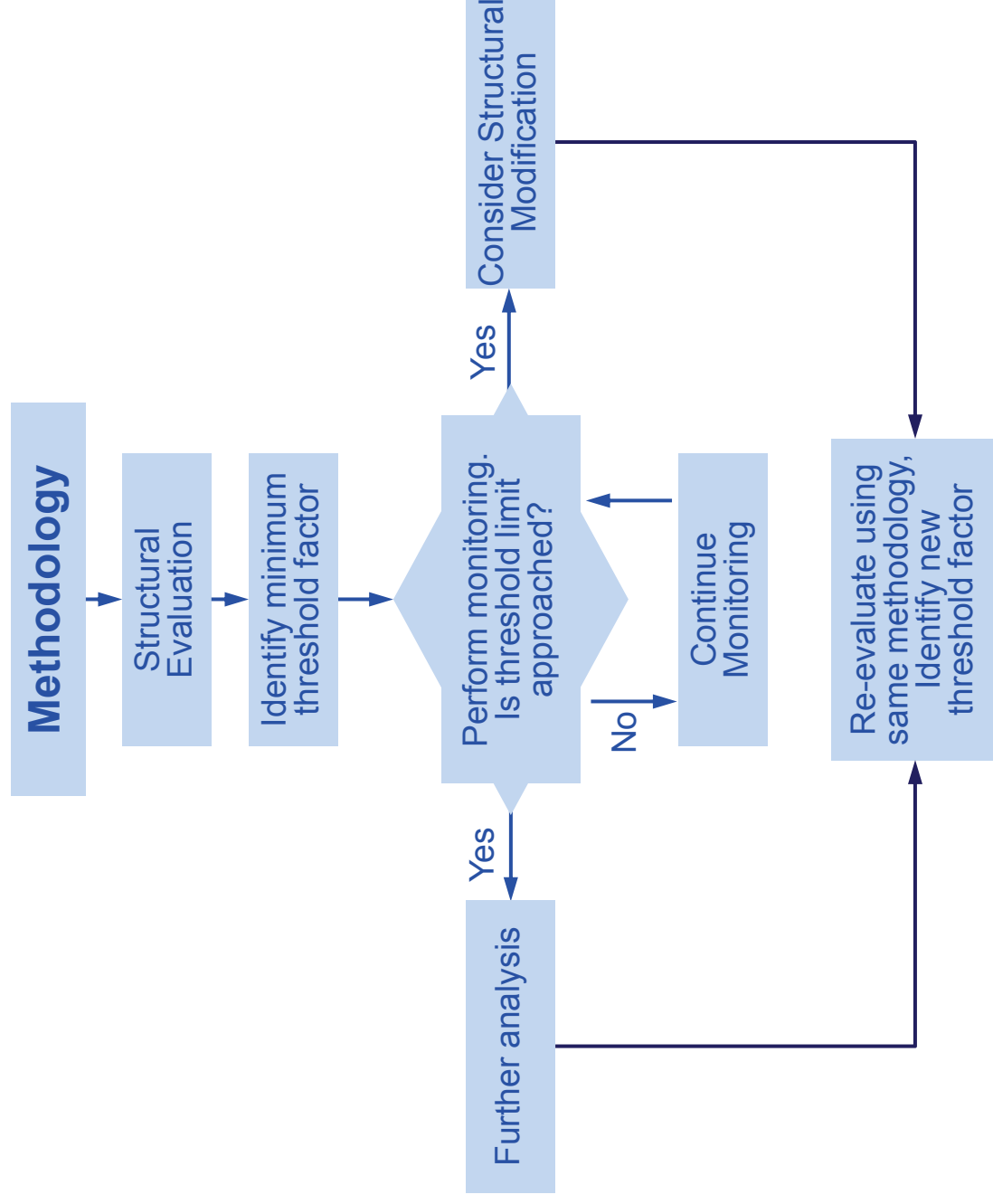


Consistency of Methodology

	Stage▶											
	CEB	3	3	3	3	3	3	3	3	3,2,1	2	1
LOADS AND LOAD COMBINATIONS												
Load Combinations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Containment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Containment Internal Structures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Other Seismic Category I Structures	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ANALYSIS												
Selection of Starting Stage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stage One Analyses	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Stage Two Analyses	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stage Three Analyses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Field Observations to Support Stage Three Analyses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Non-ASR Demands for Stage Three Analyses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ASR Demands for Stage Three Analyses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ASR Expansion of Structural Components	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ASR Expansion of Concrete Backfill	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Correlation of Model with Field Conditions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Refined Analytical Methods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Use of Cracked Section Properties in Stage Three Analyses	NR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Use of Moment Redistribution in Stage Three Analyses	✓	NR	✓*	NR	NR	NR	NR	✓	✓	✓	✓	NA
Factored Load Calculation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ACCEPTANCE CRITERIA												
Acceptance Criteria for Containment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acceptance Criteria for Other Seismic Category 1 Structures	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Impact of ASR on Code of Record Acceptance Criteria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Acceptance Criteria for Isolation Gaps	✓	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Acceptance Criteria for Foundations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Acceptance Criteria for Stability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ASR THRESHOLD LIMITS AND MONITORING												
Methodology to Account for Potential Future ASR Expansion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ASR Threshold Limits and Monitoring for Stage One Structures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5	3.0
ASR Threshold Limits and Monitoring for Stage Two Structures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6	NA
ASR Threshold Limits and Monitoring for Stage Three Structures	1.2	1.4	1.2	✓	✓	✓	✓	✓	✓	✓	NA	NA

= Completed Structure
 = In-Progress Structure
 = Evaluation follows this Section of the Methodology
 = Not Applicable
 = Not Required
 * = Moment redistribution conforming to ACI 318-71 Section 8.6 only

Threshold Monitoring



Building Deformation Analyses (1 of 2)

Structure	Schedule	Percent Complete
Condensate water storage tank	Complete	100%
Containment enclosure building	Complete	100%
Containment enclosure ventilation area	Complete	100%
Containment structure	Complete	100%
Equipment hatch missile shield	Complete	100%
Steam generator recovery blowdown bldg.	Complete	100%
Control room make-up air intake	Complete	100%
Electrical cable tunnels	Complete	100%
Pre-action valve building	3Q2017	80%
RHR equipment vault	Complete	100%
Containment internal structures	3Q2017	80%
Main steam and feed water east pipe chase	3Q2017	50%
Hydrogen recombiner structure	3Q2017	50%
Safety-related electrical duct banks and manholes	1Q2018	40%
Emergency feedwater pump building	3Q2017	10%
Fuel storage building	3Q2017	60%

Structures that are/expected to be Stage 3

Building Deformation Analyses (2 of 2)

Structure	Schedule	Percent Complete
Control Building	4Q2017	10%
Diesel Generator Building		
Mechanical Penetration	4Q2017	30%
Personnel hatch area		
Main steam and feed water west pipe chase		
Primary auxiliary building	4Q2017	10%
Service water cooling tower incl. switchgear rooms	1Q2018	
Service water access (inspection) vault	1Q2018	
Circulating water pumphouse (below el. 21')	2Q2018	
Service water pumphouse		
Piping (RCA) Tunnels	2Q2018	
Tank farm area	2Q2018	
Waste processing building	2Q2018	

■ Structures that are/expected to be Stage 3

Discussion with NRC Staff

Wrap Up

- The importance to establish a repeatable methodology with limits is understood
- A consistent methodology is being applied in the structural evaluations
- A methodology document will be submitted

Next Steps

- Submit methodology document
- Respond to issued RAls
- Maintain communications with NRC staff