



# Collocated Monitors

- What is Collocation:
  - NAAQS Collocation: “Extra” monitor to fill in missing days for “Primary” monitor.
  - QA Collocation: 40 CFR Part 58 Appendix A requirement for PM 2.5, PM 10, Lead, and Pm<sub>coarse</sub>
- NAAQS primary monitors and collocation affects design value calculation, while QA collocation affects QA reports and Certification.



## Collocation – NAAQS Primaries

- A NAAQS Primary monitor can be designated on either the Maintain **Site** form, or the MO batch transaction.
- Designation of a NAAS primary monitor is required for PM 2.5, Lead, NO<sub>2</sub>, and Ozone. It is allowed for other parameters (e.g. PM 10) for configuring a “Composite Primary”
- When required, the first monitor created at a site is automatically designated the primary.
- AQS will prevent changes that cause a non-primary monitor from not having a primary designated and operating.



## Collocation – QA Collocation

- Must be designated separately for both the QA Primary monitor and the QA monitor.
- May be designated via either Maintain Monitor form or the MJ batch transaction.
- When there is a NAAQS primary monitor designated, only that monitor can be the QA primary monitor.
- Only one primary and one QA Collocation monitor can be designated at the time.



# Collocation - Demonstration

- Changing the Primary monitor at a site:
  - Rule to understand: Multiple steps are required, and all validation rules must be satisfied after each step.
- Rules:
  - All operating days for all monitors must have primary
  - Only one primary allowed at the time
  - The QA primary monitor must be the NAAQS primary
  - The QA primary cannot be stopped when QA collocated monitor active

# Collocation - Process Steps



1. On Maintain Monitor Form, QA Collocation Tab, put an end date on the collocation period for the current Collocated Monitor (POC 2).
2. On Maintain Monitor Form, QA Collocation Tab, put an end date on the collocation period for the current Primary Monitor (POC 1).
3. On the Maintain Site Form, navigate to the Primary Monitor Periods tab, and put the same end date on the Primary Monitor Period that you used in Steps 1 and 2.
4. On the Maintain Site Form, navigate to the Primary Monitor Periods tab, and enter a new record for the Monitor you want to designated at the new Primary (POC 3). Make the begin date ONE DAY after the end date of the previous primary monitor period.
5. On Maintain Monitor Form, QA Collocation Tab, for the new Primary Monitor (POC 3), create a record with the same Begin Data you used in Step 4, and a value of "Y" in the primary sampler field.
6. Finally, On Maintain Monitor Form, QA Collocation Tab, for the Collocated Monitor (POC 2), create a record with the same Begin Data you used in Step 4, and a value of "N" in the primary sampler field.



# Collocation - Composite Primary Monitors

- What are Composite Primary Monitors?
  - Configuration to allow multiple intermittent (i.e. filter based) monitors to be used to achieve a more frequent sampling schedule than the monitoring agency can afford to implement otherwise. (See Part 58.12)
  - Examples:
    - Two samplers collecting samples every 6 days to achieve 1-in-3 day sampling.
    - Six samplers collecting samples every 6 days to achieve every day sampling.
  - Note: To achieve the above, one of the samplers must collect samples on the published scheduled days, and the others must collect samples on days with an “offset” from the published schedule.



# Composite Primary Monitors Demo

## Steps Required:

1. Create sites and monitors (as usual)
2. On the monitor to sample on the published scheduled days, set its required collection frequency to the actual (real world) value with an offset of 0.
3. On the monitor sampling 3 days before (or after) the published schedule, set its required collection frequency to the actual value with an offset of 3.
4. On the Maintain Site form, Primary Monitor Periods tab, set the primary to the monitor with the 0 offset and put a 'Y' in the Composite Primary column.