



AIR REGULATORY UPDATE

Virginia Air Permitting & Ozone Standards/Monitoring



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AIR PERMITTING

- Pre-Construction Permits
 - Minor New Source Review (NSR)
 - State Minor Sources
 - State Major Sources
 - Major New Source Review (PSD)
- Operating Permits
 - State Operating Permits
 - Federal Operating Permits (Title V)

PRE-CONSTRUCTION PERMITS

Minor NSR Permits are
divided into two types:

- State Minor Sources
- State Major Sources

PRE-CONSTRUCTION PERMITS

- Minor NSR Permits (State Minor Sources)
 - **Applicability:** New and modified sources with uncontrolled emission increases greater than established permit exemption levels but with permitted emission rates less than 100 TPY.
 - **Timing:** Permit must be issued prior to commencement of construction.
 - **State BACT:** Required on all new, modified, reconstructed and relocated emissions units exceeding BACT applicability thresholds.
 - **Permit Renewal:** Not required unless facility is modified.

PRE-CONSTRUCTION PERMITS

- Minor NSR Permits (State Major Sources)
 - **Applicability:** New sources with proposed emission rates of 100 TPY or more (criteria pollutants) and modified sources “significant emissions increases” \geq emission rates defined as “significant” but not otherwise subject to Major NSR (PSD) permitting.
 - **Timing:** Permit must be issued prior to commencement of construction.
 - **Public Participation:** Required
 - **State BACT:** Required on all new, modified, reconstructed and relocated emissions units exceeding BACT applicability thresholds.
 - **Permit Renewal:** Not required unless facility is modified.

PRE-CONSTRUCTION PERMITS

Major New Source Review (PSD) Permits

PRE-CONSTRUCTION PERMITS

- Major NSR Permits (PSD)
 - **Applicability:** New sources with potential to emit of 250 TPY or more (criteria pollutants) or 100 TPY if facility is one of the 27 source categories and modifications of PSD major sources with net emissions increases defined as “significant.”
 - **Timing:** Permit must be issued prior to commencement of construction.
 - **Public Participation:** Required
 - **Air Quality Analysis:** Required.
 - **State BACT:** Required on all new, modified, reconstructed and relocated emissions units exceeding BACT applicability thresholds.
 - **Permit Renewal:** Not required unless facility is modified.

OPERATING PERMITS

State Operating Permits (SOP)

Federal Operating Permits (Title V)

OPERATING PERMITS

- State Operating Permits (SOP)
 - **Applicability:** Stationary sources of air emissions. Typically used by existing sources to establish enforceable limits on potential to emit, thereby creating a synthetic minor source and avoiding Title V permitting.
 - **Public Participation:** Required for federally enforceable permit.
 - **Permit Renewal:** Not required.

OPERATING PERMITS

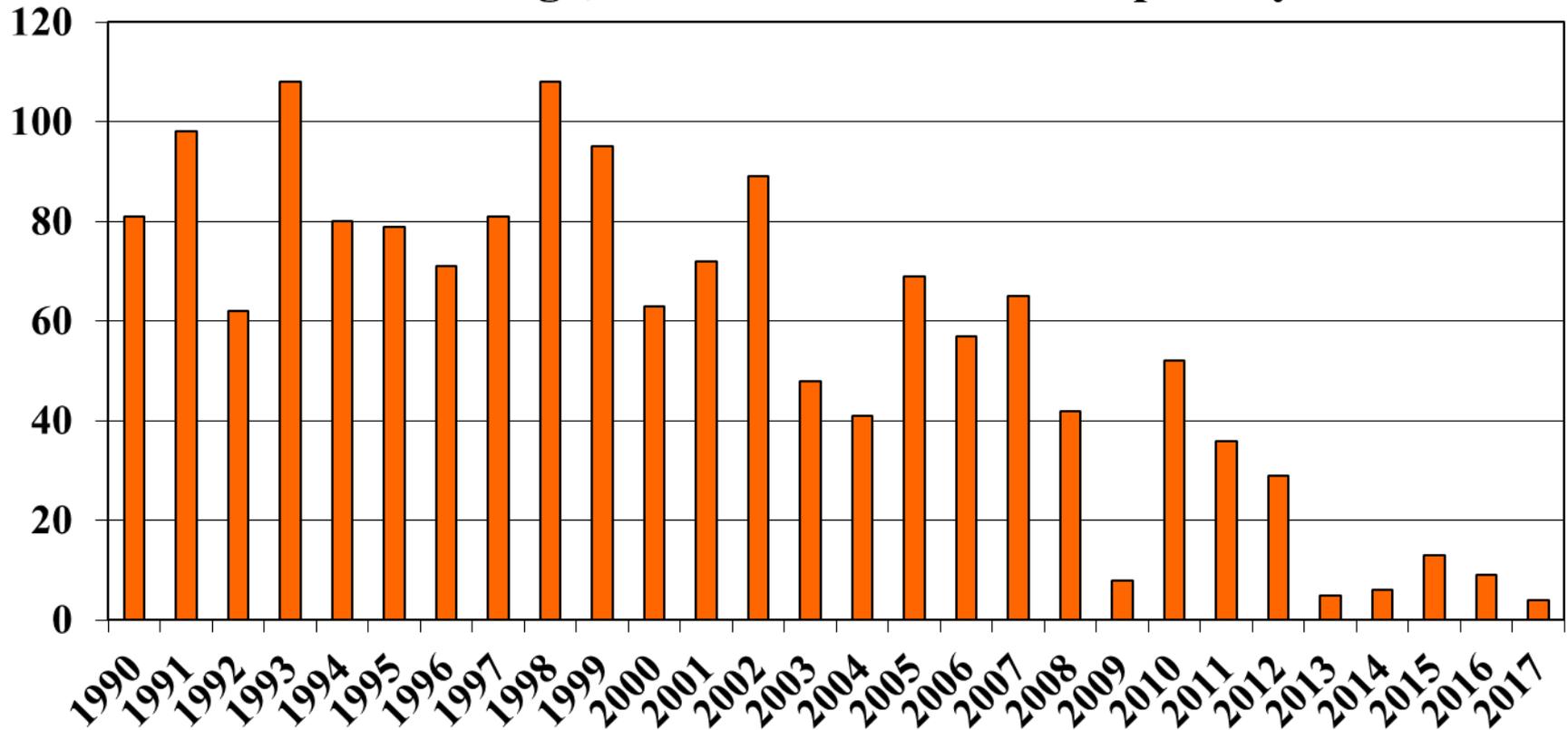
- Title V Permits
 - **Applicability:** Major sources of air emissions with potential to emit 100 TPY of criteria pollutants, 10 TPY of a single hazardous air pollutant (HAP) or 25 TPY of combined HAPs. Also, will include sources subject to §111 and §112 standards.
 - **Timing:** Submission of complete application required within 12 months of becoming subject to the regulation.
 - **Public Participation:** Required
 - **Permit Renewal:** Required every 5 years

OZONE UPDATE

- Progress in Ozone Air Quality
- The 2015 Ozone Standard
- The Path Forward

Number of 8- hour Ozone Exceedance Days in Virginia, 1990-2017

Code Orange, Code Red and Code Purple Days

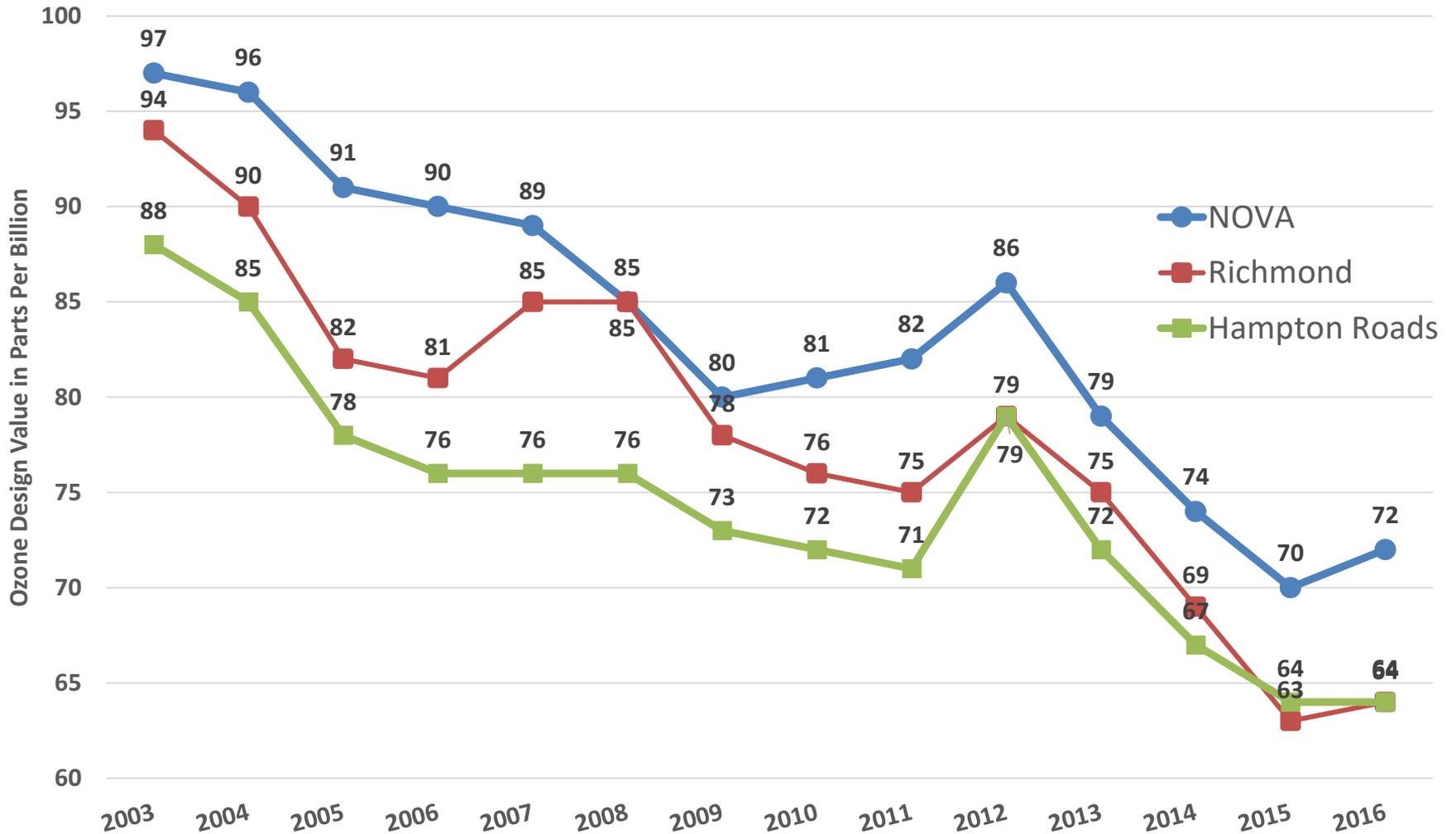


2015 OZONE STANDARD

- Final standard published in October 2015
- Lowered the primary standard to 70 ppb
- Set secondary welfare standard at the same level
- Expanded monitoring season & requirements
- Based on most recent scientific evidence
- Attempts to address background and international transport issues

PROGRESS TO DATE

OZONE DESIGN VALUE TRENDS

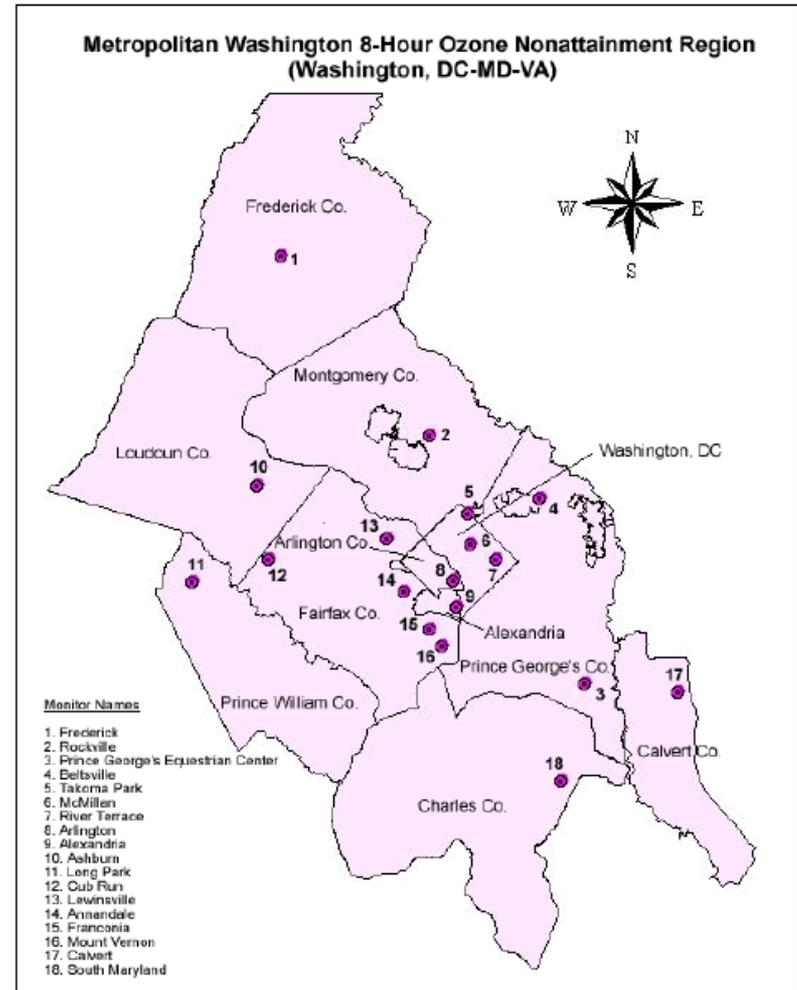


EPA OZONE STANDARD SCHEDULE

- DEQ submitted area designation recommendations to EPA in Oct 2016
- EPA made final area designations November 2017
- However, EPA did not publish designations for 9 counties/cities in Northern Virginia???
- State Implementation Plans to assure attainment due by 2020
- And attainment must be achieved by between 2020-2037 based on how serious EPA classifies the area's ozone nonattainment problem

2015 OZONE DESIGNATIONS

- EPA is likely to classify Northern Virginia as a marginal nonattainment for the new standard because we are so close to attainment, which means
 - That no formal SIP is required but
 - Basic nonattainment requirements still apply such NNSR permitting, RACT, conformity
 - Attainment must be reached by 2020
- All other areas of Virginia are in compliance



FURTHER EMISSION REDUCTIONS

- Several programs are already in place to further reduce ozone
 - The power sector is transitioning to less polluting generation, mostly natural gas, for many reasons;
 - Industry is undertaking conversions to less polluting fuels
 - Tier III motor vehicle and fuel standards kicked in on January 2017, and, finally, there is a
 - Voluntary ozone “advance” program in place in key urban areas such as Richmond, Hampton Roads, and Fredericksburg

PATH FORWARD

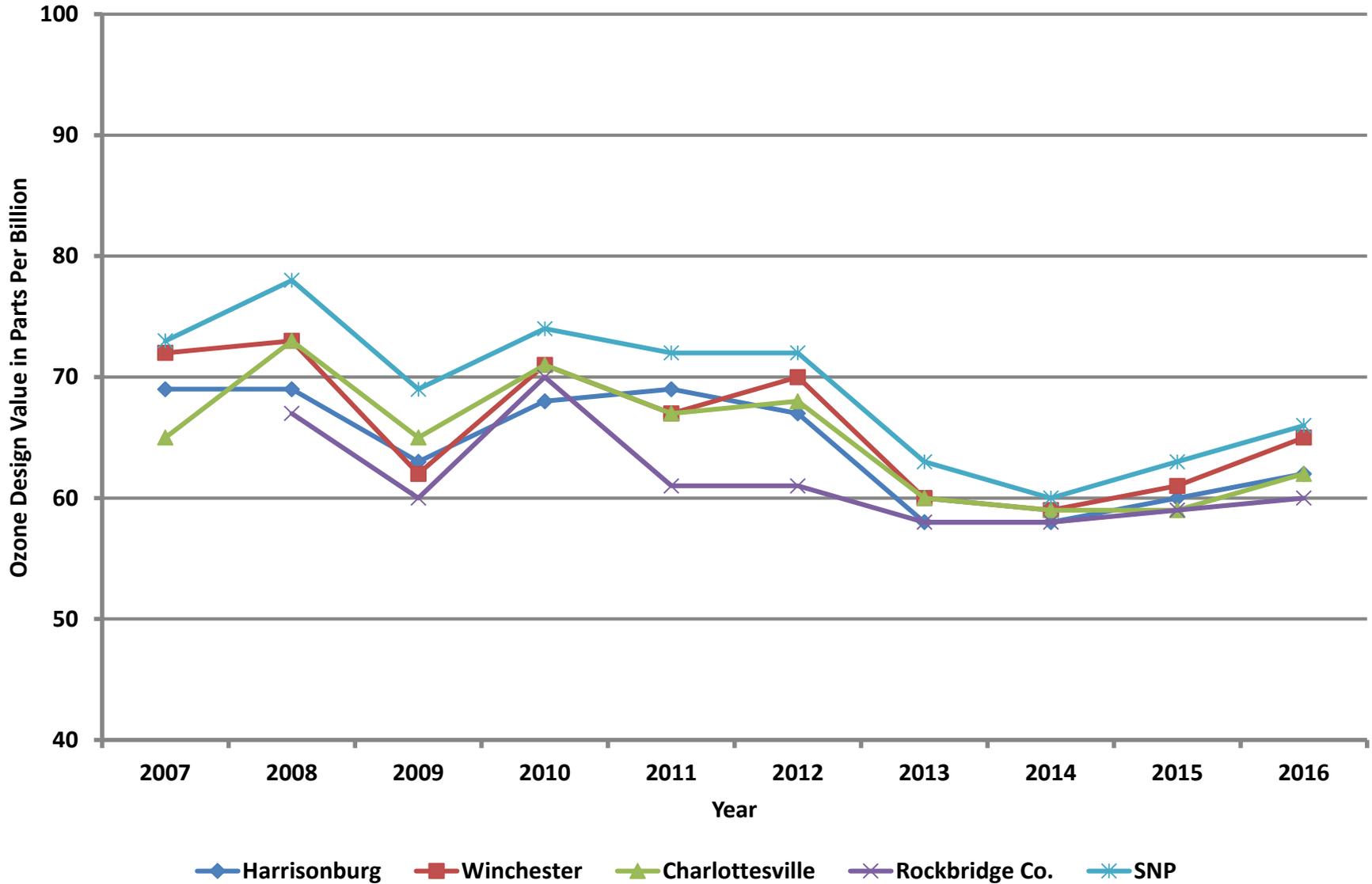
- To summarize ozone, much progress has been made in reducing ozone levels in Virginia
- All monitors BUT one are currently meeting the new 70ppb NAAQS
- Continued ozone air quality improvement and emissions reductions are expected but will probably occur at a slower pace than we have seen in the past because most of the low hanging fruit is gone and cost effective NO_x emission reductions are harder to come by
- 2017 through 2019 will be important compliance years in Northern Virginia

MONITORING IN THE VALLEY REGION



MONITORING STATION AT ALBEMARLE HIGH SCHOOL

OZONE IN THE VALLEY



MONITORING STATIONS

- Winchester Metropolitan Area (28-J)
 - Ozone
 - Particulate Matter equal to or less than 2.5 microns (PM-2.5)
- Shenandoah National Park (35-A)
 - Ozone
 - PM-2.5

MONITORING STATIONS

- Harrisonburg Metropolitan Area (26-F)
 - Ozone
 - Nitrogen Dioxides (NO_2)
 - Sulfur Dioxide (SO_2)
- Rockbridge County (21-C)
 - Ozone
- Charlottesville Metropolitan Area (33-A)
 - Ozone

Permitting Resources

- Permitting and BACT Applicability (APG-354) on Virginia Regulatory Townhall
- Application & Compliance Forms can be found on deq.virginia.gov > Permits > Air Permits > Air Permitting Forms

QUESTIONS?

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