

eMRR™ Software Suite

Air Pollution Monitoring, Recordkeeping and Reporting Software



eMRR™ is an easy-to-use software solution offering a superior way to record, manage and track facility-wide air emissions and compliance. eMRR™ is equipped to support compliance with air quality permits, VOC rules, air toxics, NESHAPs, EPA Form R, and Title V requirements.

Built upon a Microsoft platform, eMRR™ is an extremely user-friendly software system that is easily installed on a personal computer and can be immediately deployed into any organization. eMRR™ is ideally suited for busy plant personnel with little time or few resources to accurately manage air emissions and permit compliance.

Designed by environmental consulting professionals, eMRR™ automates the calculation of air pollution emissions, tracking permitted and exempt sources, monitoring permit emission limits, maintaining accurate recordkeeping and reporting emissions. eMRR™ comes equipped with standard recordkeeping reports that can be used to satisfy regulatory inspections and demonstrate compliance with applicable permit conditions and rules.

eMRR™ is fully supported by professional consultants and regulatory experts offering a full range of consulting, advisory and other support services. Available services include system set up, MSDS data population, training, software hosting and back up, monthly recordkeeping and regulatory consulting and reporting services.

Key Features

- Easy installation for any personal computer
- User-friendly built on Microsoft platform
- Manage multiple permitted and exempt sources
- Track permit conditions and compliance limits
- Store and manage MSDS and toxics data
- Calculate VOCs and air toxics
- Monitor VOC material usages and volumes
- Print out summary emission reports
- Unit conversion calculator

Key Benefits

- Central management of compliance data
- Demonstrate compliance with permits
- Simplify reporting for AQMD and EPA
- Facilitate regulatory inspections
- Minimize permit violations and regulatory fines

System Requirements

- Microsoft Windows XP or 2000
- Intel/AMD CPU 1GHz or higher
- 128MB of RAM (256MB recommended)
- Up to 10 MB of available hard-disk space

Contact Us

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eMRR™ 3.0 Software and Consulting Services Fee Schedule (as of October 2006)

Software Product	eMRR™ 3.0 Basic	eMRR™ 3.0 Premium
eMRR 3.0 Facility License	1 Facility only	1 Facility only
No. of Individual Users	5	Unlimited
Pollution Sources/Devices	20	Unlimited
Hazardous Materials Tracking	50	Unlimited
VOC Emissions Recordkeeping	Included	Included
Air Toxics Tracking Module	Included	Included
List of Lists Module	Included	Included
Compliance Reports Module	Included	Included
Phone and Online Support - Software	2 hours per month	Unlimited
Software Maintenance and Updates	1 Year	1 Year
Training, Online	Extra	Included
Customization	Extra	Extra
Software License Fee	No Fee, Registration Only*	One Time Fee - \$2,500

Set Up Services - Optional	Service Pack 1	Service Pack 2
Onsite Software Installation	Not Included	Included
Basic System Set Up	Included	Included
Data Population / Initial Data Entry	20 devices / 50 MSDS	100 devices / 250 MSDS
Training	Online	On Site
Service Fees	\$975	\$2,250

Monthly Consulting Support - Optional	Basic Monthly	Premium Monthly
Software Hosting and Data Back-Ups	Included	Included
Weekly Data Entry and Management	20 sources / 50 MSDS	50 sources / 250 MSDS
Monthly Recordkeeping Reports	Included	Included
MSDS Scanning and Hosting	Not Included	Included
Consulting and Reporting Service Package - Air Pollution Compliance Advice - Air Permit Compliance Audit - Regulatory Reports	Not Included	Unlimited Phone Support Annual Audit Title V, AER, Form R, CUPA
Service Fees	\$500 per month	\$950 per month

* There is no license fee for eMRR 3.0 Basic. Upon product registration, customer receives one (1) facility license, phone support and software updates at no cost. Online training is offered for \$250.



Welcome

eMRR™ 3.0 is a database application developed by E5, Inc. for manufacturing facilities that must track emission of pollutants as a requirement of their operating permits.

This database application is built using Microsoft Access 2003 and it is built on the foundation of an earlier MS Excel solution. The latter solution was developed to help E5's clients meet various Title V permit recordkeeping and compliance requirements. Through many years of air pollution consulting and compliance support, eMRR™ is built with unique experiences to meet these requirements as simple and efficient as possible. Additionally, various report options are designed to provide succinct information for compliance evaluation and business decisions.

eMRR™ 3.0 is currently a standalone application capable of multi-user access in a local area network (LAN). The application has been designed to be extendable to multi-facility environment, as well as off-site access to a central back-end database either via the web or a front end client application.

As such, eMRR™ will continue to grow in terms of the breath of environmental requirements covered, as well as the increasingly multi-facet data access environment. Adopter are encouraged to participate in maintenance agreements so as to always benefit from improvements of the system.









Program Anatomy

eMRR™ is built around the daily entry form in order to by pass the need for a main menu. The following section describes the various aspects of this form (screen) as well as the other forms that it launches.

The screenshot shows the 'eMRR™ Usage Entry' window with the title 'DATA ENTRY - USAGE BY NET MEASUREMENTS'. It contains a table with the following columns: Record No., Usage Date, Device Key, Device Name, Material Key, Material Name, Start Reading (Gal), Addition (Usage) (Gal), End Reading (Gal), and Usage (Gal). The table lists several entries for different dates and materials like Honey Oak Stain and Chocolate. Below the table is a navigation bar with icons for Devices, Materials, Suppliers, Emissions, Facility, and Reports. At the bottom, it shows 'Record: 1 of 8'.

Record No.	Usage Date	Device Key	Device Name	Material Key	Material Name	Start Reading (Gal)	Addition (Usage) (Gal)	End Reading (Gal)	Usage (Gal)
1	4/27/2004	1	Spray Booth 1	2	Honey Oak Stain	55.00	5.00	28.00	32.00
7	4/22/2004	2	Spray Booth 2	3	Chocolate	0.00	55.00	50.00	5.00
1	4/21/2004	1	Spray Booth 1	2	Honey Oak Stain	12.00	0.00	9.00	3.00
1	4/19/2004	2	Spray Booth 2	3	Chocolate	5.00	60.00	42.00	23.00
1	4/19/2004	1	Spray Booth 1	2	Honey Oak Stain	55.00	0.00	50.00	5.00
1	4/18/2004	1	Spray Booth 1	2	Honey Oak Stain	27.00	0.00	22.00	5.00
3	4/18/2004	1	Spray Booth 1	3	Chocolate	10.00	50.00	40.00	20.00
1	4/15/2004	3	Spray Booth 3	2	Honey Oak Stain	15.00	0.00	9.00	6.00
*	AutoNum					0.00	0.00	0.00	

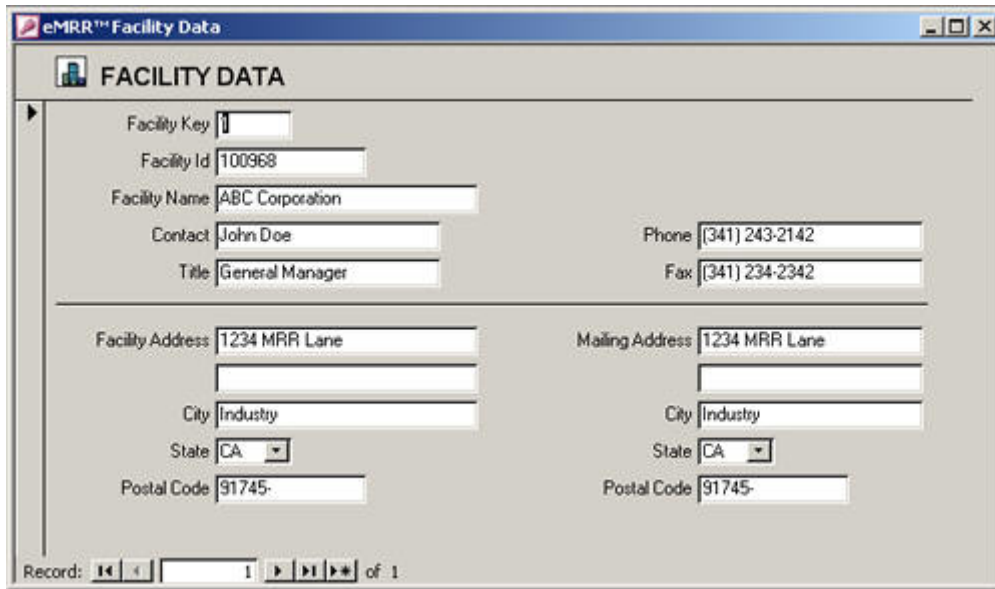


-  Launch Device form where devices (equipment, processes, etc.) are kept.
-  Launch Materials form where products data may be entered and accessed.
-  Launch Suppliers (Vendors) form to track contact information and organize materials.
-  Launch Emission Summary form to review usage and emission status.
-  Launch Facility information form that stores data relating to the facility.
-  Launch Report dialog to select which report to preview or print.

Program Set Up

eMRR™ must be initialized with various facility data prior to using it for daily recordkeeping. The system design allows this process to take place efficiently. Follow the following steps to set up the application.

Step 1 - Set up facility data. Although the interface allows the user to enter additional facility record, the data will not be used for the single facility version.

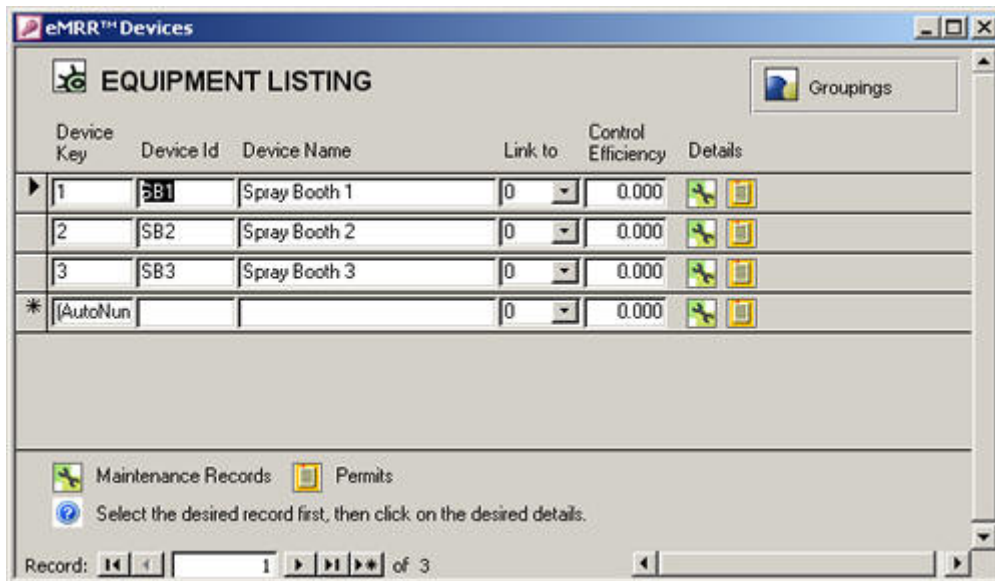


The screenshot shows the 'eMRR Facility Data' window. It contains a form with the following fields:

- Facility Key: []
- Facility Id: 100968
- Facility Name: ABC Corporation
- Contact: John Doe
- Title: General Manager
- Phone: (341) 243-2142
- Fax: (341) 234-2342
- Facility Address: 1234 MRR Lane
- Mailing Address: 1234 MRR Lane
- City: Industry
- State: CA
- Postal Code: 91745

At the bottom, there is a record navigation bar showing 'Record: 1 of 1'.

Step 2 - Enter each device or equipment for which recordkeeping is desired. If you have permit information readily available, you may enter the information by first selecting the record, then clicking the permits icon in the details section.



The screenshot shows the 'eMRR Devices' window with an 'EQUIPMENT LISTING' table. The table has the following columns: Device Key, Device Id, Device Name, Link to, Control Efficiency, and Details. The data rows are:

Device Key	Device Id	Device Name	Link to	Control Efficiency	Details
1	SB1	Spray Booth 1	0	0.000	[Maintenance Records] [Permits]
2	SB2	Spray Booth 2	0	0.000	[Maintenance Records] [Permits]
3	SB3	Spray Booth 3	0	0.000	[Maintenance Records] [Permits]
*[AutoNun]			0	0.000	[Maintenance Records] [Permits]

Below the table, there are icons for 'Maintenance Records' and 'Permits', and a note: 'Select the desired record first, then click on the desired details.' At the bottom, there is a record navigation bar showing 'Record: 1 of 3'.

eMRR™ Permits

EQUIPMENT PERMITS

Device Id: Device Key:

Device Name: Status: Active if checked

Permits

Key:

Permit Id:

Description:

Issue Date:

Expire Date:

Status: Active if checked

Permit Limits

	Mass VOC Emissions (lb)	Volume Thruput (gal)	Mass Thruput (lb)
Daily	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Monthly	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Annual	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Record: of 1

Step 3 - eMRR will also track records against groups of equipment or devices. One obvious grouping is the entire facility. By creating this group, you can view data on a facility basis. Other examples of groups are permitted versus permit-exempt devices, departmental, and processes.

eMRR™ Device Groupings

EQUIPMENT GROUPING

Group Key:

Group Id:

Description:

Notes:

Permit Limits

	Mass VOC Emissions (lb)	Volume Thruput (gal)	Mass Thruput (lb)
Daily	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
Monthly	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
Annual	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>

Devices in Group

Dev Key	Device Id	Device Name
1	SB1	Spray Booth 1
2	SB2	Spray Booth 2
3	SB3	Spray Booth 3
*		

Record: of 3

Record: of 1

Step 4 - One mandatory component to recordkeeping are the materials for which pollutants are tracked. However, prior to adding these materials, suppliers or vendors records must be created.

eMRR™ Suppliers

SUPPLIER DATA

Supplier Key:

Supplier Id:

Supplier Name: Contact:

Address: Phone:

Fax:

City:

State:

Postal Code:

Record: of 2

Step 5 - The material interface allows for the easy viewing and adding of materials. The VOC and VHAPs contents are tracked here. To enter more detailed data such as the hazardous constituents of the material, double-click the desired records to access the Material Constituents interface.

eMRR™ Materials

MATERIAL LISTING

Material Key	Product Code	Supplier Id	Supplier Name	Product Name	Coating VOC (lb/gal)	Material VOC (lb/gal)	Solids VOC (lb/gal)	Product Density (lb/gal)	Total VHAP Content (lb/gal)
2	38C2125	1	AMT Coatings	Honey Oak Stain	4.60	2.00	0.80	7.35	0.05
3	38C2126	2	Akzo Nobel	Chocolate	4.20	2.30	0.50	7.50	0.02
*	(AutoN)								

Double click on each record selector to get more detailed data on each material.

Record: of 2

Step 6 - If more detailed tracking of pollutants is desired, the specific make-up of each material may be entered through the Material Data interface.

eMRR™ Material Constituents

MATERIAL DATA

Product Code	38C2125	Product Density	7.35 lb/gal
Product Name	Honey Oak Stain	Coating VOC	4.60 lb/gal
Supplier	AMT Coatings	Material VOC	2.00 lb/gal
Alternate Code		Solids VOC	0.80 lb/lb
Alternate Name		VHAP Content	0.05 lb/gal

HAP or Other Constituents

CAS Number	Chemical Name	% (wt)
53-96-3	2-Acetylaminofluorene	0.07
C-1080	Nickel Compounds	0.20
*		

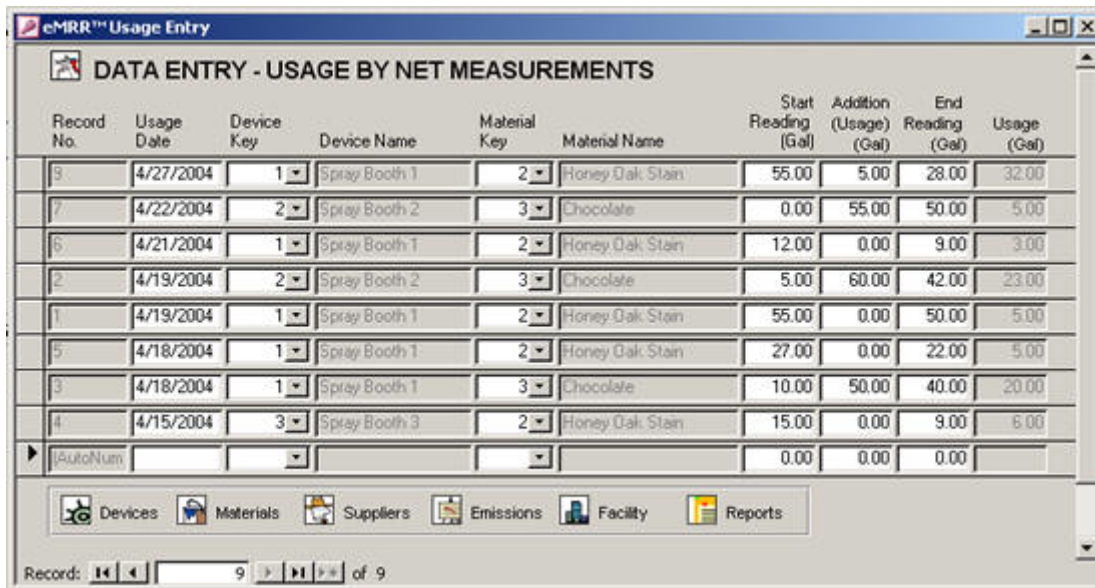
Record: 1 of 2

Once the above information is entered, data may be tracked against these records. Not all information must be added first prior to tracking, just those that pertain to the records at hand. This allows the gradual population of data and prevents users from being overwhelmed in the initialization process.

Daily Entry

The primary purpose for eMRR™ is to allow users to track daily emissions of pollutants. To do so, facility must enter usages of materials containing pollutants on intervals required or otherwise desired.

These usages are entered through the Data Entry interface. User will start with a new record, enter the date of the record, select the particular device key and the material key (Note: Keys are quick numeric references to particular records), and enter the usage quantity. Alternatively, as standard practice at certain facility, user may just enter the beginning quantity of the material, the amount added during the day, and the ending quantity where the application automatically calculates the net usage.



The screenshot shows the 'eMRR™ Usage Entry' window with the title 'DATA ENTRY - USAGE BY NET MEASUREMENTS'. The table below represents the data shown in the interface:

Record No.	Usage Date	Device Key	Device Name	Material Key	Material Name	Start Reading (Gal)	Addition (Usage) (Gal)	End Reading (Gal)	Usage (Gal)
9	4/27/2004	1	Spray Booth 1	2	Honey Oak Stain	55.00	5.00	28.00	32.00
7	4/22/2004	2	Spray Booth 2	3	Chocolate	0.00	55.00	50.00	5.00
6	4/21/2004	1	Spray Booth 1	2	Honey Oak Stain	12.00	0.00	9.00	3.00
2	4/19/2004	2	Spray Booth 2	3	Chocolate	5.00	60.00	42.00	23.00
1	4/19/2004	1	Spray Booth 1	2	Honey Oak Stain	55.00	0.00	50.00	5.00
5	4/18/2004	1	Spray Booth 1	2	Honey Oak Stain	27.00	0.00	22.00	5.00
3	4/18/2004	1	Spray Booth 1	3	Chocolate	10.00	50.00	40.00	20.00
4	4/15/2004	3	Spray Booth 3	2	Honey Oak Stain	15.00	0.00	9.00	6.00
AutoNum						0.00	0.00	0.00	

At the bottom of the window, there are navigation icons for 'Devices', 'Materials', 'Suppliers', 'Emissions', 'Facility', and 'Reports'. A record navigation bar shows 'Record: 9 of 9'.

Other than tracking usages and emissions, facility are required to keep certain maintenance records to demonstrate good housekeeping of their operation. These records may be added on intervals desired through the Device interface. First select the desired device, then click the maintenance icon to access the following interface.

eMRR™ Maintenance Data

EQUIPMENT MAINTENANCE RECORDS

Device Id: Device Key:
 Device Name: Status: Active if checked

Maintenance Records

Key	Date	Staff
<input type="text" value="1"/>	4/15/2004	Jose
Data Readings: <input type="text" value="0.20" water"=""/>		
Inspection/Observations: <input type="text" value="Filters in place and good condition"/>		
Repairs: <input type="text" value="No repair necessary"/>		
* <input type="text" value="AutoN"/>	<input type="text"/>	<input type="text"/>
Data Readings: <input type="text"/>		
Inspection/Observations: <input type="text"/>		
Repairs: <input type="text"/>		

Record: of 1

With these entries made on a regular basis, facility may print out various compliance and executive reports to help manage facility environmental compliance as well as production impacts. Entries may be updated whenever desired and the subsequent reports will reflect the changes. * **Please note that A change in a material record will change all associated emission records.** This feature is both powerful when there's a need to correct data on a mass basis, but a detriment when such change is done unintentionally.

Hint: If the make-up of a material has changed, it is recommended that a new material record be created as opposed to updating an existing record. This recommendation holds even if the supplier does not change the product name and code.



Reports

The power of eMRR™ lies in its ability to produce a number of useful reports to demonstrate environmental compliance, as well as for executive production decisions. Most reports will require the entry of a start date and an end date for the associated report. Lists of records would not require these dates.



The print button does not allow a user to preview the report first. Thus, it is recommended that the preview feature be used first, and from there, print the reports if it meets your expectation. The Reports interface will stay active until closed. This enables the review of various reports without having to reinitialize the same process.

Additional Help

We recognize that there will always be situations that we have not anticipated. As a full service environmental consulting firm, we would gladly assist you in answering any questions you may have of eMRR™. Please contact us as follows:

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