



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

2018 Monitoring Network Plan Addendum for Mississippi

The MDEQ Air Division is receiving comments on the 2018 Monitoring Network Plan Addendum until November 8, 2017.

Please address comments to:
MJordan@mdeq.ms.gov

Mississippi Department of Environmental Quality 2018 Annual Monitoring Network Plan Addendum October 6, 2017

The Mississippi Department of Environmental Quality (MDEQ) is submitting an addendum to the 2018 Monitoring Network Plan, specific to MDEQ's NCore site, 28-049-0020.

Currently MDEQ operates the following particulate matter analyzers at NCore:

Parameter	Type	Method	Instrument
FRM PM _{2.5}	Manual Reference Monitor (3 Day)	Gravimetric Analysis	2025
FEM PM _{2.5}	Continuous Monitor	Optical Aerosol Spectrometer	T640
PM _{10-2.5}	Manual Monitor (3 Day)	Difference by Gravimetric Analysis	2025
PM ₁₀	Manual Reference Monitor (6 Day)	Gravimetric Analysis	2000

Effective December 31, 2017, MDEQ is shutting down the two collocated PM₁₀ analyzers.

MDEQ is installing a continuous particulate matter analyzer, T640x, which will begin immediate operation upon receipt and installation of the analyzer, as early as 2018. The T640x is a federal equivalent method (FEM) for PM₁₀ mass, PM_{2.5} mass, and PM_{10-2.5} mass.

The T640x would become the primary analyzer for PM_{2.5} mass at this site. The installation of the T640x allows MDEQ to shut down the two collocated PM₁₀ analyzers and the 2025 PM₁₀ analyzer (which is currently being used as one-half of the PM_{10-2.5} mass measurement). The 2025 PM₁₀ analyzer shut down date is contingent upon the installation of the T640x.

As previously mentioned the T640x is a continuous PM₁₀ analyzer and will be used to continue meeting the PM₁₀ minimum monitoring requirements listed in 40 CFR Part 58 App. D, Table D-4 for the Jackson MSA. In addition, there are no QA collocation requirements for continuous PM₁₀ samplers as stated in 40 CFR Part 58 App. A, Section 3.3.4. The T640x also satisfies the the PM_{2.5} and PM_{10-2.5} mass requirement, as well as the continuous requirement found in App. D 4.7.2. MDEQ will maintain one PM_{2.5} FRM as a collocated sampler on a 1:3 day sampling frequency, to meet the collocation requirements in 40 CFR Part 58 App. A.

With the installation of the T640x, MDEQ will monitor particulate matter as follows:

Parameter	Type	Method	Instrument
FRM PM _{2.5}	Manual Reference Monitor (3 Day)	Gravimetric Analysis	2025
FEM PM _{2.5}	Continuous Monitor	Optical Aerosol Spectrometer	T640x
FEM PM _{10-2.5}	Continuous Monitor	Optical Aerosol Spectrometer	T640x
FEM PM ₁₀	Continuous Monitor	Optical Aerosol Spectrometer	T640x

Below are the 2016 PM₁₀ and PM_{2.5} design values at NCore:

PM _{2.5}	9.2 µg/m ³
PM ₁₀	46 µg/m ³

The installation of the T640x provides a major investment in maintaining an updated air monitoring network, as well as providing a resource savings concerning staff time, purchasing filters, and analysis costs.