



# Air Management Study Group Quarterly Meeting Agenda

- Opening remarks & agenda review
- Hiring update
- Proposed guidance, rules and legislative update
- Act 369 update
- EDGE Pilot Project (Formerly known as Act 70)
- Permit Progress Bar
- Title V Operation Permit Review Procedures
- PFAS Plan
- Member updates
- Ozone updates
- Emissions inventory and confidentiality
- Work planning and digitization
- ACE Rule

# **Air Management Study Group Quarterly Meeting**

Madison  
August 8, 2019

# Hiring Update

**Gail Good**

Air Program Director

# Proposed Guidance and Rules Legislative Update

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief

**David Bizot**

Air Quality Planning and Standards Section Chief

# Proposed DNR Guidance

DNR Guidance in Drafting Phase	Description	Target Date
None		
DNR Guidance in Public Comment	Description	Date Posted
None		
Finalized DNR Guidance	Location	Final Date
None		

## Proposed DNR Rules

Proposed DNR rule	Description	Phase
AM-18-13 Lithographic Printing Rule	Changes to NR 422.142 and 422.143, to clarify and streamline the requirements for lithographic printing facilities.	Effective as-of July 1, 2019
AM-24-12b Air Permit Streamlining Rule Part 2	Changes to improve operational efficiency and to simplify the permitting processes administered under chs. NR 406 and 407, while remaining consistent with the federal Clean Air Act (CAA).	Preparing for adoption by NRB and Gov
AM-20-18 VOC RACT	Updates two RACT rules in ch. NR 422 to meet current EPA Guidelines for Miscellaneous Metal and Plastic Parts Coatings, and Miscellaneous Industrial Adhesives.	Rule drafting
AM-10-19 2015 Ozone NAAQS	Incorporates the 2015 ozone NAAQS into state rule. Scope statement approved by NRB in June 2019.	Rule drafting

# Proposed EPA Rules/Guidance

Proposed EPA rule/guidance	Docket	Comments due
Proposed Revision of the Photochemical Assessment Monitoring Station (PAMS) Requirement Start Date	<a href="#">EPA-HQ-OAR-2019-0137</a>	July 1, 2019
Reclassification of Major Sources as Area Sources Under S. 112 of the Clean Air Act (Once in always in)	<a href="#">EPA-HQ-OAR-2019-0282</a>	Sept 24, 2019

# Proposed EPA Rules/Guidance

Proposed EPA rule/guidance	Docket	Comments due
<p>Agency Information Collection Activities on NESHAPs and NSPS</p> <ul style="list-style-type: none"><li>• Printing and publishing</li><li>• Primary copper, secondary copper, primary nonferrous metals</li><li>• Prepared feeds</li><li>• Clay ceramics, glass manufacturing, secondary nonferrous metals area sources</li><li>• Pressure sensitive tape and label surface coating</li><li>• Plastic parts and products</li><li>• Steel plants – Electric Arc Furnaces</li></ul>	<p><a href="#">Access EPA Docket</a></p>	<p>Various</p>

# Finalized EPA Rules/Guidance

Finalized EPA rule/guidance	Link	Date finalized
FY 20-21 Office of Air and Radiation National Program Guidance	<a href="#">FY20-21 OAR NMP</a>	June 7, 2019
Repeal of the Clean Power Plan, Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units (Affordable Clean Energy rule), and Revisions to Emission Guidelines Implementing Regulations	<a href="#">EPA-HQ-OAR-2017-0355</a>	July 8, 2019
Final approval of the Revision of the Nonattainment Designation for the 1997 and 2008 Ozone Standards and Clean Data Determination for the 2008 Ozone Standards: Sheboygan County, WI	<a href="#">EPA-R05-OAR-2018-0035</a>	July 15, 2019

# Draft and Final Legislation

Draft legislation	Link
PFAS Legislation	<a href="#"><u>LRB-2297/2</u></a>
Final legislation	Link
None to report	

# Act 369 Update

**Gail Good**  
Air Program Director

# **EDGE Pilot Project Update (Formerly known as Act 70 Pilot)**

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief



# EDGE Pilot Project Update

EDGE Pilot Project Team is transitioning from formation to implementation

- Metrics Team
  - How do we define success?
- Communications Team
  - How do we get the word out and bring in participants?
- Discussed candidates for the EDGE Pilot
- Discussed structure moving forward

# Progress Bar Update

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief

# Progress Bar Update

The permit search page has a new feature to track progress on an air permit review

<https://dnr.wi.gov/topic/AirPermits/Search.html>

- General Facility Information
- Facility Contacts
- DNR Air Contacts
- Permits and Permit Applications
- Emission Inventory Reports
- Industrial Monitoring Data

## Permits and Permit Applications

Show Inactive Permits

	Permit #	Type	App Received	App. Comp.	Public Notice	Decision*	Status	Permit Writer
<a href="#">Select</a>	09-BNP-108	Construction	02/19/2010			02/19/2010	Active	Bogost, Steven R
<a href="#">Select</a>	55555550-CONFID2019	Confidentiality Request					Requested	
<a href="#">Select</a>	55555550-G	GOP					Requested	
<a href="#">Select</a>	55555550-P12	FOP	01/01/2009			08/23/2012	Requested	Griffin, Michael P
<a href="#">Select</a>	55555550-P12	FOP	01/01/2009			08/23/2012	Requested	Griffin, Michael P
<a href="#">Select</a>	55555550-P20	FOP					Requested	
<a href="#">Select</a>	55555550-P56	FOP				01/01/2018	Requested	
<a href="#">Select</a>	55555550-ROPA	ROPA					Requested	

\*Note: "Decision" could mean permit issuance date, permit denial date, registration or general permit coverage granted date, exemption approval date, consent order issuance date, or administrative order issuance date. If "X" is shown here (instead of a date), it means the Department acknowledged the notice of intent to construct and/or operate certain air emission unit(s) but the Department does not intend to evaluate the exemption claim. Please click "Select" next to the permit # for details on the submittal and decision documents.

Select a Permit to see related **Documents** and **Milestones**.

AIR TEST FACILITY #1	55555550	55555550-P20			M
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## Progress Bar Update

- Visual representation of the permit review process
- A  symbol indicates that the department is waiting for additional information
- When the entire bar is filled in blue, the air permit has been issued



# **Title V Operation Permit Review Procedures**

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief



## **Title V Operation Permit Review Procedures**

Several ongoing projects to improve the quality, consistency, and accuracy of Title V Operation Permit Permits

- Encouraging complete information in applications
  - Allowing submittal of emission calculations in spreadsheets
  - Assuring that up-to-date descriptions of activities and emission units are included in permits
  - Listing updated regulations, construction permits or permit exemptions



## **Title V Operation Permit Review Procedures**

- Streamlined approach to including federal standards (NESHAP and NSPS requirements)
  - Assuring correct applicability
  - Assuring accurate and consistent inclusion in permit documents
- Encouraging attachment of a marked up permit to renewal applications

[Collaborative Permit Process Guidance](#)

# PFAS Air Program Plan

**Gail Good**  
Air Program Director



## PFAS Plan

- FY20 chartered project
- Intended benefit: The air program will develop a plan to address and meet current PFAS needs, including development of an understanding of air fate and transport, sources that may be air emissions of PFAS, and strategies to address the issue, utilizing developing science.



# PFAS Plan

- **Deliverables:**
  - List of potential air emissions sources of PFAS.
  - GIS layer of potential air emissions sources for AMDV.
  - Process to coordinate with WSLH to address monitoring questions and participate, where applicable, in study related to PFAS deposition activities.
  - Process to coordinate with EPA and other organizations on stack testing, emissions inventory, and monitoring goals.
  - Program understanding of incineration and other potential air control technologies relative to PFAS, developed in coordination with the WMM program and other relevant external partners.
  - Communication materials that describe the air program's work, understanding, and approach to PFAS in Wisconsin.

# Member Updates

# Ozone Update

**David Bizot**

Air Quality Planning and Standards Section Chief

**Kristin Hart**

Permits and Stationary Source Modeling Section Chief

**Katie Praedel**

Air Monitoring Section Chief



## 2008 Ozone NAAQS: Sheboygan County split

- On July 15, EPA finalized a split of the Sheboygan County 2008 ozone nonattainment area into two areas:
  - “Inland Sheboygan County” – also made a clean data determination
  - “Shoreline Sheboygan County”
- These areas now are considered independent in terms of CAA planning purposes.
- DNR is currently working on a redesignation request for the Inland Sheboygan County NAA based on data from the Haven monitor showing the area has attained the 2008 ozone NAAQS.
- DNR will also have to submit an attainment plan for the Shoreline Sheboygan area.

# Status of the 2019 Ozone Season

Top Four 8-Hour Average Ozone Concentrations – as of **July 29, 2019**

site	Concentrations (ppb)				2018 Critical values		Days at/above C.V.		Current 2016-2018 "design value"
	1st high	2nd high	3rd high	4th high	2008 std	2015 std	2008 std	2015 std	
Newport	74	68	68	66	84	69	0	1	70
Chiwaukee Prairie	76	72	70	67	70	55	3	28	75
Kenosha WT	73	69	68	63	72	57	1	17	73
Manitowoc	70	68	68	66	81	66	0	4	71
Bayside	71	71	64	63	85	70	0	2	68
Grafton	73	73	68	64	82	67	0	3	70
Harrington Beach	71	69	67	66	84	69	0	2	70
Racine Payne & Dolan	75	69	68	66	70	55	1	23	74
Sheboygan Kohler Andrae	73	73	68	67	70	55	2	20	75

2008 NAAQS: 75 ppb  
2015 NAAQS: 70 ppb

Exceeds the 2015 NAAQS critical value or standard  
Exceeds the 2008 NAAQS critical value or standard

Note: Data have not yet been QA'ed or certified and are subject to change. Values are only shown for monitors that exceeded their critical value at least once.



# 2020 Air Monitoring Network Plan Submitted

- On June 24, 2019 the air program submitted the final “2020 Annual Air Monitoring Network Plan”
- Process included 30 day public comment period
- Act 159 required exclusion of the Sheboygan Kohler Andrae monitor from the submitted network plan. Due to official comment from EPA, final version included both Sheboygan Haven and Sheboygan Kohler Andrae monitoring sites
- All information including final version, comments and response to comments can be found on the DNR webpage
  - <https://dnr.wi.gov/topic/AirQuality/Monitor.html>



# PAMS/Enhanced Ozone Monitoring in WI

- Non-attainment areas classified at moderate and above for the 2008 ozone NAAQS are required to submit an Enhanced Ozone Monitoring Plan by Oct 2019
- The 2015 Ozone NAAQS rule which took effect on December 28, 2015:
  - Included a new PAMS requirements that removed the requirement for a PAMS site in Milwaukee. Consequently, the Milwaukee SER DNR Hdqrs PAMS site shut down in 2017.
  - Required other states with urban NCORE sites to install PAMS monitoring, including Auto GCs.



# 2019 Wisconsin Enhanced Ozone Monitoring Objectives

- **To implement additional monitoring of ozone and ozone precursor compounds to better understand the impacts of ozone precursors on ozone concentrations in Wisconsin.**
  1. Determine how out-of-state emissions are impacting WI ozone values, and inform strategies that could potentially be used to address those emissions
  2. Provide data that can be used to update and improve the regulatory meteorological and photochemical models that are used to estimate future ozone values
  3. Ground truth VOC and NO<sub>x</sub> inventories and determine what elements of the regional emissions inventory require improvement

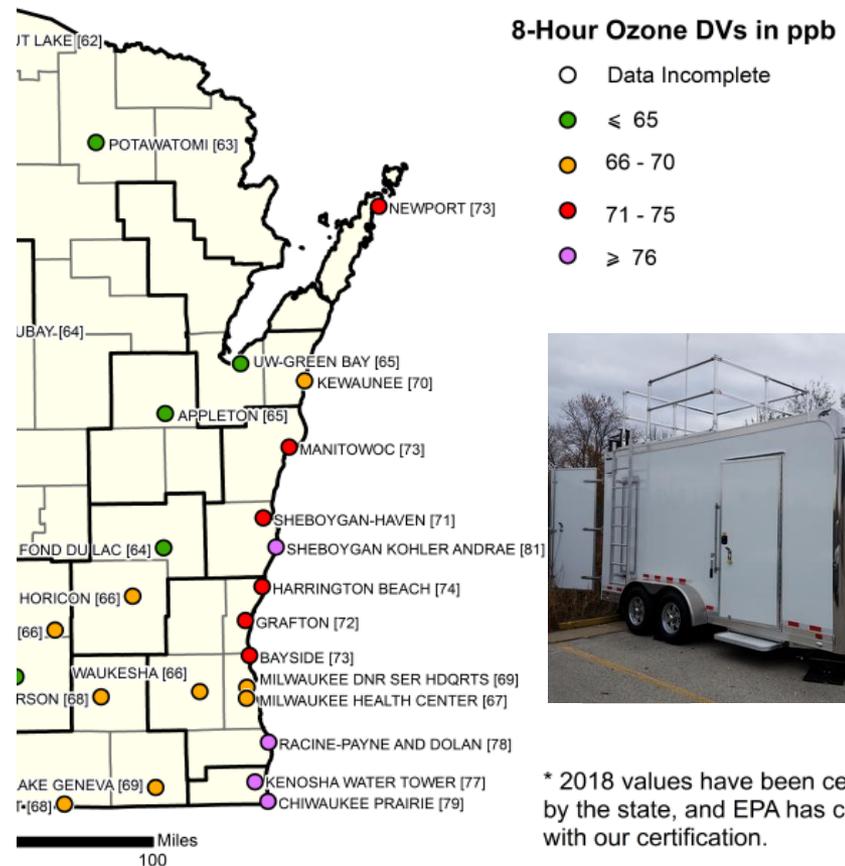
# WI – 2019 Enhanced Ozone Monitoring

## Enhancements for 2019

- The Mobile Air Monitoring Lab (MAML) being placed at predetermined sites along the lakeshore.
  - Parameters measured in the MAML: PM2.5, Ozone, NO<sub>x</sub>, CO, VOCs

## 8-Hour Ozone Design Values (DV)s

2016-2018 \*



\* 2018 values have been certified by the state, and EPA has concurred with our certification.

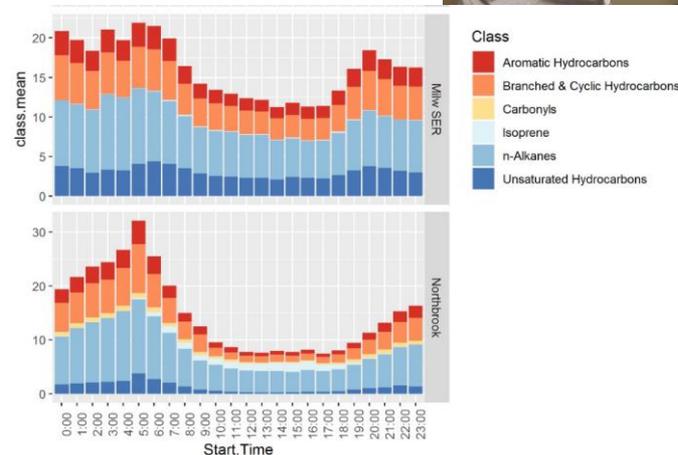
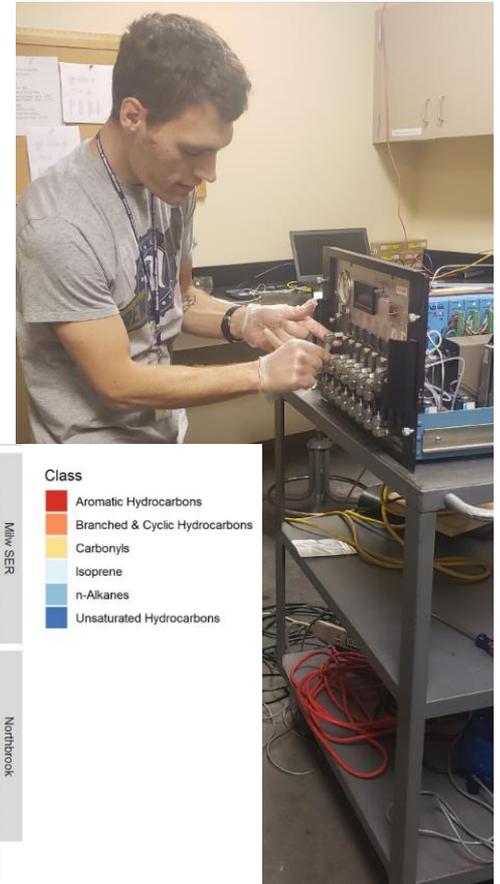
# WI – 2019 Enhanced Ozone Monitoring

## More on Manually Triggered VOC samples

- Ozone Air Quality Forecast to inform remote, manually triggered samples for PAMS suite
- Specifically hone resources to gather critical precursor data

## The Details

- 9 Carbonyl and 9 Canister Ports (1 blank)
- Timing to optimize sample investment
  - 3hr, 3hr, 9hr, 9hr
- Number of events expected 10-30



	70 ppbv	75 ppbv	80 ppbv
<b>Grafton</b>	62 hours (over 15 days)	34 hours (over 9 days)	17 hours (over 4 days)
<b>Chiwaukee</b>	134 hours (over 27 days)	77 hours (over 19 days)	38 hours (over 10 days)

# Wisconsin Enhanced Ozone Monitoring Strategy

	Deliverables	Timeline
<i>Phase 1</i>	<b>Ozone Season 2019 and beyond if determined to be useful</b>	
	Aetheometer to HB	March
	Install NOx in MAML	March
	Install loaner pandora on site paired with MAML (Mobile Air Monitoring Lab)	April - October
	MAML at Grafton	April - May
	MAML at Chiwaukee	June - July
	MAML at School of Freshwater Sciences	Aug - Sept
	Ozone AQ forecast - manually triggered carb/VOC (PAMS suite) in MAML	March - May
<i>Phase 2</i>	<b>Ozone Seasons 2020 &amp; 2021 (AMT Charter)</b>	
	Add Equipment to Grafton (NOx, CO)	April - May
	Add Ceilometer at Grafton	April - May
	Add Pandora at Grafton (if 2019 is useful)	April - May
	Add additional mobile ozone trailer	April-Oct
	Add PANDORA at Chiwaukee to pair with Chiwaukee NSF O3 study using a Purdue UAS	Summer 2020
	Relocate SERHQ site to a new EOM site location	<b>FY21</b>
	Kenosha Water Tower - second ozone analyzer, inlet on water tower	FY20
<i>Phase 3</i>	<b>Future Ozone Season Considerations (3-8 years)</b>	
	Ozone AQ forecast - manually triggered carb/VOC (PAMS suite) in MAML	
	Continuous Formaldehyde	
	Continuous total Hydrocarbon	
	Determining Biogenic emissions	
	Ozone analyzers in light houses	
	Ozone on Lake Guardian Research Vessel	
	Additional Mobile Ozone Monitoring site	
	Drones over Lake Michigan - Cleary project	
Sensors		

# AirNow changes to AQI Ozone Calculations

- On August 1, 2019 EPA completed a technical change in the background of the [AirNow.gov](https://www.airnow.gov) website and updated the algorithm associated with Nowcast, which is used to estimate the AQI in real time.
- EPA anticipates that the revised algorithm will improve the accuracy ozone predications at the local level.
- New algorithm will be coded into DNR web map within 30 days.

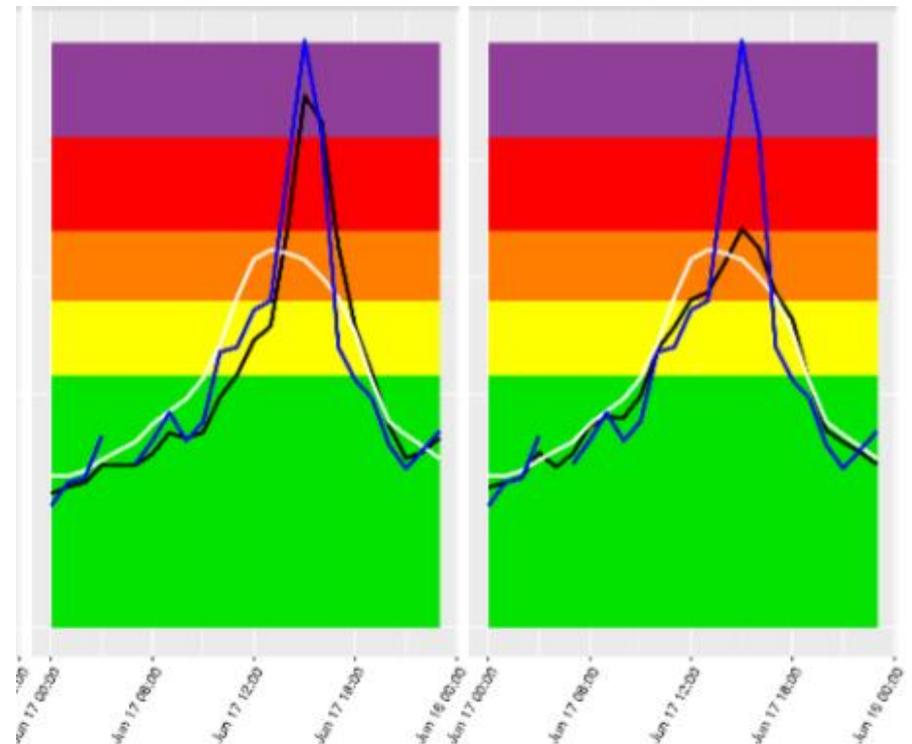
Black Line: Nowcast indicated by Panel Label

White Line: Rolling 8-hour Mean O3

Blue Line: 1-hour Mean O3

Previous Nowcast

New Nowcast



# **Emissions Inventory PM<sub>2.5</sub> and Confidentiality**

**Maria Hill**

Compliance Enforcement and Emissions Inventory Section Chief



## Emissions Inventory and PM<sub>2.5</sub>

Reporting of 2018 PM<sub>2.5</sub> emissions to satisfy Section 110(a)(2)(F) and Air Emissions Reporting Rule (AERR)

- PM<sub>2.5</sub> emission factors were added to the state air reporting system (ARS)
- PM<sub>2.5</sub> emissions will be uploaded to National Emissions Inventory per the normal process and deadlines



# Emissions Inventory and Confidentiality

Reporting of emission data for confidential sources to meet 40 CFR 51.15(b)(1) and AERR

- All data submitted is used to build the National Emission Inventory and is public domain
- EPA approval that “supporting information” for confidential point sources can be omitted
- Throughput data and emission factors will be omitted for all sources with explicit NR 2.19 confidentiality approvals as well as those facilities awaiting approval

# Work Planning and Digitization

**Gail Good**

Air Program Director

**Andy Stewart**

Air Program Field Operations Director

**Sheri Stach**

Business Support and IT Section Chief



# Work Planning

- Work planning is part of an approach that directs program activities over the course of the fiscal year.
  - aligns with agency & program priorities
  - focuses on understanding anticipated staff hours
  - adheres to budgets for the upcoming fiscal year
- In addition:
  - work planning identifies specific improvement projects
  - work plan outlines responsibilities & expectations of staff and supervisors



# Work Planning

- Air Management Team
  - Assess projects to continue into next FY
  - Identifies potential new projects/areas of focus
  - Identifies training & recruitment needs
  - Drafts & approves charters
  - Identifies & quantifies resources
  - Develops timelines
  - Gathers & assesses feedback
  - Finalizes projects, goals & expectations



# Work Planning

- Highlights for FY20
  - WARP 2.0
  - Expansion of e-docs and e-signature
  - Further innovation and automation in monitoring

# Digitization



# Digitization

## Equipment

- Others' experience
- Determined specifications (required vs optional)
- Purchasing guidelines to obtain bids
- Space allocation and preparation

### Datasheet

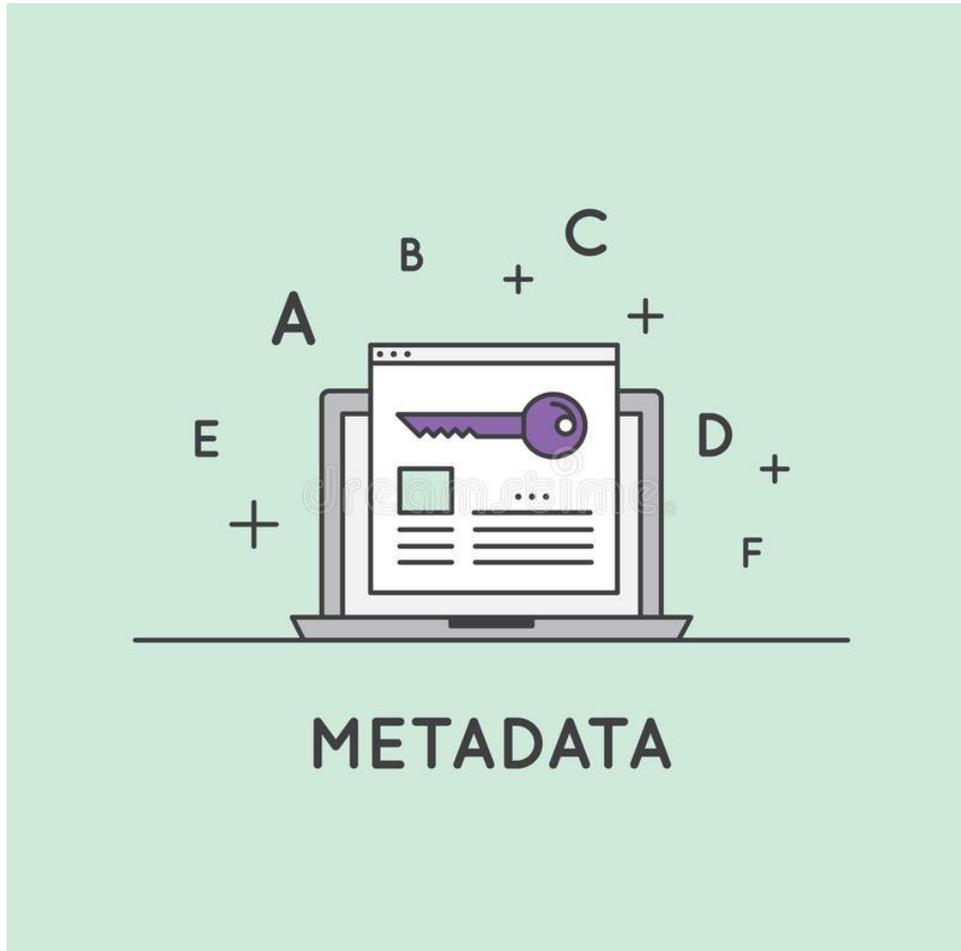
#### FUJITSU Image Scanner fi-7700

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Flatbed scanner for professional use enables heavy-duty & flexible scanning



# Digitization



## Metadata

- Descriptive
- Administrative
- Structural

## Naming Conventions

- Uploader tool



# PROCESS



# Affordable Clean Energy Rule

**David Bizot**

Air Quality Planning and Standards Section Chief



## ACE Rule

- On July 8, EPA published the Affordable Clean Energy rule (ACE), regulating greenhouse gas emissions from existing coal-fired electric utility generating units (EGUs)
- This action was finalized in conjunction with two related, but separate and distinct rulemakings:
  - The repeal of the Clean Power Plan (CPP)
  - Revised implementing regulations for ACE, ongoing emission guidelines, and all future emission guidelines for existing sources issued under the authority of Clean Air Act (CAA) section 111(d)



# ACE Rule

- ACE establishes heat rate improvement (HRI), or efficiency improvement, as the best system of emissions reduction (BSER) for CO<sub>2</sub> from coal-fired EGUs.
- ACE lists six HRI “candidate technologies,” as well as additional operating and maintenance practices. The six candidate technologies are:
  - Neural Network/Intelligent Sootblowers
  - Boiler Feed Pumps
  - Air Heater and Duct Leakage Control
  - Variable Frequency Drives
  - Blade Path Upgrade (Steam Turbine)
  - Redesign/Replace Economizer



# ACE Rule

- Each state is to evaluate applicability to their existing sources of the six candidate technologies and improved operating and maintenance practices and take into consideration source-specific factors in establishing a standard of performance at the unit level.
- States will submit plans to EPA that establish standards of performance and include measures that provide for the implementation and enforcement of such standards.
- States have three years (September 2022) to submit plans to EPA



## ACE Rule – Affected facilities

In the final ACE rule, EPA finalized that designated facilities subject to this regulation as “any coal-fired electric utility steam generating unit that:

- is not an integrated gasification combined cycle (IGCC) unit...;
- was in operation or had commenced construction on or before January 8, 2014;
- serves a generator capable of selling greater than 25 megawatts (MW) to a utility power distribution system; and
- has a base load rating greater than ...250 MMBtu/h heat input of coal fuel (either alone or in combination with any other fuel).”

*Source: page 52 of pre-publication version of rule*

# ACE Rule – Affected facilities

Plant Name	FID	WI Unit ID	Owner	Operator	Capacity (MW)	Capacity (MMBtu/hr)
Columbia	111009030	B21	MG&E,WPL,WPSC	WPL	570	5885
Columbia	111009030	B22	MG&E,WPL,WPSC	WPL	545	5885
Edgewater	460033090	B25	WPL	WPL	398	4366
Elm Road	241007690	B18	MG&E,WEPCO,WPPI	WEPCO	634	6180
Elm Road	241007690	B19	MG&E, WEPCO,WPPI	WEPCO	634	6180
Genoa	663020930	B20	DPC,GRE	DPC	290	3520
John P Madgett	606034110	B25	DPC	DPC	388	4056
Manitowoc	436035930	B09	MPU	MPU	58	650
South Oak Creek	241007690	B28	WEPCO	WEPCO	275	3007
South Oak Creek	241007690	B27	WEPCO	WEPCO	275	2601
South Oak Creek	241007690	B26	WEPCO	WEPCO	225	2516
South Oak Creek	241007690	B25	WEPCO	WEPCO	220	2488
Weston	737009020	B03	WPSC	WPSC	334	3423
Weston	737009020	B04	DPC,WPSC	WPSC	534	5179



## ACE Rule

- Air program has invited affected utilities to discuss rule at meeting on September 26.
- Additional information:  
<https://www.epa.gov/stationary-sources-air-pollution/affordable-clean-energy-rule>

## 2019 Meeting Dates

- Thursday, November 7, 2019