

# Navigating the Requirements for Air Emission Compliance Tests

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# United States Environmental Protection Agency Rules

Title 40 CFR 60  
NSPS  
PM, Pb, CO, SO<sub>2</sub>  
NO<sub>x</sub>, VOC  
ground level O<sub>3</sub>  
60.8  
Appendix A  
Methods 1-30B

Title 40 CFR 61  
NESHAP  
Benzene, Beryllium  
Arsenic, Mercury  
Vinyl Chloride  
61.13  
Appendix B  
Methods 101 – 111

Title 40 CFR 63  
MACT  
187 HAPs  
Maximum Achievable  
Control Technology  
63.7  
Appendix A  
Methods 301 – 325B

# USEPA Test Requirements

General Requirements

Test Deadline and Notice

Port/stack and safety considerations

A minimum of 3 separate samples

Representative operation of the process

General exclusion for start-up, shutdown, malfunction

Method Modification

Audit samples

Specific Requirements are in the subparts

test method, run-time/sample volume

# USEPA National Stack Testing Guidance

Stack Test Deadline

Stack Test Waivers

Stack Test Notifications

Observation of Stack Tests

Representative Testing Conditions

Stoppages & Postponements

Test Reports

# Michigan Program

USEPA Regulation

Michigan Rules are pollutant and program specific.

Michigan test methods and some test requirements are in the Part 10 rule.

A test must be completed within a 36-hour period

Test at maximum routine operating conditions or as requested by the department

Operate at a similar level of production during each run

# Michigan Permits

Michigan Permit to Install

Limits

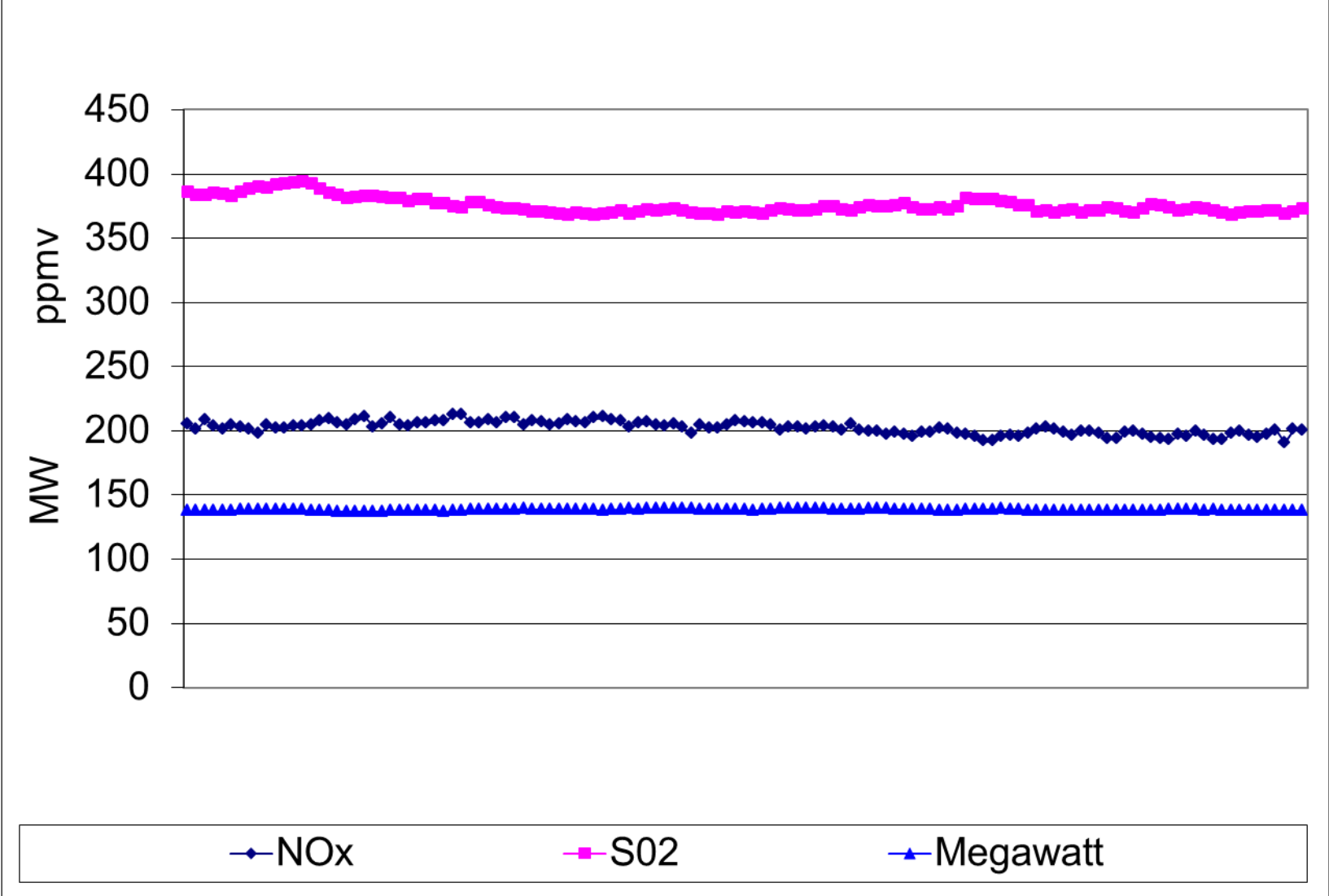
Test Conditions

Format for Emission Test Plans and Reports

Michigan Renewable Operating Permit = Title 5 Permit

40 CFR 64 Compliance Assurance Monitoring

# Coal Fired Boiler



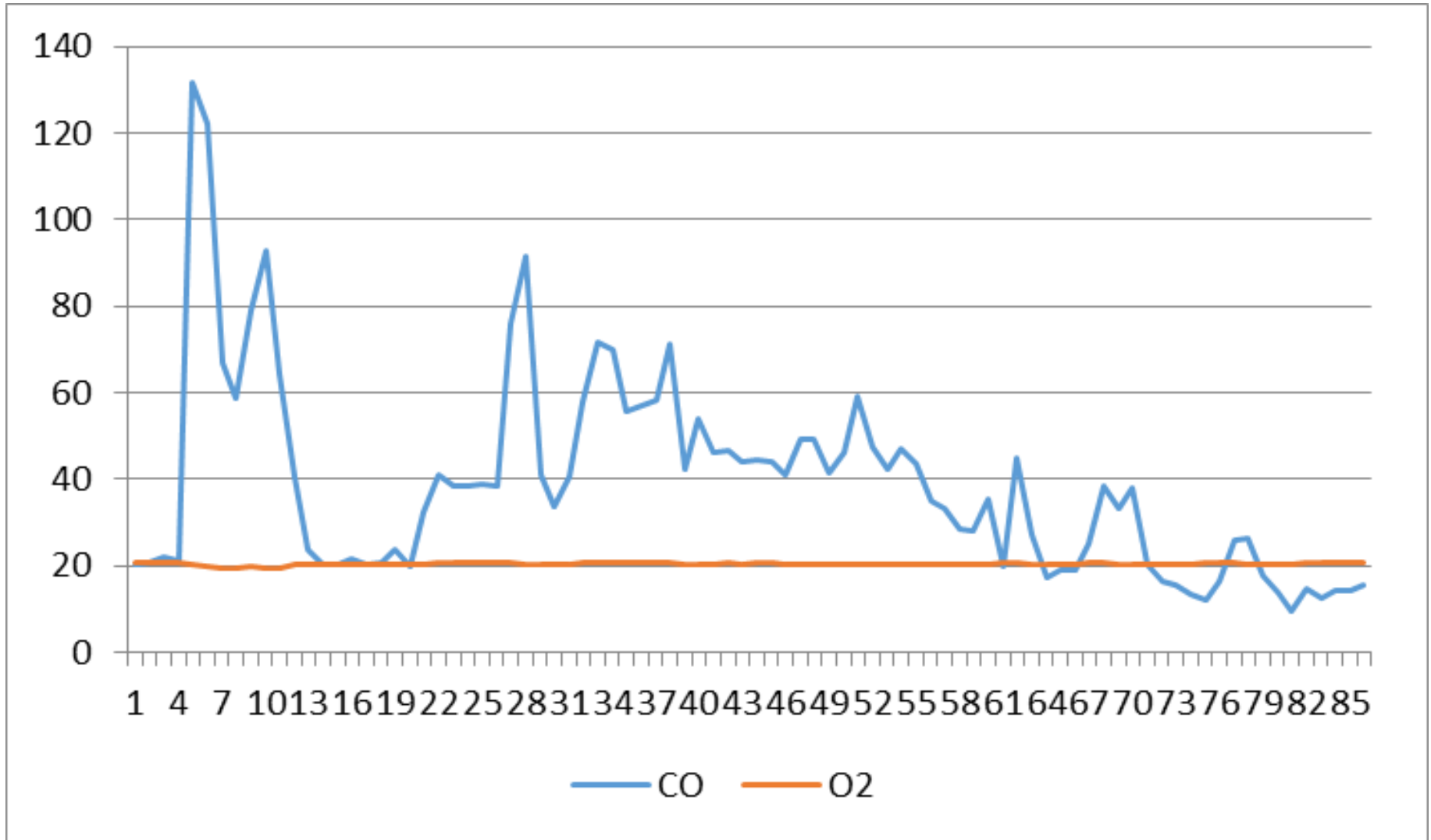
# Emission Limits

## Coal Fired Boiler

Pollutant	Limit	Time Period	Test Method	Underlying Applicable Requirement
PM	0.12 #/1000 # exhaust gas @ 50% E.A.		Method 17	R 336.1331
PM	0.011 #/MMBtu	24-hr rolling average boiler operating day	Method 5B	R 336.1224
PM	0.030 #/mmBtu or 0.03 #/MWh	30 boiler operating day average (1 dscm/run)	Method 5 (front half 320 F)	63.10005



# Carbon Monoxide Emissions from an Electric Arc Furnace



# Emission Limits

## Electric Arc Furnace

Pollutant	Limit	Test Method	Underlying Applicable Requirements
PM	0.0052 grain/dscf	Method5D	40 CFR 60.272a
PM	5.9 #/hour	Method5D	R336.1331
PM <sub>10</sub>	5.9 #/hour	Method 5D/202	R336.2803
CO	3.0 #/ton steel melted	Method 10	R 336.1205
CO	90 #/hour	Method 10	R 336.2803

# Emission Limits

## Sir Station

Pollutant	Limit	Test Method	Underlying Applicable Requirement
PM	0.02 grain/dscf	Method 17	SIP No. 27-1993
PM	0.543 #/heat	Method 17	R336.1202(3)
PM	1.4 #/hour	Method 17	R336.1202(3)

## Coke Battery Baghouse

PM	0.02 #/ton coke pushed	Method 5	R336.1331(1)
PM <sub>10</sub>	0.69 #/hr	Method 5/202	40 CFR52.21
PM <sub>2.5</sub>	0.69 #/hr	Method 5/202	40 CFR52.21

## USEPA Test Methods

<https://www.epa.gov/emc/emc-promulgated-test-methods>

## Guidance regarding Modifications to USEPA Test Methods

<https://www3.epa.gov/ttn/emc/guidlnd/gd-022.pdf>

## USEPA National Stack Testing Guidance

<https://www.epa.gov/compliance/clean-air-act-national-stack-testing-guidance>

## Michigan Format for Emission Test Plans and Reports

[http://www.michigan.gov/documents/deq/deq-aqd-SSFormat\\_223664\\_7.pdf](http://www.michigan.gov/documents/deq/deq-aqd-SSFormat_223664_7.pdf)

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**QUESTIONS?**