

AP1000 ITAAC Update

Overview of AP1000 Status Update and Work with NRC CIP Taskforce Meeting



Westinghouse

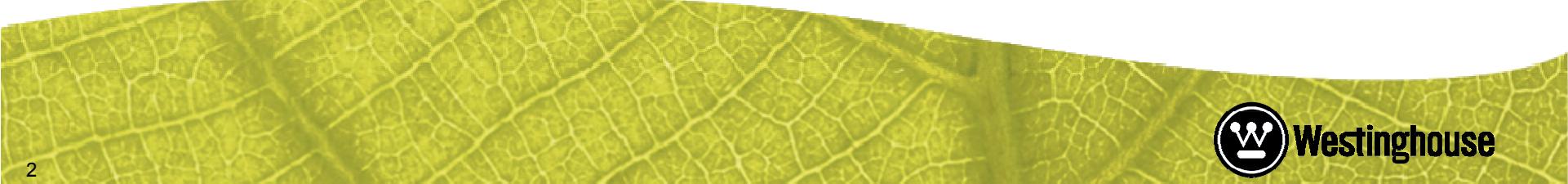


Thom Ray –
Westinghouse Electric
Company
March 19, 2009



PRESENTATION PURPOSE

- Describe Interaction with the NRC
 - Lessons Learned from Schedule Meeting
- Provide example of how ITAACs are linked in the schedule
- Timing of ITAAC Closure Letters
- Provide Status of AP1000 ITAAC developments
- ITAAC Process Developments



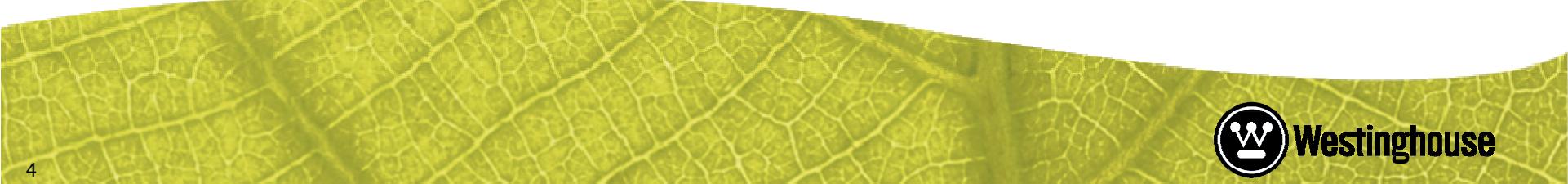
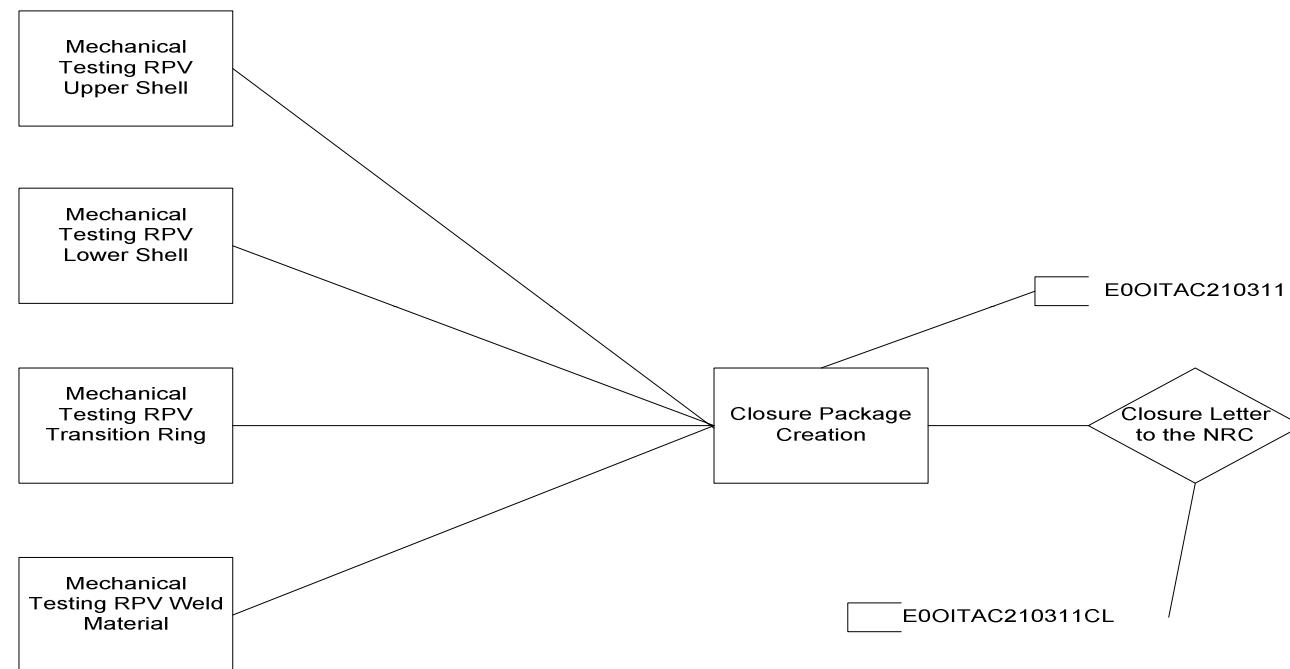
Interactions with the NRC

- Schedule meeting held with Region 2 staff in November of 2008
 - Review how ITAACs placed in Primavera schedule
 - NRC program looks at one predecessor back from ITAAC schedule milestone
 - Created milestones with NRC ITAAC numbers
 - Use Milestone as Closure Letter predecessor
 - Dry-run practice for setting up Primavera to Project File
- Phone update with Region 2 staff on schedule issues
 - Quarterly Updates from the Licensee/Westinghouse
 - Working with Region 2 staff to send more examples after incorporated into live schedule
 - Need affidavit in place to protect proprietary schedule information.

ITAAC 2.1 03.11

Acceptance Criteria: A report exists and concludes that the initial RPV beltline Charpy upper-shelf energy is no less than 75 ft-lb.

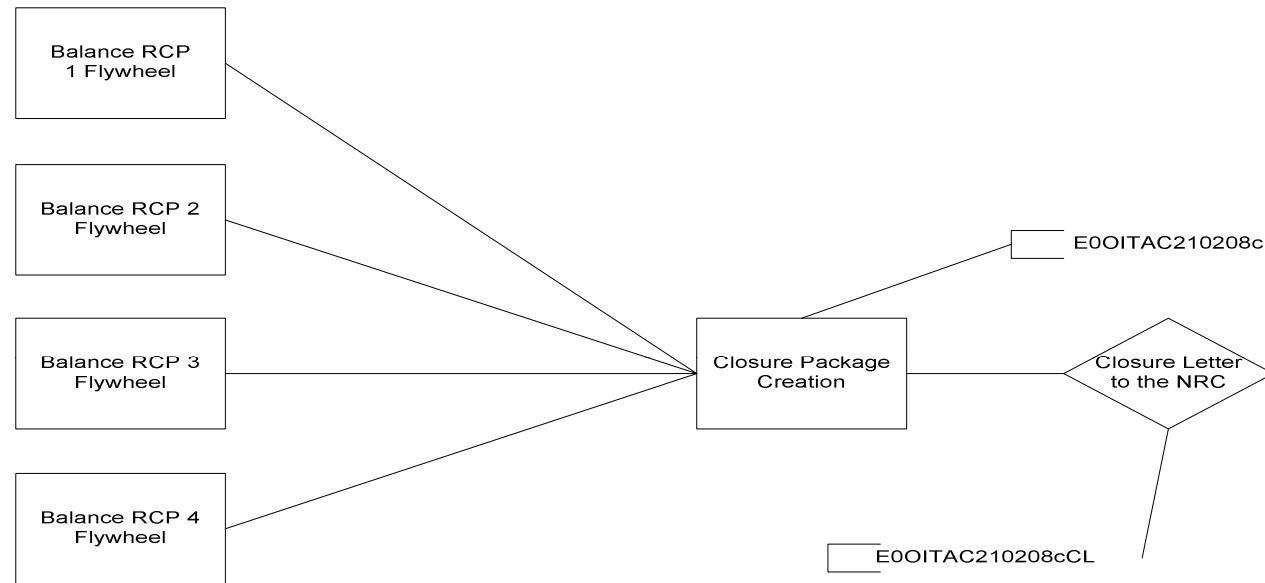
Charpy- V-Notch Testing Layout



ITAAC 2.1 02.08c

Acceptance Criteria: Each RCP flywheel assembly has passed an overspeed condition of no less than 125% of operating speed.

RCP Flywheel Testing Layout



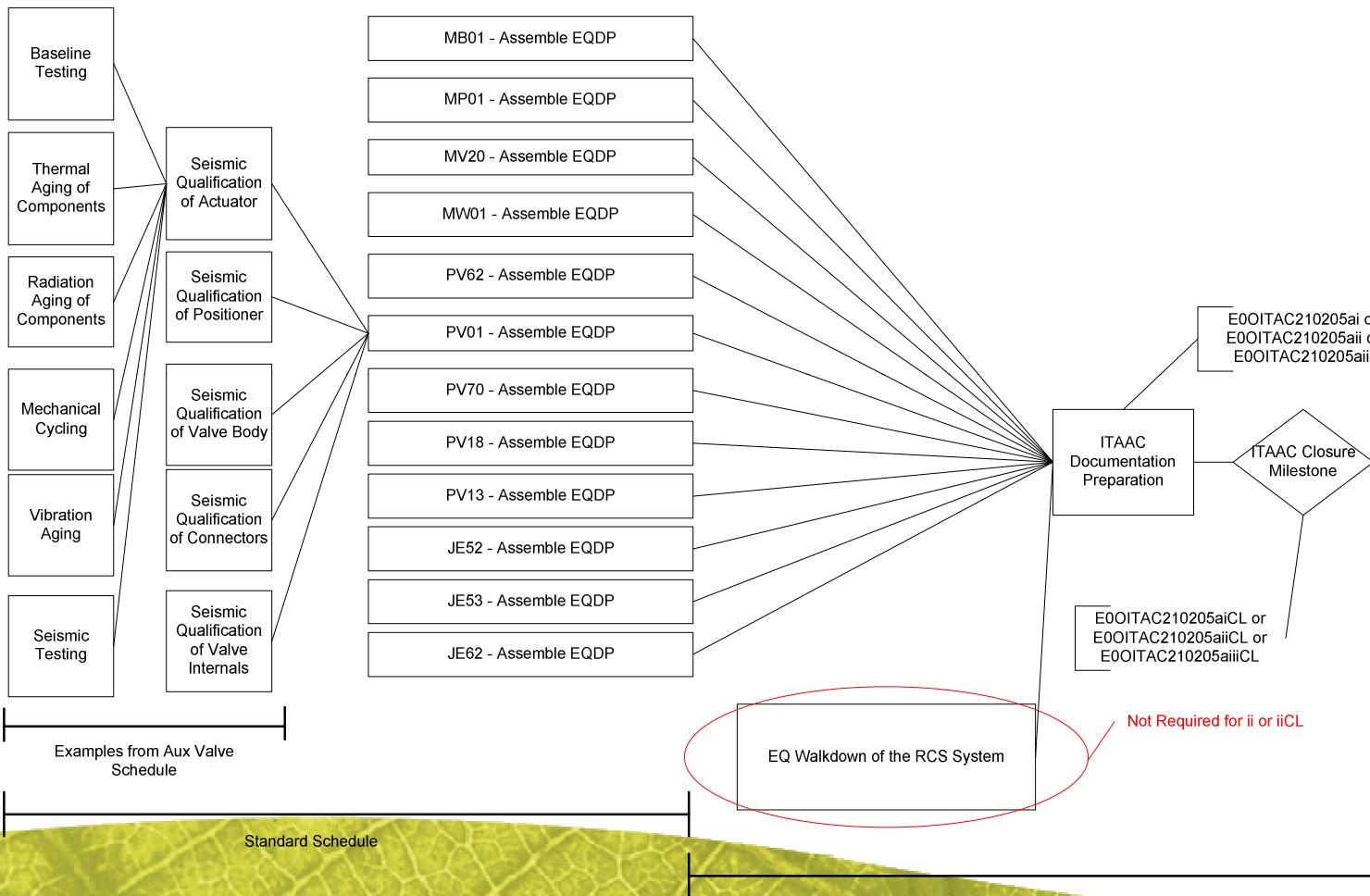
EQ Testing Linked in Schedule

EQ Testing ITAAC – 2.1 02.05ai, ii, iii

<u>Design Commitment:</u>	<u>Inspections, Tests, Analysis:</u>	<u>Acceptance Criteria:</u>
5.a) The seismic Category I equipment identified in Table 2.1.2-1 can withstand seismic design basis loads without loss of safety function.	i.) Inspection will be performed to verify that the seismic Category I equipment and valves identified in Table 2.1.2-1 are located on the Nuclear Island. ii.) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.	i.) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island. ii.) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.
	iii.) Inspection will be performed for the existence of a report verifying that the as-installed equipment including anchorage is seismically bounded by the tested or analyzed conditions.	iii.) A report exists and concludes that the as-installed equipment including anchorage is seismically bounded by the tested or analyzed conditions.

EQ Testing Linked in Schedule

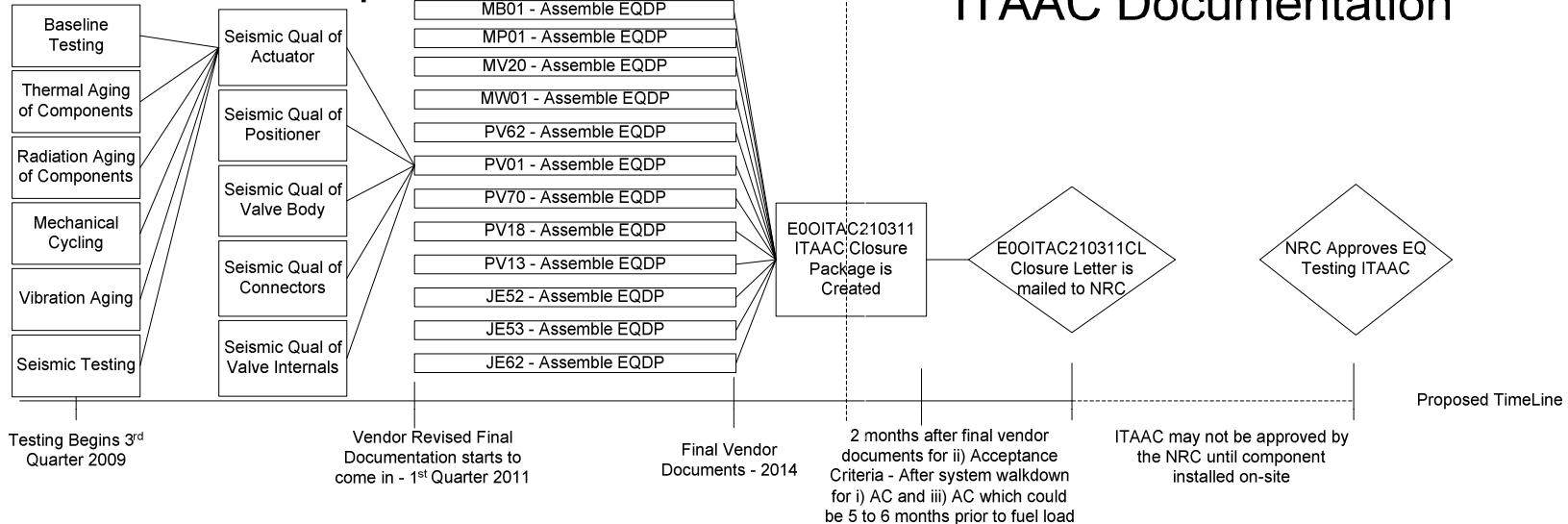
EQ Testing 2.1 02.05a.i, ii, iii



EQ Testing ITAAC Cradle to Grave

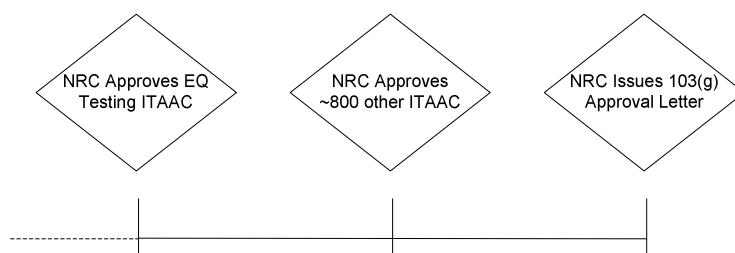
- ITAAC Acceptance Criteria Wording: i) The seismic Category I equipment identified in Table 2.1.2-1 is located on the Nuclear Island.
 ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.
 iii) A report exists and concludes that the as-installed equipment including anchorage is seismically bounded by the tested or analyzed conditions.

ITAAC Implementation



ITAAC Documentation

ITAAC Maintenance



ITAAC Validity must be maintained until 103(g) letter is issued by the NRC

2010 to October 2015

October 2015
Licensee now has permission to load fuel and ITAAC maintenance is no longer required

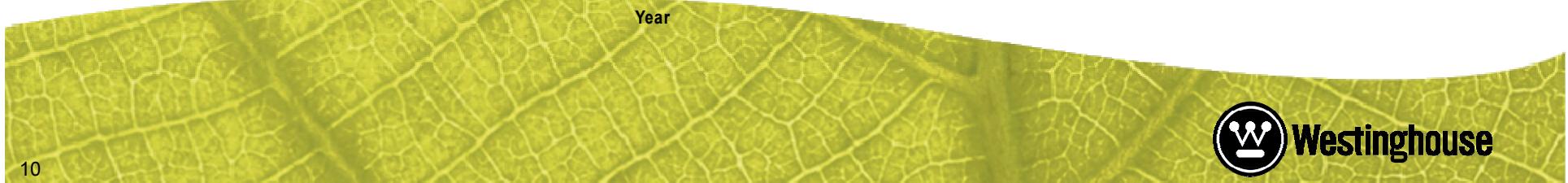
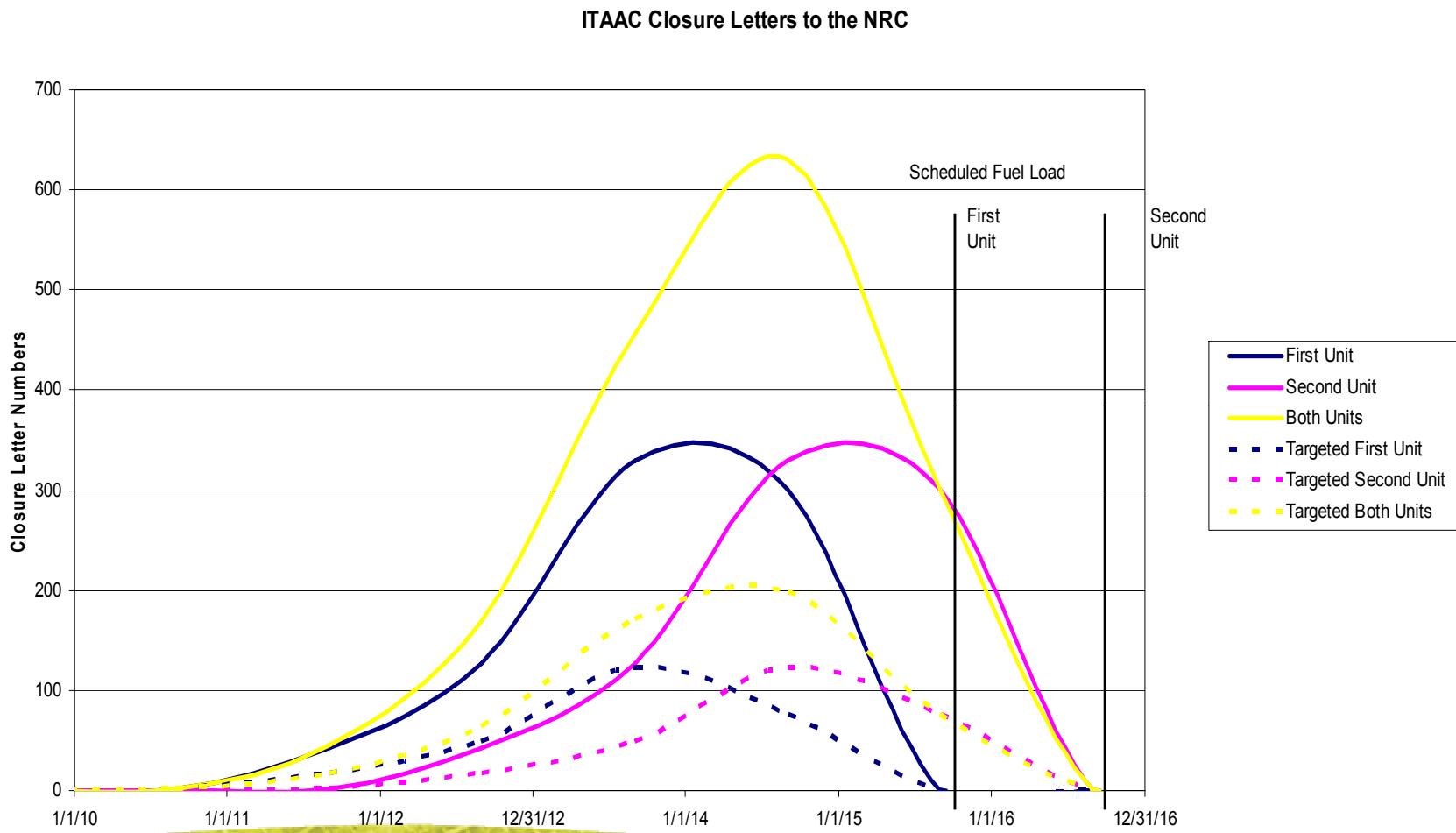


Westinghouse

ITAAC Closure Letters Timing

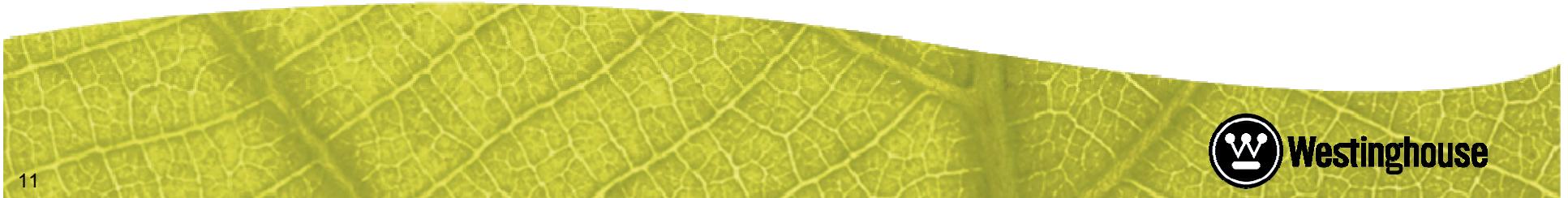
- ITAAC Timing of 803 AP1000 ITAACs
 - 45 ITAACs related to Engineering Analysis (HFE, D-RAP, etc.) and Security
 - Earlier in the process than Construction type and Pre-Op type
 - 127 ITAACs related to components
 - ASME requirements, EQ Testing, Testing at Vendor
 - Won't be closed until component on-site or in place
 - 330 Construction Type Tests
 - 300 ITAACs that require System Walkdowns to Complete
 - 30 ITAACs that require Hydrostatic System Tests
 - 301 Pre-Operational Tests
 - Tests that start after system turnover approximately 5 to 6 months before Fuel Load
- Will require early and constant NRC review to remove end load of ITAAC Closure Letter Approvals

Early Estimate of ITAAC Closure Letters to the NRC



AP1000 ITAAC Status

- ITAAC Related Tests starting in 2009
 - Reactor Vessel Charpy V-Notch Testing
 - Equipment Qualification Testing for MSIV Actuators, MOV Actuators and Squib Valves
- AP1000 Standard ITAAC Performance Plans
 - ITAAC Plans in Review Process
 - All DCD Rev 17 ITAACs Entered in Primavera Schedule
 - Predecessors being refined for the ITAACs
 - All Vendor related ITAAC performance plans developed by end of April, 2009



ITAAC Process Developments

- Team of Westinghouse/SHAW and utilities working together to meet the following objectives:
 - Establish what needs to be done to perform and document Site-Specific ITAACs in technical space
 - Clearly establish how and what AP1000 Customers should communicate to the NRC for closure of all AP1000 ITAACs
 - Ensure that Westinghouse and its Customers have clearly defined roles and responsibilities so as to have high confidence in successfully closing all ITAAC (standard and site-specific)

