



SETTING THE STANDARD

ASME Response to March 11, 2011 Fukushima Events

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Past VP, ASME Nuclear Codes and Standards

Chair

ASME Task Force Design Basis and Response to Severe Accident

ICONE-19

Osaka, Japan

October 25, 2011



ASME Response to March 11, 2011 Fukushima Events

- ASME Board on Nuclear Codes and Standards Task Force on Design Basis and Response to Severe Accidents
- ASME President Task Force on Response to Japan Nuclear Power Plant Events

ASME Board on Nuclear Codes & Standards (BNCS) Task Force on Design Basis and Response to Severe Accidents

Focus Areas

- Treatment of Design Basis External Event Loadings and Consequences
- Extended Station Blackout
- Hydrogen Control
- Pressure Boundary Integrity
- Containment Integrity
- Fuel Pool Integrity
- Severe Accident Management Guidance for Response and Recovery

Task Group Charter

A Multi SDO Task Group to collect and monitor information from the seismic tsunami event and severe accident at the Fukushima Daiichi NPS to recommend potential codes and standards initiatives. The Task Group will also provide a resource to work with JSME on their codes and standards Initiatives.

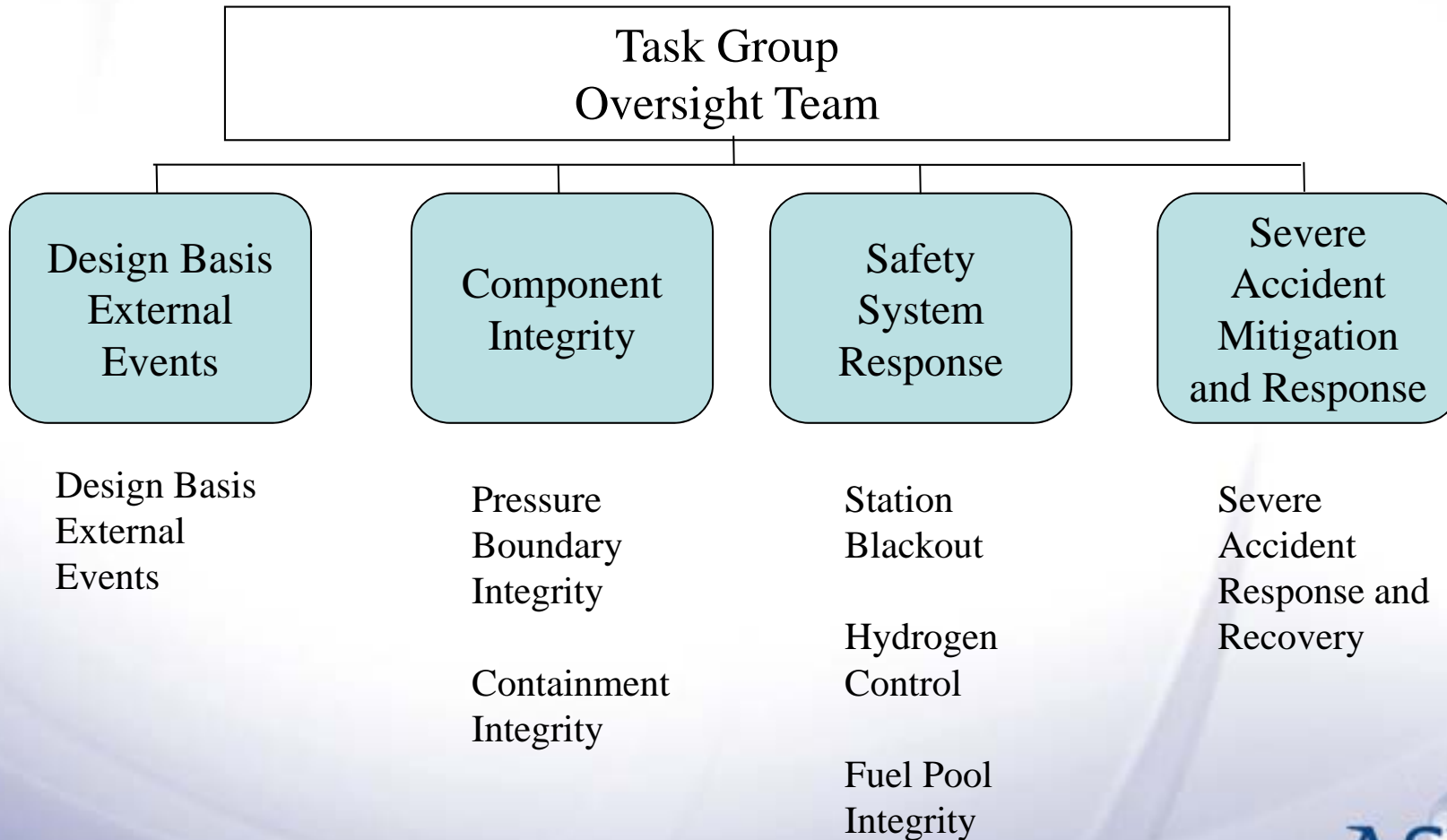
The Task Group will interact with other international SDOs and IAEA for cooperative inputs.

Goals

- Develop a data base on the damage resulting from the incident in each of the focus areas
- Form teams of experts to review the data and make recommendations on potential code and standards development initiatives
- Provide the recommendation to the responsible standards committees for their consideration
- Communicate and coordinate these initiatives with NRC, NEI and other industry stakeholders
- Communicate with international stakeholders

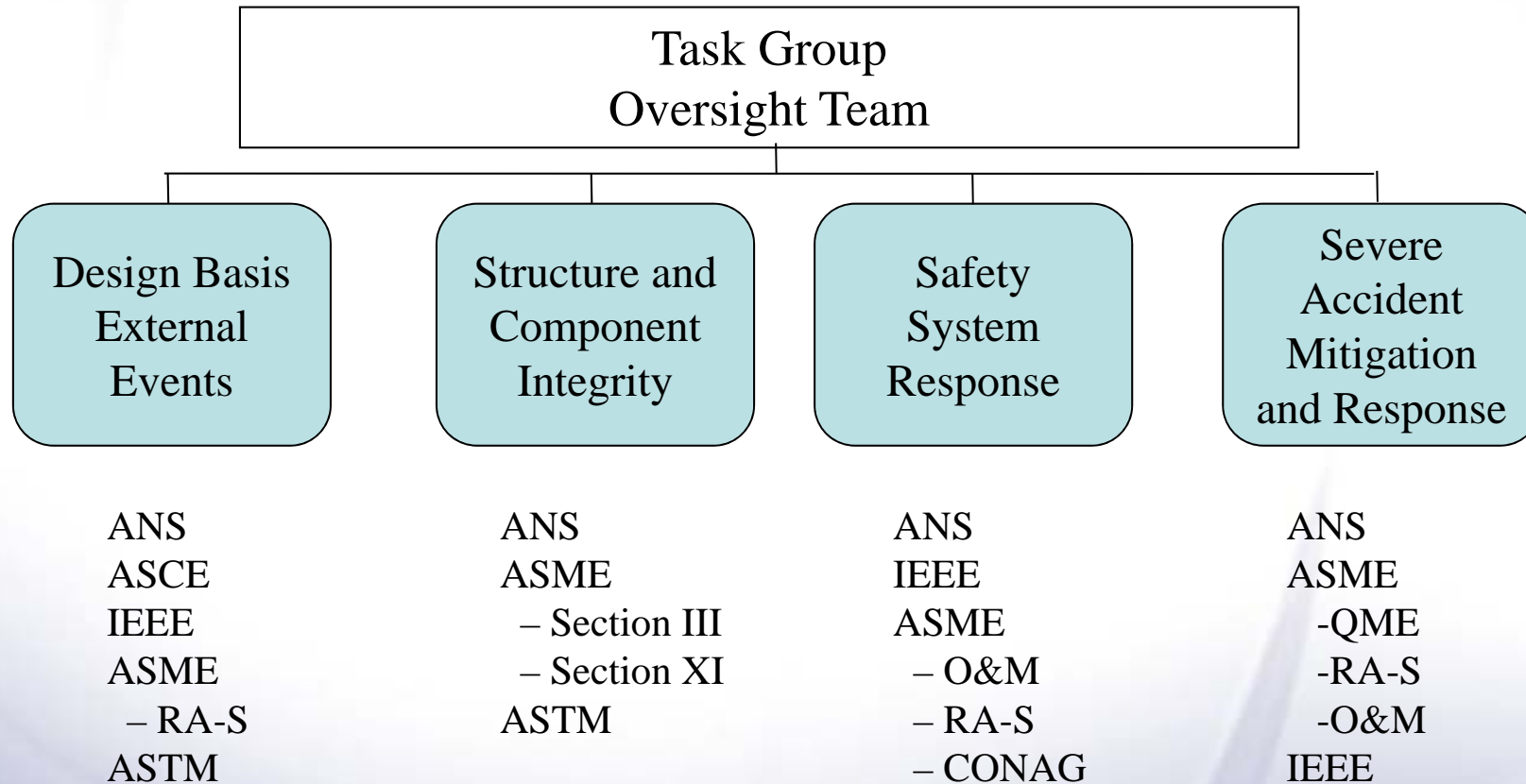
Task Group

Design Basis and Severe Accident Response



Task Group

Design Basis and Severe Accident Response



Task Group Oversight Team

- Bryan Erler -ASME
- Don Spellman –ANS
- Stuart Richards –NRC
- Alex Marion –NEI
- Masaki Morishita –JSME
- Chris Sanna -ASME

Design Basis External Events

Possible Members

John Stevenson -IAEA, ASCE, ASME

Ravi Ravindra -ANS

Bryan Erler –ASME

Structure and Component Integrity

Possible Members

Richard Barnes –Section III

Gary Park –Section XI

Roger Reedy –Section III

Ralph Hill –Section III

Pete Duebler –Section III

Safety System Response

Possible Members

- John Zudans-ASME, O&M
- Steve Stamm-ANS
- Gil Zigler-O&M
- Gene Hughes-ANS,RA-S
- Rich Porco-CONAGT

Severe Accident Mitigation and Response

- Chair-Wes Rowley-ASME -Chair
- Robert Budnitz-ANS
- Greg Krueger-ANS
- Gil Zigler- ASME
- Rick Grantom-ASME

Preliminary Nuclear Codes & Standards Impact

ASME Nuclear Standard	Potential Impact
ASME BPV Code Section III Division 1	Reactor Pressure Vessel, Reactor Coolant System, and Metal Containment Integrity
ASME BPV Code Section III Division 2	Concrete Containment Integrity
ASME BPV Code Section III Division 3	High Level and Low Level Waste Storage and Transport
ASME BPV Code Section XI	Inservice Inspection Programs Plant Aging Management
ASME OM Code	Inservice Testing Programs Systems that Support Severe Accident Management

Preliminary Nuclear Codes & Standards Impact

ASME Nuclear Standard	Potential Impact
ASME / ANS PRA Standard	External Events Level 2 & Level 3 Risk Evaluations Spent Fuel Pool Risk Evaluation
ASME AG-1 Nuclear Air & Gas Treatment	Hydrogen / Gas Venting
ASME Nuclear Cranes	Crane Use in Post-Accident Radioactive Environment
ASME QME	Pump & Valve Qualification Requirements
ASME NQA	Align QA Requirements to Support Above Impacts, as Required

Preliminary Nuclear Codes & Standards Impact

ANS Nuclear Standard	Potential Impact
ANS 58.11 Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors	Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors
ANS 2.23 Nuclear Plant Response to an Earthquake	Actions in the event of an earthquake
ANS 58.12 Criteria for Availability of AC Power at Light Water Reactor Power Plants	
ANS 2.7 Guidelines for Assessing Capability for Surface Faulting at Power Reactor Sites	Criteria for assessment of the potential for surface faulting at nuclear power plant sites
ANS 2.8 establish design basis flooding for nuclear safety-related features at power reactor sites Etc.	establish design basis flooding for nuclear safety-related features at power reactor sites

Current Actions

- Preliminary comments to JSME on Severe Accident management guidelines
- Establish leaders for all Subgroups
- Populate membership of Subgroups
- Provide support for future JSME's tasks as requested
- Develop U.S. SDO organizational interfaces
- Meeting with JSME in Tokyo on October 26, 2011
- Meet in St. Louis November 7-10, 2011

ASME President Task Force on Response to Japan Nuclear Power Plant Events

Purpose

- Review events that occurred at the nuclear power plants at the Fukushima Daiichi station and events and subsequent activities in the U.S., Japan and elsewhere
- Identify ASME's role in addressing issues and developing lessons learned
- Disseminate ASME's perspective on the impact of these events on the future direction of the world-wide nuclear power industry

Deliverables

- Deliverables are anticipated to include disseminating conclusions and guidance in a comprehensive spectrum of media that may include:
 - Interactive public workshops
 - Congressional briefings
 - Visual and audio media
 - Summary white papers
 - Technical report(s)

The Core Team

- Appointed by the ASME President
- Composed of five members representing a cross - sector mix of ASME
- Shall identify and engage a leader for the Task Force
- Work with that leader to determine the structure and makeup of the task force
- Identify and engage Task Force members

Core Team Makeup

- Five member Core Team representing various segments of ASME
 - *Ken Balkey* – Westinghouse Electric Company (Standards & Certification Representative)
 - *John Bendo* – ASME (Nuclear Energy Business Manager)
 - *Joe Miller* – EDA, Inc. (Energy Committee Representative)
 - *Richard Schultz* – Idaho National Laboratory (Nuclear Engineering Division Representative)
 - *Bob Sims* – Becht Engineering (Board of Governor's Representative)

Dr. Nils Diaz Selected as the Task Force Chair



- Past Chairman of the U.S. Nuclear Regulatory Commission
- Managing Director of The ND2 Group
- Chief Strategic Officer of Blue Castle Holdings, Inc.
- Provides policy advice to OECD's Nuclear Energy Agency
- Recently served as a Commissioner for the Florida Energy and Climate Commission
- Fellow of ASME, the American Nuclear Society, and the American Association for the Advancement of Science

Dr. Regis Matzie selected as Task Force Vice Chair



- Former Senior Vice President and Chief Technology Officer, Westinghouse Electric Company
- Provides technical consulting services to the international nuclear industry
- Member of the PBMR Board of Directors
- Member ASME Innovative Technologies Institute Management Committee
- 2010 Recipient of the ASME James N. Landis Medal

Next Steps...

- Finish populating the Task Force
- Establish relationship with appropriate Japanese leaders
- Once the Task force is fully populated, the Core Team will fold into the Task Force as members
- Position ASME to respond to lessons learned



SETTING THE STANDARD
