Braidwood Nuclear Power Station
Units 1 and 2
Annual Assessment Meeting
Open House

May 19, 2015

2014 Reactor Oversight Process

Nuclear Regulatory Commission – Region III

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United States Nuclear Regulatory Commission
Protecting People and the Environment

Our Mission

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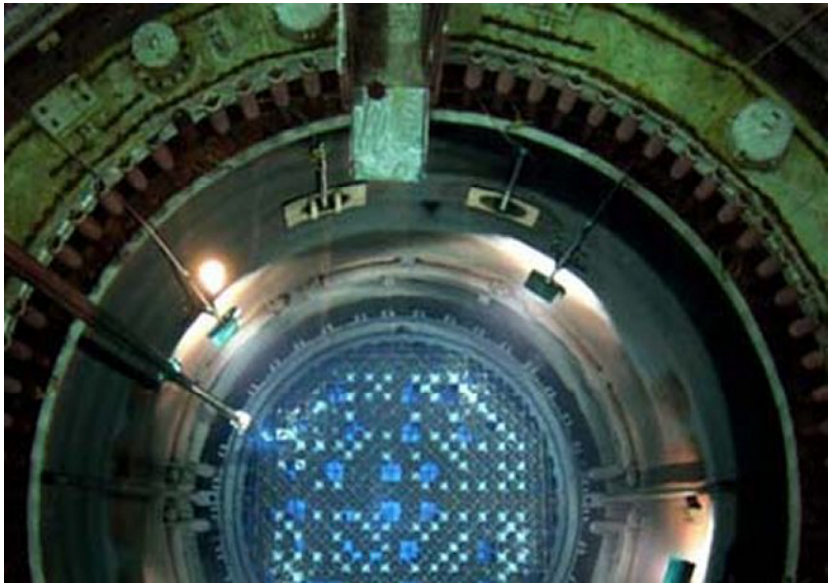

To license and regulate the nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.

The NRC Regulates

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- Nuclear reactors - commercial power reactors, research and test reactors, new reactor designs
- Nuclear materials - nuclear reactor fuel, radioactive materials for medical, industrial, and academic use
- Nuclear waste – transportation, storage and disposal of nuclear material and waste, decommissioning of nuclear facilities
- Nuclear security – physical security of nuclear facilities and materials from sabotage or attacks

What We Don't Do

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- Regulate nuclear weapons, military reactors, or space vehicle reactors
- Own or operate nuclear power plants
- Regulate some radioactive materials, such as X-rays and naturally occurring radon

Some Nuclear Facts

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- 99 nuclear power plants supply about 20 percent of the electricity in the U.S.
- Nuclear materials are used in medicine for diagnosis and cancer treatment.
- Nuclear materials are widely used in industry, such as in density gauges, flow measurement devices, radiography devices, and irradiators.

NRC Performance Goals

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- **Safety – Ensure adequate protection of public health and safety and the environment**

- **Security – Ensure adequate protection in the secure use and management of radioactive materials**

How We Regulate

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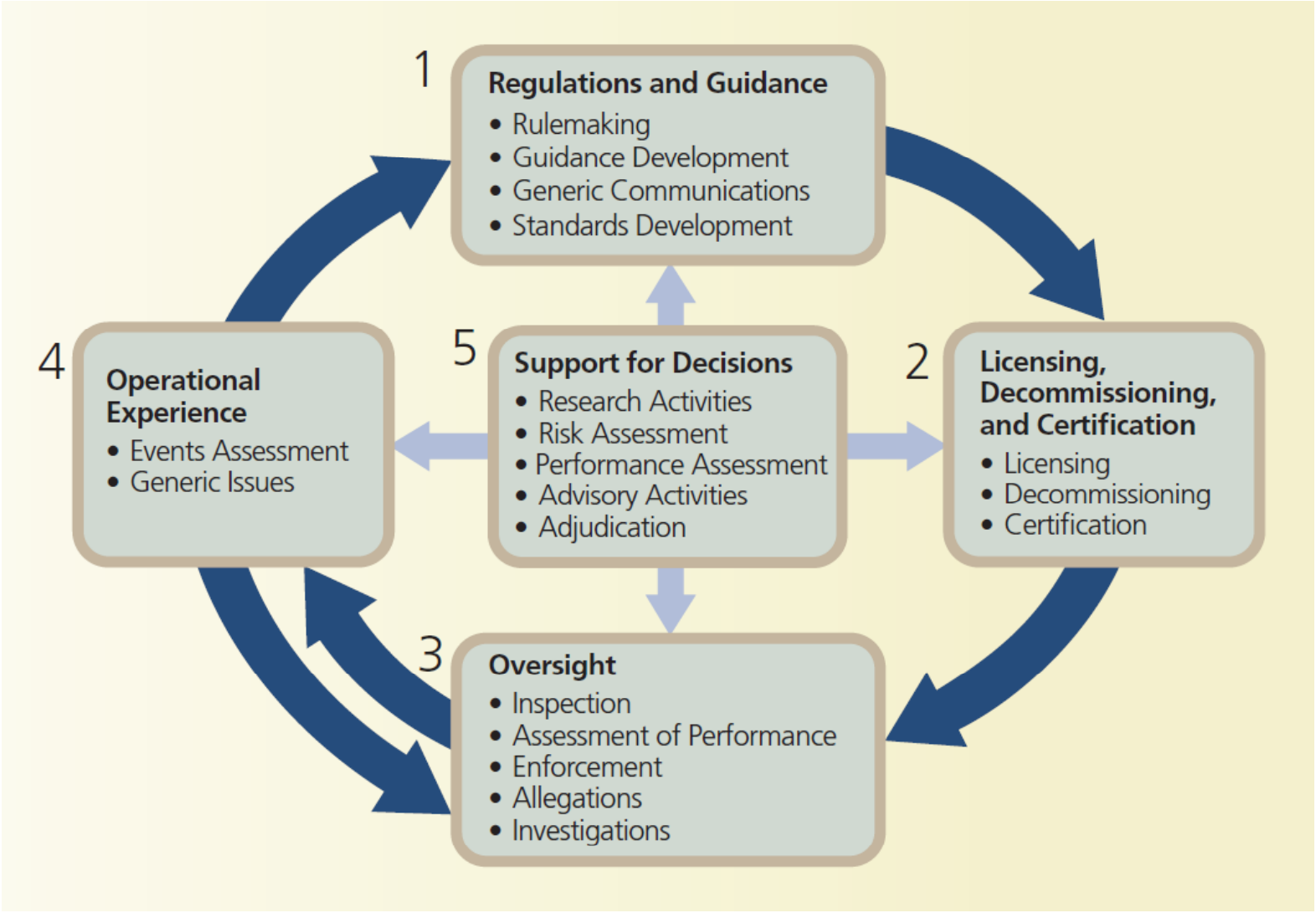

Regulatory Framework

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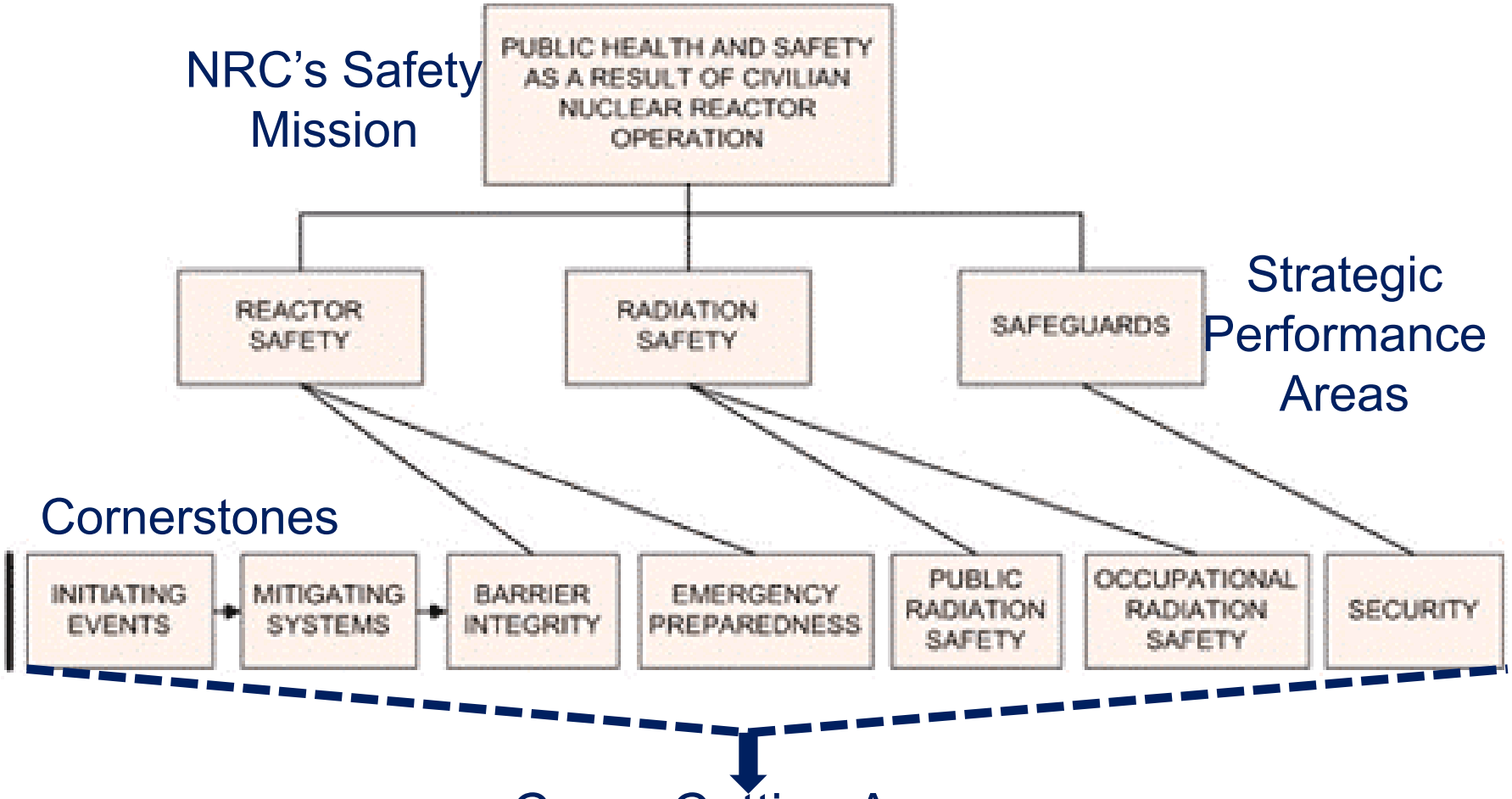

Reactor Oversight Process

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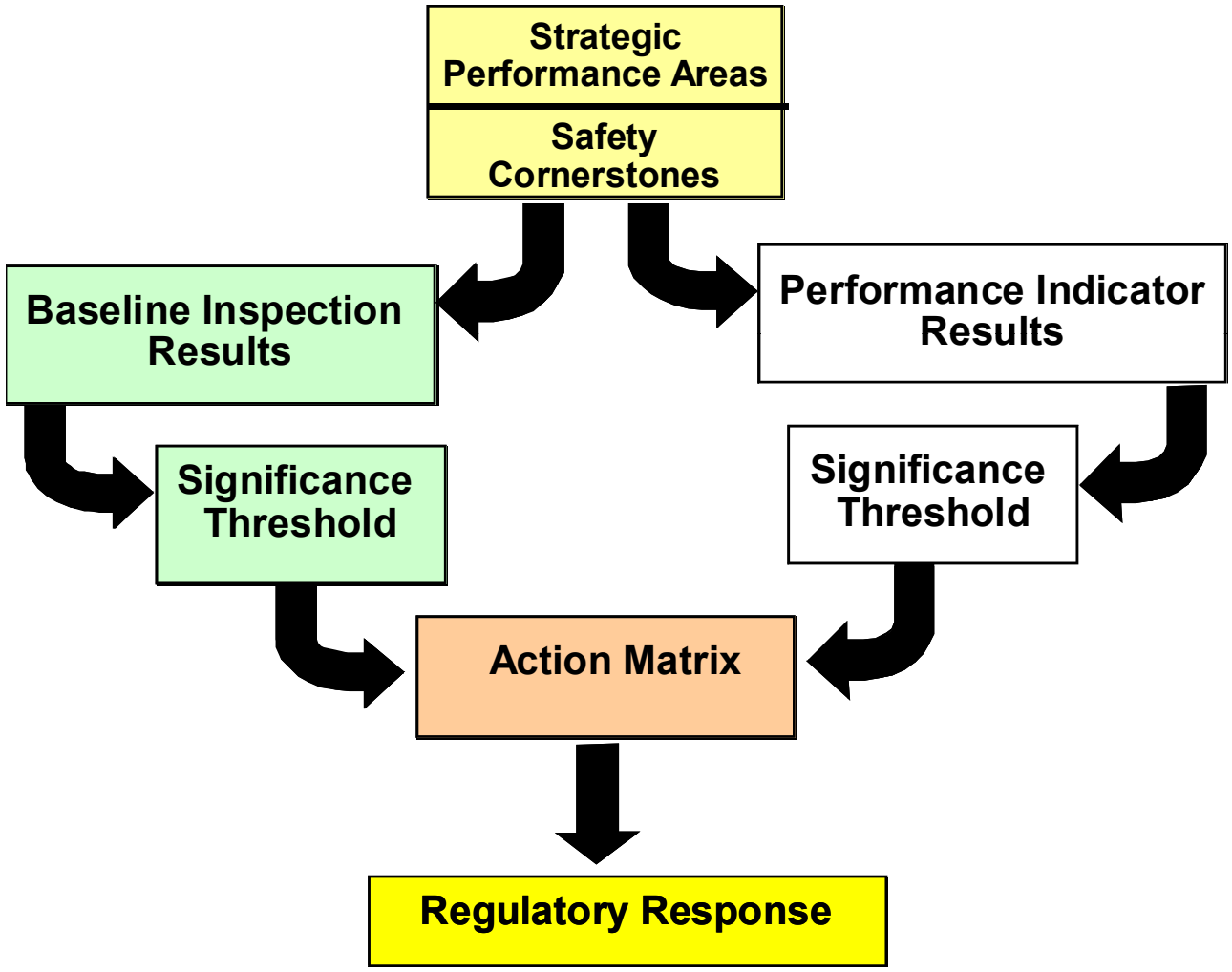

Significance Threshold

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Performance Indicators

Inspection Findings

Significance Threshold

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Performance Indicators

- **Green** — Baseline Inspection
- White — Requires additional NRC oversight
- Yellow — Requires more NRC oversight
- Red — Requires most NRC oversight

Inspection Findings

- **Green** — Very low safety issue
- White — Low to moderate safety issue
- Yellow — Substantial safety issue
- Red — High safety issue

Action Matrix Columns

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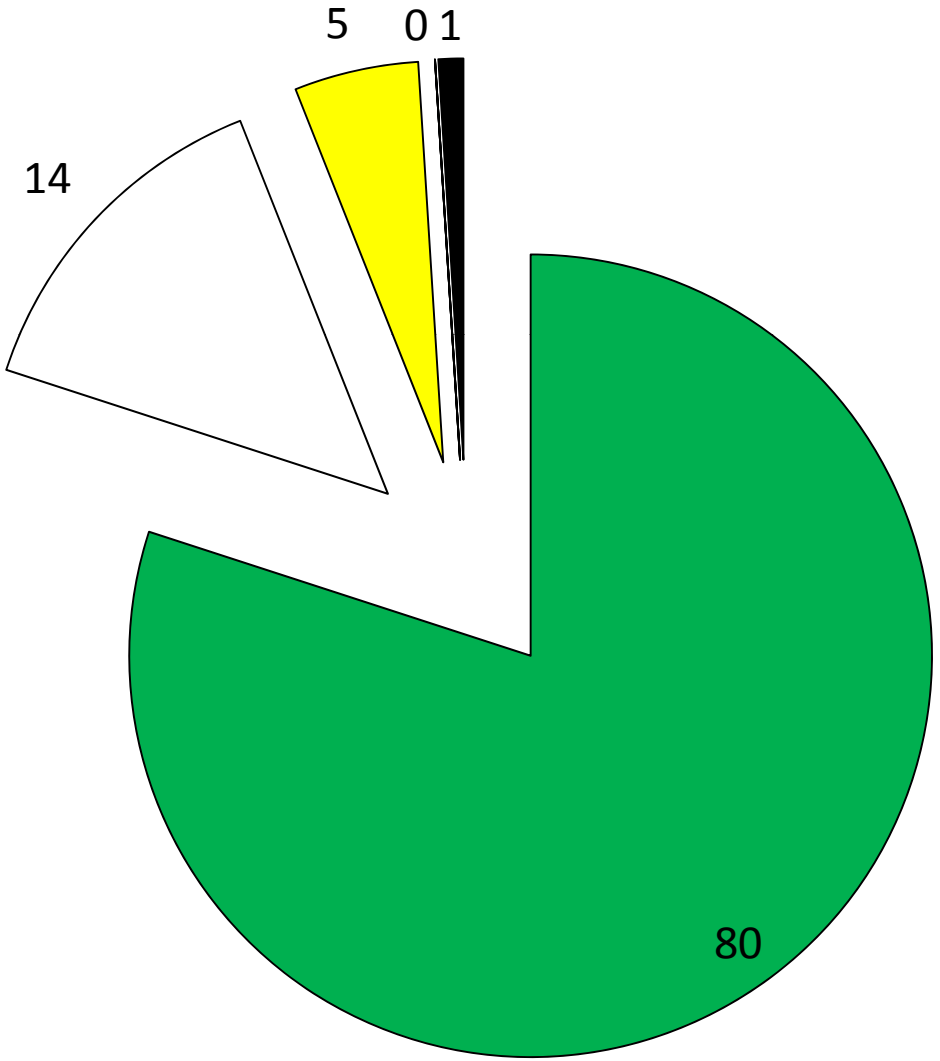
Licensee Response	Regulatory Response	Degraded	Multiple/Repetitive Degraded	Unacceptable Performance

Increasing

- Safety Significance
- Inspection
- Management Involvement
- Regulatory Action

Industry-Wide Performance

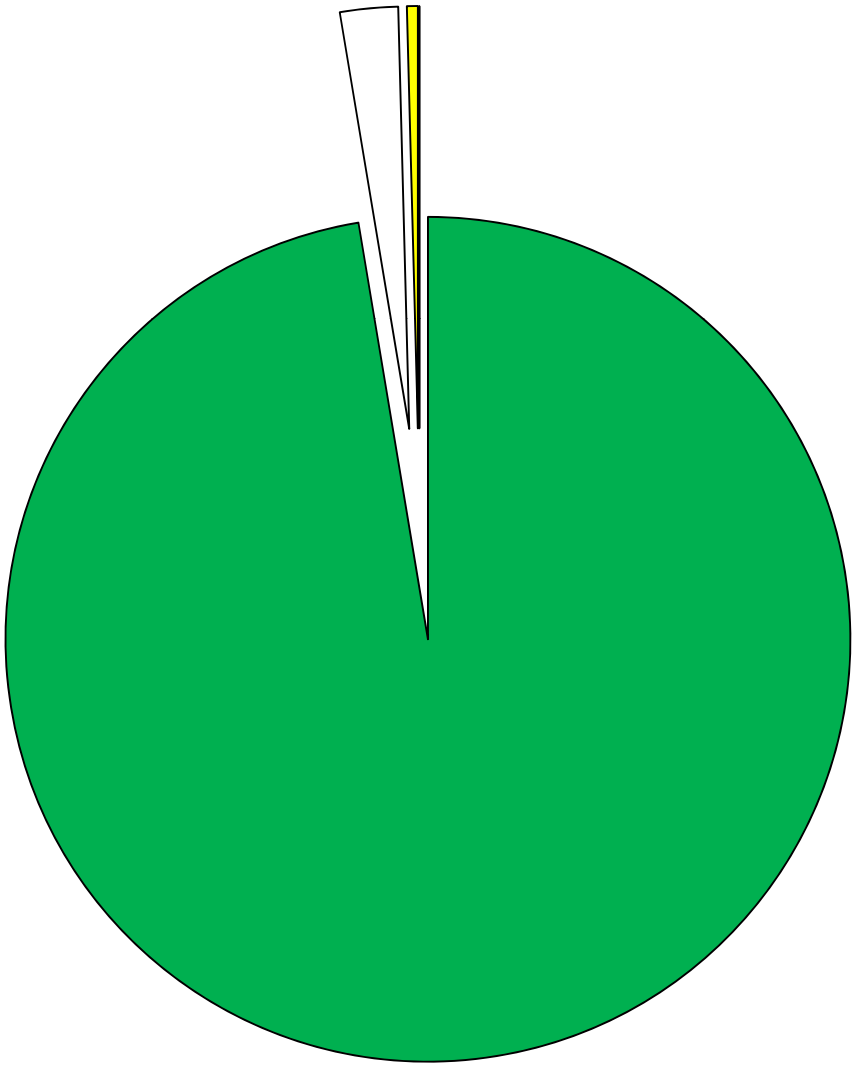


As of 12/31/2014

- Licensee Response
- Regulatory Response
- Degraded Cornerstone
- Multiple/Repetitive Degraded Cornerstone
- Unacceptable
- IMC 0350 Process

Industry-Wide Inspection Findings

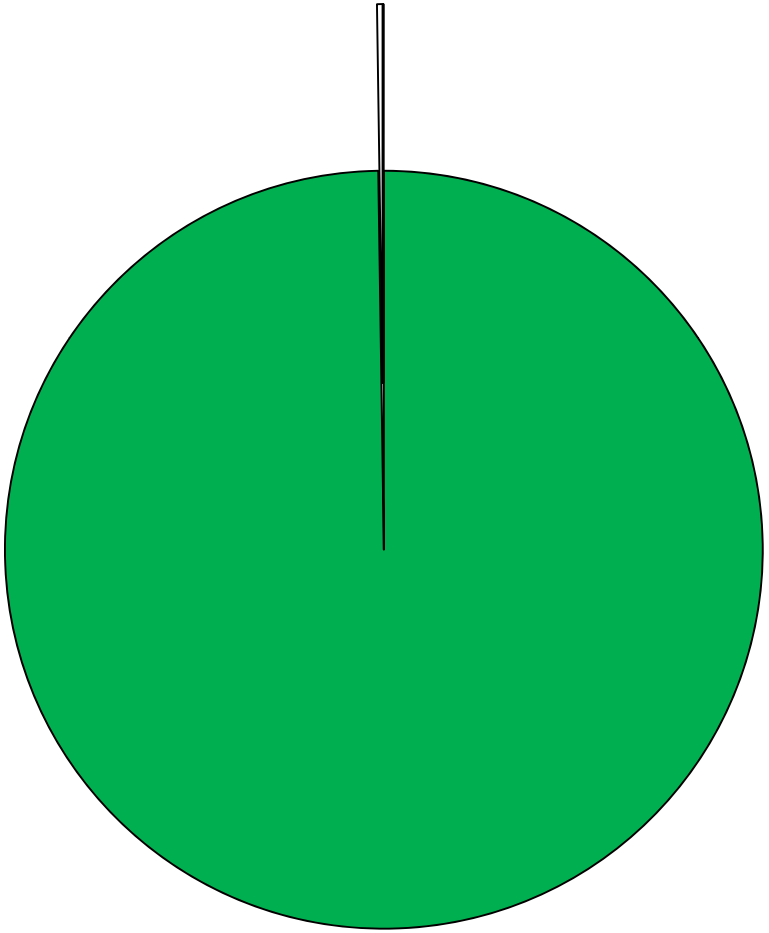
Finding data current as of 1/31/2015



Calendar Year 2014 data

Green	703
White	16
Yellow	3
Red	0

Industry-Wide Performance Indicators



Calendar Year
2014 data

Green	6740
White	16
Yellow	0
Red	0

NRC Annual Assessment Summary

Braidwood Nuclear Power Station

2014

- Exelon operated the station safely and in a manner that preserved the public health and safety and protected the environment.
- Braidwood Station Units 1 and 2 were in the Licensee Response Column of the NRC's Action Matrix for all four quarters of 2014
- No Substantive Cross-Cutting Issues were identified

NRC Inspection Activities

Braidwood Nuclear Power Station
2014

- 5000 total hours expended by NRC on Reactor Oversight Process activities
  - 2659 inspector hours of direct inspection activity
  - 500 inspector hours reviewing and observing plant operating status
  - 1226 inspector hours of preparation for and documentation of inspection activities
  - 615 hours for other Reactor Oversight Process elements (e.g., assessments and communications)

NRC Inspection Activities

Braidwood Nuclear Power Station
2014

- 2 resident inspectors on site – residents produced four quarterly inspection reports and performed daily plant walk-throughs
- 36 region based inspectors participated in various inspections
- 5 major team inspections – Triennial Modifications/ 10CFR50.59 Changes Inspection, Biennial Problem Identification and Resolution, Biennial Emergency Preparedness Exercise Inspection, License Renewal Inspection, and Initial Licensed Operator Examinations

Braidwood PIs and Findings

January 1 through December 31, 2014

- All Green Performance Indicators
- 11 Green/Severity Level IV Inspection Findings

NRC Inspection Findings

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Some Examples of 2014 Green Findings

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- Licensee failure to consider the Ultimate Heat Sink mission time of 30 days when evaluating a non-conforming condition
- Licensee failure to properly evaluate an unanalyzed condition related to turbine building flooding
- Failure to correct an undersized Essential Service Water Pump Bearing Casing Line

NRC Inspection Plans for 2015

Braidwood Nuclear Power Station

- NRC Plans Baseline Inspections for 2015. This includes the following major team inspection:
  - Triennial Fire Protection Inspection

Actions in Response to the Japan Nuclear Accident

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- **Actions in response to Japan Nuclear Accident: http://www.nrc.gov/japan/japan-info.html**

- **Mailbox for comments on staff actions: JLD_Public.Resource@nrc.gov**

- **Office of Public Affairs Point of Contact: OPA.resource@nrc.gov or 301-415-8200**

NRC Social Media Channels

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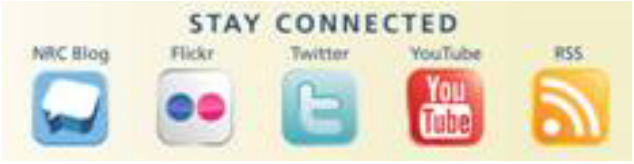

- **Blog:** http://public-blog.nrc-gateway.gov/
- **Flickr:** http://www.flickr.com/photos/nrcgov/
- **Twitter:** https://twitter.com/#!/nrcgov
- **YouTube:** http://www.youtube.com/user/NRCgov
- **RSS:** http://www.nrc.gov/public-involve/listserver.html#rss

Additional Questions?
NRC Representatives

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