Minor Source Emissions Inventory
SPARS Web Manual

Iowa Department of Natural Resources
Air Quality Bureau

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Introduction

Facilities not subject to the Title V Operating Permit Program are known as minor sources. These sources are required to submit emissions inventories every three years by no later than May 15th following the Inventory Year. For the purpose of collecting emissions inventories from minor sources and portable plants, the State of Iowa is divided into thirds (eastern, central, and western).

The purpose of this manual is to explain how you can use the Iowa DNR's State Permitting and Air Reporting System (SPARS) to submit an electronic copy of your facility's minor source emissions inventory.

To this end, this manual thoroughly describes the five steps of the SPARS Web submittal process:

1. Updating the facility's site information (*Chapter 6*);
2. Creating the inventory (*Chapter 8*);
3. Completing the inventory (*Chapter 9*);
4. Reviewing the inventory (*Chapter 10*); and
5. Submitting the inventory (*Chapter 11*)

It is important to remember, however, that preparing <u>before</u> working in SPARS Web is essential to facilitate a successful submittal process. This preparation includes, at a minimum, the gathering the following materials:

1. A copy of the last inventory that your facility submitted;
2. Copies of your construction permits, especially those that you received after your facility's last inventory submittal;
3. Construction, installation, and start-operation dates for any emission points, emissions units, control equipment, or monitoring equipment that started operation after the last inventory was submitted;
4. Cease-operation dates for any emission points, emissions units, control equipment, or monitoring equipment that discontinued operation after the last inventory was submitted;
5. Total amount of each raw material used by your facility's emissions units/processes during the Inventory Year;
6. Emission factors to calculate potential and actual emissions for emission units/processes that were not included in your facility's last inventory; and
7. Electronic documents to be attached to your new electronic inventory.

Once your inventory has been submitted using SPARS Web, there is no need to send a hard copy to the Iowa DNR. It might be useful, however, to print a copy of your electronic inventory to keep it at your facility for easy access and to be used as a reference when completing your next inventory.

1.0 Definitions and Abbreviations

Actual Emissions – Air emissions calculated using the emission unit's actual operating hours, production rates, and quantities of materials processed, stored, or combusted for the calendar year

Ammonia (NH3) – NH3, also known as anhydrous ammonia, is a colorless, highly irritating gas with a pungent, suffocating odor. About 80% of the ammonia produced by industry is used in agriculture as fertilizer. Ammonia is also used as a refrigerant gas, for purification of water supplies, and in the manufacture of plastics, explosives, textiles, pesticides, dyes, and other chemicals. Exposure to high concentrations of ammonia in air causes immediate burning of the nose, throat, and respiratory tract.

Appeon – A tool used to deploy entire PowerBuilder applications to the Web. Appeon consists of three parts: a developer, a server, and a server web component.

Application Query Tool – A DataWindow which is used to access, view, create, edit, or delete electronic documents found in SPARS.

AQB – *Air Quality Bureau*. This bureau administers DNR's air quality program.

AQB plant number – A seven-digit identifier generated by the AQB Records Center for sources of air pollution.

Carbon Monoxide (CO) – CO is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. CO is poisonous even to healthy people at high levels in the air. It can affect the central nervous system and people with heart disease.

Client/server - A description for applications that have a local (client) user interface but access data on a remote server. The application distributes the work between the local machine and the server, depending on the strengths of the front-end and back-end products.

Control Equipment (CE) – A CE is a device or system that collects or destroys one or more air pollutants from a polluted gas and releases the cleaned gas to the atmosphere through one or more emission points.

Criteria Pollutants – These refer to six air pollutants commonly found all over the United States. They are particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead.

Data Acquisition System (DAS) – A DAS is a device designed to measure and log parameters such as temperature, humidity, pollutant concentration, volume, opacity, etc.

DataWindow – A DataWindow is a custom object that is used to retrieve, present, and manipulate data from a database. The DataWindow object is unique to PowerBuilder.

DNR Phase – Indicates the status of a SPARS electronic document that is currently being completed or modified by an AQB user.

Emissions Inventory – A listing, by source, of the amounts of pollutants actually or potentially discharged over a period of time – usually annually.

Emission Factor – The relationship between the amount of pollution produced and the amount of raw material processed or number of product units produced.

Emissions Unit (EU) – An EU is the equipment or process that generates emissions of regulated air pollutants. Emissions units may be grouped for reporting potential and actual emissions *only* if the emissions units are identical and they exhaust to the same emission point.

Emission Point (EP) – An EP is a stack or vent through which effluent gases along with any air pollutants are discharged to the atmosphere.

Facility Administrator – An individual who receives access to SPARS in order to manage SPARS user accounts for his/her company's employees and consultants. A facility administrator may also be the responsible official for his/her company.

Facility User – An external SPARS user with the ability to create, delete, update, and review SPARS electronic documents while in the INDUSTRY phase.

FINAL Phase – Indicates the status of a SPARS electronic document that has been reviewed and approved in its entirety by the AQB.

Fugitive Emissions – Air emissions which are not released through stacks or vents, such as unpaved plant roads, outdoor storage piles swept by the wind, surface mining, rock crushing, leaks in plant equipment such as valves, pump seals, flanges, sampling connections, etc.

Ground-level Ozone – Ground-level or "bad" ozone is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOx and VOC.

Hazardous Air Pollutants (HAPs) – HAPs are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects or adverse environmental effects.

HTML – *Hyper Text Markup Language*. The authoring language used to create documents on the World Wide Web.

INDUSTRY Phase – Indicates the status of a SPARS electronic document that is currently being completed or modified by a facility user.

INITIAL Phase – Indicates the status of a SPARS electronic document that has been submitted to the AQB and it is ready for review by AQB users.

Inventory Year – The year for which the actual air emissions from the entire facility are calculated and reported.

Iowa DNR – *Iowa Department of Natural Resources*. Government agency responsible for maintaining state parks and forests, protecting the environment, and managing energy, fish, wildlife, land, and water resources in Iowa.

Lead (Pb)[1] – Pb is a metal found naturally in the environment as well as in manufactured products. Some sources of lead emissions are: iron foundries, aluminum foundries, coal-fired boilers, steel mills, cement kilns, lead-acid battery manufacturing, metal fabricators, etc. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system.

LEGAL Phase – Indicates the status of a SPARS electronic document that is currently being reviewed by an Iowa DNR attorney to determine whether requests for data confidentiality meet legal requirements.

Nitrogen Oxides (NOx) – NOx is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the nitrogen oxides are colorless and odorless. However, one common pollutant, nitrogen dioxide (NO2) along with particles in the air can often be seen as a reddish-brown layer over many urban areas. NOx is one of the main ingredients involved in the formation of ground-level ozone, which can trigger serious respiratory problems. Among several other concerns, NOx contributes to formation of acid rain and it reacts to form toxic chemicals.

North American Industry Classification System (NAICS) – The NAICS is a six-digit code used by business and government to classify and measure economic activity in Canada, Mexico, and the United States. The first five digits are generally the same in all three countries. The last digit designates national industries. The first two digits designate the largest business sector, the third digit designates the subsector, the fourth digit designates the industry group, and the fifth digit designates particular industries.

Oracle Database – It is a relational database management system developed by Oracle Corporation.

Particulate Matter (PM) – PM is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The Environmental Protection Agency groups particle pollution into two categories:

- "Inhalable coarse particles," such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter.
- "Fine particles," such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries, and automobiles react in the air.

PDF – *Portable Document Format*. A file format which captures formatting information from a variety of desktop publishing applications.

[1] For more information on lead, please visit http://www.iowadnr.gov/air/prof/emiss/emiss.html and click "Lead Fact Sheet" under the Fact Sheets and FAQs subheading .

Phase Codes – Codes used in SPARS Web to indicate the submittal and completion status of all applications and inventories.
PIN – *Personal Identification Number*. This "number" consists of letters and numbers and it is used to submit electronic documents to the AQB using SPARS Web.

Potential Emissions – Air emissions calculated assuming that the emissions unit is running at maximum capacity while operating at the maximum hours of operation under its physical and operational design. Usually, maximum hours of operation are 8,760 hours per year, unless limitations on hours of operation have been incorporated within a construction permit or an enforcement order for that equipment.

PowerBuilder – A computer application development system that includes tools for drawing the user interface and reports and accessing database content.

Responsible Official – An individual who receives an electronic signature device created by the AQB and uses it to submit electronic documents through SPARS Web. A facility's responsible official is legally accountable for the truth and accuracy of the information submitted under his/her name and for ensuring that his/her company meets any deadlines required by Iowa and federal codes.

REVIEW Phase – Indicates the status of a SPARS electronic document that is currently under review by the AQB.

Site Management – A DataWindow used to access and edit the following facility's information: name, location, mailing address, air quality classification, plant number, equipment identification, equipment description, name and addresses for its contacts, latitude, longitude, UTM coordinates, etc.

Source Classification Codes (SCCs) – The Environmental Protection Agency uses SCCs and area and mobile sources (AMS) codes to classify different type of anthropogenic emission activities. SCCs have 8 digits for point sources and use a hierarchical system in which the definition of the code gets increasingly more specific as you move from left to right.

SPARS – *State Permitting and Air Reporting System*. An Oracle database with a PowerBuilder front-end used to receive and store air quality electronic documents.

SPARS Access Request Form for Facility Administrators – A form required by the AQB to be completed and submitted by a facility's employee who will be responsible for managing SPARS user accounts for said facility. Only facility employees may request a SPARS Facility Administrator account.

SPARS Access Request Form for Responsible Officials – A form required by the AQB to be completed and submitted by a facility's employee who will be responsible for submitting electronic documents using SPARS Web. Only the facility's Responsible Official may request a SPARS Responsible Official account.

SPARS Site ID – A twelve-digit number generated by SPARS.

SPARS Web – An application that gives external users the ability to access SPARS data and submit electronic documents to the AQB using the internet.

Standard Industrial Classification (SIC) Code – The SIC code is a four-digit code used to categorize industries in terms of the nature of their business.

Sulfur Dioxide (SO_2) – SO_2 belongs to the family of sulfur oxide gases. SO_2 contributes to respiratory illness and aggravates existing heart and lung diseases. It also contributes to the formation of acid rain.

TIFF – *Tagged Image File Format*. One of the most widely supported file formats for storing bit-mapped images on personal computers.

UTM – *Universal Transverse Mercator*. The UTM coordinate system is a grid-based method of specifying locations on the surface of the Earth.

Volatile Organic Compounds (VOCs) – VOCs are compounds that have a high vapor pressure and low water solubility. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, pharmaceuticals, and refrigerants. VOCs have been found to be a major factor to ozone, a common air pollutant which has been proven to be a public health hazard.

2.0 Getting to know SPARS Web

As mentioned before, the main objective of this manual is to ensure that you acquire the necessary knowledge to submit your minor source emissions inventories using SPARS Web. The first step in accomplishing this objective is to learn what SPARS Web is, what it does, and how it communicates with you.

2.1 What is SPARS Web?

SPARS (*State Permitting and Air Reporting System*) is composed of an Oracle database and a PowerBuilder interface to access the contents of this database. PowerBuilder has a native data-handling object called a DataWindow, which can be used to create, edit, and display data from a database. SPARS Web has two main DataWindows: Site Management and the Application Query Tool.

2.1.1 Site Management

The Site Management DataWindow (see Figure 2.1) allows the user to access information such as facility name, AQB plant number, SPARS site ID, location, address, responsible official contact information, equipment identification and description, latitude, longitude, UTM coordinates, etc. It also allows the user to edit certain information, such us description and specification for emission units, emission points, control equipment, and monitoring equipment.

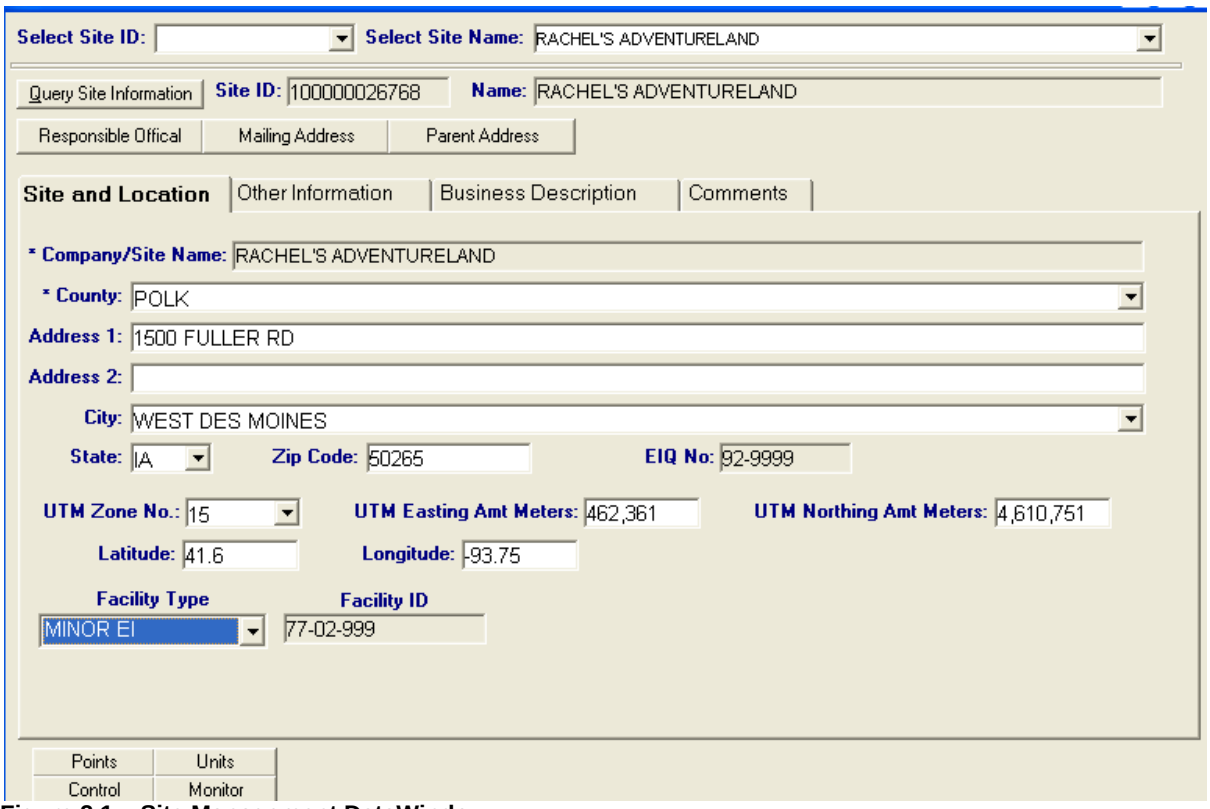


Figure 2.1 – Site Management DataWindow

2.1.2 Application Query Tool

The Application Query Tool DataWindow (see Figure 2.2) allows the user to access, view, create, edit, review, and delete[2] electronic applications and inventories. It also gives users the ability to submit these documents to the AQB when following the SPARS submittal process.

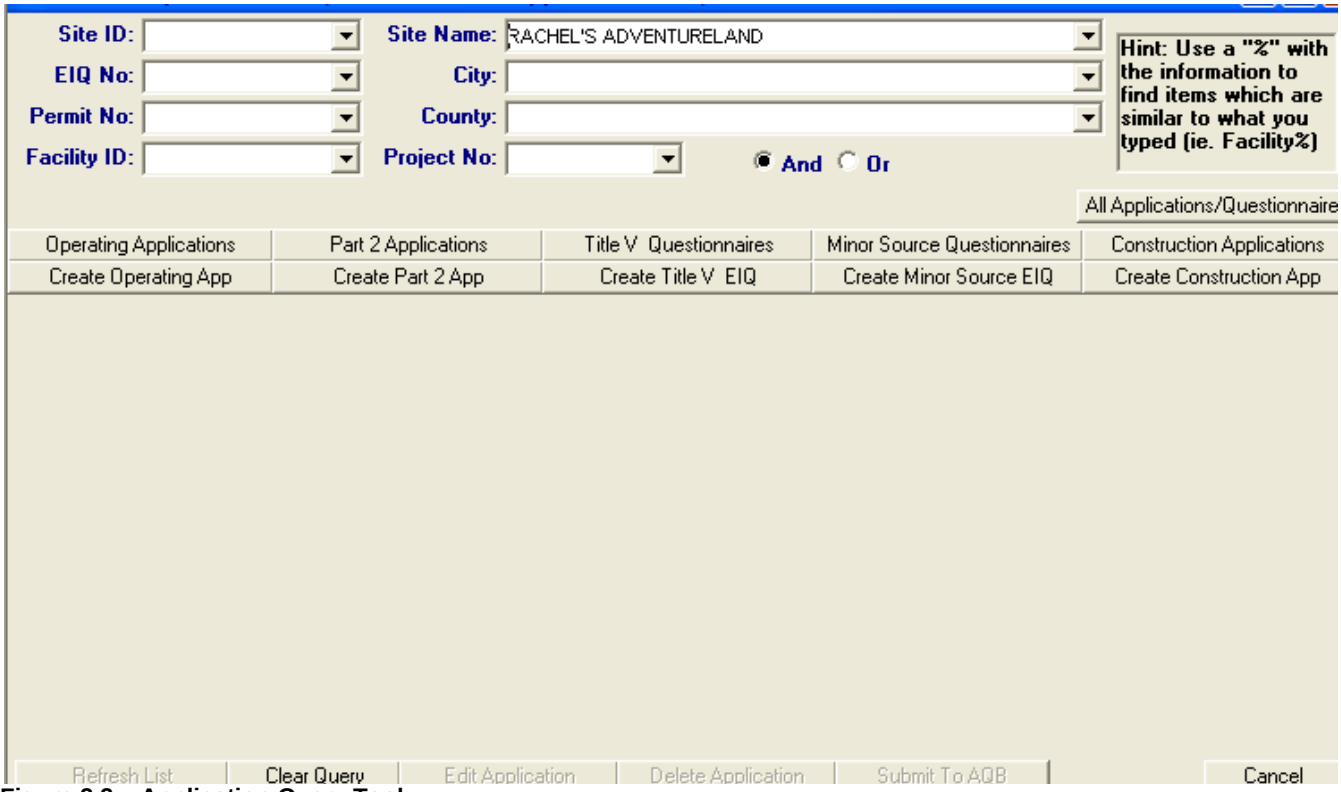


Figure 2.2 – Application Query Tool

[2] Only applications and inventories in the INDUSTRY Phase may be deleted.

Another useful SPARS DataWindow is the Report Interface (see Figure 2.3), which allows users the creation of several reports. One of these reports, "**Facility-Wide Air Emission Summary**," lists the facility's potential emissions reported in **INV-3** and the actual emissions found in **INV-4**. At the top of each page, this report includes the Inventory Year for each emissions inventory stored in SPARS.

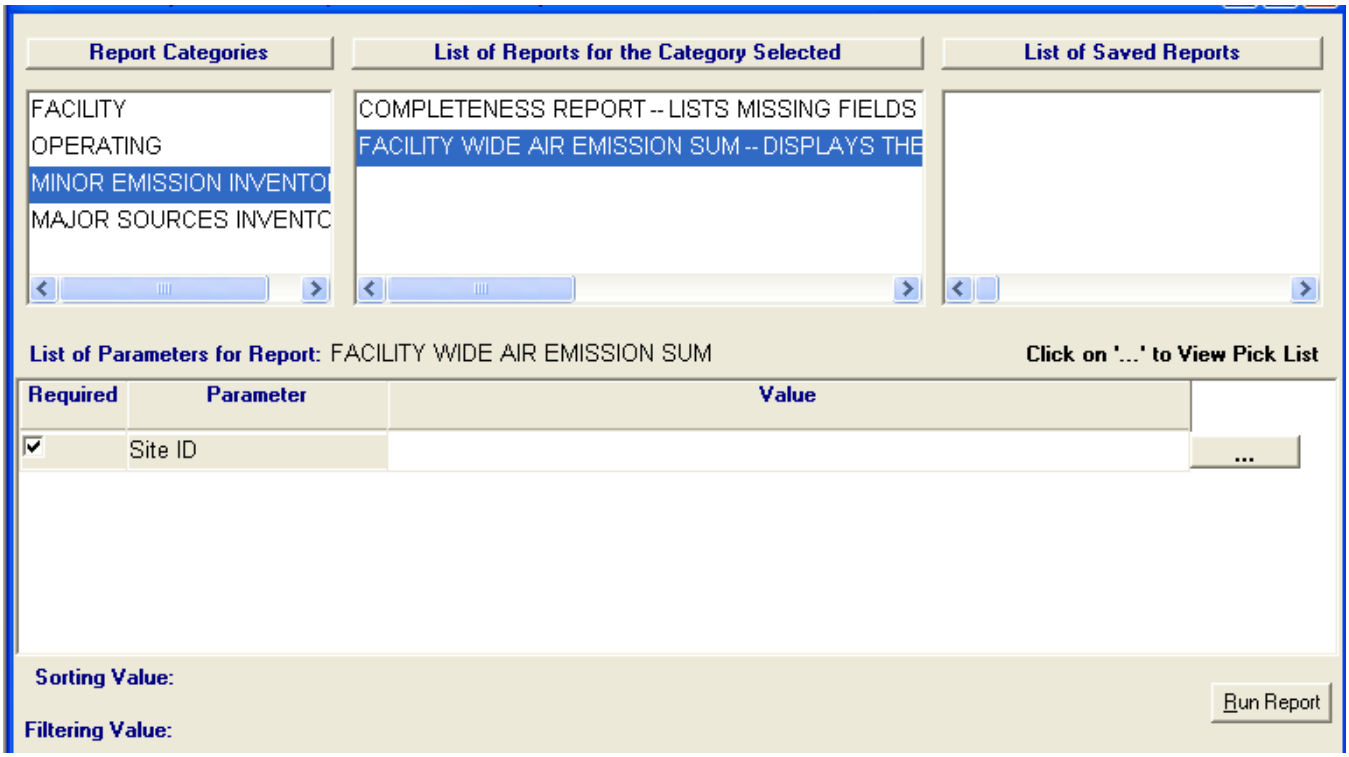


Figure 2.3 – Report Interface

2.2 What does SPARS Web do?

The State Permitting and Air Reporting System was first developed as a multi-user client/server database available only to AQB staff. The DNR also developed "SPARS Client" software to be downloaded to individual computers outside of AQB.

In February 2006, the Appeon system was used to deploy the PowerBuilder interface to the Web, thus making SPARS web-enabled. As a result of the SPARS web-enablement, the "SPARS Client" software is no longer available to be downloaded onto external customers' computers.

As a web-enabled database, SPARS Web allows facilities to:

1. Access permit applications and emissions data electronically.

2. Create the following:

- Construction permit applications
- Title V operating permit applications
- Minor Source emissions inventories, and
- Title V annual emissions inventories

3. Submit these applications and inventories to the AQB via the web.

4. Reuse existing electronic information to create new applications or modify current applications.

5. Attach supporting documentation in Excel, PDF, Word, TIF, JPG, DWG, or HTML formats.

6. Receive prompt confirmation that applications and inventories have been received by the AQB.

2.3 How does SPARS Web communicate with its users?

As you work with SPARS Web, you will find that sometimes the database will communicate with you through database errors or warning messages in response to what you have or have not done.

(1) **Database Errors**. There are several reasons why SPARS will send you database errors and there are several ways in which these errors will be displayed. Figures 2.4 and 2.5 illustrate two of these database errors.

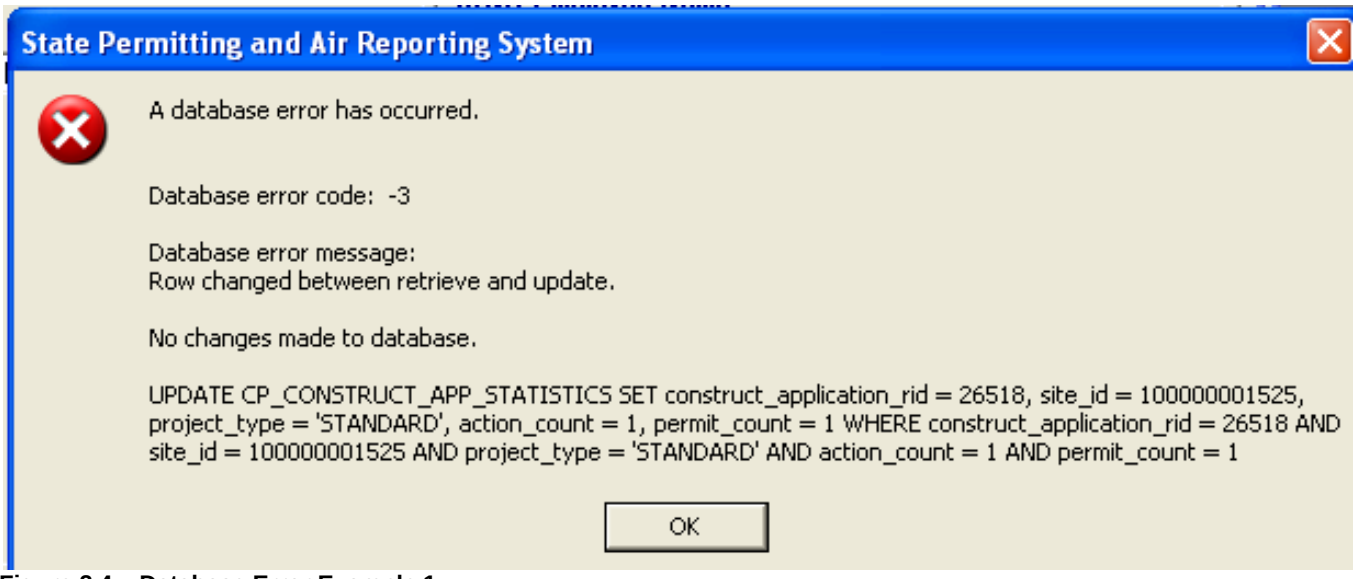


Figure 2.4 – Database Error Example 1

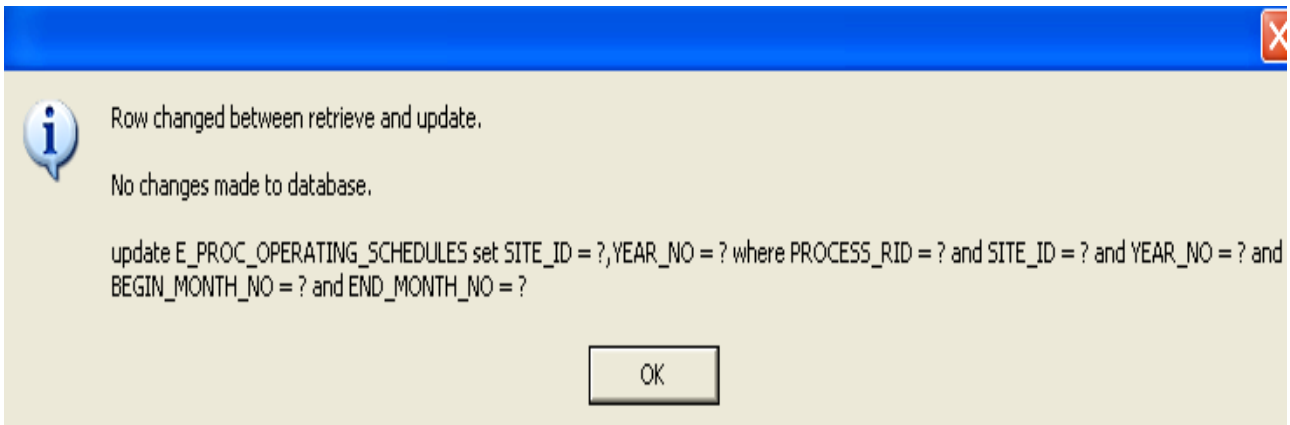


Figure 2.5 – Database Error Example 2

Database errors are considered "terminal" errors. In other words, every time that they occur, the connection to the SPARS database is automatically terminated. If you click the "OK" button on the error window, you will be placed in a loop, because you are no longer connected to SPARS Web.

At this point, the only course of action available to you is to use the Task Manager (see Figure 2.6) to get out of the loop and close the PowerBuilder interface. **NOTE**: In order to view the Task Manager window, press **Ctrl-Alt-Delete**.

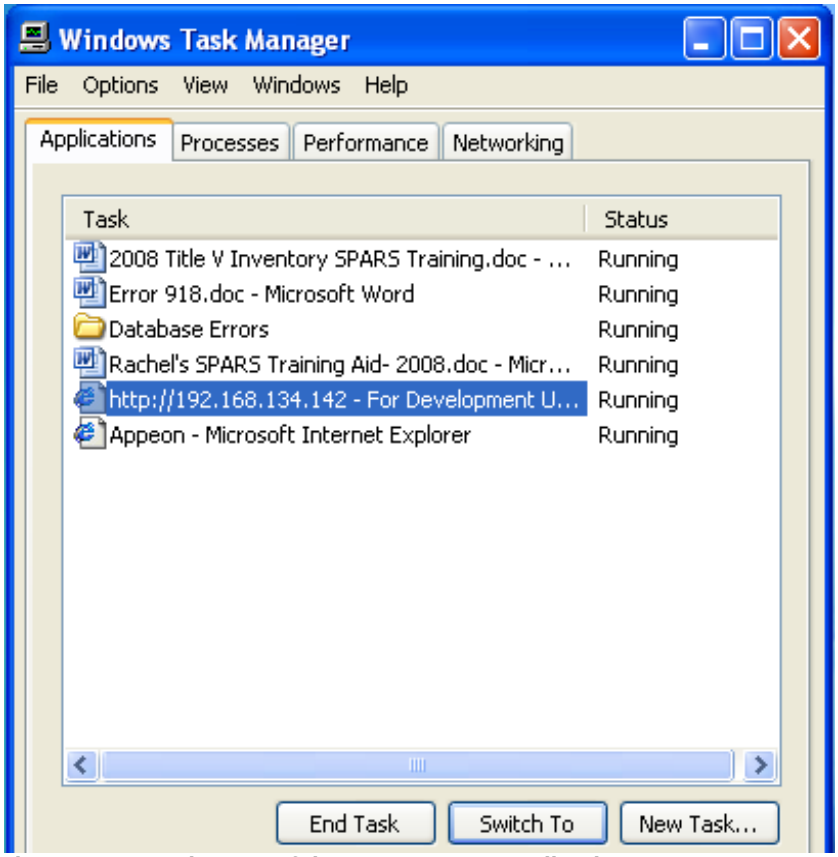


Figure 2.6 – Getting out of the SPARS never-ending loop

You can avoid receiving some of these database errors, but unfortunately, a few cannot be avoided. Out of the database errors that can be avoided, the most common one occurs when users try to access SPARS documents that have already been submitted to the DNR.

For instance, if you open and try to navigate through the last inventory that your facility submitted, you will get a database error and your connection to the database will be terminated. SPARS Web does this to avoid accidental changes to the data already submitted to the DNR. To stop this from happening, you *must* use the print-preview to view the information contained in any of your facility's SPARS documents that have been submitted to the DNR.[3]

In regards to database errors that cannot be avoided, the most common one occurs when users try to make changes to the information stored in SPARS for their facility contact, responsible official, or parent company contact. This error is a sign that the names associated with the facility must be cleaned up and consolidated.

To illustrate this issue, let us say that your facility contact name has been entered into the SPARS database using different formats: (1) with middle initial; (2) without middle initial; (3) with a title; and (4) without a title. This time, you tried to enter a different title for the same name, but SPARS did not allow you to. Instead, it sent you a database error and disconnected you from the database. SPARS Web did this to notify us (through you) that data maintenance is required to preserve the integrity of the database.

If and when you receive a database error while updating information regarding your facility contact, responsible official, or parent company contact, please let us know. We **must** maintain the database to ensure that the information stored in it continues to be reliable.

(2) **Warning Messages**. Again, there are several reasons why SPARS will send you warning messages and there are several ways in which these messages will be displayed. Figures 2.7 and 2.8 illustrate two of these warning messages.

Figure 2.7 –Warning Error Example 1

[3] To use the print-preview, open the Application Query Tool, query for your facility and for the document type (inventories, applications, etc) that you are interested in. Highlight the document and double-click. Click on the print-preview icon. The appropriate list of forms is now ready for viewing and printing.

Figure 2.8 –Warning Error Example 2

Unlike database errors, warning errors allow you to correct the problem and continue working without having to close SPARS Web (see Figure 2.9).

Figure 2.9 – After clicking "OK" SPARS Web allows you to correct the problem

In theory, all warning messages can be avoided. The key is to know what to do (or not to do) to avoid them.

One of the most common warning messages is: "*You are not authorized to perform this operation*." SPARS Web sends this message in Site Management when users:

1. Try to connect control equipment to a new emissions unit that has not yet been recognized by SPARS; or

2. Try to connect an emissions unit **or** control equipment to a new emission point that has not yet been recognized by SPARS.

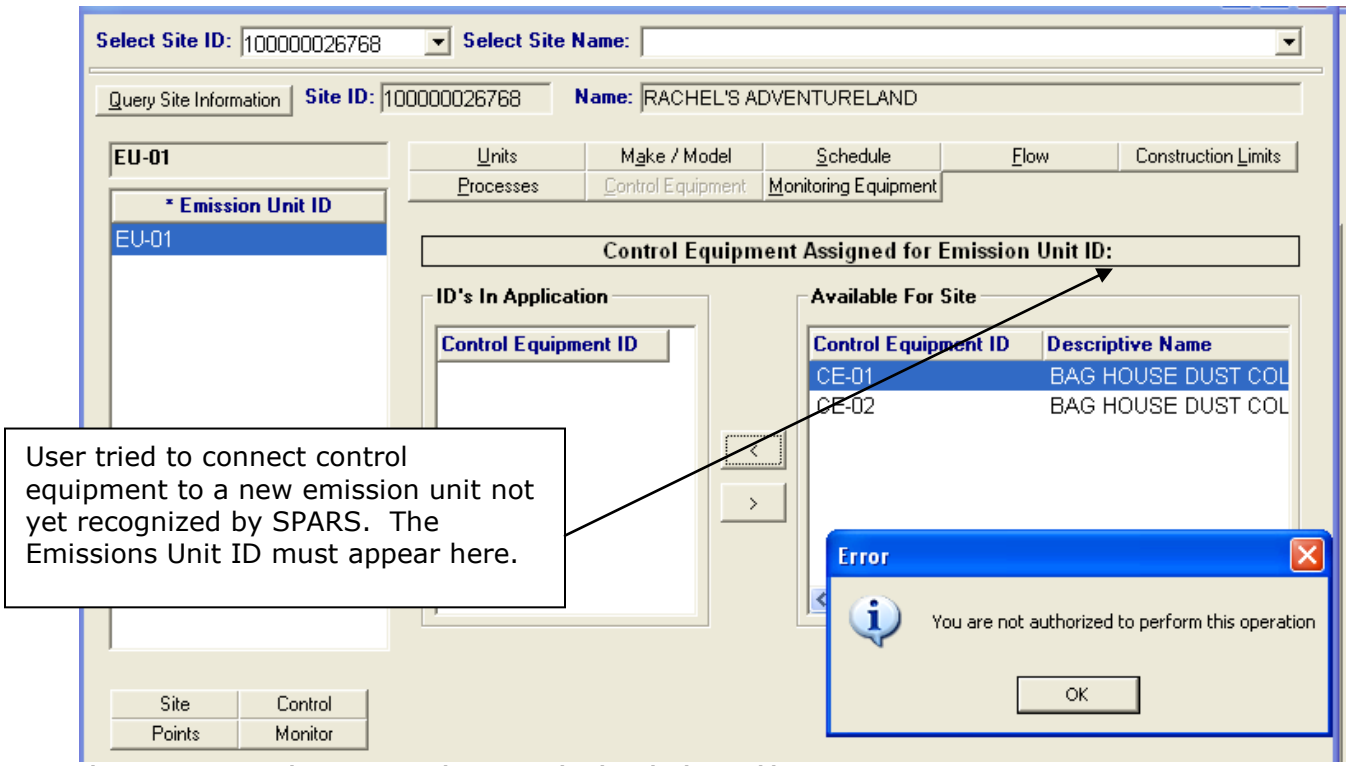


Figure 2.10 – Warning Message (Unrecognized Emission Unit)

Course of action in both cases:

1. Click **OK** on the warning message window.
2. Save any changes.
3. Close the Emission Unit DataWindow or the Emission Point Data Window.
4. Open the Emission Unit DataWindow or the Emission Point Data Window.
5. Make connection.

Another common warning message is: "*Duplicate record found*." The SPARS database does not allow duplicate information in certain fields. For instance, even though the description of emission points can be duplicated, the emission point ID, however, cannot.

The third warning message that users commonly receive is: "No parent record found." This message is received while working in the inventory, if the user tries to "write-in" a raw material that is not included in the SPARS pull-down list of raw materials.[4]

[4] If there is a raw material that you would like to see in the pull-down list, please contact us.

3.0 Accessing SPARS Web

3.1 Step One – Request Access

1. Identify a Facility Administrator and a Responsible Official. The Facility Administrator is responsible for managing SPARS access for those working on the facility's applications and inventories. The Responsible Official has the authority to submit applications and inventories to the AQB through SPARS. A Facility Administrator may also be the facility's Responsible Official.

2. Complete and submit both the *SPARS Access Request Form for Facility Administrators* and the *SPARS Access Request Form for Responsible Officials*. These forms are available at: http://www.iowadnr.gov/air/prof/SPARS/

Once these accounts are created, the AQB sends via certified mail the respective SPARS access information to each Facility Administrator and each Responsible Official. Facilities can then create, review, and submit applications and inventories to the AQB.

3.2 Step Two – Download the Appeon plug-in

1. Open Internet Explorer. Disable any anti-popup software installed in your computer. However, during the Appeon installation, be sure to choose "always accept popups from this site." This will allow you to see all the screens used in SPARS Web without first having to disable your anti-popup software.

2. Open the SPARS website: http://aq48.dnraq.state.ia.us/spars This link will direct you to the web page where the Appeon log in resides: http://aq41.dnraq.state.ia.us/spars.htm

3.3 Step Three – Log in

1. Use the Appeon log-in screen (see Figure 3.1) to enter the User Name and Password given to you by the AQB or by a Facility Administrator.

Figure 3.1 – Appeon Log-In Screen

2. After logging in, the SPARS Welcome Window opens. Close this window by clicking on the **X** on the top right. If you do not want this window to appear every time you open SPARS Web, unclick the **Show welcome at startup** box (see Figure 3.2).

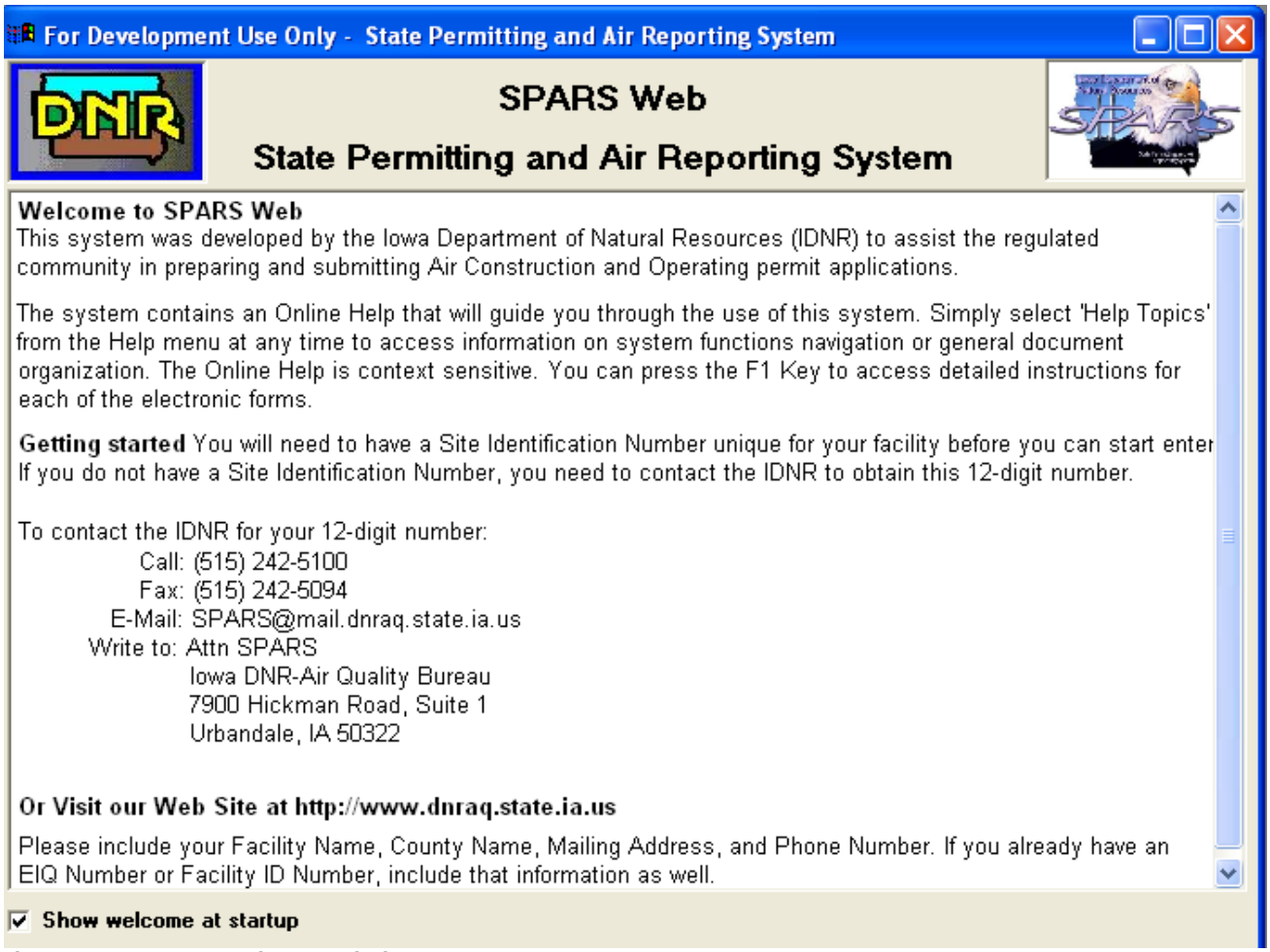


Figure 3.2 – SPARS Welcome Window

NOTE: Some of the information displayed on the SPARS Welcome Window is outdated. For instance, the following is no longer accurate:

"***Getting started*** *You will need to have a Site Identification Number unique for your facility before you can start entering data. If you do not have a Site Identification Number, you need to contact the IDNR to obtain this 12-digit number.*"

You do not need to request this number to get started, because you do not need to know this number to access your facility's information. This number will be accessible to you when you query for your facility in Site Management and in the Application Query Tool.

3. After closing the SPARS Welcome Window, you will only see the following menu:

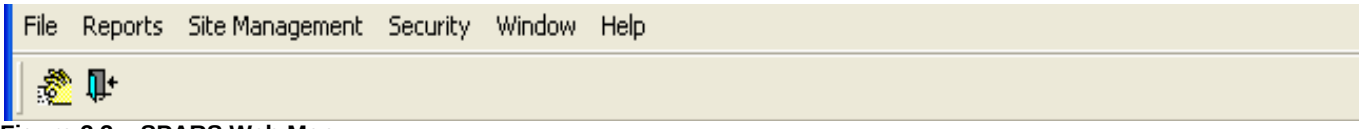


Figure 3.3 – SPARS Web Menu

4. You are now ready to work in SPARS Web.

3.4 Working in SPARS Web

3.4.1 SPARS Web Speed

Obviously, SPARS Web speed will not be the same at every facility. The following factors influence the speed at which SPARS Web will work:

- Connection type and speed (dial up, DSL, Cable, Network).
- Firewall and security protocols (blocking ports or IP addresses, scanning data packets, restricting data download/upload speeds, either by Facility, Corporate, or Internet Service Provider).
- Network issues including, but not limited to;
  - Traffic load at the Facility, ICN (state network), or IDNR
  - Routing of data between the Facility and Corporate headquarters in other states/regions and IDNR
- Client workstation setup for computer processor speed, amount of memory, cache size, programs running, virus scanning during use of SPARS application and other items which degrade computer performance.

Additionally, we have noticed that during the first two weeks of May, SPARS Web speed slows down even more, because most minor source users are working on their inventories. It would be best if you start working on your inventory well before May 15th to reduce some of the frustration caused by a slow SPARS Web connection.

3.4.2 SPARS Web Time-Out

A SPARS Web session is timed-out at 2 hours from its start, regardless of being active or inactive for the entire 2 hours.

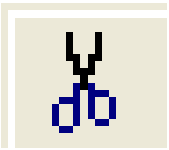
Even though SPARS Web saves your work automatically, certain updates and changes do not take place unless you save them manually. Therefore, try to save your work regularly to avoid losing information.

After being timed-out, you can log right back in to SPARS Web.

3.4.3 Copying, Cutting, and Pasting Information

In most of the areas of SPARS Web that you will be working in, the traditional mouse right-click will not work when trying to copy (or cut) and paste.

You can use the cut, copy, and paste icons in SPARS Web:


Cut

Copy

Paste

Alternatively, you can do the following:

1. Highlight the text that you need to copy, cut, or paste.
2. Press “Ctrl C” to copy
3. Press “Ctrl X” to cut
4. Press “Ctrl V” to paste

4.0 Setting-up Your Computer to Run SPARS Web

Before running the SPARS Web application, please make sure that your computer system meets the following ***minimum*** hardware and software requirements:

◊ ***CPU***: Pentium-class processor – 1 GHz or faster

◊ ***Memory***: 128 MB

◊ ***Disk***: 10 GB

◊ ***Network***: 56k dial-up connection to Internet

◊ ***Operating System***[5]:
- Windows 2000, or
- Windows XP (any edition), or
- Windows Server 2003 (any edition), or
- Windows Vista (any edition), or
- Windows Server 2008

◊ ***Software***:
- Microsoft Internet Explorer 6.0 SP1 or SP2, or
- Internet Explorer 7.0, or
- Internet Explorer 8.0,
- Sybase Appeon Xcelerator (automatically downloaded to the client browser when running SPARS Web)

For the best possible experience working with SPARS Web, the Iowa DNR's AQB recommends the following hardware and software for your computer system:

◊ ***CPU***: Pentium-class processor – 1.8 GHz or faster

◊ ***Memory***: 512 MB

◊ ***Disk***: 20 GB

◊ ***Network***: Broadband connection to Internet

◊ ***Operating System***:
- Windows 2000, or
- Windows XP (any edition), or
- Windows Server 2003 (any edition), or
- Windows Vista (any edition), or
- Windows Server 2008

◊ ***Software***:
- Microsoft Internet Explorer 6.0 SP1 or SP2, or
- Internet Explorer 7.0, or
- Internet Explorer 8.0,

[5] Currently, Appeon is not comparable with Windows 7.

- Sybase Appeon Xcelerator (automatically downloaded to the client browser when running SPARS Web),
- Adobe Acrobat Reader 6.0 or later (for viewing printed PDF DataWindows and reports)

When you run an Appeon Web application, such as SPARS Web, for the first time, the Appeon Xcelerator plug-in must be downloaded to your computer. However, if you do not have administrator rights to your computer Windows system, the *Xcelerator plug-in download will be blocked and the application will fail to run*.

To avoid this and to allow SPARS Web to run in your computer, please follow the instructions described in this document.

Ask your administrator to assign the current login account to the Administrators group, so that it can successfully download and register the Xcelerator plug-in. In the case of Windows Vista and Windows Server 2008 users, you need to turn off the **User Account Control** feature, for the Appeon Server to start correctly. (See instructions below)

Please

4.1 Set account privilege for running Appeon Server

4.1.1 Windows System other than Windows Vista or Windows Server 2008

- Ask your administrator to assign the current logging account to the Administrator group. This will allow the Xcelerator plug-in to be successfully downloaded and registered.

4.1.2 Windows Vista or Windows Server 2008

- Go to Control Panel **|** User Accounts, click ***Turn User Account Control on or off***.
- De-select the option of ***Use User Account Control (UAC) to help protect your computer***.
- Click **OK**.
- Restart your computer

4.2 Adjust Desktop Display Settings

Your desktop display should be set to ***1024 X 768***.

If your display is not set to *1024 X 768*, follow these instructions:

1. Right-click inside the Windows desktop and select **Properties**.
2. Select the **Settings** tab.
3. Note your current Screen resolution in case you need to reset it later.
4. More the Screen resolution slide bar to *1024 X 768*.
5. Click **Apply**. The screen will be reset.
6. Click **Yes**.
7. Click **OK**.

4.3 Adjust Temporary Internet Files and Caching

- **Delete all temporary files stored in the Internet Explorer cache:**

  1. Open Internet Explorer.
  2. Select **Internet Options** on the **Tools** menu.
  3. Select the **General** tab.
  4. Depending on the Internet Explorer that you have, do the following:

     - Internet Explorer 6.0:
       - Click **Delete Files…** in the **Temporary Internet Files** section.
     - Internet Explorer 7.0:
       - Click **Delete…** in the **Browsing History** section.
       - Click **Delete Files…** in the **Temporary Internet Files** section.
     - Internet Explorer 8.0:
       - Click **Delete…** in the **Browsing History** section.
       - Click **Delete**.

  5. Click **OK**.

- **Verify settings for temporary internet files within Internet Explorer and set up file caching:**

  1. Open Internet Explorer.
  2. Select **Internet Options** on the **Tools** menu.
  3. Select the **Advanced** tab. Scroll down to the Security section and make sure that **Empty Temporary Internet Files folder when browser is closed** option is **NOT** checked.
  4. Select the **General** tab.
  5. Depending on the Internet Explorer version that you have, do the following:

     - *Internet Explorer 6.0*:
       - Click **Settings…** in the **Temporary Internet Files** section.
       - Select the **Automatically** button to check for newer versions of stored pages.

     - *Internet Explorer 7.0 and 8.0*:
       - Click **Settings…** in the **Browsing History** section.
       - Select the **Automatically** button to check for newer versions of stored pages.

  6. Verify that the **Amount of Disk Space to Use** is set to no less than 200MB.

  7. Click **OK**.

4.4 If Running SPARS Web via a Proxy Server

If you are running SPARS Web through a Proxy Server, you must ensure that the Advanced Setting **HTTP 1.1 through proxy connections** remains enabled.

NOTE: These instructions are only necessary if a Proxy Server is used.

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Advanced** tab.
4. Scroll down to the **HTTP 1.1 Settings** section.
5. Select **Use HTTP 1.1** if it is not currently selected.
6. Select **Use HTTP 1.1 through proxy connections** if it is not currently selected.
7. Click **Apply** and then **OK**.

4.5 Adjust Internet Security Settings

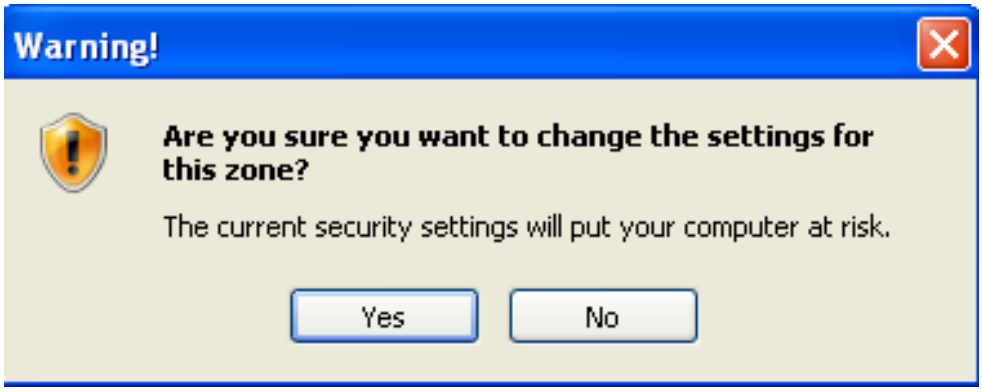
In order for SPARS Web to be set up on your machine, you must make sure that your internet security is set correctly. SPARS Web uses a version of *Appeon* (5.0 Xcelerator) and other functions that require specific security settings.

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select the **Internet** zone.
5. Click **Custom Level…** at the bottom of the box.
6. The following settings must be in place to set up SPARS Web. Your computer might already have these selections in place, depending on the security level that you have set. Additionally, these options may or may not be available to you depending on the Internet Explorer version or Service Pack that you have:
   - Download signed ActiveX controls – select **Enable**.
   - Download unsigned ActiveX controls – select **Prompt**.
   - Initialize and script ActiveX controls not marked as safe for scripting – select **Prompt**.
   - Run ActiveX controls and plug-ins – select **Enable**.
   - Script ActiveX controls marked safe for scripting – select **Enable**.
   - File download – select **Enable**.
   - Active scripting – select **Enable**.

   - *Internet Explorer 6.0*:
     - Allow paste operations via script – select **Enable**.
     - Allow active content to run in files on My Computer – select **Enable**.
   - *Internet Explorer 7.0 and 8.0*:
     - Allow websites to prompt for information using scripted windows – select **Enable**.

7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

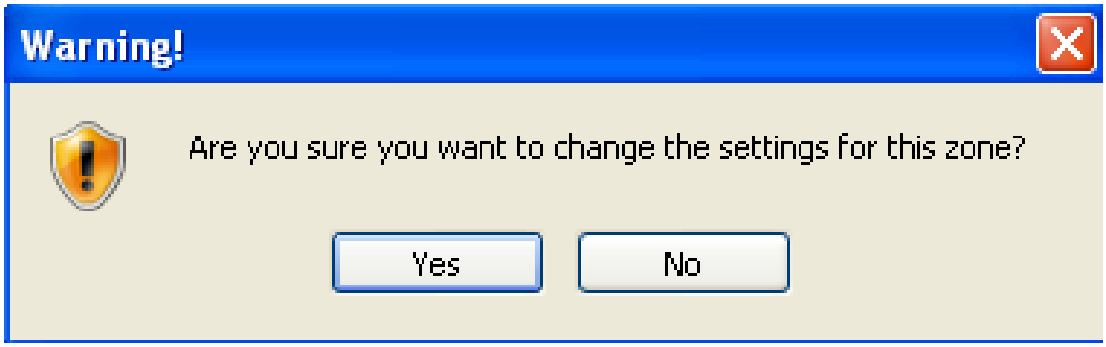
8. Click **OK**.

4.6 Adjust Trusted Sites Security Settings

You must make sure that your "trusted sites" security is set correctly. SPARS Web uses a version of *Appeon* (5.0 Xcelerator) and other functions that require specific "trusted sites" security settings.

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select the **Trusted Sites** zone.
5. Click **Custom Level…** at the bottom of the box.
6. If available, make sure that the following settings are selected. Your computer might already have these selections in place, depending on the security level that you have set. Additionally, these options may or may not be available to you depending on the Internet Explorer version or Service Pack that you have:
    - Download signed ActiveX controls – select **Enable**.
    - Download unsigned ActiveX controls – select **Prompt**.
    - Initialize and script ActiveX controls not marked as safe for scripting – select **Prompt**.
    - Run ActiveX controls and plug-ins – select **Enable**.
    - Script ActiveX controls marked safe for scripting – select **Enable**.
    - File download – select **Enable**.
    - Active scripting – select **Enable**.
    - *Internet Explorer 6.0*:
        - Allow paste operations via script – select **Enable**.
        - Allow active content to run in files on My Computer – select **Enable**.
    - *Internet Explorer 7.0 and 8.0*:
        - Allow websites to prompt for information using scripted windows – select **Enable**.
7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

8. Click **OK**.

4.7 Adjust Additional Trusted Sites Settings

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Zone area, select the **Trusted Sites** zone.
5. Click the **Sites** button.
6. Make sure that **Require server verification (https) for all sites in this zone** is not checked. Uncheck this field if necessary.
7. Add the following web addresses to your Websites box:

    - http://*.aq41.dnraq.state.ia.us
    - http://aq41.dnraq.state.ia.us
    - http://aq48.dnraq.state.ia.us/spars

8. To add these web addresses, do the following (one web address at a time).

    - Type the web address in **Add this website to the zone** field.
    - Click the **Add** button.

9. When all the web addresses have added, click the **Close** button.

10. Click **OK**.

4.8 Check Version of Jscript.dll

You must make sure that the version of *jscript.dll* on your PC is the correct version.

1. In Windows Explorer open the *\WINNT\system 32* folder.
2. Scroll down and locate the *jscript.dll* file.
3. Right-click on this file name and select **Properties**.
4. Select the **Version** tab. The version must be at least *5.6.x.xxxx*. If the version number is older than *5.6.x.xxxx* (a smaller number), download the newer version at:

   http://www.microsoft.com/downloads/details.aspx?FamilyID=c717d943-7e4b-4622-86eb-95a22b832caa&DisplayLang=en

4.9 Disable Internet Anti-popup/Anti-Virus Software

In order to have *Appeon* correctly installed in your computer, anti-popup software must be disabled. After installation, the anti-popup software can be enabled. Additionally, it is recommended that your anti-virus software be temporarily disabled until you have completed the SPARS installation. Once you have completed the installation, the anti-virus software may be enabled.

4.10 Install *Appeon*

1. Open Internet Explorer.
2. On the web browser, type this address: http://aq48.dnraq.state.ia.us/spars
3. If the download does not automatically start, you should be directed to a page to manually install the application. You may need administrator rights on your computer to install the Java applet needed to connect you to SPARS Web.
4. If prompted, choose the following:
   - Install ActiveX
   - Trust this site
   - Always allow popups from this site
5. When the installation is complete, close Internet Explorer.

4.11 Re-adjust Internet Security Settings

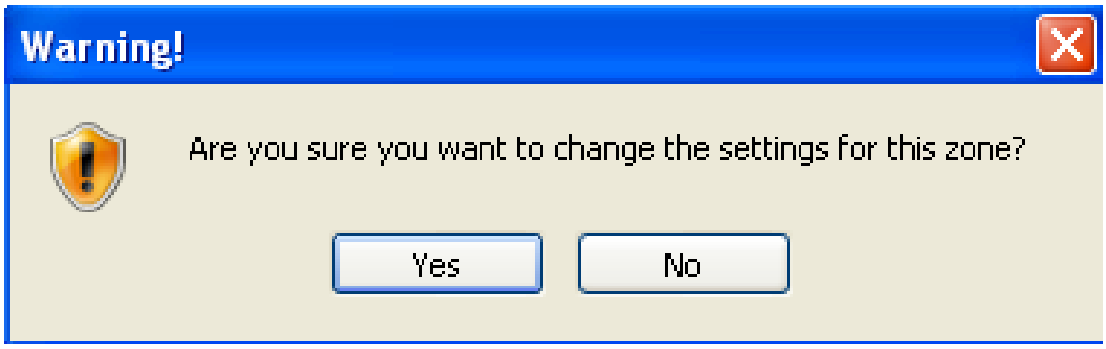
1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select **Internet**.
5. Click **Custom Level…** at the bottom of the box.
6. Make the following security setting selections:
   - Download signed ActiveX controls – select **Prompt**.
   - Download unsigned ActiveX controls – select **Disable**.
   - Initialize and script ActiveX controls not marked as safe for scripting– select **Disable**.
   - Run ActiveX controls and plug-ins – select **Enable**.
   - Script ActiveX controls marked safe for scripting – select **Enable**.
   - File download – select **Enable**.

- Active scripting – select **Enable**.

- *Internet Explorer 6.0*:
  - Allow paste operations via script – select **Enable**.
  - Allow active content to run in files on My Computer – select **Enable**.
- *Internet Explorer 7.0 and 8.0*:
  - Allow websites to prompt for information using scripted windows – select **Enable**.

7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

8. Click **OK**.

4.12 Re-adjust Trusted Site Security Settings

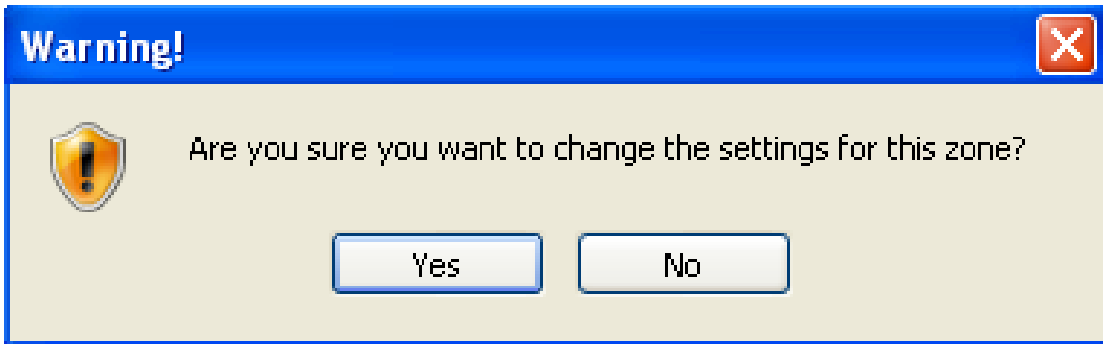
1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select the **Trusted Sites** zone.
5. Click **Custom Level…** at the bottom of the box.
6. Make the following security setting selections:
   - Download signed ActiveX controls – select **Prompt**.
   - Download unsigned ActiveX controls – select **Disable**.
   - Initialize and script ActiveX controls not marked as safe for scripting – select **Disable**.
   - Run ActiveX controls and plug-ins – select **Enable**.
   - Script ActiveX controls marked safe for scripting – select **Enable**.
   - File download – select **Enable**.
   - Active scripting – select **Enable**.

   - *Internet Explorer 6.0*:
     - Allow paste operations via script – select **Enable**.
     - Allow active content to run in files on My Computer – select **Enable**.
   - *Internet Explorer 7.0 and 8.0*:

- Allow websites to prompt for information using scripted windows – select **Enable**.

7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

8. Click **OK**.

9. Close Internet Explorer.

4.13 Create a SPARS Web shortcut

Creating a SPARS Web shortcut using the correct URL will ensure your access to the *Appeon* logging screen regardless of any SPARS upgrades installed by the DNR.

1. Right-click inside the Windows desktop and select **New**.
2. Select **Shorcut**.
3. Inside the text box, type the following location: http://aq48.dnraq.state.ia.us/spars
4. Click **Next**.
5. Inside the text box, type: **SPARS Web**
6. Click **Finish**
7. Next time you need to access SPARS Web, place your cursor on this shortcut and double-click the left side of your mouse.

Uninstalling Appeon

To uninstall Appeon:

1. Access your hard drive to find the file named "EonUISpace Class." This file is commonly found in *C:\WINDOWS|Downloaded Program Files*.

2. Delete the EonUISpace Class file.

Once this file is deleted, you will no longer be able to access SPARS Web. To access SPARS Web, Appeon must be re-installed as instructed in this doc

5.0 Querying in Site Management

As mentioned before, Site Management is where information regarding your site, emission points, emissions units, control equipment, and monitoring equipment is kept. You may query for your facility's Site Management information as follows:

5.1 Querying for site information:

1. From the **Site Management** menu, select Sites.

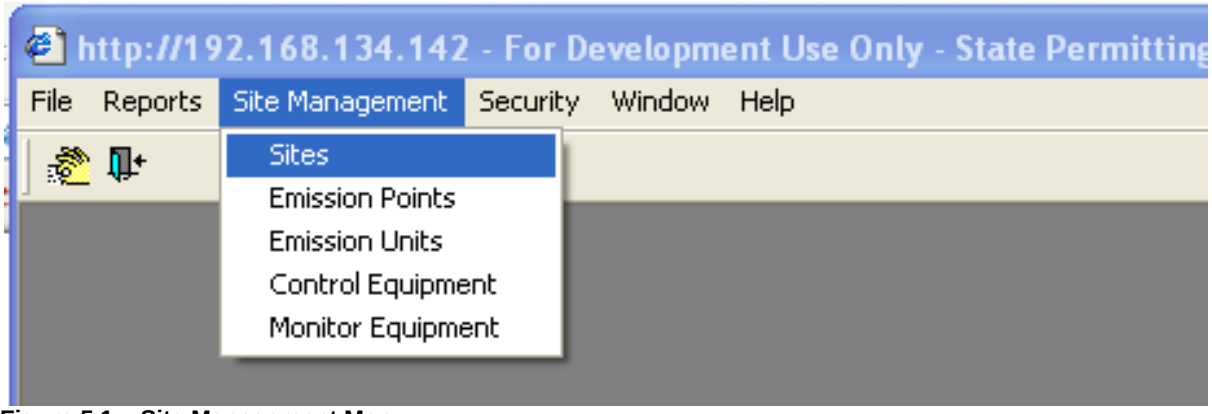


Figure 5.1 – Site Management Menu

2. Select one of your sites by using the **Select Site Name** pull down list **OR** by using the **Select Site ID** pull down list. The number of sites included in your pull-down list will depend on which sites you have been given access to by AQB or your Facility Administrator.

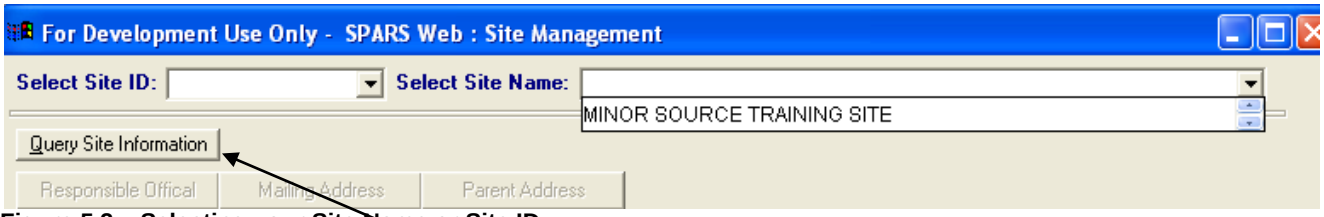


Figure 5.2 – Selecting your Site Name or Site ID

3. Once the site has been selected, click the **Query Site Information** button to display the site information as shown in Figure 5.3.

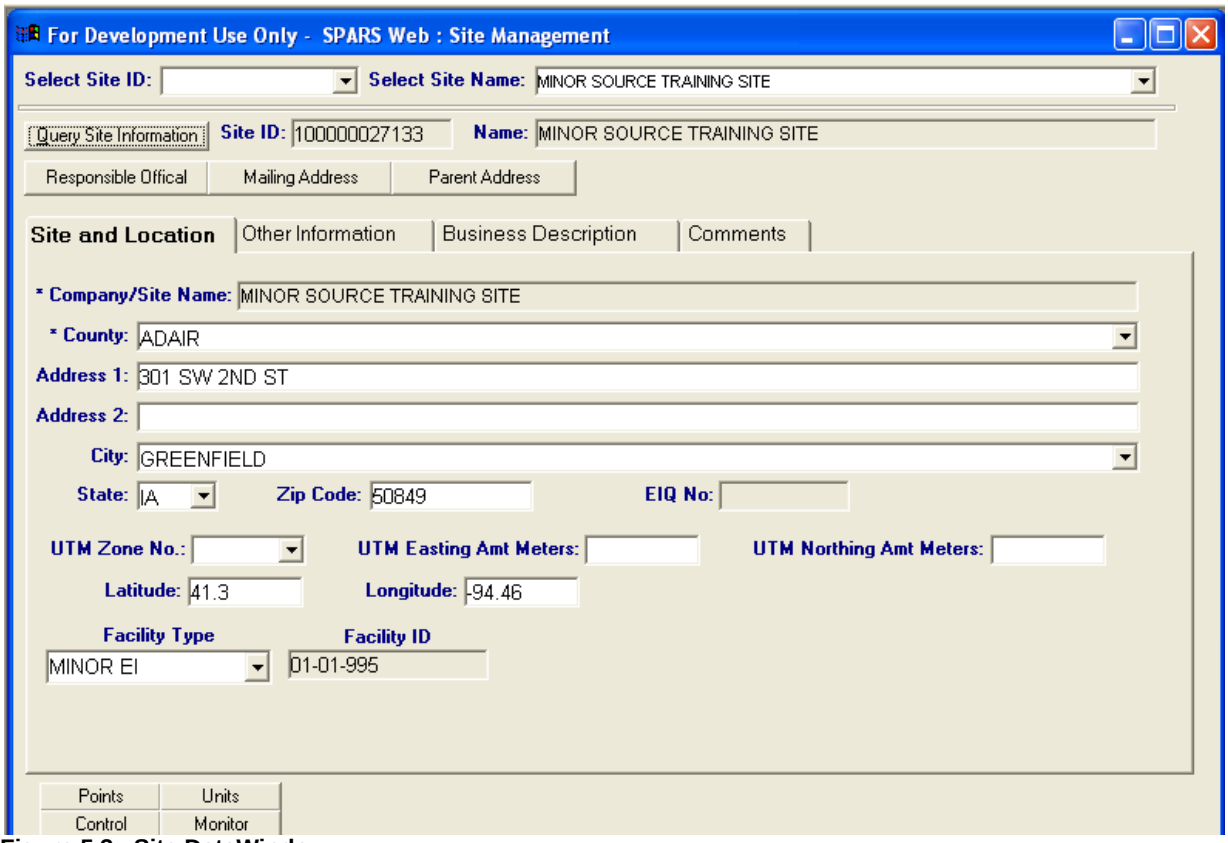


Figure 5.3 –Site DataWindow

5.2 Querying for emission points, emissions units, control equipment, or monitoring equipment:

There are two ways to query for information regarding emission points, emissions units, control equipment, or monitoring equipment.

One way…

1. From the **Site Management** menu, select **Emission Points**, <u>or</u> **Emission Units**, <u>or</u> **Control Equipment**, <u>or</u> **Monitoring Equipment**.

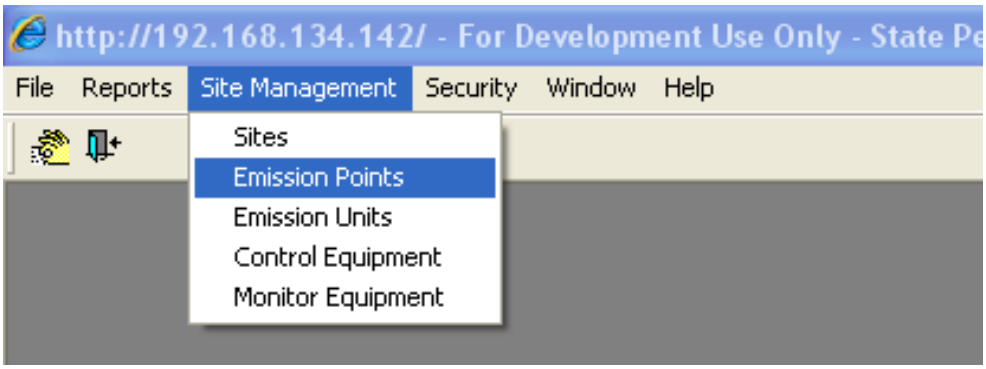


Figure 5.4 – Querying for a facility's emission point information

2. Select one of your sites by using the **Select Site Name** pull down list **OR** by using the **Select Site ID** pull down list.

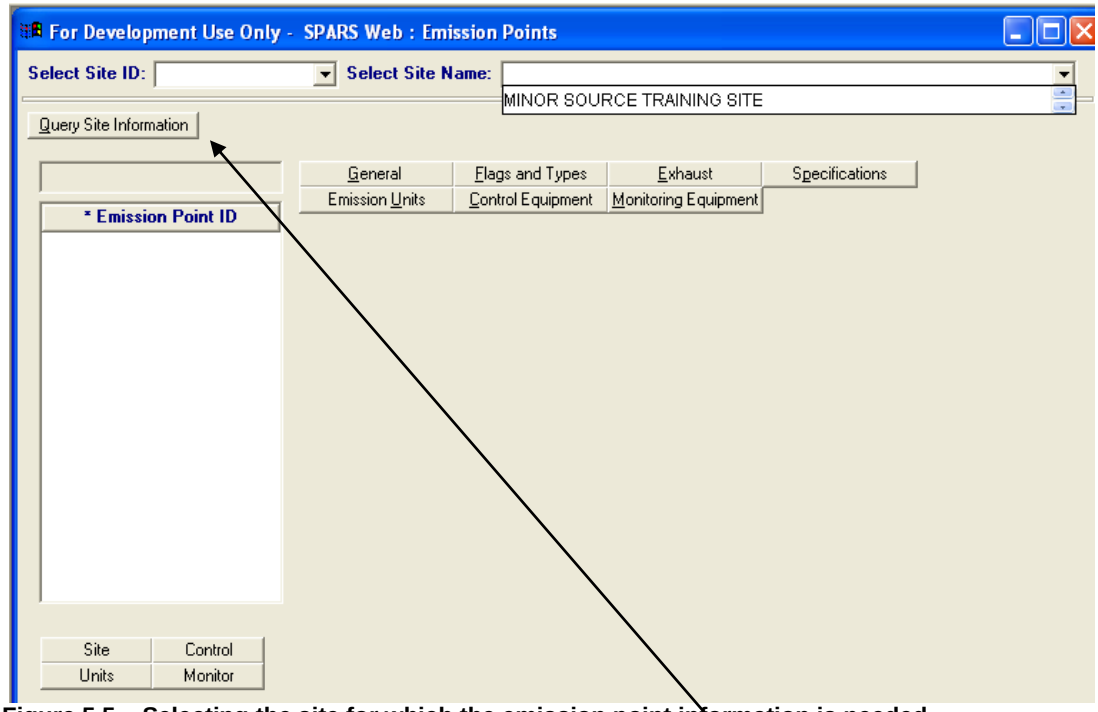


Figure 5.5 – Selecting the site for which the emission point information is needed.

3. Once the site has been selected, click the **Query Site Information** button to display the emission point as shown in Figure 5.6.

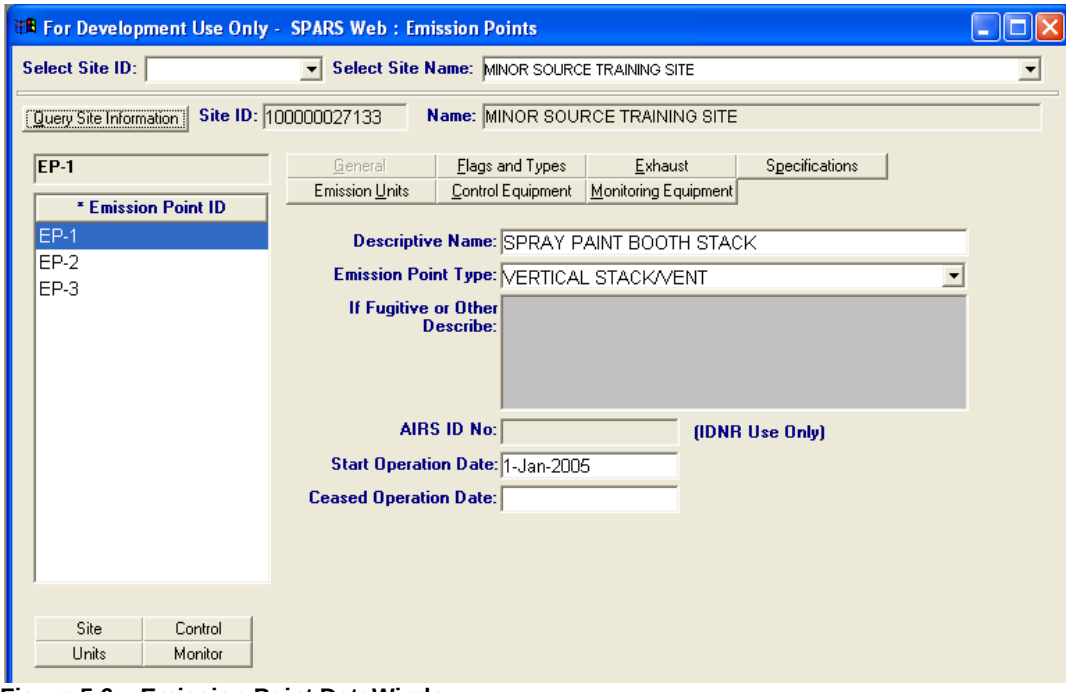


Figure 5.6 – Emission Point DataWindow

The other way…

1. From the **Site Management** menu, select Sites.

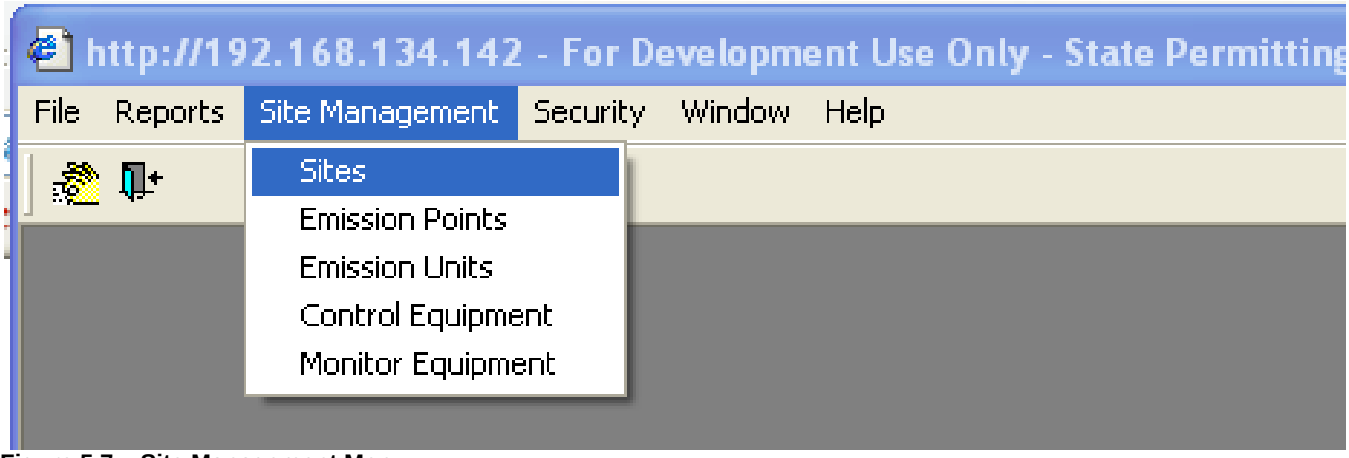


Figure 5.7 – Site Management Menu

2. Select one of your sites by using the **Select Site Name** pull down list **OR** by using the **Select Site ID** pull down list. The number of sites included in your pull-down list will depend on which sites you have been given access to by AQB or your Facility Administrator.

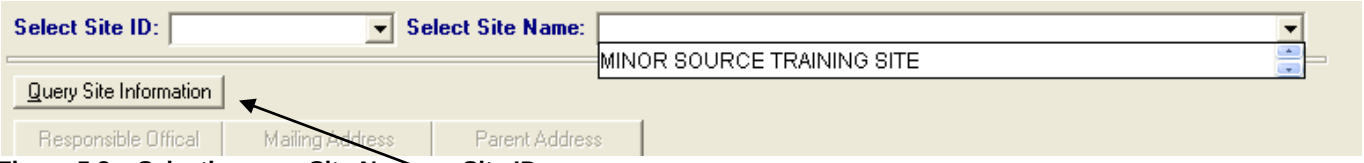


Figure 5.8 – Selecting your Site Name or Site ID

3. Once the site has been selected, click the **Query Site Information** button to display the site information as shown in Figure 5.9.

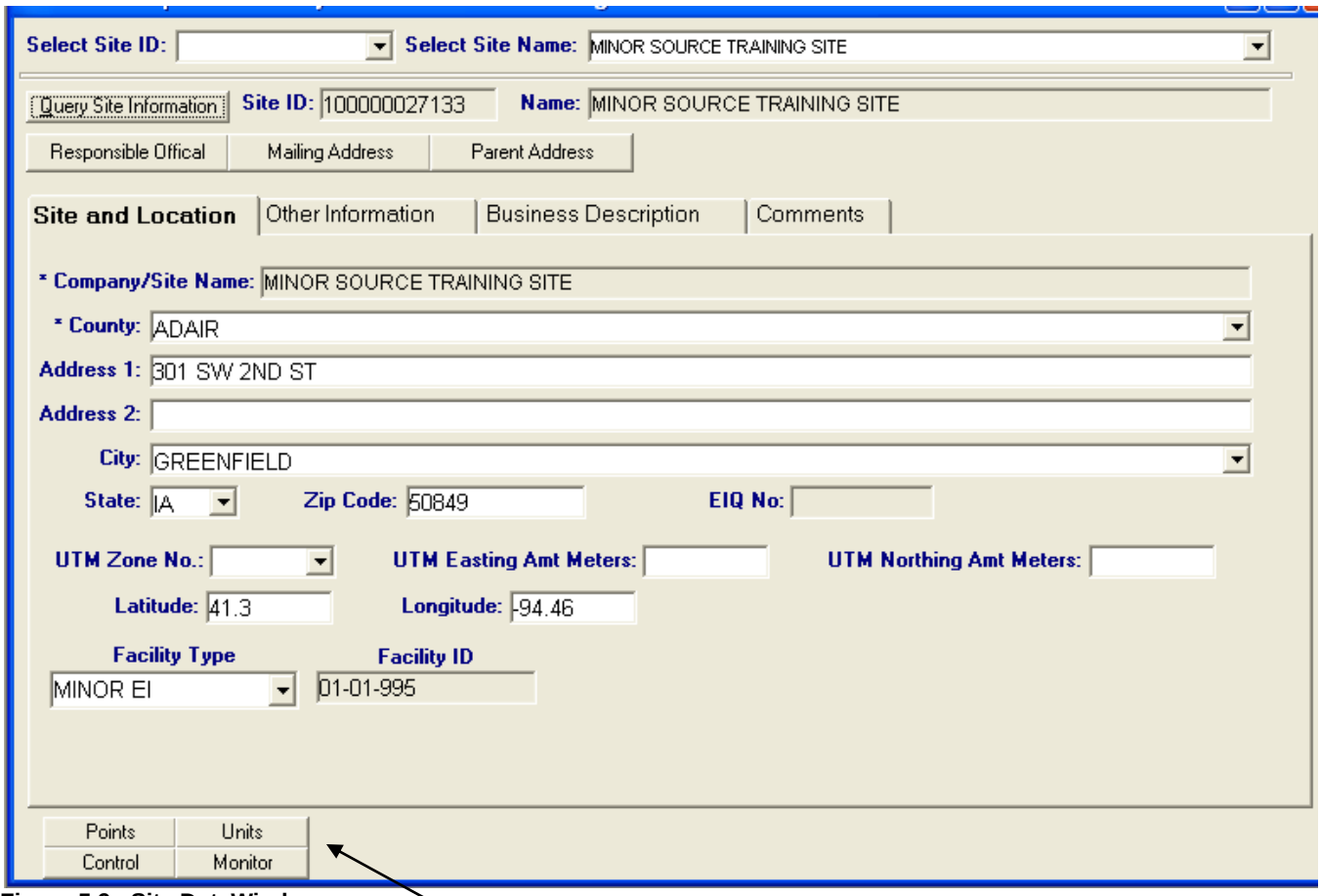


Figure 5.9 –Site DataWindow

4. Click on any of the four buttons in the lower left corner of the Site Management DataWindow. These buttons allow access to information about the facility's emission points, emissions units, control equipment, and monitoring equipment.

6.0 Updating your Facility's Site Management Information

Please make sure that you update your facility's Site Management information <u>prior</u> to creating your Minor Source emissions inventory. Please call us if you need help with this.

Updating the data in Site Management includes:

- Correcting or adding information such as business description, SIC code, NAICS code, facility classification, number of employees, responsible official contact information, mailing address, and/or parent company address. **Do not make any changes to the information displayed on the Site and Location tab (see Figure 5.9). If changes are needed to the information included under this tab, please contact the AQB, since this information affects other AQB/DNR databases**.

- Adding emission points, emissions units, control equipment, and/or monitoring equipment which started operation since the previous minor source inventory submittal.

- Correcting existing information regarding any of your emission points, emissions units, control equipment, and/or monitoring equipment.

- Modifying information for any of your existing emission points, emissions units, control equipment, and/or monitoring equipment, based on most recent construction permits.

- Entering the "Cease Operation Date" for all emission points, emissions units, control equipment, or monitoring equipment no longer operating at your facility.

- Disconnecting all emission points, emissions unit, control equipment, or monitoring equipment no longer operating at your facility.

When creating or updating emission points, emissions units, control equipment, or monitoring equipment, follow this order: (1) monitoring equipment, (2) control equipment, (3) emissions unit, and (4) emissions point.

<u>IMPORTANT</u>:
Site Management keeps an inventory of past and present units, points, control equipment, and monitoring equipment. Deleting or modifying these, will affect previously submitted applications and inventories. Therefore, **never** delete these from Site Management, even when one or more of them are no longer in operation at your facility. Instead, enter a cease operation date in the appropriate Site Management fields. If the equipment ID needs to be modified, please contact us.

6.1 Updating Site Information:

1. Query the site information for the site that you will be working on (see Section 5.0).

2. Update the **Other Information** tab if needed.

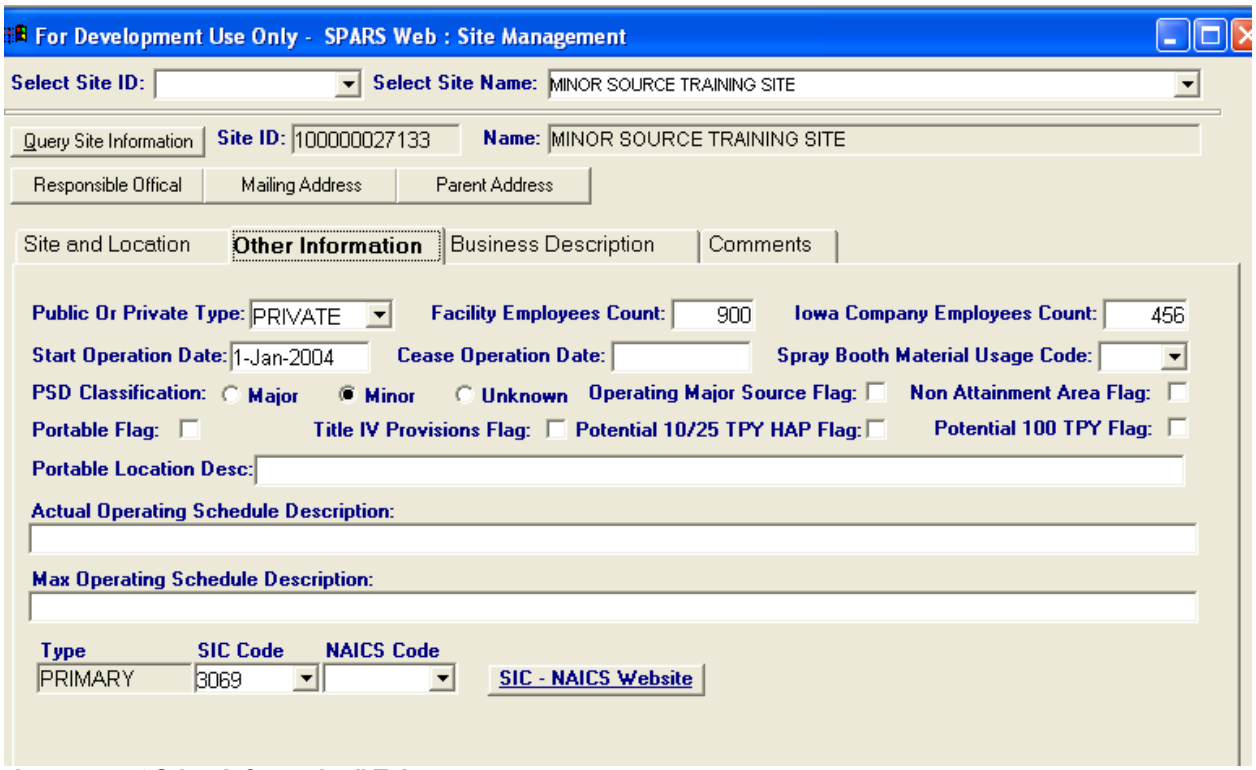


Figure 6.1 – "Other Information" Tab

3. Under the **Other Information** tab, you may add or delete a Secondary and Tertiary SIC code and/or NAICS code. To do this, right-click underneath the field that says "PRIMARY" and choose "Add" or "Delete."

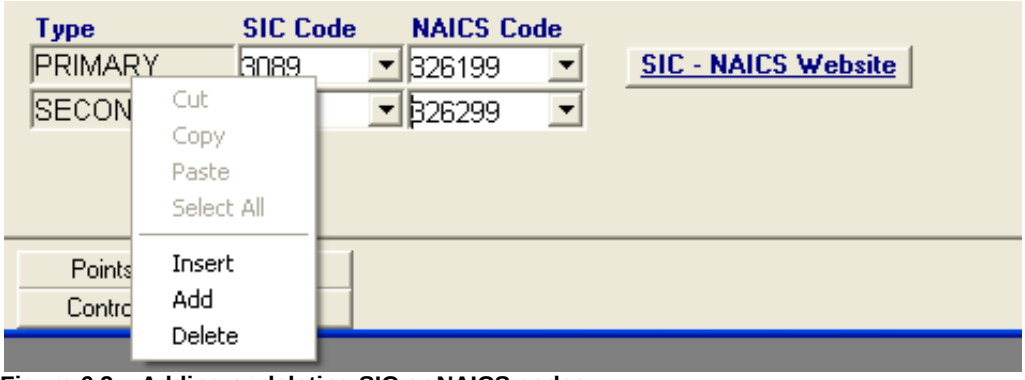


Figure 6.2 – Adding or deleting SIC or NAICS codes

4. Update the **Business Description** and the **Comments** tabs if needed.

5. Update the **Responsible Official**, the **Mailing Address**, and/or **Parent Address** tabs if needed:

- Click the appropriate button: **Responsible Official**, **Mailing Address,** or **Parent Address**.
- A window opens. Enter the address information. If the address information is the same as the location address, click the button at the bottom of the window to copy the location address.
- Click the **X** on the top right corner. A box opens asking: "Do you want to save changes?" Click "**Yes**" to save changes and close window; or click "**No**" to close window without saving changes; or click "**Cancel**" to keep the window open to make any additional changes or corrections.

6.2 Updating Monitoring Equipment Information:

1. Click the Monitor Equipment button in the lower left corner of the Site Management DataWindow. The **Monitor Equipment** DataWindow appears with the **Equipment** button information displayed.

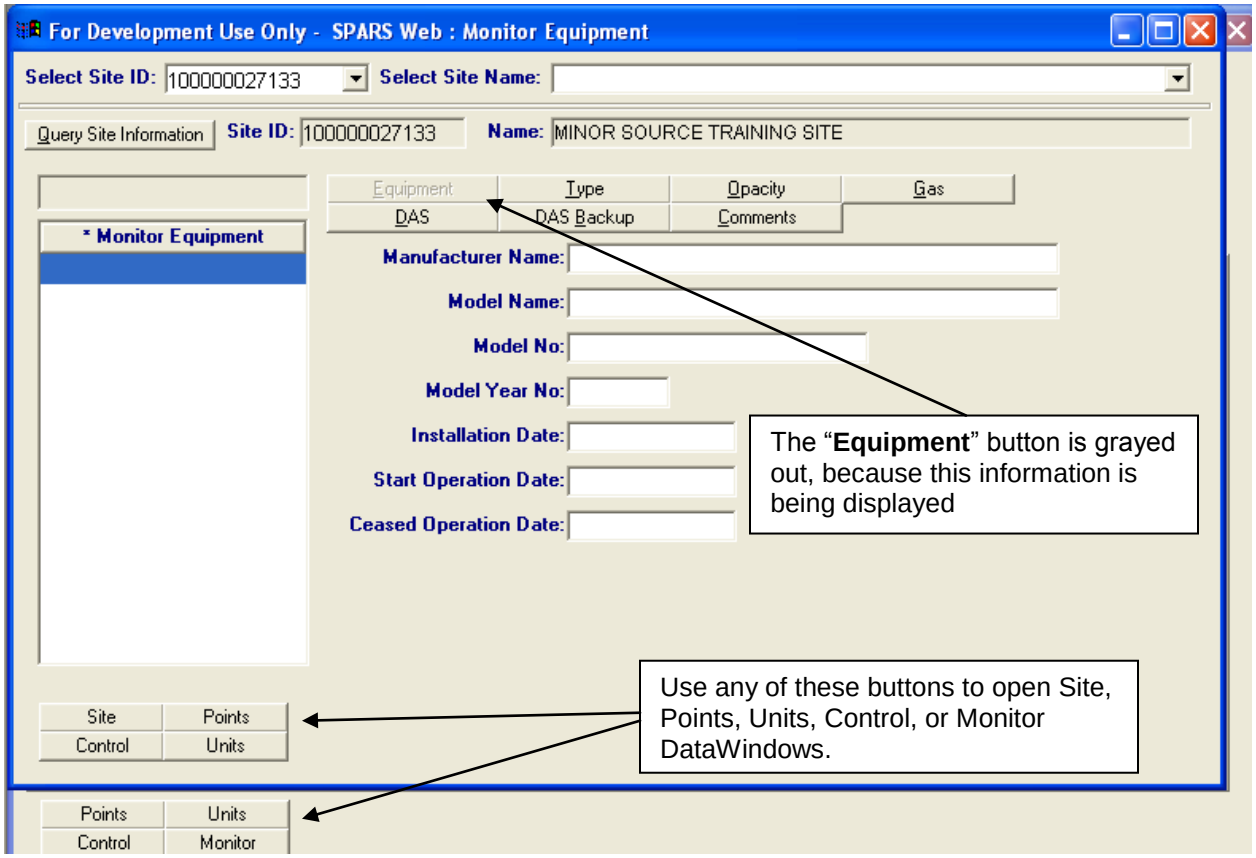


Figure 6.3 – Monitoring Equipment DataWindow

2. Review existing information and make any necessary changes. Additional information regarding monitoring equipment may be found by clicking the buttons displayed on the right side of the Monitoring Equipment DataWindow (**Type**, **Opacity**, **Gas**, **DAS**, **DAS Backup**, or **Comments**).

3. Save the monitoring equipment that you updated by clicking on the Save button on the toolbar.

4. If the monitoring equipment no longer operates at the facility, enter the "Ceased Operation Date" under the **Equipment** button. In addition, make sure to disconnect the monitoring equipment from all appropriate control equipment, emissions units, and emission points.

5. If new monitoring equipment has been installed at your facility, right-click inside the **Monitor Equipment** box and select add. Type-in the new ID in the **Monitor Equipment** box.

6. Save the monitor equipment that you created by clicking the Save button on the toolbar.

7. Fill-in the applicable text boxes on the right-hand side, including the "Start Operation Date" under the **Equipment** button. Save this information.

8. Close the Monitor Equipment DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

6.3 Updating Control Equipment Information:

1. Click the Control Equipment button in the lower left corner of the Site Management DataWindow. The Control Equipment DataWindow appears with the **Equipment** button information displayed.

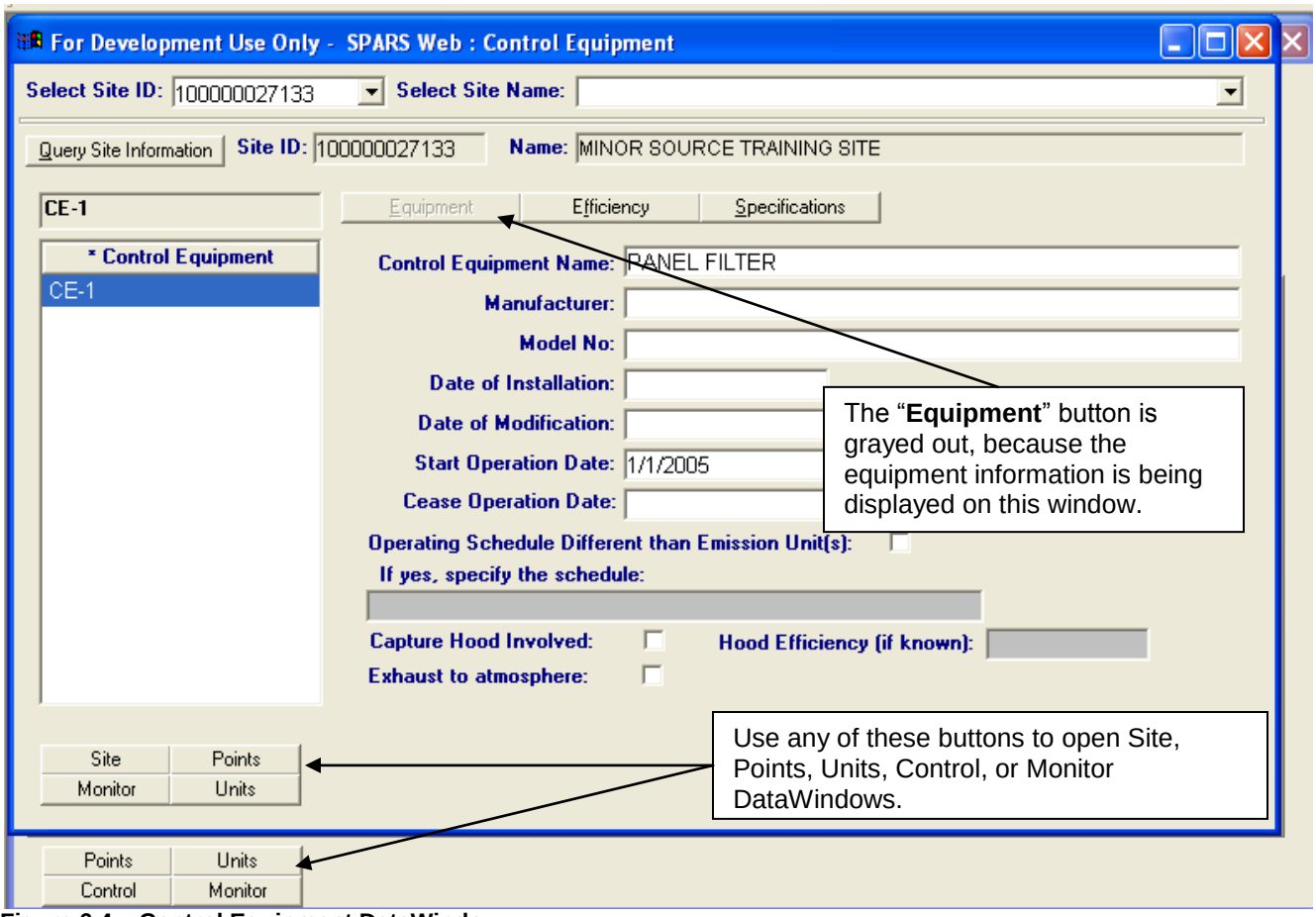


Figure 6.4 – Control Equipment DataWindow

2. Review existing information and make any necessary changes. Additional information regarding control equipment may be found by clicking the buttons displayed on the right side of the Control Equipment DataWindow (**Efficiency** or **Specifications**).

3. Save the control equipment that you updated by clicking the Save button on the toolbar.

4. If the control equipment no longer operates at the facility, enter the "Ceased Operation Date" under the **Equipment** button. I addition, make sure to disconnect the control equipment from all appropriate monitoring equipment, emissions units, and emission points.

5. If you are adding new control equipment, right-click inside the **Control Equipment** box and select Add. Type-in the new ID in the **Control Equipment** box.

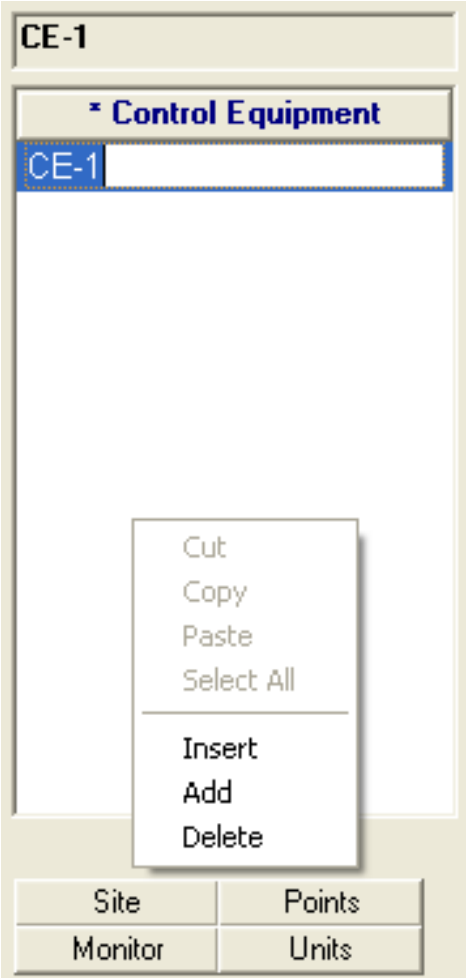


Figure 6.5 – Adding new control equipment

6. Enter a descriptive name in the **Control Equipment Name** text box located on the right side of the Control Equipment DataWindow.

7. Save the control equipment that you created by clicking the Save button on the toolbar.

8. Fill-in the applicable text boxes on the right-hand side, including the "Start Operation Date," under the **Equipment** button. Save this information.

9. Close the **Control Equipment** DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

6.4 Updating Emission Unit Information:

1. Click the Emission Units button in the lower left corner of the Site Management DataWindow. The **Emission Unit** window appears, with the **Units** button information displayed.

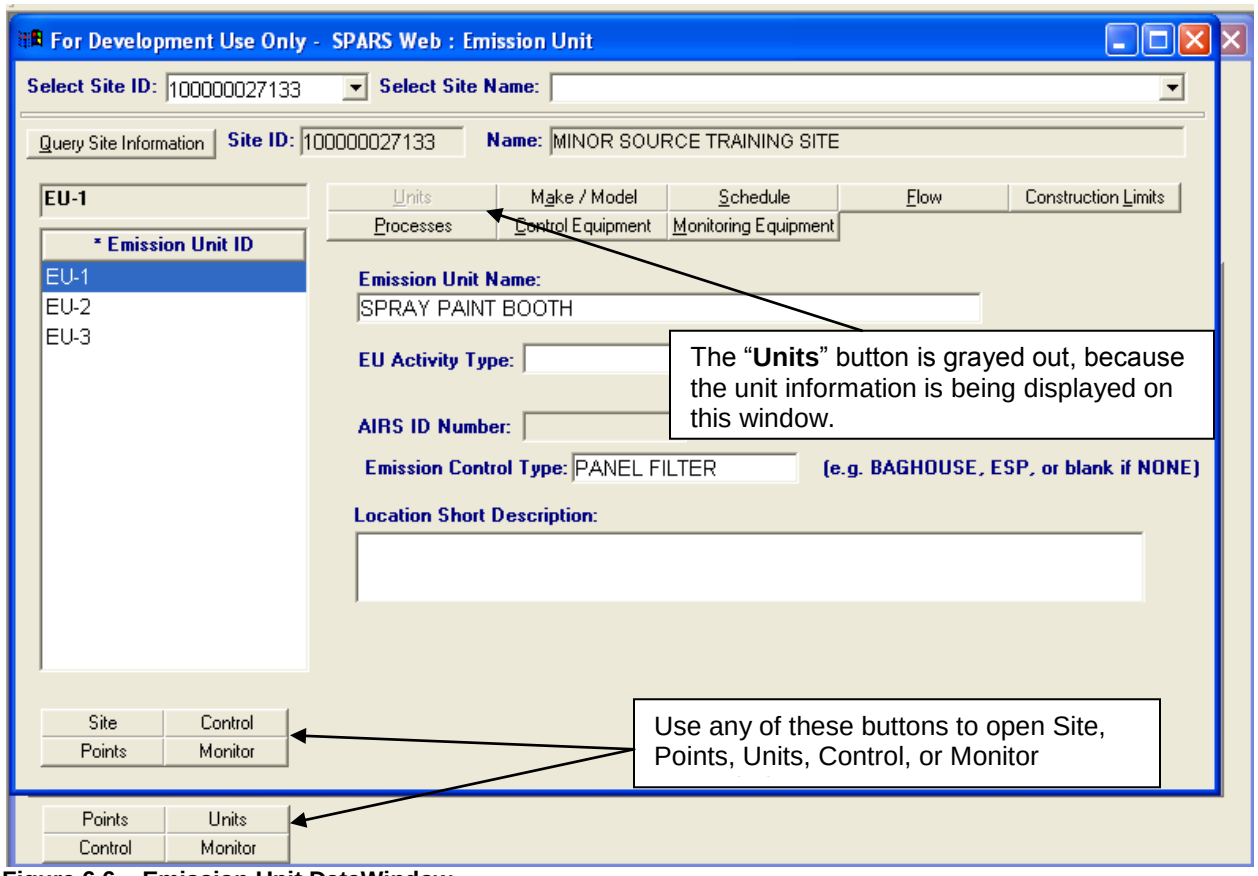


Figure 6.6 – Emission Unit DataWindow

2. Review existing information and make any necessary changes. Additional information regarding emissions units may be found by clicking the buttons displayed on the right side of the Emission Unit DataWindow (**Make/Model**, **Schedule**, **Flow**, **Construction Limits**, **Processes**, **Control Equipment**, or **Monitoring Equipment**).
3. Save the emissions unit(s) that you updated by clicking the Save button on the toolbar.

4. If an emission unit no longer operates at the facility, enter the "Ceased Operation Date" under the **Make/Model** button. In addition, make sure to disconnect the emission unit from all appropriate monitoring equipment, control equipment, and emission points.

5. If you are adding a new emission unit, right click inside the **Emission Unit ID** box and select Add. Type-in the new ID in the **Emission Unit ID** box.

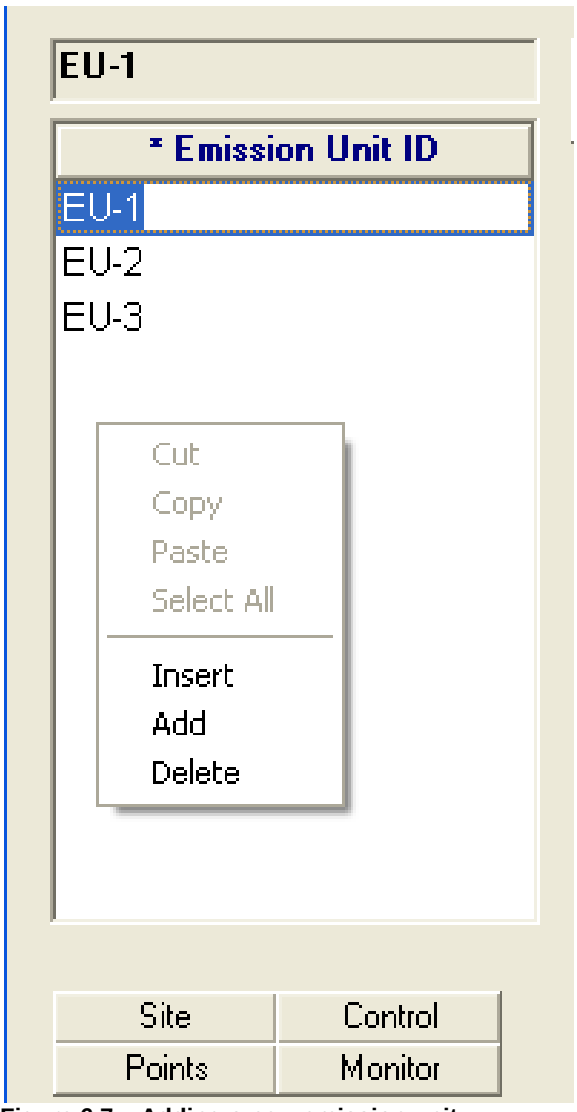


Figure 6.7 – Adding a new emission unit

6. Enter a descriptive name in the **Emission Unit Name** text box located on the right side of the Emission Unit DataWindow.

7. Save the emission unit(s) that you created by clicking the Save button on the toolbar.

8. Click the **Make/Model** button. Add manufacturer information for the emission unit. Be sure to fill out the construction, installation, and actual start operation dates for the new emissions unit. Save this information.

9. Click the **Schedule** button. Make any updates to the federally enforceable limit and enter the construction permit number on the **Permit or Rule Limit** box. Click the **Construction Limits** button to enter additional construction permit limits. Save this information.

10. Click the **Processes** button. The field above the **Emission Unit ID** box is filled in with the Unit ID that you selected. From the **SCC NO** drop down list, review or select the SCC number for the process. Provide a description of the process in the **Description of Process** field. Be

sure to fill-in the following fields: **Max Design Rate Amount**, **Max Design Rate Units**, **and Raw Material.** Save this information.

> **NOTE:** Do not leave empty the **SCC NO** and the **Description of Process**. If this information is not entered, you will not be able to bring this process into the inventory.

11. If the new emissions unit uses two different raw materials, do not create two emission units. Instead, you must create two processes with their corresponding **SCC NO** under the same unit. Click inside each **Description of Process** field to enter the maximum design rate, raw material, etc. for each **SCC NO**.

12. If you find SCCs that were mistakenly entered for one or more emissions units, delete these incorrect SCCs. To do this, highlight the line containing the SCC to be deleted, then right click and choose "Delete." A box opens asking:" Are you sure?" Click "**Yes**". Save these changes.

13. Connect the new emissions unit to control equipment: Click on the **Control Equipment** button. This is located to the right of the **Processes** button. If there is control equipment associated with this emission unit, highlight the Unit ID in the **Emission Unit ID** box, and then select the correct **Control Equipment ID** in the right hand window. Use the left pointing arrow to link the control equipment to the emission unit. Save this information.

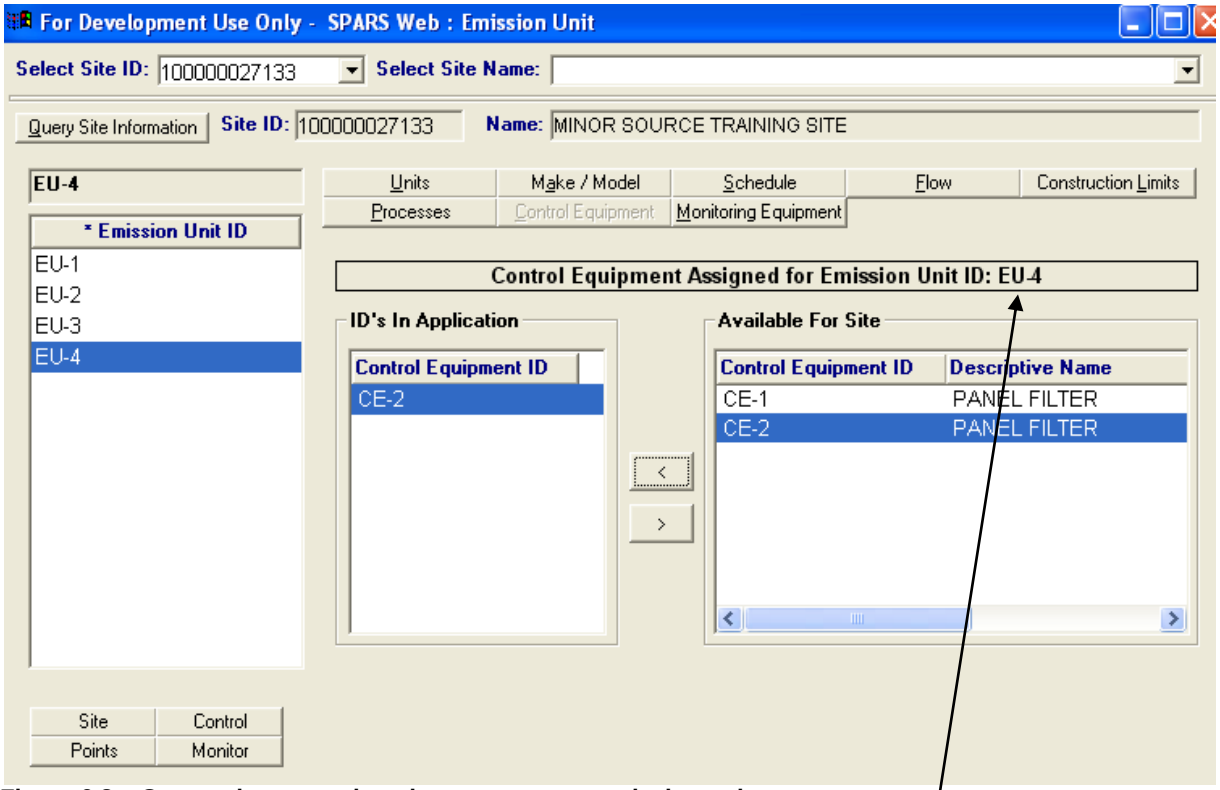


Figure 6.8 – Connecting control equipment to a new emission unit

When connecting control equipment to a new emission unit, make sure that the Unit ID appears here. If it does not, refresh this window, by closing the **Emission Unit** DataWindow and opening it again.

14. Close the **Emission Unit** DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

6.5 Updating Emissions Point Information:

1. Click the Emission Points button in the lower left corner of the Site Management DataWindow. The **Emission Point** DataWindow appears, with the **General** button information displayed.

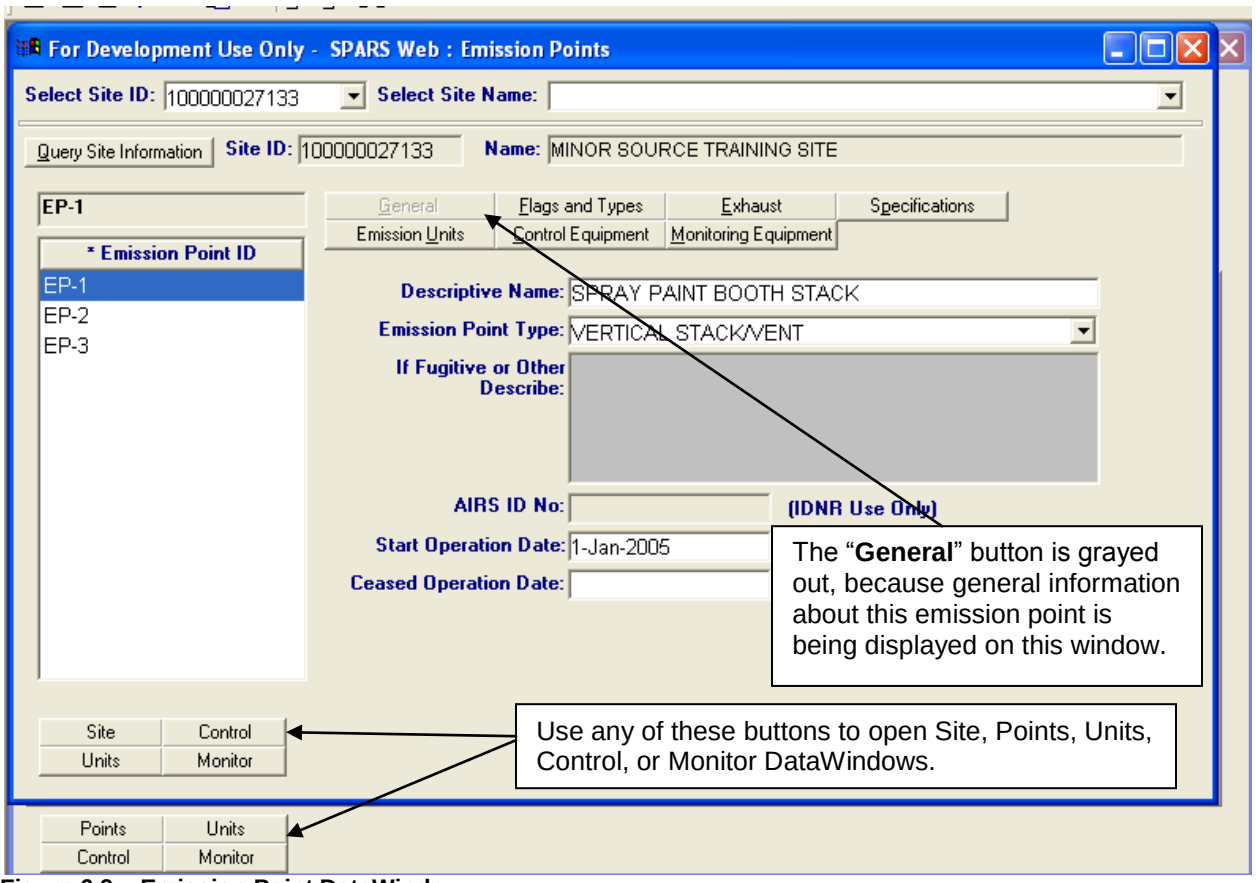


Figure 6.9 – Emission Point DataWindow

2. Review existing information and make any necessary changes. Additional information regarding emissions points may be found by clicking the buttons displayed on the right side of the Emission Point DataWindow (**Flags and Types**, **Exhaust**, **Specifications**, **Emission Units**, **Control Equipment**, or **Monitoring Equipment**).

3. Save the emissions point(s) that you updated by clicking the Save button on the toolbar.

4. If an emission point no longer operates at the facility, enter the "Ceased Operation Date" under the **General** button. In addition, make sure to disconnect this emission point from all appropriate monitoring equipment, control equipment, and emissions units.

5. If you are adding a new emission point, right click inside the **Emission Point ID** box and select Add. Type-in the new ID in the **Emission Point ID** box.

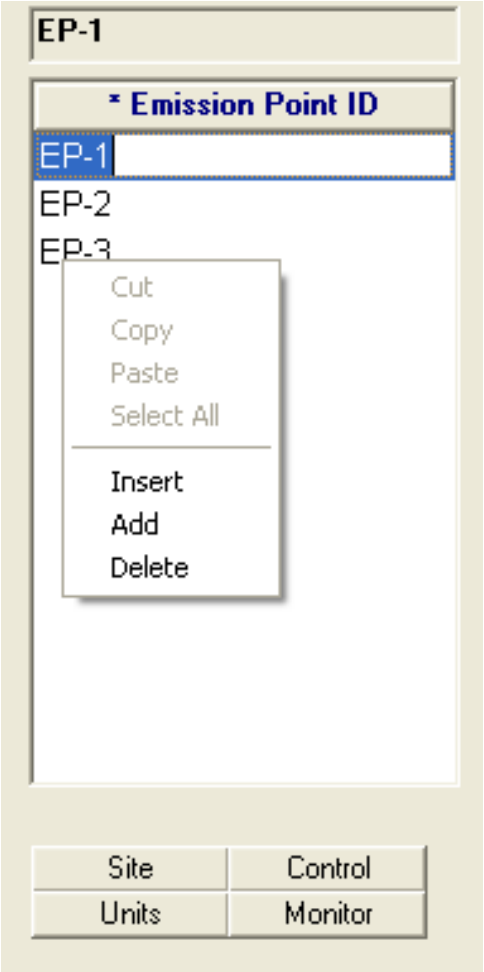


Figure 6.10 – Adding a new emission point

6. Enter a descriptive name in the **Descriptive Name** text box located on the right side of the Emission Point DataWindow.

7. Save the emission point(s) that you created by clicking the Save button on the toolbar.

8. Under the **General** tab, be sure to indicate the **Emission Point Type**: (**Vertical Stack/Vent**, **Wall Vent**, **Fugitive**, or **Other**). If the emission point type is **Fugitive** or **Other**, describe it in the text box provided. In addition, indicate the "Start Operation Date" for this emission point.

9. Click the **Flags and Types** button. Check the box for rain cap if the flow on this emission point is obstructed with a rain cap. Be sure to use the text box provided to describe any obstruction or if it is a horizontal discharge. Save this information.

10**.** Click the **Exhaust** button. Enter the exhaust flow rate, exhaust flow rate units and the exit temperature. Save this information.

11. Click the **Specifications** button. Enter the stack opening dimensions and corresponding units. Enter the stack height from ground. Check the discharge style (V, VR, or D) that best describes the emission point.

12. Connect the new emission point to the appropriate emission unit(s): (1) Highlight the Point ID in the **Emission Point ID** box, and then click the **Emission Units** button. Highlight the Unit ID in the right hand window and use the left pointing arrow to connect the emission unit and emission point together. Save this information.

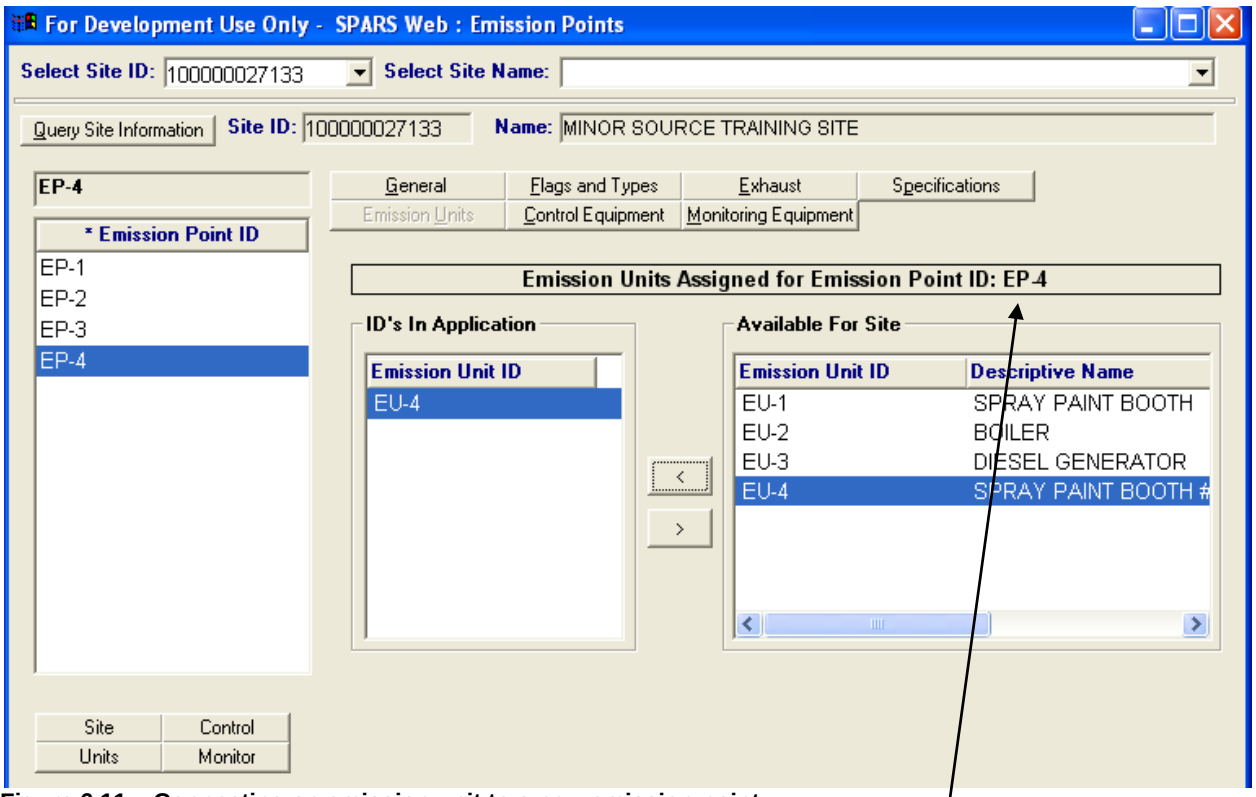


Figure 6.11 – Connecting an emission unit to a new emission point

When connecting an emission unit to a new emission point, make sure that the Point ID appears here. If it does not, refresh this window, by closing the **Emission Point** DataWindow and opening it again.

13. Connect the new emission point to the appropriate control equipment: (1) Highlight the Point ID in the **Emission Point ID** box, and then click the **Control Equipment** button. Highlight the Control Equipment ID in the right hand window and use the left pointing arrow to connect the control equipment and emission point together. Save this information.

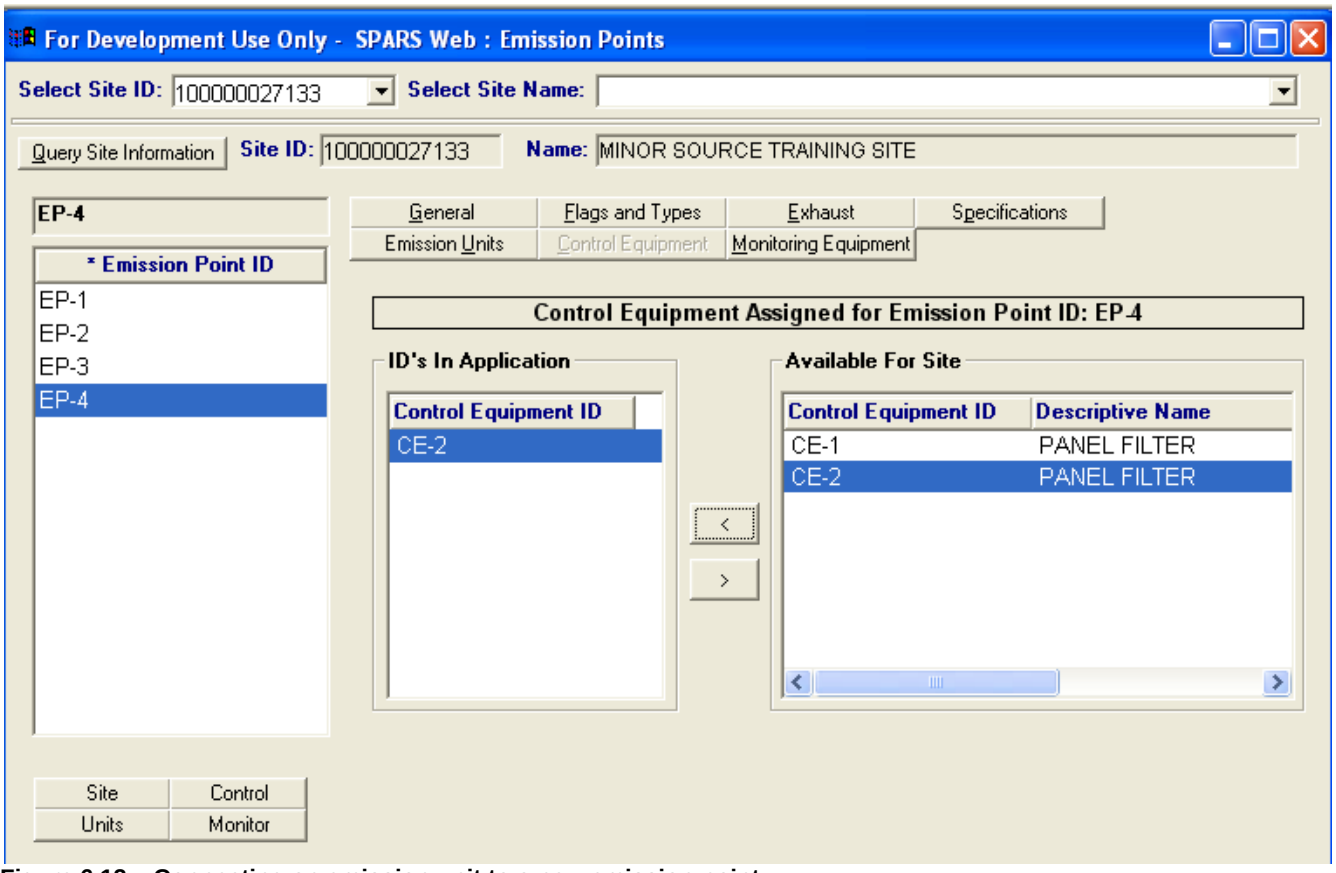


Figure 6.12 – Connecting an emission unit to a new emission point

14. Close the Emission Point DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

7.0 Querying using the Application Query Tool

As mentioned before, the Application Query Tool is a SPARS Web DataWindow, which allows the user to access, view, create, edit, or delete[6] applications and inventories.

To access the Application Query Tool, do the following:

1. Access SPARS Web as indicated in Section 3.0

2. Click the Quick Navigation Tool button (the hand). See Figure 7.1 below.

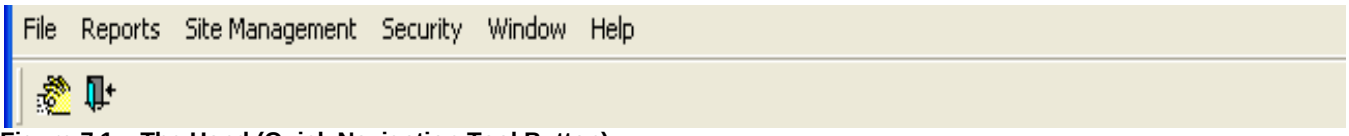


Figure 7.1 – The Hand (Quick Navigation Tool Button)

3. The Application Query Tool opens:

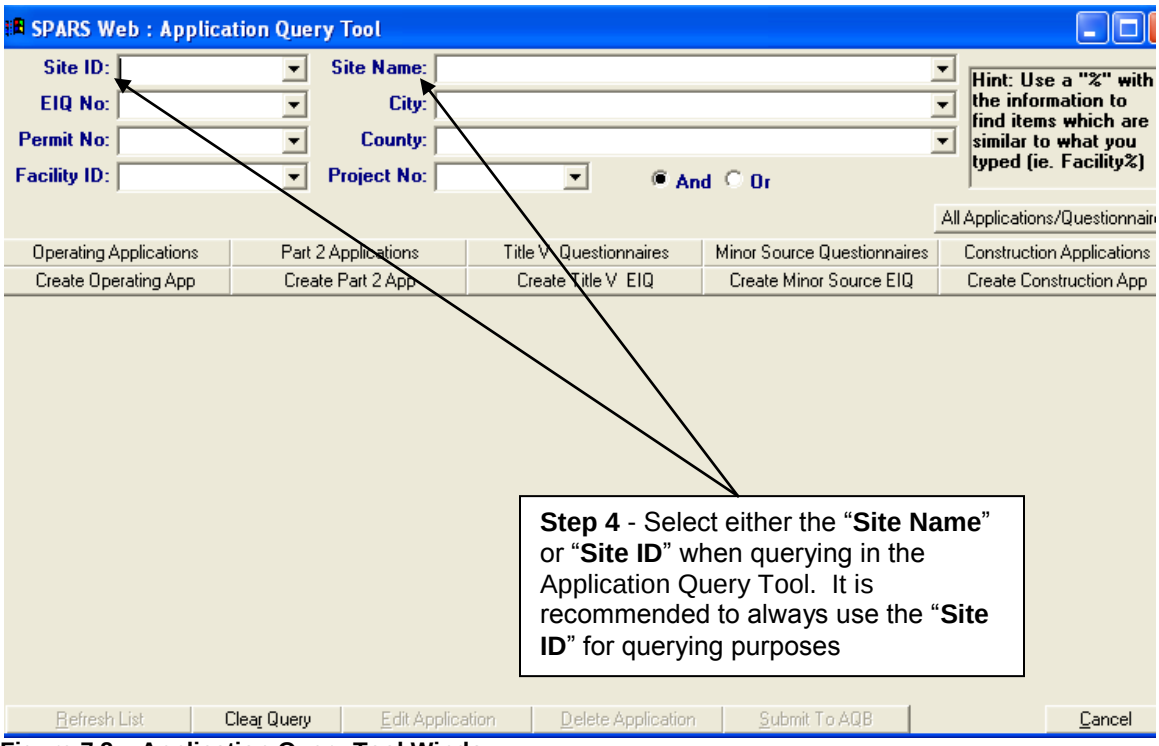


Figure 7.2 – Application Query Tool Window

4. Select **Site Name** or **Site ID** to query for electronic documents stored in SPARS for your facility. A more detailed explanation regarding using the Application Query Tool is given later in this chapter.

5. Click the **Minor Source Questionnaires** button to see existing emission inventories for the selected facility.

[6] Only applications and inventories in the INDUSTRY Phase may be deleted

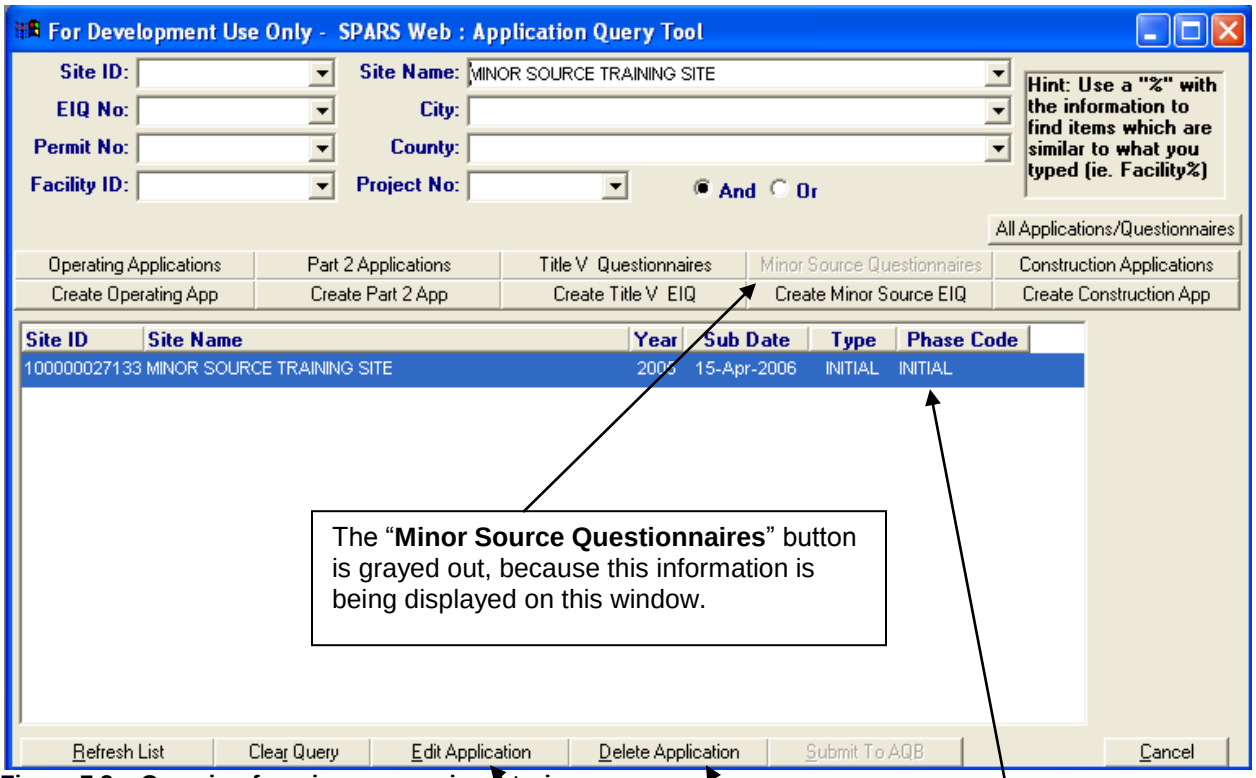


Figure 7.3 – Querying for minor source inventories

The "**Minor Source Questionnaires**" button is grayed out, because this information is being displayed on this window.

Since this inventory is in the INITIAL Phase, SPARS will not allow you to edit or delete it. If you open this inventory and attempt to see the information that it contains without using print-preview (see Chapter 10), a database error will occur and you will be disconnected from the database.

6. Sometimes applications or inventories are not pulled by querying the Application Query Tool. There are three potential reasons for this:

- The facility has changed names and there were no applications or inventories submitted under the new name.
- The Site ID and the Site Name both have been chosen, but the **And**/**Or** options have not been used correctly.
- More than two searching parameters have been used.

The global solution to this issue is to use the Site ID as the **only searching parameter**.

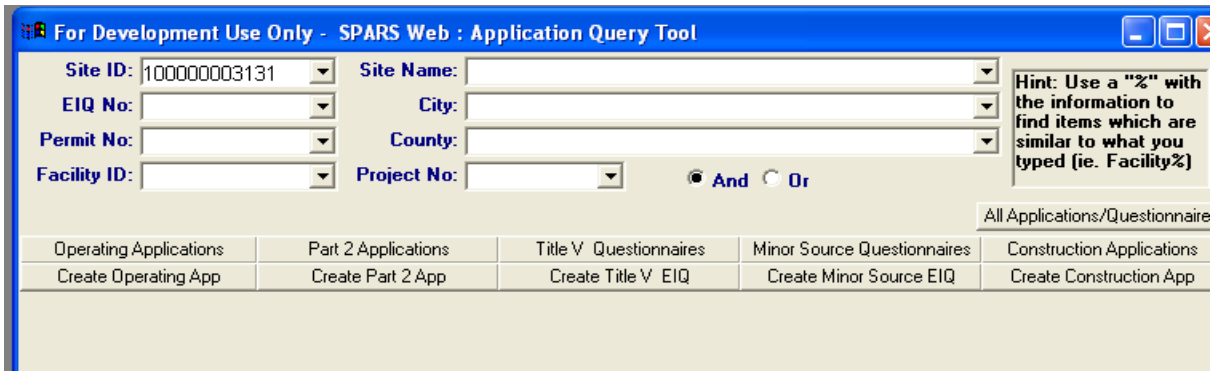


Figure 7.4 – Site ID as the only searching parameter. The And option is automatically selected.

There are times when using a second searching parameter is appropriate. In this case, please select the **Or** option.

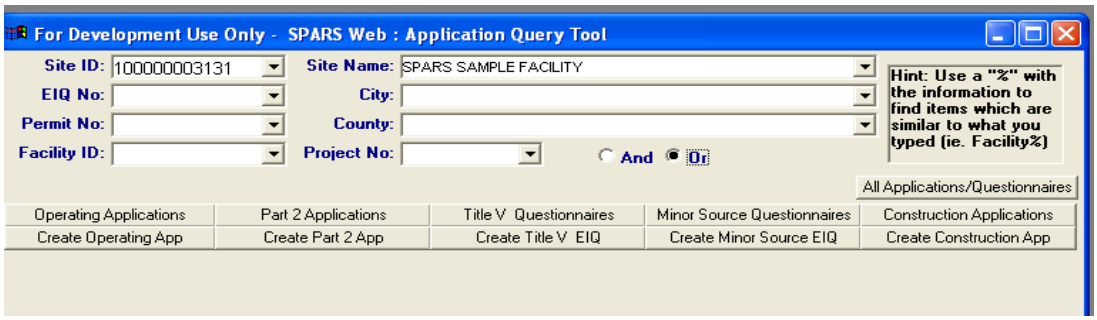


Figure 7.5 – Two searching parameters (Site ID and Site Name). The Or option must be selected.

Never use more than two searching parameters in the Application Query Tool. If this tip does not work, please call us.

8.0 Creating your Minor Source Emissions Inventory

After updating the information in Site Management, you are now ready to create the minor source inventory.

1. Open the Application Query Tool and select the facility for which you will be creating the Minor Source emissions inventory.

2. Click the **Create Minor Source EIQ** button.

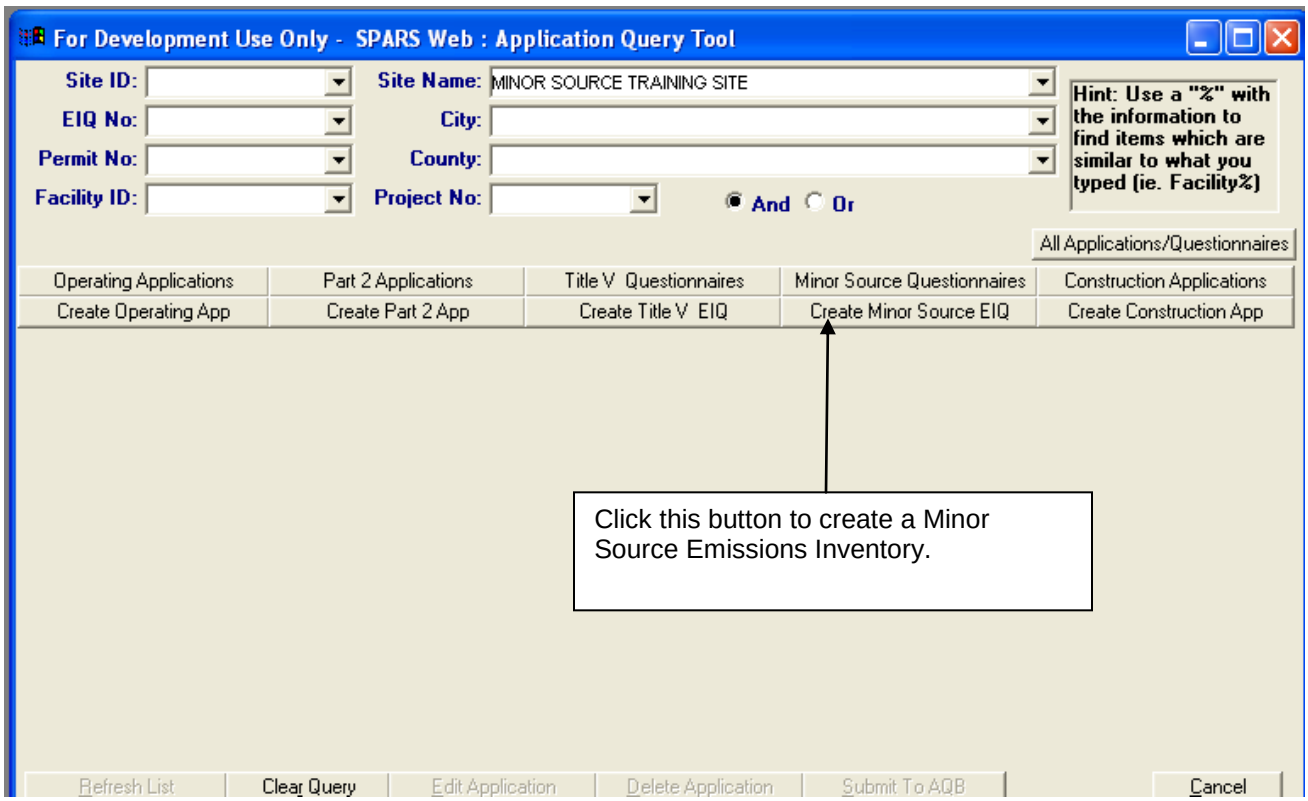


Figure 8.1 – Creating a minor source inventory

3. The **Inventory/Application Date & Year** window opens (see Figure 8.2).

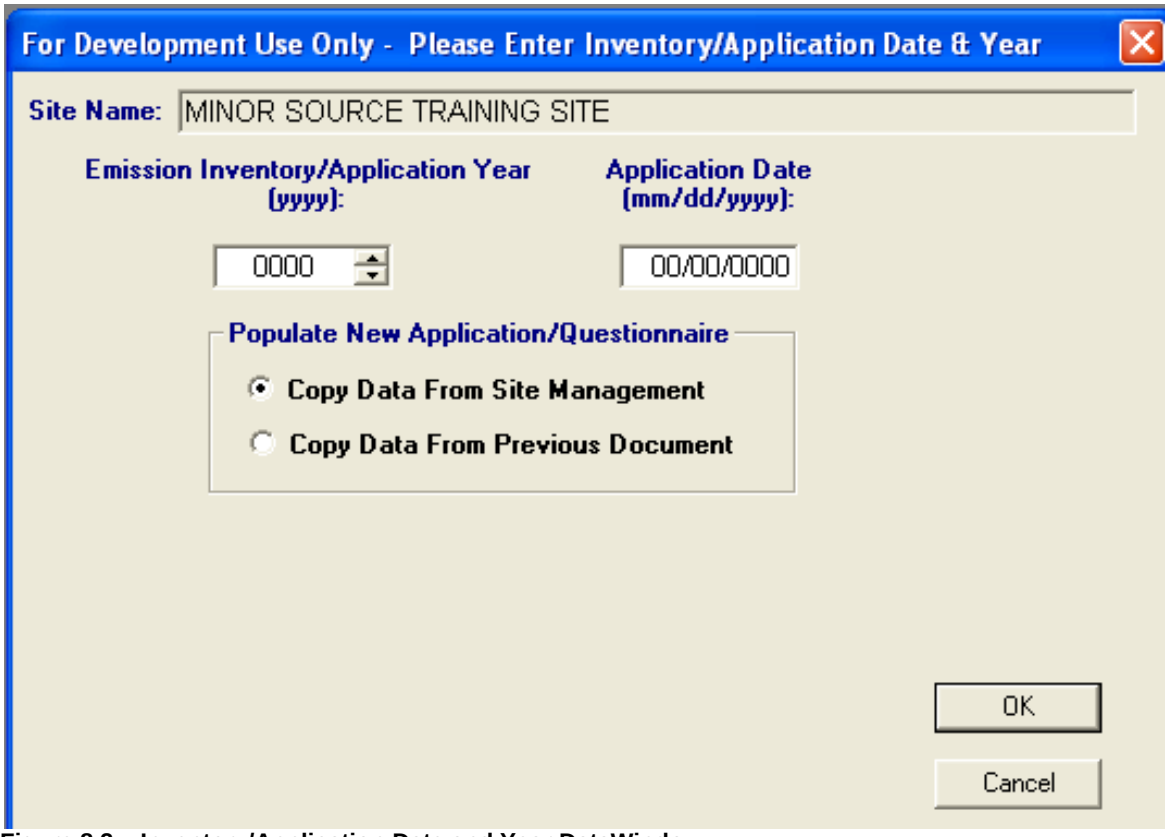


Figure 8.2 – Inventory/Application Date and Year DataWindow

4. Enter or select the correct year for your inventory in the **Emission Inventory/Application Year** field. The Year for inventories is usually the previous calendar year. If you are correcting an inventory submitted in a year other than the previous calendar year, enter the year for that inventory in the **Emission Inventory/Application Year** field.

5. Enter the correct date in the **Application Date** field. This date is the day that you begin working on the Inventory. You cannot enter a future date.

6. Choose how you would like to populate your inventory: (1) By copying data from Site Management or (2) By copying data from a previous inventory. If a previous inventory does not exist, the only choice available will be **Copy Data From Site Management**, since the **Copy Data from Previous Document** button will be grayed out. If a previous inventory exists, choose the most recent minor source inventory available.

> **NOTE:** The default selection is **Copy Data From Site Management** as shown in Figure 8.2 above. Make sure that when you are creating your inventory, you select the appropriate button (see Figure 8.3).

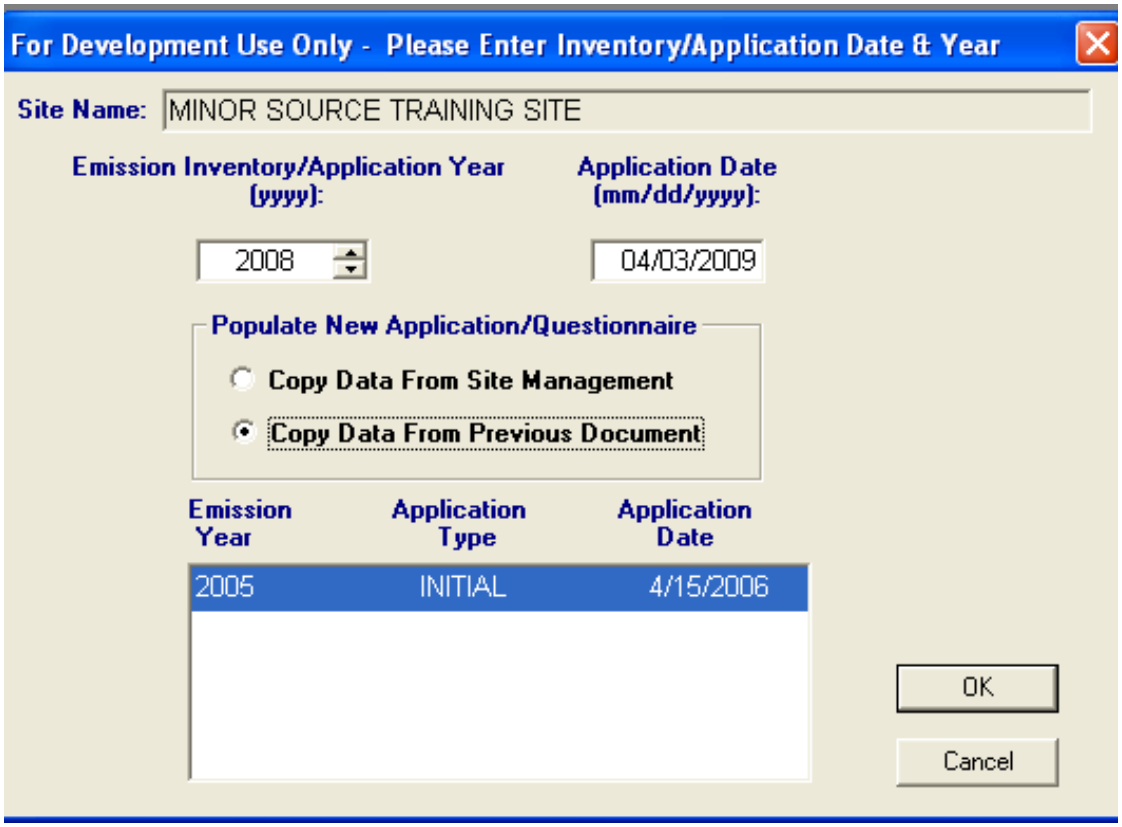


Figure 8.3 – Copying Data from Previous Document

7. Click **OK**.

8. The inventory forms will appear as depicted in Figure 8.4 (be patient; it takes a few minutes for the forms to appear). Except for the throughputs, all other information included in the emissions inventory that you selected is copied into the new inventory.

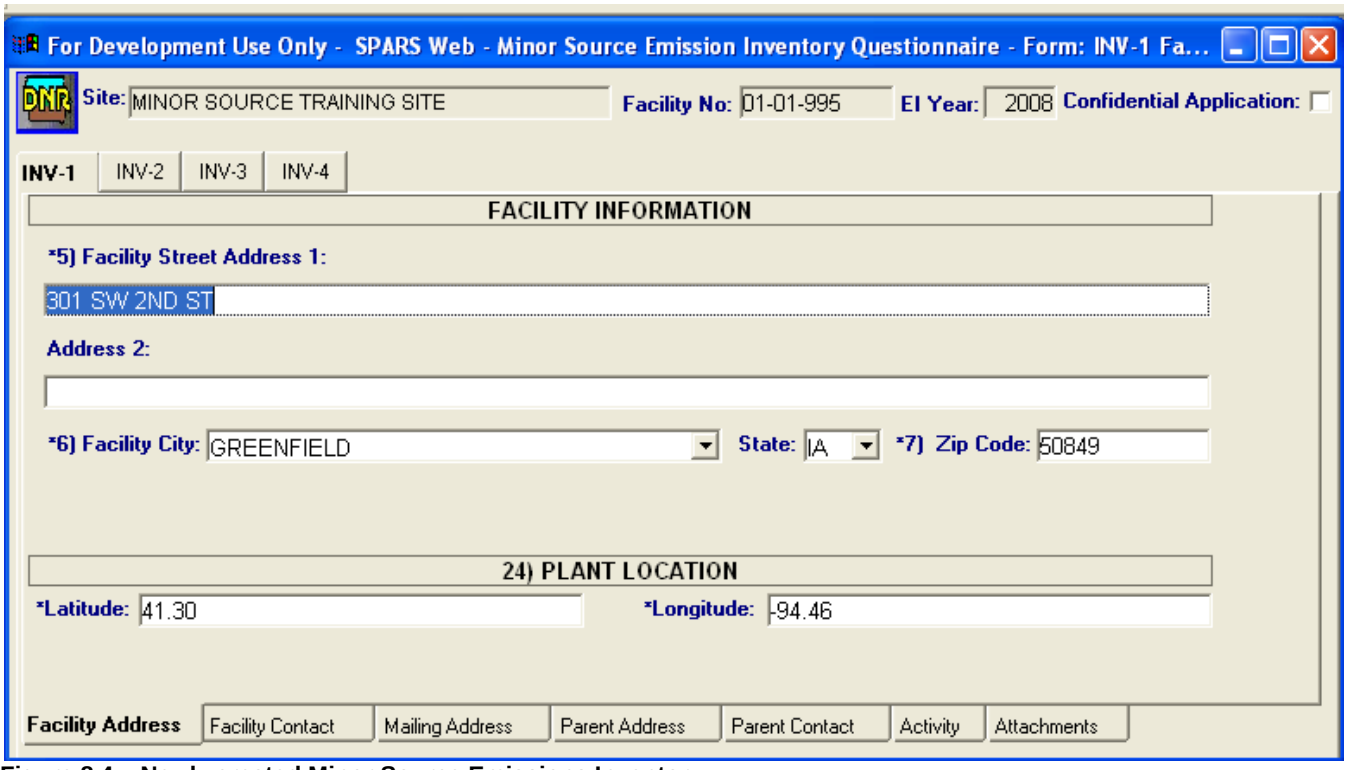


Figure 8.4 – Newly created Minor Source Emissions Inventory

9. If you are ready to complete the inventory, skip to Chapter 9, otherwise, close the new inventory by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

10. On the Application Query Tool, click the **Minor Source Questionnaires** button. If this button is grayed out, click the **Refresh List** button on the lower left of the Application Query Tool DataWindow. See Figure 8.5.

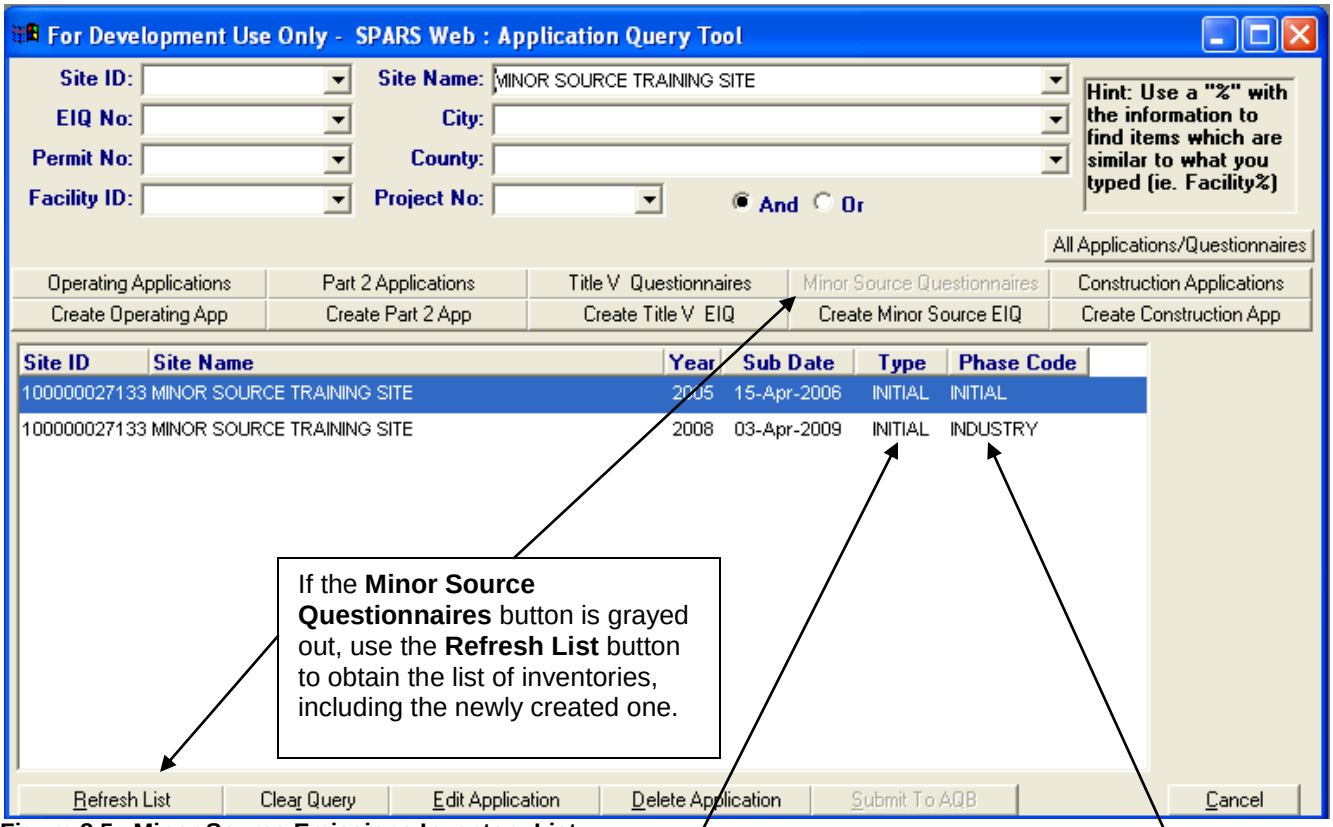


Figure 8.5 –Minor Source Emissions Inventory List

If the **Minor Source Questionnaires** button is grayed out, use the **Refresh List** button to obtain the list of inventories, including the newly created one.

The newly created inventory is in the **INDUSTRY** Phase. This means that you are able to edit it or delete it, if needed.

The Inventory **Type** for your new inventory is **INITIAL**. If you delete this inventory and create another one with the same Inventory Year as the deleted one, the **Type** for this second inventory will be **SUPP** (supplemental) - See Figure 8.6. In this case, please contact us so that we can change the **Type** back to **INITIAL**.

NOTE: If for some reason you decide to delete the INITIAL inventory, when you create a new one using the same Inventory Year as the one deleted, the inventory will no longer be an INITIAL one, but a SUPP inventory, instead (see Figure 8.6). Please call us and we will change the inventory type from SUPP back to INITIAL.

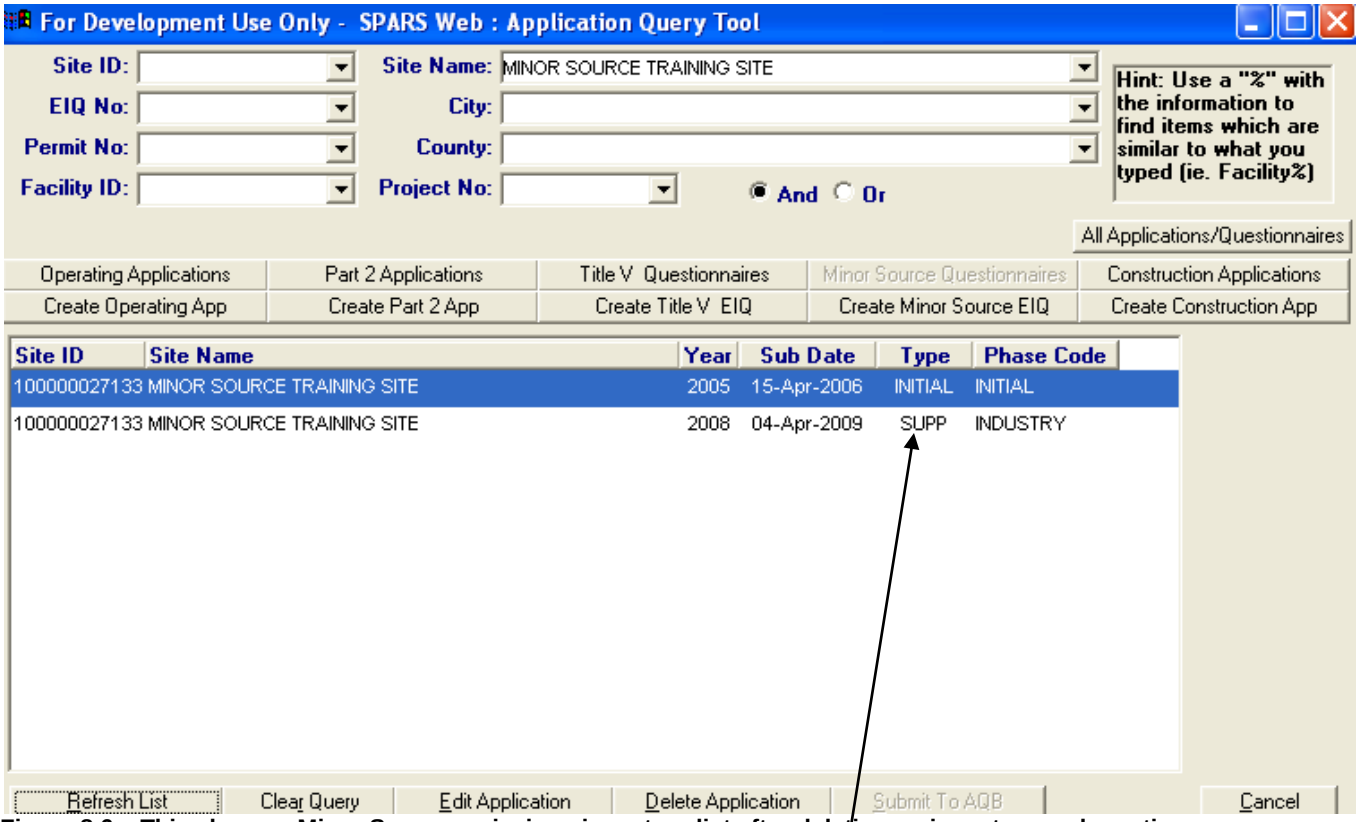


Figure 8.6 – This shows a Minor Source emissions inventory list after deleting an inventory and creating a new one with the same Inventory Year as the deleted one.

A new inventory was created with the same Inventory Year as the deleted inventory. Therefore, the Inventory **Type** for this new inventory is **SUPP**.

9.0 Completing your new Minor Source Emissions Inventory

The Minor Source Emissions Inventory is comprised of five forms: **INV-1**, **INV-2**, **INV-3**, **INV-4**, and **INV-5**. Figure 8.4 shows the new inventory with buttons corresponding to **INV-1**, **INV-2**, **INV-3**, and **INV-4**. A button for **INV-5** is not found in the SPARS inventory, because this form is automatically created if information is included in the **Calculations** sub tab of **INV-**3 and/or **INV-4**.

The following information is expected to be submitted when completing a Minor Source Emissions Inventory:

Form INV-1: Facility Identification

1. Facility address and location.
2. Facility contact name, title, and phone number.
3. Facility mailing address.
4. Parent Company name and address.
5. Parent Company contact name, title, and phone number.
6. SIC code.
7. NAICS code.

Form INV-2: Emission Point Description

1. Information for each emission point, such as ID, type, description, stack shape and dimensions, stack height, type of obstruction, if any, and composition of exhaust stream.
2. Identification of any emergency bypass stacks.
3. List of emission units associated with each emission point.

Form INV-3: Emission Unit Description – Potential Emissions

1. Emission unit and process description, such as date of construction, date of installation, date of modification, raw material, federally enforceable limits, permit or rule establishing limits, maximum hourly design rates and units.
2. List of emission points and control equipment associated with each unit/process.
3. Potential emissions for each process.

Form INV-4: Emission Unit Description – Actual Emissions

1. Throughput and operating schedule for each process during the Inventory Year.
2. List of emission points and control equipment associated with each unit/process.
3. Actual emissions that occurred due to the operation of each process during the Inventory Year.

Form INV-5: Calculations

This form is a calculation worksheet to document how you calculated values on other individual forms throughout the inventory. Any assumptions used in making the calculations should also be included.

How you complete your new inventory in SPARS Web depends on *how* you created it.[7] There are two ways to create your inventory: (1) By copying data from Site Management or (2) By copying data from a previous inventory.

The two main reasons for creating your inventory by copying data from Site Management are:

- This is the first inventory submitted by your facility and therefore, there is no previous inventory from which to copy.

- Your facility has undergone so many changes from the last inventory submittal that the inventory in SPARS no longer represents the current operation and/or equipment at your facility.

When creating an inventory from Site Management, it will include all your updates to your facility's Site Management information, as well as equipment connections. However, emergency bypass information will need to be updated for **INV-2**; emission factors, emission factor units, source of emission factor, etc. will need to be entered in both **INV-3** and **INV-4**; potential emissions in **INV-3**; throughputs and actual emissions (if not auto-calculated by SPARS) in **INV-4**.

Inventories are most commonly created by copying data from a previous inventory already stored in the SPARS database. By doing this, the new inventory includes all needed information, except for throughputs and updates that were made to Site Management after the last inventory was submitted.

However, for both types of inventories, the following applies when dealing with equipment/process no longer in operation:

- Remove from the inventory any equipment/process that has been decommissioned and any applicable permits have been rescinded.

- Do not remove from the inventory any equipment/process no longer in operation if at least one of the following occurred:
  - Equipment/process was used during the Inventory Year.
  - Equipment/process was not used during the Inventory Year, but it remains at the facility and has the potential to be used again.

  NOTE: If you are not able to complete the new emissions inventory during one session, you may access the inventory at any time by doing the following:
    a. Open the Application Query Tool.
    b. Select the facility that you are interested in.
    c. Click on the **Minor Source Questionnaires** button to see existing emission inventories for the selected facility.
    d. Highlight the new inventory, which should be in INDUSTRY Phase, and double-click.

[7] Refer to the previous section where the process of creating an emissions inventory is described.

9.1 Completing an Inventory created from Site Management

The process of completing an inventory created from Site Management is described below, but first, you must find the inventory you created. To do this, refer to Chapter 7.0 "Querying using the Application Query Tool."

9.1.1 Form INV-1: Facility Identification

1. Update **INV-1** with any new information regarding contacts, addresses, and other information that is not updated through Site Management screens.[8] When saving, if asked to use this information as default information when creating future forms, click **YES** (see Figure 9.1).

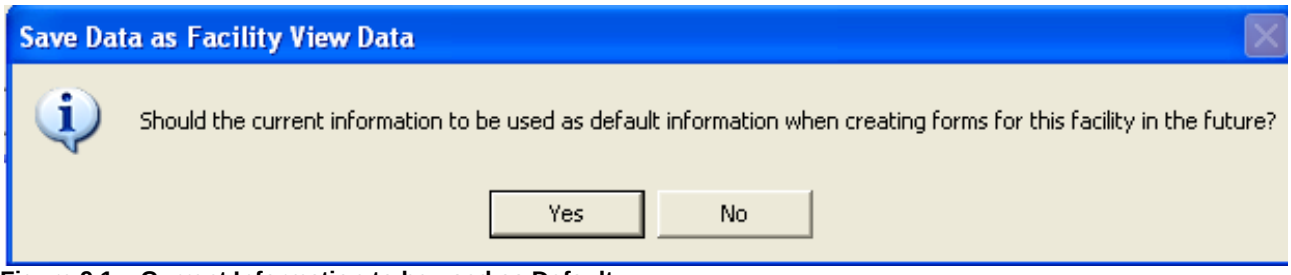


Figure 9.1 – Current Information to be used as Default

2. Attach any and all documents to the **Attachments** sub tab of **Form 1.0**. Enter a description, save, and **view** each document (to ensure it was actually attached to SPARS). To make changes to documents already attached to SPARS, you must:

a. Remove these documents from SPARS Web.
b. Make changes to original documents and save to your network or computer.
c. Re-attach modified documents to SPARS Web.
d. Enter a description, save, and view each modified document.

9.1.2 Form INV-2: Emission Point Description

1. Click the **INV-2** tab.

2. **INV-2** will show any emission points that were created in Site Management, so there is no need to bring them into the inventory. In addition, any new emission units associated with any new emission points will be displayed under the **Emission Units** sub tab of **INV-2**. See Figure 9.2.

3. Under the **Emergency Bypass** sub tab, for all emission points indicate if any of them is used as an emergency bypass stack or not (this information is not copied from Site Management). Save this update.

[8] When an inventory is created from Site Management, all the updates that you just made to your facility's Site Management information will be copied to the new inventory. The only exceptions are the name, title, and phone number for the facility contact and the parent company contact, because you do not have access to this information in Site Management. As a result, the information that you will find in **INV-1** for your facility contact and parent company contact might not be up-to-date.

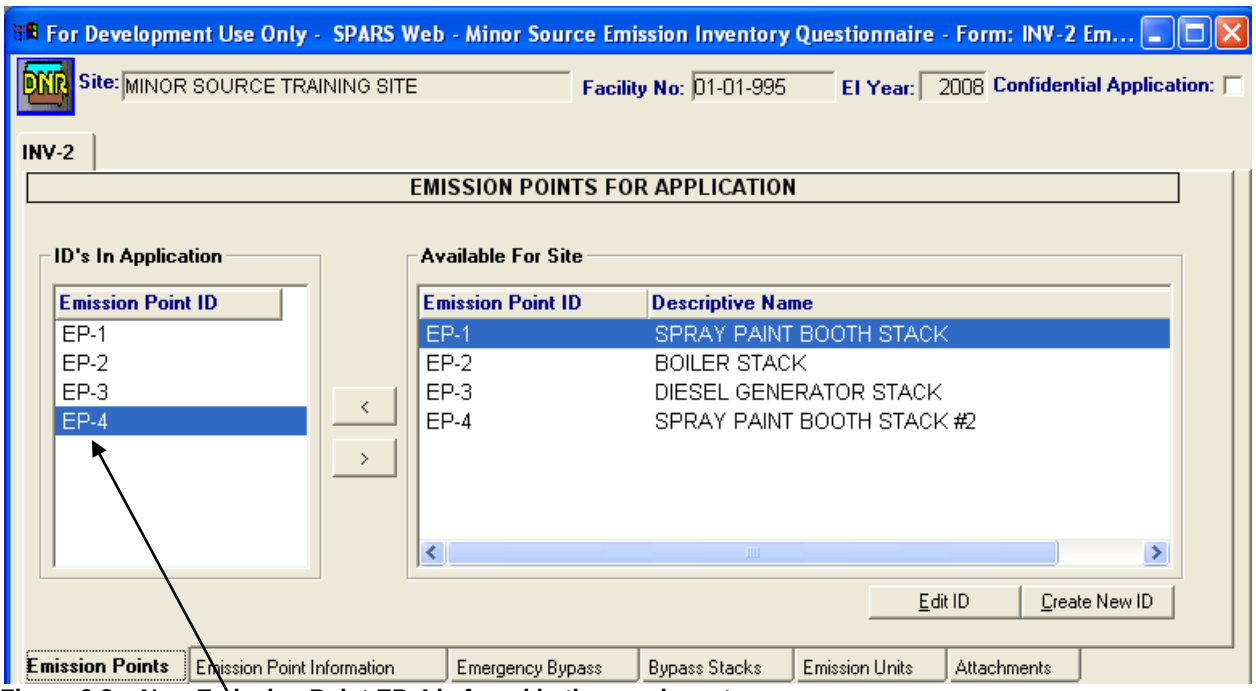


Figure 9.2 – New Emission Point EP-4 is found in the new inventory

There is no need to move EP-4 from right to left, because as the inventory was created from Site Management, EP-4 would have to appear in the inventory.

4. Click the **X** on the top right corner to exit out of **INV-2**.

5. Remove from the inventory any equipment/processes that was dismantled and did not operate during the Inventory Year. To do this:

- Open **INV-4**.
- On the left hand side, highlight the emission point connected to the process to be removed.
- On the right hand side, highlight the emission unit/process to be removed.
- Click the **Control Equipment** sub tab and move from left to right any control equipment associated with the process to be removed. Save this change.
- Click the **Emission Unit** sub tab. The process to be deleted should be highlighted.
- Right-click inside the box with the highlighted process and select "Delete."
- A box opens asking: "Are you sure?" Click **Yes**.
- Save this change and click the **X** on the top right corner to exit out of **INV-4**.
- Open **INV-3** and follow the same steps as for **INV-4**. (The control equipment might be already disconnected in **INV-3**).
- Save this change and click the **X** on the top right corner to exit out of **INV-3**.
- Open **INV-2**.
- On the left hand side, highlight the emission point connected to the emission unit/process to be removed.
- Click the **Emission Units** sub tab.
- Highlight the emission unit/process to be removed.
- Right-click and select "Delete." Save this change

- Click the **Emission Points** sub tab.
- If this emission point is to be removed because it is not connected to any other emission units, then move it from left to right. Save this change.

6. Click the **X** on the top right corner to exit out of **INV-2**.

9.1.3 Form INV-3: Emission Unit Description – Potential Emissions

1. Click the **INV-3** tab.

2. Remove from the inventory any processes that were mistakenly entered in **INV-3**. To do this:

- On the left hand side, highlight the emission point connected to the process to be removed.
- On the right hand side, highlight the emission unit/process to be removed.
- Click the **Control Equipment** sub tab and move from left to right any control equipment associated with the process to be removed. Save this change.
- Click the **Emission Unit** sub tab. The process to be deleted should be highlighted.
- Right-click inside the box with the highlighted process and select "Delete."
- A box opens asking: "Are you sure?" Click **Yes**.
- Save these changes.

3. Click the **Emission Unit** sub tab.

4. Highlight an emission point on the left side. On the right side highlight the process associated with this emission point

5. Click the **Emission Unit/Process Description** sub tab and make any necessary changes. Save these changes.

6. Click the **Control Equipment** sub tab and make sure that the connection to the emission point and emission unit is correct. Save any changes.

7. Under the **Potential Emissions** sub tab, enter all the required information, such as emission factor, emission factor unit, source of emission factor, potential emissions, etc. for each applicable pollutant. Save these updates.

8. Use the **Calculations** sub tab to document how you calculated values associated with any applicable pollutant. This information will be included in **INV-5**. Save these updates.

9. Repeat Steps 3 through 8 for every emission point and every process.

10. Click the **X** on the top right corner to exit out of **INV-3**.

9.1.4 Form INV-4: Emission Unit Description – Actual Emissions

1. Click the **INV-4** tab.

2. Remove from the inventory any processes that were mistakenly entered in **INV-4**. To do this:

- On the left hand side, highlight the emission point connected to the process to be removed.
- On the right hand side, highlight the emission unit/process to be removed.
- Click the **Control Equipment** sub tab and move from left to right any control equipment associated with the process to be removed. Save this change.
- Click the **Emission Unit** sub tab. The process to be deleted should be highlighted.
- Right-click inside the box with the highlighted process and select "Delete."
- A box opens asking: "Are you sure?" Click **Yes**.
- Save these changes.

3. Click the **Emission Unit** sub tab.

4. Highlight an emission point on the left side. On the right side highlight the process associated with this emission point.

5. Click the **Throughput/Operating Schedule** sub tab.

6. Enter the **Raw Material Name**, **Yearly Total Amount**, **Yearly Total Unit Code**, and the **Actual Operating Rate/Schedule**. Save these updates.

7. Click the **Control Equipment** sub tab and make sure that the connection to the emission point and emission unit is correct.

8. Under the **Actual Emissions** sub tab, enter all the required information, such as emission factor, emission factor unit, source of emission factor, actual emissions (if SPARS does not auto-calculate), etc. for each applicable pollutant. Save these updates.

> **NOTE**: The auto-calculation tool will not work if:
>
> 1. The yearly throughput unit of measure is not comparable with the emission factor unit of measure.
> 2. The source of the emission factor was not entered.
> 3. The source of the emission factor was one of these: Permit, Other, or CEM.

9. Use the **Calculations** sub tab to document how you calculated values associated with any applicable pollutant. This information will be included in **INV-5**. Save these updates.

10. Repeat Steps 3 through 9 for every emission point and every process.

11. Click the **X** on the top right corner to exit out of **INV-4**.

9.1.5 Form INV-5: Calculations

This form is a calculation worksheet to document how you calculated values on other individual forms throughout the inventory. Any assumptions used in making the calculations should also be included.

A button for **INV-5** is not found in the SPARS inventory, because this form is automatically created if information is included in the **Calculations** sub tab of **INV-**3 and/or **INV-4**.

If you are ready to review the inventory by using the SPARS print-preview feature, go to Chapter 10. Otherwise, click the X on the top right corner to close the inventory.

9.2 Completing an Inventory created from a Previous Inventory

The process of completing an inventory created from a previous inventory is described below, but first, you must find the inventory you created. To do this, refer to Chapter 7.0 "Querying using the Application Query Tool."

9.2.1 Form INV-1: Facility Identification

1. Update **INV-1** with any new information regarding contacts, addresses, and other information that is not updated through the Site Management screens. When saving, if asked to use this information as default information when creating future forms, click **YES** (see Figure 9.3).

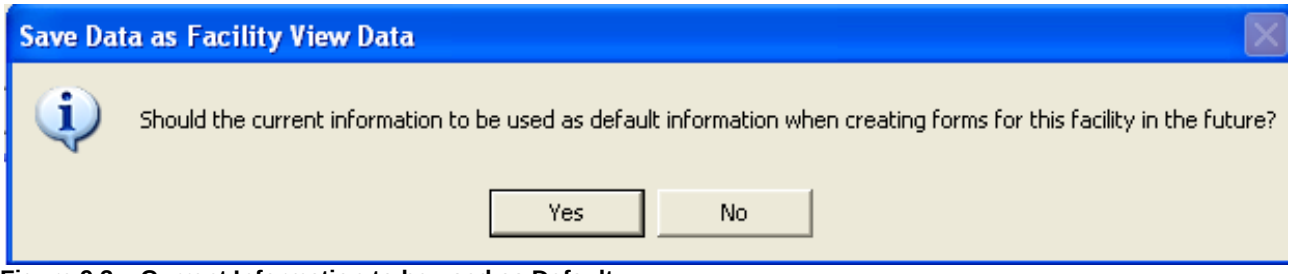


Figure 9.3 – Current Information to be used as Default

2. Attach any and all documents to the **Attachments** sub tab of **INV-1**. To make changes to documents already attached to SPARS, you must:

   a. Remove these documents from SPARS Web.
   b. Make changes to original documents and save to your network or computer.
   c. Re-attach modified documents to SPARS Web.

9.2.2 Form INV-2: Emission Point Description

1. Open **INV-2**.

2. Click the **Emission Points** sub tab. Figure 9.4 shows that the new Emission Point EP-4 is only on the right side of the window (Site Management) and not on the left hand side (inventory).

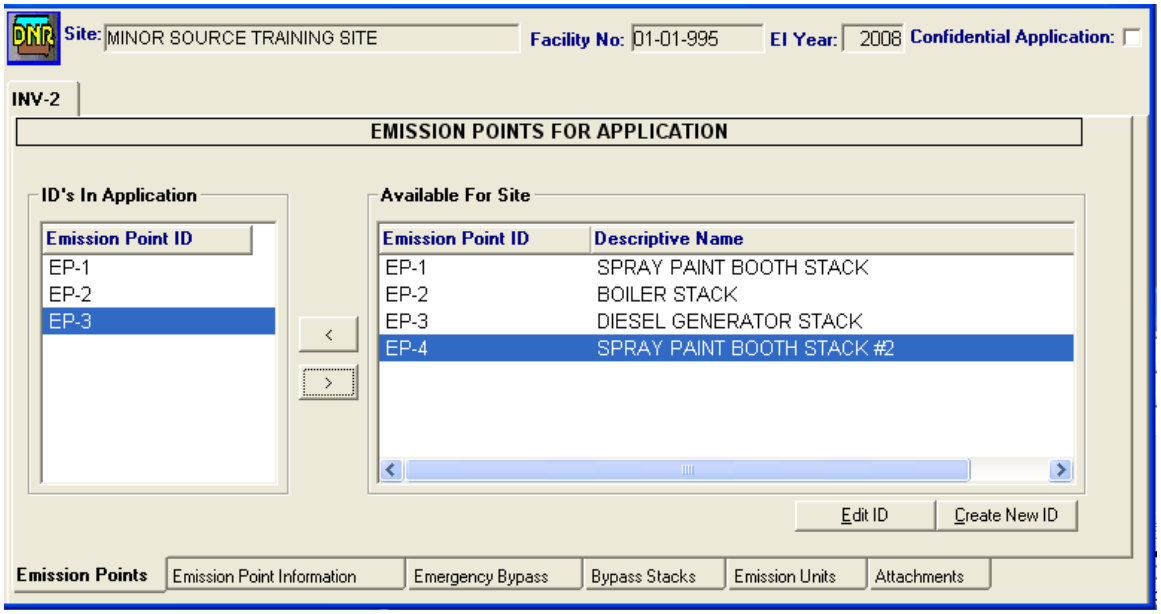


Figure 9.4 – Form INV-2: New Emission Point EP-4 is not part of the new inventory yet.

3. To include the new emission point in the inventory, highlight the new emission point found on the right side of the window. Use the arrow pointing left to bring the new emission point into the inventory (see Figure 9.5).

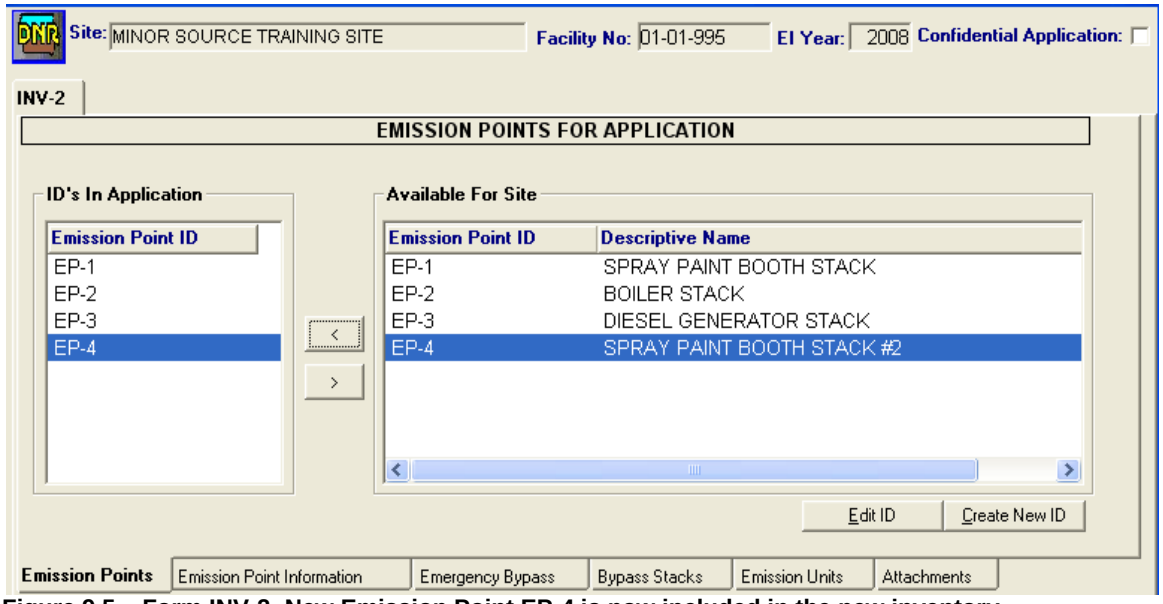


Figure 9.5 – Form INV-2: New Emission Point EP-4 is now included in the new inventory.

4. Under the **Emergency Bypass** sub tab, indicate if the new emission point is used as an emergency bypass stack or not (this information is not brought in from Site Management). Save this information.

5. To add an emission unit to the new or any other emission point, click the **Emission Unit** sub tab.

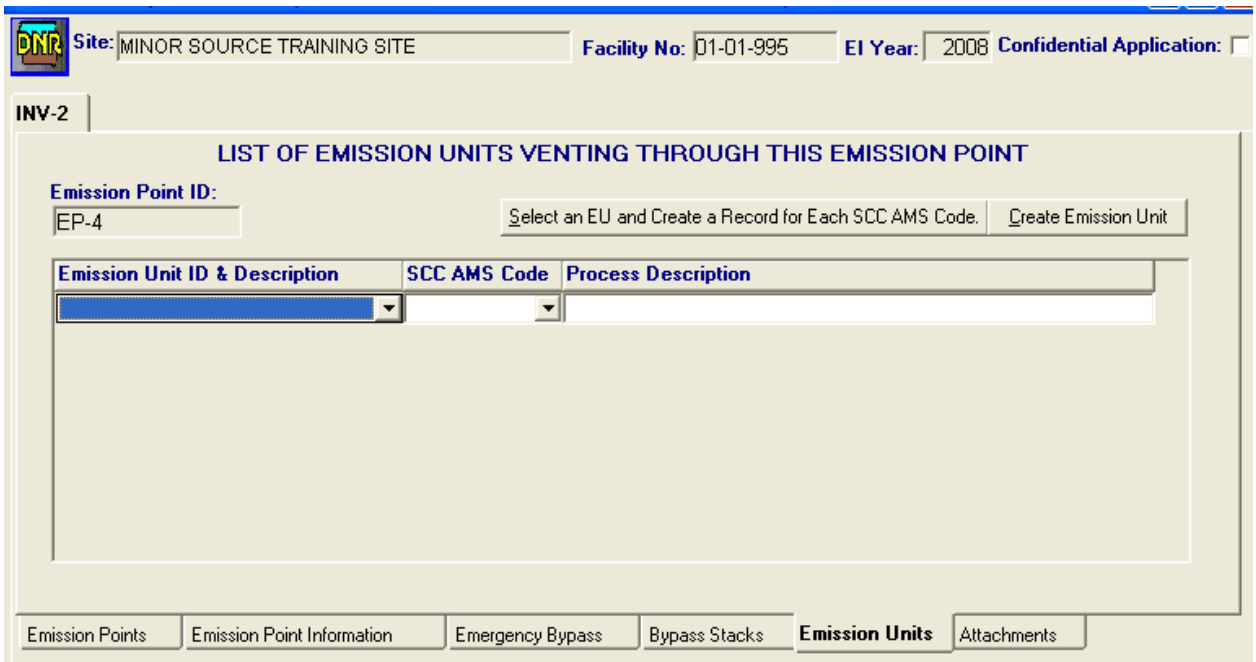


Figure 9.6 – Emission Unit Sub Tab: New Emission Point EP-4 is <u>not</u> connected to an emission unit in the inventory.

6. Click the long **Select an EU and Create a Record for Each SCC AMS Code** button. A popup window will appear with a list of emission units (see Figure 9.7).

Figure 9.7 – Emission unit list as it appears in Site Management

7. Select one or more units connected to the emission point and click the **OK** button. The emission units will show up on the screen with SCC numbers and process descriptions. Save this change.

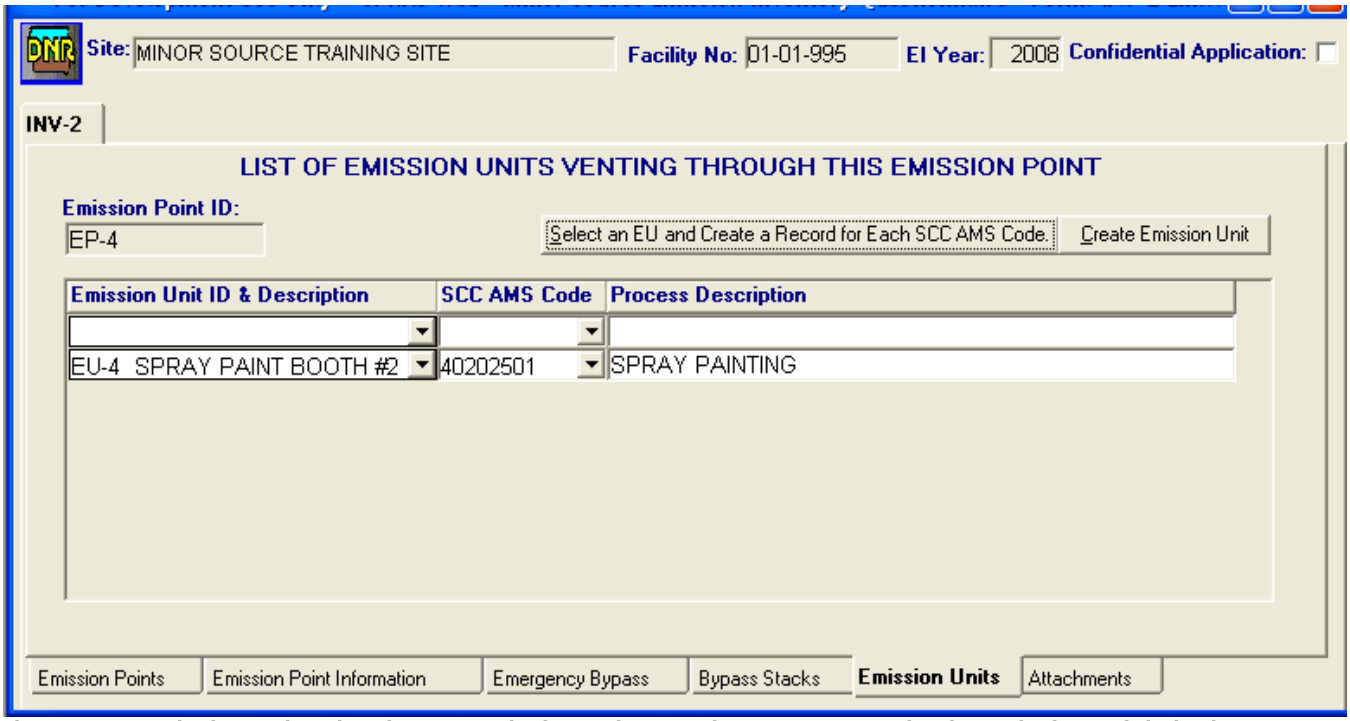


Figure 9.8 – Emission Unit Sub Tab: New Emission Point EP-4 is now connected to its emission unit in both the inventory and in Site Management.

8. Remove from the inventory any equipment/process that was dismantled and did not operate during the Inventory Year. To do this:

- Open **INV-4**.
- On the left hand side, highlight the emission point connected to the process to be removed.
- On the right hand side, highlight the emission unit/process to be removed.
- Click the **Control Equipment** sub tab and move from left to right any control equipment associated with the process to be removed. Save this change.
- Click the **Emission Unit** sub tab. The process to be deleted should be highlighted.
- Right-click inside the box with the highlighted process and select "Delete."
- A box opens asking: "Are you sure?" Click **Yes**.
- Save this change and click the **X** on the top right corner to exit out of **INV-4**.
- Open **INV-3** and follow the same steps as for **INV-4**. (The control equipment might be already disconnected in **INV-3** for the process to be deleted).
- Save this change and click the **X** on the top right corner to exit out of **INV-3**.
- Open **INV-2**.
- On the left hand side, highlight the emission point connected to the emission unit/process to be removed.
- Click the **Emission Units** sub tab.
- Highlight the emission unit/process to be removed.
- Right-click and select "Delete." Save this change
- Click the **Emission Points** sub tab.

- If this emission point is to be removed because it is not connected to any other emission units, then move it from left to right. Save this change.

9. Click the **X** on the top right corner to exit out of **INV-2**.

9.2.3 Form INV-3: Emission Unit Description – Potential Emissions

1. Click the **INV-3** tab. You will find that all the information from the previous inventory is copied on each Form **INV-3** of your new inventory.

> **NOTE:** PM2.5 and ammonia emissions are required to be reported and will need to be added to **INV-3** for each appropriate emission unit, since these pollutants have not been required to be reported in previous emissions inventories.

2. For each new emission point that you brought into **INV-2**, you will need to bring its corresponding emission unit/process into **INV-3**, as follows:

3. Inside the **Emission Point ID** box, highlight the emission point ID for the new emission point and click **Add** (see Figure 9.9).

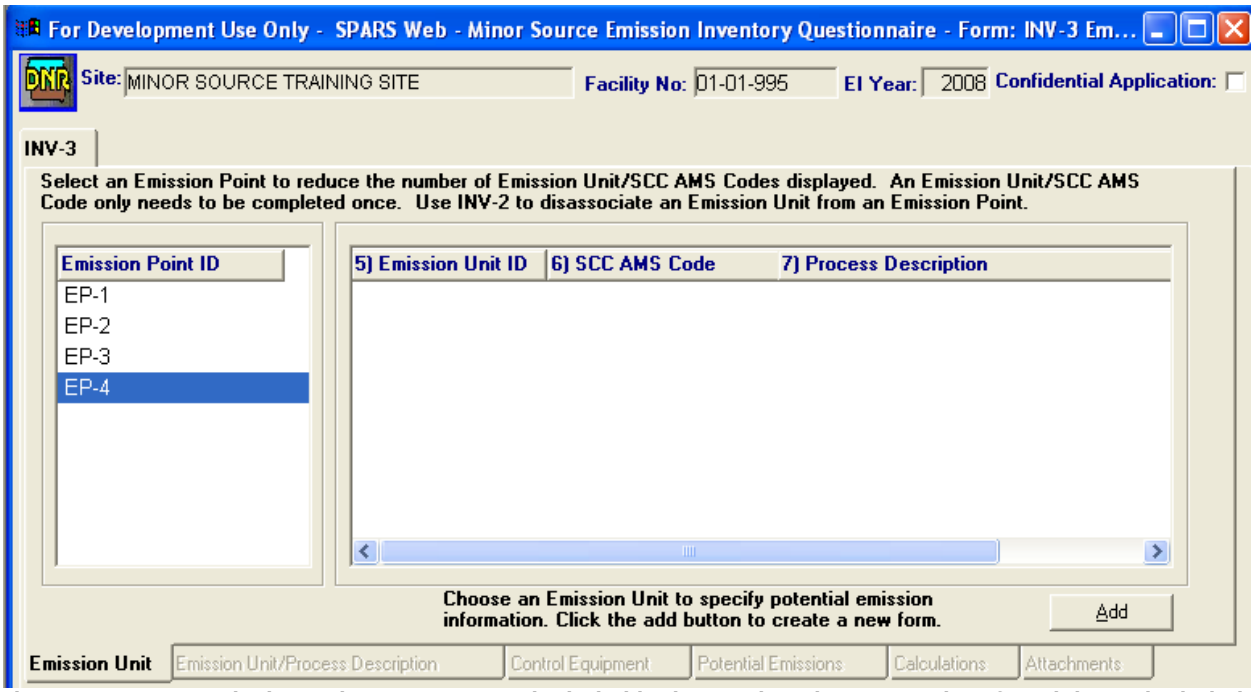


Figure 9.9 – New Emission Point EP-4 was not included in the previous inventory, therefore, it is not included in INV-3 for the new inventory, either.

4. After clicking the "**Add**" button, the following window opens.

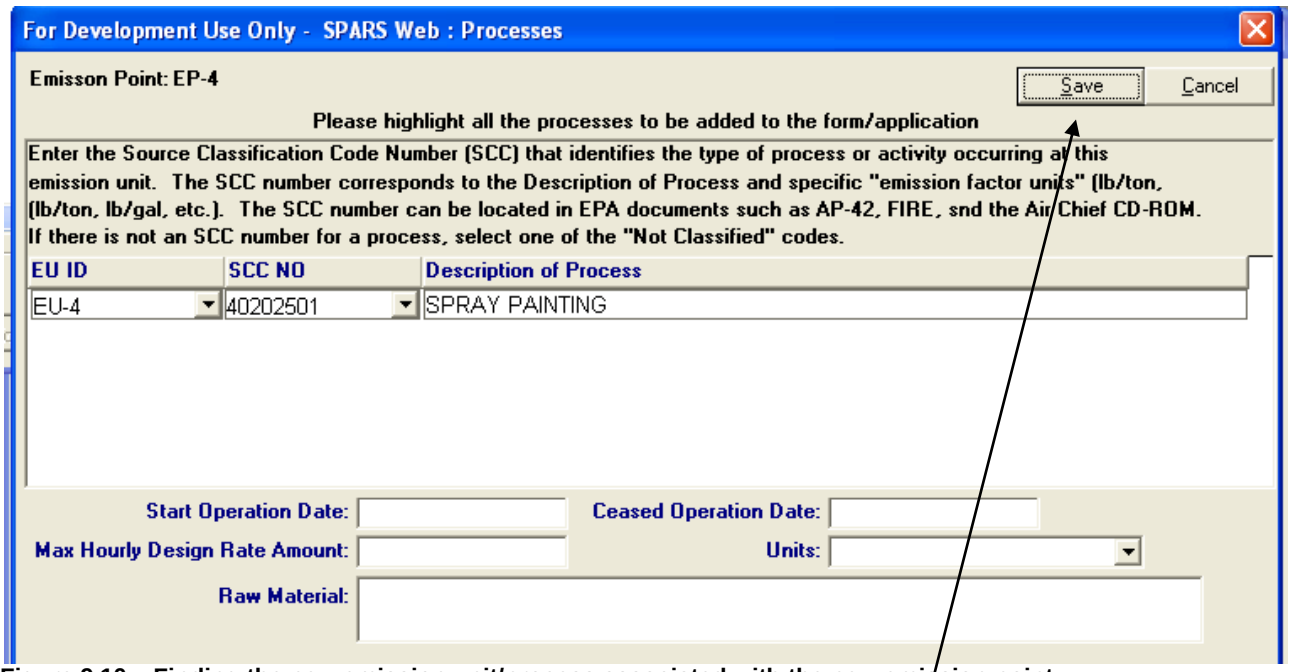


Figure 9.10 – Finding the new emission unit/process associated with the new emission point

5. Highlight the emission unit/process and complete the applicable text boxes shown at the bottom of the window. Save this information. See Figure 9.11

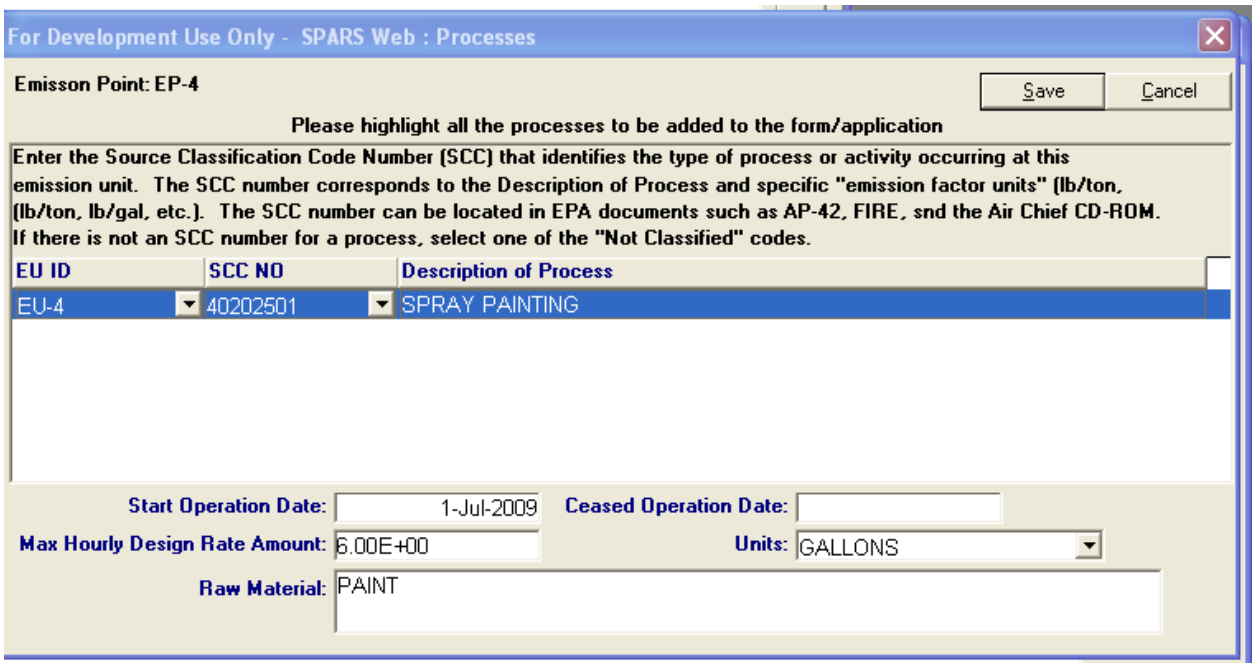


Figure 9.11 – Entering all pertinent information regarding this new emission unit/process.

6. After saving the information just entered, click **X** on the top right corner to bring the emission unit/process to **INV-3** (see Figure 9.12).

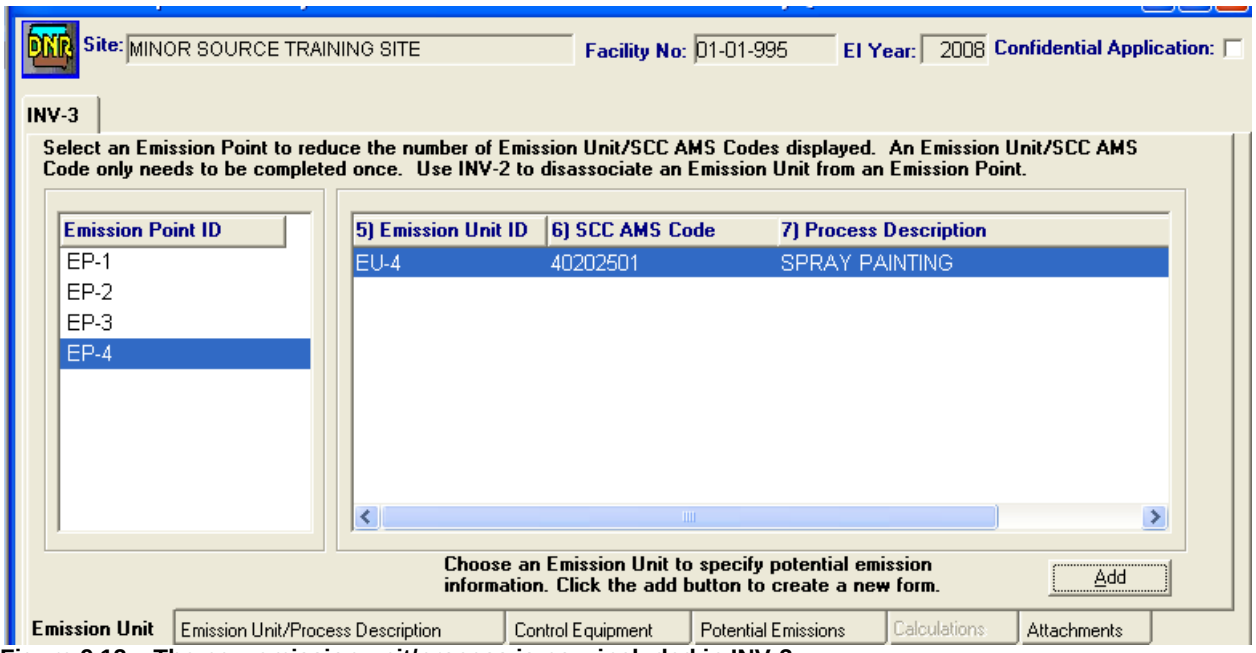


Figure 9.12 – The new emission unit/process is now included in INV-3

7. With the new emission point highlighted, click the **Emission Unit/Process Description** sub tab and make any necessary changes. Save these changes.
8. Click the **Control Equipment** sub tab (see Figure 9.13).

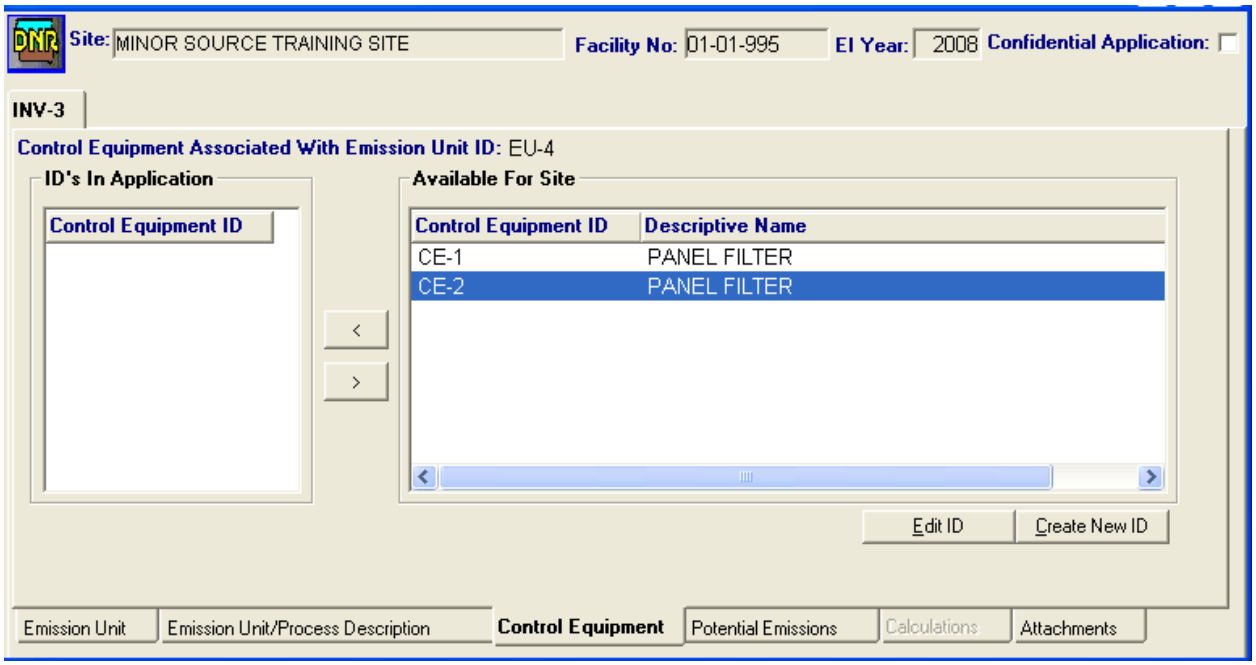


Figure 9.13 – New Control equipment CE-2 which is connected to EP-4 and EU-4 in Site Management is not connected to these in INV-3 yet.

9. Connect any applicable control equipment to the new emission point and new emission unit. To do this, highlight the control equipment and use the arrow pointing left to bring it to **INV-3**. Save these changes.

10. Under the **Potential Emissions** sub tab, enter all the required information, such as emission factor, emission factor unit, source of emission factor, potential emissions, etc. for each applicable pollutant. Save these updates.

11. Use the **Calculations** sub tab to document how you calculated values associated with any applicable pollutant. This information will be included in **INV-5**. Save these updates.

12. Remove from the inventory any processes that were mistakenly entered in **INV-3**. To do this:

- Click the **Emission Unit** sub tab.
- On the left hand side, highlight the emission point connected to the process to be removed.
- On the right hand side, highlight the emission unit/process to be removed.
- Click the **Control Equipment** sub tab and move from left to right any control equipment associated with the process to be removed. Save this change.
- Click the **Emission Unit** sub tab. The process to be deleted should be highlighted.
- Right-click inside the box with the highlighted process and select "Delete."
- A box opens asking: "Are you sure?" Click **Yes**.
- Save these changes.

13. Click the **Emission Unit** sub tab to update any necessary information for existing emission points and emission units.

14. Highlight an existing emission point on the left side. On the right side highlight the process associated with this emission point.

15. Click the **Emission Unit/Process Description** sub tab and make any necessary changes. Save these changes.

16. Click the **Control Equipment** sub tab and make sure that the connection to the emission point and emission unit is correct. Save any changes.

17. Click the **Potential Emissions** sub tab. You will find that the potential emission information for the existing emission point and emission unit was copied from the previous inventory. Review this information and make any necessary changes. Save these changes.

18. If needed, modify or add information to the **Calculations** sub tab. This information will be included in **INV-5**. Save any changes.

19. Repeat Steps 13 through 18 for every other existing emission point and existing emission unit/process.

20. Click the **X** on the top right corner to exit out of **INV-3**.

9.2.4 Form INV-4: Emission Unit Description – Actual Emissions

1. Click the **INV-4** tab.

2. For each new emission point that you brought into **INV-2**, you will need to bring its corresponding emission unit/process into **INV-4**, as follows:

3. Inside the **Emission Point ID** box, highlight the emission point ID for the new emission point and click **Add** (see Figure 9.14).

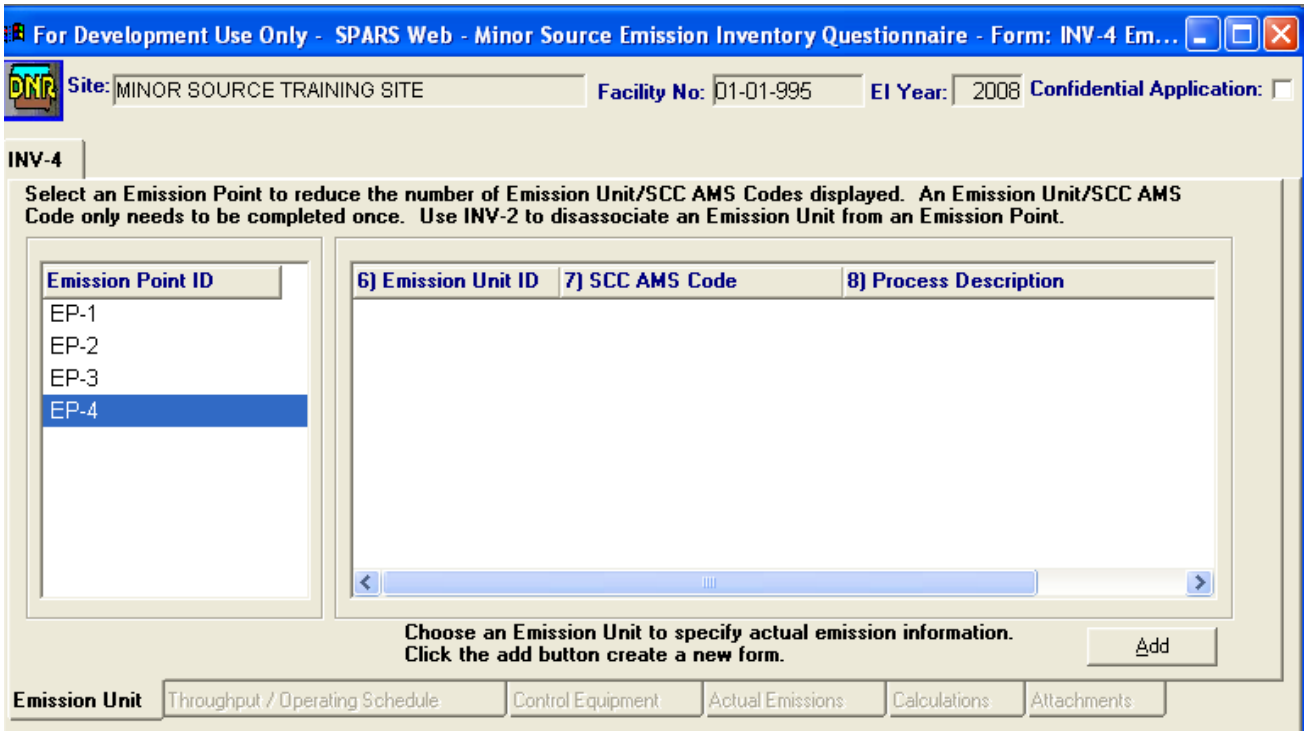


Figure 9.14 – New Emission Point EP-4 was not included in the previous inventory, therefore, it is not included in INV-4 for the new inventory, either.

4. After clicking the "**Add**" button, the following window opens. Note that the information regarding this new emission unit/process is already completed in **INV-4**. This is because it was entered in **INV-3**.

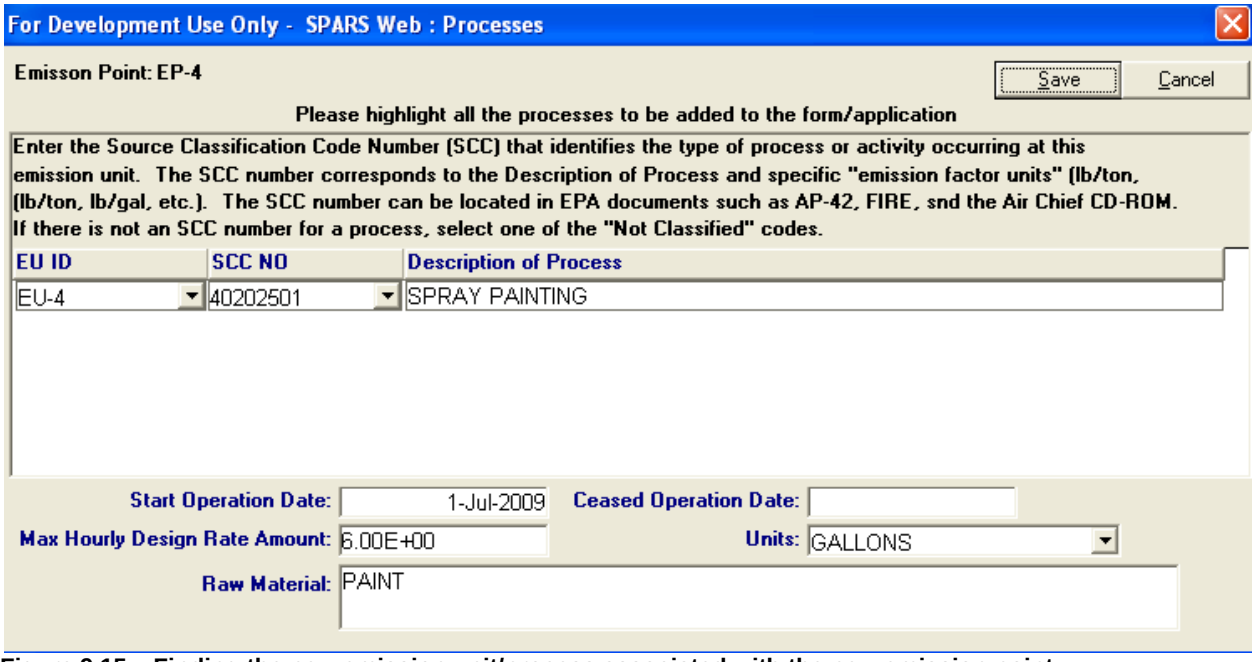


Figure 9.15 – Finding the new emission unit/process associated with the new emission point

5. Highlight the emission unit/process and click the **X** on the top right corner to bring the emission unit/process into **INV-4** (see Figure 9.16).

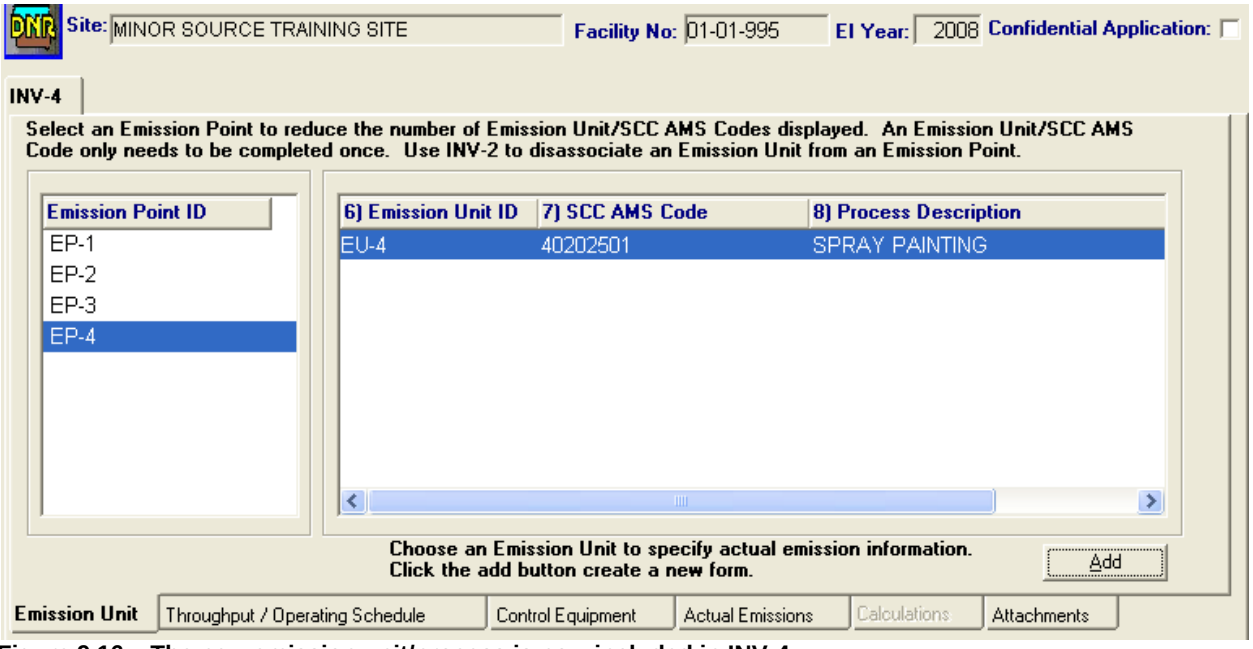


Figure 9.16 – The new emission unit/process is now included in INV-4

6. Click the **Throughput/Operating Schedule** sub tab.

7. Enter the **Raw Material Name**, **Yearly Total Amount**, **Yearly Total Unit Code**, and the **Actual Operating Rate/Schedule**. Save these updates.

8. Click the **Control Equipment** sub tab and make sure that the connection to the emission point and emission unit is correct.

9. Under the **Actual Emissions** sub tab, enter all the required information, such as emission factor, emission factor unit, source of emission factor, actual emissions (if SPARS does not auto-calculate), etc. for each applicable pollutant. Save these updates.

> **NOTE:** The auto-calculation tool will not work if:
>
> 1. The yearly throughput unit of measure is not comparable with the emission factor unit of measure.
> 2. The source of the emission factor was not entered.
> 3. The source of the emission factor was one of these: Permit, Other, or CEM.

10. Use the **Calculations** sub tab to document how you calculated values associated with any applicable pollutant. This information will be included in **INV-5**. Save these updates.

11. Remove from the inventory any processes that were mistakenly entered in **INV-4**. To do this:

- Click the **Emission Unit** sub tab.
- On the left hand side, highlight the emission point connected to the process to be removed.
- On the right hand side, highlight the emission unit/process to be removed.
- Click the **Control Equipment** sub tab and move from left to right any control equipment associated with the process to be removed. Save this change.
- Click the **Emission Unit** sub tab. The process to be deleted should be highlighted.
- Right-click inside the box with the highlighted process and select "Delete."
- A box opens asking: "Are you sure?" Click **Yes**.
- Save these changes.

12. Click the **Emission Unit** sub tab to update any necessary information for existing emission points and emission units.

13. Highlight an existing emission point on the left side. On the right side highlight the process associated with this emission point.

14. Click the **Throughput/Operating Schedule** sub tab. You will find that all the information for the existing emission unit was copied from the previous inventory. The only difference is that the **Yearly Total Amount** and **Actual Emissions** are set to 0 (zero). Enter the annual throughput for the existing unit. Save these changes.

> **NOTE:** If the new inventory did not copy the raw material name, yearly total unit code, and operating schedule from the previous inventory, it is very likely that you created the inventory by copying data from Site Management and not from the previous inventory. This is a very common mistake since the default selection is **Copy Data From Site Management** instead of **Copy Data From Previous Document**.
>
> If you plan on deleting the inventory and creating a new one, please call us **before** you do this, since we need to delete the inventory from the database as well. Otherwise, when you create the inventory again, the database will consider it to be a Supplemental inventory, instead of an Initial one.

15. Click the **Control Equipment** sub tab and make sure that the connection to the emission point and emission unit is correct. Save any changes.

16. Click the **Actual Emissions** sub tab. You will find that information such as emission factors, emission factor units, emission factor source, etc. are already included for the existing emission unit. Remember that PM2.5 and ammonia emissions will need to be added in **INV-4** to the appropriate emission units.

17. Check the actual emissions to see if the SPARS auto-calculation worked. Emission totals are calculated in the far right column.

> **NOTE:** The following window appears every time auto-calculation is performed. If you do not wish to see this window popping up after every auto-calculation, unclick the **Show message for each auto calculation performed** box.

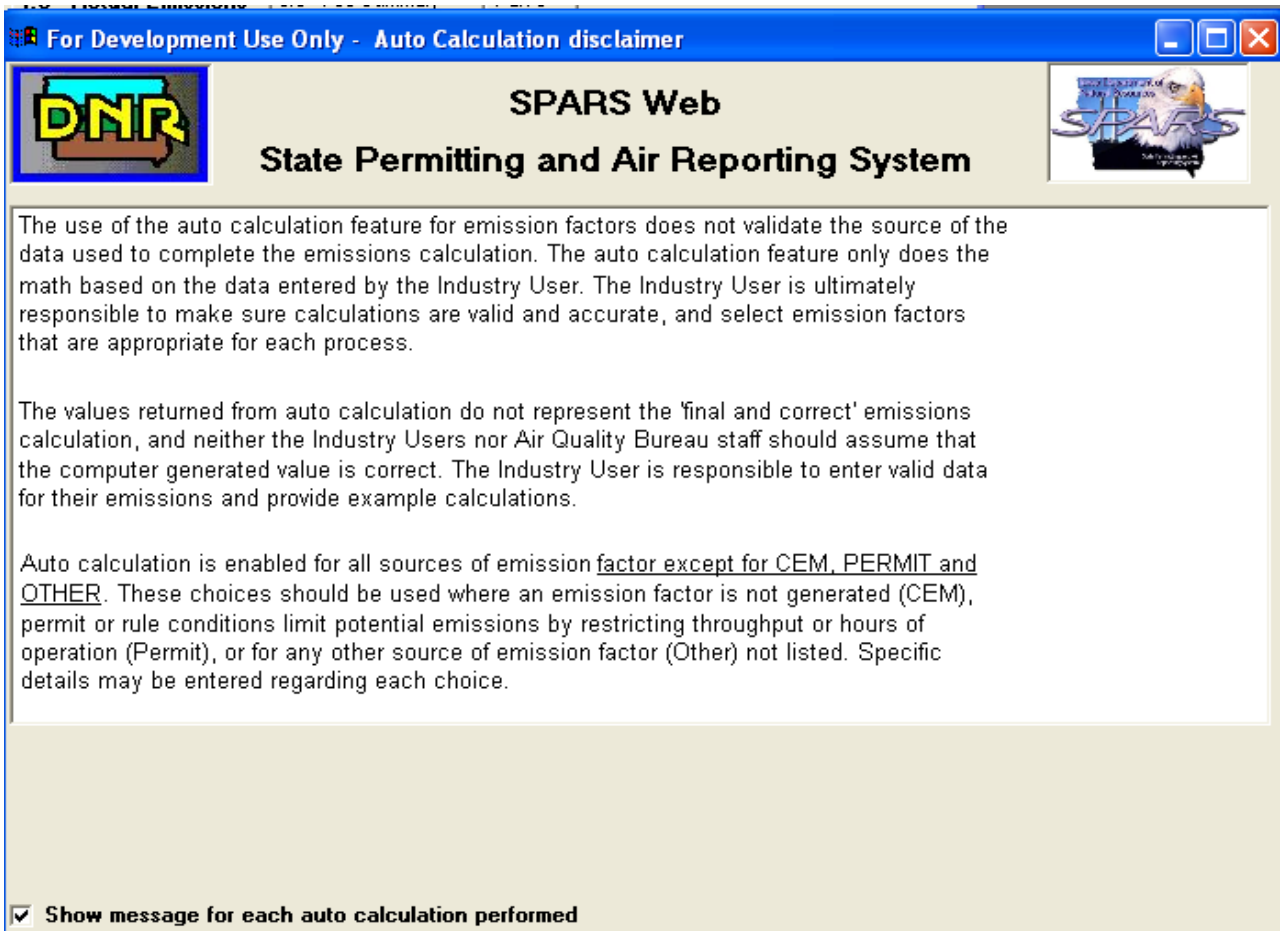


Figure 9.17 – SPARS Auto-Calculation Disclaimer

18. If needed, modify or add information to the **Calculations** sub tab. This information will be included in **INV-5**. Save any changes.

19. Repeat Steps 12 through 18 for every other existing emission point and existing emission unit/process.

20. When you have entered all the throughputs and have calculated the actual emissions for each applicable emission unit, click the **X** on the top right corner to exit out of Form **INV-4**.

9.2.5 Form INV-5: Calculations

This form is a calculation worksheet to document how you calculated values on other individual forms throughout the inventory. Any assumptions used in making the calculations should also be included.

A button for **INV-5** is not found in the SPARS inventory, because this form is automatically created if information is included in the **Calculations** sub tab of **INV-**3 and/or **INV-4**.

Sometimes you may find that **INV-5** for your new inventory has information that you did not enter. This information came from the previous inventory. To delete this information do the following:

1. Click on the **INV-3** tab and then on the **Calculations** tab.

2. Click on a pollutant on the left.

3. If there is any information on the right-hand side that needs to be deleted, highlight this information.

4. Right click and choose "Delete." See Figure 9.18 below.

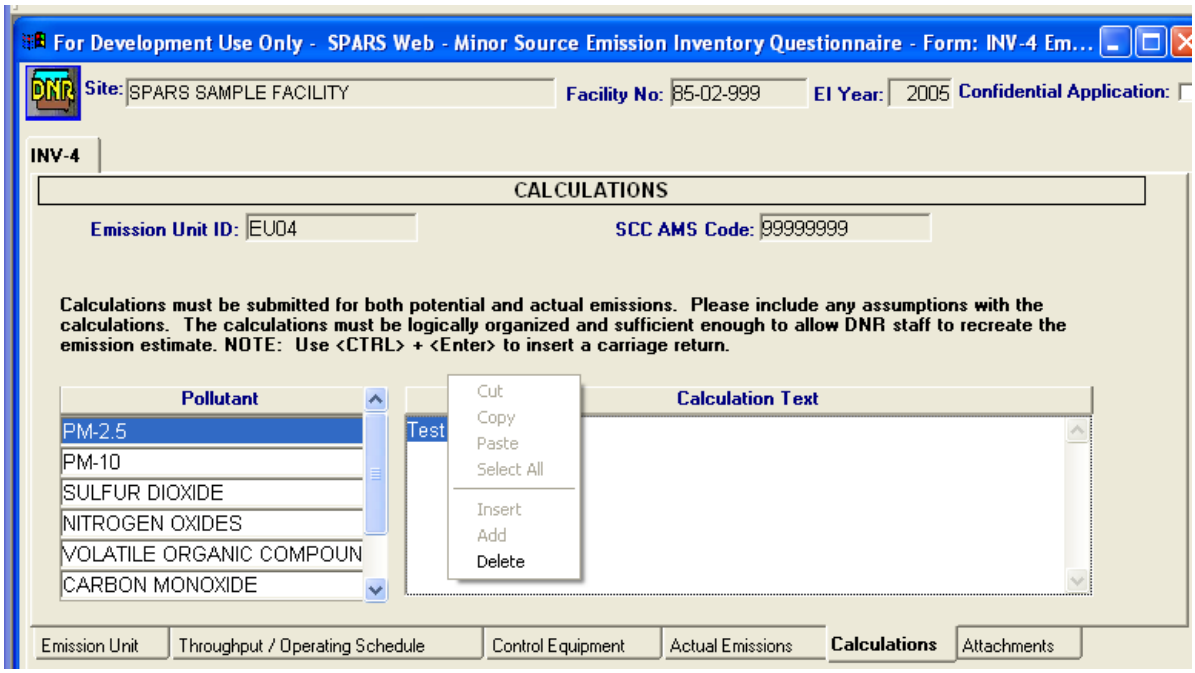


Figure 9.18 – Cleaning up Form INV-5

5. Repeat Steps 2 – 4 for the other pollutants.

6. Click on **INV-4** tab and click on the **Calculations** subtab and follow the same procedure indicated in Steps 2 – 5.
Sometimes even after you follow Steps 1 – 6, your INV-5 form might still have some information that you did not enter. In this case, you are seeing information that was included in a previous inventory, but:

- It was deleted from the **Potential Emissions** tab of Form **INV-3**, before any comments or calculations were deleted from the **Calculations** tab.

AND/OR

- It was deleted from the **Actual Emissions** tab of Form **INV-4**, before any comments or calculations were deleted from the **Calculations** tab.

Solution:

- Add the pollutant(s) back to the **Potential Emissions** tab of Form **INV-3** and follow the procedure indicated in Steps 2-5.

- Add the pollutant(s) back to the **Actual Emissions** tab of Form INV-4 and follow the procedure indicated in Steps 2-5.

If you are ready to review the inventory by using the SPARS print-preview feature, go to Chapter 10. Otherwise, click the X on the top right corner to close the inventory.

10.0 Reviewing your newly created Minor Source Emissions Inventory

1. Open the Application Query Tool and select the facility for which you are completing the minor source emissions inventory.

2. Click on the **Minor Source Questionnaires** button to see all emission inventories for the selected facility.

3. Highlight your new Minor Source Inventory, which should be in **INDUSTRY Phase**.

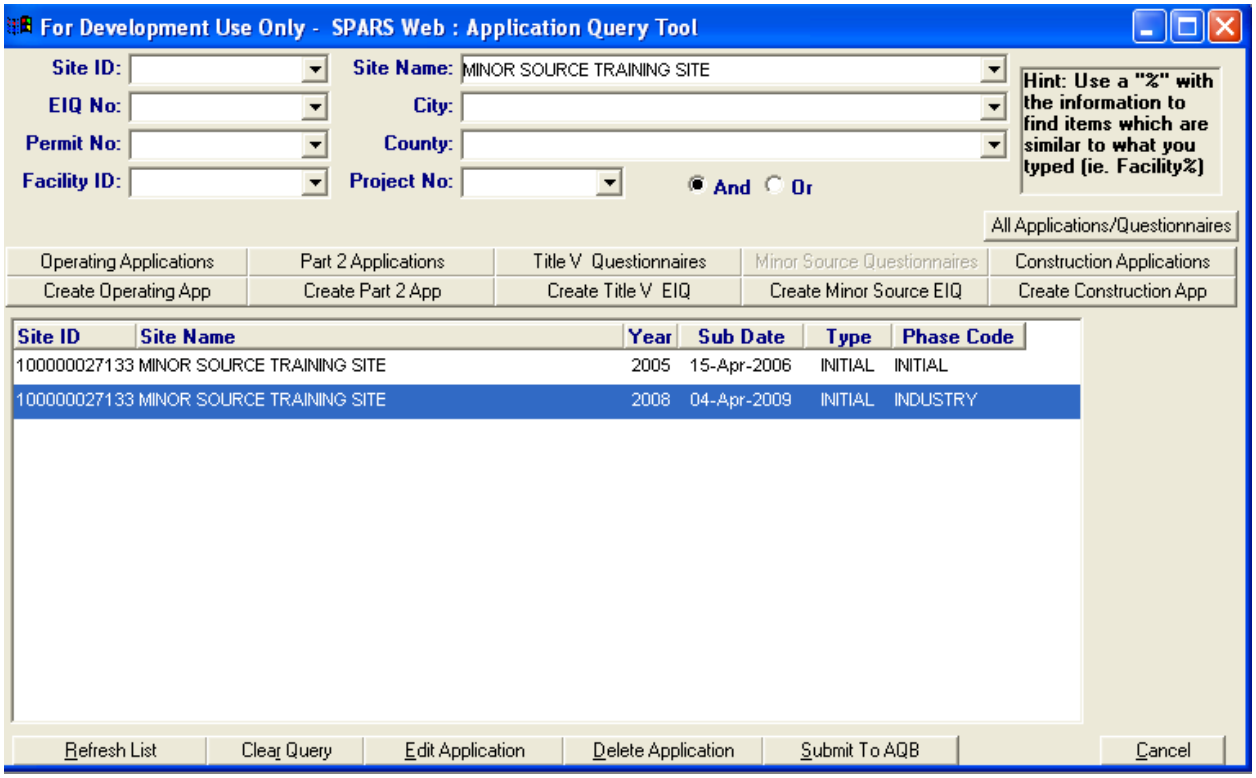


Figure 10.1 – New Minor Source Emissions Inventory in INDUSTRY Phase

4. Click the **Edit Application** button. Alternatively, you may double-click to bring up the highlighted inventory.

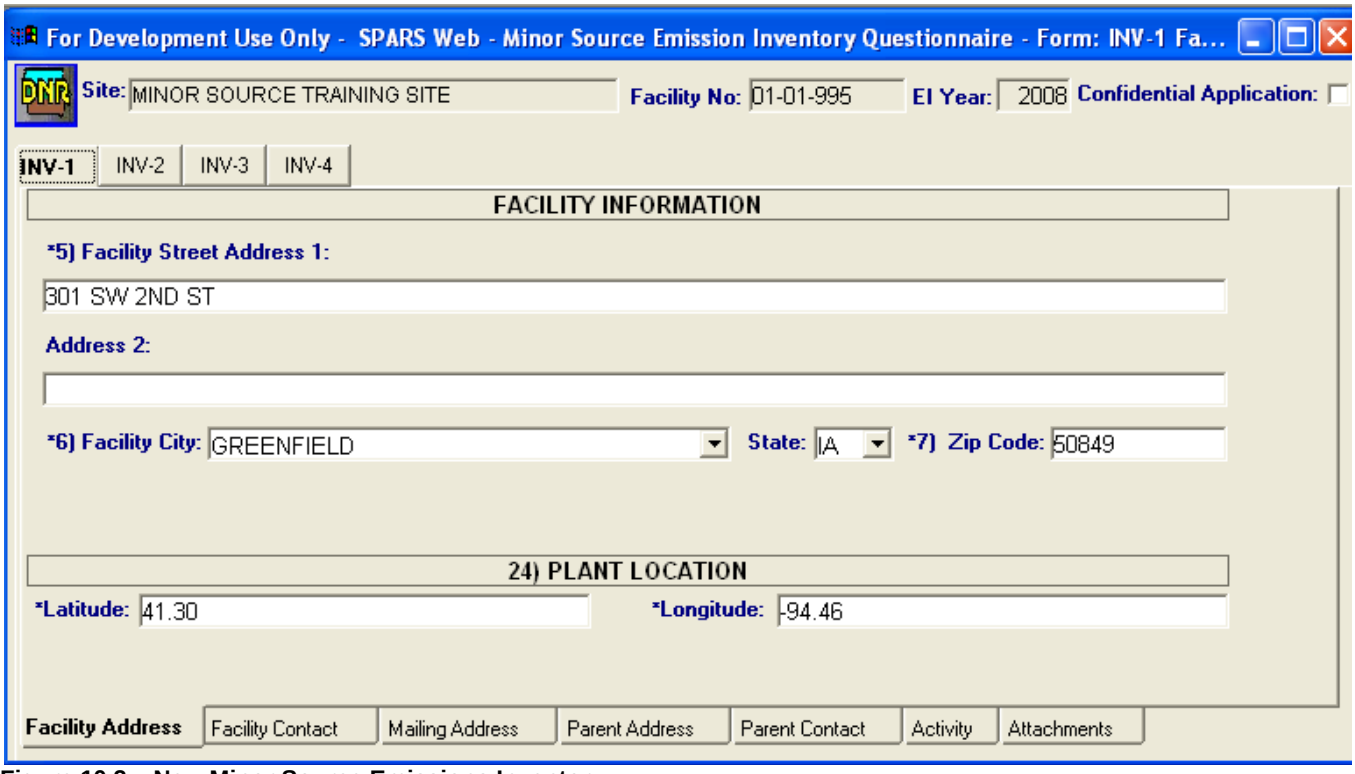
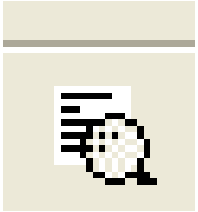
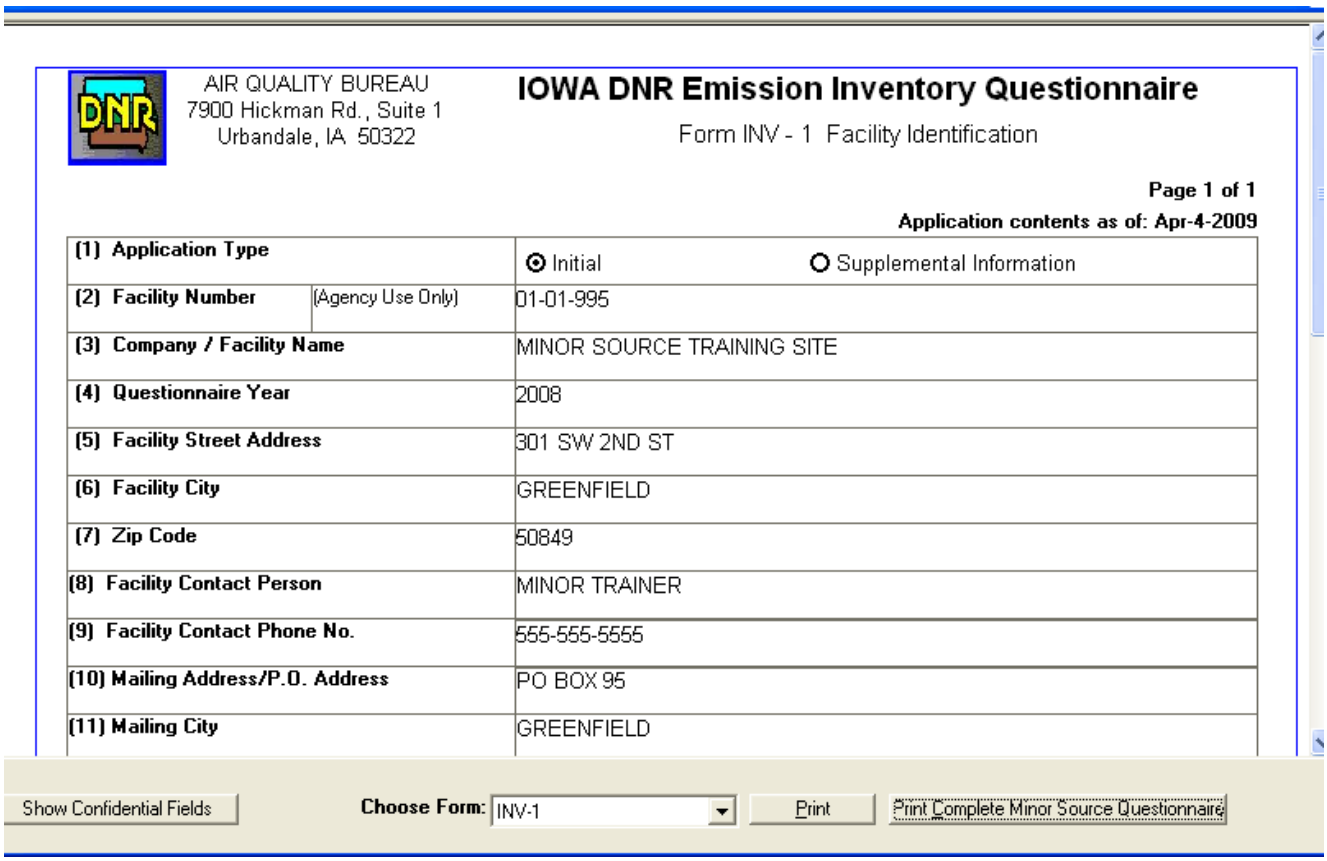


Figure 10.2 – New Minor Source Emissions Inventory

5. Click on the print-preview icon:  (magnifying glass). The following window opens:



AIR QUALITY BUREAU
7900 Hickman Rd., Suite 1
Urbandale, IA 50322

IOWA DNR Emission Inventory Questionnaire

Form INV - 1 Facility Identification

Page 1 of 1

Application contents as of: Apr-4-2009

(1) Application Type	⦿ Initial ○ Supplemental Information
(2) Facility Number (Agency Use Only)	01-01-995
(3) Company / Facility Name	MINOR SOURCE TRAINING SITE
(4) Questionnaire Year	2008
(5) Facility Street Address	301 SW 2ND ST
(6) Facility City	GREENFIELD
(7) Zip Code	50849
(8) Facility Contact Person	MINOR TRAINER
(9) Facility Contact Phone No.	555-555-5555
(10) Mailing Address/P.O. Address	PO BOX 95
(11) Mailing City	GREENFIELD

Show Confidential Fields | **Choose Form:** INV-1 | Print | Print Complete Minor Source Questionnaire

Figure 10.3 – Print-Preview of the new Minor Source Emissions Inventory

6.0 You are now able to view or print the inventory by each form. In addition, you may print the entire inventory.

> **NOTE:** Remember that in order to review information contained in inventories already submitted to DNR, you must used the print-preview feature as described in this chapter.

11.0 Submitting your Minor Source Emissions Inventory

Only Responsible Officials may submit applications and inventories to the AQB.

To submit a completed application or inventory to the AQB:

1. After logging in *as the Responsible Official,* open the Application Query Tool and select the facility for which you will be submitting the Minor Source emissions inventory.

2. Click the **Minor Source Questionnaires** button.

3. Find the Minor Source Inventory in the **INDUSTRY Phase** and highlight it. *IMPORTANT: Only applications and questionnaires on the INDUSTRY Phase can be submitted to the AQB*.

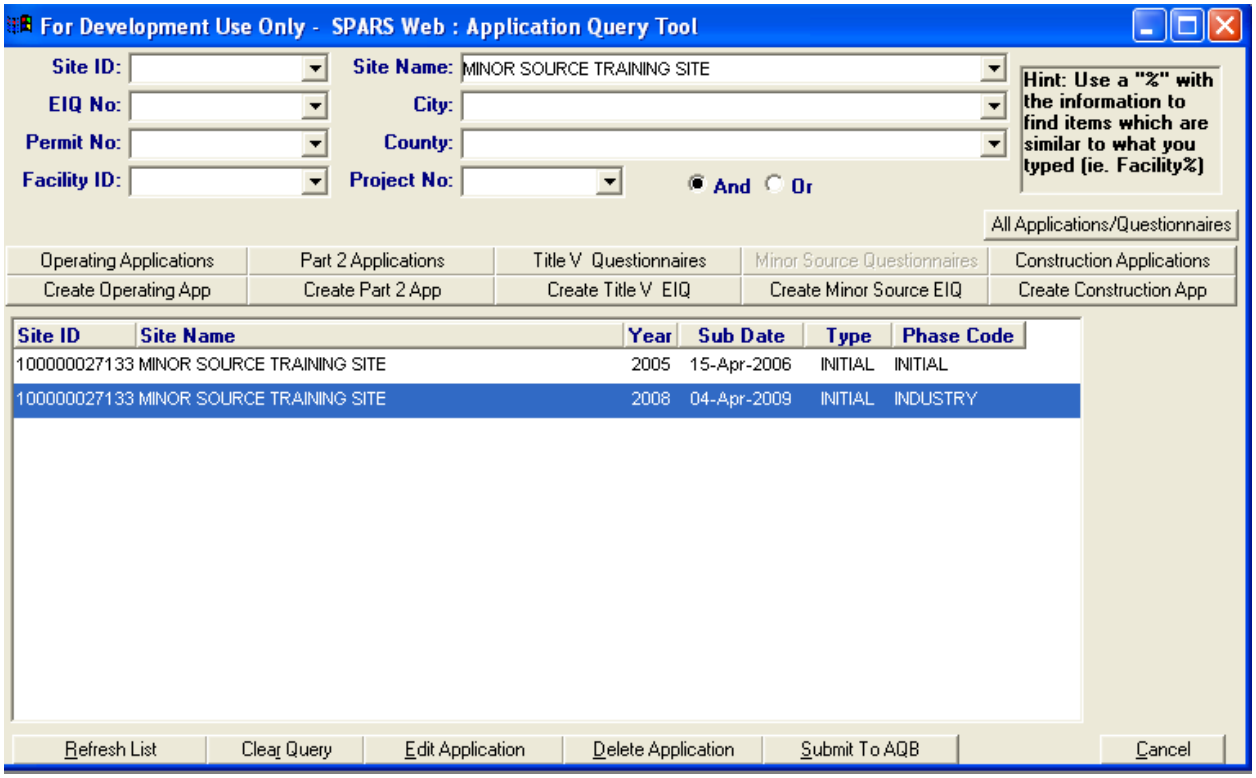


Figure 11.1 – Minor Source Emissions Inventory in the INDUSTRY Phase

4. Click the **Submit to AQB** button. IMPORTANT: When the inventory on the *INDUSTRY Phase* is highlighted, the **Submit to AQB** button will be active; otherwise, the button will be inactive and the words grayed out.

5. A box will pop-up for the Responsible Official to enter the assigned PIN. Click **OK** to submit, or **Cancel** if you are not ready to submit.

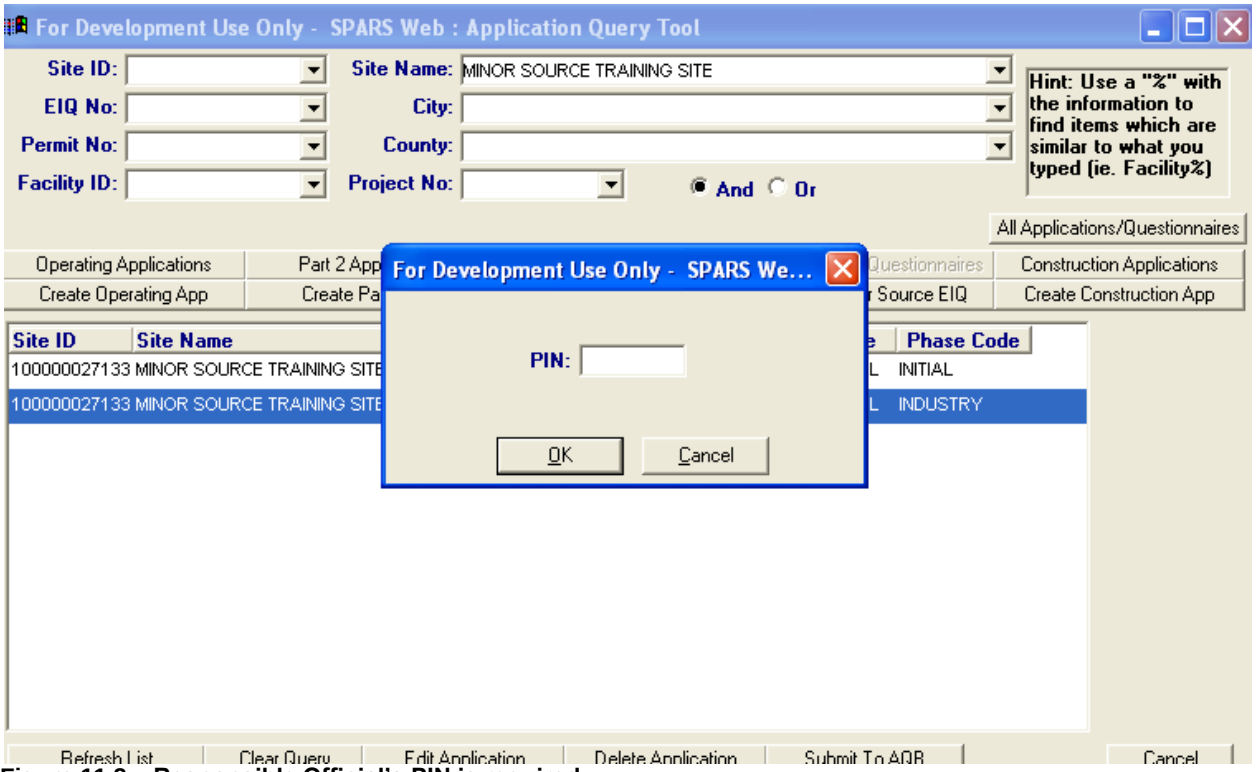


Figure 11.2 – Responsible Official's PIN is required

6. If successfully submitted, a notice will appear: **The application has been submitted to AQB**. If not successfully submitted, an error message will appear, instead.

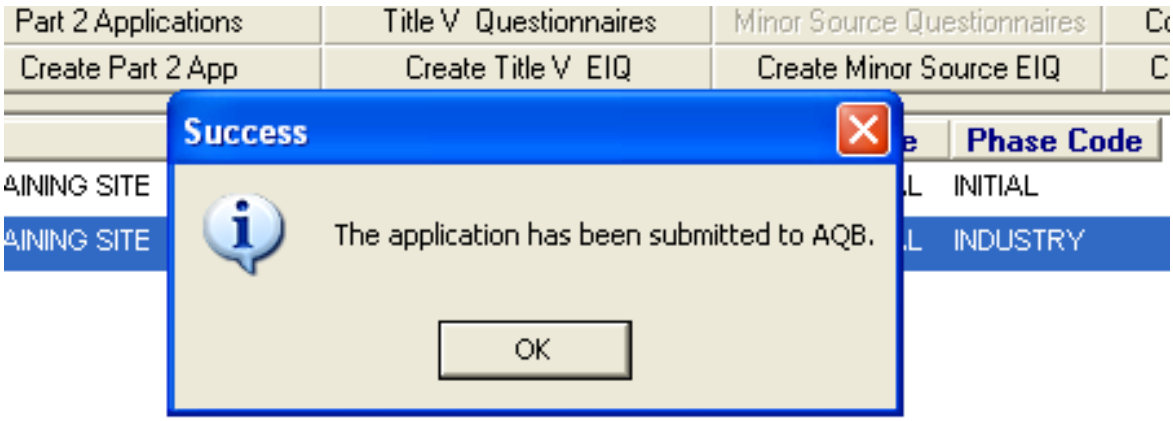


Figure 11.3 – The Minor Source Emissions Inventory has been submitted to the AQB.

7. As soon as the inventory is submitted, the Phase Code changes to INITIAL (see Figure 11.3).

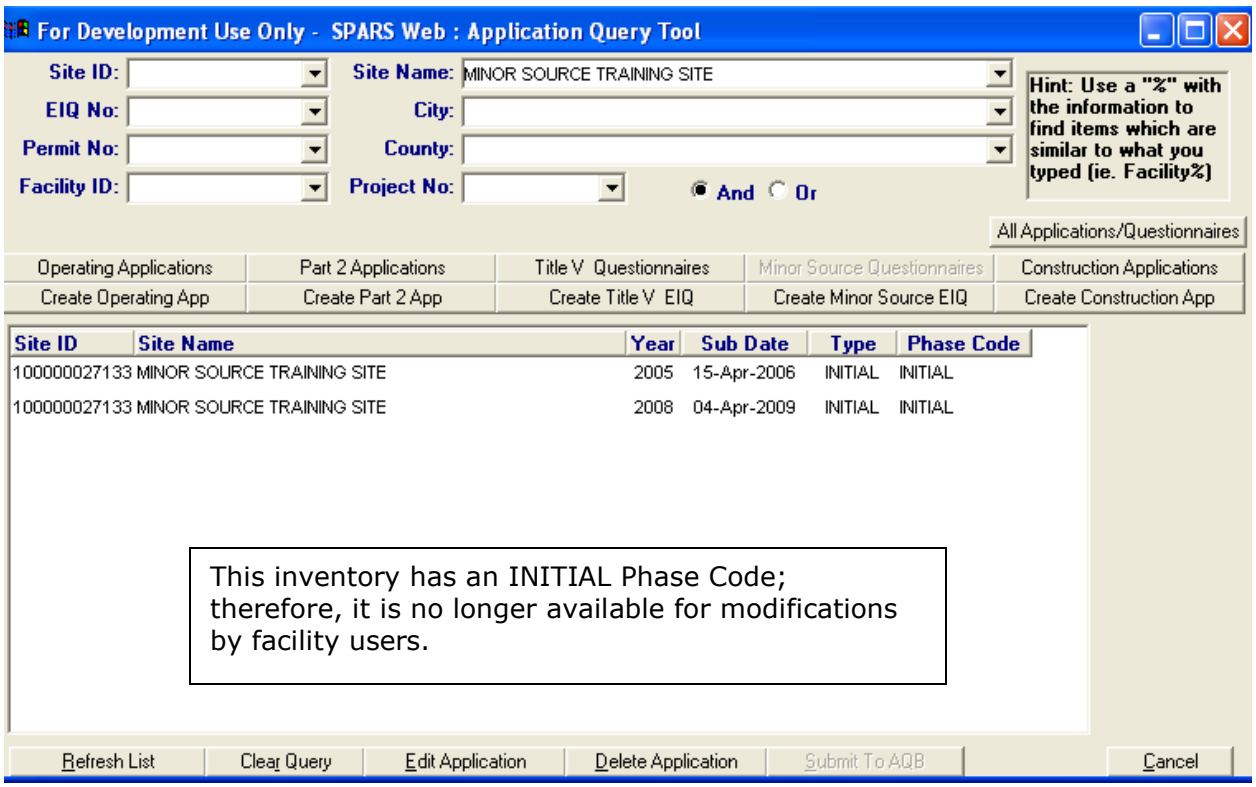


Figure 11.4 – When submitted, the inventory Phase Code changes from INDUSTRY to INITIAL.

8. Within 1 – 2 days, the Responsible Official and the Facility Administrator will be informed via E-mail that the inventory has been received by the AQB.

12.0 Correcting your Minor Source Emissions Inventory after Submittal

If mistakes are discovered **after** submission to the AQB, you will need to create a supplement of the inventory that needs to be modified.

To create a supplement:

1. Open the Application Query Tool and select the facility for which you will be creating the supplemental inventory.

2. Click on the **Create Minor Source EIQ** button. The **Inventory/Application Date & Year** window opens.

3. In the **Emission Inventory/Application Year** field, enter the ***same*** Inventory Year as the one for the inventory you are planning to correct.

4. Select the radio button for **Copy Data from Previous Document**. Select the inventory to be corrected.

Figure 12.1 – Creating a Minor Source Supplemental Inventory

5. A supplemental inventory in the INDUSTRY Phase will be created (see Figure 12.2).

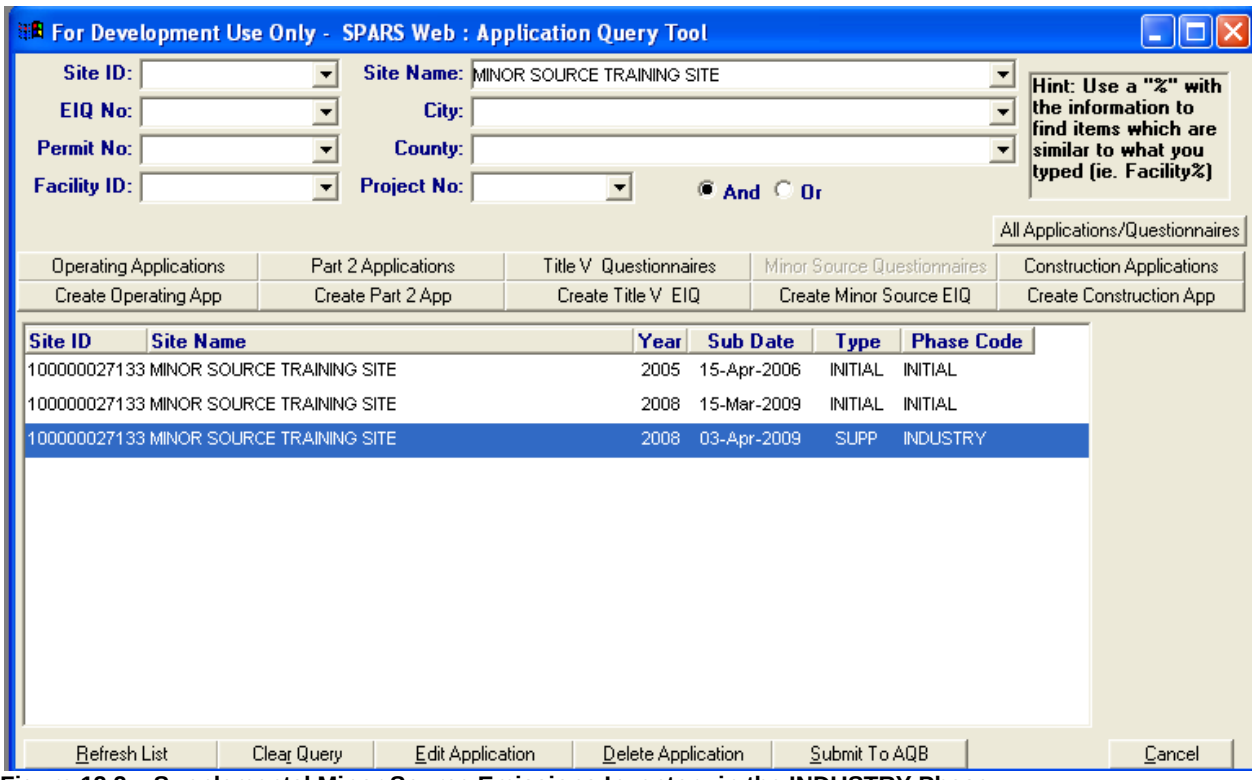


Figure 12.2 – Supplemental Minor Source Emissions Inventory in the INDUSTRY Phase

6. The supplemental inventory is an exact replica of the original inventory; therefore, you will only need to make modifications to those sections that need it.

7. After corrections are completed, the Responsible Official will have to submit the supplemental inventory to the AQB.

NOTE: If you are not able to complete the supplemental emissions inventory during one session, you may access the inventory at any time by doing the following:

e. Open the Application Query Tool.
f. Select the facility that you are interested in.
g. Click on the **Minor Source Questionnaires** button to see existing emission inventories for the selected facility.
h. Highlight the supplemental inventory and double-click.

13.0 Working in SPARS Web: Workarounds

Workaround #1 – Adding Transfer Efficiency for HAPs

Problem Description:

Cell #23 found in **INV-3** and **INV-4** (see Figures 13.1 and 13.2) is used to enter spray booths transfer efficiency for $PM_{2.5}$ and PM_{10}.

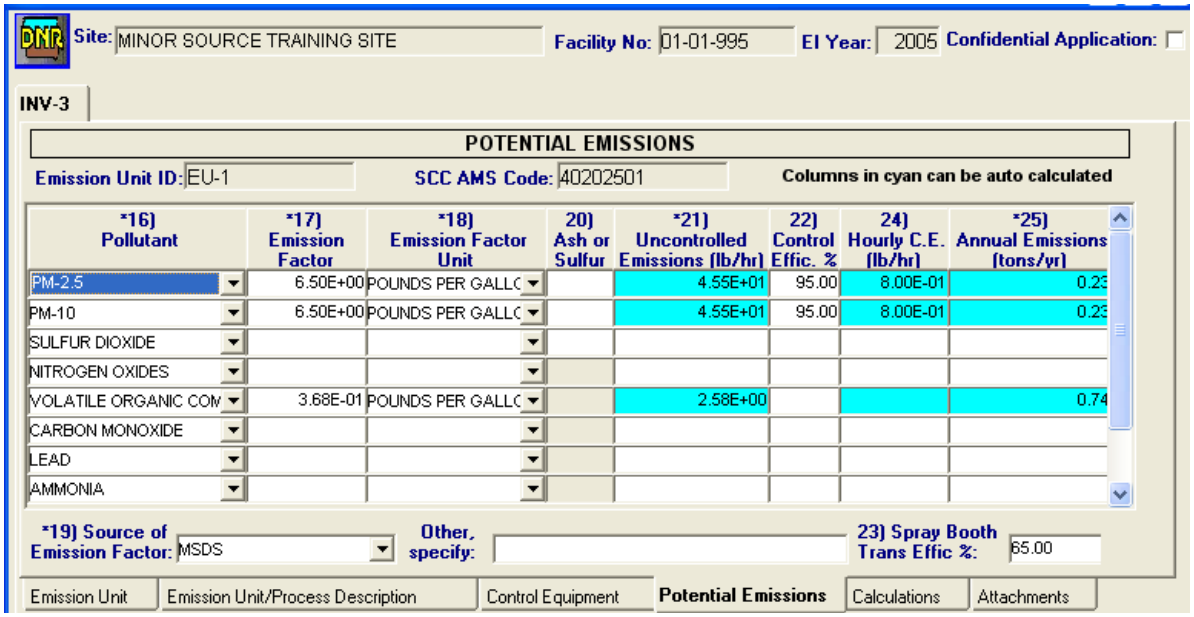


Figure 13.1 – INV-3 Cell 23: Spray Booth Transfer Efficiency ($PM_{2.5}$)

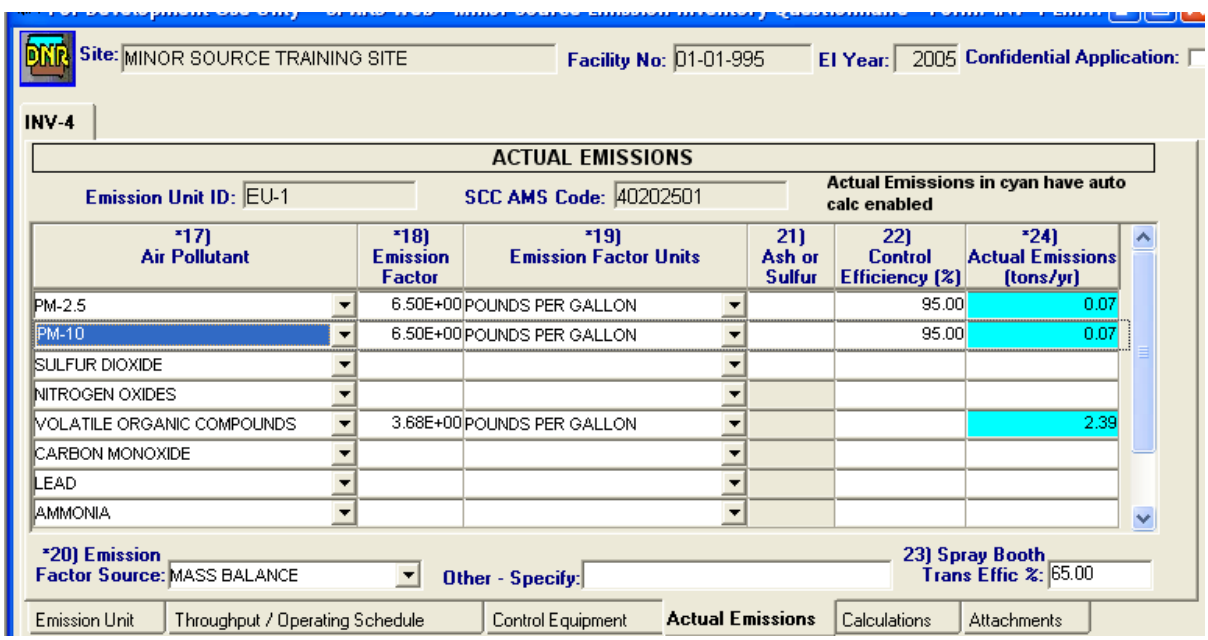


Figure 13.2 – INV-4 Cell 23: Spray Booth Transfer Efficiency (PM_{10})

However, there is no cell for transfer efficiency for hazardous air pollutants (HAPs), even though it may be appropriate for a HAP that is a solid (see Figure 13.3).

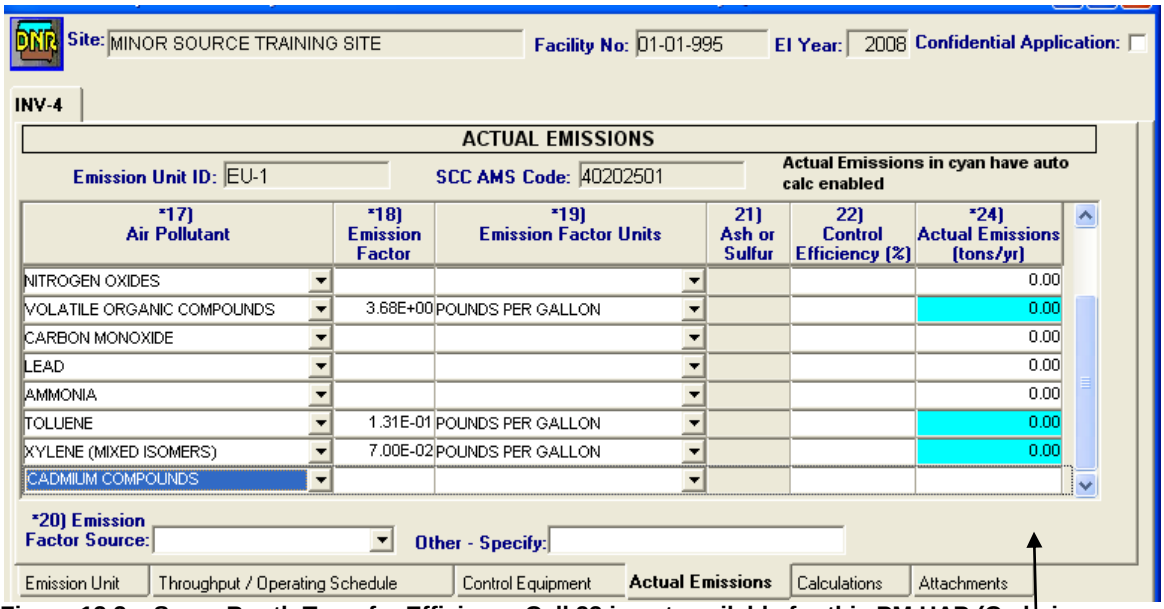


Figure 13.3 – Spray Booth Transfer Efficiency Cell 23 is not available for this PM HAP (Cadmium Compounds)

Cell #23 is not available for this PM HAP

Workaround:

To enter a spray booth transfer efficiency for a HAP:

1. Complete the line for PM-10 (or PM-2.5) with the data that you want for the HAP, including the transfer efficiency (see Figure 13.4).

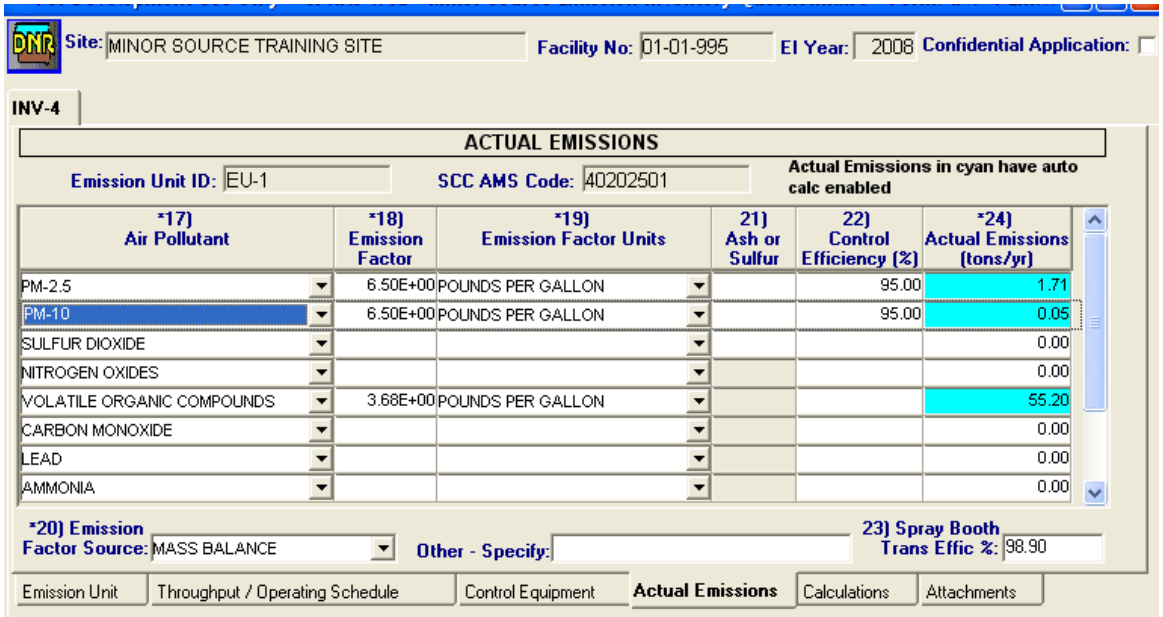


Figure 13.4 – Entering Spray Booth Transfer Efficiency for a PM HAP

2. Using the pull-down menu, change the pollutant from PM_{10} (or $PM_{2.5}$) to the desired HAP. SPARS will respond with a message that says that this pollutant cannot be changed (see Figure 13.5).

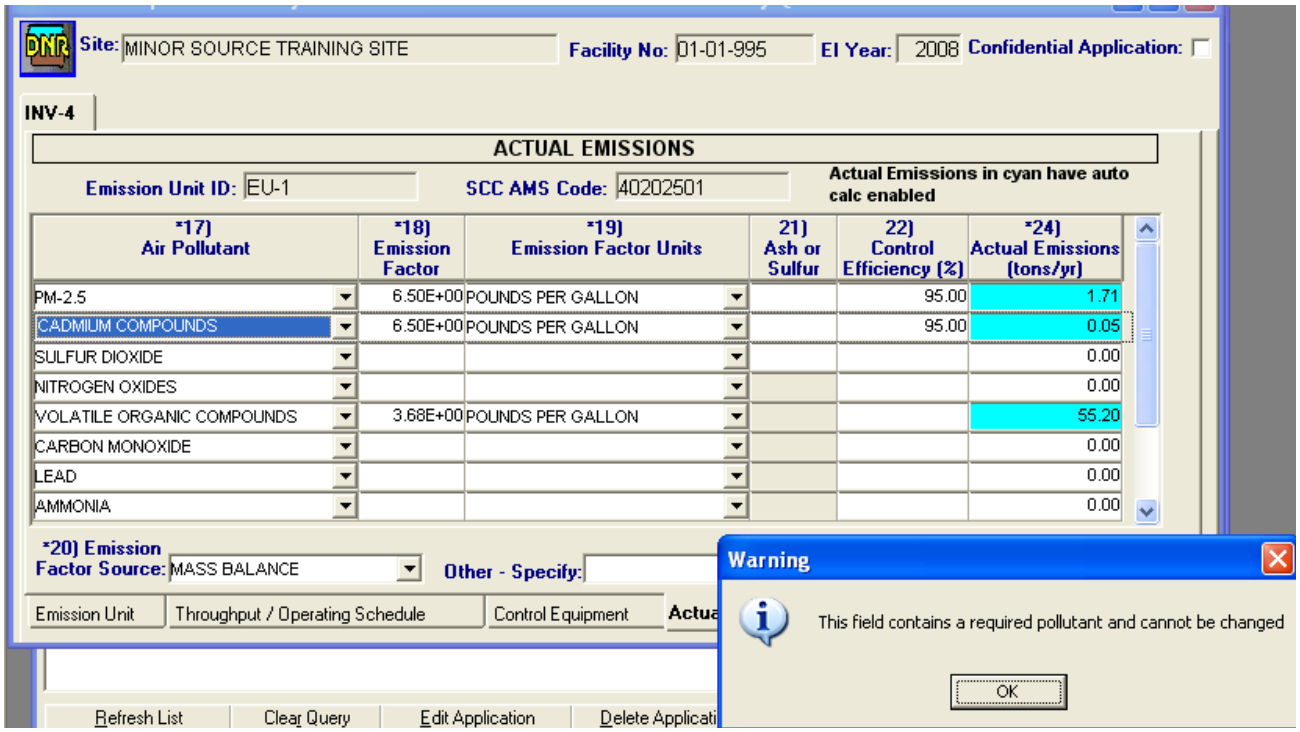


Figure 13.5 – Replacing PM_{10} with "Cadmium Compounds" (PM HAP)

2. Click **OK**. The transfer efficiency cell for the HAP will now be hidden, but the value you entered is still there and is used to calculate emissions (see Figure 13.6).

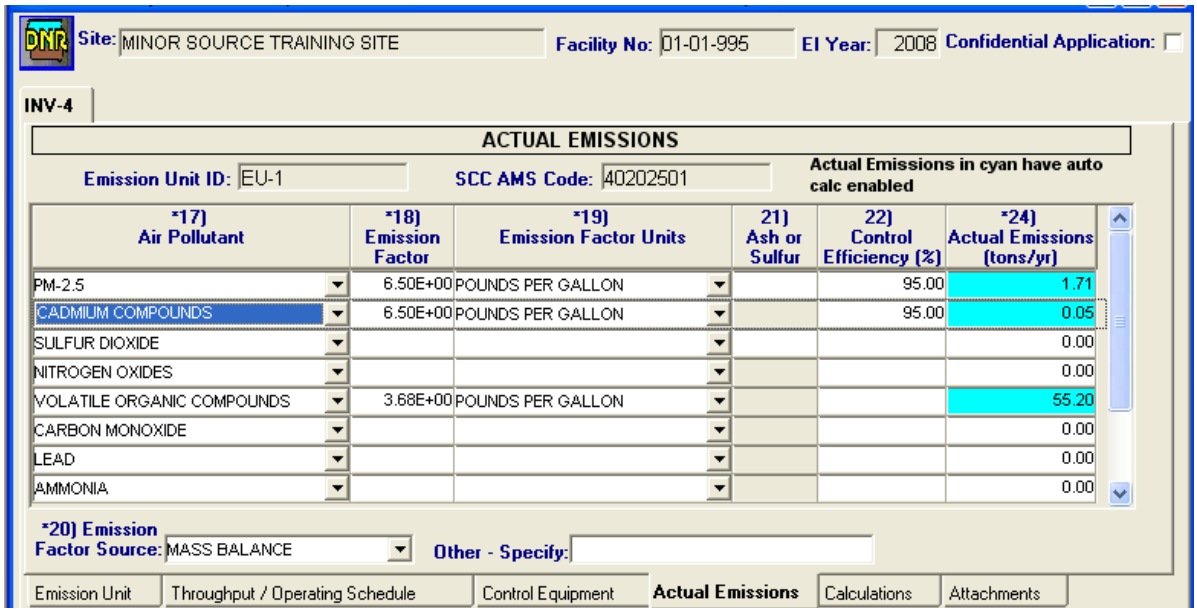


Figure 13.6 – PM_{10} and Cadmium Compounds

3. Refresh by leaving the screen and returning. The PM-10 line will reappear but will be blank (see Figure 13.7).

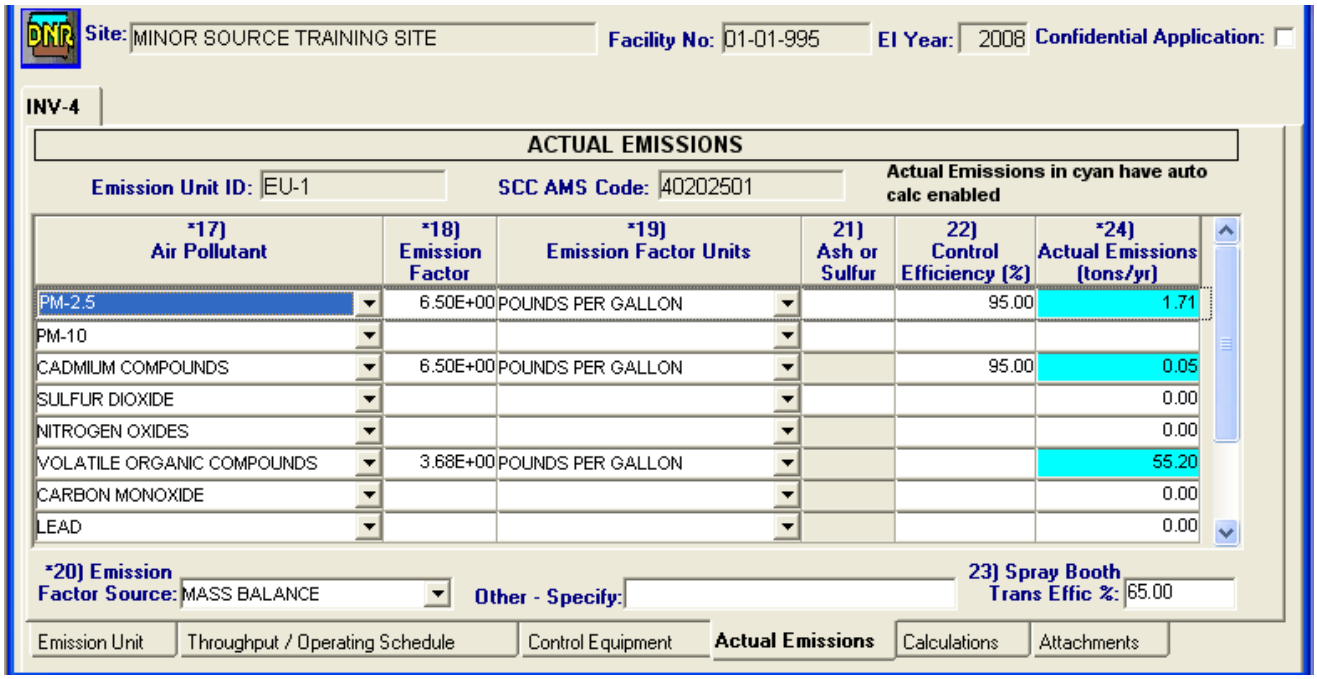


Figure 13.7 – PM_{10} and Cadmium Compounds

4. Re-enter the correct data for PM-10. **NOTE**: This same procedure can be done for sulfur or ash content.

Workaround #2 – Clearing Erroneous Information for $PM_{2.5}$, PM_{10}, Sulfur Dioxide, Nitrogen Oxides, Volatile Organic Compounds, Carbon Monoxide, Lead, and Ammonia

Problem Description:

It may happen that data for potential or actual emissions for any of these eight pollutants is entered in error, as shown in Figure 13.8 for sulfur dioxide. The best correction resulted in 0.00 for some cells, (NONE) for emission factor units, and some arbitrary choice for emission factor source. It is possible to return the sulfur dioxide line to its pristine, blank state.

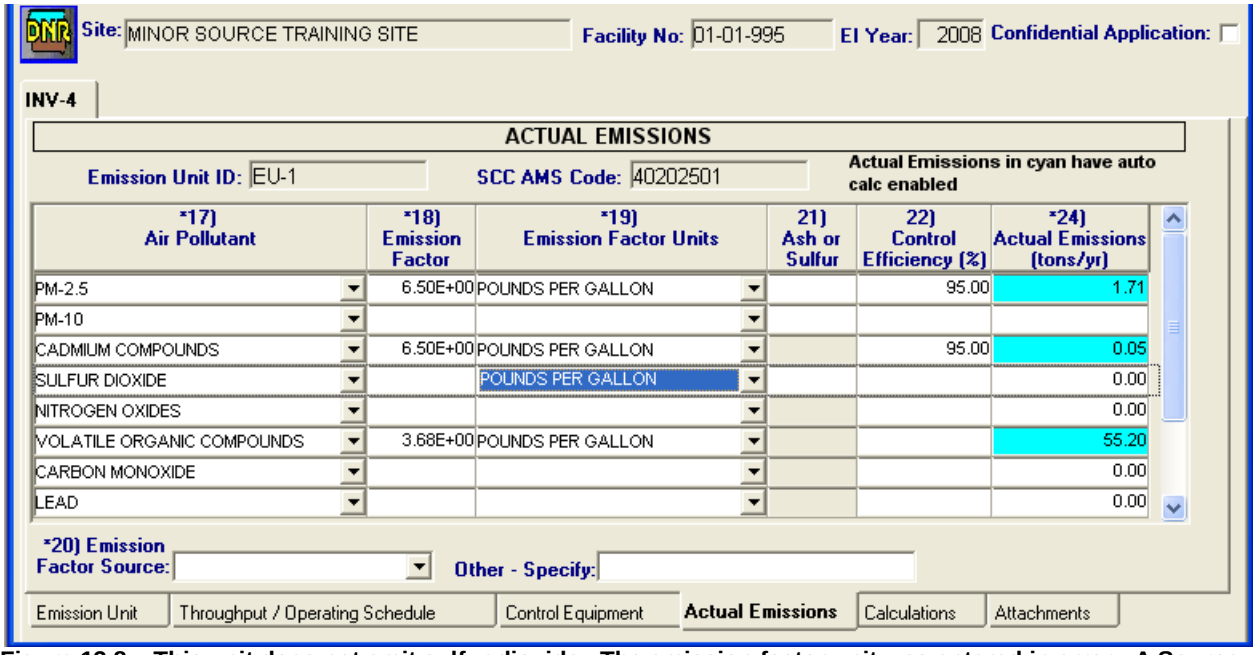


Figure 13.8 – This unit does not emit sulfur dioxide. The emission factor unit was entered in error. A Source of Emission Factor was also entered in error.

Workaround:

To clear information entered in error for PM2.5, PM10, Sulfur Dioxide, Nitrogen Oxides, Volatile Organic Compounds, Carbon Monoxide, Lead, and Ammonia:

1. Change the pollutant for which the erroneous information has been entered to any other pollutant (cannot be any of the other seven pollutants). SPARS will respond with a message that says that this pollutant cannot be changed (see Figure 13.9).

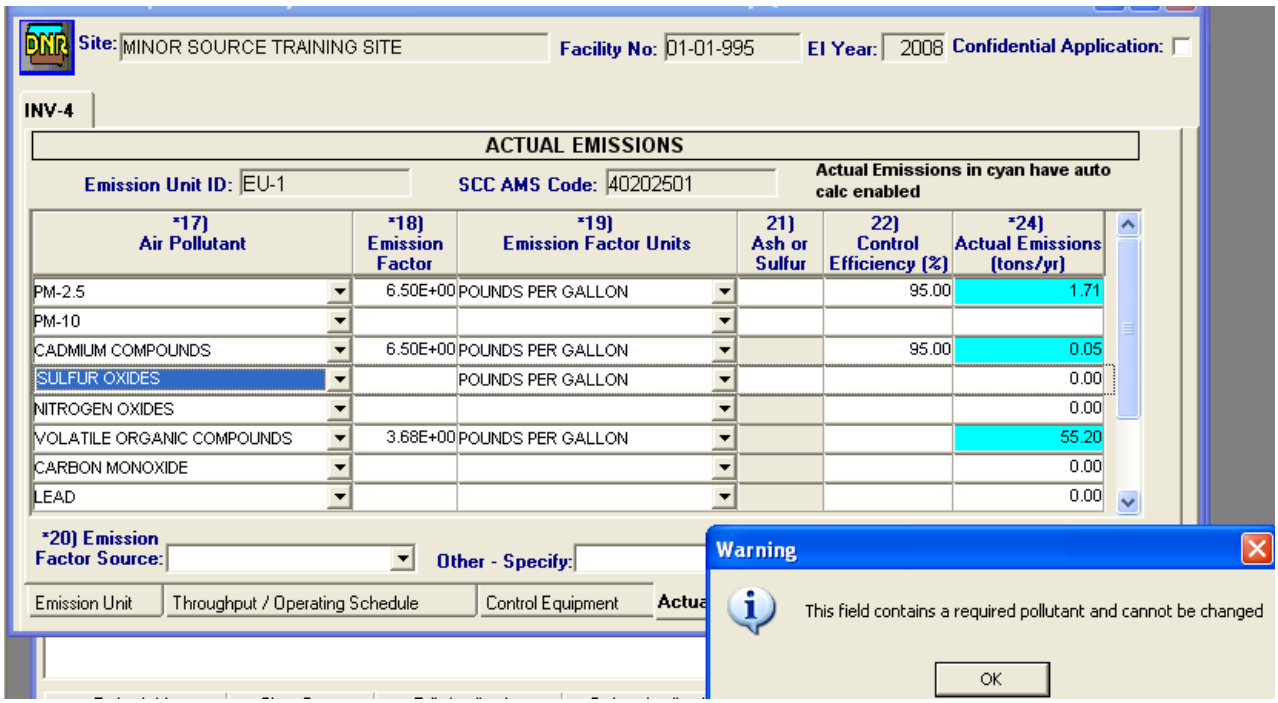


Figure 13.9 – Changing Sulfur Dioxide into Sulfur Oxides

2. Click **OK**.

3. Highlight the newly entered pollutant, right-click, and delete it.

4. Refresh by leaving the screen and returning. The Sulfur Dioxide line will reappear and will be blank. The Source of Emission Factor information is also gone (see Figure 13.10).

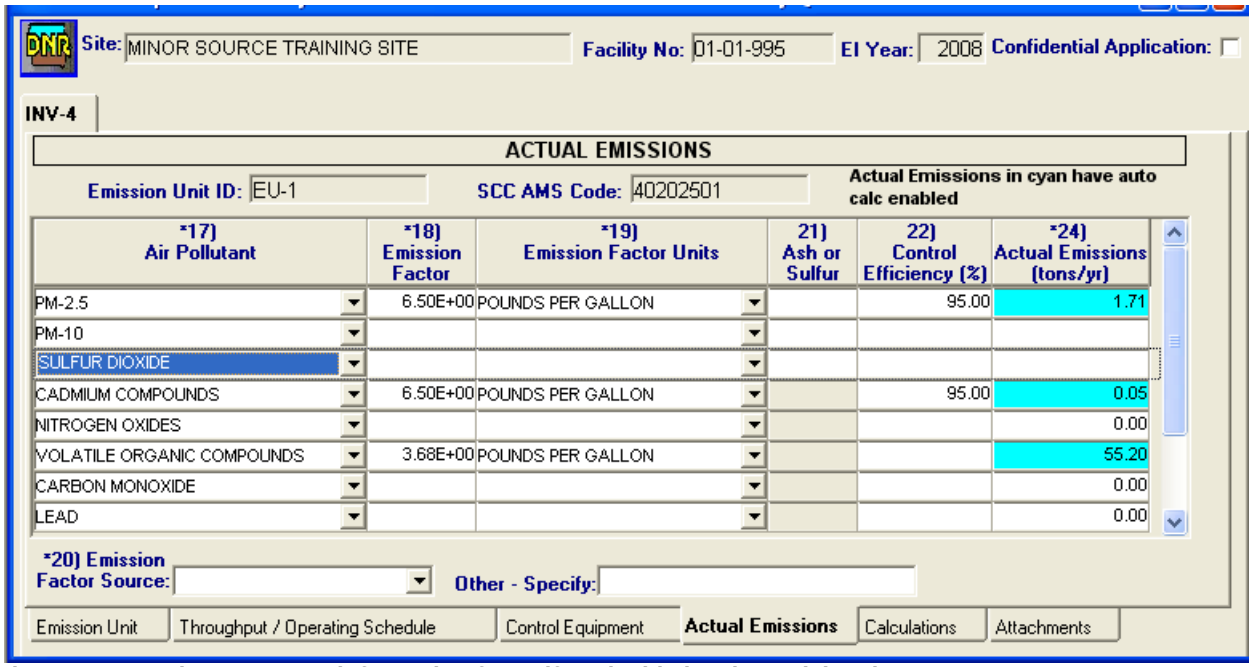


Figure 13.10 – The erroneous information for Sulfur Dioxide has been deleted

14.0 Working in SPARS Web: Avoiding Common Errors

Error #1: **Listing "Single HAP" or "Combined HAP" as an air pollutant.**
Solution: List the specific single HAP, such as "benzene" or list VOC HAP Total.

Error #2: **Not listing HAPs and VOCs separately.**
Solution: Many HAPs are also VOCs. List such pollutants as both an individual HAP and VOC.

Error #3: **Entering the latitude and longitude in degrees, minutes, and seconds (DMS Format).**
Solution: Enter the latitude and longitude in degrees only (decimal degree or DegDec Format).

Error #4: **Entering the longitude as a positive number.**
Solution: The longitude value should begin with a negative sign (-) to indicate the facility is located in the western hemisphere.

Error #5: **Entering the latitude and longitude with two or three decimals.**
Solution: The latitude and longitude should include **at least** six decimals.

Error #6: **Leaving the parent company information blank.**
Solution: If the facility does not have a parent company name, address, or contact number please use the facility name, address, and contact number.

Error #7: **Leaving blank the fields for the SIC and NAICS codes.**
Solution: Enter both codes and a brief description of what your facility does.

Error #8: **Not including appropriate supporting materials.**
Solution: Include all relevant MSDS and material usage logs as an attachment on INV-1.

Error #9: **Not explaining why an emission point/unit was not included in the inventory.**
Solution: Attach a cover letter as an attachment on INV-1indicating why an emission point/unit was not included in the inventory.

Error #10: **Not including emission units that are still available, but did not operate during the emission year.**
Solution: If an emission unit is still available for operation but did not operate during the emission year, include it in the inventory and fill the actual throughput in as "0."

Error #11: **Entering the wrong emission point type for sources venting inside.**
Solution: If an emission point vents inside, indicate the emission point type as "other."

Error #12: **Not entering dates of construction and installation of emission units.**
Solution: Include dates of construction and installation of emission units.

Error #13: **Using maximum hourly design rate units that do not cancel out with the emission factor units.**
Solution: If possible, make sure that the maximum hourly design rate units and the emission factor units cancel out so the calculation results in lbs/hr (ex. MMBtu/hr multiplied by lbs/MMBtu = lbs/hr).

Error #14: **Using a "lb/hr permit limit" as an emission factor.**
Solution: If at all possible, use documented emission factors (from AP-42, FIRE, TANKS, and Engineering Evaluations) when calculating potential emissions. If you cannot find an emission factor from one of these sources you may use the permit limit as a last resort. The lb/hr permit limit should actually be placed in the potential hourly-controlled emissions box (#24). When calculating actual emissions the preferred emission factors should be obtained from stack tests, AP-42, FIRE, TANKS, or Engineering Evaluations. Again, the permit limit may be used, but only as a last resort.

Error #15: **Using both a controlled emission factor and the combined control efficiency.**
Solution: When using a controlled emission factor, do not enter a value for the combined control efficiency.

Error #16 Using actual throughput units that do not cancel out with the emission factor units.
Solution: If possible, make sure the actual throughput units and the emission factor units cancel out so the calculation results in tons/yr (ex. MMBtu multiplied by lbs/MMBtu multiplied by 1ton/2000lbs = tons).

Error #17: **Not including actual operating schedules for the equipment.**
Solution: Fill out the actual operating schedule; this schedule should be the hours the emission unit operated rather than the business hours the facility is open.

15.0 Working in SPARS Web: Dos and Don’ts

Dos and Don’ts of SPARS Web Work….

Do review a SPARS printout of your most recent Inventory.
Do gather all the necessary information before starting working in your new Inventory.
Do review and update Site Management **before** creating your new inventory in the Application Query Tool.
Do add new **Points**, **Units**, **Control**, or **Monitor** equipment in Site Management
Do submit your inventory through SPARS Web if SPARS was used to create and complete it.
Do call us when getting any database errors.

Don’t delete any **Points**, **Units**, **Control**, or **Monitor** equipment in Site Management.
Don’t delete or modify any **Point IDs**, **Unit IDs**, **Control IDs**, or **Monitor IDs** in Site Management.
Don’t create new **Points**, **Units**, **Control**, or **Monitor** equipment in the inventory. (Do this in Site Management.)
Don’t submit a hardcopy of your inventory if it was created and completed in SPARS Web.
Don’t leave your inventory in the INDUSTRY Phase. Please submit it electronically.
Don’t delete an SCC number unless it was entered by mistake.

16.0 Contacts and On-line Resources

16.1 DNR Air Quality Contacts

SPARS Questions

- Rachel Quill, 515-281-8983
  Rachel.Quill@dnr.iowa.gov

- Jason Dowie, 515-281-8568
  Jason.Dowie@dnr.iowa.gov

- SPARS Helpdesk
  Phone: 515-281-8568, or
  515-281-8983
  Fax: 515-242-5094
  SPARShelpdes@dnr.iowa.gov

Emissions Inventory Questions

- Nick Page, 515-281-8500
  Nick.Page@dnr.iowa.gov

- Tiffany Wilson, 515-281-5774
  Tiffany.Wilson@dnr.iowa.gov

Greenhouse Gas Questions

- Marnie Stein, 515-281-8468
  Marnie.Stein@dnr.iowa.gov

16.2 On-line Resources

DNR Air Quality Bureau
www.iowacleanair.com

DNR MSEI Forms
www.iowacleanair.com
Click on “Emissions Inventory” then on “Minor Sources” then on “Forms and Instructions.”

EPA Emission Factors
To access AP-42 and WebFIRE emission factors go to:
www.epa.gov/ttn/chief/efpac/index.html

SIC Codes
www.osha.gov/pls/imis/sicsearch.html

NAICS Codes and Conversion from SIC to NAICS
http://www.naicscode.com

SCC Codes
www.iowacleanair.com
Click on “Emissions Inventory” and scroll down to “classification lists.” Click on “Source Classification Code (SCC) List.” Ethanol and Biodiesel plants should click on “Ethanol and Biodiesel Source Classification Code (SCC) List.”

Calculation Spreadsheet and Tools
To access calculation spreadsheets for painting operations, haul roads, asphalt, concrete and limestone processes go to:
www.iowacleanair.com
Click on “Emissions Inventory” then the appropriate spreadsheet located under “worksheets and example calculations.”

SPARS Web
Download SPARS user’s guide at
www.iowacleanair.com
Click on “SPARS”

Iowa Air Emissions Assistance Program (IAEAP)
http://www.iwrc.org/IAEAP/

Iowa Administrative Code (IAC)
http://www.legis.state.ia.us/IAC.html
See section 567, Chapters 20-34