CONSISTENCY OF NULL CODES IN AQS

KIMBERLY MITCHELL – GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
## Types of AQS Qualifier Codes

<table>
<thead>
<tr>
<th>Qualifiers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>Used when reporting data to AQS. Qualifiers further explain the data.</td>
</tr>
<tr>
<td>QA</td>
<td>Quality assurance qualifiers are used when data is valid but you want to note something, i.e., measurement was &quot;Below lowest calibration level&quot;.</td>
</tr>
<tr>
<td>Inform</td>
<td>Informational qualifiers are used in place of a REQuest EXClusion qualifier; use only when an exclusion of the data will not be requested.</td>
</tr>
<tr>
<td>ReqExc</td>
<td>Required when submitting data that is affected by an Exceptional Event and for which an exclusion will be requested.</td>
</tr>
</tbody>
</table>
2017 OZONE NULL CODE USAGE

AI: Insufficient Data (cannot calculate)
AL: Voided by Operator
AN: Machine Malfunction
AS: Poor Quality Assurance Results
AT: Calibration
AV: Power Failure
AX: Precision Check
AY: QC Control Points (Zero/Span)
BA: Maintenance/Routine Repairs
BB: Unable to Reach Site
BD: Auto Calibration
BE: Building/Site Repair
BF: Precision/Zero/Span
BK: Site Computer/Datalogger Down
BL: QA Audit
Other: All Other Null Codes with <2% usage

ARBOtherGBUAPCD
### 2017 PM 2.5 NULL CODE USAGE

#### Codes Explanation:

- **AE**: Shelter Temp out of Limits
- **AH**: Sample Flow Rate out of Limits
- **AL**: Voided by Operator
- **AN**: Machine Malfunction
- **AQ**: Collection Error
- **AT**: Calibration
- **AV**: Power Failure
- **AX**: Precision Check
- **AY**: QC Control Points (Zero/Span)
- **AZ**: QC Audit
- **BA**: Maintenance/Routine Repairs
- **BB**: Unable to Reach Site
- **BJ**: Operator Error
- **BK**: Site Computer/Datalogger Down
- **BL**: QA Audit
- **BM**: Accuracy Check
- **BR**: Sample Value Below Acceptable Range
- **DA**: Aberrant Data (corrupt files, aberrant chromo)
- **DL**: Detection Limit Analyses
- **MB**: Method Blank (analytical)
- **Other**: All other null codes with <2% usage
GROUP EXERCISE

GRAB A PEN AND POST-IT STACK
OFF THE GRID MONITORING STATION AFTER BEING STRUCK BY LIGHTNING

ALSO MY FIRST WEEK ON THE JOB
WHERE TO LOOK FOR ADVICE

- Quality Assurance SOP
- Guidelines for the use of AQS Null Codes (created by San Luis Obispo and used by North Coast)
- ARB’s SOP
- Pull AMP 360 report
- Reach out to your network
- Review what has been used historically
HOW TO BUILD IN CONSISTENCY

- Utilize data management system tools
- Document code usage and scenarios
- Share documentation and recommendations with all necessary staff
- Avoid vague Null Codes
  - AM: Miscellaneous Void
  - AL: Voided by Operator
QUESTIONS?