U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

RIC 2011
Industry Operational Performance and Trends

Martin J. Virgilio, Deputy Executive Director for Reactor and Preparedness Programs

March 8, 2011

Housekeeping Notes

- **Cell Phones, PDA's and Electronic Devices** – Please silence your cell phones and other electronic devices.

- **Exiting During a Session** – If you need to leave during a session, please wait for a break between speakers.

- **Exiting at the End of a Session –** Conference participants are encouraged to leave the meeting room promptly so that the next session can begin on time.

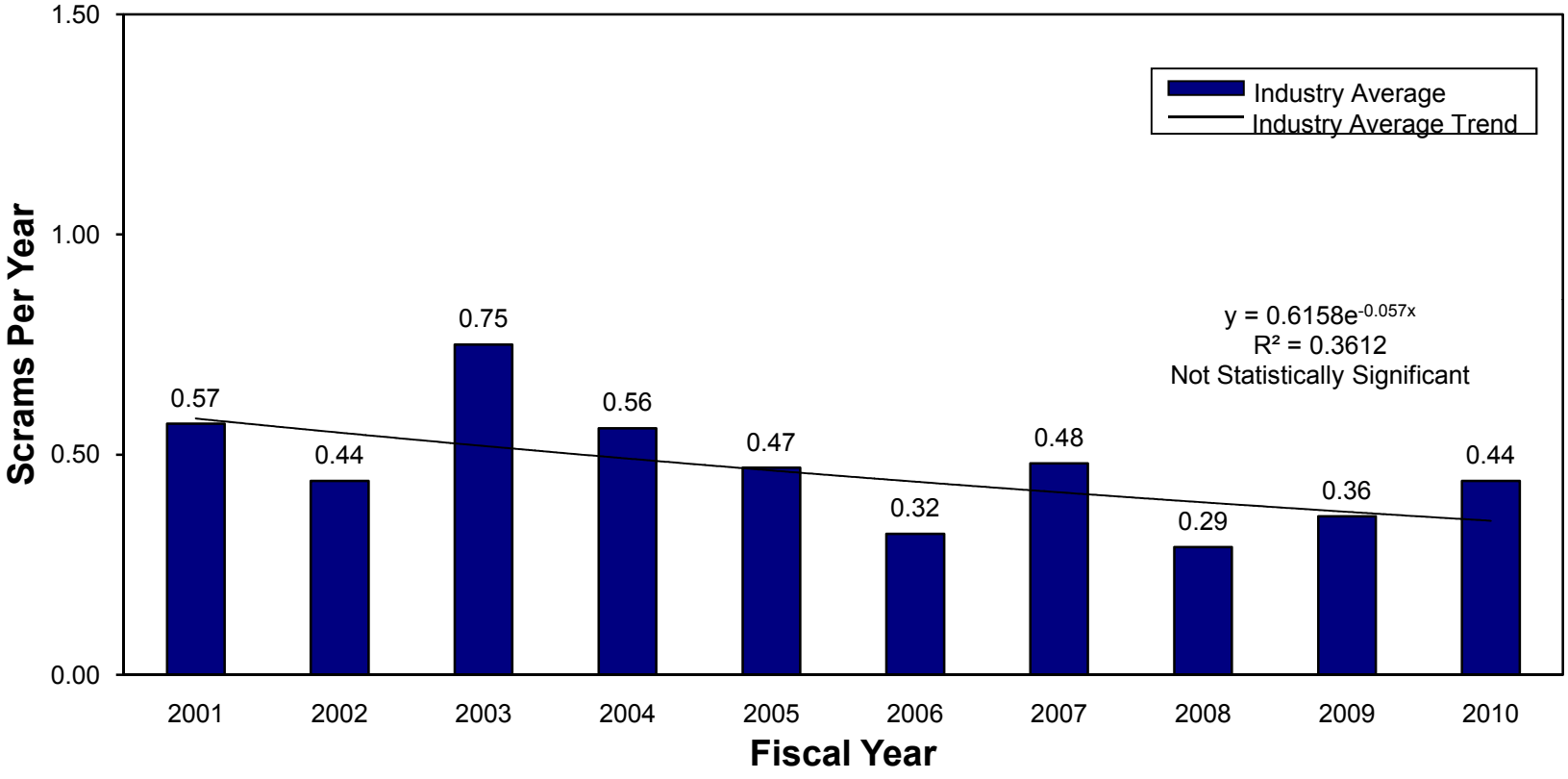
Session Presenters

- Marty Virgilio, DEDR
- Elmo Collins, Region IV Regional Administrator
- Mark Satorius, Region III Regional Administrator
- Bill Dean, Region I Regional Administrator
- Victor McCree, Region II Regional Administrator

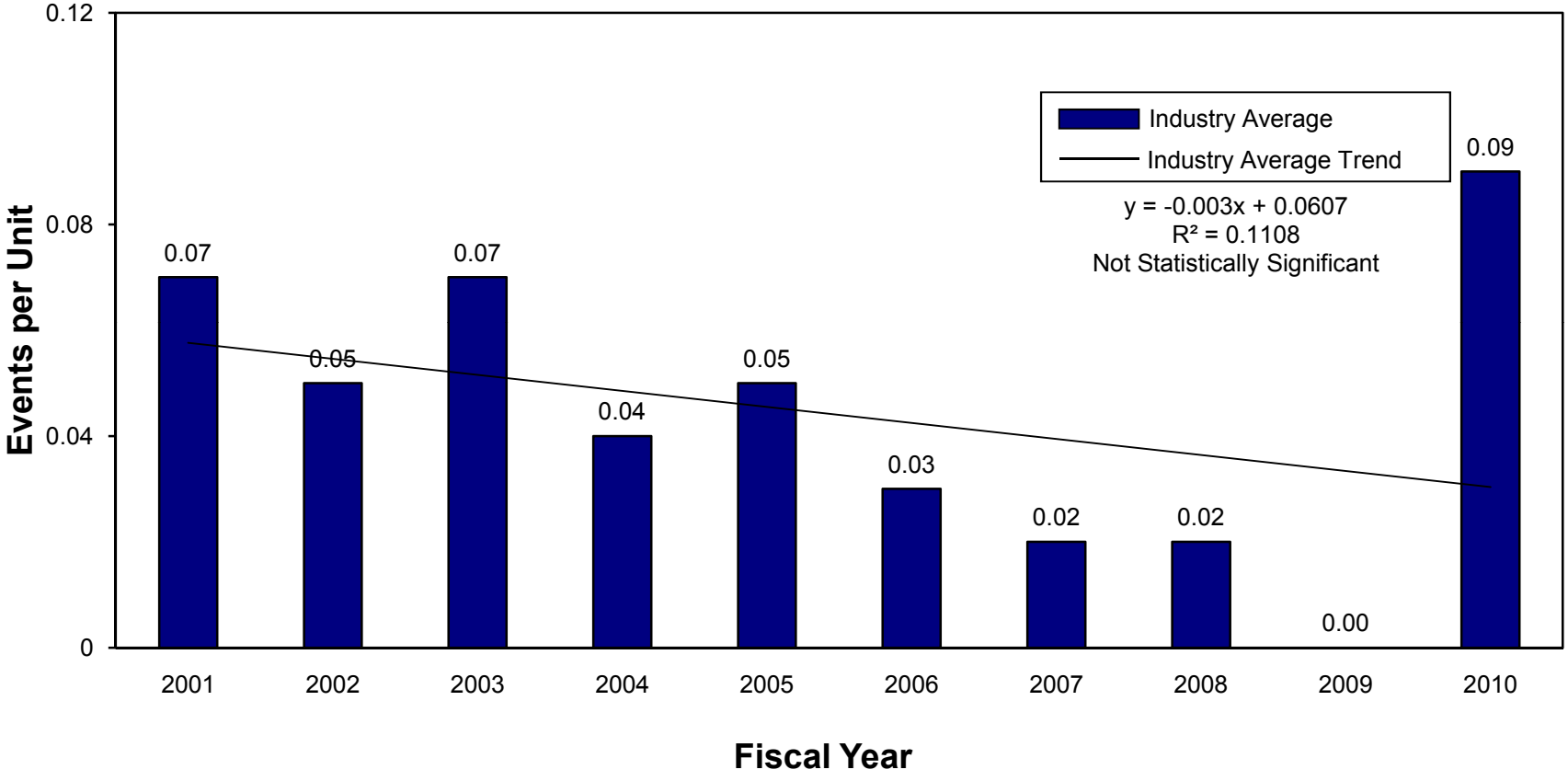
Introductory Remarks

Marty Virgilio, Deputy Executive Director for Reactor and Preparedness Programs

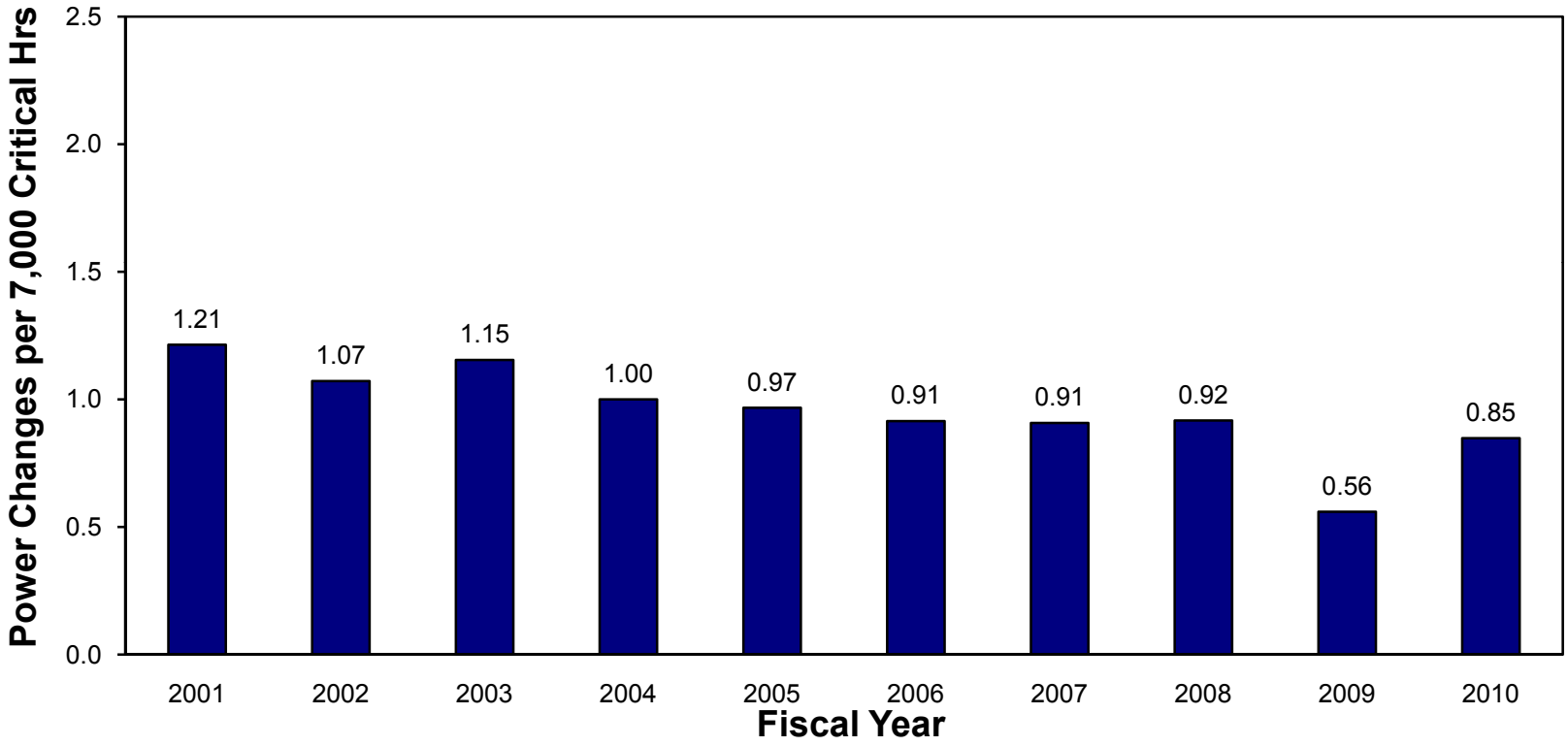
Reactor Automatic Scrams while Critical



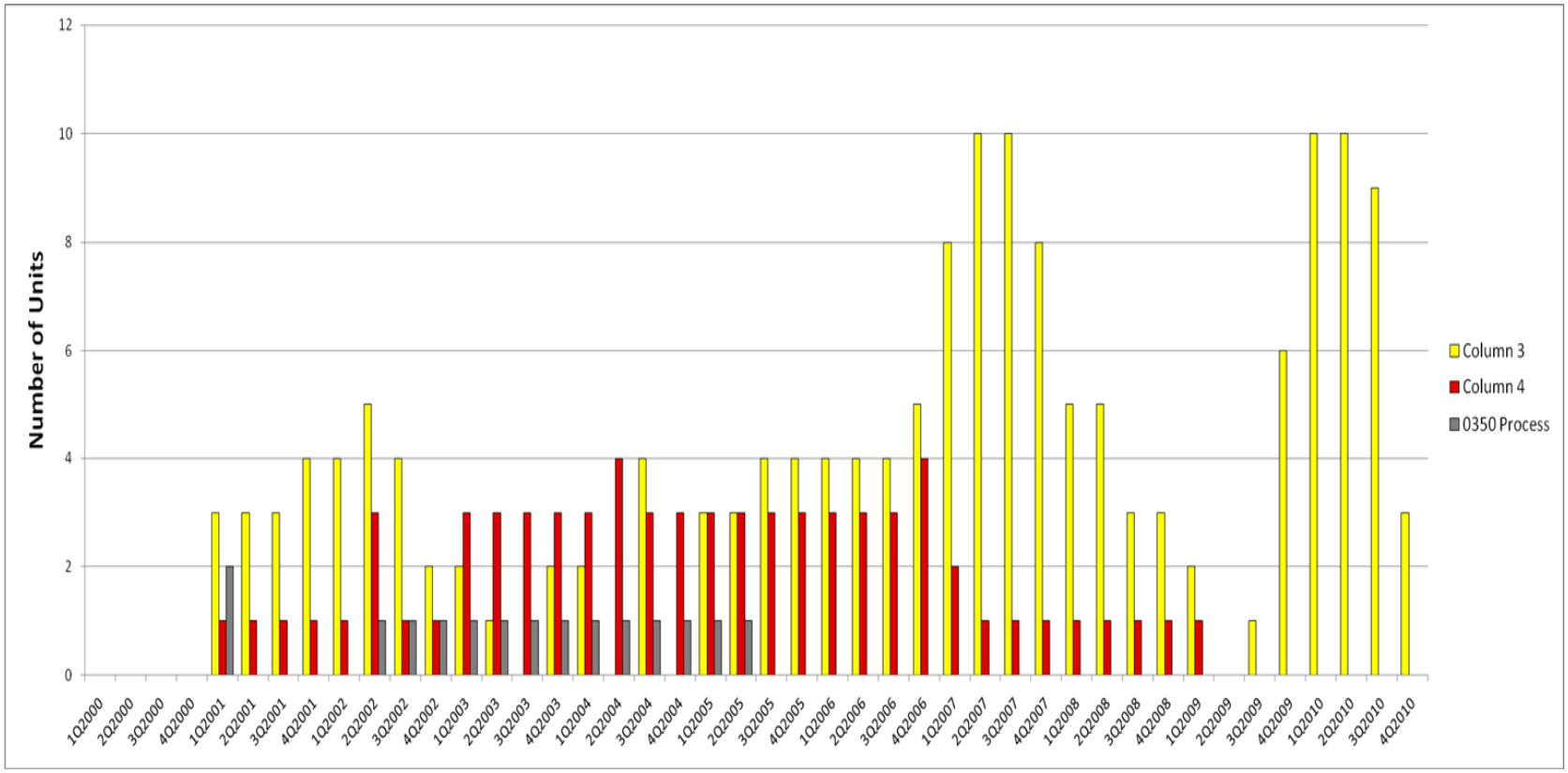
Reactor Significant Events



Unplanned Power Changes



Plants in ROP Action Matrix Cols. 3 & 4



Session Topics

- NRC Programs for Accessing and Conveying Operational Experience – Elmo Collins
- Performance Issues with Independent Spent Fuel Storage Facilities (ISFSIs) – Mark Satorius
- Security Performance Findings and Trends – Bill Dean
- Insights on Operating Crew Performance – Victor McCree

A Q&A session will follow each presentation

NRC Program Overview

- **Industry Trends Program**
- **Accident Sequence Precursor (ASP) Program**
- **Operating Experience Program**

Key Performance Insights

- **Reactor Trips/Scrams**
- **Significant Events**
- **Reactor Oversight Program Results**

ISFSI Pre-Operational Performance Issues

- Requirements for Spent Fuel Cask Stability During Transfer
- Control of Heavy Loads Evaluations for Cask Movements
- ISFSI Pad Evaluation and Construction

ISFSI Operational Performance Issues

- Command and Control of ISFSI Operations
- Adherence to System Design and Licensing Basis
- Equipment Failure During Cask Heavy Loads Operations

Trend in Security Findings of Significance (Region I)

- Security findings with the potential of being significant have increased
- Findings related to package searches, security openings and Safeguards Information (SGI) control
- Events involve multiple plants and licensees

Trend in Security Findings of Significance (Nation-wide)

- Other Regions seeing similar issues to varying degrees
- Possible causes:
  - Security facilities/hardware changes
  - Electronic storage/transfer of SGI data
  - Revised Significance Determination Process (SDP) in January 2010
  - Still issues with unattended security openings

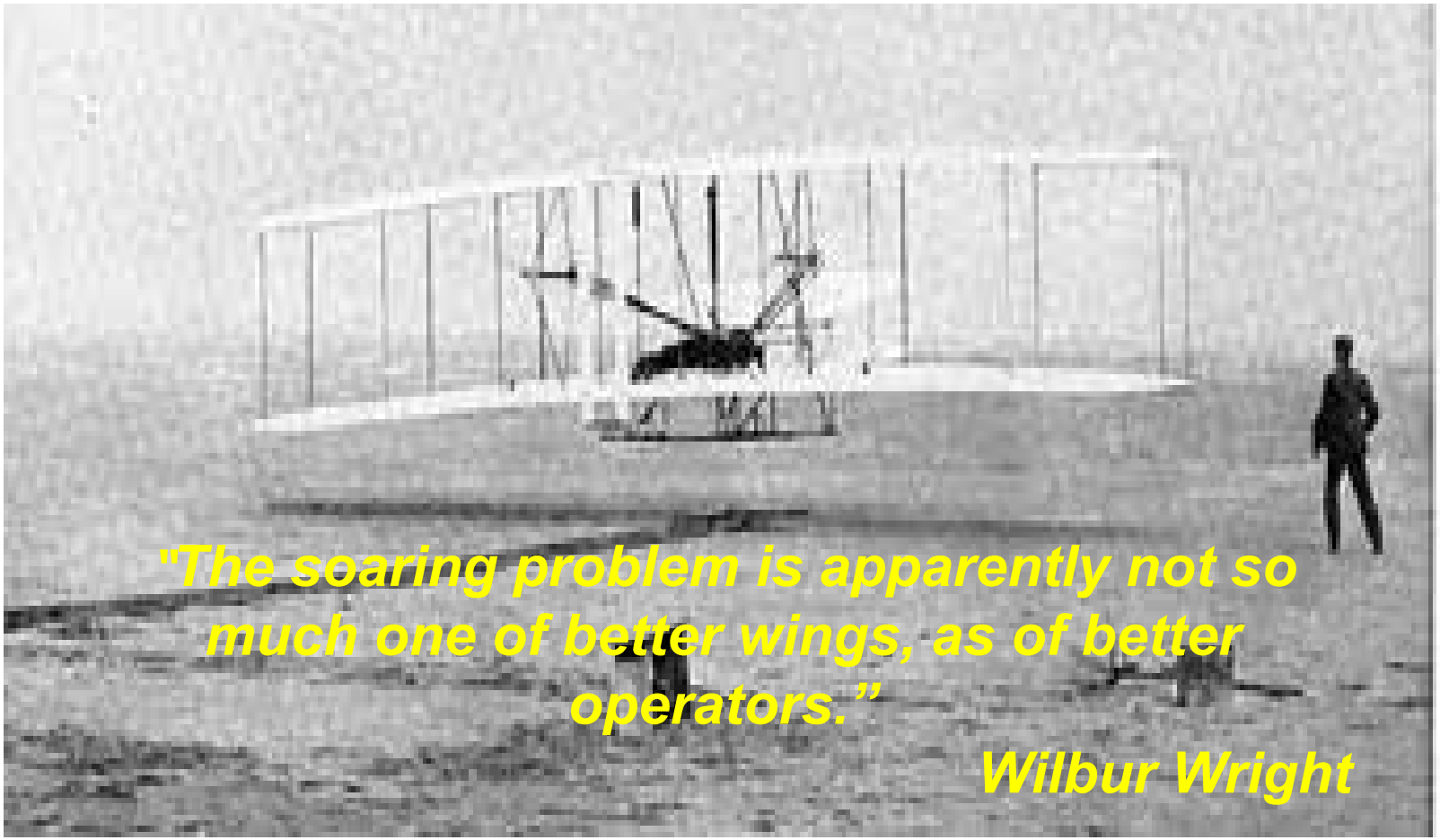
Operating Crew Performance

- Perspectives on Operating Crew Performance
- H.B. Robinson Reactor Trip/Fire Event, March 2010
- Operating Crew Readiness Insights
  - Fewer Operational Challenges
  - Control Room Operator Experience
  - Use of Knowledge Based EOPs
  - Staff/Crew Composition
  - Training Scenario Complexity

Operating Crew Performance

- Operating Experience Smart Sample
- Potential Revision to NRC's Licensed Operator Requalification Program Procedure
- INPO Interface

Operating Crew Performance



General Information

- **Audio Recording of Session** – All sessions are being recorded; Audio recordings will be available on the RIC website after the conference.

- **Unanswered Questions** – Questions that are not answered during this session will be posted along with the answers on RIC website after the conference.

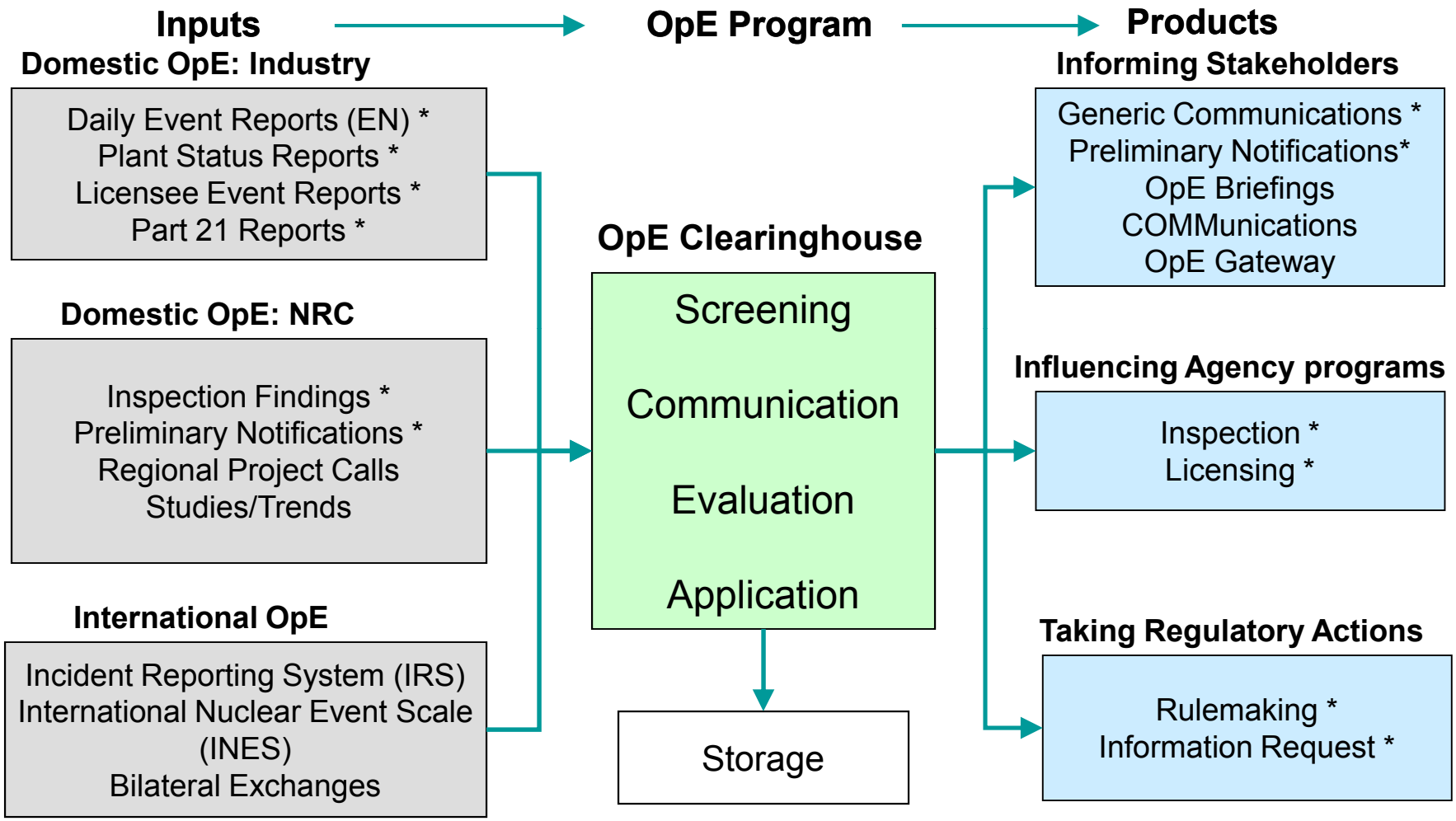
- **Presentation Materials** – All electronic presentations will be posted on the RIC website after the conference.

Supporting Graphical Information

- Slides 21 – 25
- Contact session coordinator Richard Barkley, PE, if you have further comments or questions regarding this presentation

  (610/337-5065)

Reactor OpE Overview



* = Publicly Available on the NRC Web Page

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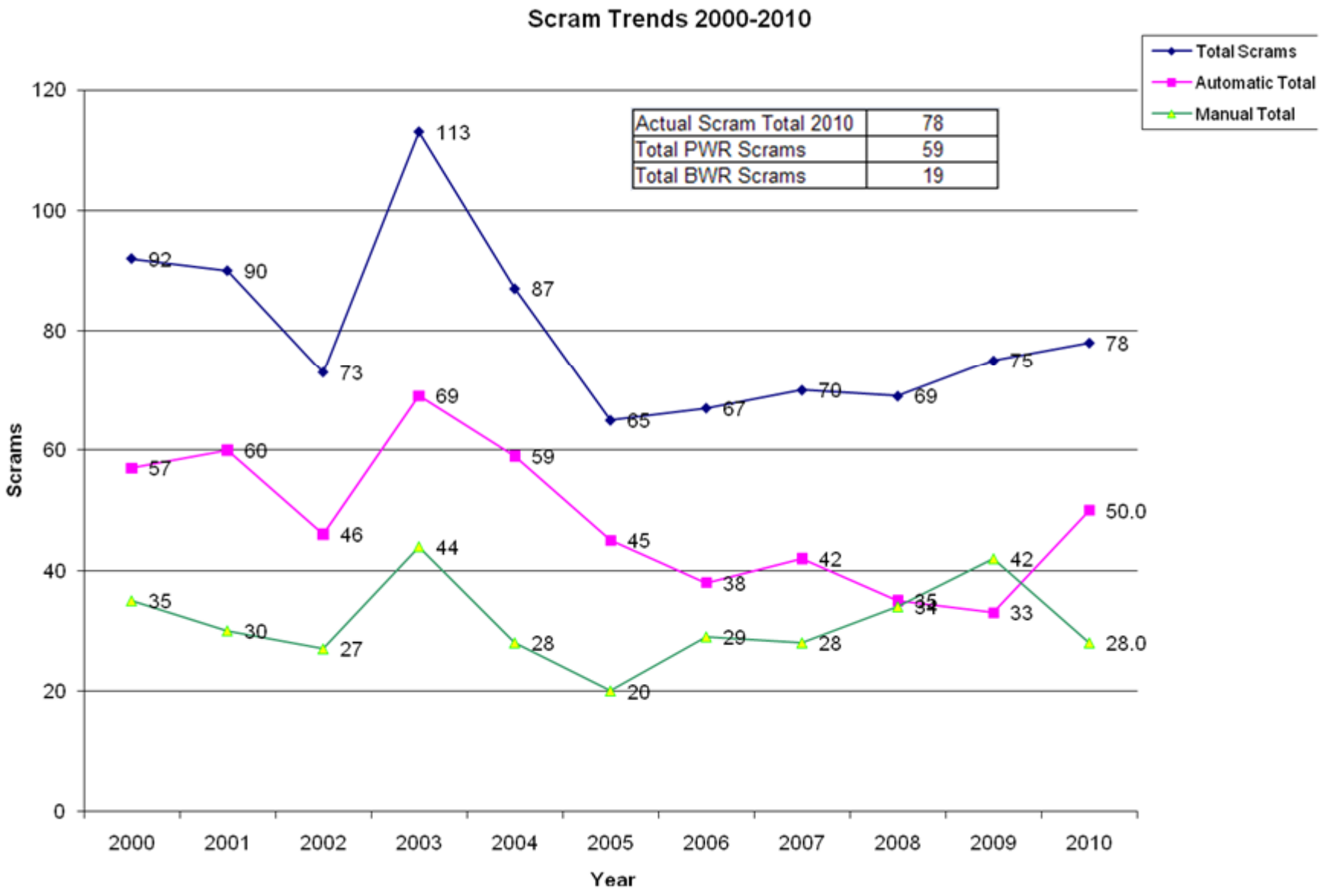
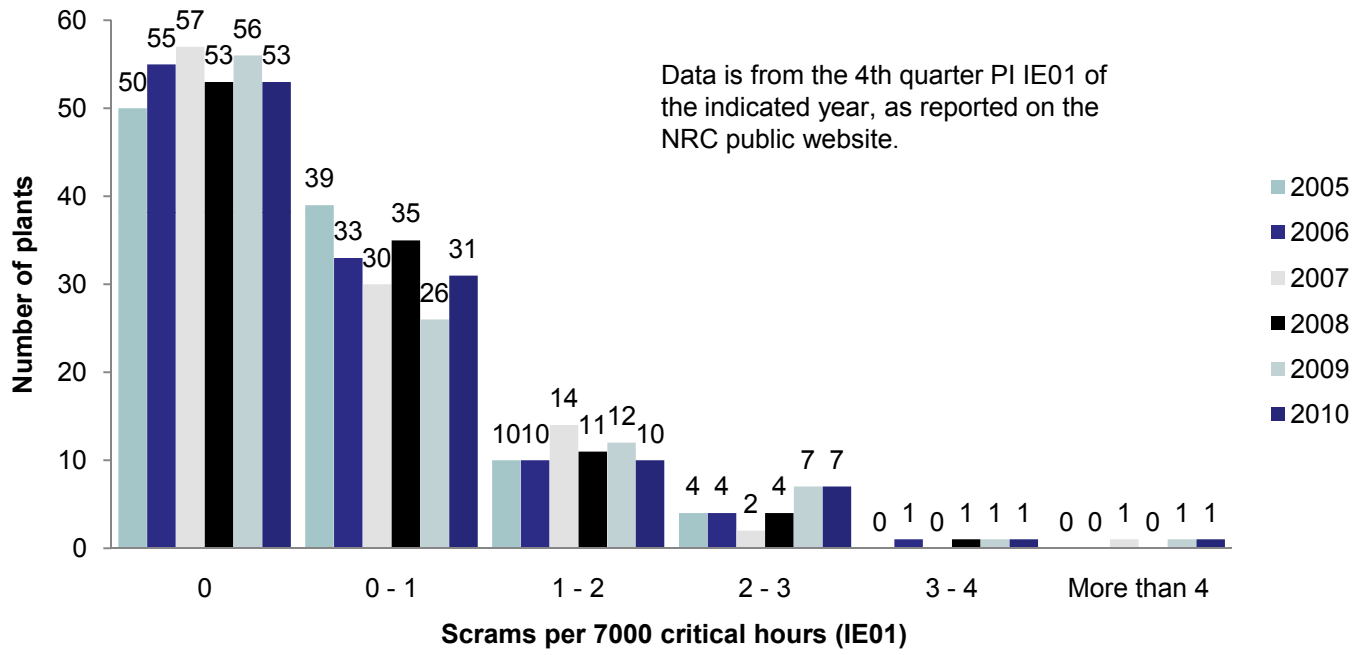


Scram Information 2005-2010

Industry Distribution of Scrams



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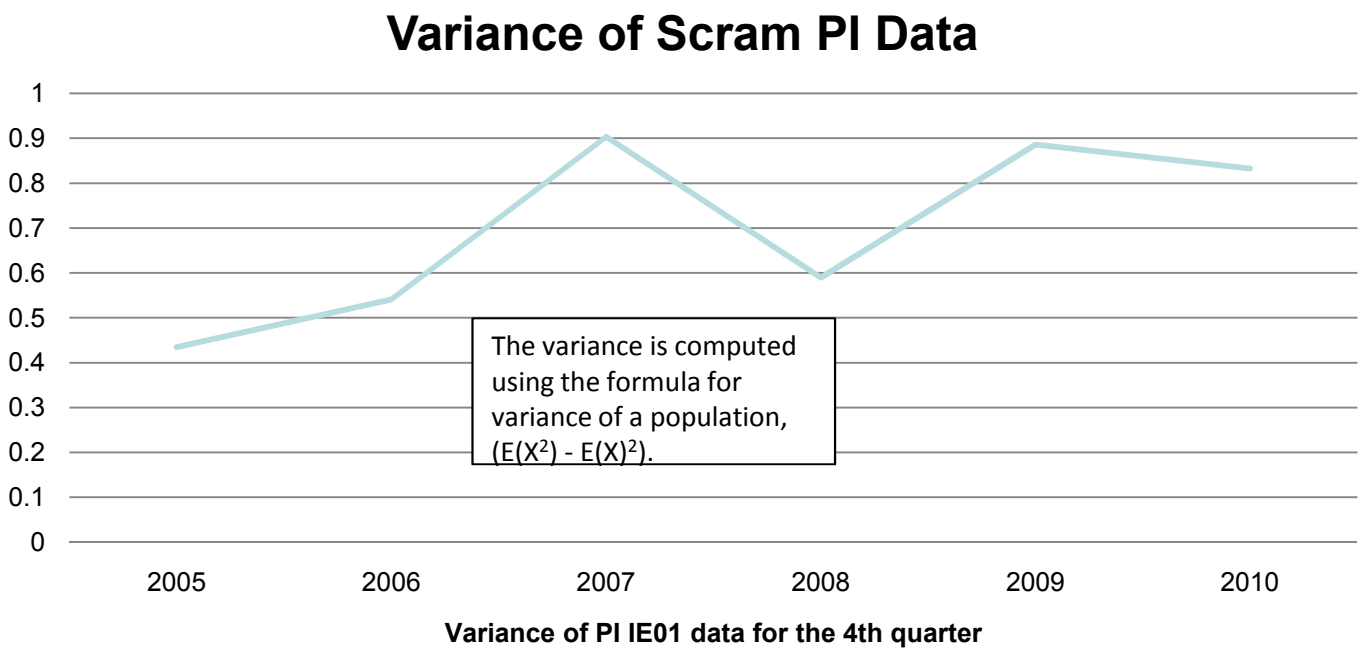
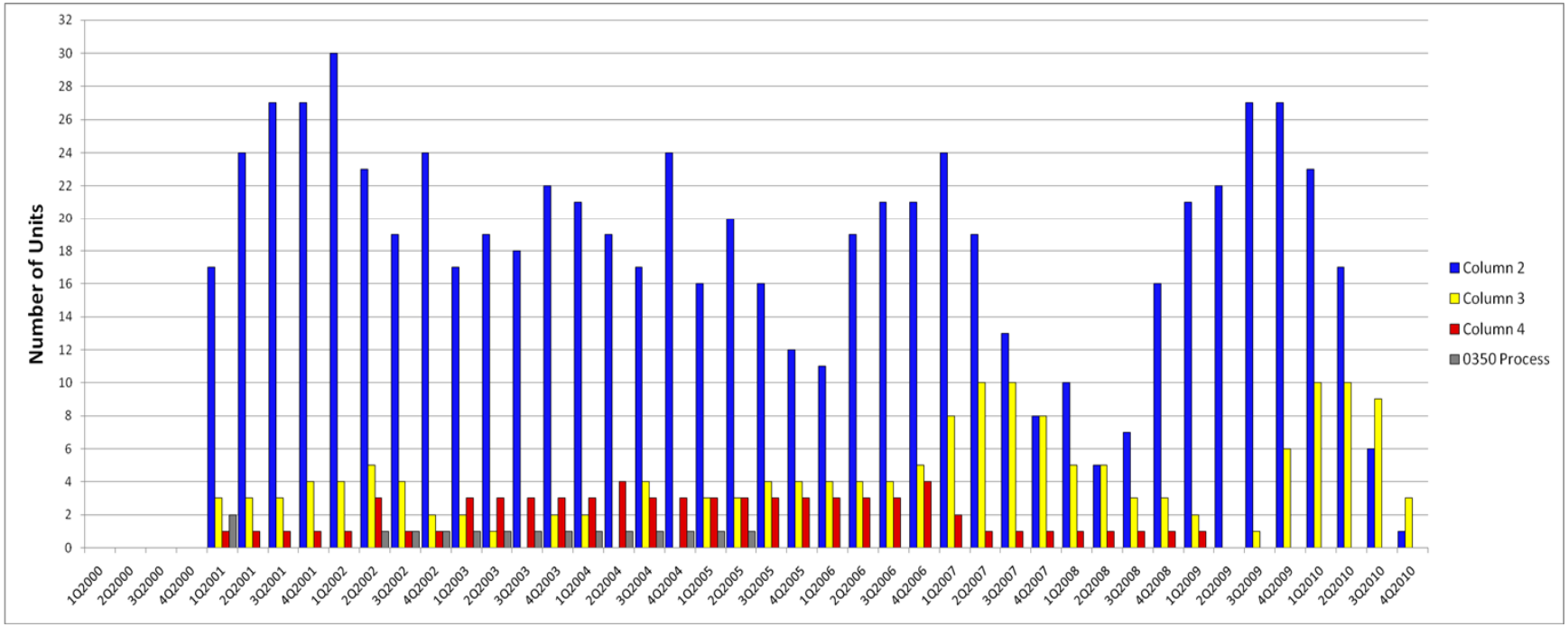
Plants in ROP Action Matrix Cols. 2, 3 & 4