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Massachusetts 2016 Air Monitoring Network Plan Response to Comments November 2016

MassDEP operates a network of 24 ambient air quality monitoring stations at locations across the State as part of a comprehensive program to provide information about air quality to the public and to determine compliance with National Ambient Air Quality Standards (NAAQS). Each year, MassDEP is required to submit to the U.S. Environmental Protection Agency (EPA) an Air Monitoring Network Plan in accordance with Title 40 CFR Part 58.10. On May 20, 2016, MassDEP published a draft 2016 Network Plan for a 30-day public comment period. MassDEP received comments on the draft Network Plan from the U.S. Environmental Protection Agency Region 1 (EPA) and from several state and local officials and citizens requesting air monitoring in the Fore River Basin area, which includes parts of Weymouth, Quincy, and Braintree. MassDEP has summarized and responded to these comments below.

EPA's Comments:

1. Comment: Page 5, Ozone Network – We understand that MassDEP will be working in 2016 to establish a new ozone monitor in the Pittsfield Consolidated Metropolitan Statistical Area (CMSA). It is extremely important that this site be established soon because the Pittsfield area has been lacking a required ozone monitor per CFR requirements since the shutdown of the Mt. Greylock site at the end of 2014.

Response: MassDEP is working diligently to find a suitable location that is willing to host an ozone monitor in the Pittsfield CMSA and will continue to work with EPA to meet the ozone monitoring requirement.

2. Comment: Page 6, Sulfur Dioxide Network – On August 21, 2015 (80 FR 51502), EPA finalized its Date Requirements Rule for the 2010 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS). This rule directs state air agencies to provide data to characterize current air quality in areas with large source of SO₂ emissions. Currently, MassDEP does not have any source covered under the Data Requirements Rule (DRR). As such,

we do not envision any new monitoring obligations for SO₂. Moreover, we have suggested some opportunities where SO₂ monitoring may be unnecessary and could be discontinued.

Response: MassDEP appreciates EPA's comment and will continue to evaluate opportunities to optimize its SO₂ monitoring network.

Comment 3: Page 7. Nitrogen Oxides Network – MassDEP discusses the near-roadway monitoring requirements that were established when EPA revised the NO₂ NAAQS in January 2010 and established a 1-hour NO₂ standard. Under this rule, there are requirements to operate two near-road sites in the Boston-Cambridge-Newton, MA-NH metropolitan area, and one site in each of the Providence-Warwick, RI-MA; Springfield, MA; and Worcester, MA metropolitan areas. The Providence, RI, near-road site established by RI DEM has met the obligation in the Providence-Warwick, RI-MA area, and your Von Hillern Street monitor in Boston is meeting the obligation for the first of the required near-road monitors in the Boston-Cambridge-Newton, MA-NH metropolitan area.

In March 2013, EPA made revisions to the NO₂ monitoring Requirements rule in response to feedback from the States encouraging a staggered deployment of these near-road monitors; with the first phase being deployed in January, 2014; a second phase by January, 2015; and a third phase by January, 2017. Under this rule, a second near-road NO₂ site in the Boston area should have been operating by January 1, 2015. We realize that MassDEP has identified a potential location and EPA remains committed to working with you to establish a monitor to meet federal requirements as expeditiously as practicable. It is extremely important that this site is established as soon as possible since it is overdue.

On May 5, 2016, EPA proposed to remove the requirement for near-road NO₂ monitoring stations in Core Based Statistical Areas (CBSAs) with population between 500,000 and 1 million (the third phase discussed above.) Provided EPA finalizes that action as proposed, EPA agrees with MassDEP's plans to not locate additional near-road monitors in the Springfield or Worcester metropolitan areas.

Response: MassDEP is working diligently to secure the location it has identified for a the second required near-road site in the Boston-Cambridge-Newton, MA-NH area and will continue to work with EPA to meet the near-road monitoring requirement.

4. Comment: Page 9. PM₁₀. We note and agree with the closure of the Boston Kenmore Square PM₁₀ monitor at the end of 2016.

Response: MassDEP appreciates EPA's comment.

5. Comment: Page 10. PM_{2.5} Network – On January 15, 2013, EPA revised the PM_{2.5} standard. In that rule, EPA also established that all continuous PM_{2.5} FEM monitors operating for more than 24 months should be used for comparison to the NAAQS unless a State specifically requires the data to be excluded under 40 CFR 58.11(e) and EPA approves that request. All of MassDEP's BAMs have a Federal Equivalent Method (FEM) designation. We

are pleased that MassDEP will use data from all its FEM monitors for comparison to the NAAQS.

We note that there are number of potential resource saving opportunities relative to the PM2.5 network, particularly for filter-based FRMs, if the continuous FEM were considered the primary monitor at the site (for quality assurance purposes), and we would be a happy to discuss those possibilities. Related, we note and agree with the closure of three PM2.5 filter-based monitors at Worcester Washington Street (25-027-0016), Boston Kenmore Square (25-025-0002) and Lawrence (25-009-6001) at the end of 2016.

Finally, we understand that MassDEP will be working in 2016 to establish a new continuous PM2.5 monitor in the Pittsfield CMSA and a new continuous PM2.5 monitor in North Adams within a valley that is potentially affected by wood smoke. (We understand that the existing city of Pittsfield locations may be closed when these new sites are established.) As you know, EPA Region 1 has developed a GIS tool which can be helpful to identify valley locations across the region which may be impacted by wood smoke. This tool can be helpful in choosing the locations of these new sites. For Massachusetts, locations with more populated valley locations in Berkshire County include North Adams, Adams, and to a lesser extent, Williamstown, Pittsfield, Dalton, and Great Barrington.

Response: MassDEP appreciates EPA's comments. MassDEP will continue to evaluate opportunities to rely more on continuous FEM monitors and reduce filter-based monitoring. MassDEP is continuing to efforts to secure a location for a PM_{2.5} monitor in the Pittsfield CMSA and a suitable valley location.

6. Comment: Page 13. We note and acknowledge the following as your "Summary of Network Changes." As noted in our comments above, we do have comments in regard to some of these proposed changes.

Response: MassDEP appreciates EPA's comments.

Comments Requesting Air Monitoring in the Fore River Basin

MassDEP received a number of comments requesting air monitoring in the Fore River Basin area from citizens and state and local officials that are summarized below.

7. Comment:

We request that MassDEP establish an air quality monitoring station in the Fore River Basin. This is a heavily industrialized area with significant emissions sources located immediately adjacent to very densely populated residential neighborhoods, several schools, and a designated environmental justice area. Current air emissions sources include a gasoline/oil depot, a chemical plant, two power plants, a regional sewage pump station, a sewage pelletizing plant, a hazardous waste transfer and treatment facility, smaller oil storage facilities/tanks, the heavily-traveled Fore River Bridge, and passageway for large ships. In addition, Spectra Energy is proposing a gas-fired compressor station in North Weymouth that would further degrade air

quality and affect human health, and also potentially lead to local NAAQS violations. The nearest MassDEP air monitoring stations are in Boston and a Blue Hill, which are unlikely to detect pollutants that may - now or in the future - concentrate in the Fore River Basin. Residents are experiencing elevated levels of respiratory illness and cancer. There is a need for the residents in this area to have local air quality monitored, including levels of particulates and toxics, and not have to rely on data from areas that do not accurately represent the area. An air monitoring station in the Fore River area will ensure the health and safety of South Shore residents is properly monitored.

Response: MassDEP's monitoring network in Eastern Massachusetts currently meets EPA's network requirements and at this time MassDEP does not have the resources necessary to establish additional monitoring stations. MassDEP operates monitoring stations in several dense urban environments near both mobile and stationary sources, including Boston, Worcester, Springfield, Lawrence and Fall River, which all show pollutant levels below EPA's health-based National Ambient Air Quality Standards. MassDEP would expect similar air quality in the Fore River Basin area. Air quality concerns specific to Spectra Energy's proposed natural gas compressor station will be addressed through MassDEP's permitting process.

8. Comment: Ambient air quality samples to deem this area safe to site a compressor station in respect to air quality were taken from points 5 to 10 miles away. The current air monitoring locations are not heavily laden with industry like the Fore River Basin is. We know from the other compressor sites that the release of gas components is a grave threat to the air quality. Ambient air quality measurements used to represent background in the dispersion modeling for Spectra Energy's proposed compressor station were taken from MassDEP's monitoring station in Roxbury. Given the heavy industrial emissions and unique atmospheric conditions in the Fore River Basin, it is likely that the modeling does not fully characterize actual conditions. Local air samples were taken recently using a Dylos monitor that indicate that background PM2.5 concentrations are higher in the Fore River Basin than the PM2.5 concentrations in Roxbury that were used as background concentrations in Spectra Energy's modeling.

Response: Comments regarding the background concentrations used in air dispersion modeling are not within the scope of the Network Plan, but will be addressed by MassDEP's review of Spectra Energy's Air Dispersion Modeling, currently underway.