# Lone-StarS Electronic Emissions Reporting User Guide

This is a step-by-step manual on how to work with the Lone-StarS program to report emissions electronically to TCEQ (Texas Commission in Environmental Quality). Lone-StarS provides a user interface that is very easy to use. The screen layouts follow an intuitive flow that takes the user from the beginning to the end of the entire process. The user can import the electronic data provided by TCEQ for prior years and modify the values for the current year. Alternatively, the user can start from scratch and can build a new electronic database for each site.

TCEQ mails out emission inventory packages around January of each year. Since the implementation of STARS program, with this package, TCEQ also sends out a floppy diskette loaded with an electronic extract file for each account. This file contains the emissions inventory data for the previous reporting year. The naming convention for the file is as follows:

**RN#**_Extract_txt.Z (RN is Regulated Entity Number).

This is a zipped file and can be unzipped by using any kind of unzip program on your computer. The unzipped file is an ASCII text file. The file is formatted according to standards set by TCEQ and looks like this:

```
A|ACCOUNT-SITE|AA0000Z|ORGANIZATION NAME|Example Company|
A|ACCOUNT-SITE|AA0000Z|SITE NAME|Austin Site|
A|ACCOUNT-SITE|AA0000Z|OWNER OPERATOR TYPE|OWNER|
A|ACCOUNT-SITE|AA0000Z|COUNTY STATUS|NONATTAIN|
A|ACCOUNT-SITE|AA0000Z|LOCATION ZIP CODE|78746|
A|ACCOUNT-SITE|AA0000Z|NEAR CITY|Austin|
A|ACCOUNT-SITE|AA0000Z|COUNTY NAME|Travis|
A|ACCOUNT-SITE|AA0000Z|UTM ZONE|14|
```

After you unzip the file you can create a job folder and put this file under your job folder on your computer. This file is what the TCEQ calls an "Extract File".

Once you have unzipped the file, you're ready to load the file into the Lone-StarS program.

## 1 – Launching the Application:

After you install the program, you can either use the icon on the desktop, or use the Windows' start menu to launch the Lone-StarS application. The Main Screen will look

like below. On the title bar, the application will display the database file name and account number/account year that are currently being worked on. Depending on the type of license you purchased, you can work with multiple database files or accounts. For convenience, Lone-StarS will keep track of the last account information and bring it up automatically when you launch the application.
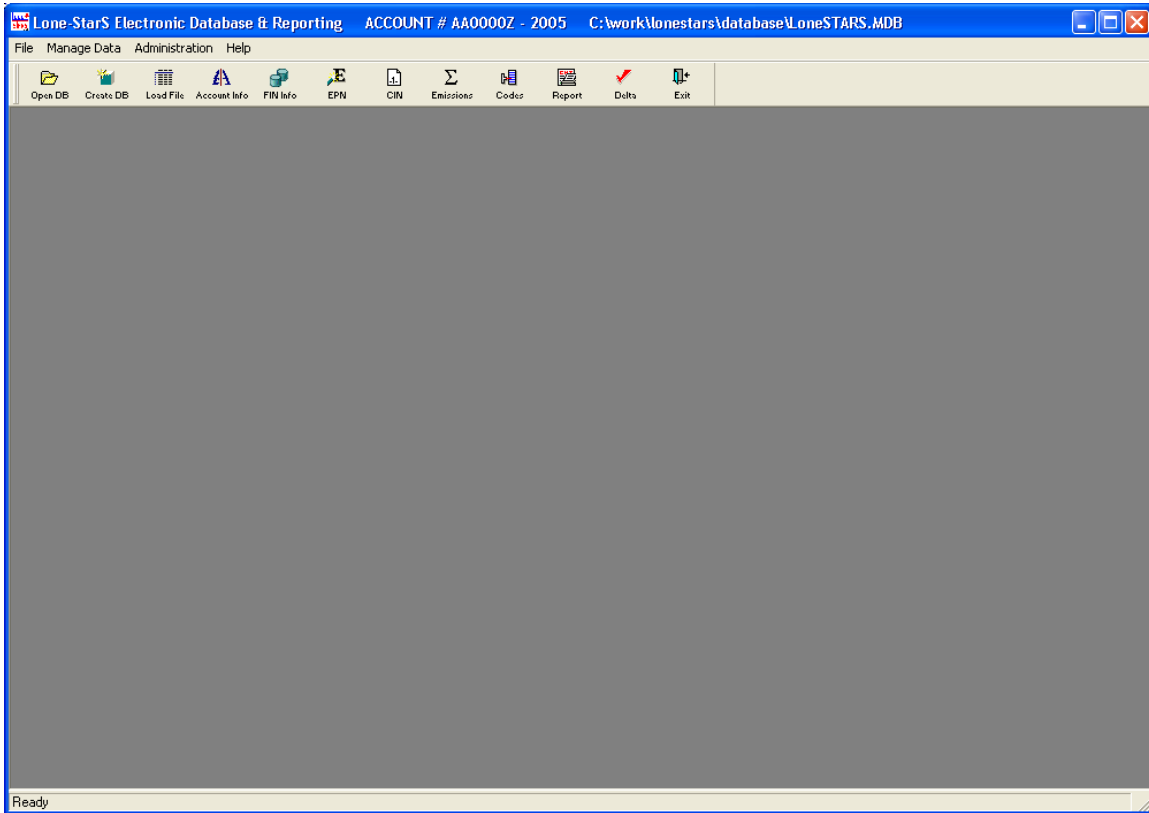


*\* **Note for First Time Users:** When you launch Lone-StarS for the first time, you will get the license entry dialog as shown. You will need to enter a valid license key to be able to run the program.*
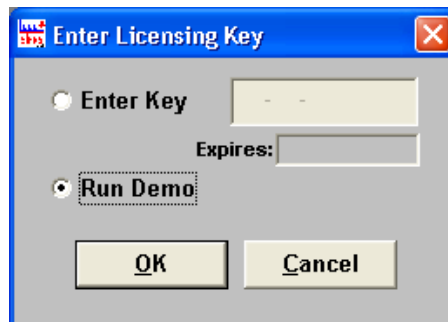


*To run the Lone-StarS in demo mode, select the "Run Demo" radio button. Note that you cannot save any data when running the application in demo mode.*

**2 – Open Database/Change Account:** 

If you have purchased the enterprise license, Lone-StarS will have the capability of creating multiple database files. This may come handy if you want to organize database files based on different sites or different clients. If you purchased the standard license, you can only work with a single database file. However, you can maintain emission inventory data for up to 5 different accounts. In either case, after you launch the application, you can select the file/account number that you want to work on. The application remembers the last account you worked on and it automatically sets it next time you launch it. You can use the "Open DB" toolbar button or "Open Database File / Change Account" menu option under the File menu to access this functionality. Following are the screens to manipulate database files and accounts to work on:
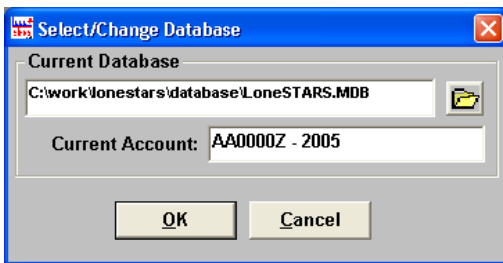


*\* Enterprise License has the capability to deal with multiple database files. Click on the folder icon to browse and select a Lone-StarS database file to work on. Then select an account/year combination from the drop down list.*
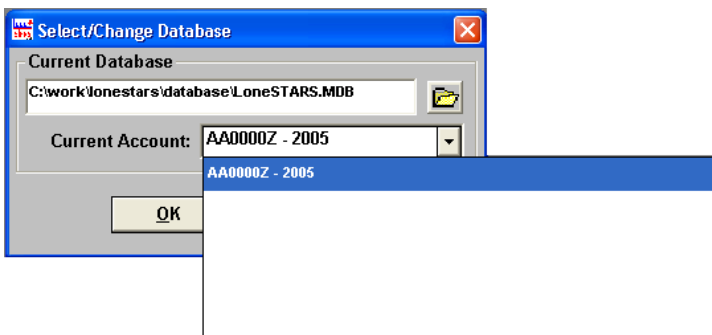


*\* Standard License can only work with a single database file. Folder icon will not be available. You can select an account/year combination from the drop down list.*

**3 – Creating a new Database:** 

Lone-StarS also provides the ability to create a new database to load your accounts or to save them in a different directory to give the flexibility to the user (especially consulting firms who work with different clients) to be able to store each client's

emissions data in a different database. This functionality is available in the enterprise version only.
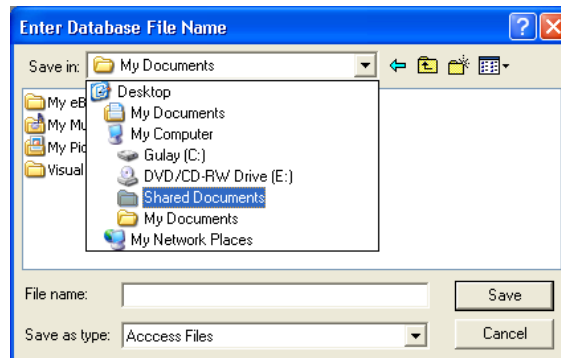


You can use the "Create DB" toolbar button or "Create new Database File" menu option under the File menu to access this functionality. Simply browse to the folder you want to create the database file in and type in a name for the file and click on the "Save" button. This will create an empty Lone-StarS database.

**4 – Loading TCEQ Extract File:** 

In order to load data into Lone-StarS, you need an extract file from the TCEQ for each of your accounts for the prior reporting year.

You can use the "Load File" toolbar button or "Load File" menu option under the File menu to see the window below. Choose the current reporting year. For example, if you will be updating your EI data for calendar year 2005, the Report Year is 2005, even though the data that will be loaded into the system from the TCEQ extract file is 2004 data. Then choose the extract file by browsing its location in your computer. Once you find the *.txt file, select the file and click "Open". This will allow Lone-StarS to open the extract file and load your extract data to its database tables.
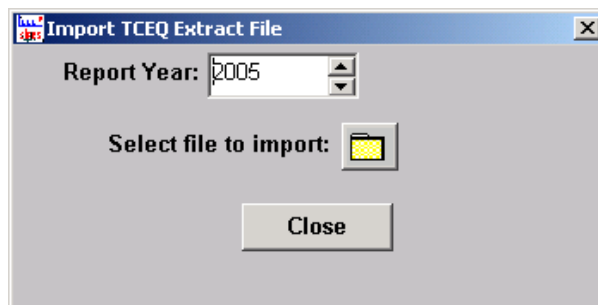
*\* Be careful to enter the correct Report Year before continuing. Lone-StarS will warn you if you type in a year that is already in the system. Also don't forget that you can only import the unzipped text file provided by TCEQ.*

When the importing is completed you'll see a confirmation screen as following:
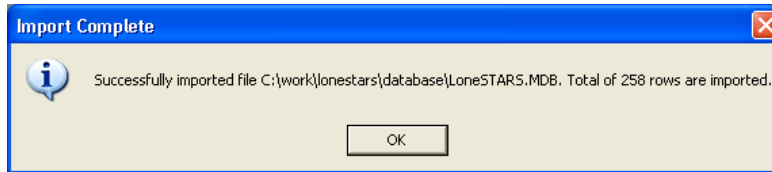


After you have seen this screen click the "Okay" button and "Close" the "Load File' Screen. Once the file is loaded, the application will set the new account site/year combination as the current database.

**5 - Update the Account Information:**  Account Info

The "Account Info" screen is used to enter and manage Account-Site information. This section allows the user to enter the main information for the account. The crucial information for this data is the report year and the TCEQ account number. This information appears on top of the form.

- Report Year: This is the report year for which the electronic report is being prepared. You can maintain indefinite number of report year data for a given account (up to 5 accounts for standard license).

- Account Number: This is the TCEQ account number assigned to the site for which the electronic report is being prepared.

- Crud Type: - CRUD (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record. Lone-StarS will set the CRUD type to "N (No Change)" for you. You can change the CRUD type set by the program using this box.

*Organization Info:*

- Organization: Enter the name of the organization for this account.

- Site: Enter the site name for this account.

- Owner/Operator Type: OPTIONAL

- EPA Account #: OPTIONAL

- Last EI Date: OPTIONAL

- County Status: OPTIONAL

### *Location Info:*

- Zip Code: OPTIONAL

- Nearest City: OPTIONAL

- County: OPTIONAL

- Region Code: OPTIONAL

- UTM Zone: OPTIONAL

- East (m): OPTIONAL

- North (m): OPTIONAL

- Latitude: OPTIONAL

- Longitude: OPTIONAL

### *Operation Info:*

- Spring Percentage: Spring Percentage (mandatory) may be a number between 1 and 100 (inclusive); represents actual percentage of operation that occurred in the combined months of March, April and May.
- Summer Percentage: Summer Percentage (mandatory) may be a number between 1 and 100 (inclusive); represents actual percentage of operation that occurred in the combined months of June, July and August.
- Fall Percentage: Fall Percentage (mandatory) may be a number between 1 and 100 (inclusive); represents actual percentage of operation that occurred in the combined months of September, October and November.
- Winter Percentage: Winter Percentage (mandatory) may be a number between 1 and 100 (inclusive); represents actual percentage of operation that occurred in the combined months of December, January and February.
- Primary SIC: OPTIONAL - Not updated by industry.
- Secondary SIC: OPTIONAL - Not updated by industry.

- Total Operating Hours: - Total Operating Hours (mandatory) represents the total hours the entire site operated during the calendar year for which the EI is being submitted. For leap years, Total Operating Hours must be a number between 1 and 8784 (inclusive). For all other years, this must be a number between 1 and 8760 (inclusive).

- Hours per Day: Hours per day (mandatory) must be a number between 1 and 24 (inclusive).

- Days per Week: Days per week (mandatory) must be a number between 1 and 7 (inclusive).

- Weeks per Year: Weeks per year (mandatory) must be a number between 1 and 52 (inclusive).

The Sum of the Spring, Summer, Fall, Winter Percentages must equal and not exceed 100.

Click on the "Account Info" button to update the organization, location and operation information and click "Save" to save it.

Then click on the "Contact" button to see the contact information and update it if necessary.

**6 - Update the FIN Information:**  FIN Info

Click on the "FIN info" button to access the FIN information forms screen. All FINs for the selected account are displayed in the list on the left. If you add new FINs they are added to the list. If you want to delete any FINs that you have created you can use the "Delete" button. WE HAVE TO WARN YOU THAT TCEQ DOES NOT ALLOW DELETION OF ANY EXISTING FIN/CIN/EPN STRUCTURE THAT IS ALREADY REPORTED TO THE TCEQ REGARDLESS OF ITS CURRENT OPERATING STATUS (ACTIVE/SHUTDOWN/IDLE). THEREFORE, PLEASE DO NOT ATTEMPT TO DELETE THE INACTIVE FIN/CIN OR EPNs THAT ARE LISTED IN THE PROGRAM. THE PURPOSE OF THE "DELETE" FUNCTION IN THE LONE-STARS PROGRAM IS TO ALLOW YOU TO DELETE A NEWLY CREATED FIN/CIN/EPN THAT HAS NOT BEEN REPORTED TO THE TCEQ YET.

Click on the FIN name to choose the FIN that you would like to view the information for. Update the data if necessary. Do not forget to change the Crud Type to "U" if you update

any of the information on the form.  To update or view the characteristics of each FIN click ""Chars" button.  After the updates click "Save" then "Close" button.

## *FIN Info:*

- FIN Label: (mandatory) This is the name or label given to the FIN.

- CRUD Type: CRUD (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record. Lone-StarS will set the CRUD type "N (No Change)" for you.  You can overwrite the CRUD type set by the program using this box.

- FIN Name: (mandatory) represents the company-assigned name for the FIN. This field must be text and no longer than 50 characters.

- Comment: (optional) represents a field where a comment can be submitted for the FIN.

- Plant ID: represents the industry assigned identifier for the unit or plant where the FIN is located.

- Group Type: represents the industry assigned identifier for the group.

- Profile: represents the type of FIN profile. This defines the characteristics for the FIN. When you change the profile, you will need to change the characteristics as well.

- SCC: represents the SCC code.

- SCC Description: represents the description for SCC. This will be auto populated when a SCC code is entered.

- Permit Type: represents whether the FIN is operated under provisions in a permit, standard exemption or whether the FIN was submitted as part of the grand fathered source registration. Values for this field must be text within a value not to exceed 10 characters.

## *Operation Info:*

- Spring Percentage: (mandatory) represents the FIN's actual percentage of total yearly operation that occurred during the months of March, April, and May.

- Summer Percentage: (mandatory) represents the FIN's actual percentage of total yearly operation that occurred during the months of June, July, and August.

- Fall Percentage: (mandatory) represents the FIN's actual percentage of total yearly operation that occurred during the months of September, October, and November.

- Winter Percentage: (mandatory) represents the FIN's actual percentage of total yearly operation that occurred during the months of December, January, and February.

- Status Code ID: (mandatory) represents the FIN's operating status during the reporting year for which the inventory is being submitted.  If the FIN operated even one day during the year, then the status must be "active". This field must be text and no longer than 10 characters.

- Status Date: represents the date that a FIN's new status became effective. Status Date is mandatory for a change in status. The STATUS DATE will not be extracted for a status code of A (active) or I (idle).

- % of Max Capacity: (mandatory) represents the percent of the maximum potential operating capacity experienced by the FIN during the inventory year. This field must be a whole number percent (e.g., 78%), numeric and no longer than 4 digits.

- Annual Operating Hours: Annual Operating Hours reported for the FIN can not exceed the annual operating hours reported for the account-site.

- Days/Week: (mandatory) represents the actual days per week the FIN operated. This field must be numeric and no longer than 1 digit. Valid values for this field are between 1 and 7, inclusive.

- Weeks/Year: (mandatory) represents the actual weeks per year the FIN operated. This field must be numeric and no longer than 2 digits. Valid values are between 1 and 52, inclusive.

- Hours/Day: (mandatory) represents the actual hours per day the FIN operated. This field must be a numeric and no longer than 2 digits. Valid values are between 1 and 24, inclusive.

- Start Time: represents the time of day the FIN begins operating. This field is mandatory for FINs that operate fewer than 24 hours per day. This field is numeric and can be no longer than 4 digits. The representation of START TIME is a military time.  Examples of the correct START TIME representation are 0400 for 4 A.M., 2330 for 11:30 P.M., and 0730 for 7:30 A.M.
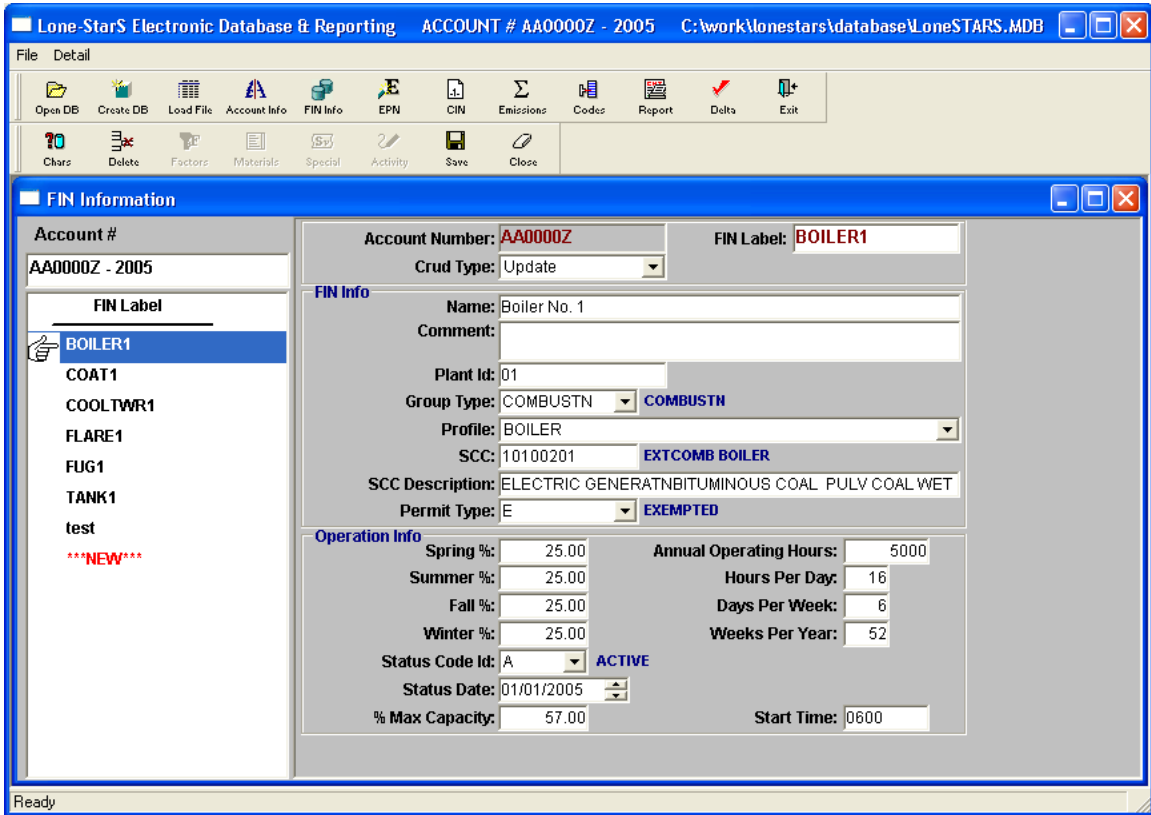


### *Chars Button:*

- Characteristic: (mandatory) represents the different characteristic details for the FIN.  Each FIN will have a set of characteristics.  These are provided by Lone-StarS based on the profile entered on the FIN Form. Characteristics depend on FIN profile and are automatically listed for the selected profile.

- Value: Enter or select a value for the characteristic. To look up valid values, use the CTRL+L key combinations for those items that TCEQ requires a pre-defined value for. For such items, the unit field will be disabled.

- Units: Select a unit of measure for the characteristic.

- CRUD: (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record. Lone-StarS will set the CRUD type to "N (No Change)" for you. You can overwrite the CRUD type set by the program using the drop down list.

**7 - Update the EPN Information:** 

Click on the "EPN" button to access the EPN information forms screen.  All EPNs for the selected account are displayed in the list on the left.  If you add new EPNs they are added to the list.



Click on the EPN name to choose the EPN that you would like to view.  Update the data if necessary. Do not forget to change the Crud_Type to "U" if you update any of the information on the form.   To update or view the characteristics of each EPN click ""Chars" button.  After the updates click "Save" then "Close" button.

*EPN Info:*

- EPN Label: This is the name or label for the EPN.

- CRUD Type: (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record.  Lone-StarS will set the CRUD type to "N (No Change)" for you.  You can overwrite the CRUD type set by the program using this box.

- Name: (mandatory) represents the company-assigned name for the EPN. This field must be text and no longer than 50 characters.

- Profile: (mandatory) represents the specific type of emissions point. This field must contain the code for the emission point type. Three possibilities currently exist for this field: FLARE, STACK, and FUGITIVE.

- UTM Zone: represents the zone for the UTM Coordinate. In Texas, possible values for UTM ZONE are 13, 14, and 15. The UTM ZONE is a two-digit number.

- UTM East (m): represents the UTM Easting coordinate in meters. The EAST METERS must be a number and at least 6 digits. This field can be a maximum of 9 digits in length, including three decimal places.

- UTM North (m): represents the UTM Northing coordinate in meters. The NORTH METERS must be number and at least 7 digits. This field can be a maximum of 9 digits in length, including three decimal places.

- LATITUDE/LONGITUDE Coordinates Emission points in Texas have north latitudinal and west longitudinal coordinates. If a Latitude/Longitude coordinate is submitted, both of the following elements are mandatory:

- Latitude: represents the Latitude of the geographical coordinate. The LATITUDE must be a number containing between 6 and nine digits, including two decimal places.

- Longitude: represents the Longitude of the geographical coordinate. The LONGITUDE must be a number containing between seven and ten digits, including two decimal places.

### *Chars Button:*

- Characteristic: (mandatory) represents the different characteristic details for the EPN. Each EPN will have a set of CHARACTERISTICS. These are provided by Lone-StarS based on the profile entered on the FIN Form. Characteristics depend on FIN profile and are automatically listed for selected profile.

- Value: Enter or select a value for the characteristic. To look up valid values, use the CTRL+L key combinations for those items that TCEQ requires a pre-defined value for. For such items, unit field will be disabled.

- Units: Select a unit of measure for the characteristic.

- CRUD: (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record. Lone-StarS will set the CRUD type to "N (No Change)" for you. You can overwrite the CRUD type set by the program using this box.



**8 - Update CIN Information:**

Click on the "CIN" button to bring the CIN information forms screen. All CINs for the selected account are displayed in the list on the left. If you add new CINs they are added to the list.

Click on the CIN name to choose the CIN that you would like to view. Update the data if necessary. Do not forget to change the Crud Type to "U" if you update any of the information on the form. To update or view the FIN + EPN connected to the CIN

information click on the "CIN+EPN" button. After the updates click "Save" then "Close" button.

### *CIN Info:*

- CIN Label: The name or label given to the CIN.

- CRUD: (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record. Lone-StarS will set the CRUD type to "N (No Change)" for you. You can overwrite the CRUD type set by the program using this box.

- Abatement Code: (mandatory) is a code that identifies the specific type of emissions control device. This code is obtained from the reference code tables. This field must be numeric and no longer than 3 digits.

- Abatement Name: (mandatory) represents the company-assigned name for the abatement device. An example of name is BENZENE UNIT FLARE. Name is a text field and may be no longer than 100 characters.

- Maintenance Schedule: (mandatory) represents the inspection and maintenance schedule for the CIN. This field must be text and no longer than 10 characters.

- Percent Time Off: represents percent time off-line.

- Operating Hours: represents total operating hours

- # of Units: number of units.

### *Efficiencies:*

- CO: (optional) represents the CIN's efficiency for controlling carbon monoxide. This field must be numeric and no longer than 5 digits, including two decimal places.

- PM10: (optional) represents the CIN's efficiency for controlling particulate mater less than 10 microns in aerodynamic diameter. This field must be numeric and no longer than 5 digits, including two decimal places.

- TSP: (optional) represents the CIN's efficiency for controlling total solid particulate matter including both filterable and condensable portions. This field must be numeric and no longer than 5 digits, including two decimal places.

- IOC: (optional) represents the CIN's efficiency for controlling inorganic compounds. This field must be numeric and no longer than 5 digits, including two decimal places.

- SO2: (optional) represents the CIN's efficiency for controlling sulfur dioxide. This field must be numeric and no longer than 5 digits, including two decimal places.

- VOC: (optional) represents the CIN's efficiency for controlling volatile organic compounds. This field must be numeric and no longer than 5 digits, including two decimal places.

- NOX: (optional) represents the CIN's efficiency for controlling oxides of nitrogen. This field must be numeric and no longer than 5 digits, including two decimal places.

### *CIN-EPN Button*

- FIN: (mandatory) represents the FIN to which the abatement device is linked.

- EPN: (mandatory) represents the EPN to which the abatement device is linked. This field must be text and no longer than 10 characters.

- Pairing Number: The numbers within the UNIT field of the CIN portion of the extracted or delta file represent a PAIRING NUMBER used to determine the FIN and EPN pairing for the listed CIN. This number will key the upload program to create an abatement path for the FIN/EPN path and the abatement device. If the FIN/EPN path does not exist, the pairing number will also key the upload program to create this path. The PAIRING NUMBER can also be used as a cross reference tool to check FIN, CIN, and EPN linkages. For the paths to which the CIN is being added in the example above, each piece of equipment (FIN and EPN) making up a path have the same PAIRING NUMBER. For CINs that are linked to multiple FINs and/or EPNs (i.e., a flare linked to six tanks), the extract file will contain the characteristics about that CIN only once, at one of the six FIN/EPN paths. The remaining paths will only show the FIN and EPN with pairing numbers.

- CRUD: (create/read/update/delete) type indicates to the TCEQ the activity to perform on the current record. Lone-StarS will set the CRUD type to "N (No Change)" for you. You can overwrite the CRUD type set by the program using this box.
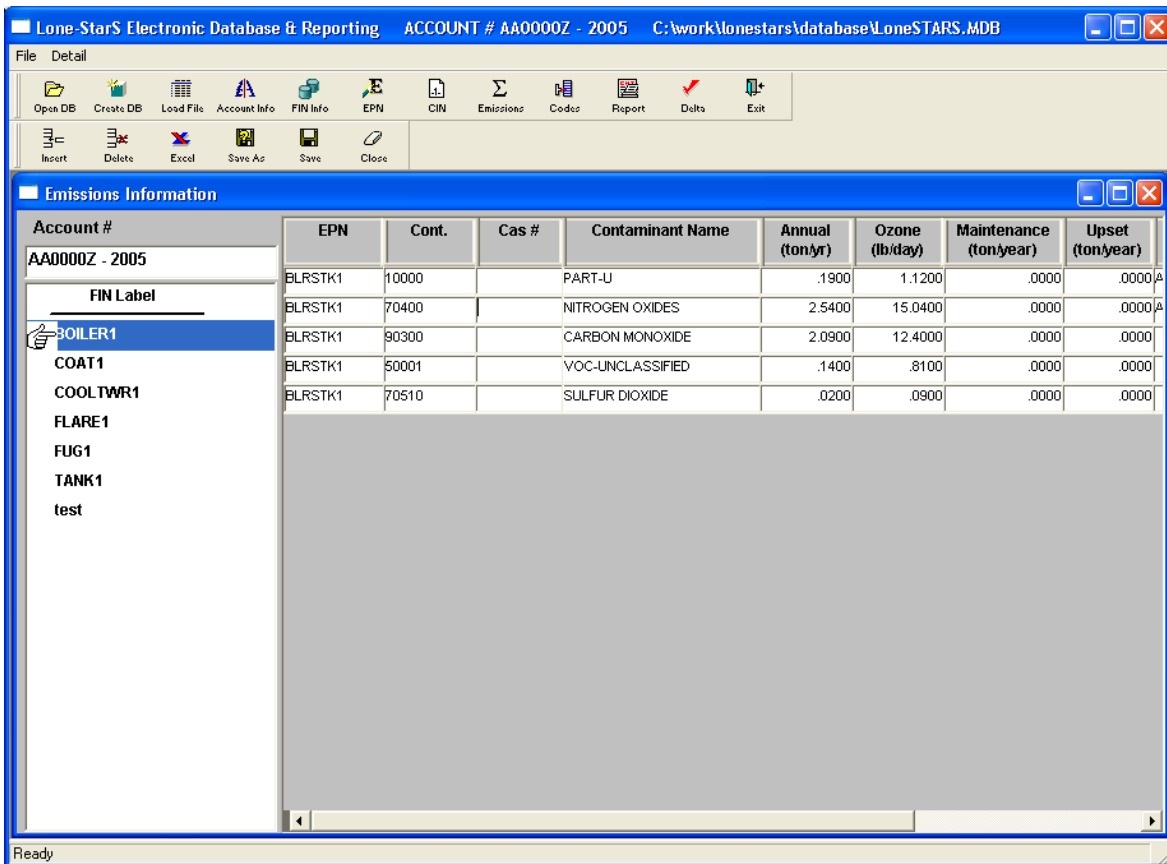
## 9 - Update Emissions: $\Sigma$ Emissions

Click on the "Emissions" button to view the TCEQ loaded emissions for the previous year for the chosen account.  You can use this form to enter emissions data for each FIN-EPN.  The FINs are displayed in the list on the left for the account that you selected.

### *Emissions Information:*

- CRUD: (create/read/update/delete) TCEQ requires all emission data to have a CRUD type of A. Lone-StarS will automatically set the crud type as A when the delta file is created.

- EPN:  The EPN for which emissions are reported.

- Cont.: The contaminant  for which emissions are reported.

- CAS #: CAS number

- Annual (ton/yr): (mandatory) represents the total annual emission rates in tons per year. The extract file will contain all of the submitted annual emission rates from the previous submission. The emission rate quantities are to be numeric and no longer than 15 numerals, including up to 4 decimal places. No units

need be associated with this annual emission rate, as TPY is understood for these emission rates.

- Ozone (lb/hr): (optional) represents the average ozone season daily emission rate in pounds per day. The extracted file will contain all of the ozone season emission rates from the previous submission. The Ozone emission rate quantities are to be numeric and no longer than 15 numerals, including up to 4 decimal places. No units need be associated with ozone season emission rates as PPD (pounds per day) is understood for these emission rates.

- Maintenance (ton/yr): (optional) represents the total annual tons of emissions associated with scheduled maintenance and startup and shutdown operations. MAINTENANCE emissions should be reported at the specific FIN/EPN path at which the emissions were generated and released. All MAINTENANCE emissions within the extracted file will be 0.0 MAINTENANCE emission rate quantities are to be numeric and no longer than 15 numerals, including up to 4 decimal places. No units need be associated with MAINTENANCE emission rates as TPY is understood for these emission rates.

- Upset (ton/yr): (optional) represents the total annual tons of emissions associated with emission events that are not reported as MAINTENANCE emissions. UPSET emissions should be reported at the specific FIN/EPN path at which the emissions were generated and released. All UPSET emissions within the extracted file will be 0.0.  UPSET emission rate quantities are to be numeric and no longer than 15 numerals, including up to 4 decimal places. No units need be associated with UPSET emission rates as TPY is understood for these emission rates.

- Determination: represents the methodology by which the reported emission rate was obtained. For each submitted emission rate, a corresponding value must be submitted for DETERMINATION.

When you click on the FIN name, the list of EPNs and contaminants are displayed on the table. You can either update emissions manually or by using Excel.

## 10 - Update Emissions Data by Using Excel:

First click on the "Excel" button to open the template worksheet that has been created for you to update your emissions in an Excel worksheet. Once you create this worksheet (with updated emissions data), you can link the calculated emissions from your excel table to this worksheet. You can also use the "Save As" option to create a template worksheet by using previous year's reports and update emission in that worksheet by deleting/revising or adding to the previous year's data. After you complete your emissions data in the worksheet template, Lone-StarS will read this data to update its tables.
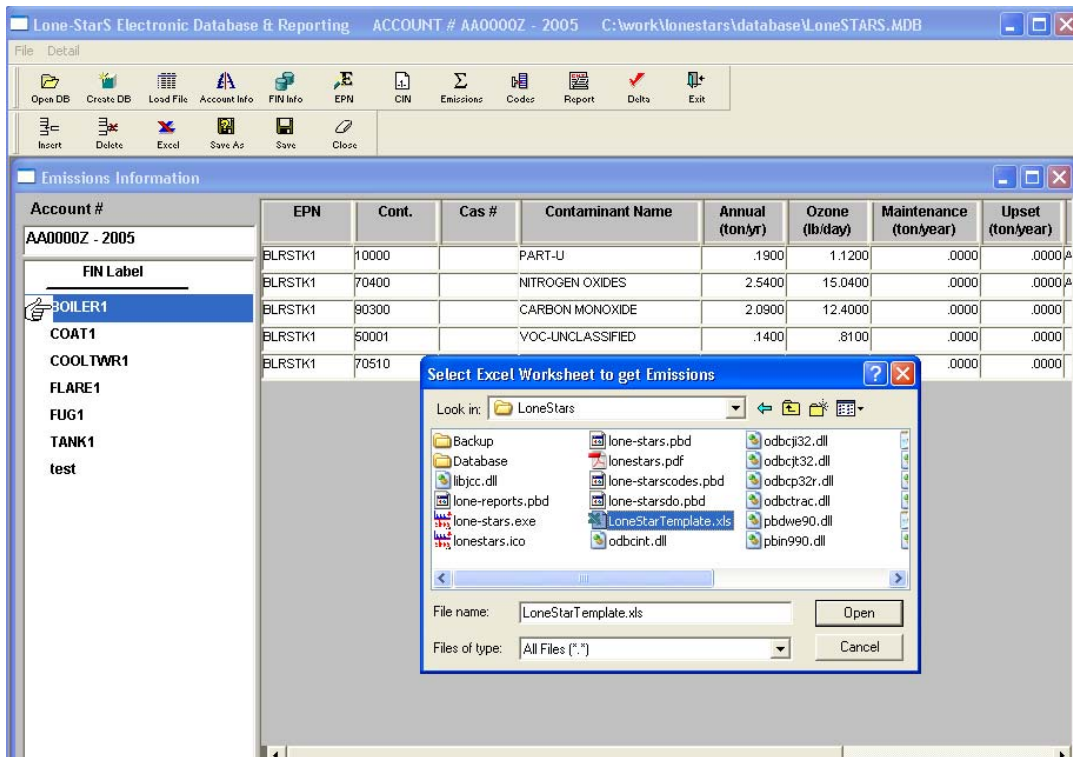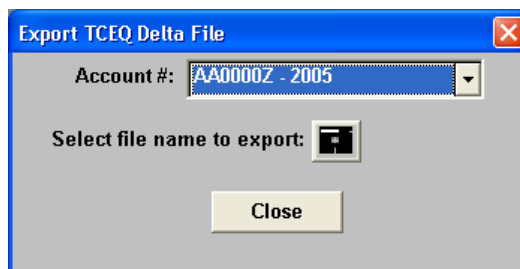
## 11 - Save Emissions Data by Saving in Excel:

This is very useful if you would like to set up your excel emission calculation tables in the same format as the template file. You can use the "Save As" button to export the account emissions data from a previous report year as an excel file and update the emissions data and import it back to the database using the "Excel" button. First click on the "Save As" button to load the previous year's data (or any past year's) as an Excel template worksheet that has been created for you to update your emissions in an Excel worksheet. Once you create this worksheet, you can update your data and link the calculated emissions from your excel table to this worksheet by using the "Excel" button. After you complete your emissions data in the worksheet template, Lone-StarS will read this data to update its tables.
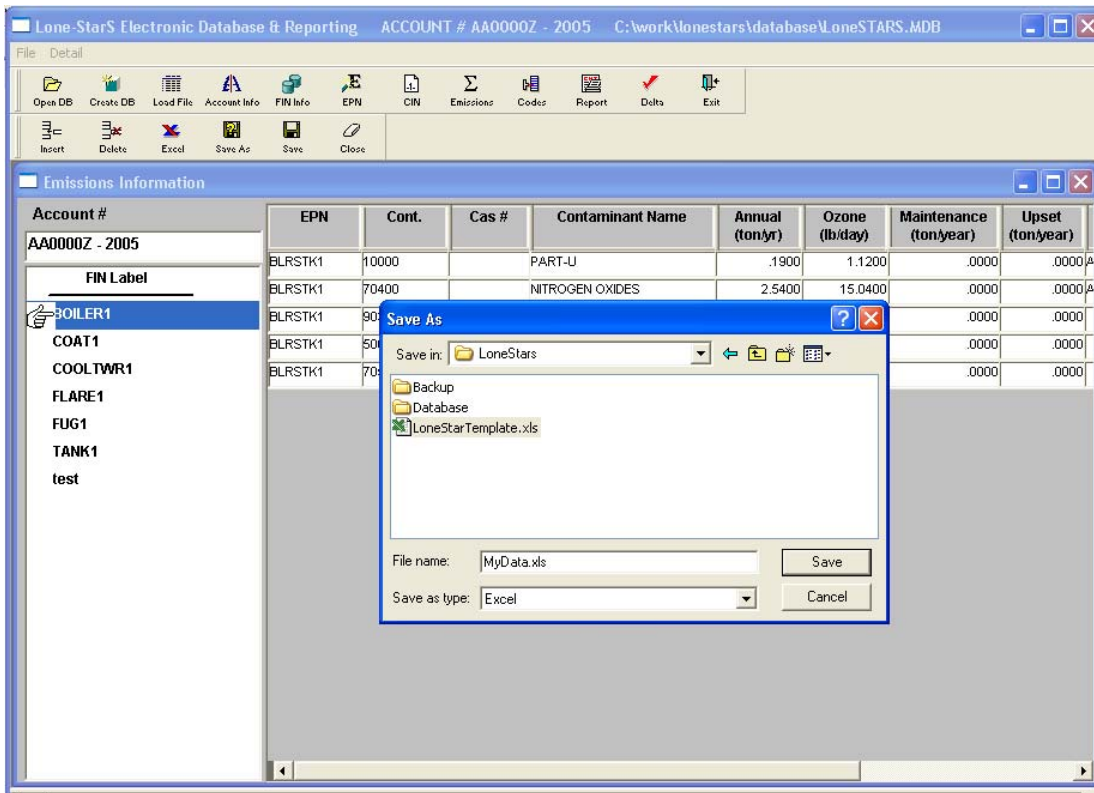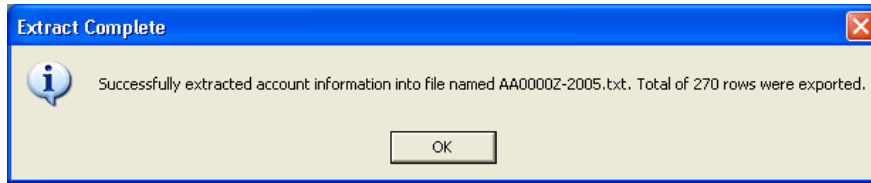
**12 – Create the Delta File to Send to TCEQ:** 

When the emissions data has been updated for the particular account that you have been working on, you will be ready to send the file to the TCEQ. Click the "Delta" button to create the Delta file. Choose the report year and browse the location of the file where you want to store the file created. Then write the file in the format "Account Name_Year" (for example: AA0000Z-2004). This will create a text file to send to TCEQ.

**Extract Complete**

Successfully extracted account information into file named AA0000Z-2005.txt. Total of 270 rows were exported.

OK

**13 – Create Report for your files (Optional):**  Report

Lone-StarS also creates reports of the emissions inventory data in case you want a hard copy printout for your records or for your customers.  This is entirely optional, since TCEQ requires only the electronic "delta" file described in Section 12 of this document.  Click on the "Report" button to choose the account number and the report year.  This will create a default report that is similar to the TCEQ printout.  You can set up your printer by using the button "Setup" and then print it for your records.



**Select Account Information**

Account #: AA0000Z - 2005

OK          Cancel
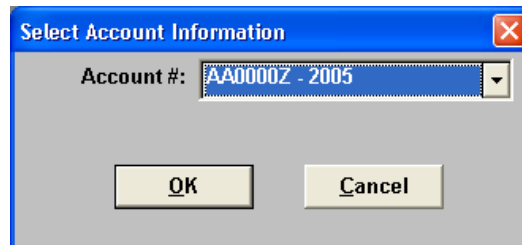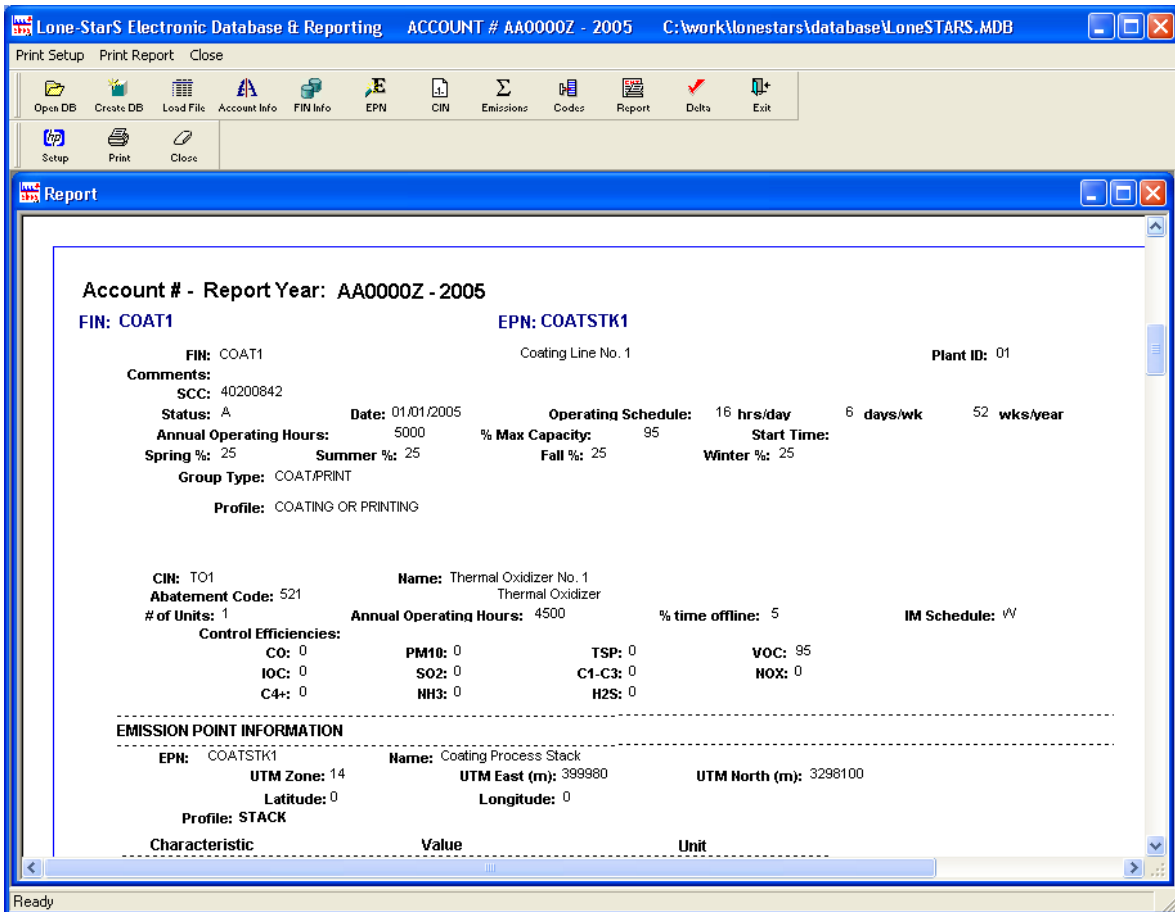
**14 – Code Tables:** 

Lone-StarS provide a mechanism to manage the lookup values for various items in the system. These are the values that appear in dropdowns and pick lists and may also be referred as code tables. For example, "unit" values, "contaminant codes", "abatement codes", etc. all come from code tables. This provides great flexibility for modifications and changes. If there are new values to any of these code tables, the user can add them using this functionality.

When the code table toolbar button is clicked, you will first see a code type list as shown below:
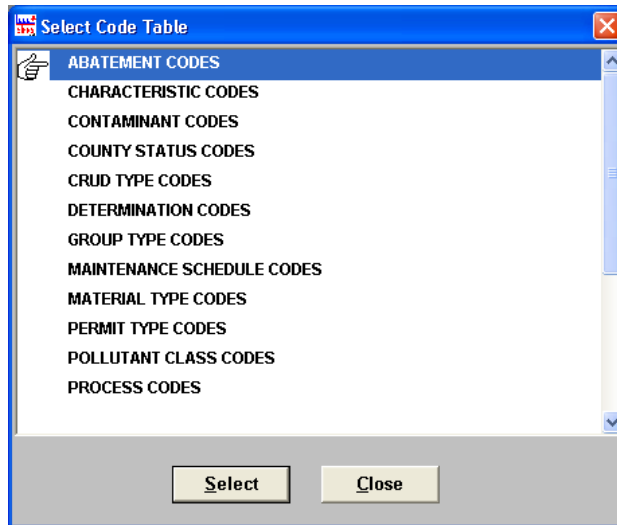
After selecting the code type to manage, click on the "Select" button. This will open the detail screen for the selected code type and its current values:
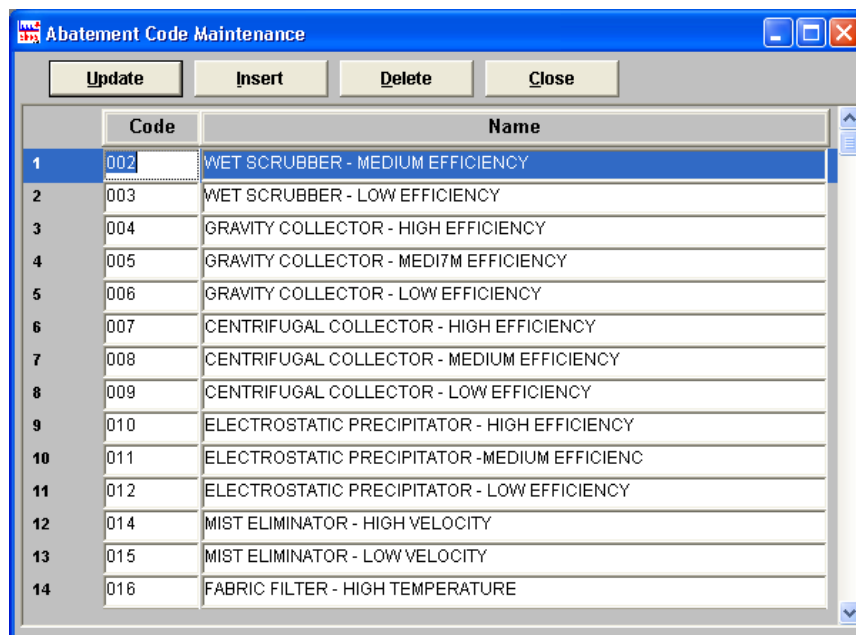


In the detail screen, you can insert, delete or update code values. The modifications will appear in related dropdowns and pick list windows.

**15 – Backup and Restore Database:**

Lone-StarS comes with an out-of-the box backup and restore functionality. This provides a convenient tool to take routine backups of the database file for disaster recovery

purposes. Backups can be taken with a mouse click at any time. Backed up files can be restored whenever needed.

To access the backup/restore functionality, use the "Backup/Restore Database" menu option under the "File" menu. This will open the backup/restore database screen:
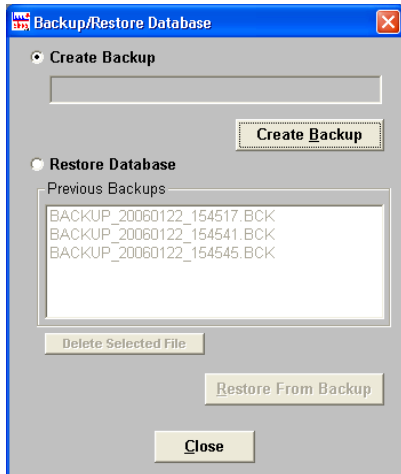


To create a database backup, click on the "Create Backup" radio button and click on the "Create Backup" button. This will create a backup file named with date and time stamp and it will appear on the "Previous Backups" list.

To restore a previous backup file, select the "Restore Database" radio button and select a backup file to restore. Then click on the "Restore From Backup" button. This will restore the selected file as the new database. With the enterprise license, the user will have the option to name the restored database. With the standard license, the current database will be restored. Over time, old backup files may accumulate. You can delete those using the "Delete Selected File" button.