EMFACT Workshop

EMFACT Overview – Part 1

Northeast Waste Management
Officials' Association (NEWMOA)

January 2009

Workshop Agenda

EMFACT
Energy & Materials Flow and Cost Tracker

- EMFACT Overview – Part 1
  - Setup: Drop Down Lists, Buildings, Departments
  - Define: Materials, Equipment, Outputs, Regulations

EMFACT
Energy & Materials Flow and Cost Tracker

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

Setup → Drop Down Lists

Default Drop Down values are provided with EMFACT

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Manage Drop Down Lists

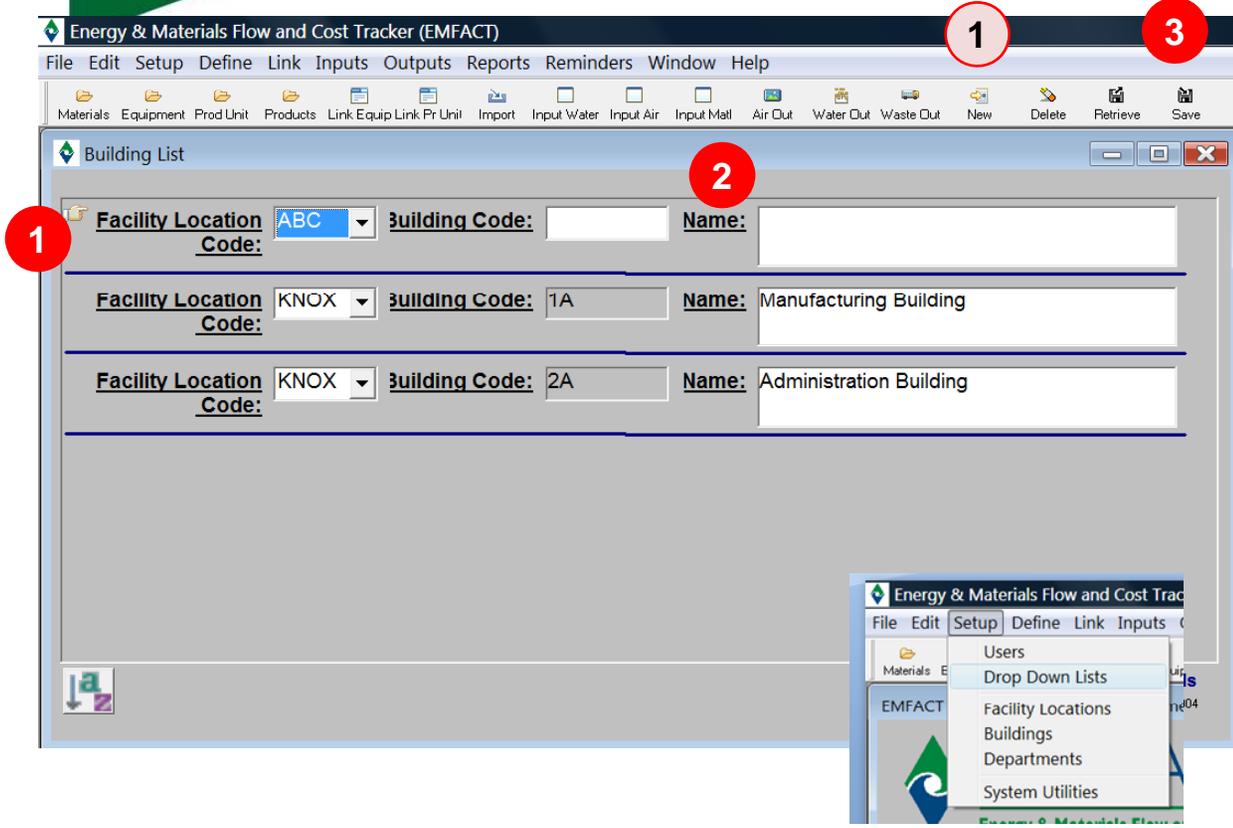Select the list name from the **Drop Down List** (e.g., Equipment Category)

The window will update to include the values for that dropdown list

To exclude a value from a list, locate the value and uncheck the **Include in My List?**

To add a value, click **New** - a blank row will display for you to complete
To modify a value, edit the **Code** or **Description**
Click **Save** to save changes

Setup → Buildings

Manage Buildings

To add one or more **Buildings** to facilities that have been created, click **New** - a blank row will display for you to complete

Enter new Building information ❷

Click **Save** to save changes ❸

Setup → Departments

Manage Departments

To add one or more **Departments** for your organization, click **New** - a blank row will display for you to complete
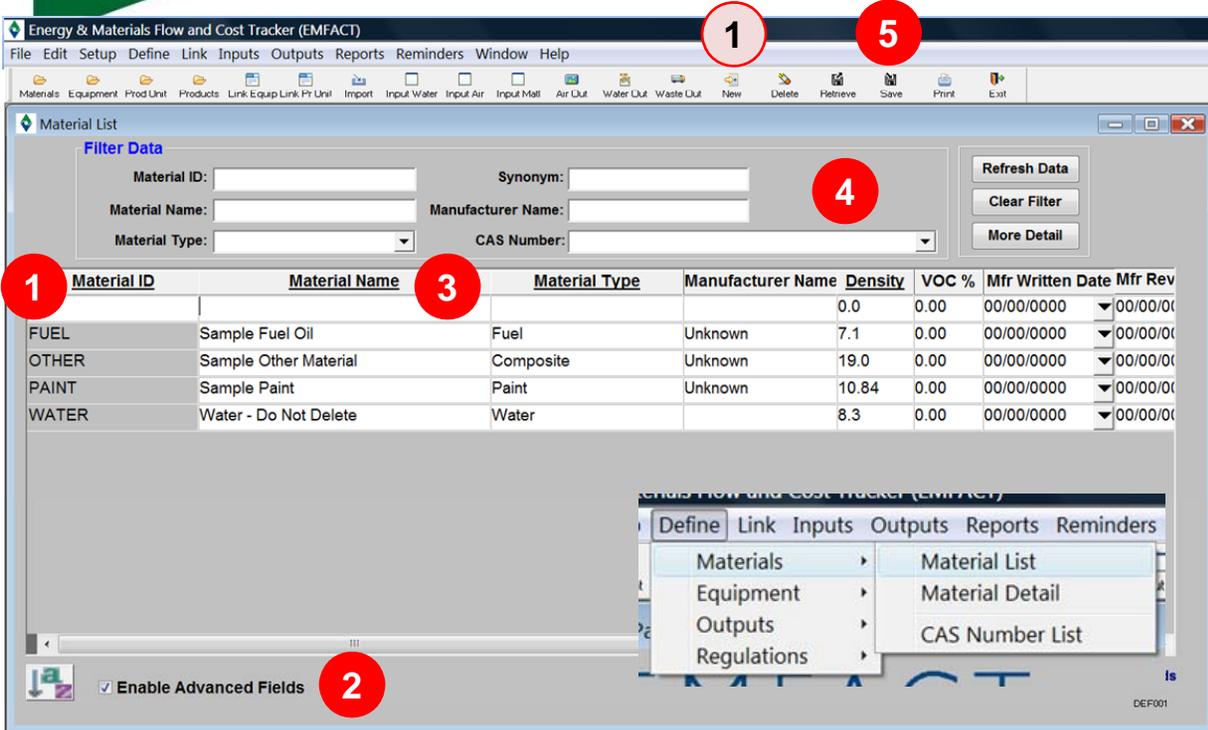
Enter new Department information

Click **Save** to save changes

Hands On Time

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Let's try EMFACT Setup now....

❑ See how Value Lists work - Equipment Category

❑ Add some Buildings

❑ Create some Departments

Define → Materials → Material List

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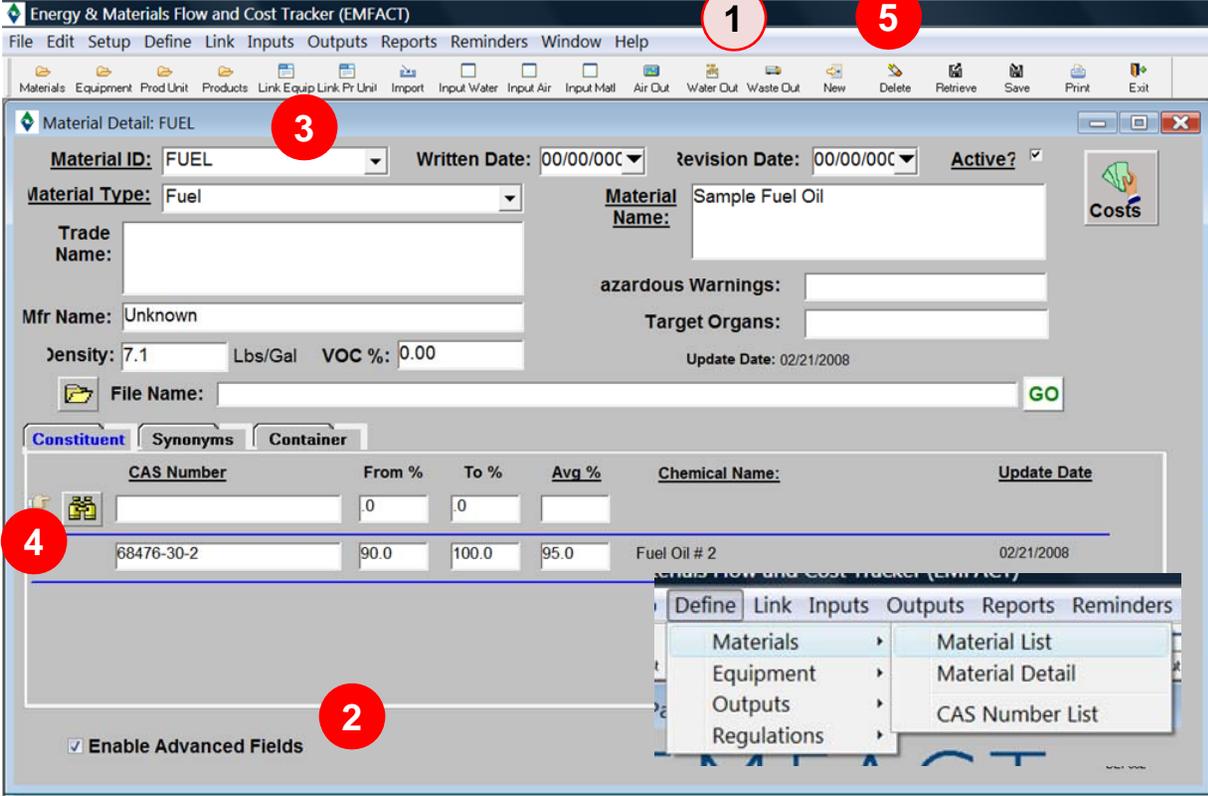

Manage Materials

To add one or more **Materials**, click **New** - a blank row will display for you to complete ①

Check "**Enable Advanced Fields**" to see all available fields ②

Enter new Material information ③

If you are making a change to an existing material, search for the material by completing at least one field in the **Filter Data** section then click **Refresh Data** ④

Click **Save** to save changes ⑤

Define → Materials → Material Details

Manage Materials

To add <u>detail</u> to a **Material**, click **New** - a blank row will display for you to complete ①

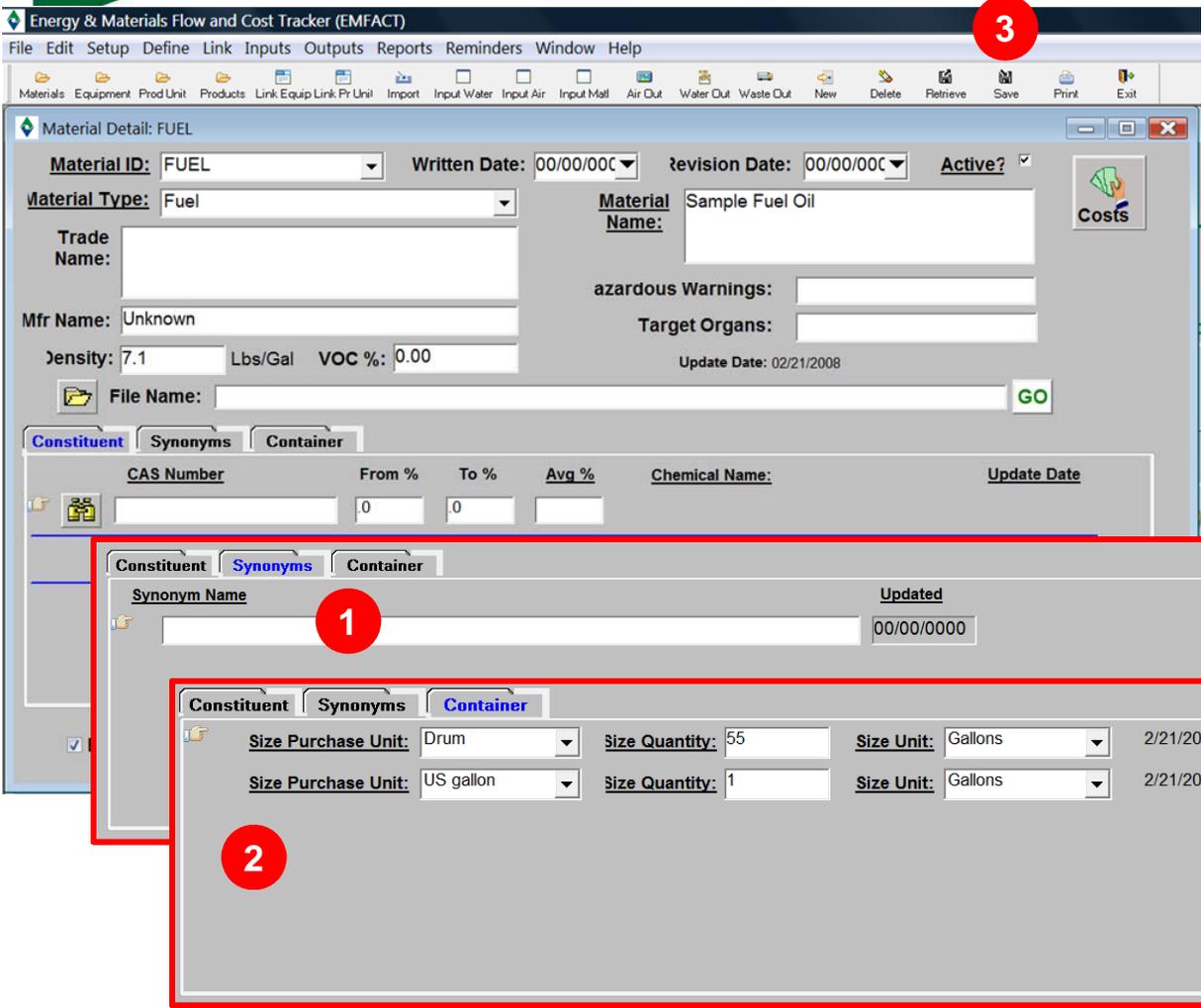Check "**Enable Advanced Fields**" to see all available fields ②

Select a material from the **Material ID** dropdown ③

The **Constituent tab** will be populated with CAS Numbers (if you have defined) or add new ④

CONSTITUENT tab: Click **New** to add a **CAS Number** then use the **binoculars** to lookup an existing CAS Number ①

Click **Save** to save changes ⑤

Define → Materials → Material Details

Manage Materials

Click the **Synonyms tab** to associate a **synonym** or **alias** with the material ①

Click the **Container tab** to add size/weight container detail (as it is purchased) for the material ②

Click **Save** to save changes ③

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- At this point, we will not be providing as much detail as we have in previous slides, such as how to enter a new record or remind you to save…instead, we will focus on what data is required to complete the definition of the required master data

Hands On Time

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Let's try EMFACT Define Materials now….

❑ Add to the Material List

❑ Document CAS number constituent

❑ See the container sizes

Define → Equipment → Equipment List

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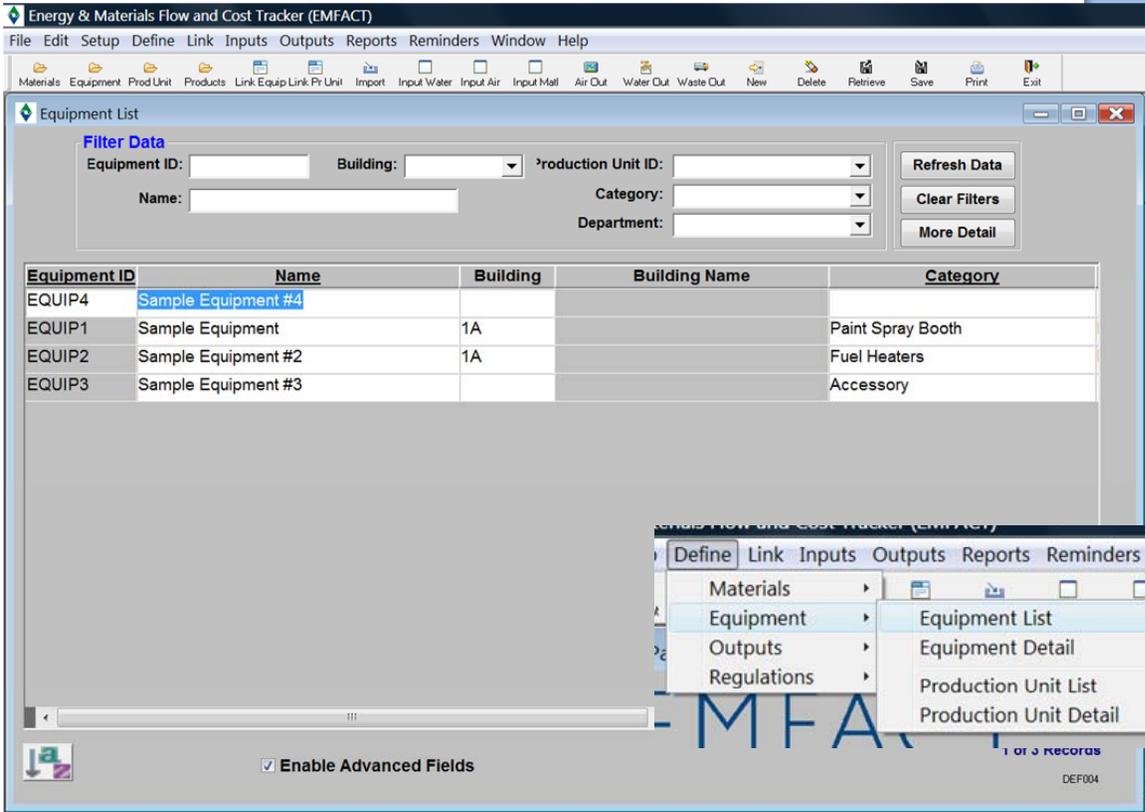
Manage Equipment List

You must define the **Equipment** that is in use at your facility.
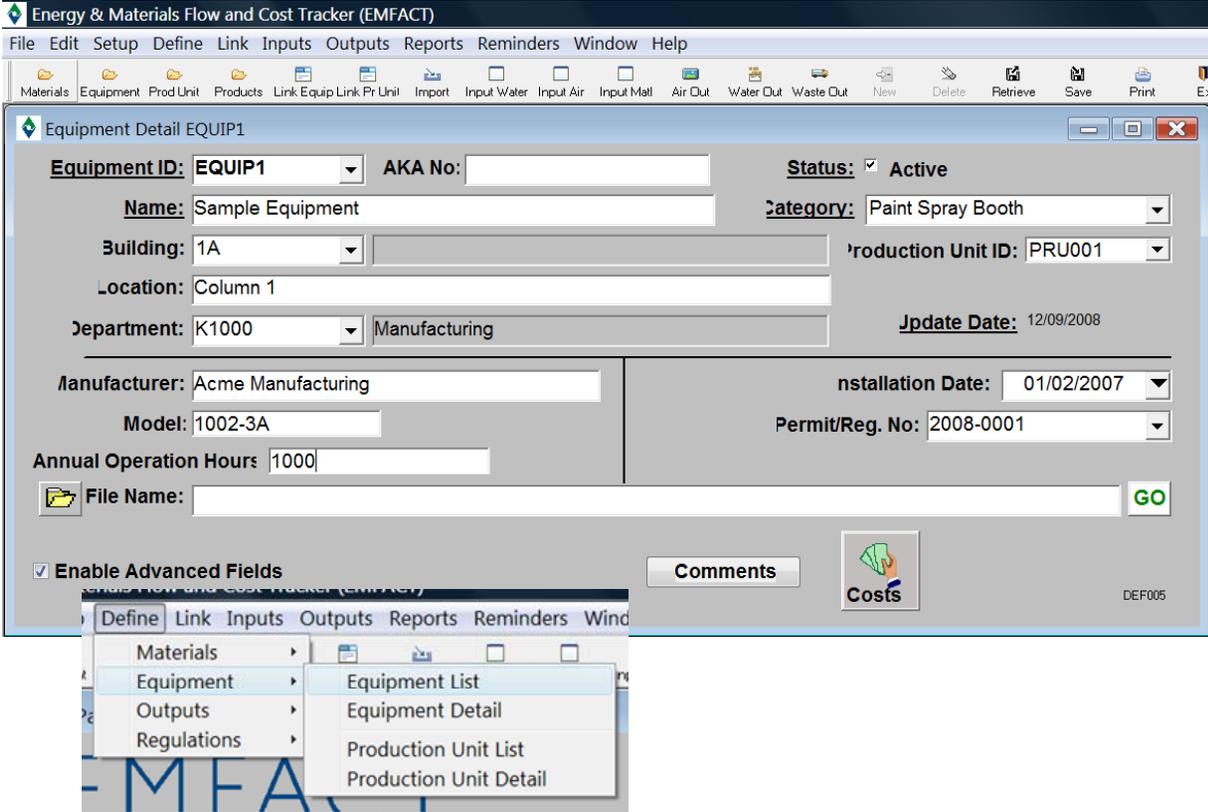
Required fields include:

- Equipment ID
- Equipment Name
- Category

Optional fields include:

- Department
- Location
- Installation Date
- Others

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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Manage Equipment Detail

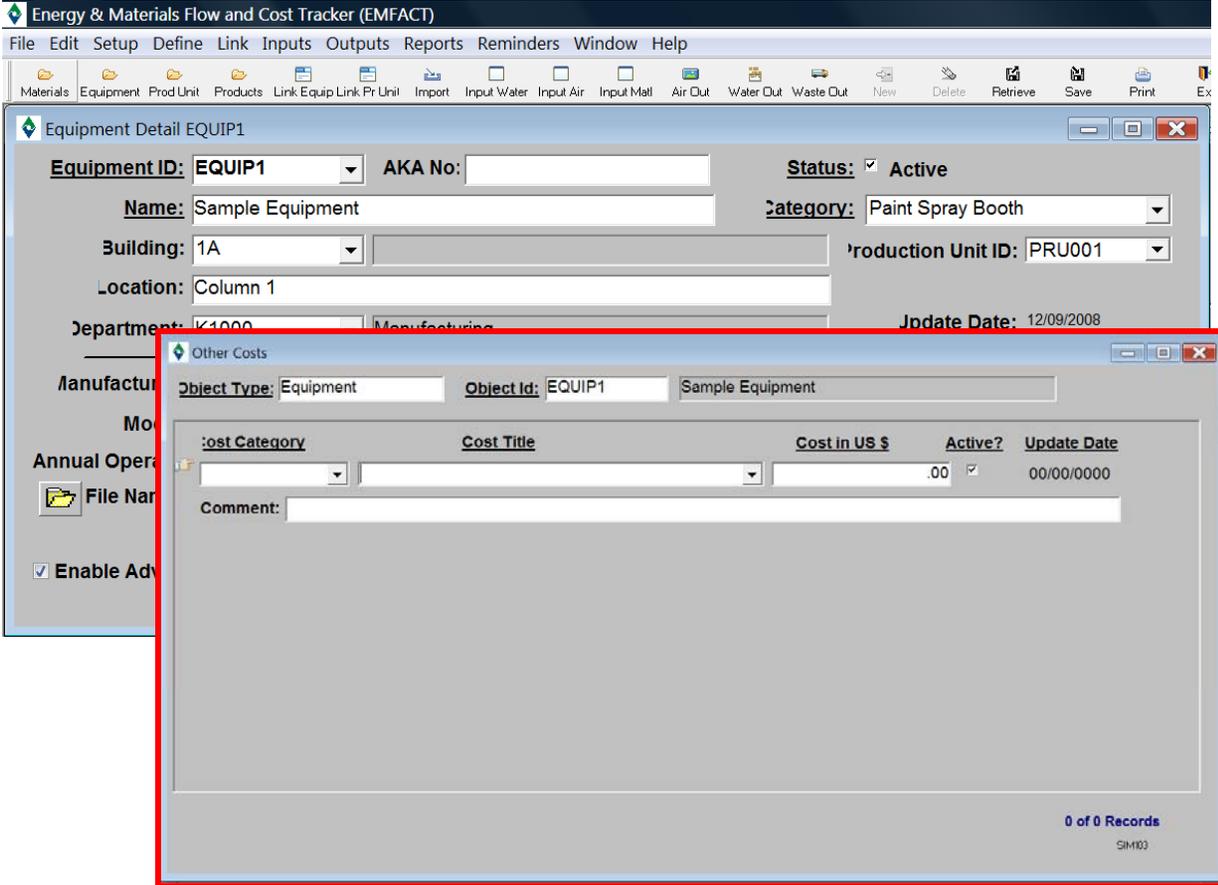You may optionally add additional information on the **Equipment** that is in use at your facility.

- Manufacturer
- Model
- Annual Operation Hours
- Permit/Regulation Number

Attach a **File** to the record by clicking the **GO** button

Add **Comments** by clicking the **Comments** button

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Define → Equipment→ Equipment List

Manage Equipment Detail

Click the **Costs** button to add **Cost** information to the Equipment

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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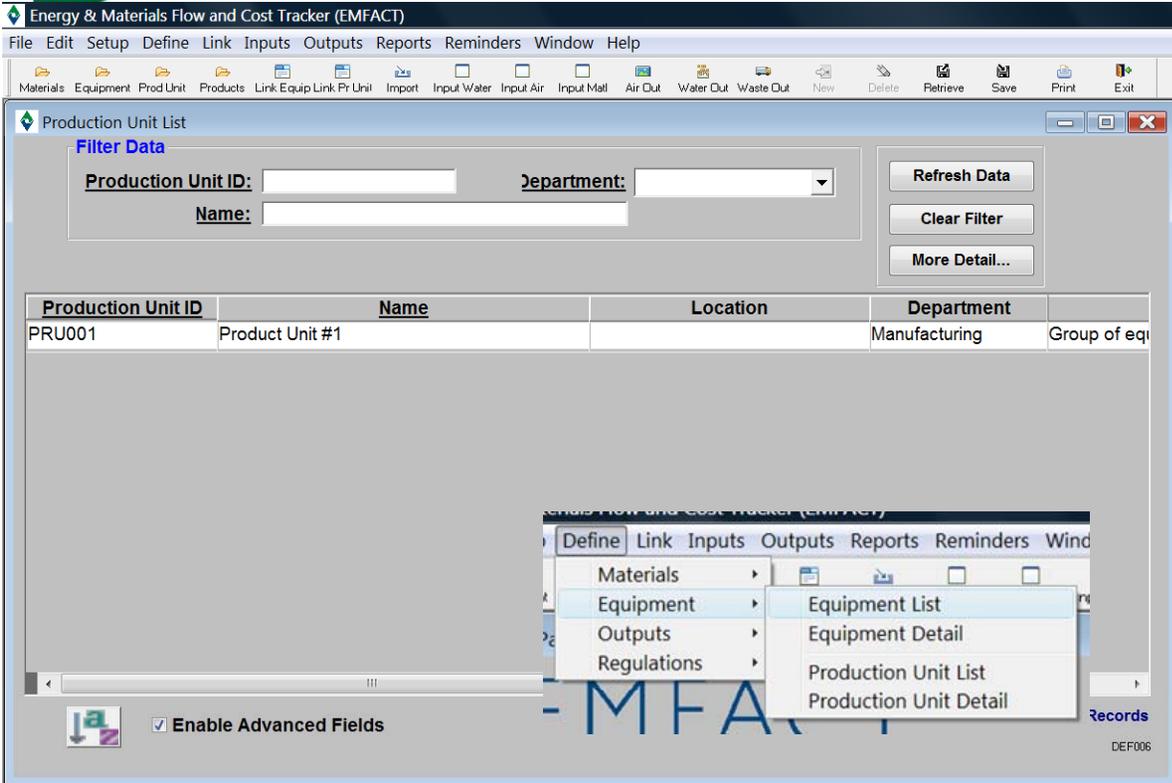
Manage Production Unit List

You may define the **Production Units** that are in use at your facility. Production Units are groups of **Equipment**.
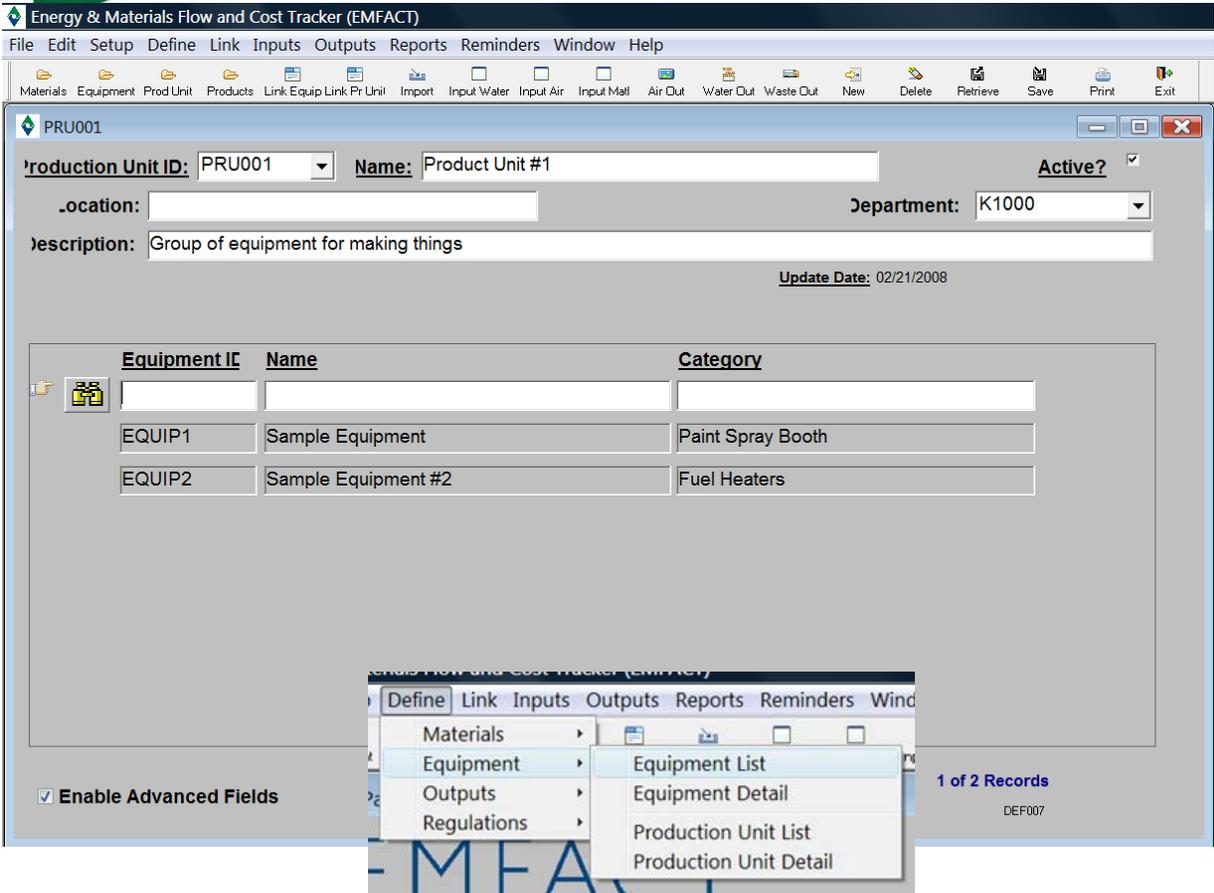
Required fields include:

- Production Unit ID
- Production Unit Name

Optional fields include:

- Department
- Location
- Description
- Others

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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Define → Equipment → Production Unit Detail

Manage Production Unit Detail

Identify which **Equipment** belongs to the Production Unit

If you don't know the Equipment ID, click the **binoculars** icon to launch the search process to add Equipment

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Hands On Time

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Let's try EMFACT Define Equipment/Production Unit now….

❑ Add to the Equipment List

❑ Review Equipment Detail

❑ Create a Production Unit

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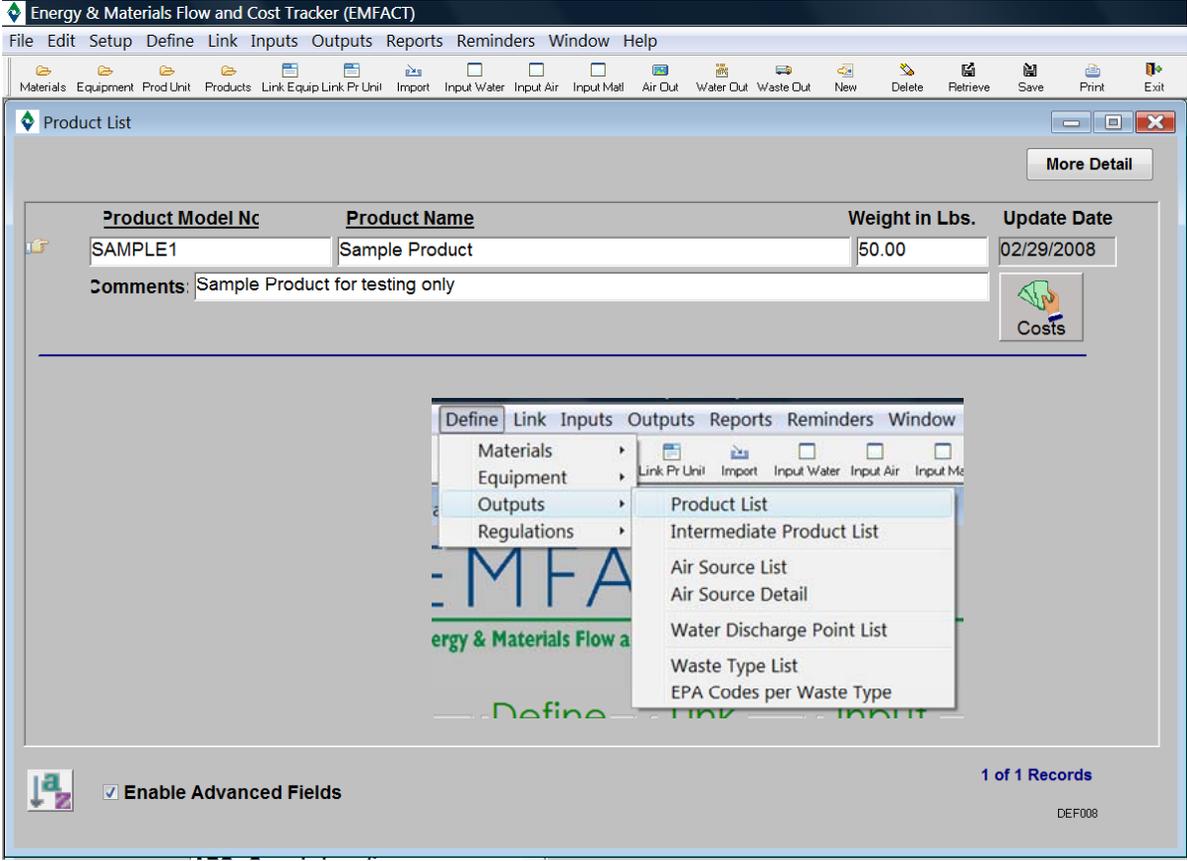
Manage Product List

A **Product** is an output from your manufacturing process

Required fields include:

- Product Model Number
- Product Name
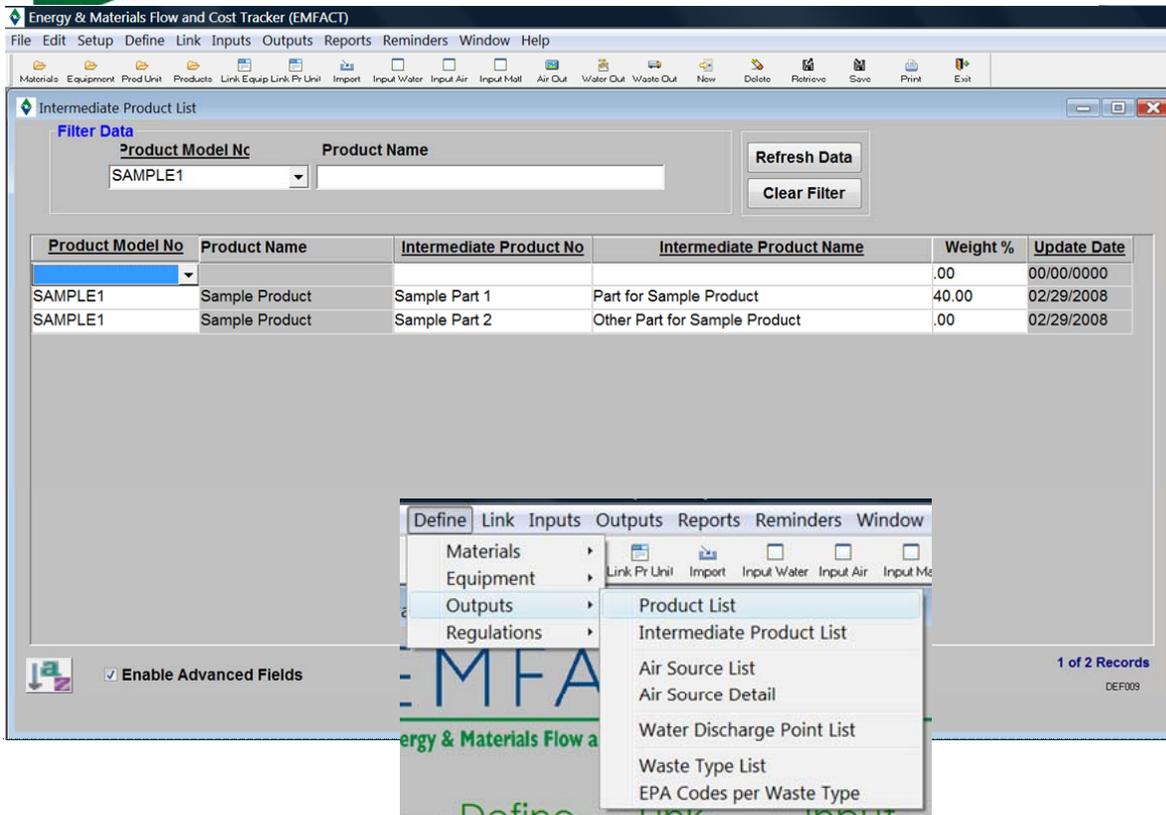
Optional fields include:

- Weight in pounds
- Comments

Click the **Costs** button to add Cost information to the Product

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Manage Intermediate Product List

An **Intermediate Product** is a component of the Product

You may define one or more Intermediate Products per Product

Required fields include:

- Intermediate Product Number
- Intermediate Product Name

Optional fields include:

- Weight %

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Define → Outputs → Air Source List

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Manage Air Source List

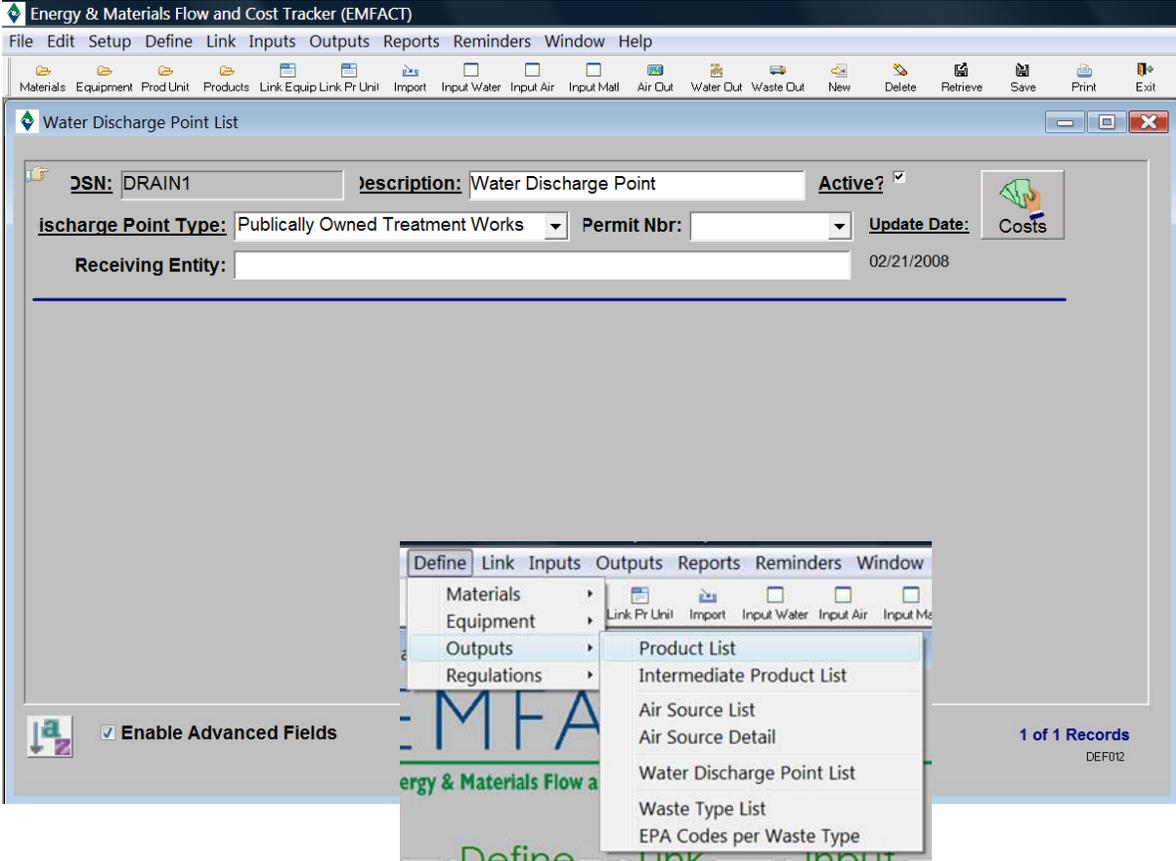**Air Sources** are outputs from your manufacturing process.

You may define Air Sources as **Stacks** or **Fugitive Emissions**

Required fields include:

- Air Source ID
- Exit Direction
- Air Source Lining
- Air Source Category
- Through Roof?
- Fugitive Emission?
- Rainhat?
- Active?

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Manage Water Discharge Point List

Water Discharge Points are outputs from your manufacturing process.
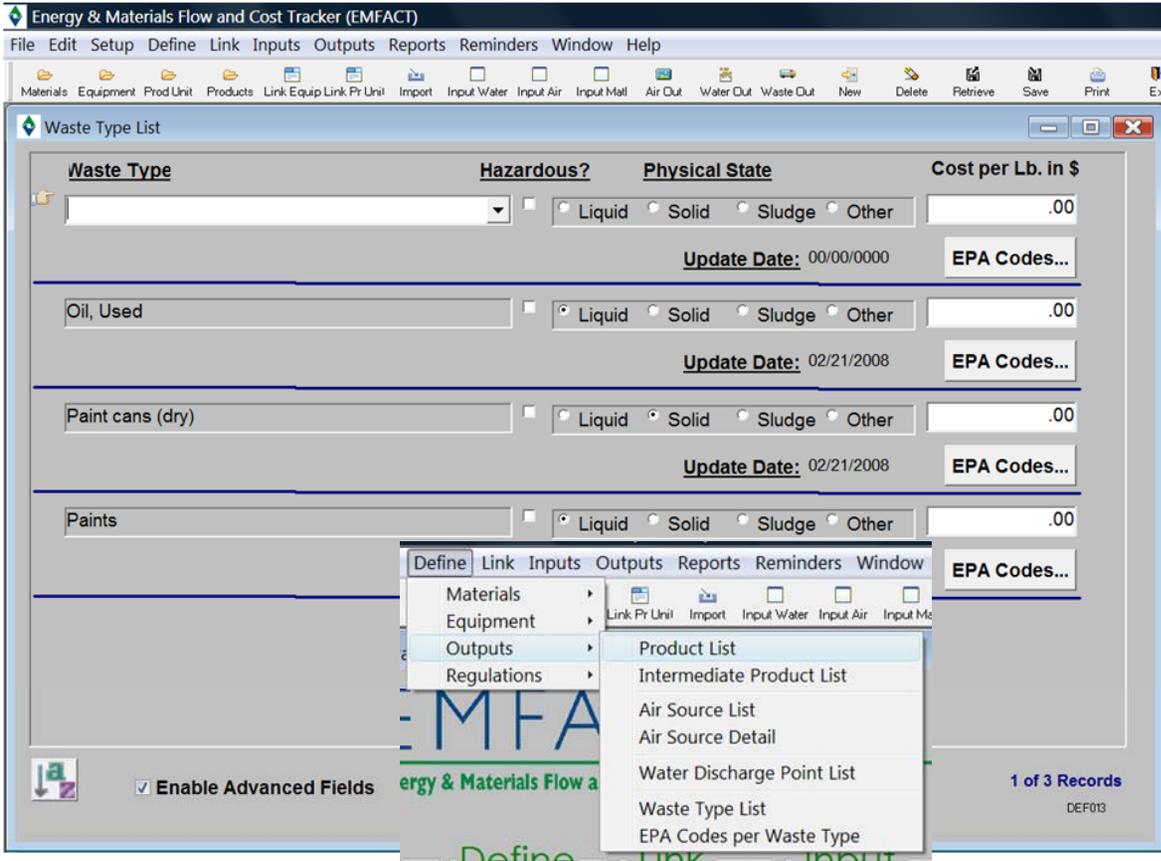
Document the **Water Discharge Flow** that <u>will be related</u> to **Equipment** or **Production Units**

Required fields include:

- DSN
- Description
- Discharge Point Type
- Active?

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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Manage Waste Type List

Waste is an output from your manufacturing process.

Document the **Waste Types** that <u>will be related</u> to **Equipment** or **Production Units**
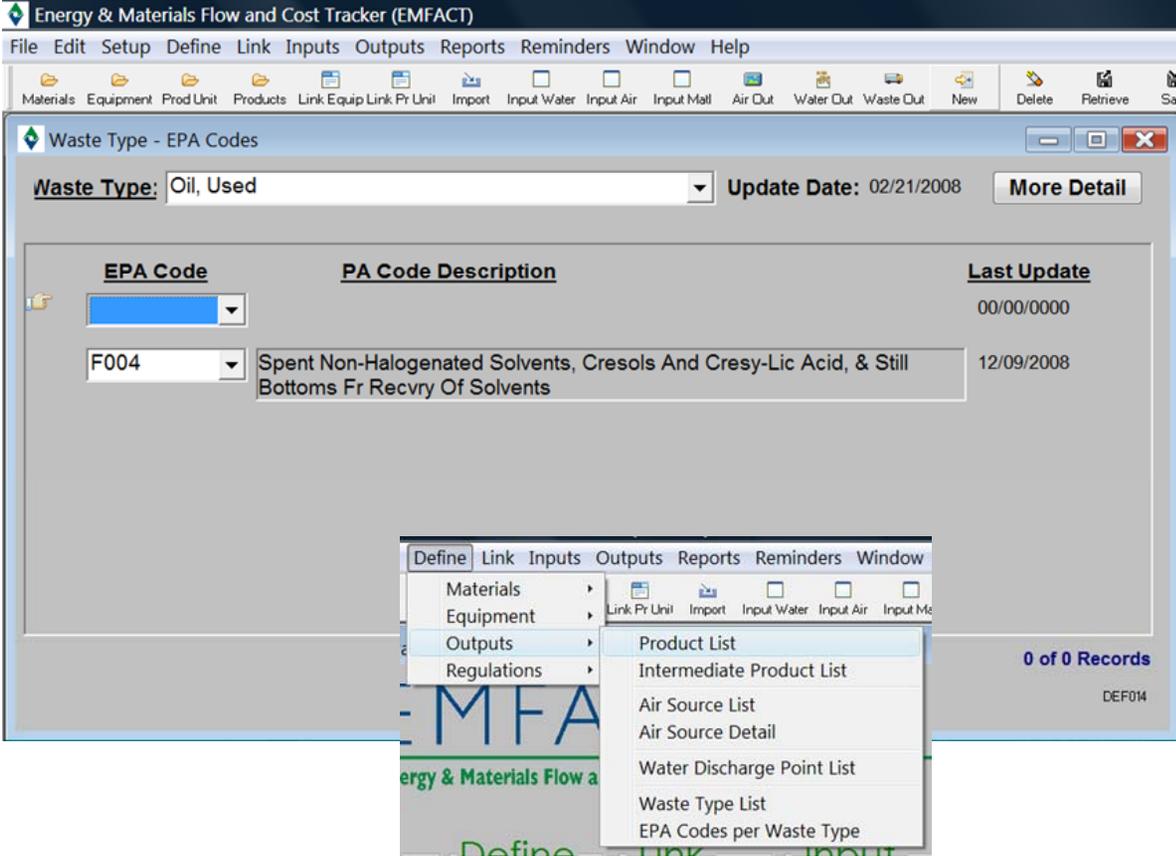
Required fields include:

- Waste Type
- Hazardous?
- Physical State

Optional fields include

- Cost per pounds in $

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Define → Outputs → EPA Codes Waste Type

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Manage EPA Codes per Waste Type

You may assign one or more **EPA Codes** to **Waste Types**

Select a **Waste Type** and appropriate **EPA Codes**

EPA Codes are managed in **Setup → Drop Down Lists**

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Define → Regulations → Permit List
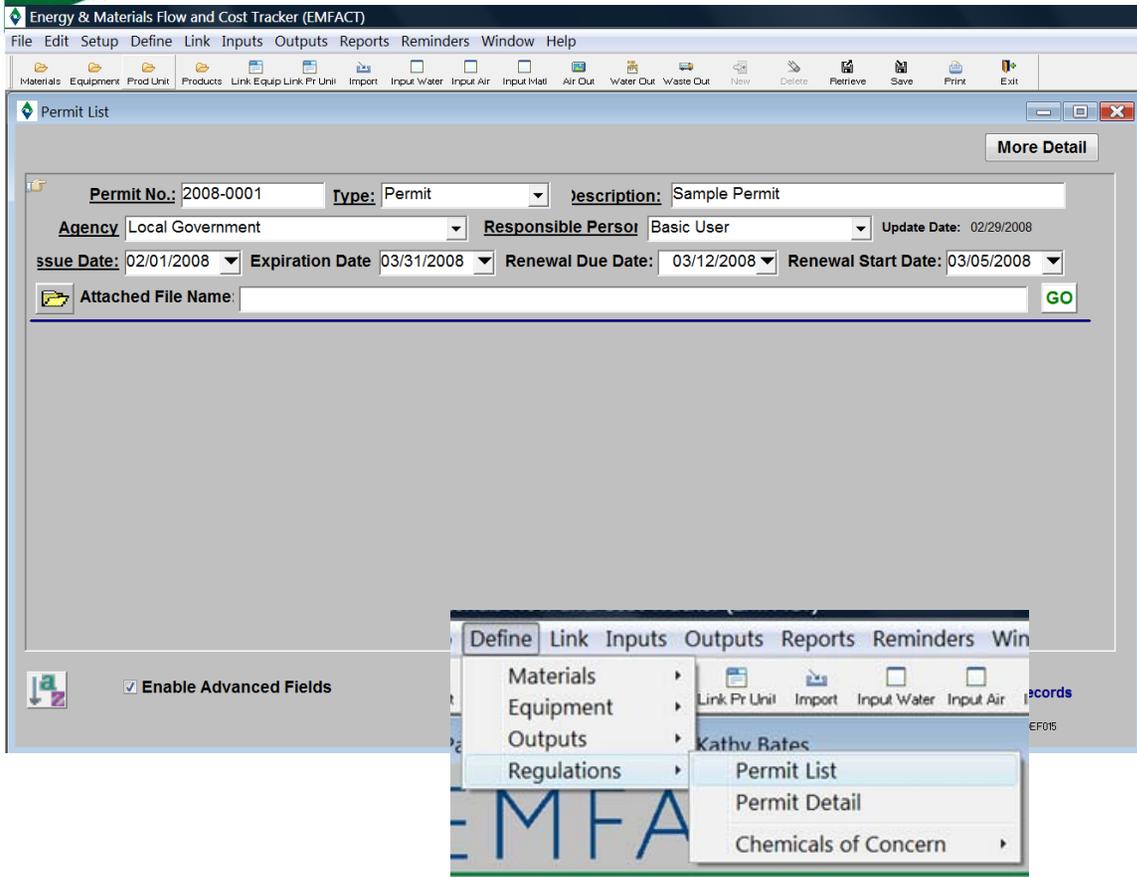
Manage Permit List

You may document a Permit or other certificate that controls equipment operation

Required fields include:

- Permit Number
- Type
- Description
- Agency
- Responsible Person
- Issue Date

Optional fields include

- Expiration Date
- Renewal Due Date
- Renewal Start Date

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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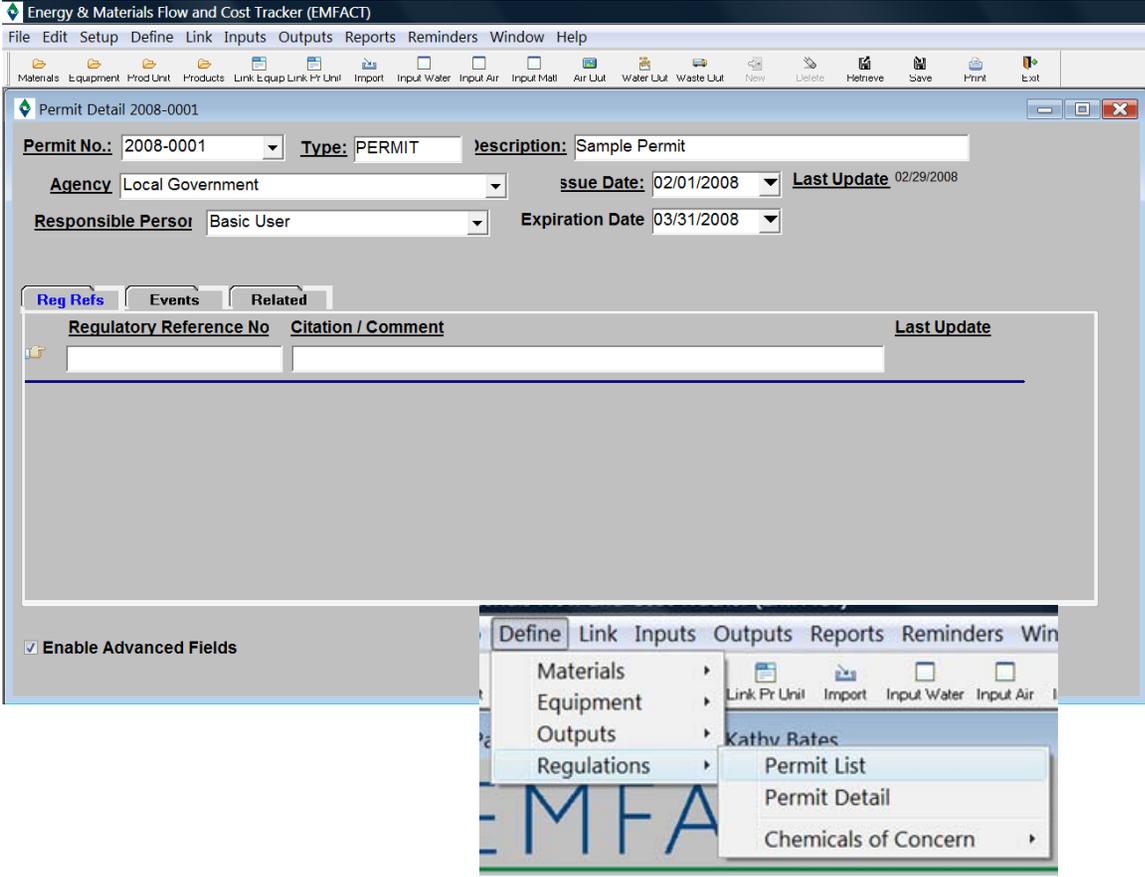
Manage Permit Detail List

The **Reg Ref tab** enables you to document the descriptive title of the applicable **Regulation** (e.g., 40 CFR 54) and a description of the specific **Citation** (or **Comment**) within the applicable regulation

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Define → Regulations → Permit Detail List
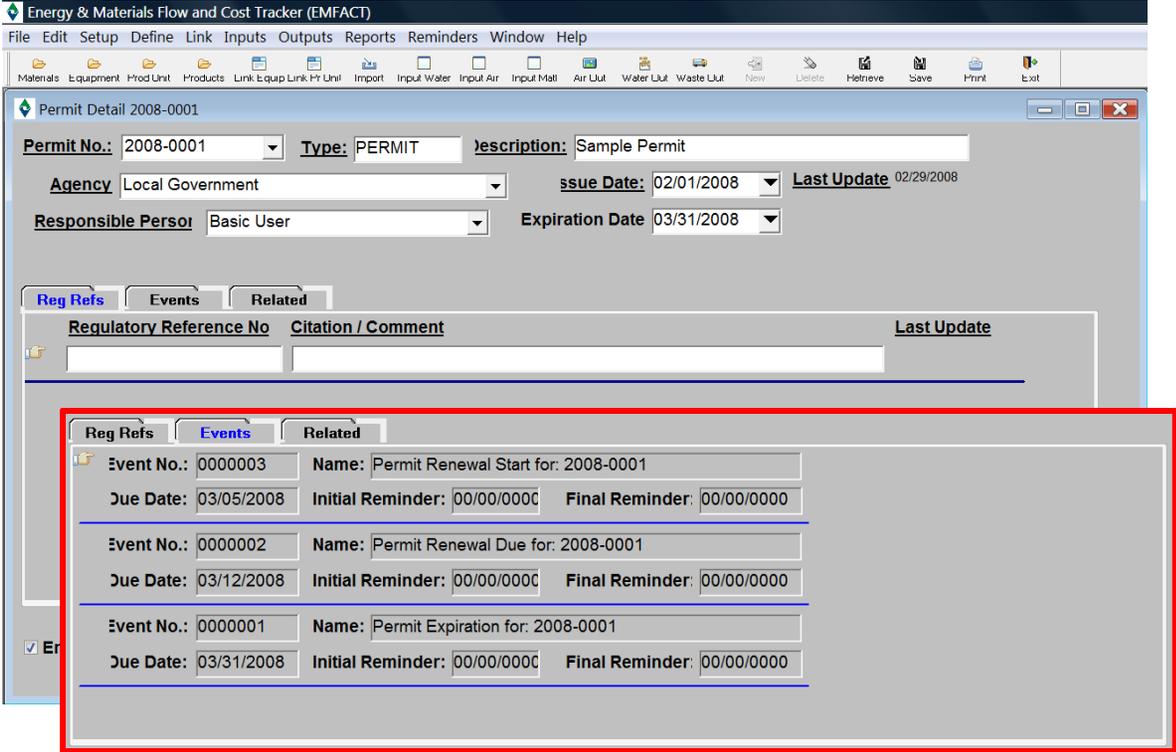
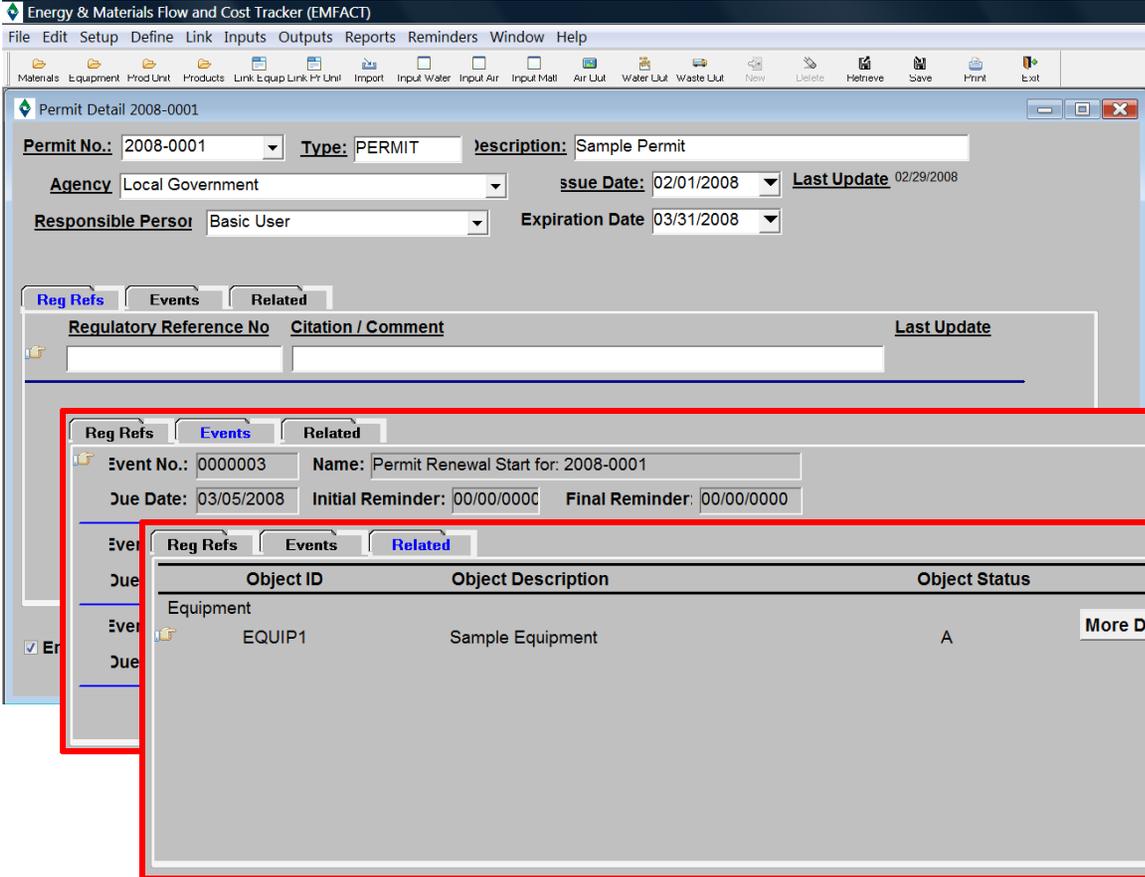**Manage Permit Detail List**

The **Events tab** allows you to view the date-based events related to the **Permit**

The **Permit Expiration Date**, **Renewal Due Date**, and **Renewal Start Date** from the **Permit Detail** are automatically established

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

Define → Regulations → Permit Detail List

Manage Permit Detail List

The **Related tab** allows you to view EMFACT objects (equipment, air sources, and/or water sources) that have been related to the **Permit**

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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Define → Regulations → Chemicals of Concern → List Names

Manage Chemicals of Concern

There are three windows available to help you manage and maintain **lists** of **Chemical Concerns**:

View and maintain the **entire list** of chemicals on all lists of concern

Maintain the names of the chemicals on **one list** by selecting the list name from the predetermined drop down of list names.

Maintain the **names** of the lists of chemicals of concern **(example)**

All fields available for each setup and define process are identified in the EMFACT Data Dictionary and in the Data Entry Worksheets

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Conclusion

This concludes **Part 1** of the **EMFACT Overview**

Please reference
EMFACT Workshop EMFACT Overview Part 2 FINAL.PPT
for **Part 2**