

# WHY QA?

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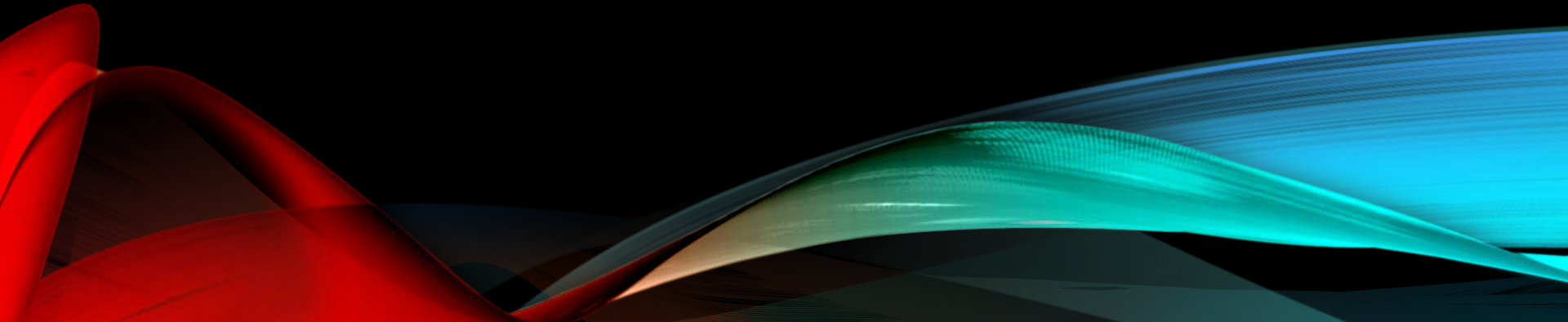
# QUALITY ASSURANCE AND YOU

- Monitoring is the foundation of the CAA's regulatory framework
  - Criteria Air Pollutants—SIP related rulemakings such as Clean Data Determinations, attainment demonstrations, and redesignations
  - Hazardous Air Pollutants—School Air Toxics Assessments; Residual Risk and Technology Reviews; State/Local and community-based initiatives
- Data obtained from monitoring drive the decision-making process
- Therefore, poor QA along with reduced resources have direct implications throughout the air program

# QUALITY ASSURANCE AND ME

- Regional community (both ROs and S/Ls) are not immune to QA oversight problems
  - Some Regions/S/Ls don't have a dedicated QA Lead
    - Personnel playing dual roles of monitoring/QA
    - Loss of independence and focus
  - There are many new, inexperienced air monitoring personnel
    - Training needed
  - Budget difficulties
    - Difficult to replace staff as they retire or leave
    - Difficult to replace aging audit equipment and keep standards up to date

# RECENT FINDINGS AND CHALLENGES



# RECENT DATA QUALITY CHALLENGES WITH HQ INVOLVEMENT

- Hayden AZ lead (Pb) - Lack of an approved QAPP for industrial monitors led to a delay in acting on data indicating a NAAQS violation
- Louisville PM<sub>2.5</sub> – serious issues with PM gravimetric lab uncovered during state audit. Further procedural issues discovered during regional TSA. Multiple years of FRM data invalidated, delaying state redesignation requests.
- Billings MT SO<sub>2</sub> – intense industry scrutiny on state data quality required detailed point by point review of QC checks, audits, and other QA criteria over 3+ year period.

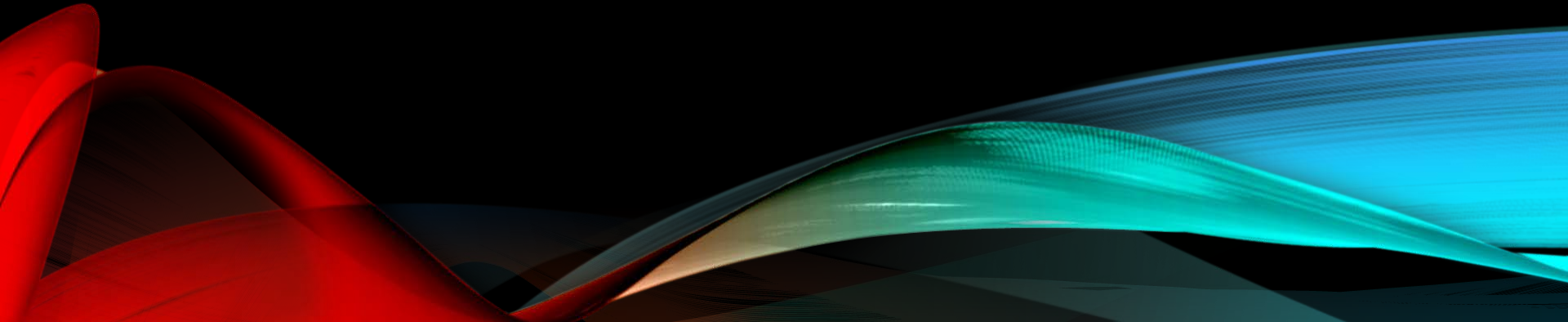
# RECENT DATA QUALITY CHALLENGES IN R3

- In 2013, we were notified by an agency that they discovered falsification of QA data for SO<sub>2</sub> and Ozone by an employee into AQS
- Data from 2009 to 2012 were being used or already used for regulatory purposes
  - SO<sub>2</sub> designations 2009-2011
  - Clean Data Determination for Ozone 2009-2011
  - 2012 AQS annual data certification
- There was a potential that these regulatory decisions would have to be rescinded
- We worked with the agency over a 3-4 month period to conclude that the invalid data did not impact 75% completeness requirement

# RECENT FINDINGS FROM TECHNICAL SYSTEMS AUDITS

- Staff not properly trained in the operation of the instruments
- Failure to meet requirements regarding the calibration of flow standards
- Loss of data due to age of monitors
- Unable to hire monitoring staff to fill behind retired employees
- Outdated Standard Operating Procedures
- Failure to take proper corrective actions when a problem is detected (blanks outside required limits, biweekly precision checks outside required limits, etc)

GOING FORWARD WITH QA





# DATA QUALITY STARTS WITH YOU

- Know your QAPPs!
  - Whatever your role, know:
    - What is expected
    - How to troubleshoot a problem
    - Who to contact
- Review the QA Data
  - QA data of little value if nobody looks at it! Question poor results!
  - AMTIC has a number of good QA Reports (AMP-256, AMP-600, annual box and whisker plots)
  - Use the annual data certification process to your advantage
- Get involved in QA Workgroup Community
  - Regions/States/Locals need to have motivated and involved QA leads
  - Participate in periodic calls, training sessions, and webinars
  - Make sure the community are reading the QA EYE newsletter for up to date information; keep lines of communication open to head off problems

# Questions? Comments?

