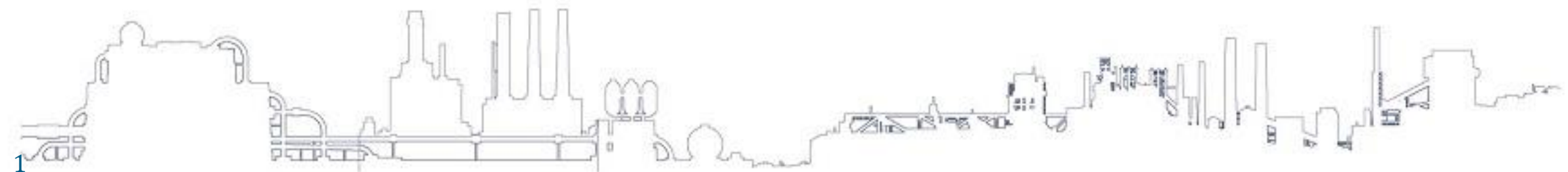


CHEMICAL INDUSTRY AIR REGULATORY UPDATES

November 18, 2021

Kristin Gordon, Amy Marshall, Eric Swisher, Katie Fritz – ALL4
Brendan Mascarenhas – American Chemistry Council



Logistics

Thank you for attending!

Questions?

- ❑ Please enter questions in the text box
- ❑ We will address questions at the end

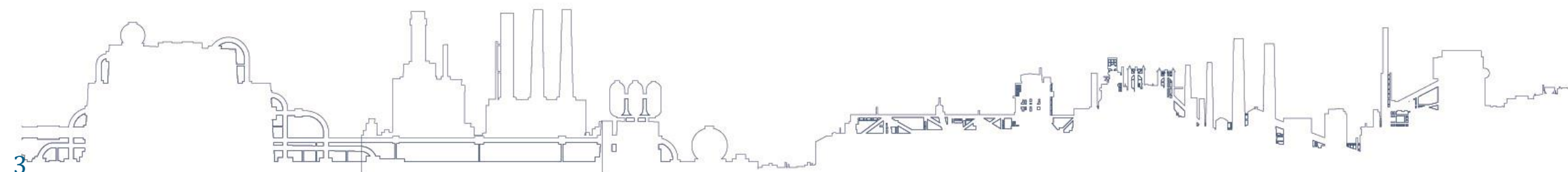
Will I get a copy of the slides?

- ❑ Yes, we will post webinar recording and slide deck on our website
- ❑ Link will be emailed to participants, feel free to forward to colleagues

Agenda

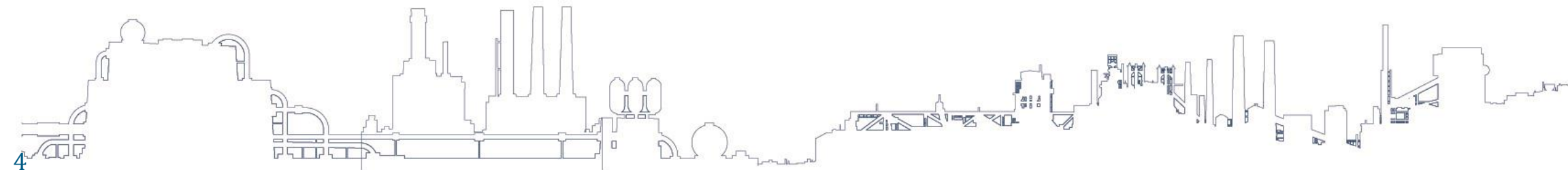
With respect to air regulations impacting the Chemical Industry:

- Where are we now?
- What have we learned?
- What should you plan for in 2022?



Where are we?

Amy Marshall – ALL4



Recent AQ Actions Affecting the Chemical Industry

- Permitting/NSR policy and regulatory actions from the prior administration that were helpful:
 - PEA memo and rulemaking
 - Pruitt projected actual emissions memo
 - Limetree memo – reactivation and project aggregation
 - Meadowbrook memo – common control
 - Ambient air guidance
 - Draft commence construction guidance
- SO₂, NO₂, Ozone, and PM_{2.5} NAAQS retained.



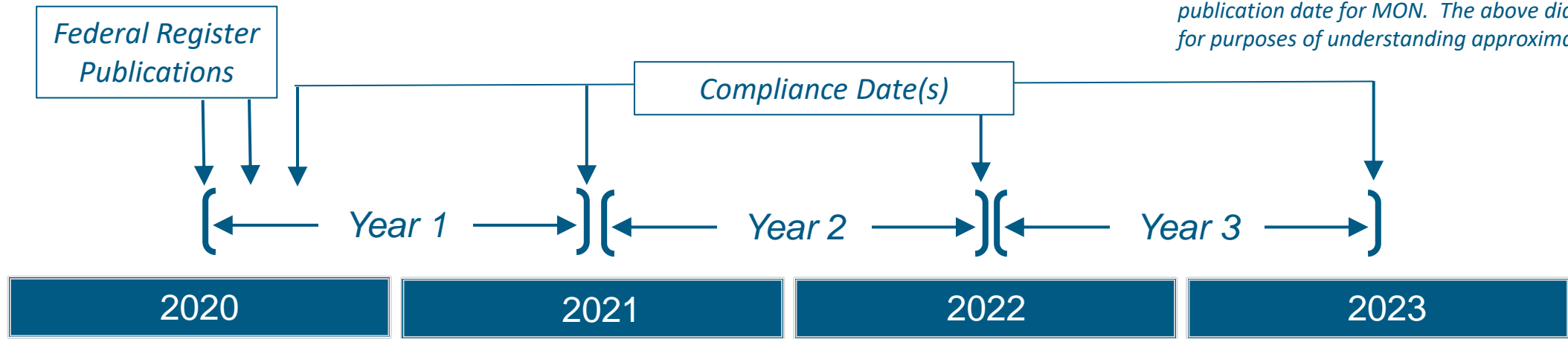
Recent AQ Actions Affecting the Chemical Industry (cont.)

- Air toxics regulatory activity:
 - MM2A guidance and rulemaking
 - MACT RTRs (OLD, MON, ethylene, site remediation, coatings rules)
 - Focus on ethylene oxide
 - New HAP to be added – 1-bromopropane
- Much of this is being re-examined by the current administration, but more on that later.

Upcoming MACT Regulatory Deadlines

- Ethylene Production MACT (EMACT)
 - 40 CFR Part 63, Subparts XX & YY
 - Compliance Date for RTR revisions: July 6, 2023
- Organic Liquids Distribution (OLD) MACT
 - 40 CFR Part 63, Subpart EEEE
 - Compliance Date for RTR revisions : July 7, 2023
- Miscellaneous Organic Chemical Manufacturing NESHAP (MON)
 - 40 CFR Part 63, Subpart FFFF
 - Compliance Dates for RTR revisions: August 12, 2021, 2022, or 2023 (depending on the requirement)

NOTE: The specific timeline dates vary since later publication date for MON. The above diagram is simplified for purposes of understanding approximate timing.



Analyze Regulatory Changes

Evaluate Flare Requirements

Develop/Update FMPs and CPMS Plans

Finalize Flare Strategy and Begin Implementation (monitors, DAHS, etc.)

Evaluate:

- EtO Control Requirements
- PRD Work Practice Procedures
- Storage Tank Degassing Requirements
- Heat Exchanger LDAR Requirements
- Adsorber Requirements

NOCS:

-Varying due dates based on rule and resulting from multiple compliance dates

Extension Requests:

-Evaluate need based on multiple compliance dates
-Prepare, as applicable

Air Permit(s) Updates:

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-Prepare applications, as applicable.

Understand CDX/CEDRI Interface

Develop Compliance Approach. Consider Capital Expenditures (e.g., control equipment, DAHS), Turnarounds, and Air Permitting Requirements. Develop Calendar and Key Milestones.



MACT Rule Changes that are in the Works

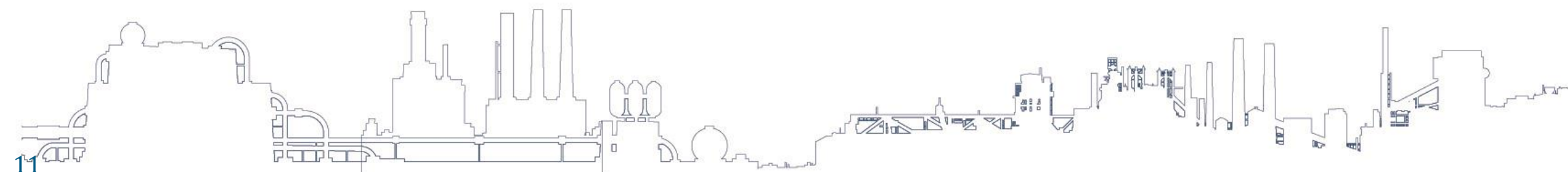
- ❑ Boiler MACT remand – 2020 proposal, waiting on final rule
- ❑ PVC MACT revisions – 2020 proposal, waiting on final rule
- ❑ Final RTR Rules signed recently:
 - Generic MACT II – Carbon Black: 1 year to comply with tune-ups and repeat testing; 180 days for SSM revisions, SS work practice, electronic reporting; 3 years to comply with the expanded process vent standards.
 - Generic MACT II – Cyanide: Compliance time is 1 year for wastewater and 180 days for other changes.
- ❑ MACT RTR reconsiderations, overdue TRs (more on that later).

What else has happened recently?

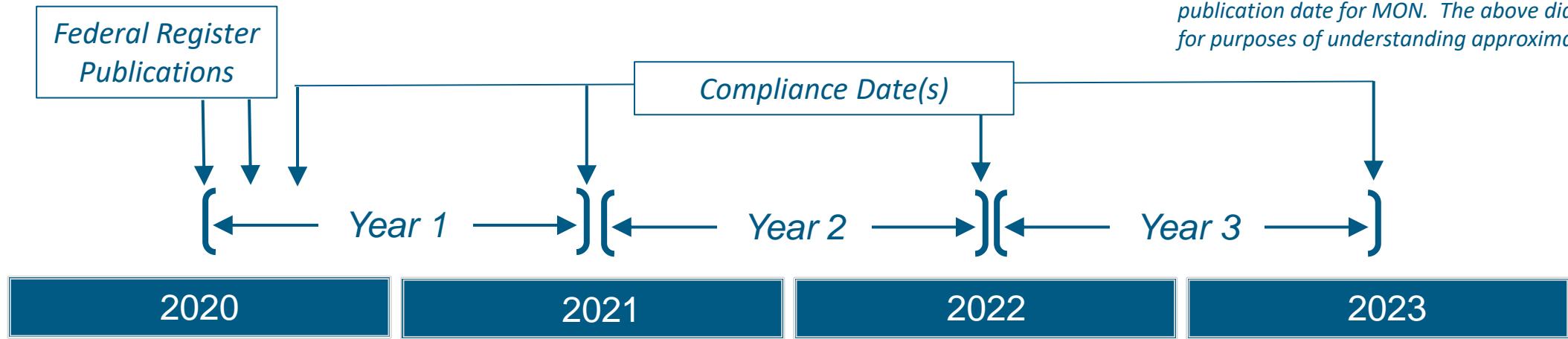
- ❑ Listening sessions to inform possible changes to the RMP rule (again).
- ❑ Recent revisions to the refrigerant rules.
- ❑ ANPRM from EPA on regulation of gasification and pyrolysis.
- ❑ Revised PM_{2.5} and Ozone modeling guidance.
- ❑ Big focus on environmental justice at the state and federal level.
 - States are in different places with respect to EJ policies and regulation.
 - Feds working on improvements to EJSCREEN and guidance on evaluating cumulative impacts.
 - Potential impacts to permitting timelines and requirements.

What have we learned?

Eric Swisher and Katie Fritz – ALL4



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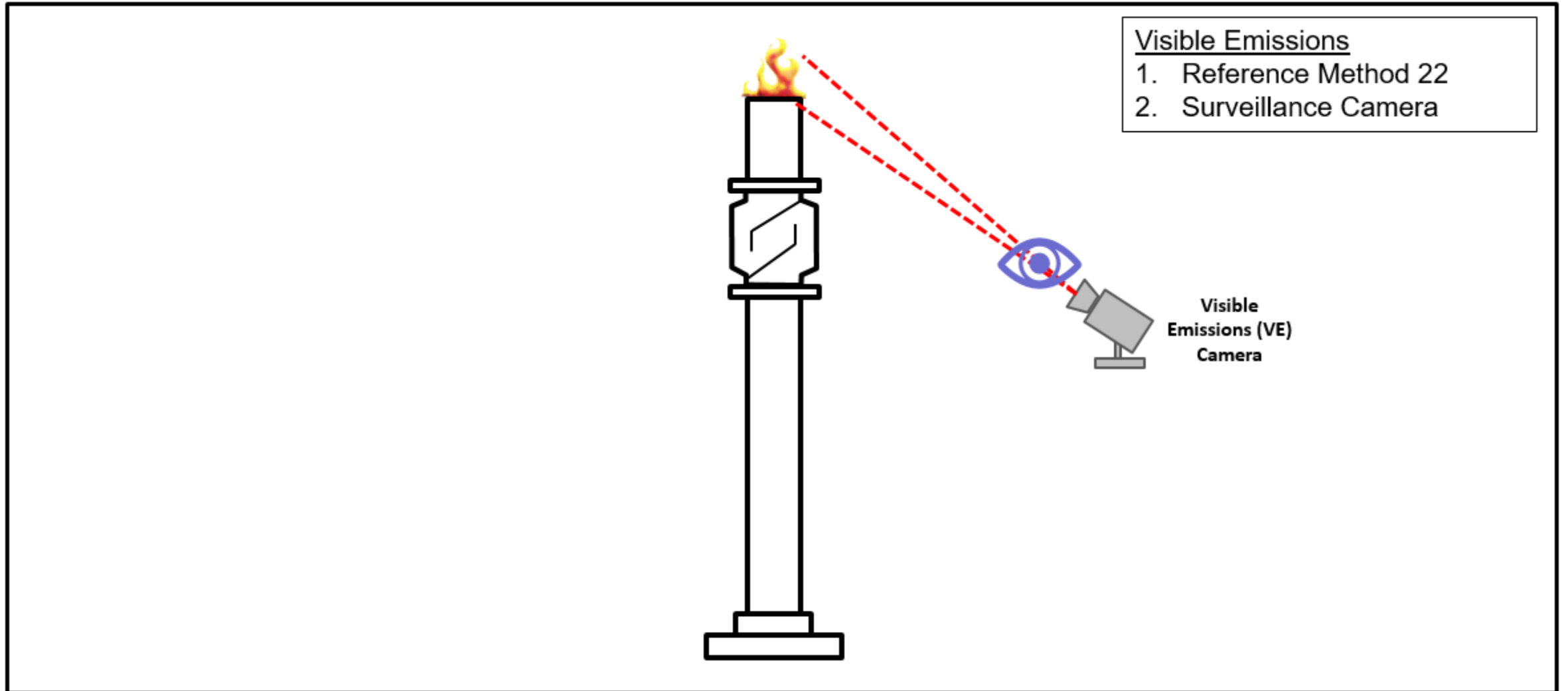
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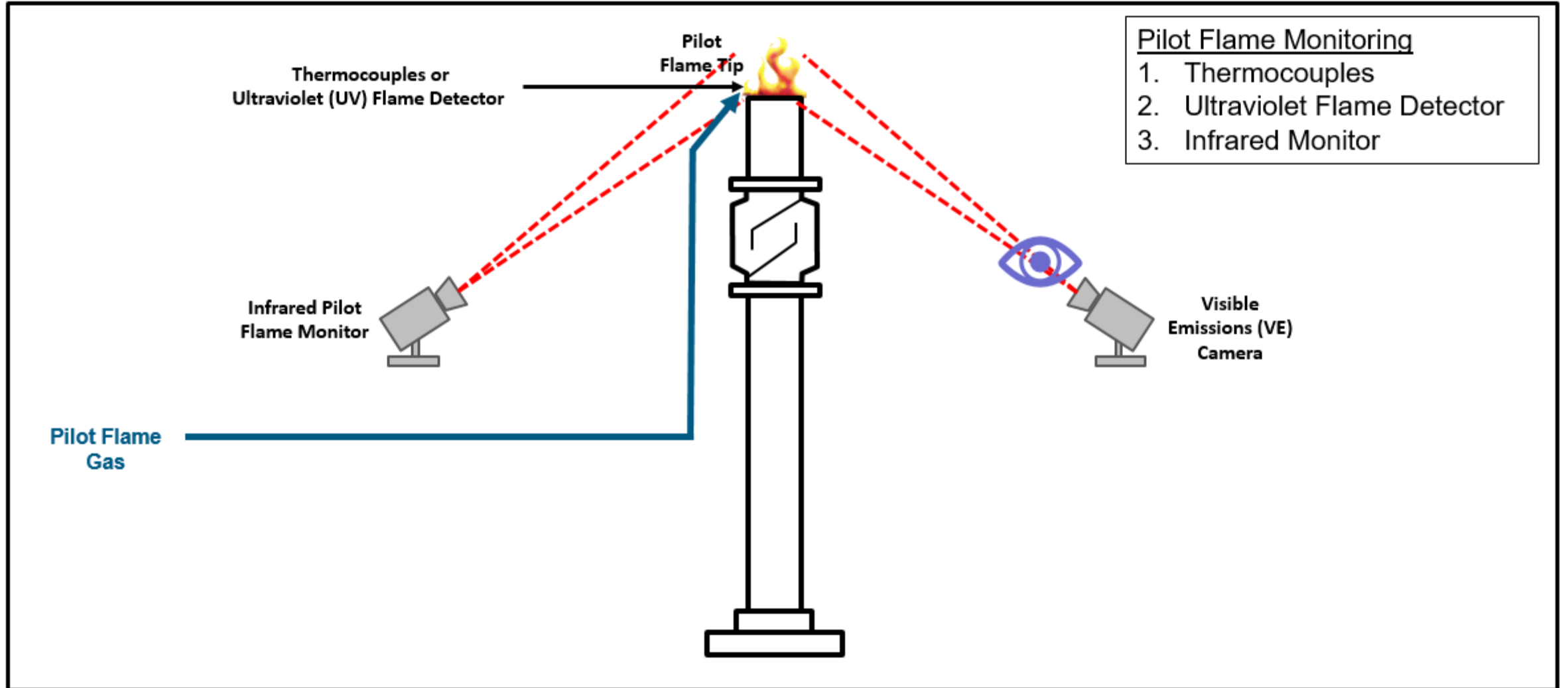
Flare Monitoring Summary

- ❑ Flame Presence
- ❑ Visible Emissions
- ❑ Tip Velocity (V_{tip})
- ❑ Combustion Zone Net Heating Value (NHV_{cz})
- ❑ Net heating Value Dilution Parameter (NHV_{dil}) for flares with perimeter assist air

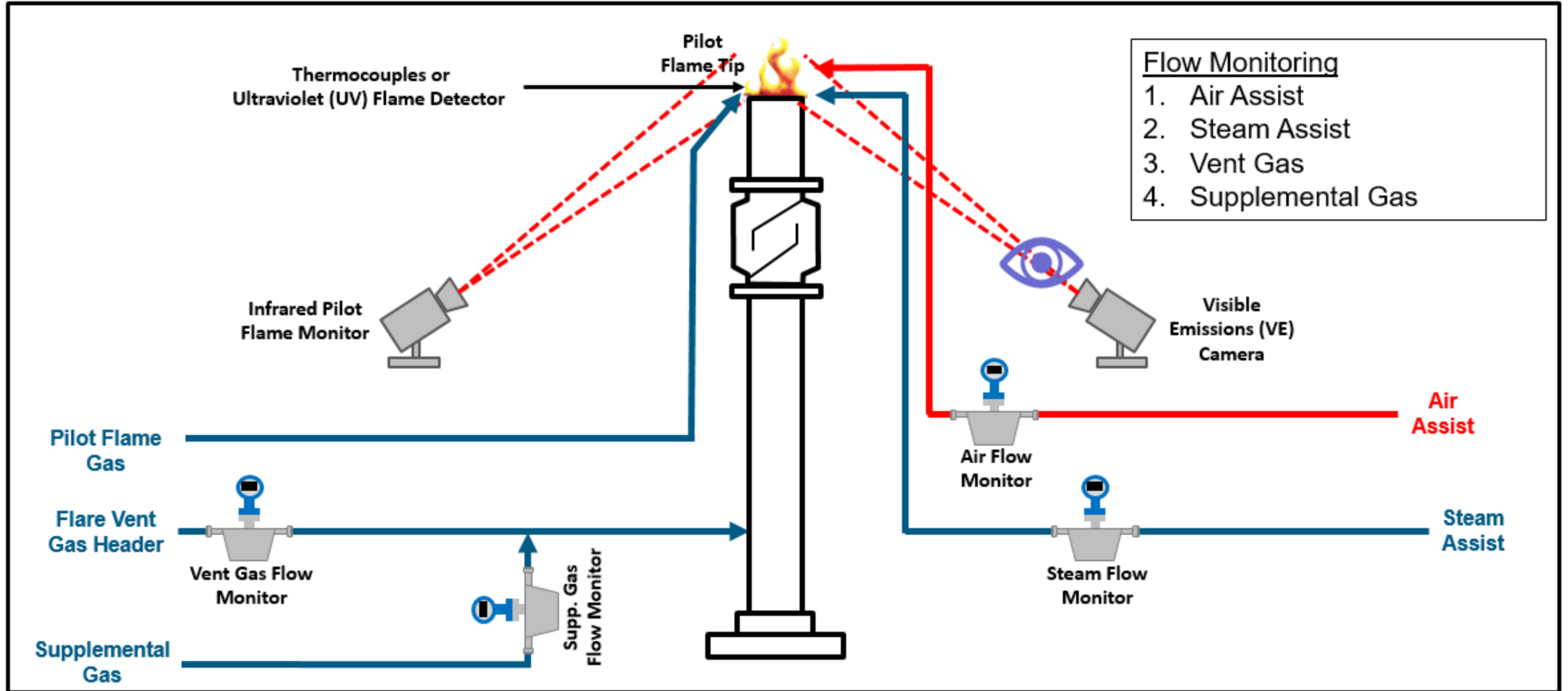
Flare Monitoring



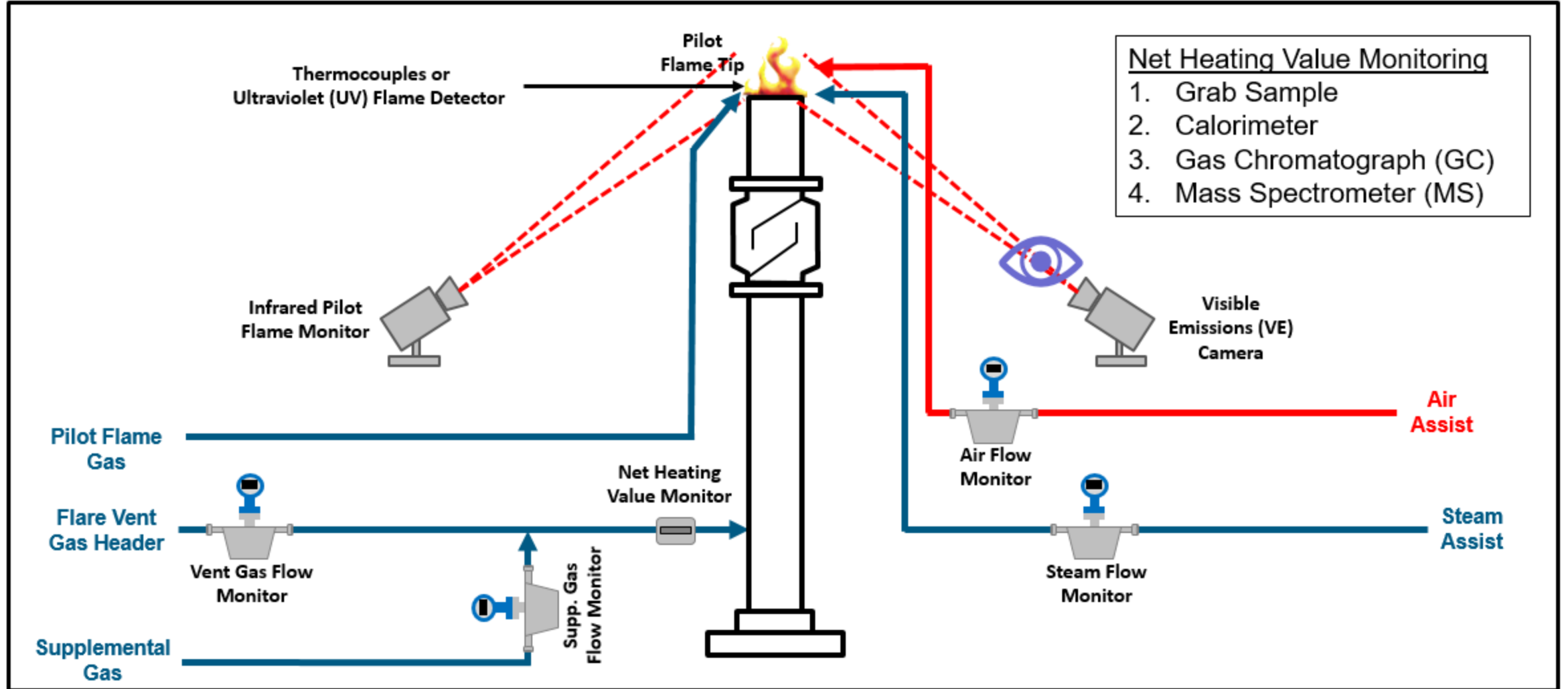
Flare Monitoring



Flare Monitoring



Flare Monitoring



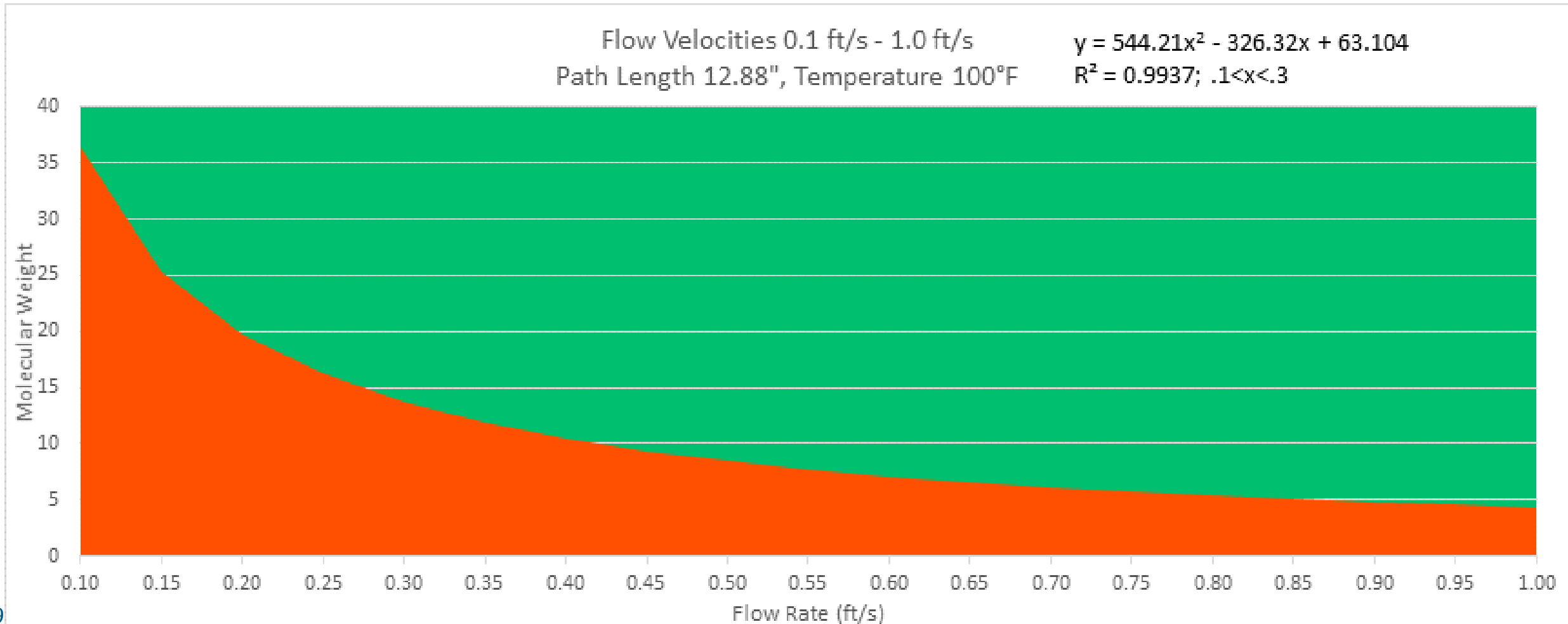
Flare Vent Gas Flow Rate

□ Flare Vent Gas Flow Rate Monitoring

<i>Parameter</i>	<i>Minimum Accuracy Requirement</i>
Flare Vent Gas Flow Rate	$\pm 20\%$ of flow rate at velocities from 0.03 to 0.3 meters per second $\pm 5\%$ of flow rate at velocities greater than 0.3 meters per second (1 foot per second)

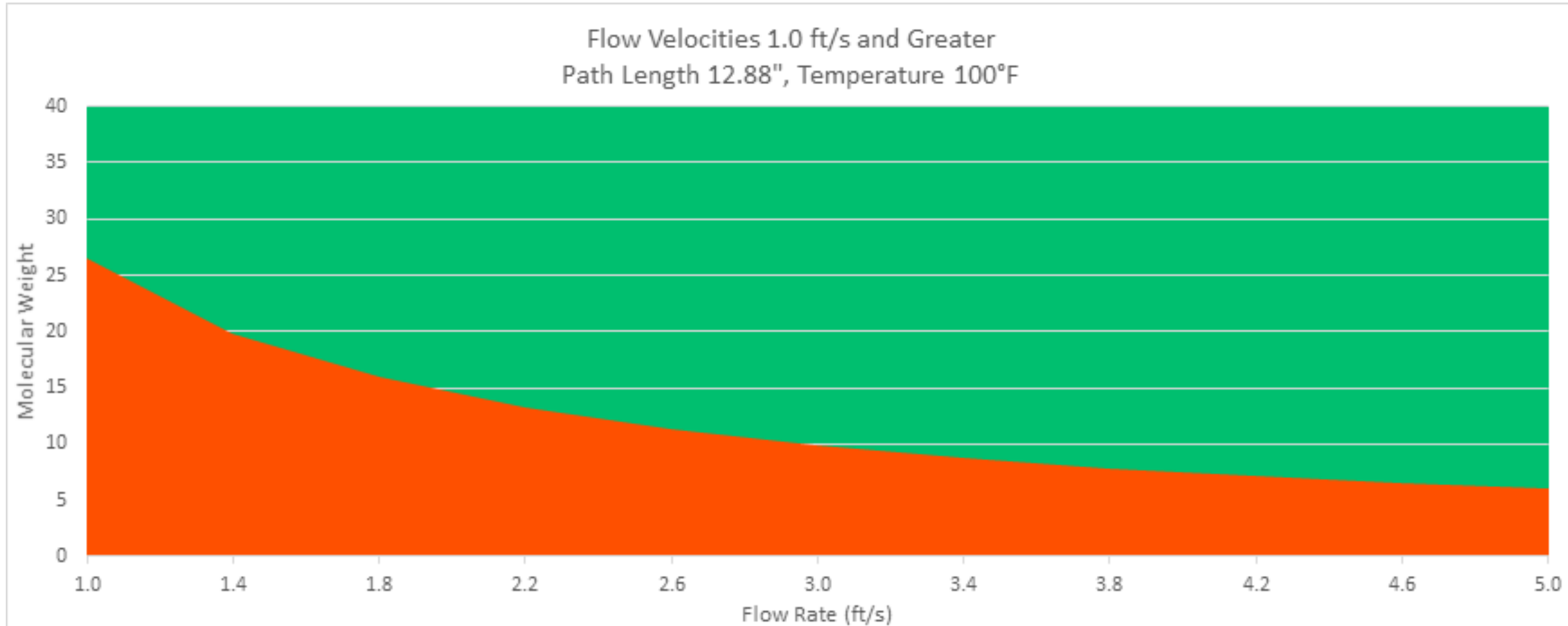
Accuracy (Low Range)

- Velocity & MW of Flare Vent Gas (Green = Accurate, Red = Inaccurate)



Accuracy (High Range)

- Velocity & MW of Flare Vent Gas (Green = Accurate, Red = Inaccurate)



Erroneous vs. Inaccurate

❑ Erroneous Data

- Determined to be “bad” and “not usable”

❑ Inaccurate data

- Does not meet the accuracy requirements of MACT CC

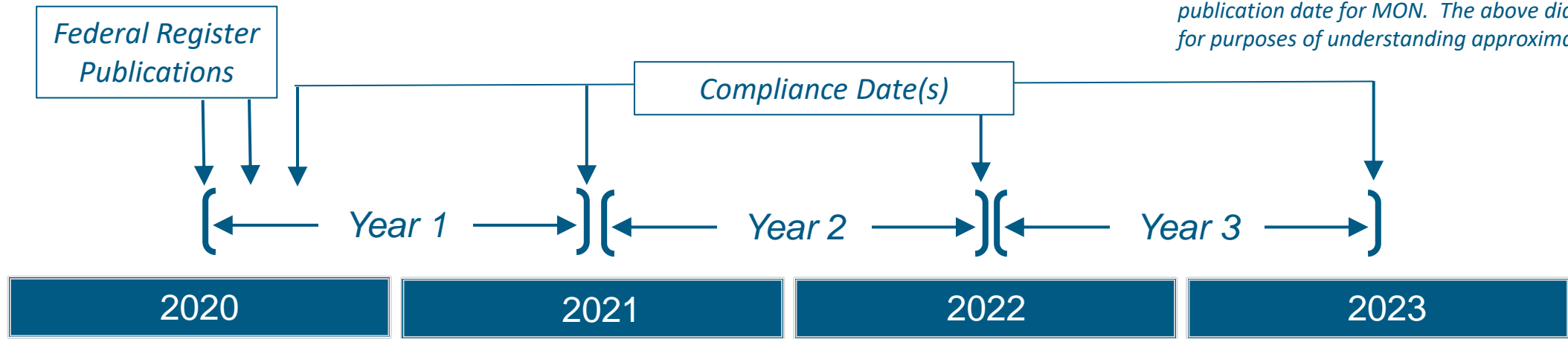
Equipment Procurement

- Need to start equipment selection and purchase early
 - Lead times
 - Supply chain issues
- Start work practice discussions now

Other Applicable Regulations

- Gaps between MACT CC and other applicable rules

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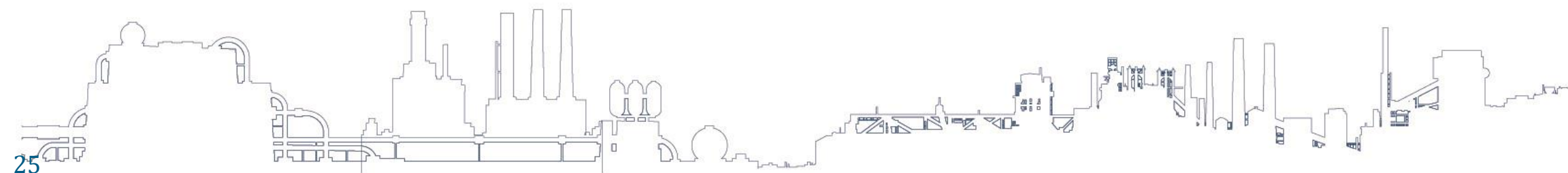
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What should we plan for?

Brendan Mascarenhas – American Chemistry Council



EPA Clean Air Act Regulatory Priorities

- **EPA Strategic Plan FY 2022-2026**
 - Goals & Objectives Addressing Regulation, Enforcement, and Policy Goals
- **Statutory Rulemaking Activity**
 - CAA Residual Risk and Technology Reviews (RTRs)
 - CAA National Ambient Air Quality Standards Reviews (NAAQS) for Ozone & Particulate Matter (PM)
 - PFAS Data Reporting under EPCRA (TRI)
- **Policy Initiatives**
 - Environmental Justice
 - Climate Change

EPA Strategic Plan FY2022-2026

- Climate Emissions Targets
 - GHG and CO₂ Actions
- Environmental Justice
 - Cumulative Impacts & Fenceline Issues
- Enforcement
 - Inspection Counts & Procedural Goals
- Media-Specific Goals
 - NO_x from EGUs, PM NAAQSs, HFCs
 - Surface Water Treatment
 - Superfund & Brownfields Targets
 - Pesticides & Product Safety

EPA RTR Regulatory Priorities

- Office of Air Quality Planning and Standards Air Toxics Strategy
 - April 2021 Strategy and Rulemaking Approach
- Priority Rulemakings
 - Hazardous Organic NESHAP (HON) Rulemaking
 - Disproportionate Impact Analyses (e.g., Refractory Products Manufacturing, Flexible Urethane Foam)
- Key Issues
 - Environmental Justice Analysis
 - Risk Reviews & Discretionary Authority
 - Consent Decrees
 - Ethylene Oxide Risk Value

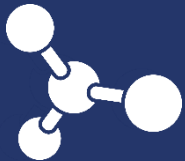
EO Emissions Issue Background



Extremely conservative EO IRIS value established by EPA in 2016



IRIS value used to develop National Air Toxics Assessment generated significant attention at the state and local level



EPA using IRIS value in its draft Risk and Technology Reviews for air toxics regulations

Pending reconsideration petitions before EPA

NAAQS Priorities

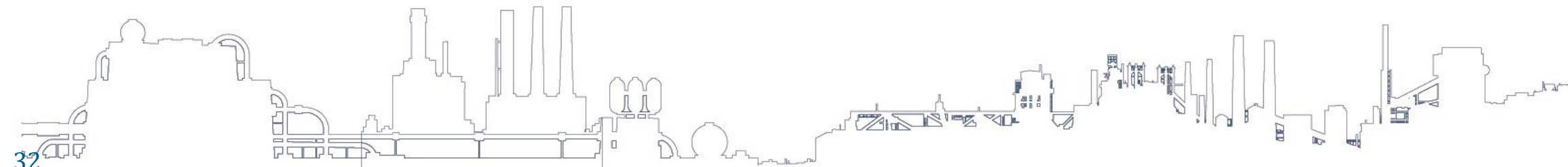
- NAAQS Review for Particulate Matter (PM)
 - Supplemental ISA and PA Materials
 - Anticipated Proposal mid-2022; Finalization 2023
- NAAQS Review for Ozone
 - November 2021 Reconsideration Announcement
 - Supplemental Supporting Materials
 - Anticipated Finalization 2023

Policy Initiatives

- Climate Change and Key Actions
 - Oil & Gas NSPS
 - Proposed Nov. 15, 2021; Comments by January 14, 2021
 - Other Sectors (i.e., EGUs) and Vehicle Standards
- Environmental Justice
 - EPA Draft Strategy
 - Fenceline Approaches
 - TSCA Risk Evaluations
 - CAA Rulemakings

Summing it Up

Kristin Gordon – ALL4



What Should I Do Now?

- ❑ Are there plans for growth or expansion in the coming years?
 - The time may be now to permit those activities
- ❑ Evaluate the environmental constraints of your operations
 - May be an opportunity to lessen those constraints in the near-term
- ❑ Engage with the regulated community, plan for additional outreach for major projects, ask how your agency will take EJ into account in permitting, how will they consider community small sensor data?
- ❑ Understand geographic impacts – what are the issues your region is facing?
- ❑ Engage with your industry association



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Posted: January 21st, 2021
// Colin McCall Each year in our annual Look Ahead Article we face a challenge: assess the landscape in front of us as it exists in January, and attempt to predict how that landscape might shift to identify the most [...] [READ ARTICLE >](#)

ALL4's Texas 2021 Look Ahead
Posted: January 27th, 2021
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Posted: January 25th, 2021
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