

MEMORANDUM

Date: July 11, 1996

Subject: Description of MON Database

From: Parag Birla and Reese Howle
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To: Miscellaneous Organic NESHAP Project File

The attached diskette contains a zipped version (MON.ZIP) of the MON database file (MON.MDB). This database will be used in MACT floor determinations and impact analyses for the Miscellaneous Organic NESHAP (MON). The MON database was created using a relational database software called Microsoft Access. Using Microsoft Access, the database file can be exported to other database formats such as FoxPro, DBASE, and others. There are two tables within the database file. One of the tables (CA LA MO NC NJ TX COMBINED DATA) contains all of the emissions and control data. The other table (COMMENTS) contains Comment fields describing the Comment Codes included in the data table.

The database includes the following data fields: State, Company Name, Process Description, Process Type, Emission Point & ID, Emission Point Type, HAP Name, Actual Emissions, Uncontrolled Emissions, Control Device, Control Efficiency, Tank Volume, Vapor Pressure, Vapor Pressure Temperature, Hours of Operation, Flow Rate, Stack Temperature, HAP Molecular Weight, HAP Concentration, VOC Emissions, and Comments.

The MON database includes 59 plants with continuous processes, 26 plants with batch processes, and 23 plants with formulation processes. The database covers 118 continuous processes, 41 batch processes, and 23 formulation processes. The majority of continuous process data are from Texas while the majority of batch process data are from New Jersey. The database includes a total of 643 continuous process vents, 630 batch process vents, and 936 storage tanks.

Information contained in the MON database primarily consists of electronic emission databases maintained by individual states. Alpha-Gamma obtained electronic emission databases from the following six states: Texas, Louisiana, North Carolina, Missouri, California, and New Jersey. For Texas, information contained in the database was supplemented by hard copies of air permits for facilities with at least one miscellaneous

organic process. For Louisiana, additional information was obtained through hard copies of compliance plans, permit applications, and emissions inventory documentation. In the case of North Carolina, annual air emissions inventories were used as sources of additional information.

Information was also gathered through four site visits. These site visits include a large, integrated chemical manufacturing facility, a rubber chemical manufacturing facility, a small batch plant producing specialty chemicals, and a paint manufacturing facility.

Process descriptions and types were assigned by Alpha-Gamma based on information contained in State electronic databases, air permits, compliance plans, emission inventories, and SRI Directory of Chemical Producers. Emission point types were assigned by Alpha-Gamma based on emission point descriptions. In some cases, where the control device was known but the control efficiency was not given, Alpha-Gamma assigned a typical control efficiency for the given control device. These cases are identified in the database under the Comments field.

The electronic database for New Jersey included only actual VOC emissions. Alpha-Gamma calculated HAP emissions for each emission point by multiplying corresponding VOC emissions by the ratio of total facility HAP emissions to total facility VOC emissions. Total HAP emissions from each facility were obtained from the 1993 TRIS database.

Uncontrolled HAP emissions and HAP concentrations were calculated by Alpha-Gamma using other data such as actual HAP emissions, control efficiency, hours of operation, HAP molecular weight, and flow rate. Flow rate was calculated using stack diameter and discharge velocity. Vapor pressures for materials stored in storage tanks were assigned based on the HAP emitted and may not reflect stored material vapor pressures in certain cases.