

Mark I and Mark II BWRs Containment Venting Systems

Revision to Order EA-12-050

April 25, 2013

Agenda

- Introductions
- Opening remarks
- NEI/Industry presentation
- NRC presentation – selected topics
 - Phased Approach
 - Phase 1
 - Phase 2a
 - Phase 2b
- Public questions and comments

Opening Remarks

Industry Presentation

Phased Approach

NRC Staff is considering a phased approach to ensure minimal delays in implementing adequate protection provisions of Order, while allowing possible development of alternate approaches

NRC envisions 2-phase implementation of Order with subsequent incorporation of requirements into rulemaking activities, which would also include broader accident management strategies

Phase 1 - Scope

Mark I and II

- Wetwell Venting System
- Requirements from EA-12-050
 - Reliable, hardened containment venting system
 - Adequate protection
- Revised order will add Severe Accident Capability
 - Cost Justified Safety Enhancement

Severe Accident Capability

For the purpose of this Order, severe accident conditions are those following an accident that involves significant core damage leading to in- and ex-vessel fission product release. Severe accident conditions include the effects of an extended loss of AC power, core-concrete interactions, and hydrogen combustion.

Phase 1 Timeline

- Implementation :
 - no later than startup from the second refueling outage that begins after June 30, 2014.
- Integrated Plan
 - June 30, 2014

Phase 2a - Scope

Mark I and II

- Drywell Venting System
 - Cost Justified Safety Enhancement

Options:

- Installation of severe accident capable drywell vent, or
- Develop reliable strategy that obviates need for drywell vent

Phase 2a Timeline

- Implementation :
 - no later than startup from the first refueling outage that begins after June 30, 2017.
- Integrated Plan
 - December 31, 2015

Note: SRM schedule for proposed rule in mid-2015 and final rulemaking in mid-2017

Phase 2b - Scope

Mark II - Suppression Pool Bypass

- Options (for affected plants)
 - Install engineered system to prevent suppression pool bypass along with a wetwell vent
 - Install drywell vent with engineered filter
 - Develop and implement reliable strategy to prevent suppression pool bypass

Applicability Assessment

- Assess plant-specific design features (e.g., the location of drain lines) and determine if unit is susceptible to molten core debris breaching the reactor vessel and causing a suppression pool bypass scenario
- Assessment Conclusions:
 - Unit not susceptible, or
 - Unit susceptible and provide integrated plan to address issue

Phase 2b - Timeline

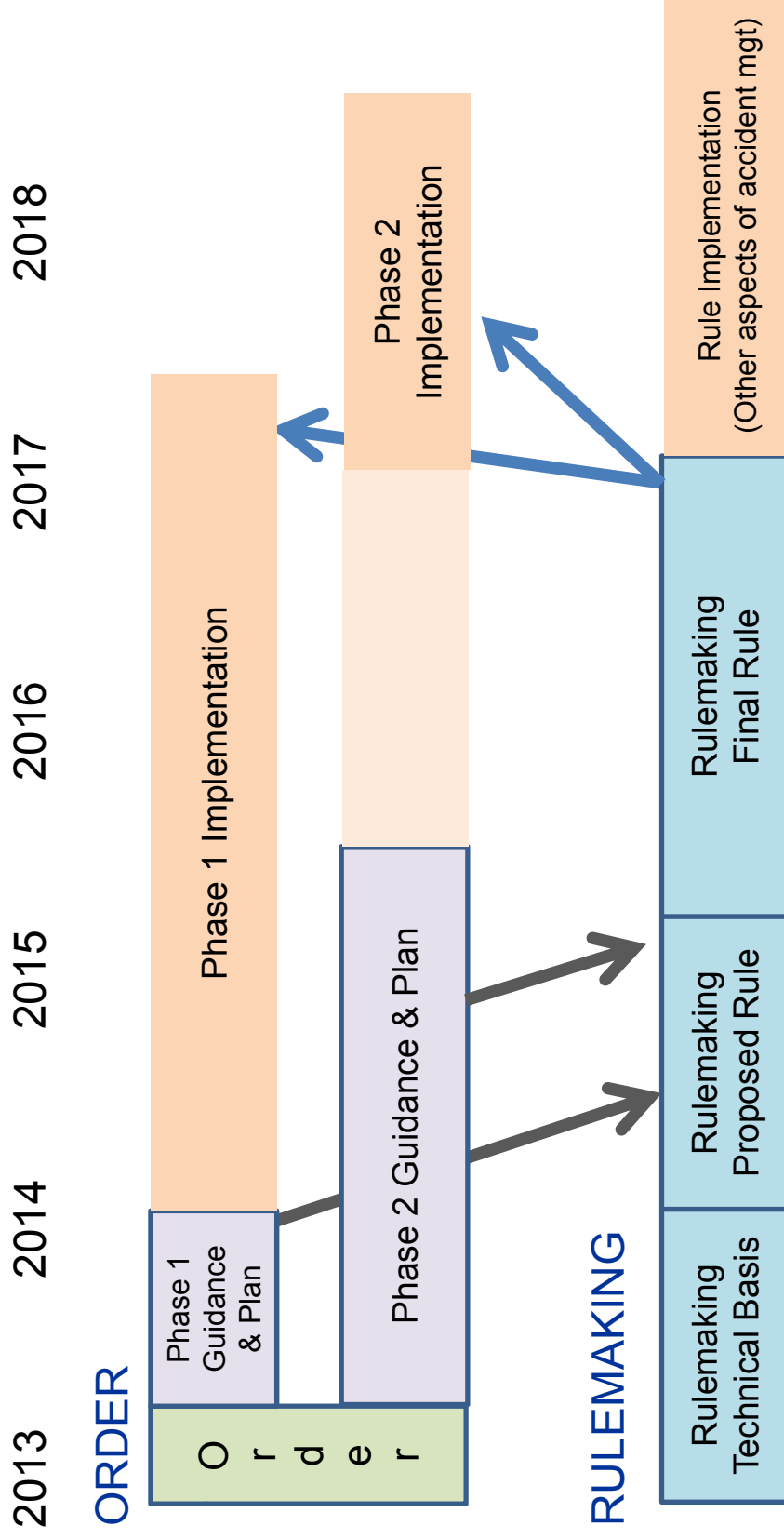
- Implementation :
 - no later than startup from the first refueling outage that begins after June 30, 2017.
- Assessment of Applicability and, as needed, Integrated Plan
 - December 31, 2015

Note: SRM schedule for proposed rule in mid-2015 and final rulemaking in mid-2017

Mark II Alternate Approach

- May be possible to address all phases for Mark II containments via the installation of a drywell vent with an engineered filter
- If chosen, licensee would explain in integrated plan for Phase 1 and implement in accordance with Phase 1 schedules.

Coordination of Activities



Questions & Discussion

