

FINAL EQUIPMENT LEAK EMISSION FACTORS FOR PETROLEUM REFINERIES, GASOLINE MARKETING, AND OIL & GAS PRODUCTION OPERATIONS January 1996

The U.S. Environmental Protection Agency (EPA) evaluated data on equipment leak emissions from the petroleum refining, gasoline marketing, and oil and gas production operations gathered by the American Petroleum Institute and the Western States Petroleum Association. Based on the analysis of the data and incorporation of comments from industry and state and local air pollution control associations, EPA is providing final emission correlations and average emission factors to estimate emissions from leaking equipment at petroleum refineries, gasoline marketing facilities, and oil and gas production facilities. These correlations and factors have been incorporated into an update of the document "Protocol for Equipment Leak Emission Estimates" EPA-453/R-93-026, June 1993. The updated document retains the same title but has a new document number, EPA-453/R-95-017, November 1995. The updated document also maintains the correlation equations and average emission factors for chemical plants that were shown in the previous version.

In addition to the correlation equations and average emission factors, the document contains detailed instructions for the collection of site-specific screening and bagging data and control efficiencies for leak detection and repair programs. The document also contains the methodology and supporting appendices used to develop the factors.

METHODS OF OBTAINING DOCUMENT

The entire "Protocol" document is available electronically from EPA's OAQPS TTN CHIEF Website in Adobe Acrobat format at <http://www.epa.gov/ttn/chief/ap42/ch05/> under the Petroleum Industry chapter of AP-42, Compilation of Air Pollutant Emission Factors. Chapters 1 and 2 contain an overview of the document, the methods used to estimate fugitive emissions from leaking process equipment, and the emission factors and correlation equations for refineries, gas plants, and synthetic organic chemical plants. The (Chapters 3 thru 5 and Appendices A thru G) contain detailed instructions for the collection of site-specific screening and bagging data and control efficiencies for leak detection and repair program. The report is available from the National Technical Information Service (NTIS). The NTIS phone number is (800)553-6847. Or you can go to the NTIS web site at www.ntis.gov. The document order number is PB96-175401.