



Strengthen Your EPA Reporting Assurance Using Business Intelligence Tools

February 21, 2019

Benefits of NAEM Community

Conferences



Research



Networking



Publications



Actionable Strategies that Empower Corporate
EHS&S Leaders to Make an Impact



A diverse community for EHS&S leaders



Today's Speakers



Daniel McDermott,
Senior Consultant; Huco
Consulting Inc.



David Cox, Founder;
Firmographs LLC

Have a question?

**Type it into the
chat box in the
lower right-hand
corner.**



- The Solution
“off the shelf” tools

Qlik



Tableau



Power BI



Demonstration

**Look
familiar?**



Polling Question

Q1: Do you, or does your organization currently use BI tools for EHS purposes?



A Subpart-W A Case Study

05



Other EHS&S Reporting Types this could apply to:

•Regulatory Submittals

- TRI / FormR
- RCRA Hazardous Waste Biennial
- NPDES DMR
- OSHA Form 300/301 (in flux)
- State, Regional, and City Reporting

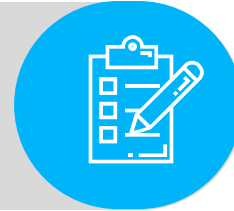
•Voluntary Submittals

- Carbon Disclosure Project (CDP)
- Global Reporting Initiative (GRI)
- Industry-Specific Reporting

Background on Reporting

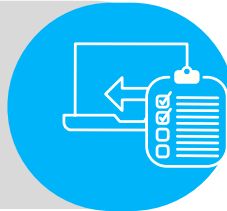
2006

ISO 14064 Standards published providing integrated requirements for reporting.



2010

GHG reporting required by law in the US for top 85% of emitters



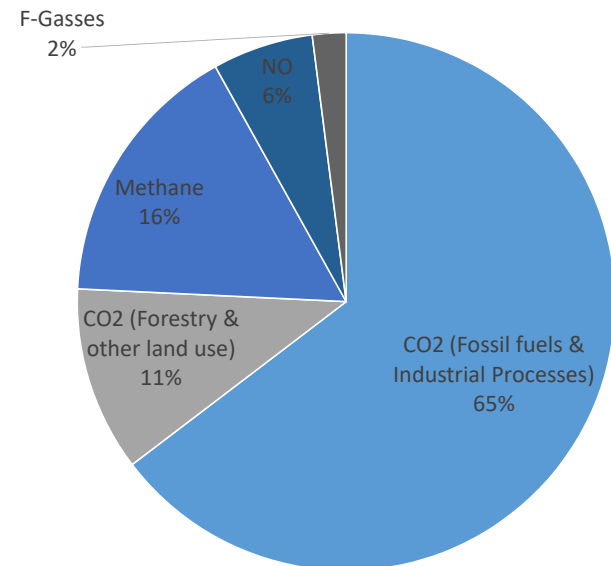
2017

The US emits 5.14 billion metric tonnes of CO₂e

***Note**, this was the **lowest** measured amount since 1991!



Global Greenhouse Gas Emissions by Gas (EPA)



Why are we
here?



Reporting Challenges

Reports must be prepared correctly! Wrong reports:

- *Waste time*
- *Increase legal risk*
- *Impact stock/ company value*
- *Harm reputation*

Data Collection Challenges

Process for calculations may be complex:

- Time averaging
- UOM handling
- Change management
- Calculations
- Special Formats



Obvious Errors

easy to spot

Home

Insert

Page Layout

Formulas

Paste

Calibri (Body)

12

B

I

U

L10

fx

	A	B	C	D
1		Operational Hours	Standby Hours	Maint. Hours
2	Compressor 1	3250	3000	2510
3	Compressor 2	5760	2100	3000
4	Compressor 3	7520	1000	240
5	Compressor 4	1500	6321	939



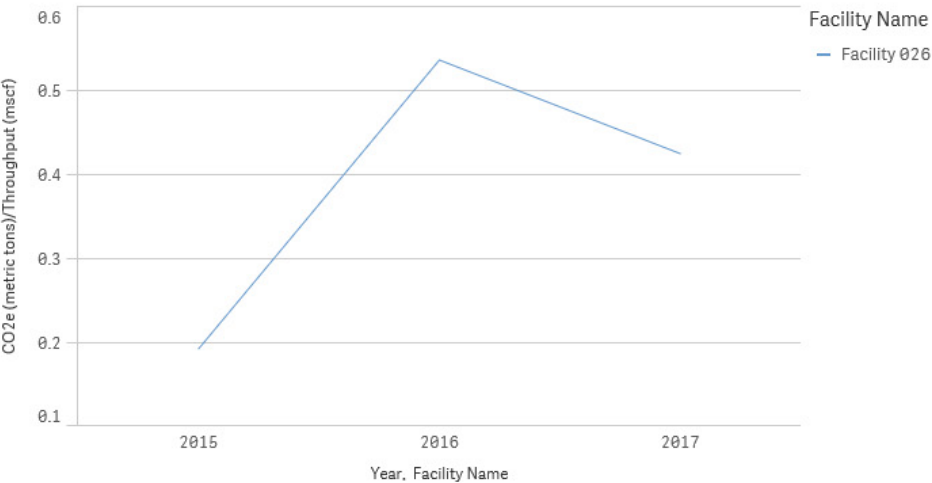
Remember Joe?

		Source Type	Data Type	Year	Data Value
		Amine Units	CO2e (metric tons)	2016	0
		Amine Units	CO2e (metric tons)	2017	5389.151169
	Unit 1	Amine Units	CO2e (metric tons)	2016	9110.902723
	Unit 1	Amine Units	CO2e (metric tons)	2017	10155.77519
Facility 026	AMN_AGR Unit 2	Amine Units	CO2e (metric tons)	2016	6073.935149
Facility 026	Facility Throughputs	Facility Throughputs	Facility Throughput (mscf)	2015	72366000
Facility 026	Facility Throughputs	Facility Throughputs	Facility Throughput (mscf)	2016	72603000
Facility 026	Facility Throughputs	Facility Throughputs	Facility Throughput (mscf)	2017	87512997
Facility 026	BLWDWN_Residue Gas Blowdowns	Blowdown Systems	CO2e (metric tons)	2016	664.8499253
Facility 026	BLWDWN_Residue Gas Blowdowns	Blowdown Systems	CO2e (metric tons)	2017	290.6212842
Facility 026	DEHY_3	Glycol Dehydrators	CO2e (metric tons)	2015	217.9
Facility 026	DEHY_3	Glycol Dehydrators	CO2e (metric tons)	2017	1572.401589
Facility 026	DEHY_1	Glycol Dehydrators	CO2e (metric tons)	2016	345.8
Facility 026	DEHY_1	Glycol Dehydrators	CO2e (metric tons)	2017	372.215441
Facility 026	DEHY_2	Glycol Dehydrators	CO2e (metric tons)	2016	175
Facility 026	DEHY_2	Glycol Dehydrators	CO2e (metric tons)	2017	181.179323
Facility 026	DSCNT DEHY_DET-16.02A, B	Desiccant Dehydrators	CO2e (metric tons)	2015	0
Facility 026	DSCNT DEHY_DET-16.02A, B	Desiccant Dehydrators	CO2e (metric tons)	2016	0
Facility 026	DSCNT DEHY_DET-16.02A, B	Desiccant Dehydrators	CO2e (metric tons)	2017	0
Facility 026	DSCNT DEHY_DET-16.02B	Desiccant Dehydrators	CO2e (metric tons)	2015	0
Facility 026	DSCNT DEHY_DET-16.02B	Desiccant Dehydrators	CO2e (metric tons)	2016	0
Facility 026	DSCNT DEHY_DET-16.02B	Desiccant Dehydrators	CO2e (metric tons)	2017	0
Facility 026	DSCNT DEHY_NT-442	Desiccant Dehydrators	CO2e (metric tons)	2015	0
Facility 026	DSCNT DEHY_NT-442	Desiccant Dehydrators	CO2e (metric tons)	2016	0
Facility 026	DSCNT DEHY_NT-442	Desiccant Dehydrators	CO2e (metric tons)	2017	0
Facility 026	DSCNT DEHY_NT-443	Desiccant Dehydrators	CO2e (metric tons)	2015	0
Facility 026	DSCNT DEHY_NT-443	Desiccant Dehydrators	CO2e (metric tons)	2016	0
Facility 026	DSCNT DEHY_NT-443	Desiccant Dehydrators	CO2e (metric tons)	2017	0
Facility 026	DSCNT DEHY_NT-444	Desiccant Dehydrators	CO2e (metric tons)	2015	0
Facility 026	DSCNT DEHY_NT-444	Desiccant Dehydrators	CO2e (metric tons)	2016	0
Facility 026	DSCNT DEHY_NT-444	Desiccant Dehydrators	CO2e (metric tons)	2017	0
Facility 026	FLARE_TO	Flares	CO2e (metric tons)	2016	0
Facility 026	FLARE_TO	Flares	CO2e (metric tons)	2017	636.0468368
Facility 026	FLARE_Flare	Flares	CO2e (metric tons)	2015	793.4718495
Facility 026	FLARE_Flare	Flares	CO2e (metric tons)	2016	58.0598349
Facility 026	FLARE_Flare	Flares	CO2e (metric tons)	2017	0
Facility 026	FLARE_TO	Flares	CO2e (metric tons)	2016	15642.41269
Facility 026	FLARE_TO	Flares	CO2e (metric tons)	2017	3430.164698
Facility 026	Gas Leaks	Equipment Leaks	CO2e (metric tons)	2016	40.13529824
Facility 026	Gas Leaks	Equipment Leaks	CO2e (metric tons)	2017	177.0721207
Facility 026	RECIP_C-1000 Residue	Reciprocating Compressors	CO2e (metric tons)	2015	1481.649263
Facility 026	RECIP_C-1000 Residue	Reciprocating Compressors	CO2e (metric tons)	2016	617.4699842
Facility 026	RECIP_C-1000 Residue	Reciprocating Compressors	CO2e (metric tons)	2017	362.170104
Facility 026	RECIP_C-1100 Residue	Reciprocating Compressors	CO2e (metric tons)	2015	630.2541345

Resolution

Joe setup visualizations to look at source data **before** it gets entered into their calculation engine.

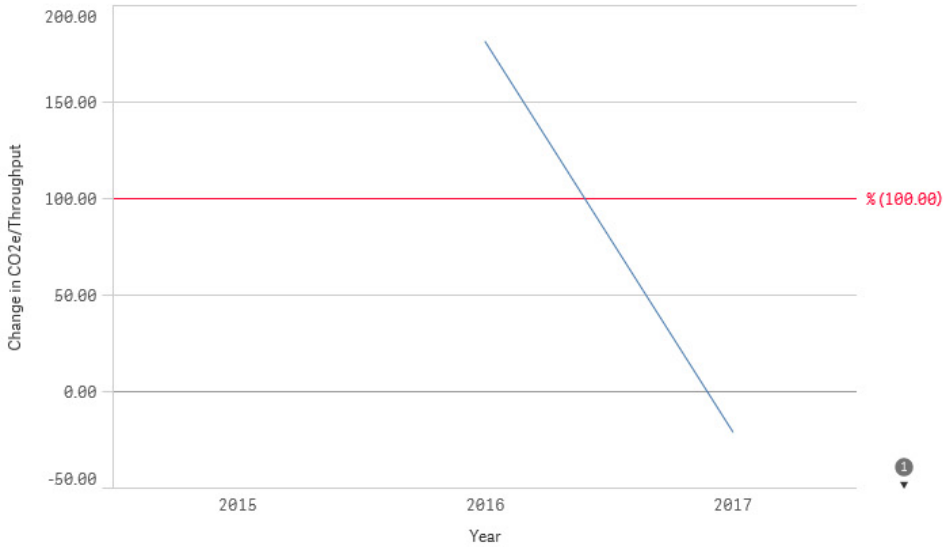
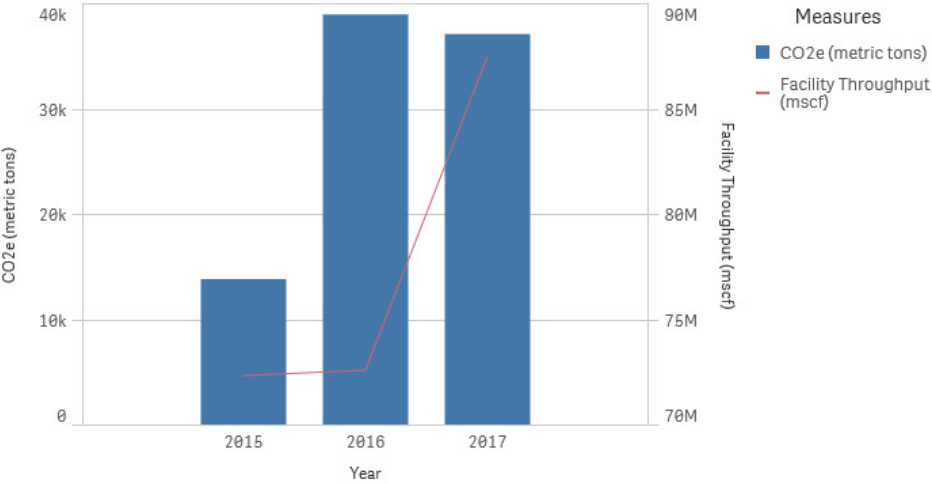
Facility Throughputs



Facility Name	Year	Change in CO2e/Throughput (%)	Facility Throughput (mscf)	CO2e (metric tons)	Change in CO2e/Throughput (1)
Totals		-	-	-	-
Facility 026	2015	-	72,366,000	13,807.53	-
Facility 026	2016	181.05	72,603,000	38,932.52	-
Facility 026	2017	-20.99	87,512,997	37,079.03	-

CO2e and Throughput

Select single facility



Polling Question

Q2: Have you experienced resubmitting regulatory reports?



Questions

Any questions? Ask through the Adobe Connect window!



Innovative Approach to Research Publications



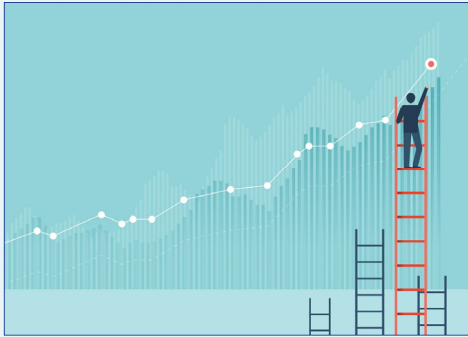
- Environmental Risk Auditing
- Sustainability in the Supply Chain
- Comparing Notes on EHS Training Programs
- EHS Compliance Metrics
- Ready, Set, Implement: How to Successfully Deploy an EHS&S Software System
- Planning for a Sustainable Future

Updating NAEM's Staffing, Structure & Budgets Report
Survey Completion Needed this Summer!



Great Webinars Every Few Weeks!

March 7



*2019 EHS&S Salary
Survey Results*

March 21



*Achieve Results with
your ESG Reporting*

April 10



*Top Reasons Companies are
Considering Replacing their
EHS&S Software*

***Check our website for registration
and additional information about our webinars!***

www.naem.org



2019 Conference Dates

Innovation,
Software &
Technology
Showcase

March 12-
14

New Orleans,
LA

EHS
Operational
Excellence
Conference

May 14-16

Pittsburgh,
PA

Women's
Leadership
Roundtable

June 25-
27

Savannah,
GA

Impact
*Sustainability
From Aspiration to
Operation*

Aug 6-8

Milwaukee,
WI

EHS&S
Management
Forum

Oct. 15-17

Toronto,
Canada

*Check our website for registration
and additional information about our conferences!*

www.naem.org



Connect with Us!



- Browse additional resources:
www.naem.org
 - Visit our online webinar library of more than 75 recordings
- Share your feedback: caitlin@naem.org
- Join our social media network:
 - Twitter: @NAEMorg
 - Facebook:
www.facebook.com/NAEM.org
 - YouTube:
www.youtube.com/NAEMorgTV



Thank you for Attending!

- A recording will be available in 1-2 days. You will receive an email once it's posted to our site.
- Have a safe & great day!

