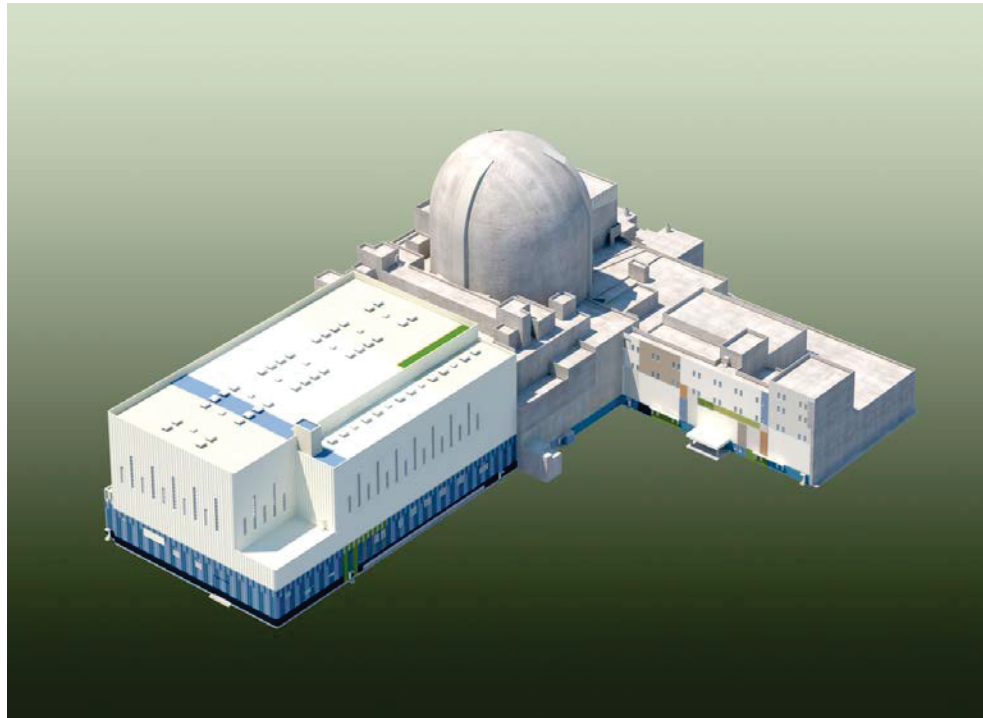


APR1400 Plant Security Design (Aircraft Impact Analysis)



KEPCO/KHNP
Apr. 20~21. 2016

Contents

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Overview

- Perform design-specific assessment for the effects of the impact of a large commercial aircraft on the NPP facility based on 10CFR50.150
- US NRC Regulatory Guide 1.217 allows guidance provided in NEI 07-13(Rev. 8) as acceptable methodology for assessments
- Use NEI 07-13 Methodology to Show that
 - Core remains cooled, and
 - Spent fuel pool integrity is maintained

Overview

- **Sufficiency criteria needed**

- **Containment integrity**

- No perforation - protects internal SSC's from damage and fire
- Polar crane does not fall inside containment

- **Spent fuel pool integrity**

- Pool structure, supports, and liner remain intact
- Consider debris and wreckage falling into pool

- **Protect critical penetrations into containment**

- **Protect sufficient equipment for all possible strike locations**

- Control fire spread with 3-hour & 5-psid doors and dampers
- Prevent shock damage

Part I: Structural Assessment

Structural Response Assessments

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Integrity of Containment

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Integrity of Spent Fuel Pool

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Exterior Walls Removed of Interior View

Spent Fuel Pool

SFP Integrity Due to Strike Above SFP

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Part II: Heat Removal Assessment

Heat Removal Assessment

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Heat Removal Assessment

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Summary

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