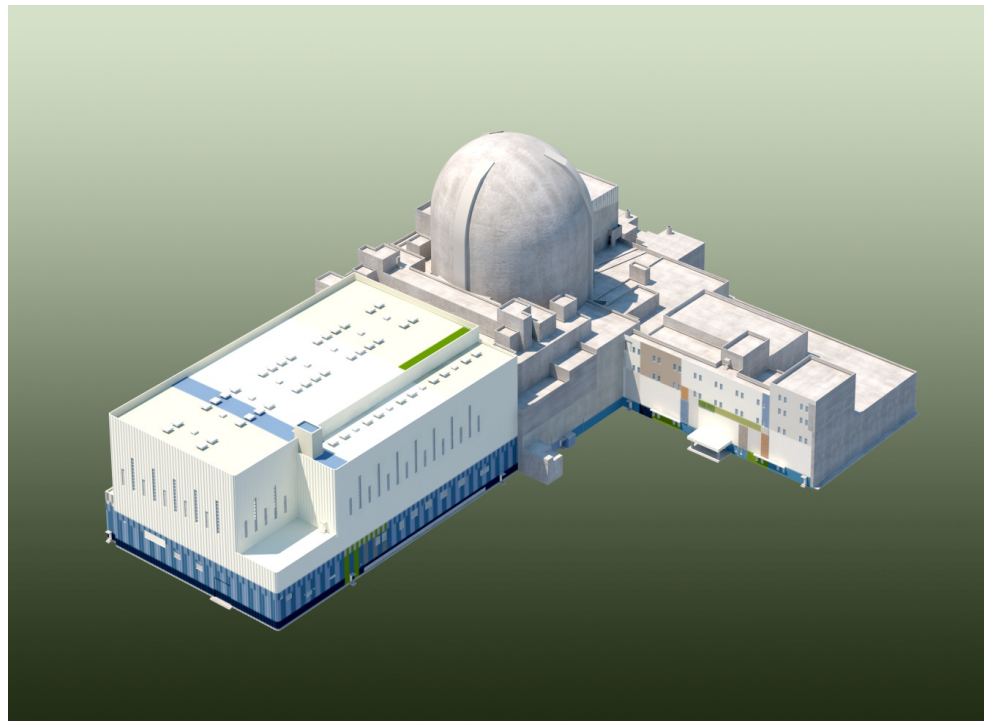


APR1400 Plant Security Design (Aircraft Impact Analysis)



KEPCO/KHNP
Apr. 20~21. 2016

Contents

- **Overview**
- **Part I: Structural Assessment**
 - Structural Response Assessments
 - Summary
- **Part II: Heat Removal Assessment**
 - Heat Removal Assessment
 - Summary

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**
- **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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