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| Method Name | Pollutant Measured | Method 301 Validation | Other Validation | External Peer Review/ Internal EPA Peer Review | Other External Review | References  | Comments/Contact Person |
|  Method to Quantify Road Dust Particulate Matter Emissions (PM10 and PM2.5) from Vehicular Travel on Paved and Unpaved Roads | PM10 and PM2.5 |  |  | Internal EPA Peer Review conducted December 2012 - January 2014 |  | Kuhns, H., Etyemezian, V., Landwehr, D., MacDougall, C., Pitchford, M., and M. Green. (2001). Testing Re-entrained Aerosol Kinetic Emissions from Roads (TRAKER): A New Approach to Infer Silt Loading on Roadways. Atm. Env. 35: 2815-2825.Etyemezian V., H. Kuhns, J. Gillies, M. Green, M. Pitchford, and J. Watson (2003). Vehicle based road dust emissions measurements (I): Methods and Calibration. Atm. Env 37: 4559-4571.Zhu, D., H. D. Kuhns, S. Brown, J.A. Gillies, V. Etyemezian, and A.W. Gertler (2009). Fugitive Dust Emissions from Paved Road Travel in the Lake Tahoe Basin. Journal of the Air and Waste Management Association 59: 1219¬1229.Gillies, J.A., V. Etyemezian, H. Kuhns, D. Nikolich, and DA. Gillette (2005). Effect of vehicle characteristics on unpaved road dust emissions. Atmospheric Environment 39: 2341 – 2347.Kuhns, H., J.A. Gillies, V. Etyemezian, G. Nikolich, J. King, D. Zhu, S. Uppapalli, J. Englebrecht, and S. Kohl (2010). Effect of Soil Type and Momentum on Unpaved Road Particulate Matter Emissions from Wheeled and Tracked Vehicles. Aerosol Science and Technology 44: 193–202.Fitz, D.R. (2001) Measurements on PM10 and PM2.5 Emission Factors from Paved Roads in California. Final Report to the California Air Resources Board under Contract No 98-723, June 2001.US EPA, 1993. Emission factor documentation for AP-42 4th edition, Section 13.2.1: Paved Roads. Report prepared for US EPA, March 8, 1993 by Midwest Research Institute, 425 Volker Boulevard Kansas City, Missouri 64110-2299 USA.U.S. EPA (2012). Other Test Method – 32: Determination of Emissions from Open Sources by Plume Profiling. URL: <http://www.epa.gov/ttnemc01/prelim/otm32.pdf>. Accessed on July 25, 2013.Moosmuller, H. , J. Gillies, C.F. Rogers, et al. (1998). Particulate emission rates for unpaved shoulders along a paved road. *JAWMA 48* (5): 398-407.Von der Weiden, S. –L., F. Drewnick, and S. Borrmann (2009). Particle loss calculator – a new software tool for the assessment of the performance of aerosol inlet systems. Atmos. Meas. Tech. 2: 479 – 494.Etyemezian, V., H. Kuhns, and G. Nikolich (2005). The Las Vegas Road Dust Emissions Technology Assessment, Phase II: Final Report. Prepared for the Clark County Department of Air Quality and Environmental Management, Las Vegas, NV. July, 2005.Kuhns H., V. Etyemezian, M. Green, Karin Hendrickson, Michael McGown, Kevin Barton, Marc Pitchford (2003) Vehicle-based road dust emissions mesasurement (II): Effect of precipitation, winter time road sanding, and street sweepers on PM10 fugitive dust emissions from paved and unpaved roads. Atm. Env. 35: 4572-4583.Langston, R., R.S. Merle Jr., D. Hart, V. Etyemezian, H. Kuhns, J. Gillies, D. Fitz, K. Bumiller, and D. James, D (2007). The Preferred Alternative Method for Measuring Paved Road Dust Emissions for Emissions Inventories: “Mobile Technologies vs. The Traditional AP-42 Methodology”. *In:* 16th Annual International Emissions Inventory Conference , May 15-17, Raleigh, NC.Langston, R., R.S. Merle Jr., V. Etyemezian, H. Kuhns, J. Gillies, D. Zhu, D. Fitz, K. Bumiller, D.E. James, and H. Teng (2008). Clark County (Nevada) Paved Road Dust Emission Studies in Support of Mobile Monitoring Technologies: Final Report, 122 pages. U.S.EPA (1999). Compilation of air pollutant emission factors - Vol. I, Stationary point and area sources. Report No. AP-42, 5th ed. Prepared by U.S. Environmental Protection Agency, Research Triangle Park, NC, USA.* + - 1. Etyemezian, V., H. Kuhns, and G. Nikolich (2006). Precision and repeatability of the TRAKER vehicle-based paved road dust emission measurement. Atmospheric Environment 40: 2953-2958
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