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## EMISSIONS INVENTORY DEVELOPMENT FOR OPEN BURNING – PHASE II

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**PURPOSE:** This project improved the activity data and emissions inventory for open burning sources in MANE-VU. The Emissions Inventory Improvement Program (EIIP) method for various open burning sources involves conducting a survey to obtain accurate activity information, and the methodology of this survey is based on EIIP recommendations. Phase I of this project produced a work plan for conducting surveys, including survey instruments and sampling designs (See “Work Plan for a Survey to Determine Residential Wood Combustion Activity and Open Burning Activity,” July 2001).

Phase II, completed in January 2003, covered two categories of open burning - residential municipal solid waste (MSW) and yard waste - for both rural and urban residents. Household waste burning surveys were completed for 72 respondents or jurisdictions, while yard waste surveys were conducted for 181 respondents. The respondents for this survey were typically local fire wardens or chiefs. Rule effectiveness (RE) surveys related to residential MSW rules were conducted for 49 respondents, while RE surveys for yard waste burning rules were performed for 51 respondents.

In obtaining survey responses, the contractor collected activity data and control information for areas classified as urban, suburban, and rural, or a combination of these designations (defined using data from the 2000 U.S. Census). The contractor also developed a control database for each open burning category that describes the recommended control efficiency (CE) and rule penetration (RP) values by state and county, and by subcounty, where applicable.

Open burning activity estimates recorded from the survey were used directly to estimate emissions for the surveyed jurisdictions. For the non-surveyed areas, including tribal lands, the default activity data derived from all survey responses were applied. For areas where rules exist, the activity is multiplied by a control efficiency of 100 percent and the separately measured rule effectiveness. Therefore, there is a significant difference in activity between census tracts in each region based on whether or not a rule is in effect.

**TECHNICAL OVERSIGHT COMMITTEE:** Jack Sipple of Delaware, John Kent of New York, Nancy Herb of Pennsylvania, and Megan Schuster and Susan Wierman of MARAMA

**SCHEDULE:** The final report was made available on January 31, 2003 ([http://www.marama.org/visibility/FinalOpenBurning/PDFreport\\_Jan3103.PDF](http://www.marama.org/visibility/FinalOpenBurning/PDFreport_Jan3103.PDF)). The remaining portion of the project will integrate the results into an NEI comparable format.

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