

# U.S. NRC Safety Culture Policy & Oversight

**Michael X. Franovich**

Acting Deputy Director for Reactor Safety Programs  
October 9, 2024

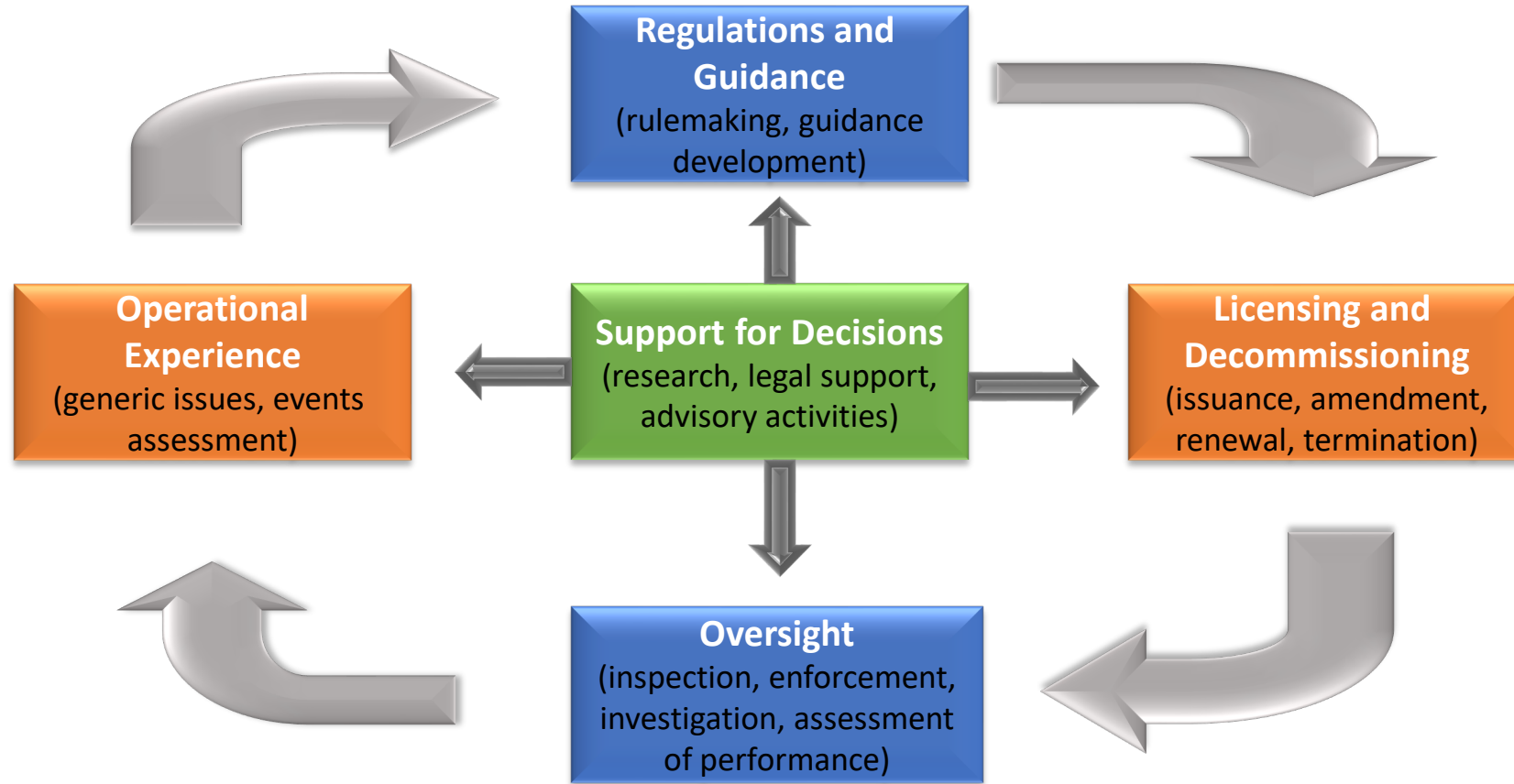


# Who we are?

- Independent agency created by Congress; who regulates the Nation's civilian commercial, industrial, academic, and medical uses of nuclear materials.
- Regulates commercial nuclear power plants; nonpower production and utilization facilities including research and test reactors; nuclear fuel cycle facilities; medical, academic, and industrial uses of radioactive materials; the decommissioning of licensed facilities and sites; and the transport, storage, and disposal of radioactive materials and wastes.
- Issues licenses for and oversees the use of radioactive materials and certifies nuclear reactor designs, spent fuel storage casks, and transportation packages.
- Licenses the import and export of radioactive materials



# How the NRC Regulates?



---

# Lessons learned from Chernobyl, Davis Besse, and Fukushima; the importance of safety culture

Chernobyl (1986)



Davis Besse (2002)



Fukushima (2011)





---

# Safety Culture Policy Statement & Common Language

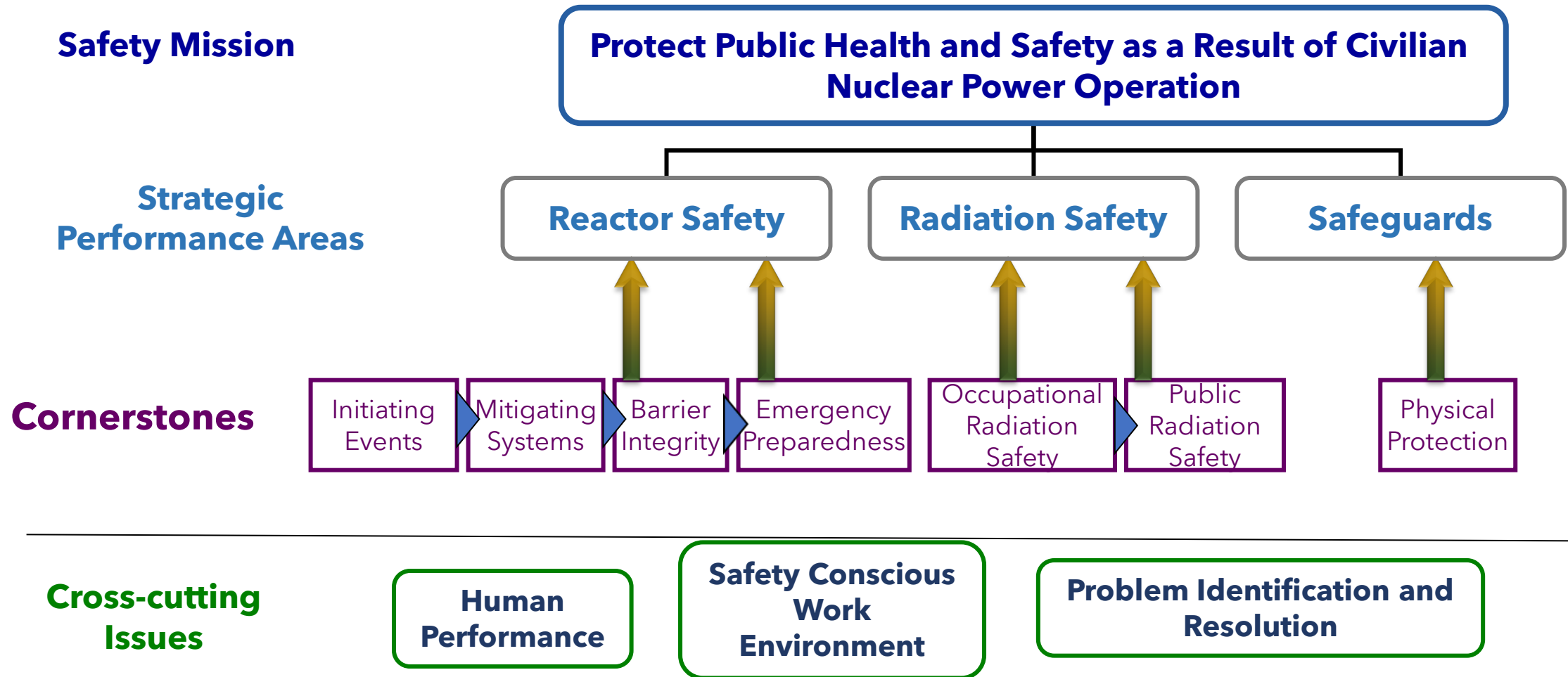
- Published in the Federal Register, June 14, 2011
- Applies to our regulated communities and sets forth the Commission's expectation that individuals and organizations performing regulated activities establish and maintain a positive safety culture commensurate with the safety and security significance of their actions and the nature and complexity of their organizations and functions
- Acknowledges the importance of safety and security within an overarching culture of safety
- Safety Culture Common Language published in 2013

---

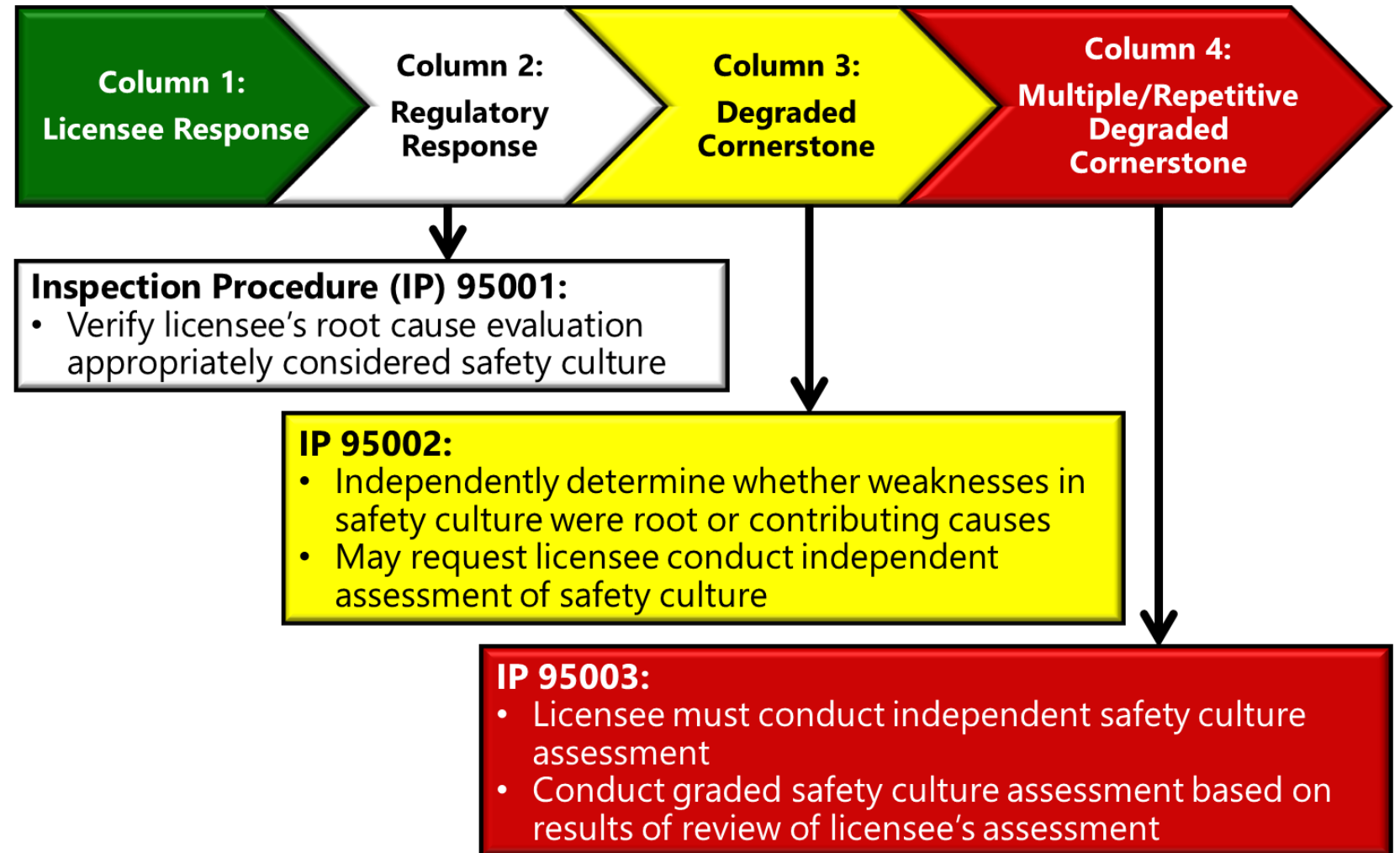
# NRC's Approach to Safety Culture Oversight

- Licensees bear primary responsibility for safety
- NRC's Safety Culture Policy Statement states safety culture expectation, but is not a regulatory requirement
- NRC considers safety culture within the Reactor Oversight Process (ROP) for nuclear power reactors
- NRC assessment of safety culture is primarily as a result of an event or degradation in performance
- Different levels of inspection activity based on NRC's overall assessment of licensee performance

# Reactor Oversight Process (ROP) – Framework



# Increased emphasis on safety culture based on licensee performance and placement in the Reactor Oversight Action Matrix





# NRC's Safety Culture

- NRC fosters a culture in which all employees live the NRC's values, demonstrate a positive safety culture, and adhere to the Principles of Good Regulation to support the NRC's mission
- Our safety culture is based on the Safety Culture Policy Statement
- Safety Culture is included in the NRC's Leadership Model
- NRC fosters an Environment for Raising Concerns
  - Differing Views Program (Open Door, Non-Concurrence and Differing Professional Opinion)





# Safety Culture Domestic and International Activities



- **Department of Energy**

- Safety Culture Improvement Process
- Safety Culture assessments at DOE facilities

- **IAEA**

- Technical and Consultancy meetings and publications on Safety Culture
- International School on Nuclear and Radiological Leadership for Safety
- Independent Safety Culture Assessment

- **Nuclear Energy Agency**

- Working Group on Leadership and Safety Culture
- Country Specific Safety Culture Forum, Japan

- **Requests for Safety Culture Assistance**

- Poland National Atomic Energy Agency (PAA) on-site workshop



# New Safety Culture Activities due to ADVANCE Act Initiatives

- **ADVANCE ACT**

- Assess elements of Oversight and Inspection, including Cross-Cutting Issues
- Update the Differing Views Process (Per section 507(d)(3)(D))

- **Advanced Reactors**

- Conducting research on specific safety culture considerations for advanced reactors
- Considering modifications to the construction ROP (cROP) regarding safety culture monitoring

---

# References

## **Safety Culture Policy Statement**

<https://www.nrc.gov/about-nrc/safety-culture/sc-policy-statement.html>

## **Safety Culture and Nuclear Reactors**

<https://www.nrc.gov/about-nrc/safety-culture/sc-nuclear-reactors.html>

## **Safety Culture Outreach and Education**

<https://www.nrc.gov/about-nrc/safety-culture/sc-outreach-edu-materials.html>

## **ADVANCE Act**

<https://www.nrc.gov/about-nrc/governing-laws/advance-act.html>



**For NRC's public information  
site for ADVANCE Act updates**



