ABSTRACT

The Idaho Department of Environmental Quality (DEQ) has created a software program used to gather point source data for annual and periodic emissions inventories. This online graphic user interface (GUI) allows facilities to log into a DEQ server using a unique user ID and password provided by the agency. The GUI layout follows the requirements in the final Consolidated Emission Reporting Rule; therefore, providing the exact data, in the appropriate format, that the Environmental Protection Agency is looking to gather for the National Emissions Inventory (NEI). The program limits the amount of quality assurance (QA) needed on the data by controlling each submission field. Data, once submitted by the facility, is automatically placed into a SQL server database. These data tables can easily be moved into Access in order to make any necessary corrections and to run the EPA QC tool program.

Title:

Emissions Inventory Graphic User Interface for Point Sources

Author:

Christopher P. Ramsdell

Affiliation:

Idaho Department of Environmental Quality

GOALS

➔ Solve data collection problems experienced in the past

➔ Ensure point source data submittals match CERR requirements

➔ Automate placement of data into NIF3.0 eight-table format

➔ Provide a user-friendly method for facility data submissions

➔ Reduce QA needs by controlling data entry for each field

➔ Allow data received to be manipulated or corrected in Access format while storing the data in a SQL server database compatible with other in-house database systems

APPLICATION SPECIFICS

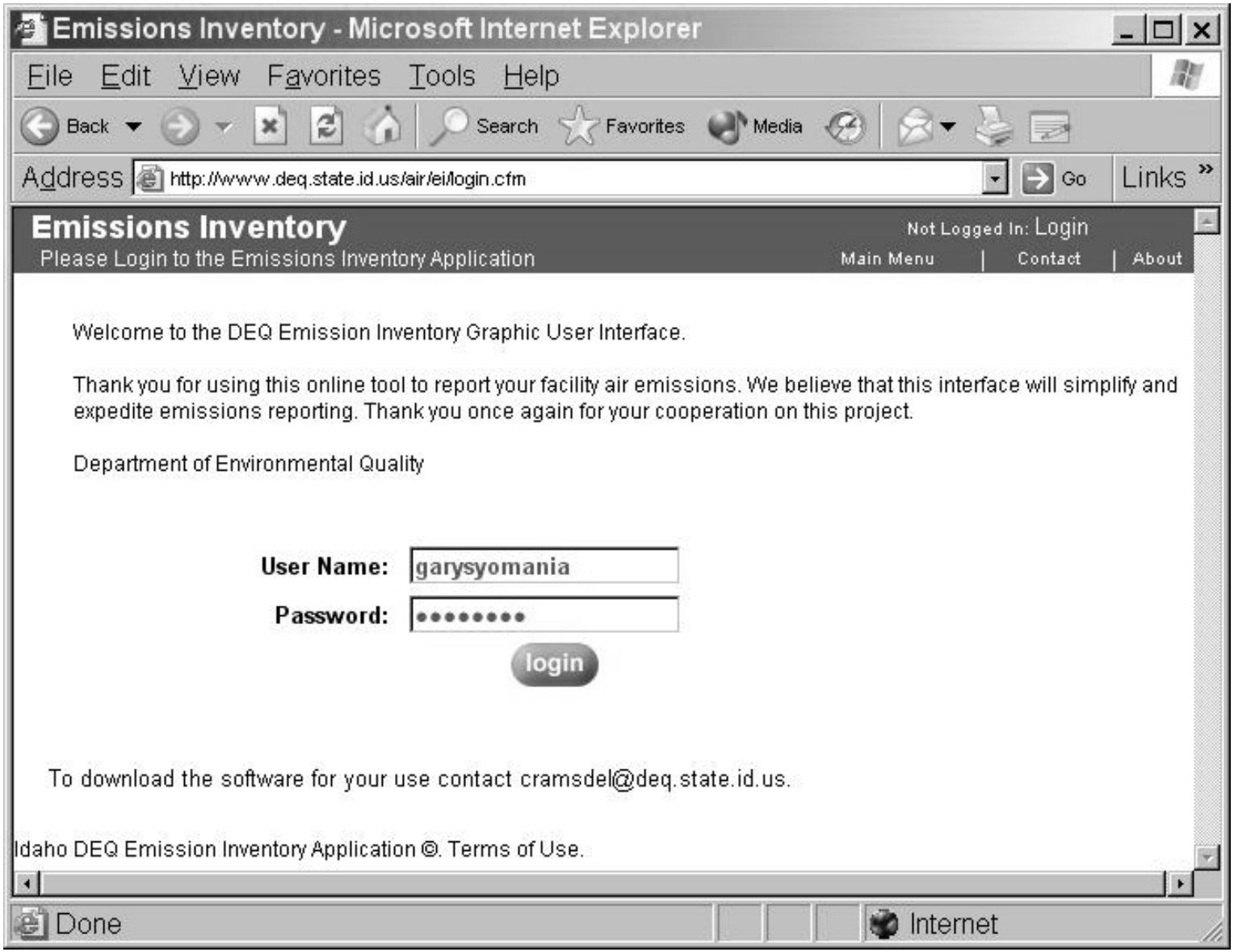
➔ Written in HTML with Java Script used for the menu tree

➔ Runs on server using ColdFusion

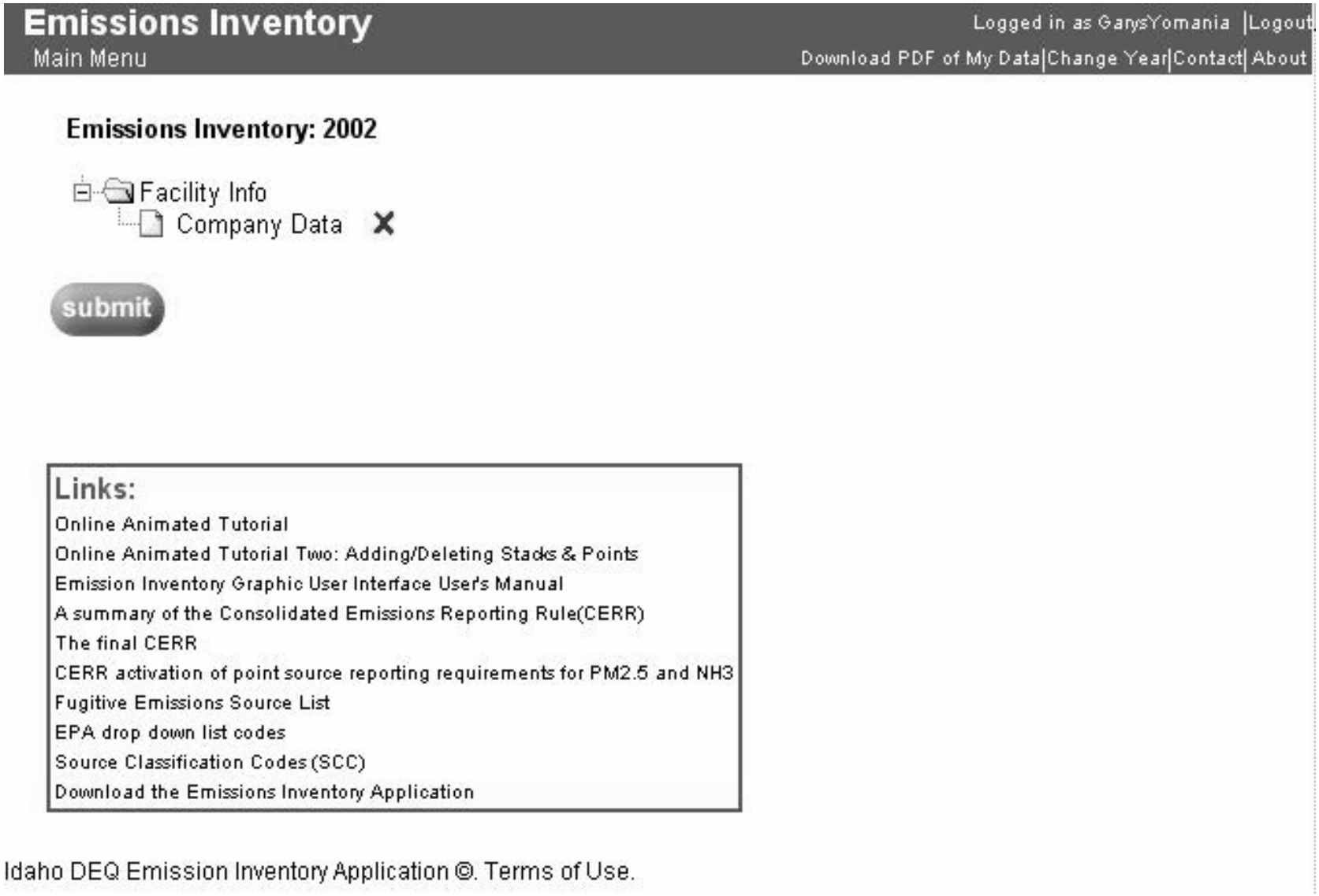
➔ Will connect to a SQL server, Oracle, or Access database

➔ Is copyrighted with a General Public License and is currently available to other agencies for **free** (some code changes will be needed on your end)

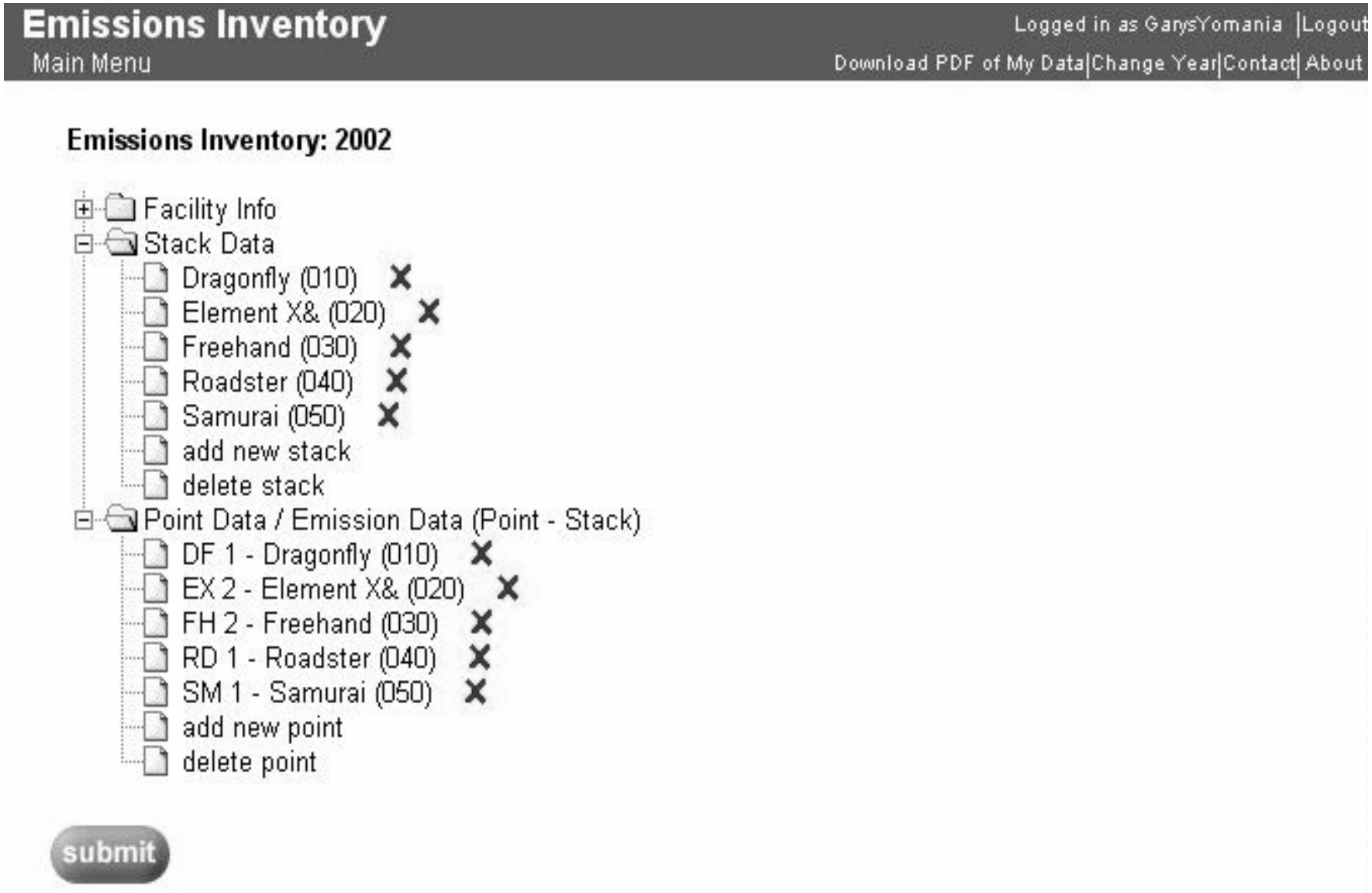
Login Screen



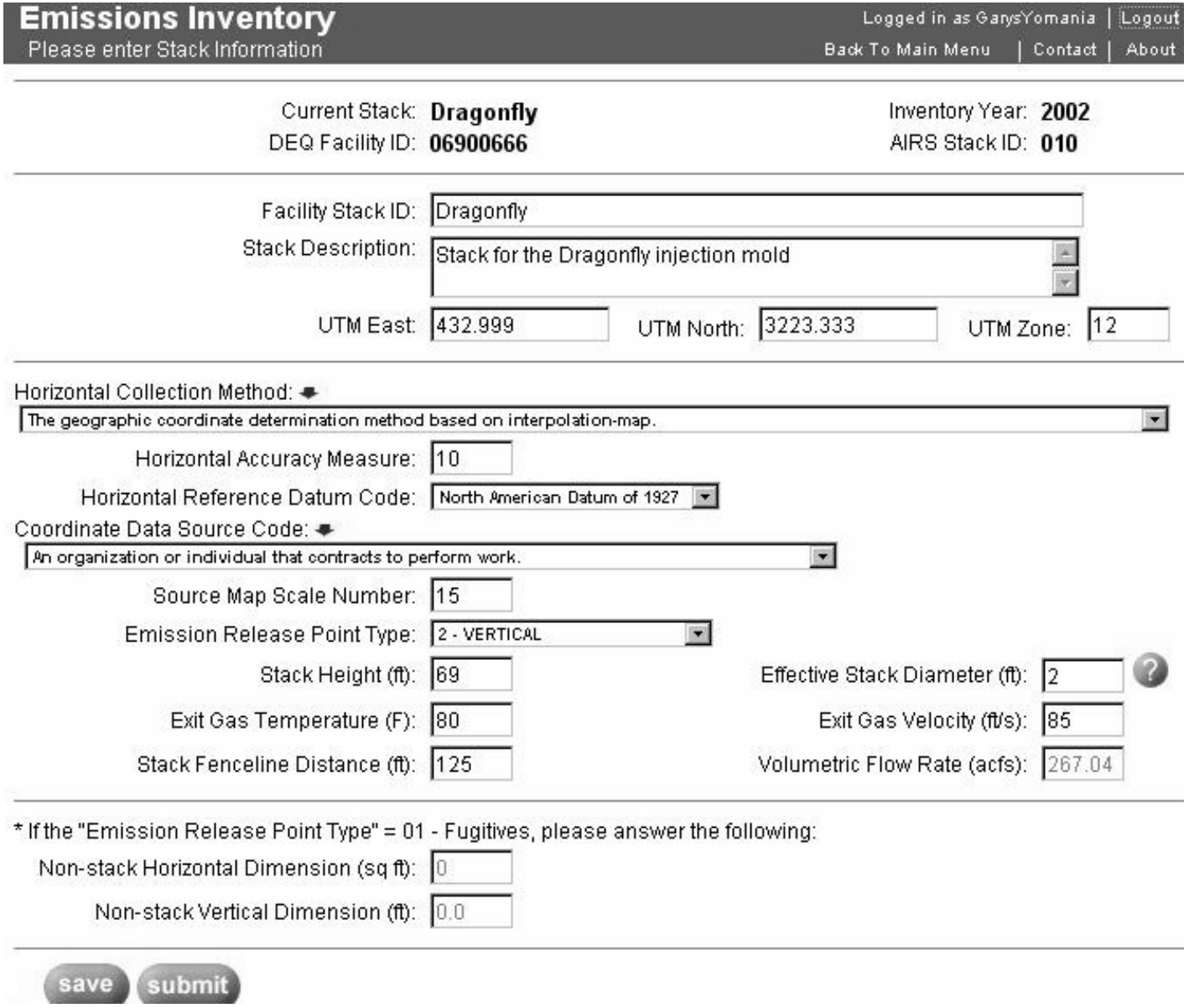
Main Menu Screen



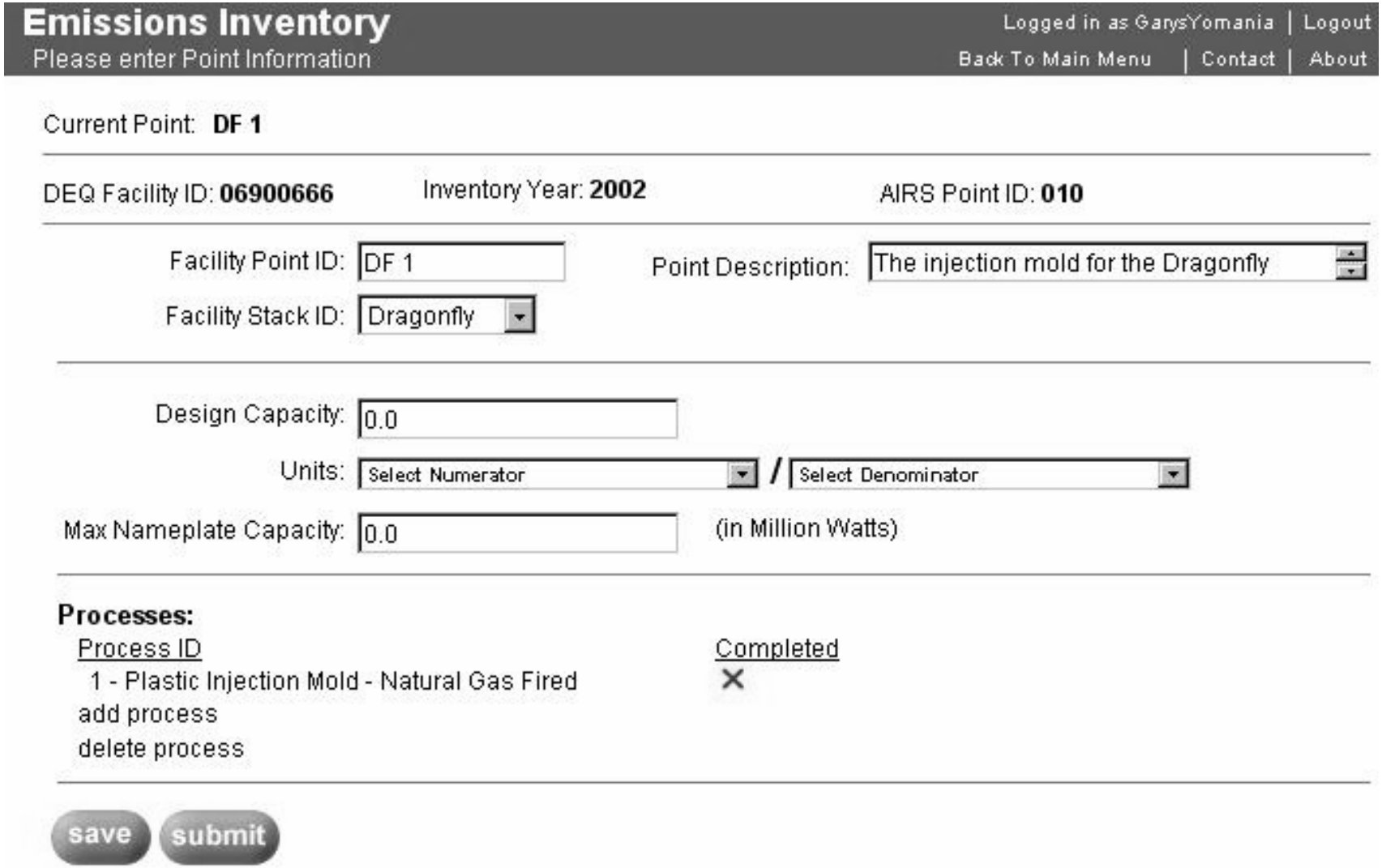
Main Menu Screen - after Facility Data is entered



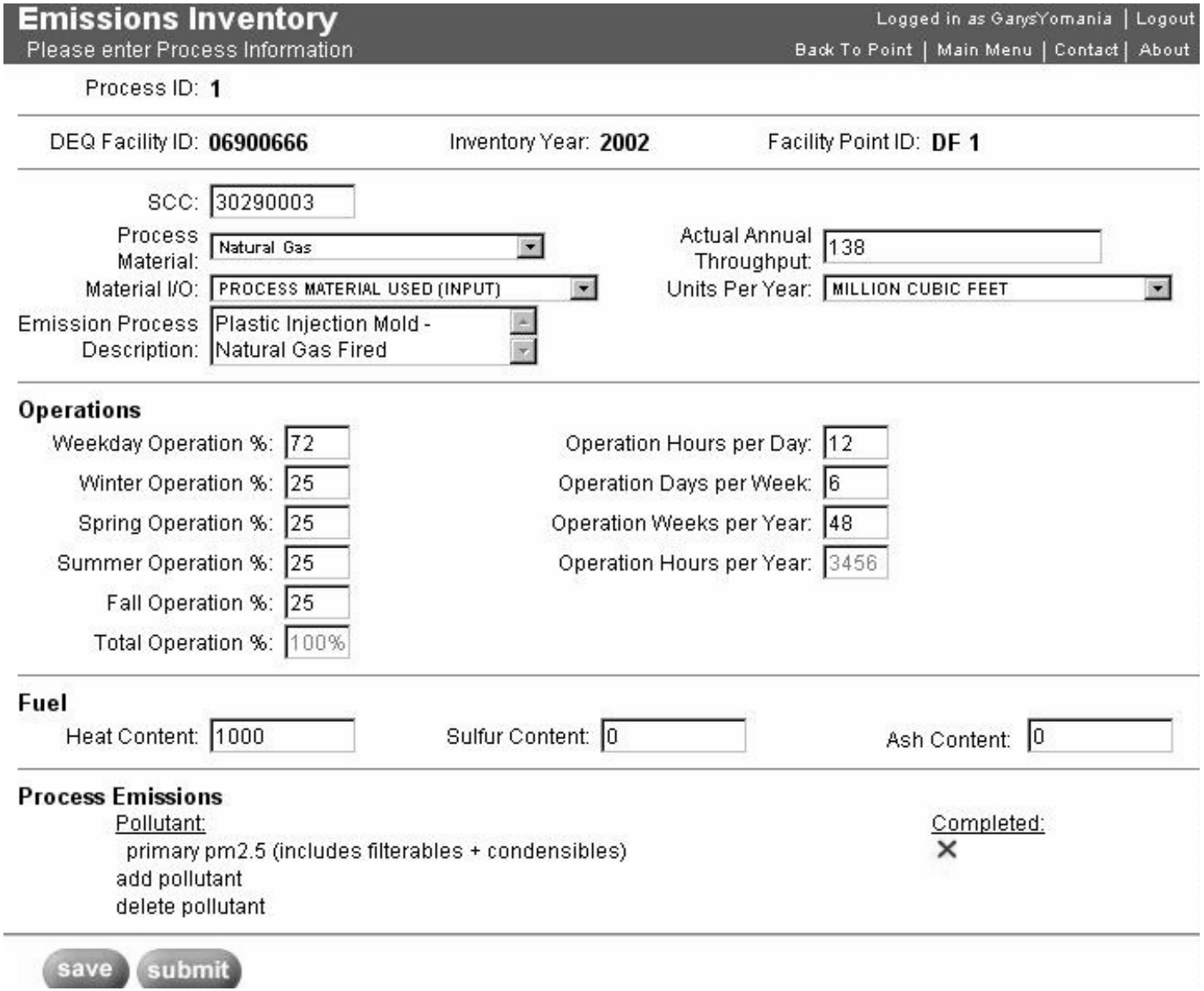
Stack Entry Screen



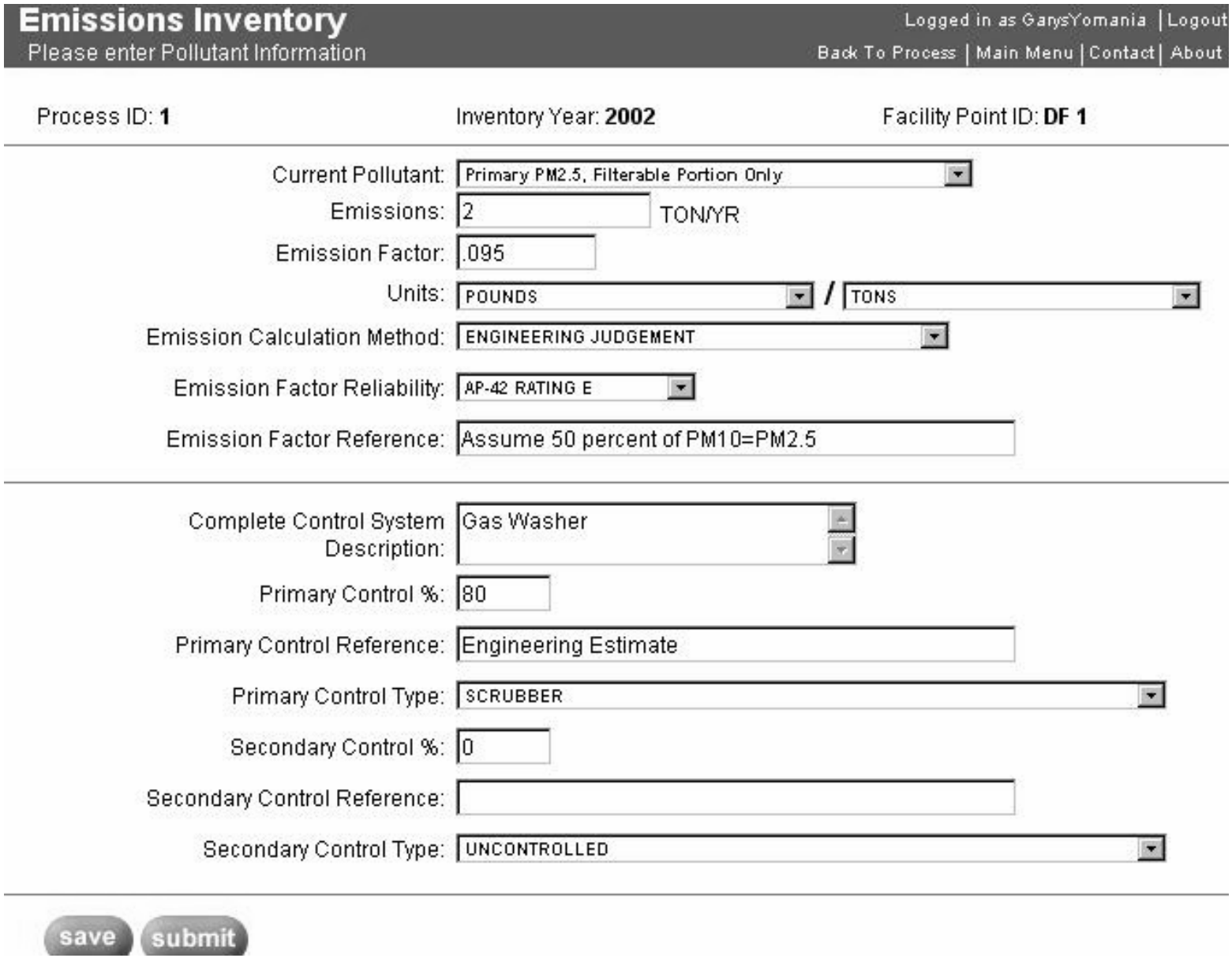
Point Entry Screen



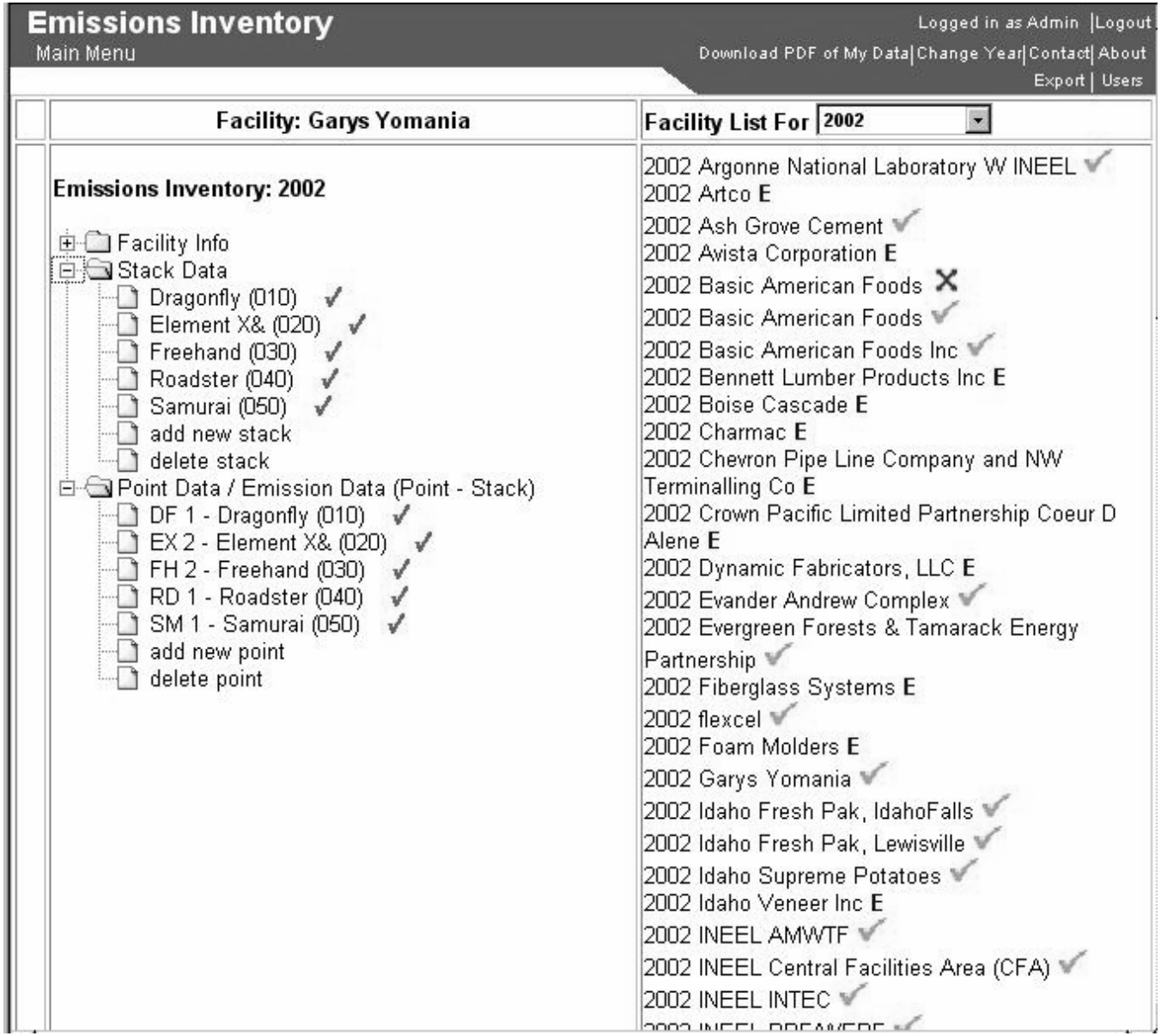
Process Entry Screen



Pollutant Entry Screen



Administrative Screen



CONCLUSIONS

The DEQ Web-based application was used for the calendar year 2002 periodic emission inventory conducted between January 7 and March 31, 2004. At that time, the interface was attached to a SQL server database. An upgrade to Oracle is forthcoming. This change, as well as cosmetic upgrades to make the interface even more user-friendly, are planned for summer 2004 before use on the 2003 annual inventory.

The emissions inventory application is a practical, user-friendly system with numerous built-in quality assurance features. The on-line location of the interface allows all facilities to access the Web and enter their actual emissions with no worry of program format incompatibility. The Idaho Department of Environmental Quality met with great success using this new program and few fixes were needed on the fly during our 2002 project. Reaction from industry and EPA were favorable with few exceptions.