EMFACT Workshop

EMFACT Overview – Part 2

Northeast Waste Management Officials Association (NEWMOOA)

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• EMFACT Overview – Part 2
  – Link: Materials, Products, Air Sources, Emissions, Air Factors, Water Discharge, Water Pollutants, Waste Types
  – Inputs: Materials Purchase, Material Usage
  – Outputs: Product Volume, Air, Wastewater, Waste Management (Shipment)
  – Reminders
  – Help
  – Reports
EMFACT Process Flow

1. Install/Set Up EMFACT
   - Download EMFACT
   - Install
   - Initial Setup

2. Set Up Admin
   - User List
   - Drop Down Lists
   - Facility Location List
   - Building List
   - Department List

3. Define Materials
   - Material List
   - Material Detail
   - CAS Number List

4. Define Equipment
   - Equipment List
   - Equipment Detail
   - Production Unit List
   - Production Unit Detail

5. Define Outputs
   - Products List
   - Intermediate Products List
   - Air Source List
   - Air Source Detail
   - Water Discharge Point List
   - Waste Type List
   - EPA Codes per Waste Type

6. Define Regulations
   - Permits List
   - Permit Details
   - Chemicals of Concern

7. Link Equipment, Prod Units, & Products
   - Link Equipment
   - Link Production Unit
   - Link Product

8. Enter Inputs
   - Materials Purchased
     - Prepare Electronic Data File
     - Import Purchases (electronically)
     - View Data List
     - Manage List
     - Enter Purchases (manually)
   - Material Usage
     - Enter Water Use
     - Enter Fuel/Paint/Other Air Use
     - Enter Other Materials Use
     - View List
     - Manage List

9. Compute/Determine Outputs
   - Product Output
     - Enter Product Volume
   - Non Product Output
     - Compute Air Emissions
     - Enter Wastewater Discharge
     - Wastewater Discharge with Pollutants
     - Waste Management List
     - Waste Management Detail

10. Run Reports
    - Materials
      - Materials Defined List
      - Materials Purchased or Materials Used (by Dept, Weight per Material, or Weight per CAS Number)
    - Product
      - Product: Weight per CAS Number
    - Air
      - Usage (Weight per Material, Weight per Material with 12 Month Rolling)
      - Emissions (Weight per Pollutant with 12 Month Rolling, by MSDS VOC%)
    - Water
      - Usage (Weight per Material)
      - Discharge (Weight per Material, Weight per Pollutant)
    - Waste Management
      - Activity Costs
      - Chargeback Costs
    - Mass Balance
      - Mass Balance Purchased

11. Set Up / View Reminders
    - Materials
      - Calendar Reminder List
      - Calendar Reminder Details
      - View Calendar Events Coming Due
You must “link” materials, products, air sources, emissions, air factors, water discharge, water pollutants, and waste types to Equipment or a Production Unit in order to associate material usage (Inputs and Outputs).

All of the objects to link must be setup or defined prior to linking.

**NOTE:** The “link” process is the same for Equipment or Production Units.
In this example, we will be linking objects to a Production Unit.

Select the Production Unit to link.

The Materials tab is open.

Click the binoculars icon to launch the search process to add a Material.

Click NEW to add more than one material.

NOTE: The “link” process is the same for Equipment or Production Units.
Link Production Unit

Click the **Product** tab to open

Select the **Product Model No.** from the dropdown

In this example, we have selected all of the **Intermediate Products** associated with **Product = V100**

*(SAVE is recommended after you select the objects in each tab)*

**NOTE:** The “link” process is the same for Equipment or Production Units
Link ➔ Production Unit

**Link Production Unit**

Click the **Air Sources** tab to open.

Select the **Air Source ID** from the dropdown.

Click **NEW** to add more than one air source.

*NOTE: The “link” process is the same for Equipment or Production Units*
Link Production Unit

Click the Emissions tab to open

Select the Emissions Source Type and the Default Units

For PAINT, enter the VOC and/or TSP Control Efficiency %

NOTE: The “link” process is the same for Equipment or Production Units
Link Production Unit

Click the **Air Factors** tab to open

Select the **Material ID** and **Pollutant** from the dropdown

For **PAINT**, enter the **Pollutant Content**

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*NOTE: The “link” process is the same for Equipment or Production Units*
**Link Production Unit**

Click the **Discharge** tab to open.

Enter a **Flow No.** and select a **DSN** from the dropdown list.

Select a **Discharge Description** and **Discharge Type**.

Click **NEW** to add more than one water discharge point.

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*NOTE: The “link” process is the same for Equipment or Production Units*
Link Production Unit

Click the Water Poll (pollution) tab to open

Select a Flow No. from the dropdown (one or more Flow No. will appear in the dropdown as defined on the Discharge tab)

Select the Potential Pollutant from the dropdown list

NOTE: The “link” process is the same for Equipment or Production Units
Note: The “link” process is the same for Equipment or Production Units.
Hands On Time

Let’s try EMFACT LINK now....

- Link a Production Unit to a Material

- Review additional tabs
• At this point, all objects have been linked to the Production Unit and we are ready to proceed to the next steps in the EMFACT process, entering Inputs and Outputs

• **INPUTS:** track the materials and costs that go into a piece of Equipment or Production Unit
  – Materials Purchase
  – Material Usage

• **OUTPUTS:** track goods that are produced at a piece of Equipment or Production Unit, along with air emissions and wastewater discharge associated with the production of the goods
  – Product Volume
  – Air, Wastewater
  – Waste Management (Shipment)
There are two methods to enter Material Purchased – electronically through a file upload (data upload template provided with EMFACT) or manually. We will first review the EMFACT file upload process.
Using the data upload template provided with EMFACT, obtain electronic data from your purchasing department and copy it to the template.

**Data Upload Template - REQUIREMENTS**

**Material IDs** must be set up in EMFACT

**Purchase Unit** – this is the **Size Purchase Unit** established for the **Material ID** *(Container tab on the Material Detail window)* (e.g., bucket, drum, etc.)

**Department IDs** must be set up in EMFACT

**Data Upload Template**
c:\program files\SYS Technologies\EMFACT\purchase_import_template.xls
Material Purchased Upload

The Select Import File window will open

Navigate to and click on the TXT file you have save with the Material purchase information

Click Open
Material Purchased Entry

You may also enter Material purchased data manually by selecting Enter Data from the menu.

Select the Material ID and enter the required data:

- Purchase Date
- Original Purchase Quantity
- Original Purchase Units
- Purchase Quantity (Lbs.)
- Material Cost (optional)

Click SAVE after each entry.

The data entered will appear in the window below.
Material Usage Entry

Enter Water usage

Select Equipment or Production Unit

Enter the required data:

- Usage Date
- Usage Quantity
- Units (defaults to Gallons)
- Frequency

Click Save Usage and the usage will calculate and display in the Entered Data so far… section of the window.

Click the UPDATE button to EDIT or DELETE the usage entry record.

The data in this section displays for one day and then it is reset.
Material Usage Entry

Enter Air usage

Select Equipment or Production Unit

Enter the required data:

- Material ID
- Usage Date
- Usage Hours
- Usage Quantity/Units

Click Save Usage and the usage will calculate and display in the Entered Data so far… section of the window.

The data in this section displays for one day and then it is reset.

Click the UPDATE/VIEW EMISSIONS button to EDIT or DELETE the usage entry record.
**Material Usage Entry**

Enter **Other Material usage**

Select **Material ID**

Enter the required data:

- Equipment or Prod Unit
- Usage Date
- Original Usage Quantity
- Original Usage Units
- Usage Quantity (Lbs.)
- Frequency

Click **Save Usage** and the usage will calculate and display in the **Entered Data so far** section of the window.

The data in this section displays for one day and then it is reset.

Click the **UPDATE** button to **EDIT** or **DELETE** the usage entry record.
Material Usage Entry

The view the Material usage input, select View List from the Material Usage menu

Click on a record to EDIT or DELETE (accesses the Manage Material Usage window for the record type e.g., air, water, material)
Outs

Enter Product Volume output

Define the volume / quantity of Product and/or Intermediate Product produced during a given timeframe

Select Product Model No. and optionally Production Unit / Equipment ID and enter the required fields

Click Save Product Output and the usage will calculate and display in the Entered Data so far... section of the window

The data in this section displays for one day and then it is reset.

Click the UPDATE button to EDIT or DELETE the usage entry record
Outputs

Review Air Emissions output

As data was recorded on the Enter Material Usage for Air Emissions, emissions per pollutant were calculated in Lbs based on the emission factors.

The factors must be setup on the Equipment Links window or Production Unit Links window on the Air Factors tab.

Refer to the Air Factors tab for a description of emissions algorithms.
Outputs

Input Water Discharge output

Select Production Unit or Equipment ID

Select Flow No. (must have been defined in Links Discharge tab)

Enter the required fields:

Click Save Discharge and the usage will calculate and display in the Entered Data so far... section of the window
Outputs

Review Wastewater Discharge with Pollutants

You may view, edit or delete the calculated pollutant discharge data

View and make any necessary changes to the original entry

OR

Complete one of the fields in the Filter Data section and click Retrieve

Click SAVE and any changes will recalculate
Outputs

Document **Waste Management** activity (waste shipments, Treatments and recycling)

Existing activities are listed

Click **NEW** to add a new activity

Select from dropdowns or input data into the required fields directly from this screen or click **More Detail** to see a full screen display with all fields available

When manifest information is entered, EMFACT tracks the number of days outstanding (**Days Not Returned** field) until the **Manifest Returned Flag** field is checked
• At this point, all data that is required to define **Inputs** and **Outputs** has been entered

• Before we move onto **Reports**, we will look at one more features of EMFACT
  – Reminders
The Reminders feature enables users to track the renewal and expiration dates of permits, regulations, etc.

When permits and regulations are first set up, you have the option of entering the Issue, Expiration, Renewal Due and Renewal Start Dates.

When this is done, EMFACT automatically creates calendar events and reminders.

You can also set up independent calendar events for other reasons (e.g., audit reminders, etc.).

Click **NEW** to add a new Event or **double click** an Event Record to access the Calendar Event Detail window.
Reminders

You may also access the Event Details window from the Calendar Reminder Details menu path.

The Event Details window provides a full screen view of all fields available to manage events.

Click **NEW** to add a new Event or **double click** an Event Record to access the Calendar Event Detail window.
Reminders

Click the **Reminders** icon on the EMFACT dashboard or select **View Calendar Events Coming Due** from the menu.

If events are coming due, the **Reminders** icon on the EMFACT dashboard will be blinking.

*Double click an Event Record to access the Calendar Event Detail window or click MORE DETAIL*
• EMFACT contains **21 reports** to help track your air, water, and waste activities

• Access the EMFACT **Reports Procedure Guide** from **Contents** in the **Help** menu
  – **pg_emf_reports.pdf**

• Reports will be reviewed during the live demonstration and Case Study exercise in this workshop
Conclusion

This concludes the EMFACT Overview