

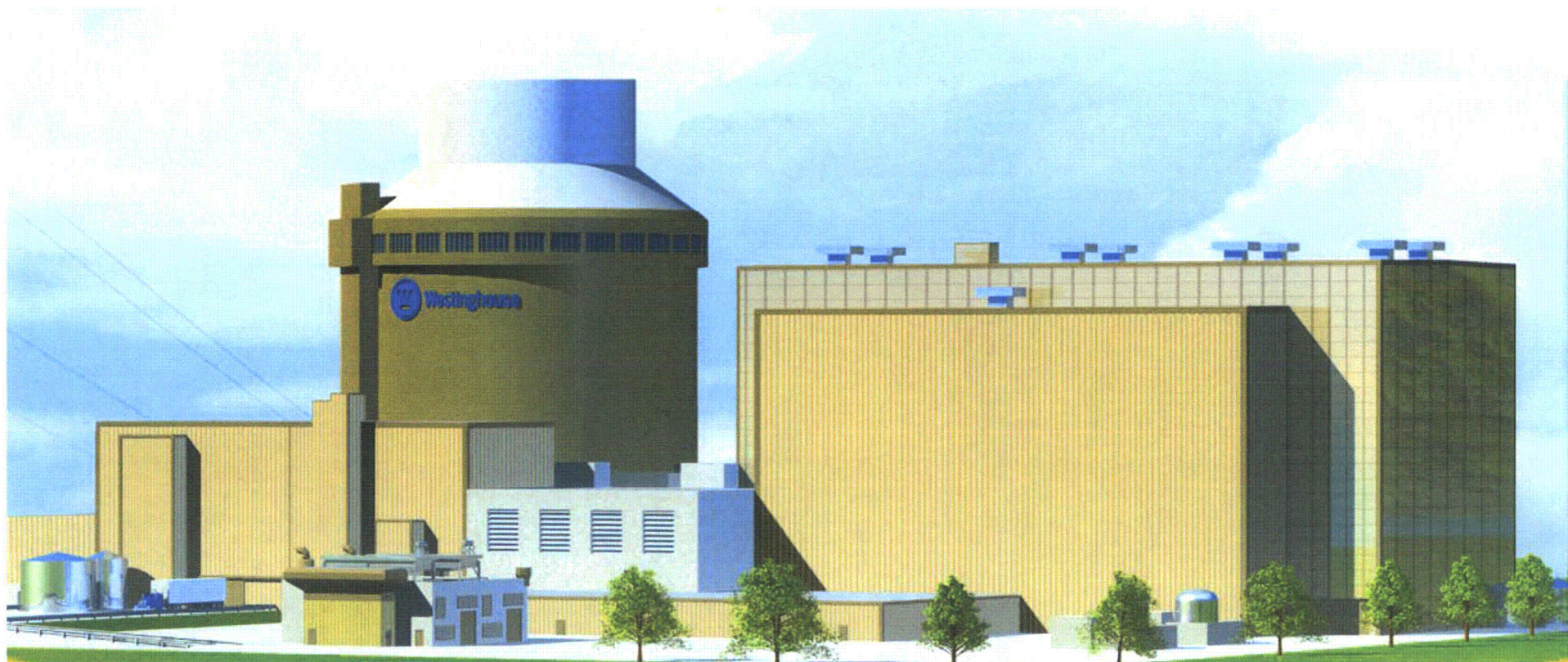
ENCLOSURE 5

Westinghouse Non-Proprietary Class 3

AP1000™Shield Building Presentation – (Non-Proprietary)

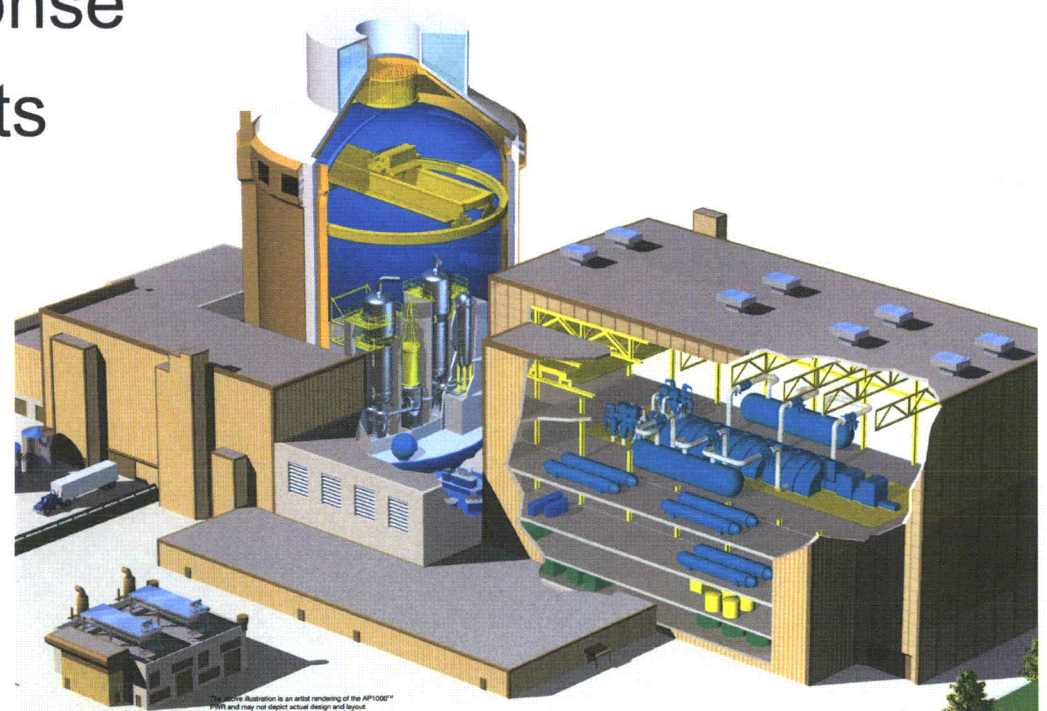
AP1000™ Shield Building

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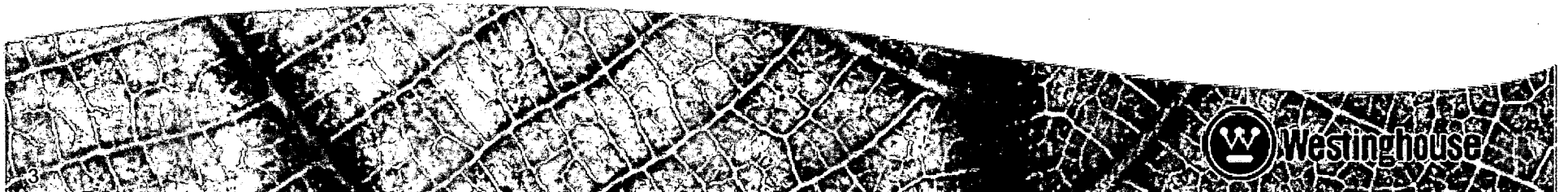
Topics of Discussion

- Shield Building Function
- Westinghouse Response
- Design Enhancements

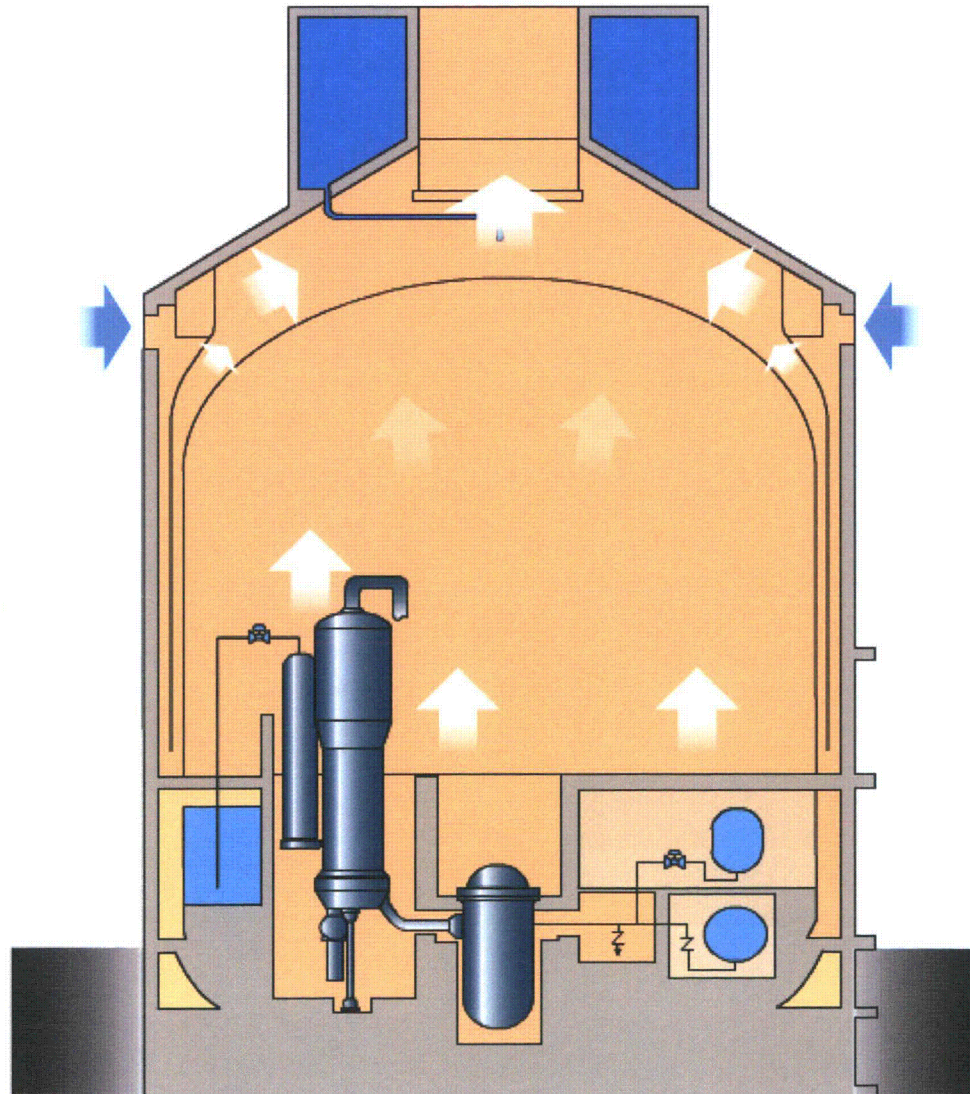


Function of Shield Building

- Integrated structure in the AP1000 design
- Provides passive cooling of the containment and radiation shielding
- Designed to shield containment from environment
 - Protect against tornadoes, seismic events

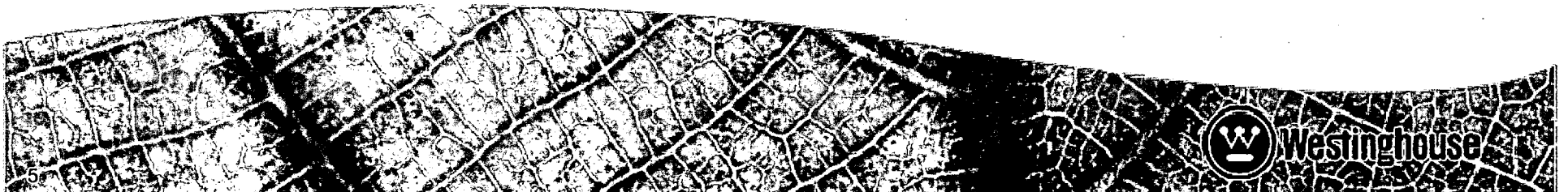


Passive Containment Cooling



Shield Building Evolution

- The initial shield building consisted of a reinforced concrete design, which was certified in December 2005
- In response to world events, the NRC challenged new plant design organizations to meet enhanced aircraft impact design standards
- Westinghouse chose a combination of steel concrete composite (SC) and reinforced concrete (RC) construction techniques to meet this challenge



Benefits of Steel Composite Construction

- Improves aircraft impact resistance
- Suitable for modular construction
- Common design technique used in other countries, in particular the Japanese Nuclear Industry



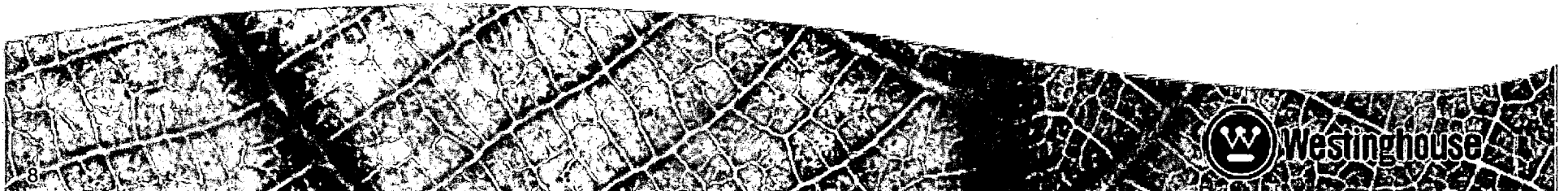
Major Points from NRC Assessment of AP1000 SC Design

- Design of the SC structure must demonstrate the ability to function as a unit during Design Basis Event (DBE)
- The design of the SC/RC connection must function following a DBE
- Design of the tension girder (air-inlets) must be supported by a confirmation test or a validated benchmarked analysis method

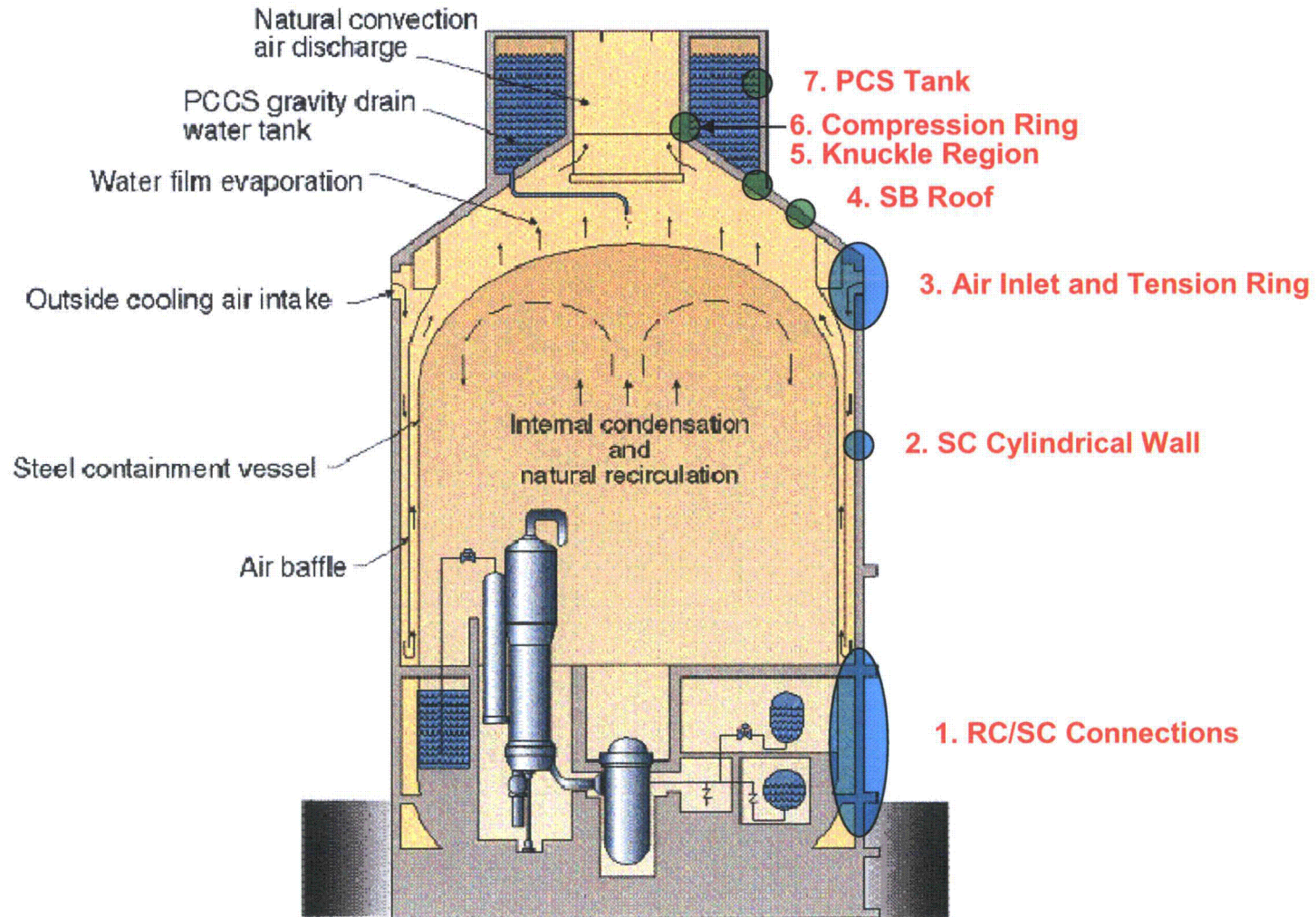


Westinghouse Response

- Modified shield building design to address NRC assessment
- Enhanced our design team with additional outside industry experts. Team includes;
 - Shaw, Purdue University, URS, Bechtel, Obayashi, Ansaldo
- Details of design modifications to be addressed in proprietary session with NRC
- Expect to resolve all technical comments



Shield Building Focus Areas



Summary

- Westinghouse is addressing NRC review comments to the shield building design
- Enhancements to the shield building will be addressed in a revised integrated AP1000 shield building report that will be submitted to the NRC in January 2010
- Westinghouse will demonstrate that the AP1000 shield building design is safe, robust and meets regulatory requirements

