

Susquehanna Annual Assessment Meeting

Nuclear Regulatory Commission - Region I

Berwick, PA

April 9, 2014



Purpose of Today's Meeting

- **A public forum for discussion of the licensee's performance in 2013**
- **NRC will address the performance issues identified in the annual assessment letter**
- **Licensee will be given the opportunity to respond and inform the NRC of new or existing programs to maintain or improve performance**



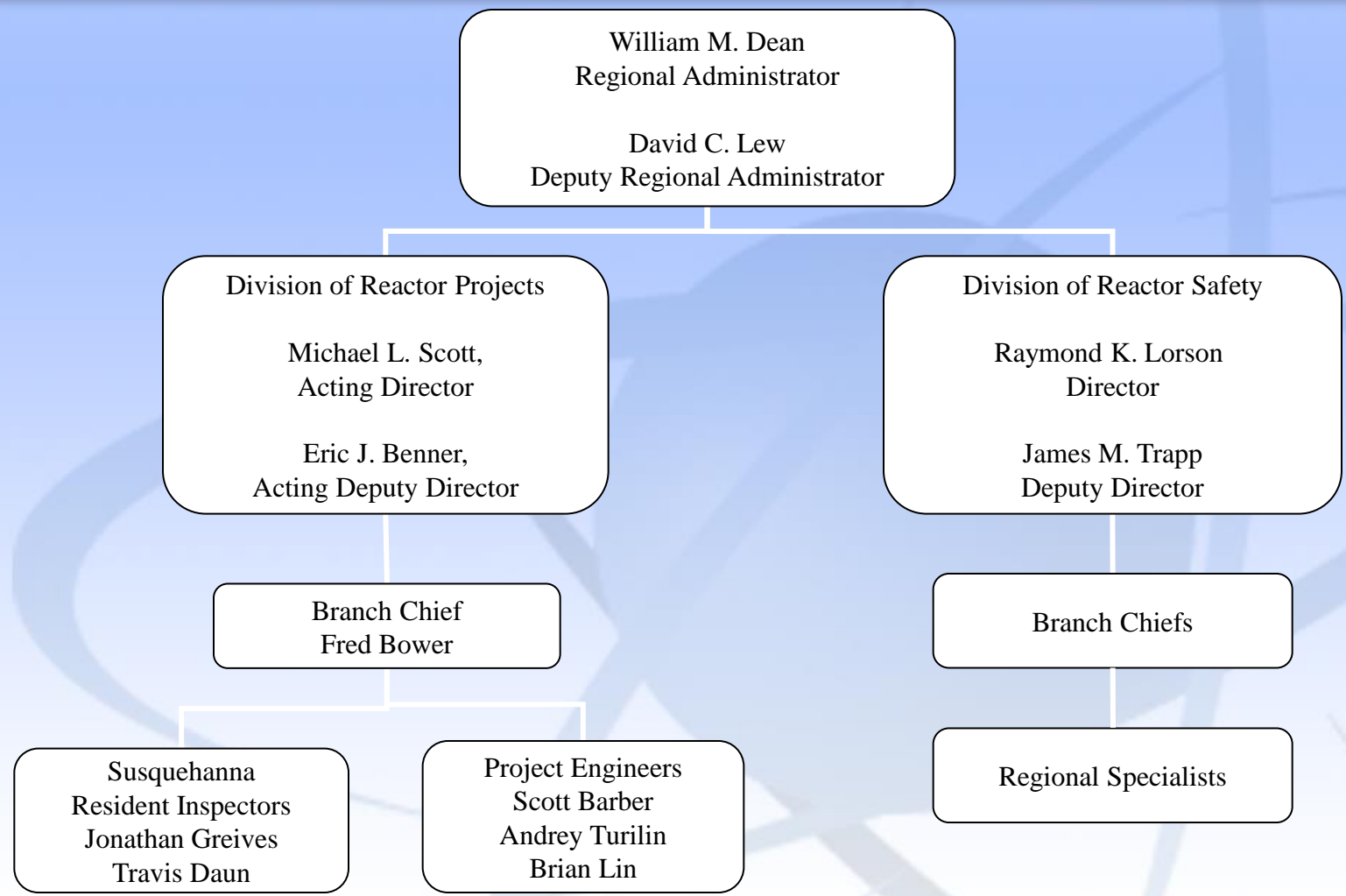
Agenda

- **Introductions**
- **Reactor Oversight Process**
- **Discussion of Plant Performance Results**
- **PPL Response and Remarks**
- **NRC Closing Remarks**
- **Break**

- **NRC available to address public questions**



Region I Organization





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

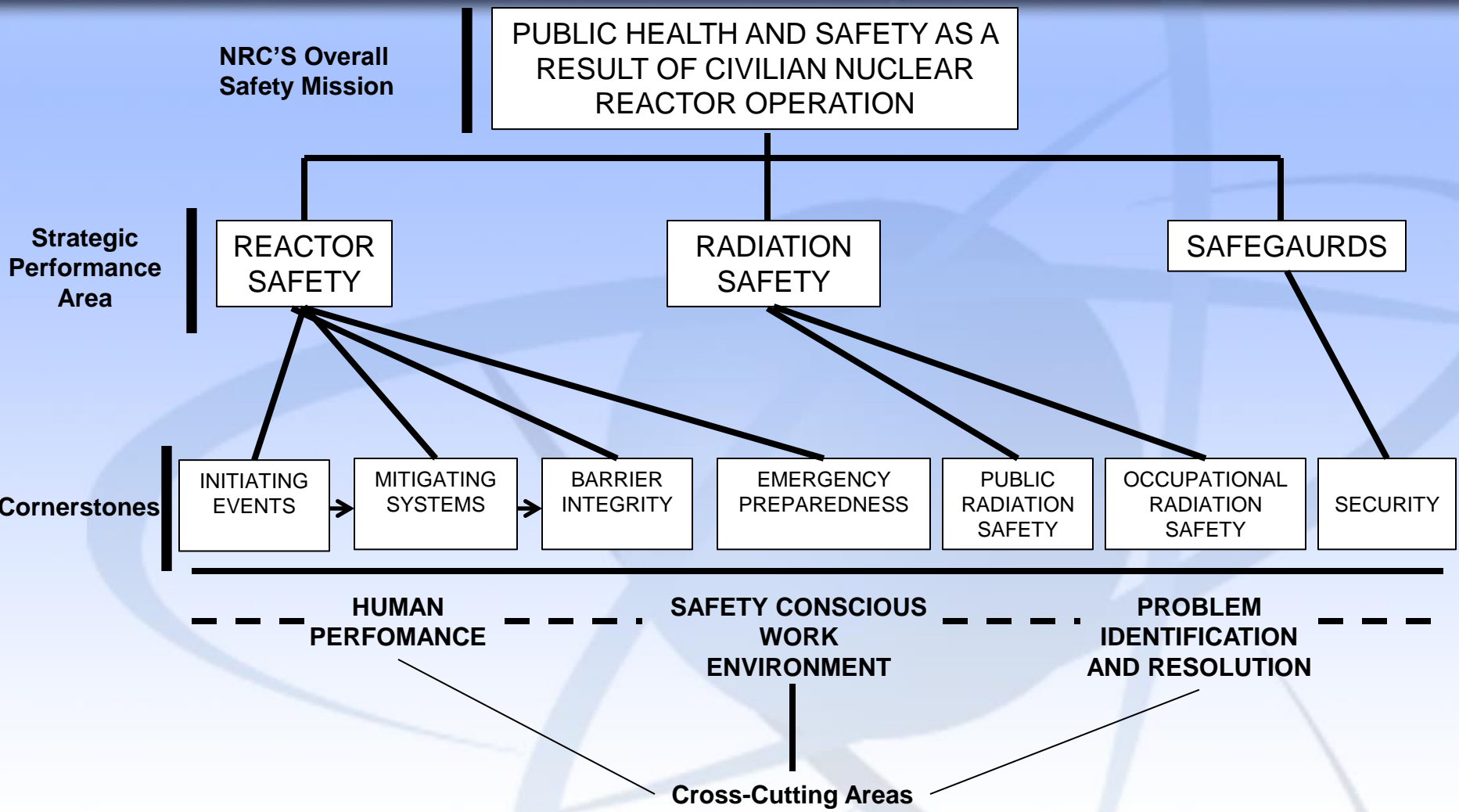


How We Regulate

- **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**

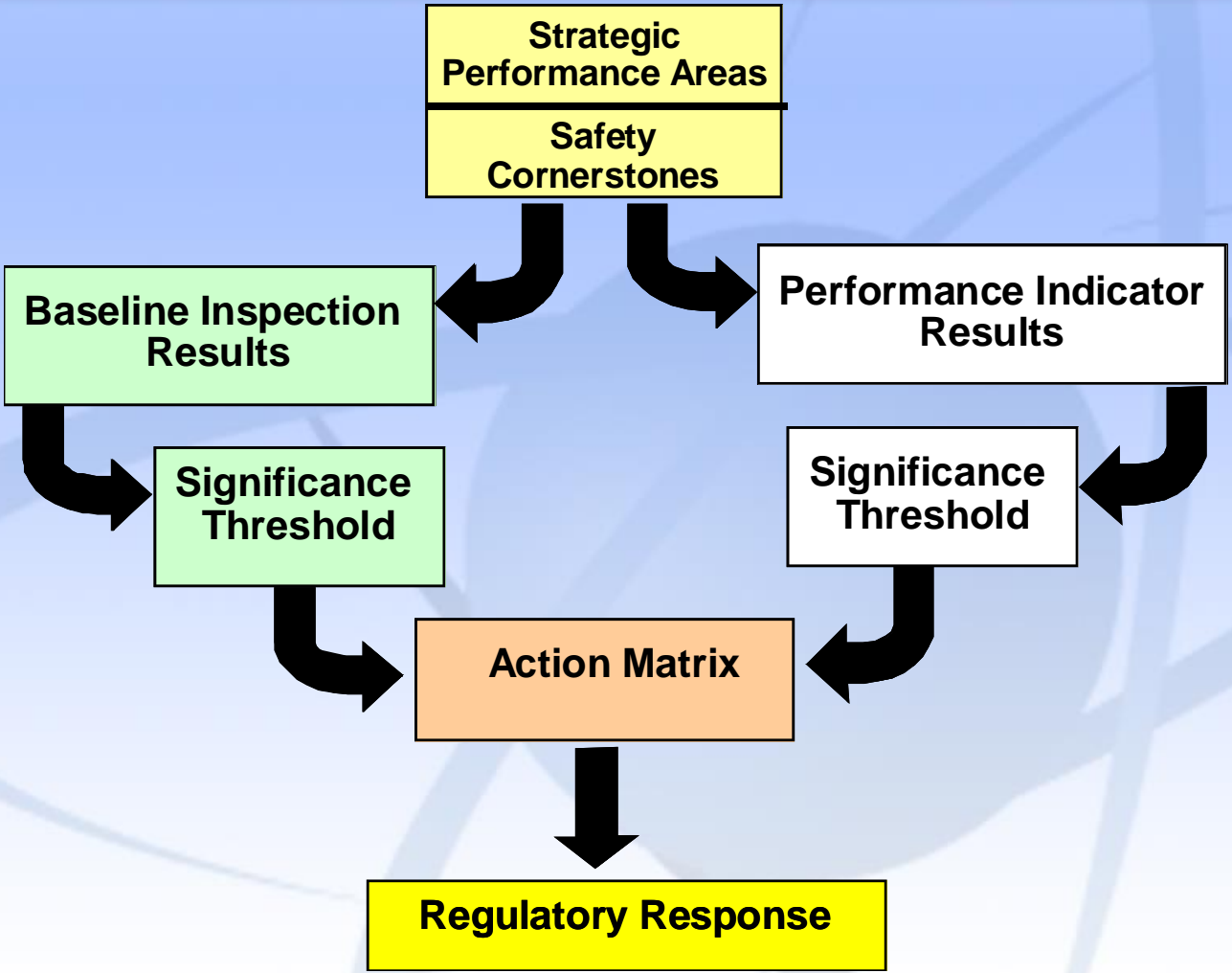


Regulatory Framework





Reactor Oversight Process





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



NRC Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple Repetitive Degraded Cornerstone	Unacceptable Performance
All Inputs are Green; Cornerstone Objectives Fully Met	1 or 2 White Inputs (in different cornerstones); Cornerstone Objectives Fully Met	2 White or 1 Yellow Input; Cornerstone Objectives Met w/ Moderate Degradation in Safety Performance	Multiple Yellow Inputs or 1 Red Input; Cornerstone Objectives Met w/ Significant Degradation in Safety Performance	Overall Unacceptable Performance; Plants not permitted to Operate w/in this Column; Unacceptable Margin to Safety



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



National Summary of Plant Performance

Status as of 03/16/2013

Licensee Response	86
Regulatory Response	8
Degraded Cornerstone	6
Multiple/Repetitive Deg. Cornerstone	1
Unacceptable	0
Inspection Manual Chapter 0350 Oversight	1
Total	102



Susquehanna 2013 Inspection Activities

- **Approximately 7300 hours of inspection & related activities**
- **2 resident inspectors on site**
- **Team and other inspections**
 - **Supplemental inspection – Unit 2 white performance indicator**
 - **Reactive inspection - Unit 2 scram due to reactor level control issues**
 - **Component Design Basis Inspection**
 - **Others (Security, Emergency Preparedness, Operator Licensing, Radiation Protection)**



Susquehanna Unit 1 Assessment Results

January 1 - December 31, 2013

- **Licensee Response Column**
 - All green Findings
 - All green Performance Indicators



Unit 1 Action Matrix

LICENSEE RESPONSE

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple Repetitive Degraded Cornerstone	Unacceptable Performance
All Inputs are Green; Cornerstone Objectives Fully Met	1 or 2 White Inputs (in different cornerstones); Cornerstone Objectives Fully Met	2 White or 1 Yellow Input; Cornerstone Objectives Met w/ Moderate Degradation in Safety Performance	Multiple Yellow Inputs or 1 Red Input; Cornerstone Objectives Met w/ Significant Degradation in Safety Performance	Overall Unacceptable Performance; Plants not permitted to Operate w/in this Column; Unacceptable Margin to Safety

- All green Findings
- All green Performance Indicators
- Licensee Response column



Susquehanna Unit 2 Assessment Results

January 1 - December 31, 2013

- **Degraded Cornerstone Column**
 - **All Green Findings**
 - **Two White Performance Indicators**
 - **Unplanned scrams with complications (more than 1)**
 - **Unplanned scrams per 7000 critical hours (more than 3)**



Susquehanna Unit 2 Safety Significant PIs

- **Unplanned Scrams with Complications**
 - Exceed green/white threshold (more than 1)
 - Two scrams with complications
 - Nov 9, 2012 – Shutdown required in response to a malfunction of the feed water control system
 - Dec 16, 2012 – Operator response to an automatic scram included reactor water level control challenges outside what is expected in a normal scram.
 - Inspection successfully completed in Sep 2013



Susquehanna Unit 2 Safety Significant PIs

- **Unplanned Scrams per 7000 Critical Hrs**
 - **Exceeded the green/white threshold (more than 3)**
 - **Scrams on**
 - **11/09/12**
 - **12/16/12**
 - **12/19/12**
 - **09/14/13**



Unit 2 Action Matrix

DEGRADED CORNERSTONE

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple Repetitive Degraded Cornerstone	Unacceptable Performance
All Inputs are Green; Cornerstone Objectives Fully Met	1 or 2 White Inputs (in different cornerstones); Cornerstone Objectives Fully Met	2 White or 1 Yellow Input; Cornerstone Objectives Met w/ Moderate Degradation in Safety Performance	Multiple Yellow Inputs or 1 Red Input; Cornerstone Objectives Met w/ Significant Degradation in Safety Performance	Overall Unacceptable Performance; Plants not permitted to Operate w/in this Column; Unacceptable Margin to Safety

- **2 White PIs**
 - **Unplanned Scrams with Complications (more than 1)**
 - **Unplanned Scrams / 7000 critical hours (more than 3)**



Susquehanna Unit 2 Safety Significant PIs

- **Supplemental inspection will be scheduled upon notification by PPL of readiness.**
 - **Inspection Procedure 95002 "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area"**



Licensee Response and Remarks

Jon A. Franke
Site Vice President
PPL Susquehanna, LLC



Susquehanna 2013 Annual Assessment Summary

- **PPL operated Susquehanna in a manner that preserved public health and safety**
- **Unit 1 - Licensee Response column of the Action Matrix**
 - **Baseline Inspection Program**
- **Unit 2 – Degraded Cornerstone column of the Action Matrix**
 - **Baseline inspections and one Supplemental Inspection (Inspection Procedure 95002)**



Contacting the NRC

- **Public Affairs (Region 1 office)**
 - (610) 337-5330/5331
- **Report a safety concern**
 - (800) 695-7403
 - Allegation@nrc.gov
- **General information or questions**
 - www.nrc.gov
 - Select “What We Do” for Public Affairs



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)



Susquehanna Annual Assessment Meeting

- **Short break**
- **NRC to address public questions**