The NRC and Diablo Canyon

Nuclear Regulatory Commission Presentation to the Diablo Canyon Independent Safety Committee

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Senior Resident Inspector,

Diablo Canyon Power Plant

June 24, 2021

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Agenda

- Overview of the NRC
- Overview of the resident inspector program
- Overview of the regulatory process
- Covid Impacts on the Inspection Process
- Comments and questions

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Overview of the NRC

NRC Mission

The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment.

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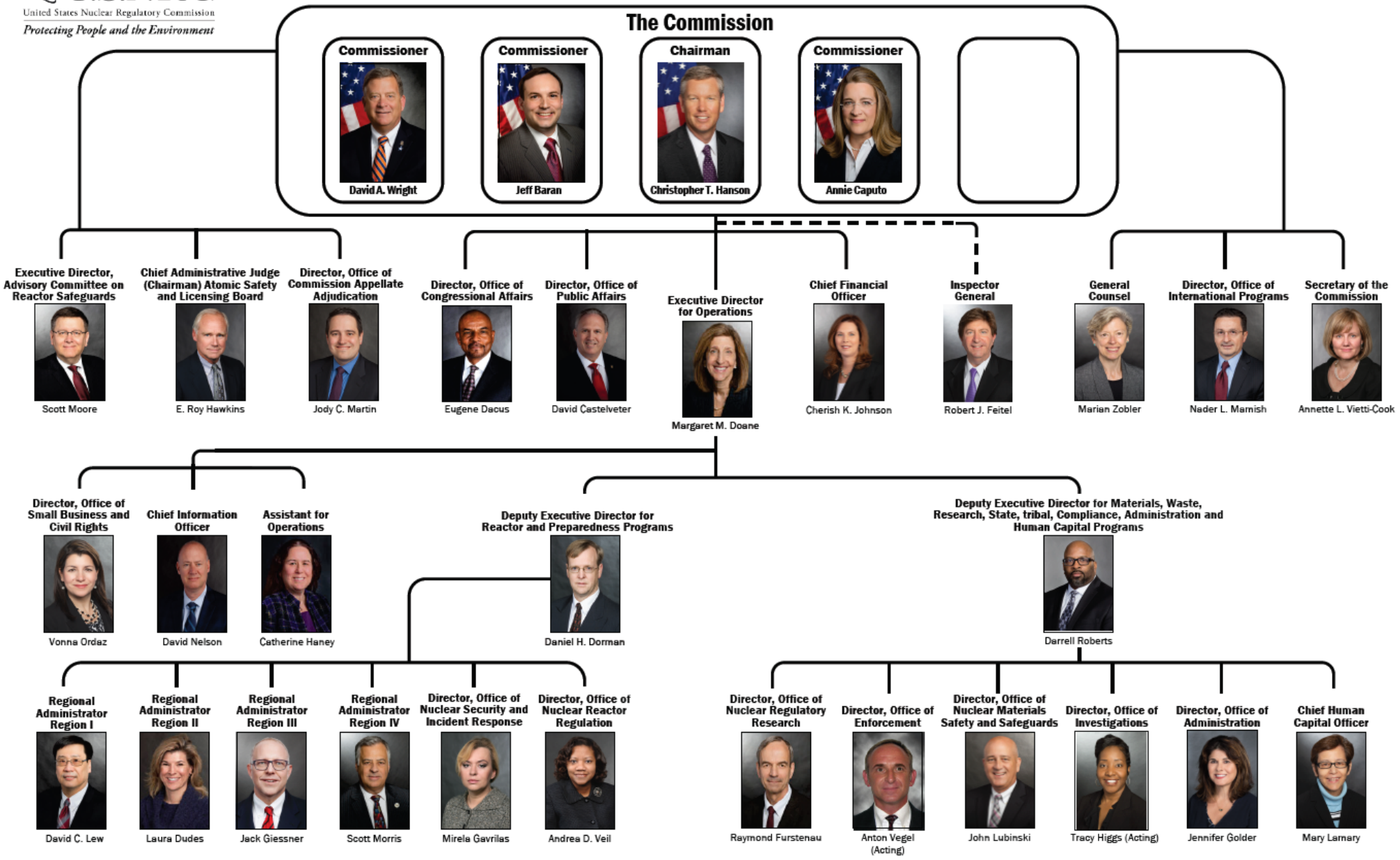
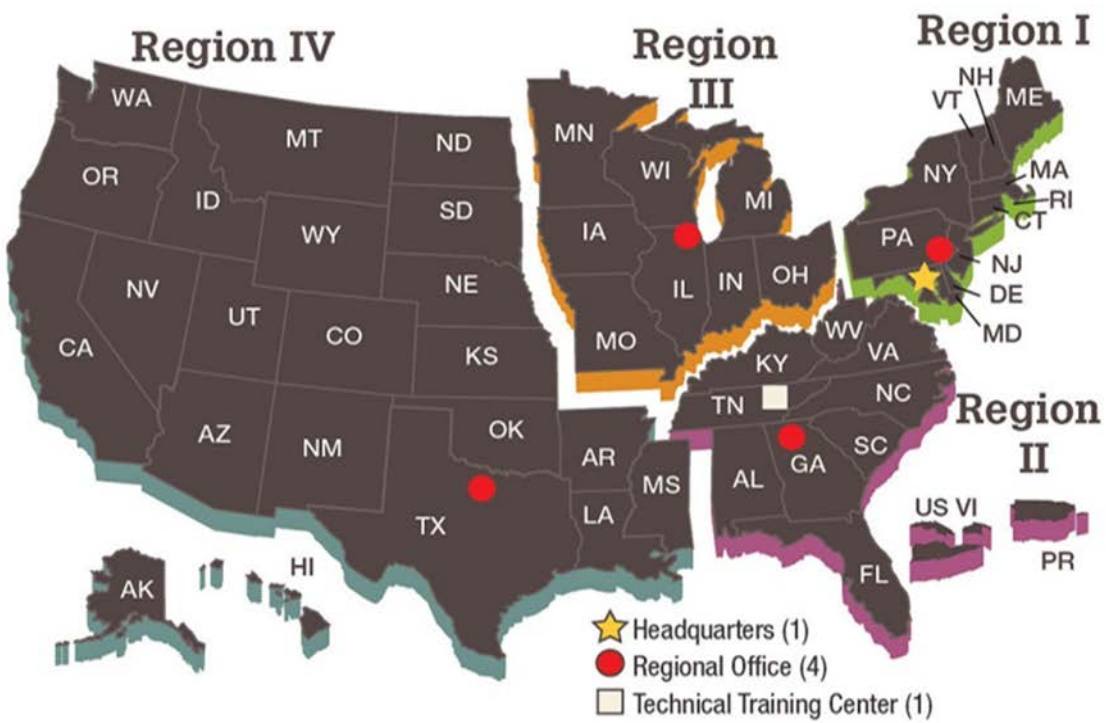


March 12, 2021

NRC Regions



Nuclear Power Plants

- Each regional office oversees the plants in its region except the Callaway plant in Missouri, which Region IV oversees.

Materials Licensees

- Region I oversees licensees and Federal facilities located geographically in Region I and Region II.
- Region III oversees licensees and Federal facilities located geographically in Region III.
- Region IV oversees licensees and Federal facilities located geographically in Region IV.

Nuclear Fuel Processing Facilities

- Region II oversees all the fuel processing facilities in the region and those in Illinois, New Mexico, and Washington.
- Region II also handles all construction inspectors' activities for new nuclear power plants and fuel cycle facilities in all regions.

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Overview of the resident inspector program

Resident Inspector Qualifications

- Bachelor's Degree with technical background
- Approximately two years formal qualification program
- Approximately two - four weeks per year of refresher training
- Quarterly and annual objectivity reviews
- Limited to no more than 7 years at a single site

Diablo Canyon Resident Inspectors

- Don Krause, Senior Resident Inspector
- Ayesha Athar, Resident Inspector

Diablo Canyon Senior Resident Inspector

Don Krause

- B.S. Virginia Tech
- M.E. University of Virginia
- Resident Inspector at Monticello, Minnesota - Region 3
- 30+ years Nuclear Industry experience outside federal service
  - Operations
  - Radiation Protection
  - Emergency Preparedness
  - Decommissioning
- US Navy Nuclear Surface Enlisted, 6 yrs.

Diablo Canyon Resident Inspector

Ayesha Athar

- B.S. University of Illinois at Urbana-Champaign
- M.S. University of Michigan
- Acting Resident Inspector

  Grand Gulf, Comanche Peak, Clinton,

  Diablo Canyon, Palo Verde
- NRC Performance Indicator Program Lead, NRR/DRO
- Shielding Analyst, AREVA Transnuclear, 2 years

Role of the Resident Inspectors

Regulation verification

- Conduct in-depth baseline inspections

Communication

- We are the “eyes and ears” of the NRC
- Provide operational awareness and detailed facility knowledge
- Emergency response – 1st NRC responders - prompt and independent information and assessment

Inspection Activities

- A “baseline” inspection program is performed at each site
- Cross-section of licensee’s activities
- Additional inspections may be performed
  - Greater than Green issues
  - Response to operational events
  - Substantive adverse trends

Diablo Canyon Power Plant Inspection Activities

January 1, 2020 – December 31, 2020

NRC completed ≈1,900 hours of "direct" inspection (≈6,200 hours total)

- Resident inspection "baseline" inspection
- Regional team inspections (typical)
  - Emergency preparedness inspection
  - Fire program inspection
  - License operator examinations
  - "ISI" inspection
  - Radiation safety inspections
  - Security inspections
  - Biennial problem identification & resolution inspection
  - Component design basis inspection

Inspection Reports

- Inspection reports are publicly available
- Inspection findings are evaluated for safety, regulatory, and risk significance, as well as enforcement
- Findings and performance indicators are used for the agency's periodic performance assessments

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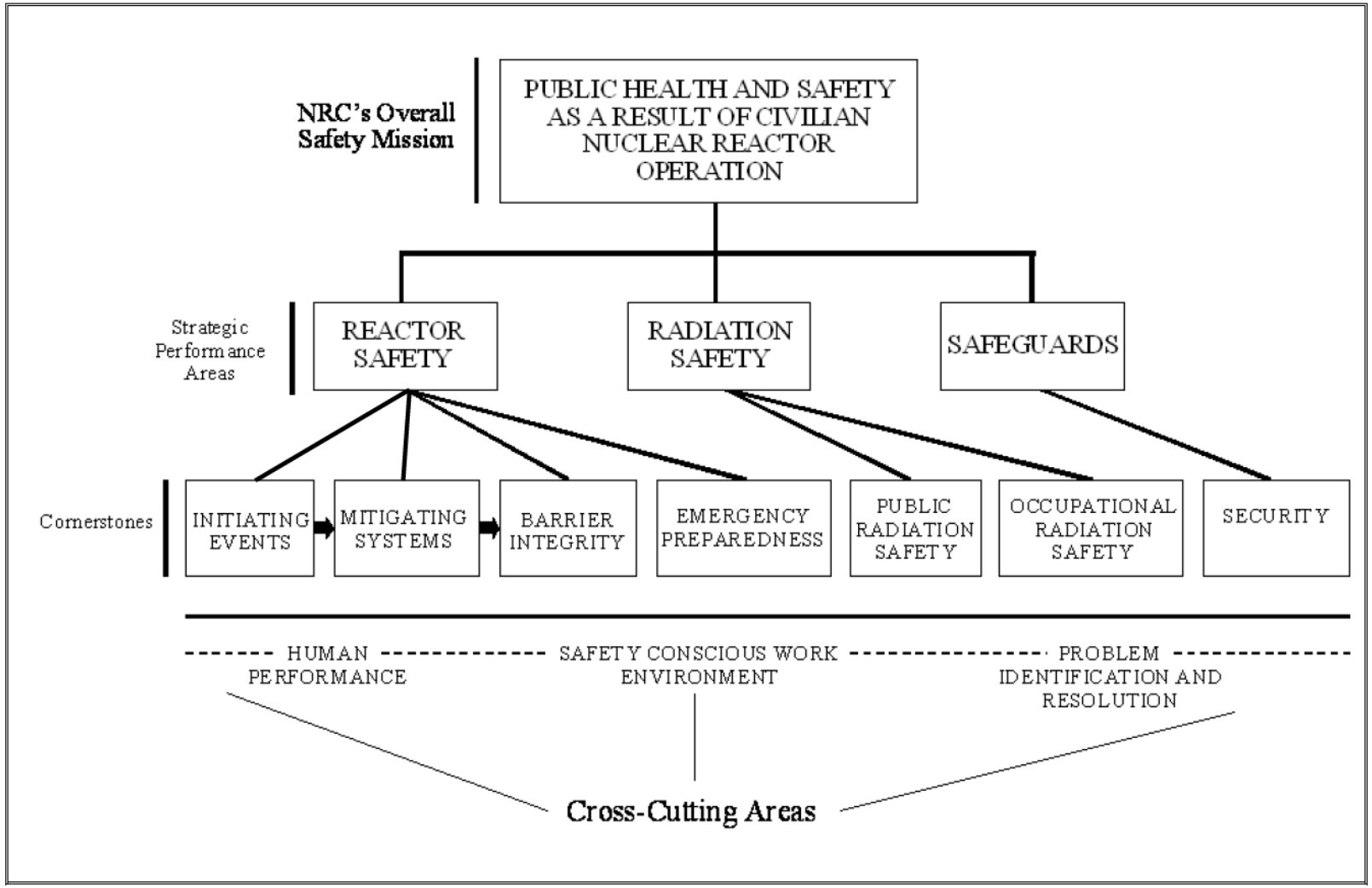
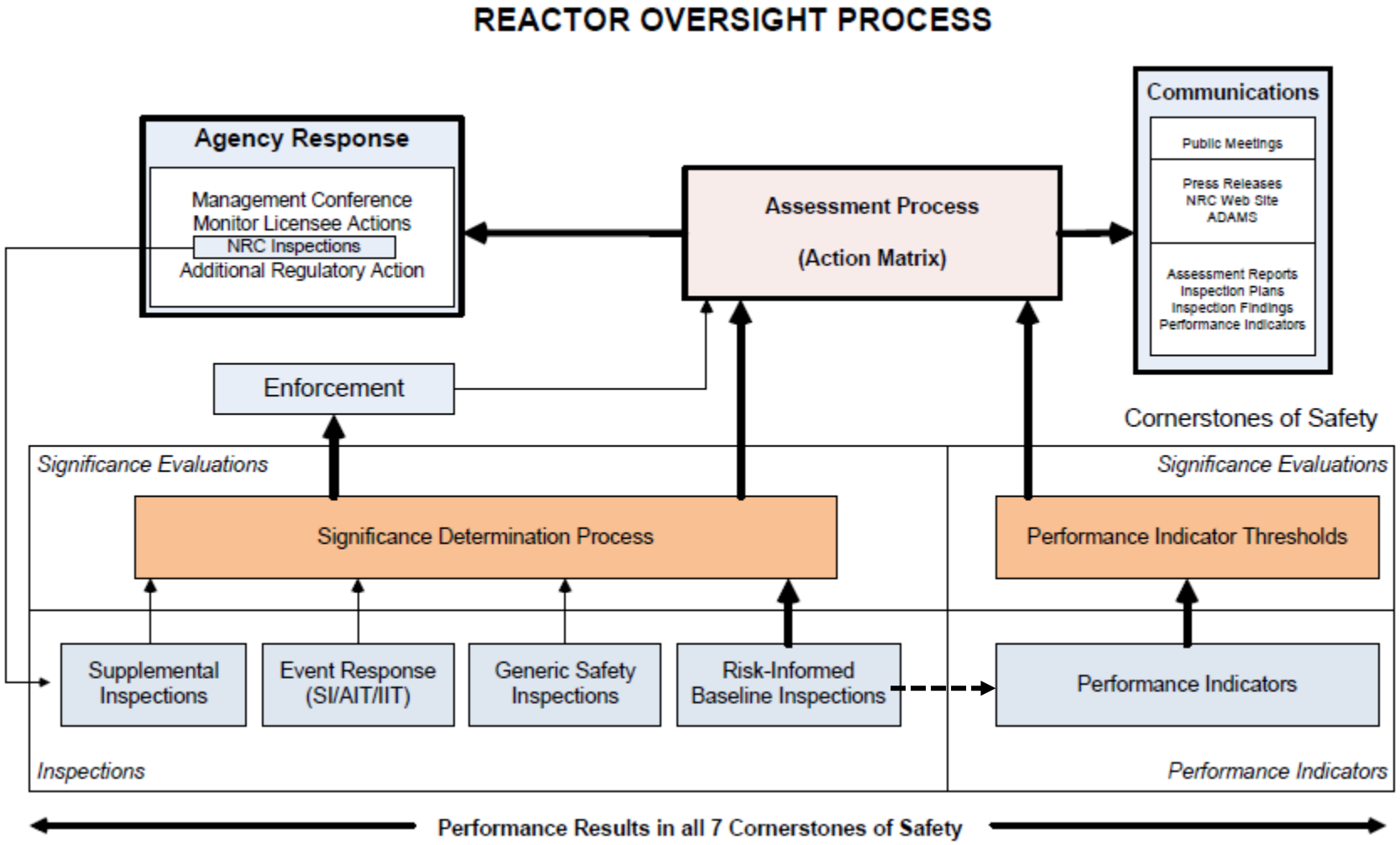
Overview of the regulatory process

How We Regulate: Regulatory Framework



How We Regulate: Reactor Oversight Process



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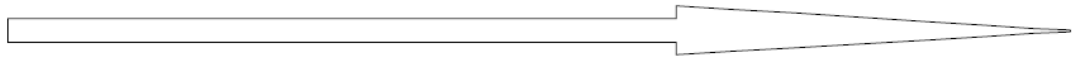
How We Regulate: Significance "Colors" in the SDP

- GREEN (Licensee Response Band)
  - Cornerstone objectives fully met. Nominal risk with nominal deviation from expected performance.
- WHITE (Increased Regulatory Response Band)
  - Cornerstone objectives met with minimal reduction in safety margin. Changes in performance consistent with $\Delta CDF < 10^{-5}$ ($\Delta LERF < 10^{-6}$).
- YELLOW (Required Regulatory Response Band)
  - Cornerstone objectives met with significant reduction in safety margin. Changes in performance consistent with $\Delta CDF < 10^{-4}$ ($\Delta LERF < 10^{-5}$).
- RED (Extensive Regulatory Response Band)
  - Performance within the cornerstone represents an unacceptable loss of safety margin. Changes in performance consistent with $\Delta CDF > 10^{-4}$ ($\Delta LERF > 10^{-5}$). Sufficient safety margin still exists to prevent undue risk to public health and safety.

How We Regulate:

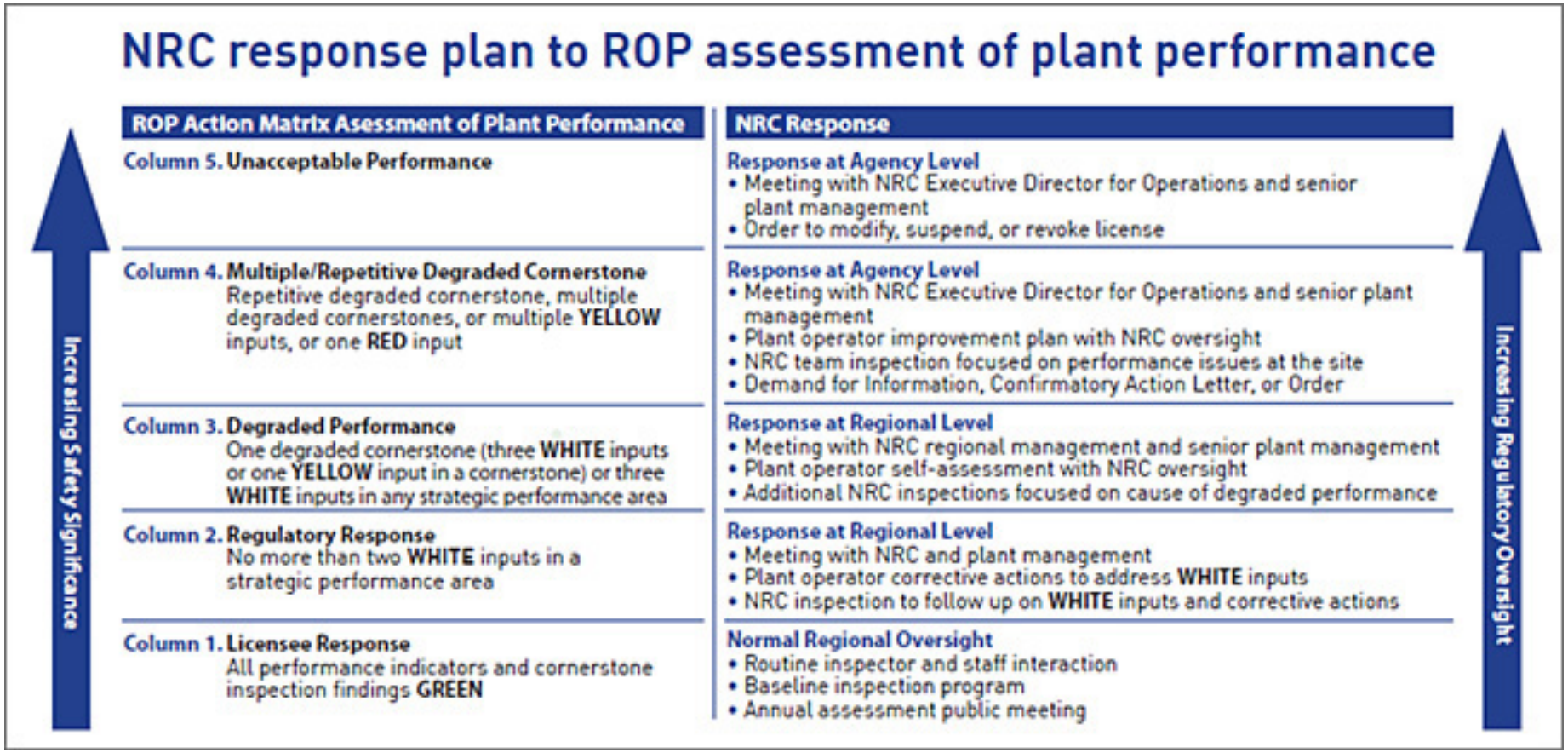
Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
Column 1	Column 2	Column 3	Column 4	Column 5



- Increasing safety significance
- Increasing NRC inspection efforts
- Increasing NRC/facility management involvement
- Increasing regulatory actions

How We Regulate: Action Matrix



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Covid Impacts on the Inspection Process

Covid Impacts

- Work Separation, minimizing unnecessary contact.
- Residents remained available for response 24/7 and on-site 4-5 days/week.
- Single resident on-site, video meetings, Licensee computer.
- Increased “remote” inspections - Risk significance evaluated:
  - Engineering code, modification, log reviews: minimal impact
  - Meetings, interviews, questions, etc. done with tele-cons.
  - Used Residents as field personnel to perform walkdowns.
  - Used camera/video or still photos of activities.
- Licensee allowed to delay a select few activities

Recap

- Overview of the NRC
- Overview of the resident inspector program
- Overview of the regulatory process
- Covid Impacts on the Inspection Process

Publicly Available Information

The NRC places a high priority on keeping the public and stakeholders informed of its activities.

- At **www.nrc.gov**, you can:
  - Find site specific oversight information
  - 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 (collect calls accepted)

Report a safety concern

- (800) 695-7403
- Allegation@nrc.gov

General information or questions

- www.nrc.gov
- Select “What We Do” for Public Affairs