

# generation *mPower*

## *Aircraft Impact Assessment (AIA) Overview* (Redacted Version)

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- Objectives
- Plant Layout
- AIA Introduction
- Preliminary Review
- Draft Initial Assessment
- Conclusions
- Discussion

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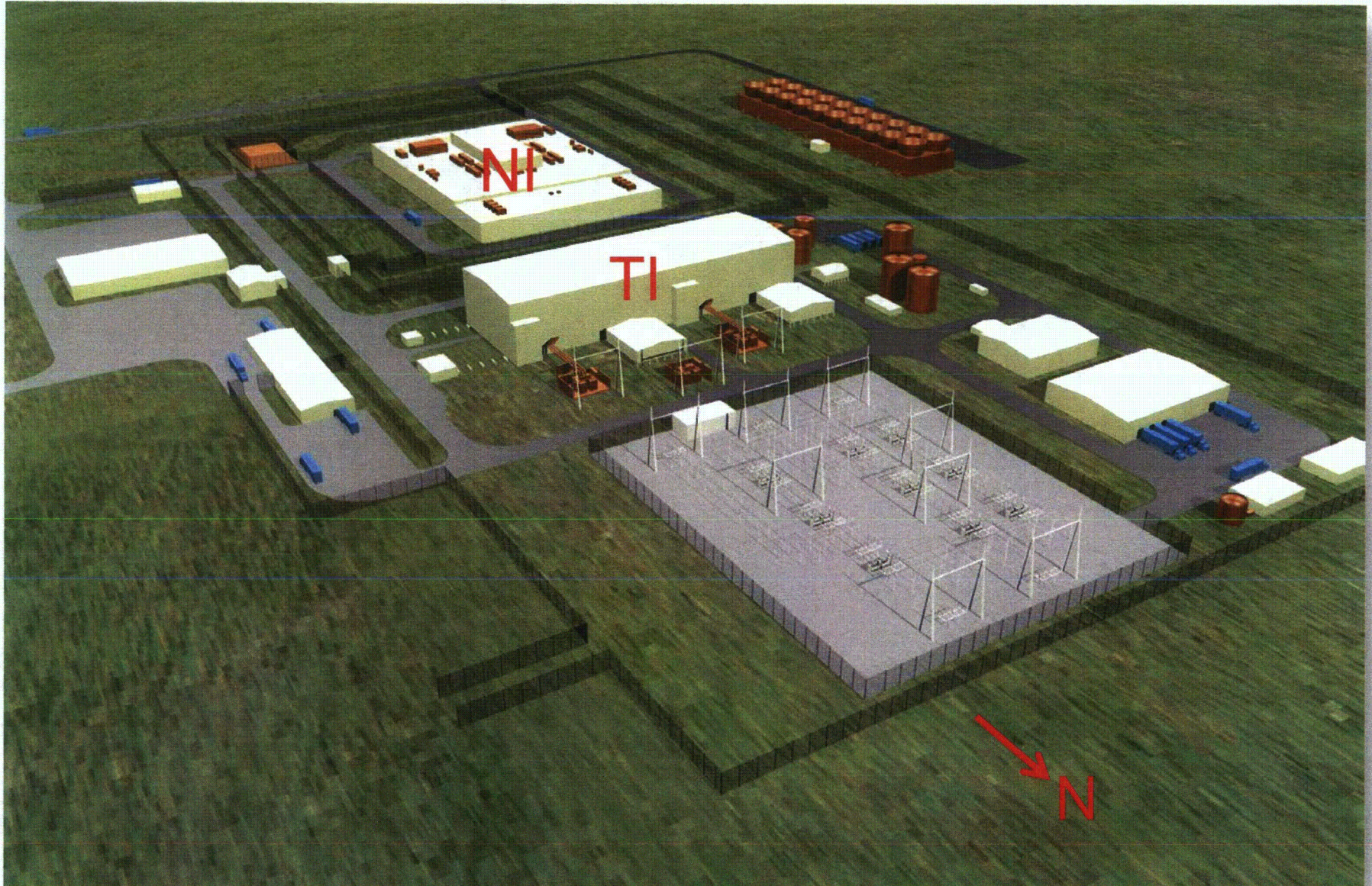
- Discuss preliminary efforts and results of AIA for the B&W mPower™ Plant
- Solicit NRC staff comment and feedback on progress and plans



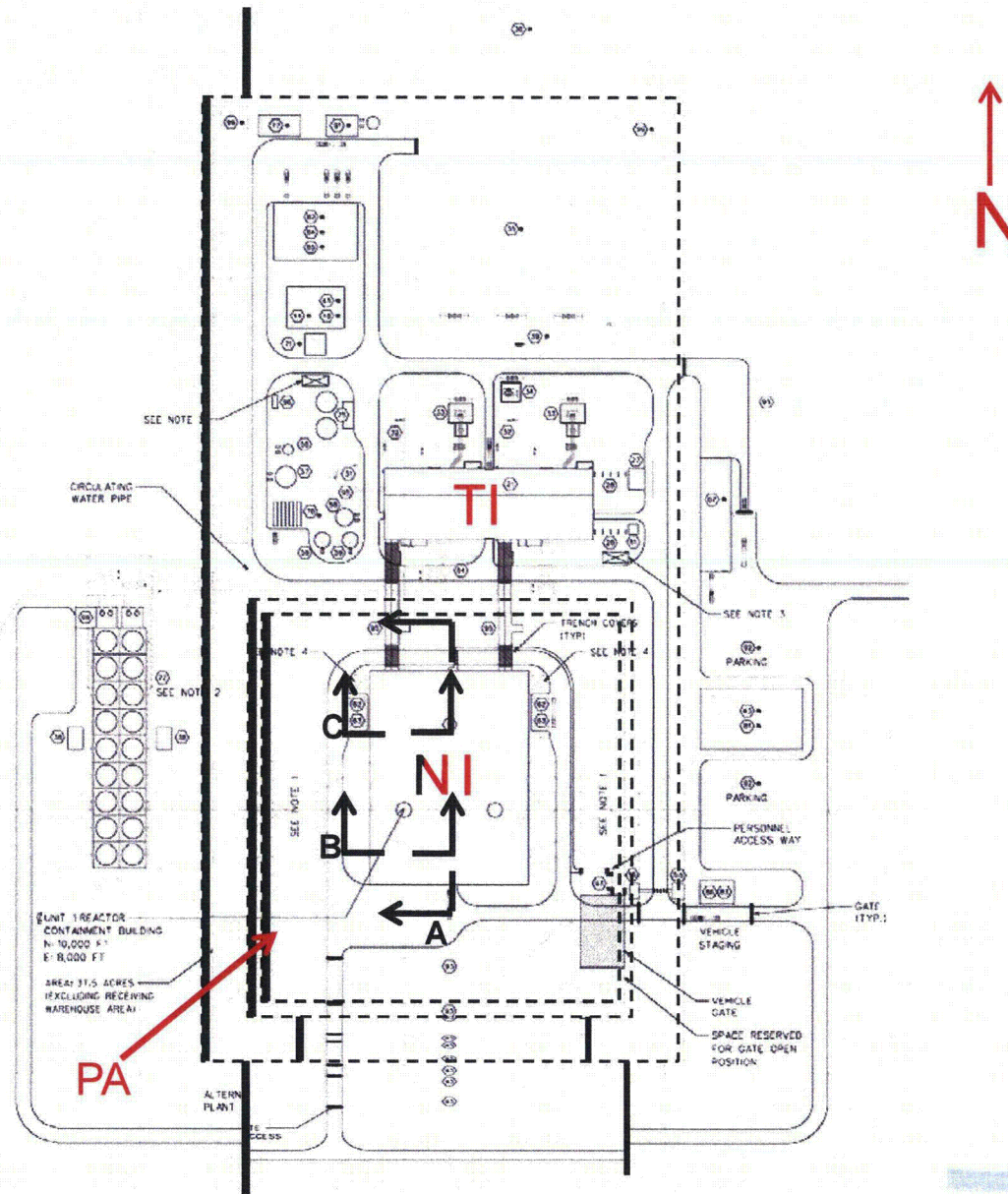
# Plant Layout



## Site Overview Looking South







# NI Model Cut Looking West

[CCI per Affidavit 4(a)-(d)]



## NI (RSB) Model Cut Looking North

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[CCI per Affidavit 4(a)-(d)]

## NI (Annex) Model Cut Looking North

[CCI per Affidavit 4(a)-(d)]

[CCI per Affidavit 4(a)-(d)]



# Nuclear Island (RSB) Plan EI. [ ]

[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]

# AIA Introduction

- Assessment performed using NEI 07-13, Rev. 8
- Section 2.0 of NEI 07-13 not applied [

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### Section 3.0 Heat Removal Assessment

- Physical damage

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- Assessed using “N” wall rule set

- Shock Damage

- Propagated through structural pathways per NEI 07-13 guidance

[CCI per Affidavit 4(a)-(d)]



- [CCI per Affidavit 4(a)-(d)]**

- Conducted Spring 2012 on Earlier Design
  - Limited number of strikes selected to bracket perceived “worst case”
- Major Insights
  - [
  - ]
- Example Strike that follows illustrates above insights

[CCI per Affidavit 4(a)-(d)]

# Overview of Example Strike for Key Elevations



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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]



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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]



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[CCI per Affidavit 4(a)-(d)]

- Complete set of postulated strikes
  - Strikes separated by IMPW distances per NEI 07-13
  - [
  - Strike locations depicted in following slide
  - ]

[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]



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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]

## Assessment Overview for Key Elevations



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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]



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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]

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[CCI per Affidavit 4(a)-(d)]



# Design Concepts Being Considered

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[CCI per Affidavit 4(p)-(d)]

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- Recommend design enhancements as needed
- Perform final assessment to confirm adequacy of final design

[CCI per Affidavit 4(a)-(d)]

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- We expect the final design to be consistent with NEI guidance with respect to physical, shock, and fire damage

[CCI per Affidavit 4(a)-(d)]



## Discussion