Davis-Besse Nuclear Power Station Annual Assessment Meeting Open House

June 21, 2016

2015 Reactor Oversight Process

Nuclear Regulatory Commission – Region III

U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

Our Mission

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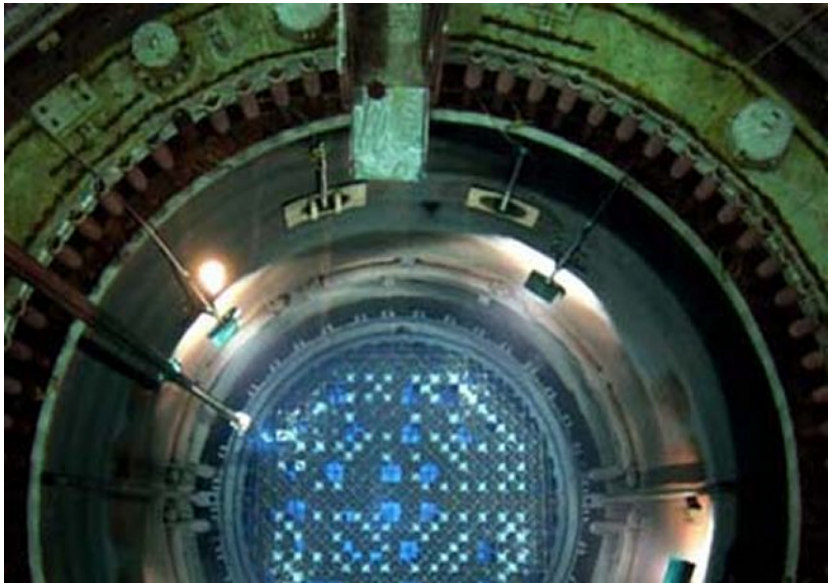

To license and regulate the nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.

What We Regulate

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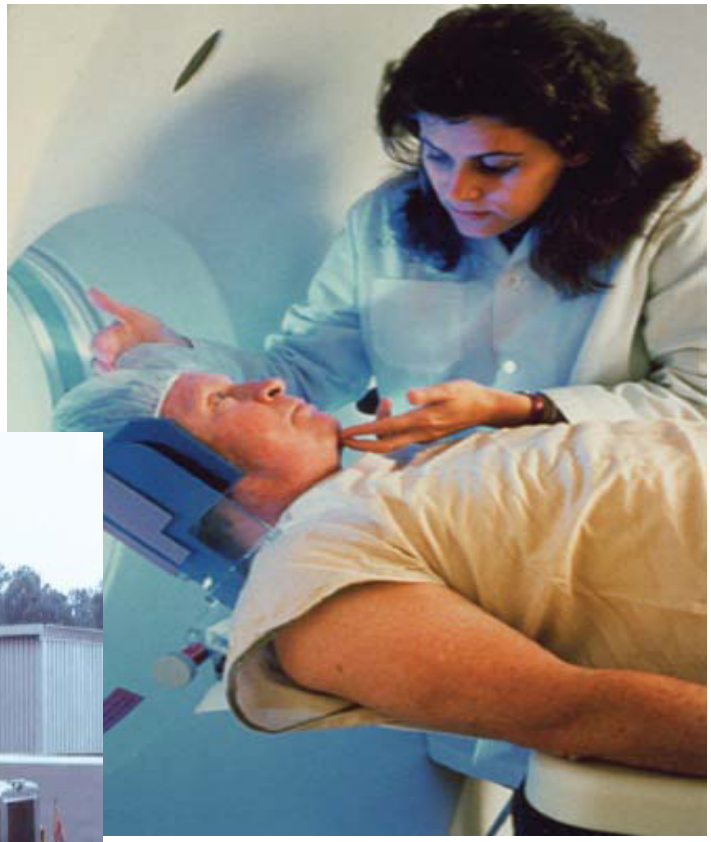
Reactors

Materials



Waste

What We Don't Regulate

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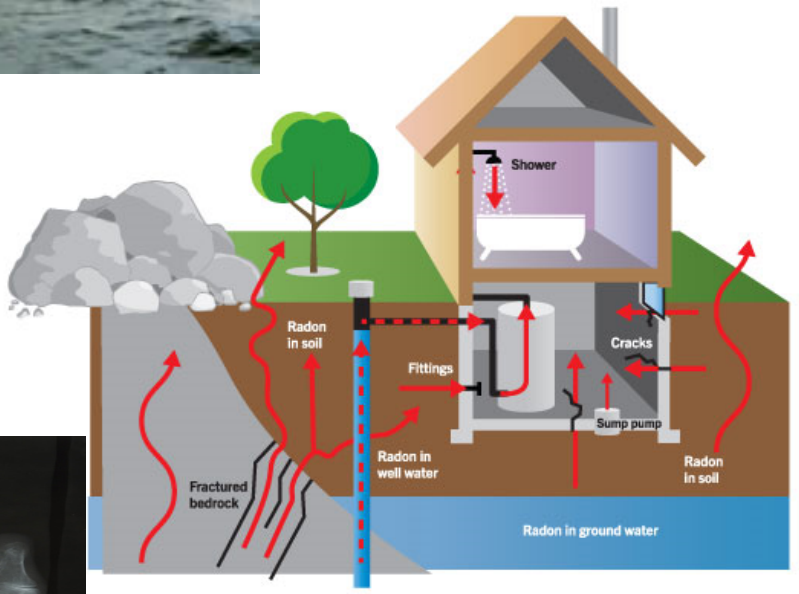
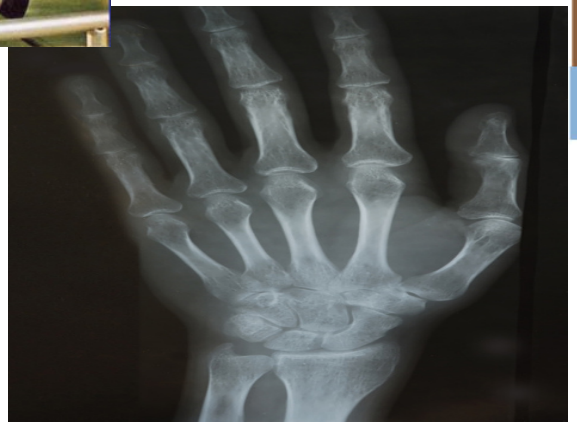
Military

Radon



X-Rays



Some Nuclear Facts

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- **100 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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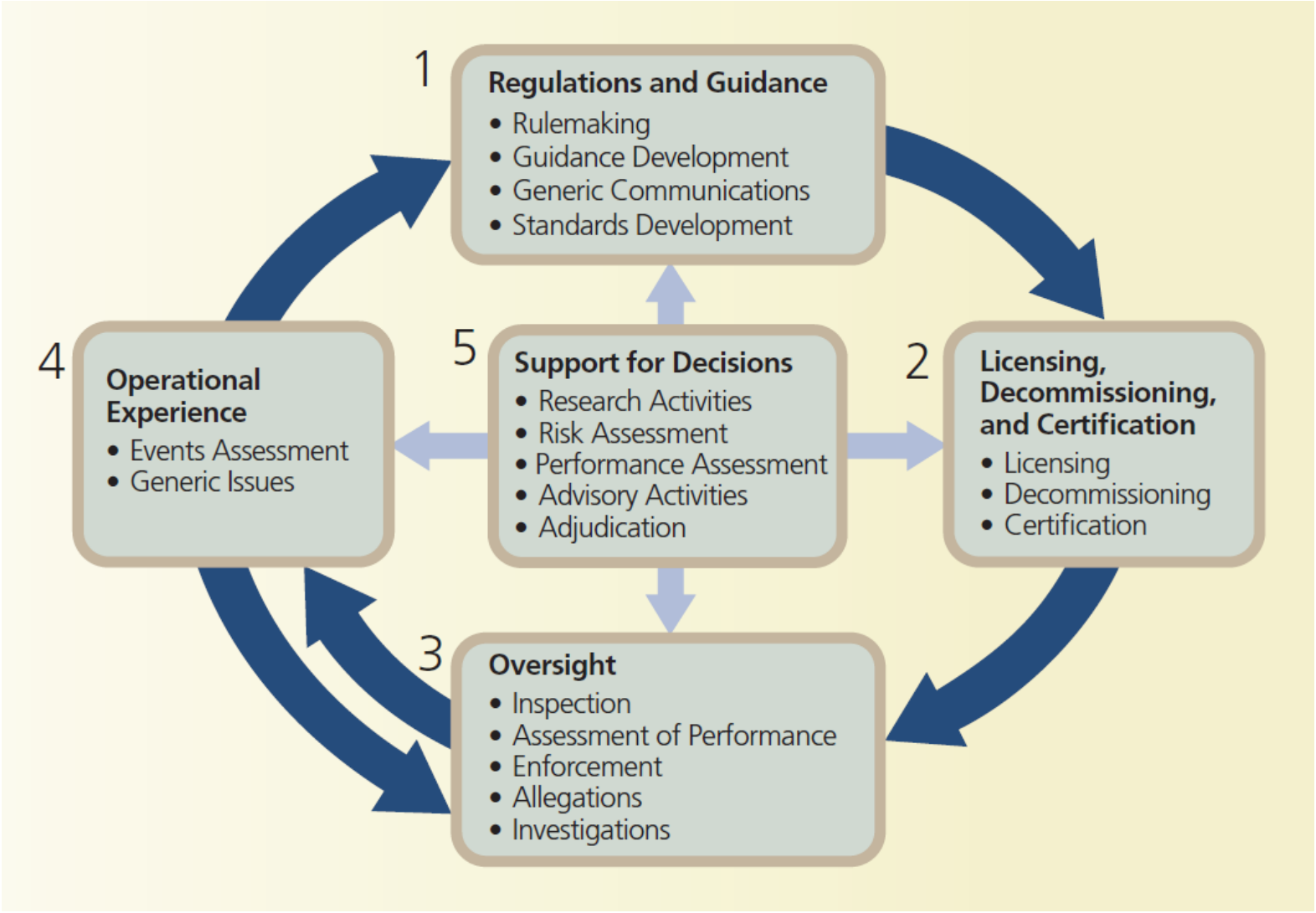

Regulatory Framework

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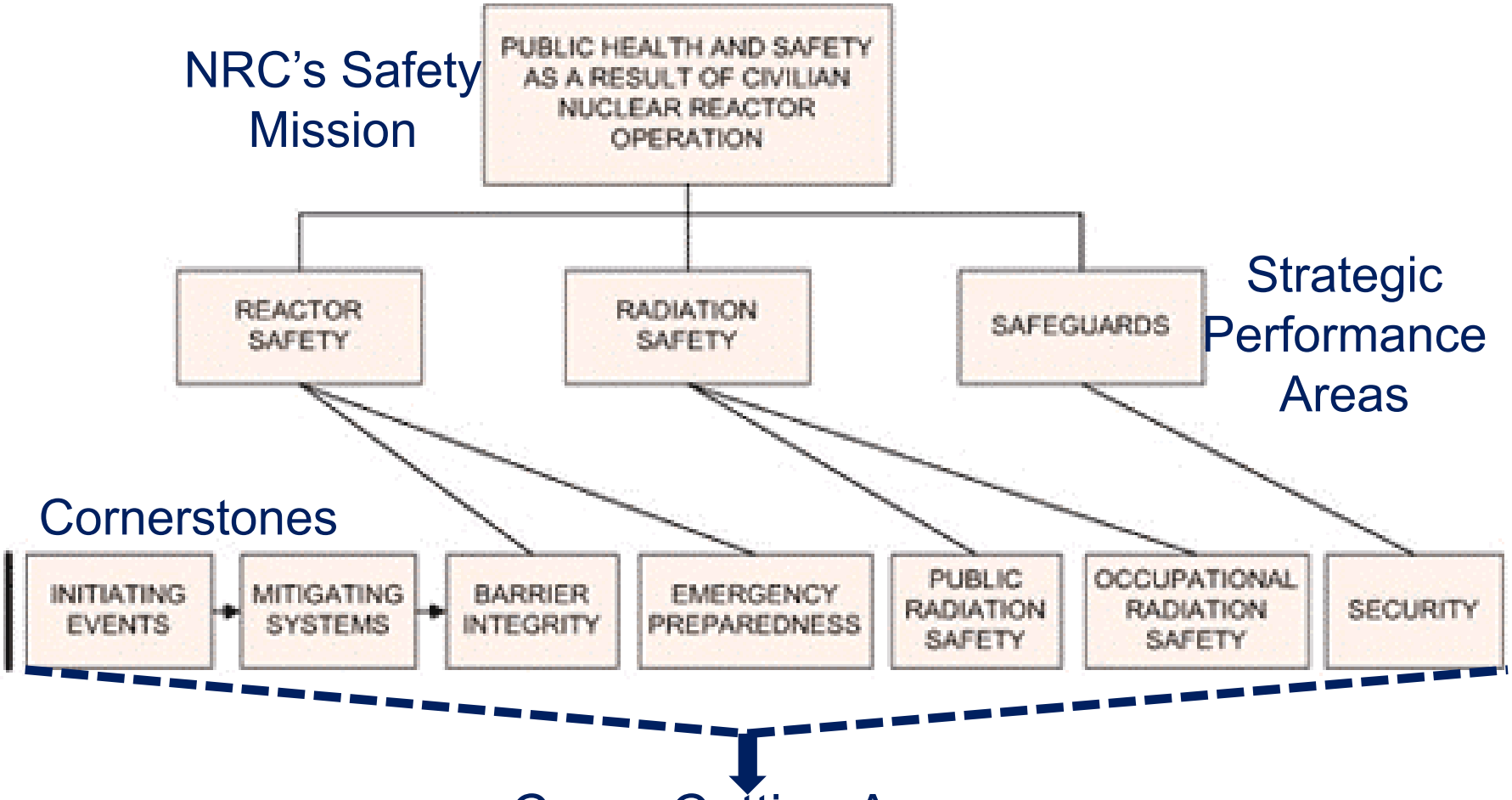

Reactor Oversight Process

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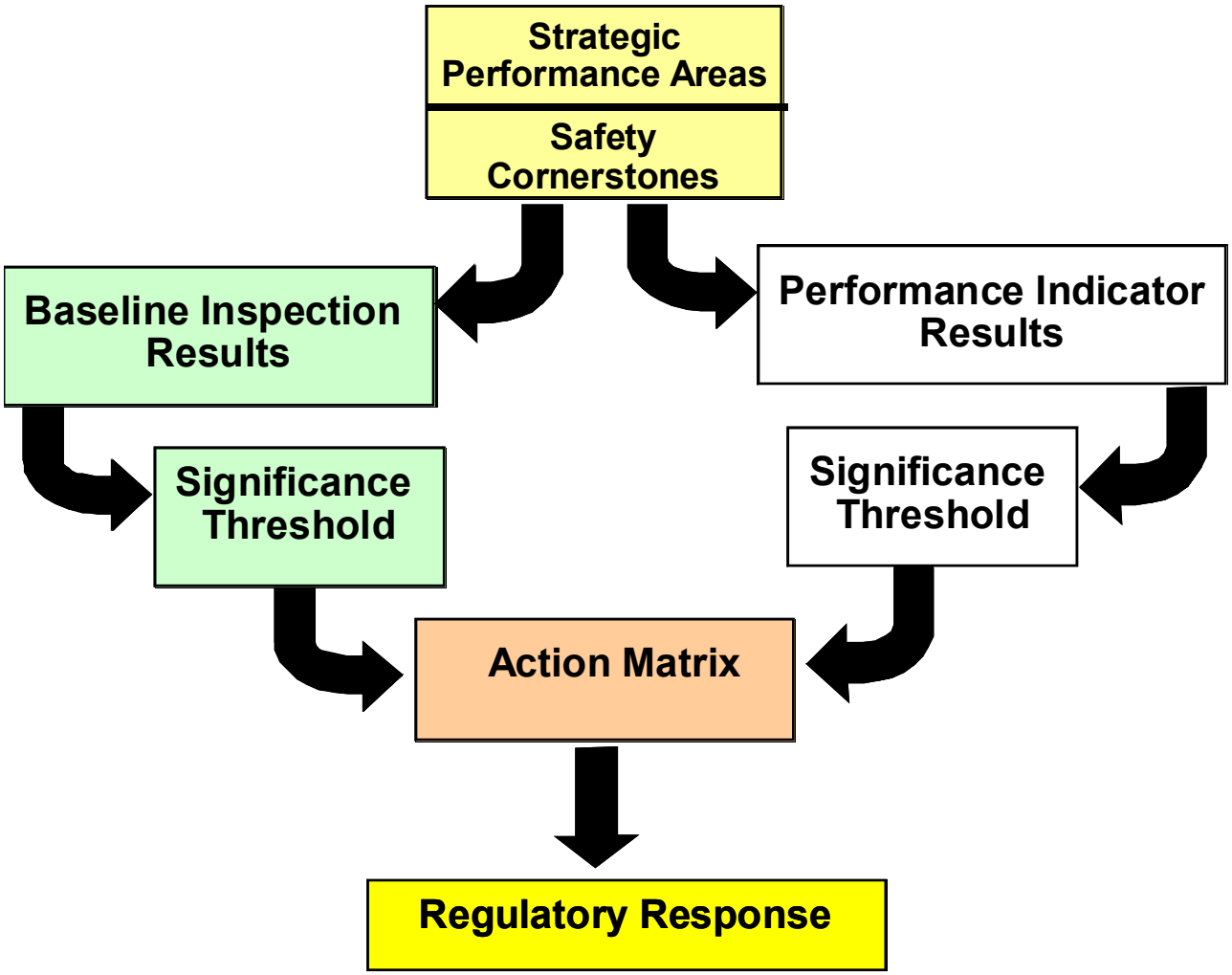

Significance Threshold

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Performance Indicators

Inspection Findings

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

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National Summary of Plant Performance

Status as of 02/22/2016

Licensee Response	90
Regulatory Response	7
Degraded Cornerstone	0
Multiple/Repetitive Deg. Cornerstone	3
Unacceptable	0
IMC 0350 Oversight	0
Total	100

National Summary

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- **Performance Indicator Results for 2015***
  - **Green 6686**
  - **White 12**
  - **Yellow 0**
  - **Red 0**

  ***PIs are counted per plant per quarter**
- **Total Inspection Findings in 2015#**
  - **Green 782**
  - **White 8**
  - **Yellow 0**
  - **Red 0**

  # Finding data current as of 2/22/2016

NRC Annual Assessment Summary

Davis-Besse Nuclear Power Station

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- FirstEnergy Nuclear Operating Company operated the station safely and in a manner that preserved the public health and safety and protected the environment.
- Davis-Besse was in the Licensee Response Column of the NRC's Action Matrix in the third quarter of 2015
- Davis-Besse was in the Regulatory Response Column in first, second, and fourth quarters of 2015 due to one or more Greater-than-Green violations associated with the Physical Protection cornerstone
- No Cross-Cutting Themes were identified

NRC Inspection Activities

Davis-Besse 2015

- 5761 total hours expended by NRC on Reactor Oversight Process activities
  - 2429 inspector hours of direct inspection activity
  - 638 inspector hours reviewing and observing plant operating status
  - 1500 inspector hours of preparation for and documentation of inspection activities
  - 1194 hours for other Reactor Oversight Process elements (e.g., assessments and communications)

NRC Inspection Activities

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Davis-Besse Nuclear Power Station for 2015

- 2 resident inspectors on site – residents produced four quarterly inspection reports and walked through the plant daily
- 24 other inspectors participated in various inspections
- 3 major team inspections
  - Supplemental Inspection for a Regulatory Response column entry
  - Component Design Basis Inspection
  - Biennial Problem Identification and Resolution Inspection

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

Davis-Besse PIs and Findings

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January 1 through December 31, 2015

- All Green Performance Indicators
- 9 Green/Severity Level IV Inspection Findings
- 1 or more Greater-Than-Green Inspection Findings associated with the Security Cornerstone

Safety Significant Findings

Davis-Besse Nuclear Power Station

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- One or more Greater-Than-Green Findings carryover from 2014
  - Corrective Actions Found Sufficient during Inspection in Second Quarter of 2015
  - Davis-Besse transitioned to Licensee Response Column at beginning of third quarter 2015
- One or more Greater-Than-Green Findings in fourth quarter of 2015
  - Davis-Besse transitioned to Regulatory Response Column at beginning of fourth quarter 2015

NRC Inspection Findings

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Some Examples of Green Findings

Davis-Besse Nuclear Power Station

- Failure to maintain Flow-Accelerated Corrosion Computer Model results in a non-safety piping failure
- Failure to install and control reactor coolant pump seal vent flexible hoses per design analyses
- Failure to request and obtain a license amendment for use of an unreviewed method of analysis for the capability of the shield building

NRC Inspection Plans for 2016

Davis-Besse Nuclear Plant

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- NRC Plans Baseline Inspections for 2016 This includes the following major team inspections:
  - Post License Renewal Inspection (completed)
  - Triennial Fire Protection Inspection
  - Initial Reactor Operator License Examinations
  - Supplemental Inspection for one or more Greater-Than-Green inspection findings

Davis-Besse Fukushima Recommendations Status

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Mitigating Strategies (MS) & Spent Fuel Pool Instrumentation (SFPI) Order

- MS Order requires strategies to cope with a long term loss of safety systems
- SFPI Order requires plants to be able to tell if water is at or above certain levels
- Site Audit was performed in November 2015
- Site Safety Evaluation scheduled to be issued after the NRC receives the site compliance letter
- Regional inspection of MS inspection (TI 191, Rev 1) will be performed after Safety Evaluation issued

Davis-Besse Fukushima Flooding Response Status

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- **Flooding Hazard Reevaluations**
  - **Reevaluate Hazards using present-Day information**
  - **Flooding Was Submitted March 2015**
  - **Staff assessments will be issued by December 2016**
  - **Inspectors completed TI-190 which verified a licensee's interim actions were appropriate to mitigate the reevaluated flood levels.**
- **Licensees will address the reevaluated flood heights as part of their Mitigating Strategies Assessment, and if impacted take one of four potential paths:**

  1) No change; 2) procedural change;
  3) physical modifications; 4) Revised Mitigating Strategies

Davis-Besse Fukushima Seismic Response Status

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- Seismic Walkdowns
  - Verify that the site can meet its current requirements for hazard protection
  - Walkdowns are complete; Staff assessments issued
- Seismic Hazard Reevaluations
  - Reevaluate Hazards using present-Day information
  - Seismic Reevaluations submitted March 31, 2014
  - NRC assessment of the licensee submittal was issued on August 25, 2015
  - NRC assessment in letter dated October 27, 2015, stated that a full seismic risk evaluation was not required
- Sites will evaluate the impacts of the updated Seismic hazards as part of their mitigating strategies assessment.

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

Reference Sources

U.S.NRC
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- **Reactor Oversight Process**
  - **http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html**
- **Public Electronic Reading Room**
  - **http://www.nrc.gov/reading-rm.html**
- **Public Document Room**
  - **1-800-397-4209 (Toll Free)**