Idaho DEQ - Emission Inventory Graphic User Interface

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ABSTRACT

The Idaho Department of Environmental Quality (DEQ) has created a software program used to gather 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 (CERR); therefore, providing the exact data, in the appropriate format, that the Environmental Protection Agency (EPA) 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 QA tool program.

INTRODUCTION

The GUI was created to solve ongoing data collection problems DEQ experienced in past emission inventory projects. Several spreadsheets and data collectors had been tried, but failed to provide a seamless avenue for point sources to enter their actual emissions. Problems arose with program compatibility and QA of numerous uncontrolled data fields. Complaints from facility personnel about the shortcomings of our collection methods pushed DEQ toward the GUI as a method to ease the inventory process as well as solving the QA problems.

BODY

The online GUI was developed to mirror the requirements of the CERR, which will provide the most complete inventory possible for the NEI. Facilities in Idaho are reluctant to provide DEQ with information on their throughput, emissions, and possible trade secrets, but all are familiar with the new CERR and the fact DEQ must provide this data to EPA. Therefore, DEQ believes facilities will be faster to comply with our request for emissions data if the GUI directly matches the EPA requirements of the CERR.

The GUI program is written in ColdFusion with use of some Java script to create an emission inventory tree on the main page with subfolders for Facility Information, Stack Data, and Point Data. DEQ will load the GUI software onto a server, mail letters to each facility in the state providing their login information, and let them submit emissions data for a 90-day period. The GUI is tied to a SQL database for storage.

Following submission of facility emissions data for calendar year 2002 into the GUI and SQL database, DEQ will pull the data from the SQL tables into Access and begin QA of each calculation, verify control measures reported, and run the EPA QA tool on the data. DEQ will save both the raw data and the new data that passed through QA. The quality assured data would then be formatted and shipped to EPA before the June 1, 2004, deadline.
KEYWORD

Emission Inventories
National Emissions Inventory
NEI
Consolidated Emissions Reporting Rule
CERR
Point Source