

# Duane Arnold Energy Center Annual Assessment Meeting Open House

Reactor Oversight Process – 2012

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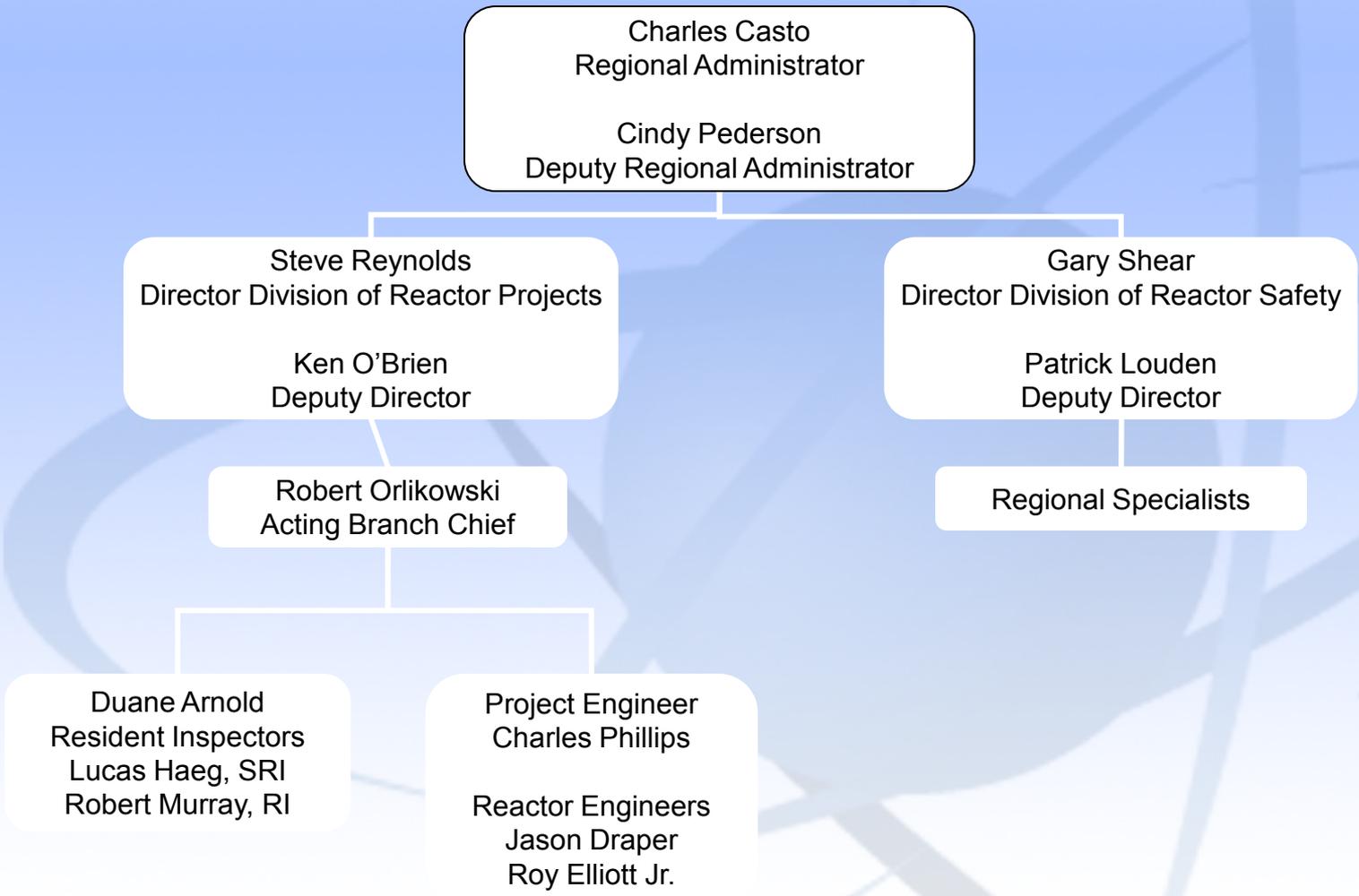
Nuclear Regulatory Commission - Region III

Palo, IA

April 11, 2013



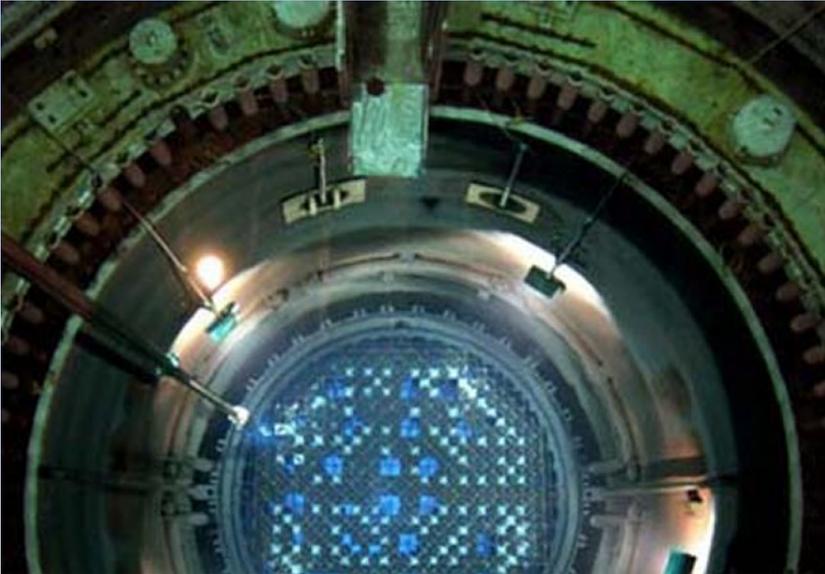
# Region III Organization





# Our Mission

- 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.





# Some Nuclear Facts



- 104 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.



# The NRC Regulates

- 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

- 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



# How We Regulate

- Establish rules and regulations
- Issue licenses
- Provide oversight through inspection, enforcement, and evaluation of operational experience
- Conduct research to provide support for regulatory decisions
- Respond to events and emergencies

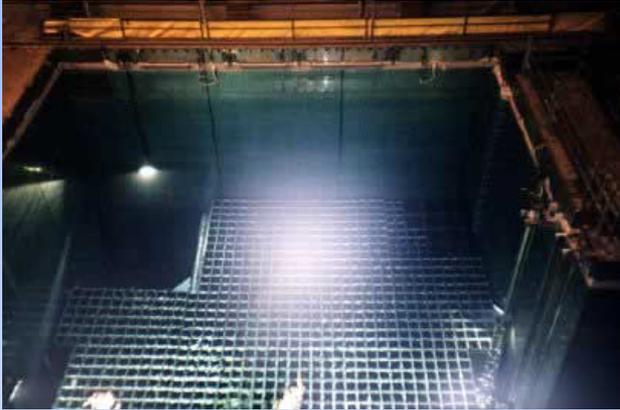


# Assurance of Plant Safety

- Require “defense-in-depth”
- Require long-term maintenance of equipment
- Require continual training of operators
- Verify compliance with regulations



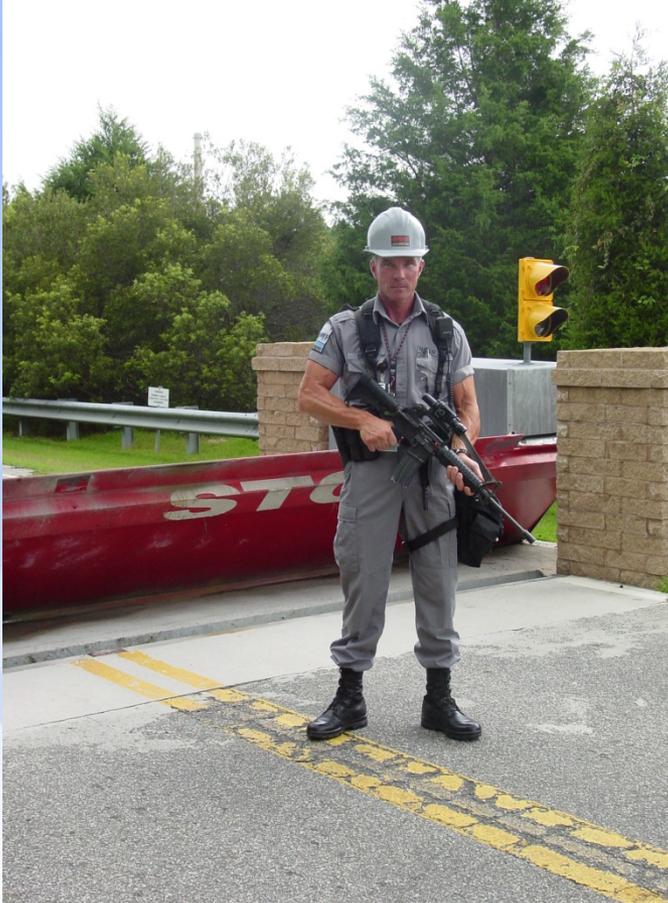
# What We Do – Nuclear Waste



- The NRC regulates:
  - Storage of spent reactor fuel in fuel pools or dry storage casks, and
  - Any national spent fuel storage site.



# What We Do – Nuclear Security



- NRC Requires :
  - Well-armed and well-trained security forces ,
  - Surveillance and perimeter patrols ,
  - State-of-the-art site access equipment and controls ,
  - Physical barriers and detection zones , and
  - Intrusion detection systems and alarm stations .

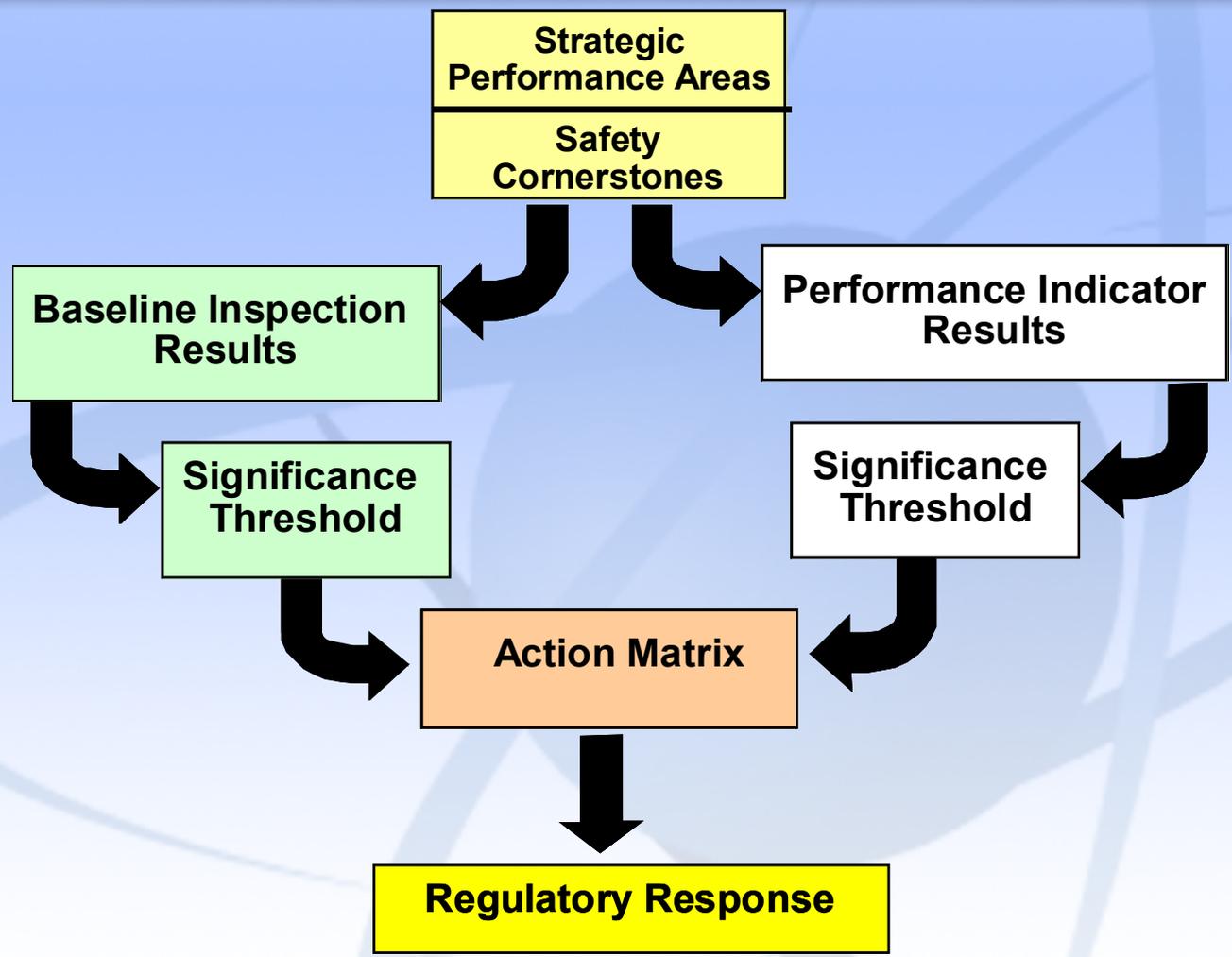


# NRC Performance Goals

- **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.



# Reactor Oversight Process





# Examples of Baseline Inspections

- Equipment Alignment ~80 hrs /yr
- Triennial Fire Protection ~250 hrs  
every 3 yrs
- Operator Response ~125 hrs /yr
- Emergency Preparedness ~80 hrs /yr
- Rad Release Controls ~110 hrs  
every 2 yrs
- Worker Radiation Protection ~95 hrs /yr
- Corrective Action Program ~250 hrs  
every 2 yrs
- Corrective Action Case Reviews ~60 hrs /yr



# Significance Threshold

## Performance Indicators

- Green:** Only Baseline Inspection
- White:** Increases NRC oversight
- Yellow:** Increases NRC oversight
- Red:** Increases 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 Concept

<b>Licensee Response</b>	<b>Regulatory Response</b>	<b>Degraded Cornerstone</b>	<b>Multiple/Rep. Degraded Cornerstone</b>	<b>Unacceptable Performance</b>
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Increasing Safety Significance

Increasing NRC Inspection Efforts

Increasing NRC/Licensee Management Involvement

Increasing Regulatory Actions



# National Summary of Plant Performance

## Status as of 12/31/2012

Licensee Response (DAEC is here)	81
Regulatory Response	18
Degraded Cornerstone	3
Multiple/Repetitive Deg. Cornerstone	1
Unacceptable	0
IMC 0350 Oversight	1
Total	104



# National Summary

- Performance Indicator Results for 2012\*

– Green	6926
– White	23
– Yellow	0
– Red	0

\*PIs are counted per plant per quarter

- Total Inspection Findings in 2012#

– Green	914
– White	16
– Yellow	1
– Red	1

# Finding data current as of 3/04/2013



# Duane Arnold Assessment Results

January 1 - December 31, 2012

- Duane Arnold remains in the Licensee Response Column of the ROP Action Matrix
- All findings and performance indicators were green
- 15 Green findings



# Duane Arnold Inspection Activities

## January 1 - December 31, 2012

- Inspectors spent over 2040 hours on direct inspection effort at Duane Arnold during calendar year 2012.
- In addition to the inspections performed by the Resident Inspectors, several other inspections were performed during this assessment period, including:
  - Triennial Fire Protection Inspection
  - License Renewal Inspection (Phase 1)
  - Biennial Emergency Preparedness Inspection
  - Refueling Outage Inspections



# Duane Arnold Annual Assessment Summary

January 1 - December 31, 2012

- NextEra operated Duane Arnold in a manner that preserved public health and safety
- All cornerstone objectives were met



# Duane Arnold Annual Assessment Summary

January 1 - December 31, 2012

- No substantive cross-cutting issues were identified
- NRC plans baseline inspections at Duane Arnold for 2013



# Open to the Public

- The NRC places a high priority on keeping the public and stakeholders informed of its activities.
- At [www.nrc.gov](http://www.nrc.gov), you can:
  - Find public meeting dates and transcripts;
  - Read NRC testimony, speeches, press releases, and policy decisions; and
  - Access the agency's Electronic Reading Room to find NRC publications and documents.



# Contacting the NRC

- Report an emergency
  - (301) 816-5100 (call collect)
- Report a safety concern
  - (800) 695-7403
  - Allegation@nrc.gov
- General information or questions
  - [www.nrc.gov](http://www.nrc.gov)
  - Select “What We Do” for Public Affairs



# Actions in Response to the Japan Nuclear Accident

- Actions in response to Japan Nuclear Accident  
Website: <http://www.nrc.gov/japan/japan-info.html>
- Mailbox for comments on staff actions:  
[JLD\\_Public.Resource@nrc.gov](mailto:JLD_Public.Resource@nrc.gov)
- Office of Public Affairs Point of Contact:  
[OPA.resource@nrc.gov](mailto:OPA.resource@nrc.gov) or 301-415-8200



# NRC Representatives

- Lucas Haeg, Senior Resident Inspector
  - (319) 851-5111
- Robert Murray, Resident Inspector
  - (319) 851-5111
- Robert Orlikowski, Acting Branch Chief
  - (630) 829-9753
- Viktoria Mitlyng, Public Affairs Officer
  - (630) 829-9662
- Prema Chandrathil, Public Affairs Officer
  - (630) 829-9663
- NRC Region III Office Switchboard
  - (630) 829-9500 (800) 522-3025

# NRC Social Media Channels



- 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/listservers.html#rss>



# Reference Sources

- 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)

