# Configuration Options

## 2016 CEMS Users Group

# Color Coded Cells

| Emissions & Operations | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **10 Second** | | **Previous Minute** | | **Current Hour** | | **Previous Hour** | | **3 Hour Rolling** | | **Limits** |
| Process Code | Normal | | Normal | | Normal | | Normal | | Normal | | |
| O2% | 12.83 | Valid | 12.82 | Valid | 12.53 | Valid | 12.50 | Valid | | | |
| NOx ppm | 9.98 | Valid | 9.68 | Valid | 10.06 | Valid | 9.99 | Valid | | | |
| NOx ppm @15% O2 | 7.30 | Valid | 7.07 | Valid | 7.10 | Valid | 7.02 | Valid | | | 15.00 |
| NOx lb/hr | 105.67 | Valid | 100.50 | Valid | 100.24 | Valid | 99.96 | Valid | | | 47.80 |
| CO ppm | 9.83 | Valid | 9.72 | Valid | 10.04 | Valid | 10.00 | Valid | | | |
| CO ppm @15% O2 | 7.19 | Valid | 7.10 | Valid | 7.08 | Valid | 7.02 | Valid | 7.02 | --- | 10.00 |
| CO lb/hr | 63.09 | Valid | 61.29 | Valid | 60.86 | Valid | 61.05 | Valid | | | 22.00 |
| NH3 Slip ppm @15% O2 | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | 0.00 | --- | 10.00 |
| NH3 Slip lb/hr | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | | | 13.90 |
| CT Gas Flow lb/sec | 32.56 | Valid | 32.21 | Valid | 32.00 | Valid | 31.98 | Valid | | | |
| CT Oil Flow lb/sec | 16.63 | Valid | 16.13 | Valid | 15.99 | Valid | 16.01 | Valid | | | |
| Heat Input mmBtu/hr | 3870.4 | Valid | 3807.1 | Valid | 3779.3 | Valid | 3815.2 | Valid | | | |
| Megawatts | 80.5 | Valid | 82.4 | Valid | 80.4 | Valid | 80.0 | Valid | | | |
| Steam Injection lb/sec | 33.24 | Valid | 32.43 | Valid | 31.90 | Valid | 32.03 | Valid | | | |
| NH3 Flow lb/hr | 76.83 | Valid | 75.81 | Valid | 74.83 | Valid | 74.99 | Valid | | | |

# Custom Color Coded Cells

| Emissions & Operations | | | | | | |
|---|---|---|---|---|---|---|
| | 10 Second | Previous Minute | Current Hour | Previous Hour | 3 Hour Rolling | Limits |
| Process Code | Normal | Normal | Normal | Normal | Normal | |
| O2% | 12.02  Valid | 12.44  Valid | 12.53  Valid | 12.50  Valid | | |
| NOx ppm | 9.95  Valid | 10.13  Valid | 10.19  Valid | 9.99  Valid | | |
| NOx ppm @15% O2 | 6.61  Valid | 7.06  Valid | 7.20  Valid | 7.02  Valid | | 15.00 |
| NOx lb/hr | 94.18  Valid | 99.88  Valid | 101.71  Valid | 99.96  Valid | | 47.80 |
| CO ppm | 10.02  Valid | 10.23  Valid | 10.14  Valid | 10.00  Valid | | |
| CO ppm @15% O2 | 6.66  Valid | 7.13  Valid | 7.16  Valid | 7.02  Valid | 7.02  --- | 10.00 |
| CO lb/hr | 57.57  Valid | 61.29  Valid | 61.64  Valid | 61.05  Valid | | 22.00 |
| NH3 Slip ppm @15% O2 | 0.00  Valid | 0.00  Valid | 0.00  Valid | 0.00  Valid | 0.00  --- | 10.00 |
| NH3 Slip lb/hr | 0.00  Valid | 0.00  Valid | 0.00  Valid | 0.00  Valid | | 13.90 |
| CT Gas Flow lb/sec | 32.65  Valid | 31.90  Valid | 31.95  Valid | 31.98  Valid | | |
| CT Oil Flow lb/sec | 15.67  Valid | 16.17  Valid | 16.06  Valid | 16.01  Valid | | |
| Heat Input mmBtu/hr | 3812.8  Valid | 3783.7  Valid | 3780.3  Valid | 3815.2  Valid | | |
| Megawatts | 81.7  Valid | 80.4  Valid | 79.4  Valid | 80.0  Valid | | |
| Steam Injection lb/sec | 30.83  Valid | 31.87  Valid | 31.97  Valid | 32.03  Valid | | |
| NH3 Flow lb/hr | 72.20  Valid | 72.91  Valid | 75.09  Valid | 74.99  Valid | | |

# Custom Color Coded Cells

# Custom Color Coded Cells

| | 10 Second | | Previous Minute | | Current Hour | | Previous Hour | | 3 Hour Rolling | | Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Process Code | Shutdown | | Shutdown | | Shutdown | | Normal | | Normal | | |
| O2% | 12.24 | Valid | 12.85 | Valid | 12.52 | Valid | 12.50 | Valid | | | |
| NOx ppm | 10.40 | Valid | 10.04 | Valid | 10.01 | Valid | 9.99 | Valid | | | |
| NOx ppm @15% O2 | 7.09 | Valid | 7.36 | Valid | 7.06 | Valid | 7.02 | Valid | | | 15.00 |
| NOx lb/hr | 97.39 | Valid | 104.95 | Valid | 99.81 | Valid | 99.96 | Valid | | | 47.80 |
| CO ppm | 10.38 | Valid | 9.82 | Valid | 10.01 | Valid | 10.00 | Valid | | | |
| CO ppm @15% O2 | 7.07 | Valid | 7.20 | Valid | 7.06 | Valid | 7.02 | Valid | 7.02 | --- | 10.00 |
| CO lb/hr | 59.17 | Valid | 62.59 | Valid | 60.72 | Valid | 61.05 | Valid | | | 22.00 |
| NH3 Slip ppm @15% O2 | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | 0.00 | --- | 10.00 |
| NH3 Slip lb/hr | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | 0.00 | Valid | | | 13.90 |
| CT Gas Flow lb/sec | 30.98 | Valid | 32.53 | Valid | 32.03 | Valid | 31.98 | Valid | | | |
| CT Oil Flow lb/sec | 15.71 | Valid | 15.87 | Valid | 16.00 | Valid | 16.01 | Valid | | | |
| Heat Input mmBtu/hr | 3674.9 | Valid | 3816.3 | Valid | 3783.6 | Valid | 3815.2 | Valid | | | |
| Megawatts | 83.1 | Valid | 79.8 | Valid | 79.8 | Valid | 80.0 | Valid | | | |
| Steam Injection lb/sec | 32.03 | Valid | 32.48 | Valid | 31.98 | Valid | 32.03 | Valid | | | |
| NH3 Flow lb/hr | 72.17 | Valid | 74.35 | Valid | 75.04 | Valid | 74.99 | Valid | | | |

Emissions & Operations

# Report Wizard Options

- Lots of parameters to pick from!!
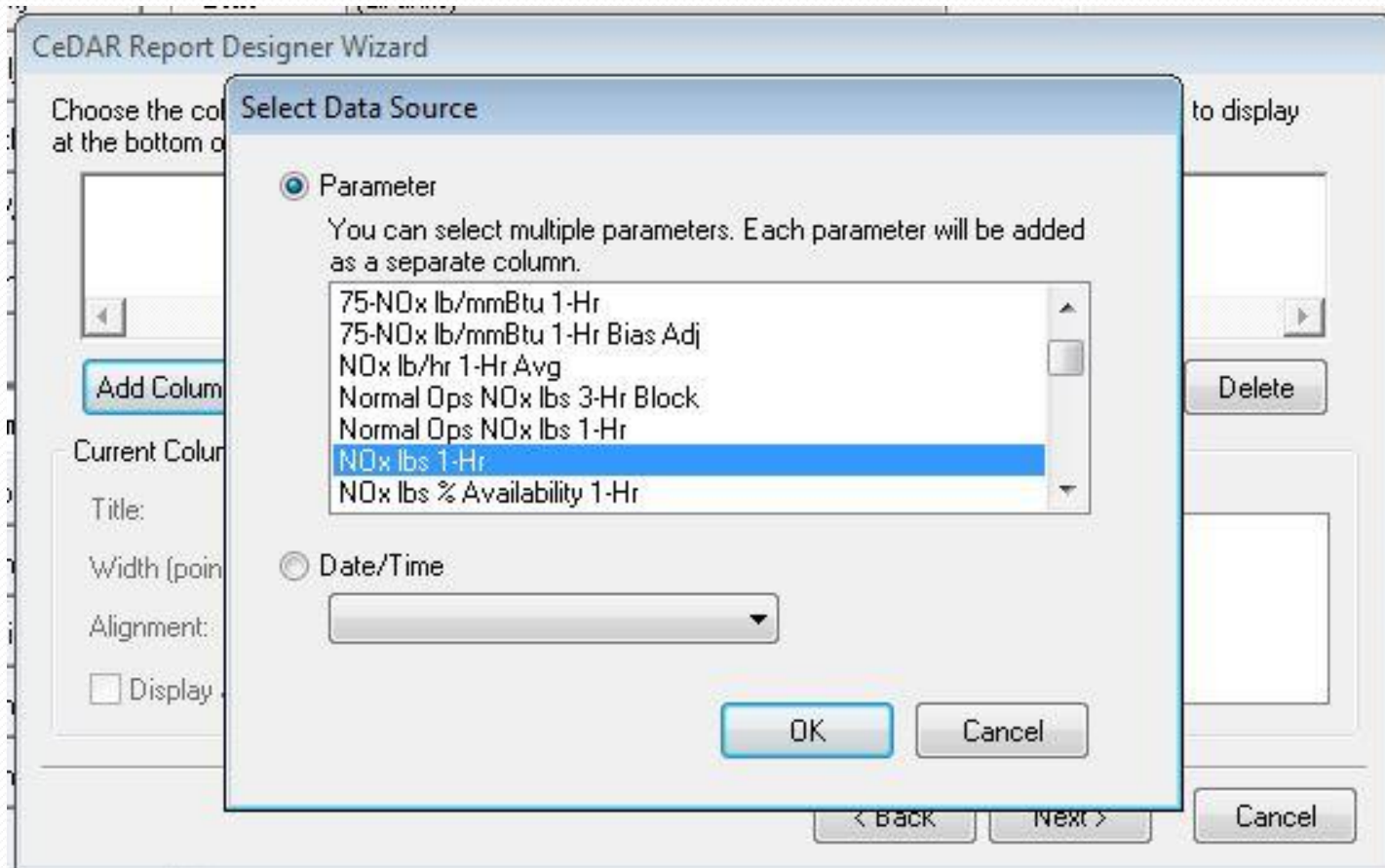
# Report Wizard Options

- You have the ability to rename the columns!!

# Level For Limit Calculations

- Provide predictive/target emissions level to run at to be at the limit.

- Available for short term limits (Hourly, 3-Hr Rolling, etc.)

# Level For Limit Examples

| | 10 Second | | Previous Minute | | Current Hour | | Level For Limit | | Previous Hour | | Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Process Status | Normal | | Normal | | Normal | | ///////// | | Normal | | ///////// |
| O2% | 15.00 | Valid | 15.00 | Valid | 12.55 | Valid | ///////// | | 12.50 | Valid | ///////// |
| NOx ppm | 2.50 | Valid | 2.50 | Valid | 8.90 | Valid | ///////// | | 9.99 | Valid | ///////// |
| NOx ppm @15% O2 | 2.50 | Valid | 2.50 | Valid | 6.29 | Valid | 0.9 | Valid | 7.02 | Valid | 2.5 |
| NOx lb/mmBtu | 0.0092 | Valid | 0.0092 | Valid | 0.0231 | Valid | ///////// | | 0.0258 | Valid | ///////// |
| NOx lb/hr | 1.93 | Valid | 1.93 | Valid | 0.63 | Valid | 37.5 | Valid | 99.96 | Valid | 26.5 |
| CO ppm | 2.80 | Valid | 2.80 | Valid | 8.93 | Valid | ///////// | | 10.00 | Valid | ///////// |
| CO ppm @15% O2 | 2.80 | Valid | 2.80 | Valid | 6.31 | Valid | 80.9 | Valid | 7.02 | Valid | 15.0 |
| CO lb/mmBtu | 0.0063 | Valid | 0.0063 | Valid | 0.0141 | Valid | ///////// | | 0.0157 | Valid | ///////// |
| CO lb/hr | 1.32 | Valid | 1.32 | Valid | 0.39 | Valid | 218.2 | Valid | 61.05 | Valid | 95.7 |

I/O Audit Inactive | Free space: <C: 190 GB> <Y: 1,369 GB> | 9/12/2016 | 12:53:48 PM MDT

# Level For Limit Examples

| | 10 Second | | Previous Minute | | Current Hour | | Level For Limit | | Previous Hour | | Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Process Status | Normal | | Normal | | Normal | | ///////// | | Normal | | ///////// |
| O2% | 14.98 | Valid | 14.96 | Valid | 14.90 | Valid | ///////// | | 12.83 | Valid | ///////// |
| NOx ppm | 1.03 | Valid | 1.14 | Valid | 1.11 | Valid | ///////// | | 8.02 | Valid | ///////// |
| NOx ppm @15% O2 | 1.03 | Valid | 1.13 | Valid | 1.09 | Valid | 21.7 | Valid | 5.86 | Valid | 2.5 |
| NOx lb/mmBtu | 0.0038 | Valid | 0.0042 | Valid | 0.0040 | Valid | ///////// | | 0.0216 | Valid | ///////// |
| NOx lb/hr | 7.98 | Valid | 8.84 | Valid | 8.42 | Valid | 275.4 | Valid | 4.80 | Valid | 26.5 |
| CO ppm | 2.96 | Valid | 2.99 | Valid | 2.90 | Valid | ///////// | | 8.22 | Valid | ///////// |
| CO ppm @15% O2 | 2.95 | Valid | 2.97 | Valid | 2.85 | Valid | 181.4 | Valid | 6.01 | Valid | 15.0 |
| CO lb/mmBtu | 0.0066 | Valid | 0.0066 | Valid | 0.0064 | Valid | ///////// | | 0.0134 | Valid | ///////// |
| CO lb/hr | 13.87 | Valid | 13.88 | Valid | 13.47 | Valid | 1225.9 | Valid | 2.98 | Valid | 95.7 |

I/O Audit Inactive | Free space: <C: 190 GB> <Y: 1,369 GB> | 9/12/2016 | 1:56:33 PM MDT