United States
Environmental Protection
Agency

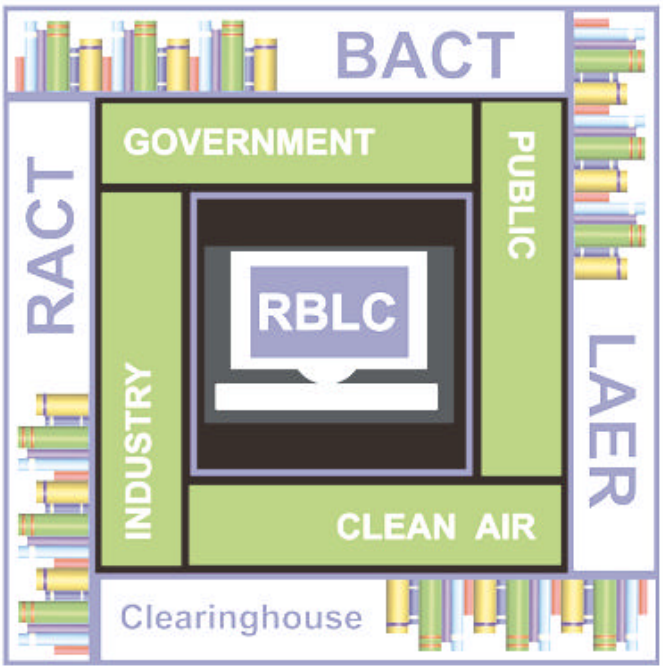
Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

EPA 456/B-01-001A
June 2001

Air

USER'S MANUAL FOR THE RACT/BACT/LAER CLEARINGHOUSE (RBLC) WEB

Volume 1 - Web Basics



Developed as Part of a Joint Effort Between the
U.S. Environmental Protection Agency's
Clean Air Technology Center (CATC) and
State and Local Air Pollution Control Agencies

USER'S MANUAL FOR THE RACT/BACT/LAER CLEARINGHOUSE (RBLC) WEB

CLEAN AIR TECHNOLOGY CENTER

SPONSORED BY:

Information Transfer Group
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

June 2001

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PREFACE

This user's manual was prepared for and funded by the New Source Review RACT/BACT/LAER Clearinghouse (RBLC),[1] U.S. Environmental Protection Agency (EPA). The RBLC has been established and is maintained by the Clean Air Technology Center (CATC) to assist State and local air pollution control personnel in making control technology determinations and in sharing technology information.

The RBLC provides data on prevention and control technology determinations made primarily by State and local permitting agencies. The Clearinghouse contains over 4,000 determinations that can help the user to identify appropriate technologies to mitigate or treat most air pollutant emission streams. The RBLC was designed to help permit applicants and reviewers make pollution prevention and control technology decisions for stationary air pollution sources and includes data submitted by 50 states and territories in the U.S. on over 200 different air pollutants and 1,000 industrial processes.

The Clearinghouse also has a rule data base that summarizes all emission standards issued by EPA's Office of Air Quality Planning and Standards (OAQPS). This includes New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), and Maximum Achievable Control Technology (MACT) standards. The rule data base also includes prevention and control technology cost information related to each rule and references to supporting documentation.

Read the section, *Quick Start Instructions for the RBLC Data Base*, in this document to begin using the RBLC Web.

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[1] NOTE: RACT, BACT and LAER are acronyms for different Clean Air Act program requirements combined to create the name "RACT/BACT/ LAER Clearinghouse." RACT, or Reasonably Available Control Technology, is required on existing sources in areas that are not meeting national ambient air quality standards (i.e., non-attainment areas). BACT, or Best Available Control Technology, is required on major new or modified sources in "clean" areas (i.e., attainment areas). LAER, or Lowest Achievable Emission Rate, is required on major new or modified sources in non-attainment areas. However, data in the Clearinghouse is not limited just to sources subject to these requirements. Noteworthy prevention and control technology decisions are included in the RBLC even if they are not related to RACT, BACT, or LAER decisions.

QUICK START INSTRUCTIONS FOR THE RBLC WEB

What is the RBLC?

The U.S. Environmental Protection Agency's (EPA) Clean Air Technology Center (CATC) maintains a permit data base called the RACT/BACT/LAER Clearinghouse or RBLC. The RBLC permit data base contains information about recent control technology determinations submitted by State and local agencies. The regulation data base includes information about federal regulations governing air pollutant emissions. The RBLC Web allows anyone to search these data bases without any user registration. These quick start instructions will provide the basics of using the system, running queries, and adding information to the data base.

To access the RBLC Web, go to the CATC home page (at: **www.epa.gov/ttn/catc**/) and click on the RBLC logo. Options found on the RBLC Homepage include links to data base queries, documents, and related software downloads.

Using the RBLC Web

The data base contains information on facilities that apply for construction permits, the basis for emission limits (RACT, BACT, or LAER) for each facility, pertinent source operating parameters such as process types, pollutant emission rates, pollution prevention techniques, add-on control equipment or other technology, permitting agency contacts, and scheduling data. Details about all of the data elements can be found in Section 2.2 and Appendix A of the RBLC User's Manual.

The HELP System:

The on-line HELP system provides context-sensitive assistance throughout the system. Simply click on the question mark icon at the top of the page to access a HELP file that explains the current screen. The RBLC User's Manual can supply answers to more complex questions, and can be accessed on line or saved to disk. A portable document format (PDF) version of the document has the advantage of being searchable by the Adobe Acrobat® software.

Queries:

Data Base Queries -- Click on "RBLC Data Base Query" on the RBLC home page. Under the heading, "Permit Data Base Queries", choose from the following options:

? **Query by RBLC ID**: Quickly find up to three determinations using the appropriate RBLC identifier (RBLC ID).

? **Query by Process Type**: Locate determinations that include a particular type source or process. Pick lists are provided.

? **Standard Query**: Build a search criteria by choosing from facility, process, and pollutant properties. Where appropriate, pick lists of allowable values are available.

? **Advanced Query**: Choose from pick lists of data elements and enter desired values to build a search criteria. Criteria can be combined for more selective queries.[1]

Continue in RBLC interactive query mode by following the directions on the screen, making choices by entering text and clicking buttons. Details about searching the data base are in Section 2.3 of the RBLC User's Manual.

Each Web page has navigation buttons to assist in moving through the Web site. Use these rather than the Web browser's navigation buttons, which may result in inaccurate information because of the way that browsers cache information.

Viewing Results On-line

A query allows the user to access the part of the data base meeting the search criteria specified. Once the query has located a result set, entries in the set may be viewed on-line or downloaded as a report file. The results of a query are summarized in a table organized by RBLC ID or facility name, depending on the option selected. The table displays RBLC ID, facility name, city, and state, along with other information that varies depending upon which the query option selected. Information about each of the determinations in the query results is organized by facility, process, and pollutant.

Click on a RBLC ID in the Query Results table to see details about the permitted facility for that determination. View successively deeper levels of information by clicking on the navigational buttons at the top of each page. For instance, to access pollutant and related control and prevention measures, select "Process Information" and then "Pollutant Information".

Reports

The RBLC Web provides several pre-defined formats for viewing and downloading query results. Both summary and detail formats are available. The list of available formats is contained in a pick list at the bottom of the Query Results page, details about these reports can be found in Sections 2.4 and 2.5 of the User's Manual.

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[1] In general, a user should know what each data element contains to use this option effectively. Refer to Section 2.2 and Appendix A of the RBLC User's Manual for more information about individual data elements.

Regulation Data Base Queries

The organization of the Regulation Data Base is similar to that of the RBLC's permit data base. Refer to Section 3.2 of the RBLC User's Manual for more information about Regulation Data Base data elements. Each entry, or rule, in the regulation data base consists of regulation-, process-, and pollutant-level data. A rule is associated with the type of facility that is the source of pollutants governed by the regulation.

Choose one of the options under "Regulation Data Base Queries" to locate information of interest in the regulation data base. Then, to continue in RBLC interactive query mode, simply follow the directions on the screen, making choices by entering text and clicking buttons. The RBLC Web offers the following query options:

? **Scan All Regulations**: displays all regulations in the data base in groups of 50, alphabetically by affected facility.

? **Standard Query**: build a search criteria by choosing from facility, process, and pollutant properties. Where appropriate, pick lists of allowable values are provided.

? **Advanced Query**: choose from pick lists of data elements and enter desired values to build a search criteria. Criteria can be combined for more selective queries. This option is most effective for users with a good understanding of what each data element contains.

Choose the scan option to easily view the entire regulation data base. Entries are displayed in a table just like query results, and either a detailed listing report or a freeform report are available for downloading. Choose either the standard or advanced query options to view only selected regulations. All RBLC query options present an overview of query results in a table that allows the user to examine details about matching facilities, their processes, and pollutants. Each option also supports saving results through several different RBLC reports.

On-Line Documentation for RBLC

The RBLC is documented in this set of Quick Start Instructions, the RBLC Data Entry Form Instructions, the RBLC Annual Report, and the RBLC User's Manual. Short descriptions of each are listed on the Web page where they are located. The user's manual should be kept as a reference for codes, standard units, and detailed instructions for using the system. In addition to these traditional forms of documentation, the system includes the context-sensitive on-line HELP function that is available throughout the entire system.

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VOLUME I: RBLC BASICS

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FIGURES

SECTION 1:
INTRODUCTION

1.1 BACKGROUND

Welcome to the RACT/BACT/LAER Clearinghouse (RBLC) Web. EPA initially established the RACT/BACT/LAER Clearinghouse to assist State and local air pollution control personnel in making control technology determinations and in sharing technology information. Moreover, the RBLC is a resource to industries and consultants when they are preparing permits and researching control options, and to the public and environmental groups when they are reviewing and commenting on permitting activities. This user's manual describes how to use the RBLC Web to access information pertinent to these users.

1.1.1 The Purpose of RBLC

The basic purposes of the RACT/BACT/LAER Clearinghouse are:

? To provide information on current prevention and control technology determinations;

? To provide data on the specific emission limits imposed on existing, new, or modified sources across the country; and

? To present summaries of recent federal air pollution regulations and offer a forum for State and local agencies to maintain similar information for their own rules.

The Clearinghouse should serve as a reference or a starting point for State and local agencies when considering RACT, BACT, or LAER decisions.

The RBLC data base system performs the following three functions:

? Allows direct computer access to the data in the RACT/BACT/LAER Clearinghouse,

? Allows rapid production of RACT/BACT/LAER Clearinghouse reports; and

? Allows rapid updating of RACT/BACT/LAER determinations.

The most typical use of the information in the data base is to identify and compare available control technologies, either for the sake of selecting the most appropriate control in a specific situation or identifying the range of controls available for a process.

The RBLC Web on-line search functions allow users to build queries specific to their needs. These queries can be used to identify the most commonly used control technologies for a particular pollutant and process, or those being used within a specific period of time or geographic region. These subsets can be downloaded and used with PC-based data base or spreadsheet software to do more complex queries. Query options and the mechanics of searches are discussed thoroughly in Sections 2 and 3.

1.1.2 Regulatory Basis

The Clean Air Act (CAA) of 1970 gave the U.S. Environmental Protection Agency (EPA) the responsibility and authority to control air pollution in the United States and its territories. One of the responsibilities given to EPA under Section 108 of the CAA is to publish information on air pollution control techniques. This information includes data on available technology and methods for prevention and control of air pollution.

Different provisions of the CAA require the Reasonably Available Control Technology (RACT), Best Available Control Technology (BACT), and Lowest Achievable Emission Rate (LAER), and New Source Performance Standards (NSPS) as emission control and pollution prevention measures:

- RACT requirements apply to existing sources located in nonattainment areas (i.e., areas that do not meet National Ambient Air Quality Standards (NAAQS)). RACT requirements are typically prescribed by State and local rules and regulations, but may also be made on a case-by-case basis.

- New Source Review (NSR) requirements are case-by-case decisions or determinations made by the state or local agency based on the requirements of the applicable regulation. NSR BACT requirements apply to major new and modified sources located in nonattainment areas and subject to Prevention of Significant Air Quality Deterioration (PSD) permitting requirements.

- NSR LAER requirements apply to major new and modified sources located in nonattainment areas (i.e. areas that do not meet a NAAQS), and are applied by State and local agencies before a permit to construct may be issued.

- NSPS apply to both new and modified sources; they must reflect the degree of emission reduction achievable through the application of the best system of continuous emission reduction as determined by the EPA Administrator. An applicable NSPS acts as the baseline for BACT and LAER decisions.

Although the specific criteria governing RACT, BACT, LAER, or NSPS vary, the general underlying approach is to require the best abatement technology possible on all major existing, new, or modified sources. Most State and local programs have accepted complete responsibility

for issuing PSD and nonattainment permits. Thus, it is extremely important that information be available to assist control agencies in making the necessary control technology determinations in a nationally consistent manner. The Clean Air Act Amendments of 1990 made submittal of LAER to the RACT/BACT/LAER Clearinghouse Information System mandatory.

1.1.3 Information in the RBLC Data Base

The RACT/BACT/LAER Clearinghouse data base includes RACT, BACT, and LAER determinations made by various air pollution control agencies. Each data base entry contains information on the permitted facility at facility, process and pollutant levels. Examples of the data included for each level are:

- Facility data: Permitting agency contacts, and scheduling data;
- Process data: Fuel, capacity, and process descriptions; and
- Pollutants: Basis for the limit (RACT, BACT, or LAER), pollutant emission limits, pollution prevention techniques, add-on control equipment or other technology, and control cost data.

1.1.4 Contacting the RBLC

The RBLC is accessible on the World Wide Web, and access requires only a PC, an Internet connection, and a browser. The RBLC is available from the Clean Air Technology Center (CATC) home page located at: **www.epa.gov/ttn/catc/**. No account or password is required to query and browse the data base.

Authorized State or local air pollution control agency personnel may enter and edit their RBLC data on-line. An RBLC edit user ID and a password are required for a user to be able to add information to the data base on-line. Call EPA at (919) 541-0800 to receive an edit authorization form. An EPA staff person is available to assist authorized users in obtaining RBLC edit authority as well a security clearance for inputting determinations. Inquiries concerning RBLC should be directed to:

RACT/BACT/LAER Clearinghouse (MD-12)
Information Transfer & Program Integration Division
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711
Phone: (919) 541-0800

or

The Control Technology Center Info Line:

(919) 541-0800, FAX (919) 541-0242

Completed data input forms (additions to the RBLC data base) can be mailed directly to EPA at:

RACT/BACT/LAER Clearinghouse
USEPA (MD-12)
RTP, NC 27711

For Web-related issues, the RBLC Webmaster can be contacted through email: Steigerwald.Joe@epa.gov.

1.1.5 Making Suggestions and Reporting Problems

Comments on the RBLC Web are always welcome. Improvements to the Web are a continuing goal of the CATC. Please use the contacts listed in Section 1.1.4 to make suggestions or report problems.

1.2 OVERVIEW OF THE RBLC WEB SITE

1.2.1 Web Site Organization

The RBLC home page (see Figure 1.1) provides access to the RBLC data bases, and links to related sites. Connect to the RBLC home page from the CATC home page: **http://www.epa.gov/ttn/catc/**. Options that are available from the RBLC home page are:

- **Welcome to RBLC** -- Presents an overview of the RBLC and brief descriptions of how to use the RBLC data base.

- **What's New** -- Highlights items recently added or updated on the RBLC Web.

- **RBLC Data base Query** -- Links to the data base query menu. Browse or search the entire RBLC data base of completed and in-process determinations, and regulations from this page.

- **RBLC Data Entry** -- Links to the RBLC data entry page where authorized users can log in to add or update control technology determinations for their state or local agency.

Figure 1.1: RBLC Web Home Page

? **RBLC Software/RBLC Documents**-- Lists downloadable files available on the RBLC web site. These files include published documents like RBLC annual report, and this RBLC User's Manual. Also available for downloading are tables, instructions, and other technical information related to using the RBLC.

The RBLC home page also includes links to other related EPA, State, and Local Web sites. The "Links to State and Local Air Pollution Control Agencies" page contains links to on-line sources of permit information for every State and Local Agency currently maintaining a Web presence. The "Online Reference Library" page contains links to EPA and non-EPA Web pages that provide environmental or technical information. The "Tool Box" link opens a page containing environmental tools including emissions and costing spreadsheets and other calculators. Among other EPA links at the bottom of the page, click on the "TTN Home" link to connect to a complete view of the technical information offered on the TTN.

1.2.2 On-Line Help Options

The RBLC Web includes a context-sensitive on-line HELP function that is available throughout the entire system. Buttons with a question mark designate the help function:

On the RBLC Query page, click on "Help for RBLC Data Base" for step-by-step instructions on using the system's permit and regulation query options, including data element definitions and reporting formats. Figure 1.2 shows the table of contents for this page.

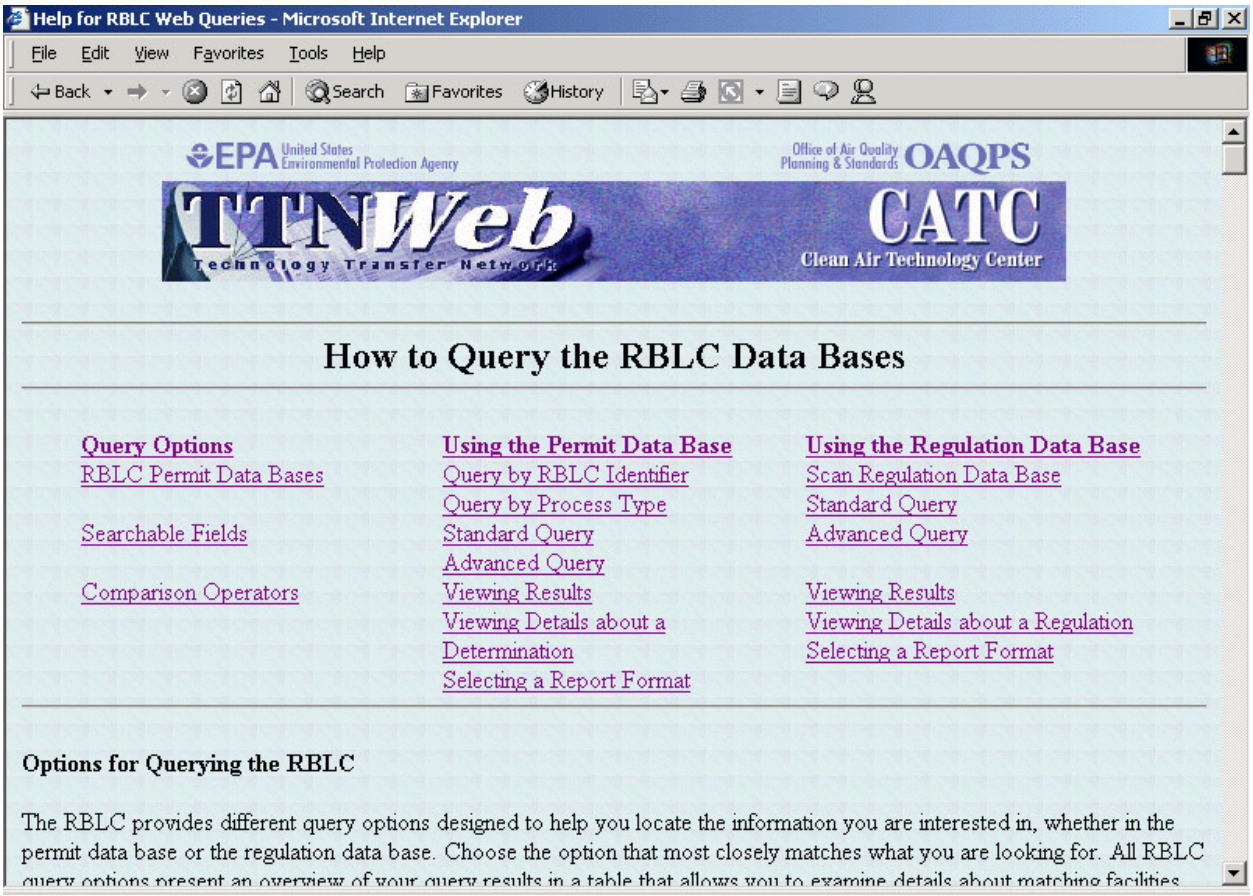


Figure 1.2: Table of Contents for Query Help Topics

1.2.3 On-Line Documents

Reference documents available for the RBLC are the Quick Start Instructions, the RBLC Data Entry Form Instructions, the RBLC Annual Report, and the User's Manual (this document).

These documents can be accessed on line or saved to disk as a portable document format (PDF) file. A PDF version of any of these documents has the advantage of being searchable by the Adobe Acrobat® software. Short descriptions of each are listed on the RBLC Documents Web page where they are located. The user's manual is divided into multiple volumes:

- Volume 1: RBLC Basics -- Provides introductory material for the RBLC data base, Quick Start Instructions for the RBLC Web, detailed descriptions of the permit and regulatory data bases, and guidance on using the query system with both data bases.

- Volume 2: Data Entry -- Provides detailed descriptions of data entry procedures.

- Volume 3: Appendices -- Contains reference tables with the values that can be used for processes, controls, and emission units; abbreviations for pollutants; codes for State and local air pollution control agencies and industrial processes; the hard-copy data submittal form, and example RBLC standard reports.

The user's manual should be kept as a reference for codes, standard units, and detailed instructions for using the system. The RBLC User's Manual will be updated annually.

SECTION 2:
RBLC PERMIT DATA BASE QUERIES AND DATA STRUCTURE

The RBLC permit data base contains information about control technology determinations submitted by State and local agencies. Click on "RBLC Data Base Query" from the RBLC home page to query the RBLC data bases. From the data base query page, users may view on-line help for the query options, perform a query on either the permit or the regulation data base, or link to additional resources. This section outlines the permit data base options, provides a detailed listing and description of the data elements in the permit data base, and shows how to use the four data base query options. The Federal/State Regulations data base is discussed in Section 3 of this Volume.

2.1 PERMIT DATA BASE QUERY OPTIONS

Choose one of the options under "Permit Data Base Queries" to locate information in the permit data base. Then, follow the directions on the screen to define a query. The RBLC Web offers the following query options:

? **Query by RBLC Identifier**: quickly finds up to three determinations identified by their RBLC identifier (RBLC ID).

? **Query by Process Type**: locates determinations that include a particular source or process. Drop down lists are used to make selections.

? **Standard Query**: allows users to build a search criteria by choosing from facility, process, and pollutant properties. Where appropriate, pick lists of allowable values are provided.

? **Advanced Query**: allows users to choose from pick lists of data elements and enter desired values to build a search criteria. Criteria can be combined for more selective queries. In general, users should know what each data element contains to use this option effectively.

All RBLC query options present an overview of the query results in a table with links to pages that provide details about facilities, processes, and pollutants. Each option also supports saving results in any of the RBLC standard output formats.

Each Web page has navigation buttons to assist in moving through the Web site. Use these rather than the Web browser's navigation buttons, which may result in inaccurate information because of the way that browsers cache information.

The RBLC navigation buttons can be used to return to the query page and respecify search criteria for another query, or use the link at the bottom of the results page to return to the

main RBLC page in order to choose another query option. If a query is not successful, return to the query page and respecify the search criteria. Check to make sure that a misspelled word or an invalid value for a search element is not the problem.

2.2 DATA BASE ELEMENTS

The RBLC data base contains information about a variety of data elements. This information is separated into three main categories: facility data, process data, and pollutant data. The data are organized so that each facility determination may have multiple processes and each process may emit multiple pollutants. Figure 2.1 shows the RBLC data structure and data relationships. Each facility has at least one process and at least one pollutant. The information that EPA maintains in the data base on each of the three levels (facility, process, and pollutant) is listed below. Data elements that can be used in a query are marked with a (*).

Facility Information:

- RBLC ID*: The unique identification number assigned to each RBLC determination by EPA staff. The number consists of the state abbreviation and a four digit number, i.e. AK-0001 is the first determination entered from Alaska. A suffix may exist for old determinations for clarification.

- COMPANY NAME*: In some cases a parent company will own many facilities. The parent company's name has been entered in this field. If the company that owns the facility has the same name as the facility, the name may be entered in both the company and facility name fields.

- PLANT (FACILITY)NAME*: See the note for Company Name. The facility name has been entered here.

- PLANT LOCATION INFORMATION: The actual location of the facility, including:
  - County;
  - State* (assigned by the system);
  - EPA Region*(assigned by the system):
  - Facility Universal Transverse Mercator (UTM) coordinates and UTM Zone; and
  - Class I area names* (e.g., National Parks, Wilderness Area, etc.) located within 250km of the facility.

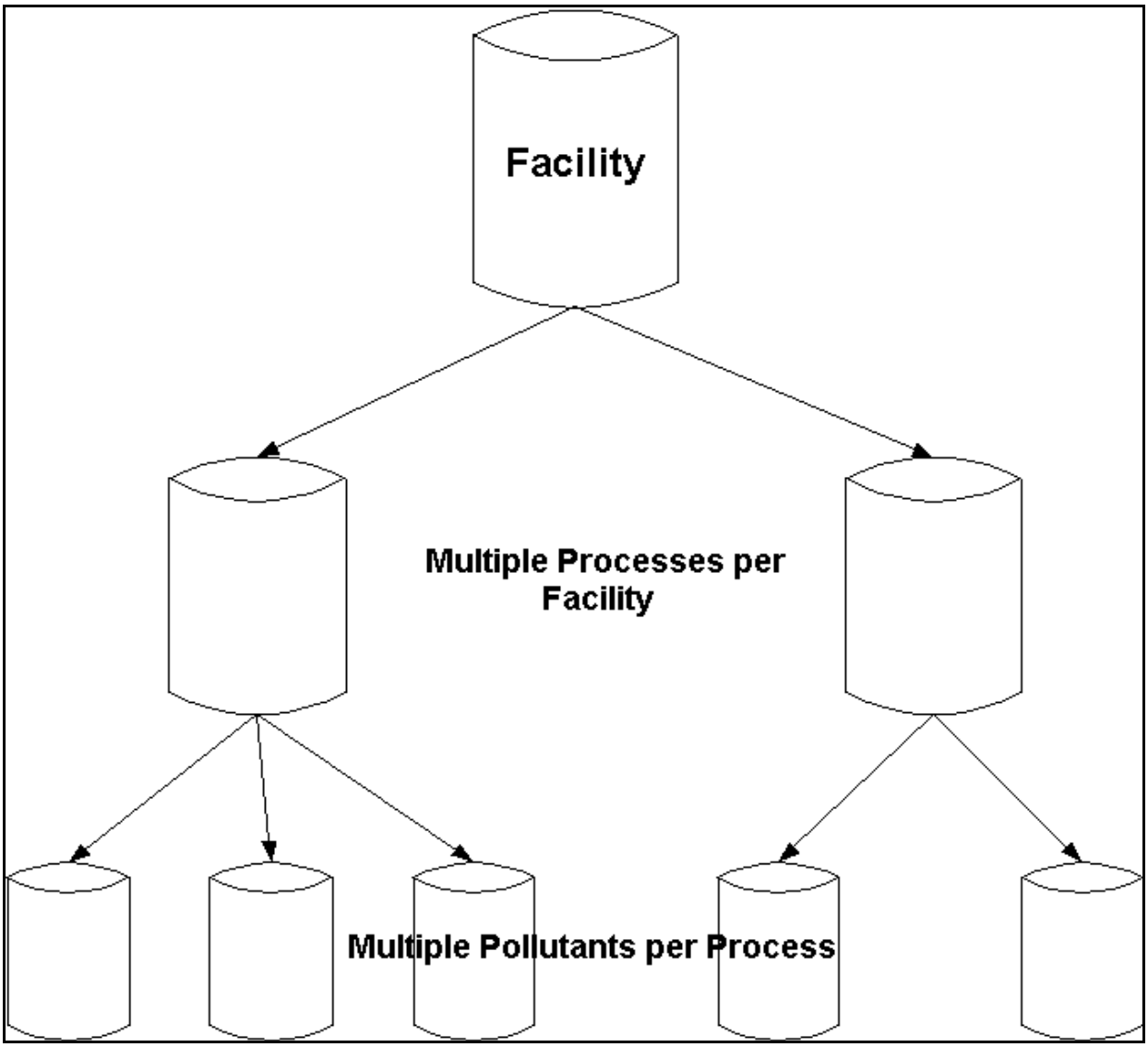


Figure 2-1: RBLC Data Structure and Data Relationships

- COMPANY CONTACT INFORMATION: Fields which provide contact information for the person knowledgeable about the process at the plant or facility being permitted. Fields are name, mailing address, telephone numbers (voice and fax), e-mail address, and mailing address, including city state and zip code.

- PERMIT/FILE NUMBER*: An identification number assigned to the permit by the permit issuing agency. If the permit is issued by the EPA regional office, this number would be the region file number.

- AIRS FACILITY NUMBER (UNIVERSAL PLANT ID)*: A unique identification number for the plant, typically, the EPA Aerometric Information Retrieval System (AIRS) ID. The AIRS ID number is usually assigned by someone within the State or local agency assembling the permit but may also be assigned by an EPA Regional contact.

? EPA ID: *Data element reserved for future use.*

- SIC CODE*: The standard industrial classification (SIC) code for facilities used throughout the Office of Air and Radiation (OAR) at EPA. A list of valid SIC codes is available as a drop down list in the query and data entry portions of the RBLC web site, or can be downloaded as a file from the RBLC Documents list.

- PERMITTING AGENCY INFORMATION*: Information on the issuing agency, and the primary contact for the determination. Lists of agency names and agency codes are listed in Appendix B of this User's Manual and in the RBLC Web system. Agency contact's names and phone numbers are also maintained by the system. The contact information is available for RBLC users with questions regarding the determination.

- PUBLIC HEARING: This field indicates whether a public hearing was held.

- NEW/MODIFIED SOURCE: A new facility will be marked as a new source, a modification or addition to an existing facility will be marked as modified.

- SCHEDULING INFORMATION: Permitting scheduling dates stored in the system are the following:

  - Application receipt date;
  - Permit issuance date*;
  - Start-up date; and
  - Compliance verification date.

The RBLC data base includes a character field for each of the above dates that indicates whether the date is estimated or an actual date.

- NOTES: This field allows the user to include explanatory information about the determination which he or she enters into the RBLC data base.

- LAST UPDATE: A field which allows users to see when the last changes were made to each determination. Assigned by the system.

- ENTRY DATE: Date that the determination was first entered into the RBLC permanent data base. Assigned by the system.

- PLANT NARRATIVE/EMISSION SOURCES/FUEL/ABATEMENT DESCRIPTION: These are notes fields for information about the entire plant/facility.

- PLANTWIDE EMISSIONS*: The total emissions of CO, NO_x, PM, SO_x, and VOC from the entire facility may be available here.

Process Information:

- PROCESS DESCRIPTION*: The name of the process which describes the process listed (examples in Appendix A).

- PROCESS TYPE CODE*: A numeric code assigned to each process used to categorize determinations. Codes and their descriptors can be found in Appendix C and in drop down lists in the query and data entry portions of the RBLC web site.

- SCC CODE*: The source classification code (SCC) for processes used throughout the Office of Air and Radiation (OAR) at EPA. A list of valid SCC codes can be downloaded as a file from the RBLC Documents list.

- THROUGHPUT CAPACITY AND UNITS: For each process listed in a determination, the RBLC data base can contain information about the throughput capacity of the process unit, i.e. boiler size is often specified using a throughput capacity measured in MMBTU per hour. In some cases, throughput may not be entered because it may be considered confidential business information.

- PRIMARY FUEL: The primary fuel used by this process.

- COMPLIANCE VERIFICATION: A series of fields that allow users to enter a yes or no response to the following questions:

- Compliance verified?
- Method of confirmation
  - Stack testing?
  - Inspections?
  - Calculations?
  - Other testing?

Users may also enter a short narrative description of other types of confirmation methods.

- PROCESS/COMPLIANCE NOTES: Explanatory information about the process will have been entered here.

Pollutant Information:

- POLLUTANT NAME AND CAS NUMBER*: The name and Chemical Abstract Service (CAS) number of the pollutant being controlled. These can be found in Appendix D.

- CONTROL METHOD CODE*: A one-character field indicating what method was used to achieve the emission limits. The choices which may be entered are:

  - P -- Pollution prevention techniques, e.g., any required process modification, change in raw material, or management practice designed to decrease or prevent pollutant emissions;
  - A -- Add-on control equipment;
  - B -- Both pollution prevention and add-on equipment;
  - N -- No feasible controls.

- CONTROL METHOD DESCRIPTION/NOTES*: A description of the specific pollution prevention and/or add-on control equipment used to meet the emission limits of the permit. **This field is unnecessary if "N" is entered as the control method code.**

- EMISSION TYPE*: A one-character field indicating whether the emission is fugitive (F), point-source (P), or area-source (A).

- PERCENT EFFICIENCY*: The design efficiency expected from a particular type of control equipment or method. This figure is expressed as a percentage. Percent efficiency can be used in some permits as an enforceable limit. In these cases, the percent efficiency can be entered in lieu of the pollutant's emission limit.

- PRIMARY EMISSION LIMIT AND UNITS: The primary emission limit listed in the permit. Unit abbreviations can be found in Appendix D.

- ALTERNATIVE EMISSION LIMIT AND UNITS: If provided on the permit, these numbers represent any alternative emission measurements which the facility may make. Unit abbreviations can be found in Appendix D.

- RBLC STANDARDIZED EMISSION LIMIT AND UNITS: This limit allows comparison with other similar determinations in the data base. If standard units are provided for the process type and pollutant for which the user is searching (see Appendix E), users can compare the entries in this field to determine the most stringent limits.

- BASIS FOR LIMIT*: The statutory basis for the pollutant limit. The choices which may be entered into the RBLC data base are:

  - BACT-PSD -- Prevention of Significant Deterioration;
  - BACT-OTHER -- Other BACT (i.e. T-BACT, Toxics-BACT, etc.);
  - Lowest Achievable Emission Rate (LAER);
  - Maximum Achievable Control Technology (MACT);
  - Reasonably Available Control Technology (RACT);
  - Generally Available Control Technology (GACT);
  - New Source Performance Standards (NSPS);
  - National Emission Standards for Hazardous Air Pollutants (NESHAP); and
  - Other.

  When several regulations apply to emissions from a process at a specific facility, and one limit must be chosen as the primary emission limit and entered in the Basis for Limit field, a case-by-case RACT, BACT, or LAER limit takes precedence. Other regulatory limits should be entered in the Control Method Description/Notes field.

- CONTROL TECHNOLOGY RANKING DATA: The ranking of the control technology chosen, when ranked according to the level of control. Information includes the number of options considered and the rank of the option selected.

- COST DATA: Control costs contained in these fields include:

  - Cost verified by the permitting agency (yes or no);
  - Capital cost of control equipment;

- Annual operation and maintenance cost of control equipment;
- Year of the dollar used in cost calculations;
- Annualized cost; and
- Cost effectiveness in dollars per ton.

2.2.1 RBLC Data Base Options

The RBLC Web stores determinations based upon the date that a determination was entered in the RBLC. The data base options are:

? Transient/Early Notification Determinations – These facilities represent the most recent information in the RBLC, but may include determinations for permits which are not yet issued (still in the review stages), determinations which have necessary information still missing, or determinations which have not been verified for corrections and completion by the RBLC staff.

? RBLC Determinations Added During or After January, 1990 – These determinations are the most recent information in the RBLC that has been reviewed and approved for inclusion in the permit data base. Most of them will contain values for all key fields.

? Historical RBLC Determinations (added before January 1990) – These older determinations may not contain values in all the data fields, particularly those fields recently added to the data base.

? All RBLC determinations (excluding NSR/under review) -- A query of these determinations will search all completed determinations.

The RBLC offers a separate data base for information on federal and state regulations. Details about this data base are described in Section 3 of this Volume.

2.3 SEARCHING THE RBLC

2.3.1 Planning the Query

Before starting any query, consider the information to be gathered in the query. Review the description of each option in Section 2.1 to identify these options' specific uses and strengths. The standard and advanced queries allow the user to build a more sophisticated query, taking into account multiple search criteria, so that rather than simply browsing all of the listings for a single process type, search results can be narrowed by pollutant, control device, geographic location, or industry. However, these query options can return an overwhelming number of determinations if the query is not specific. We recommend that users familiarize themselves with the search criteria that are available so that they can search efficiently.

2.3.2 How To Run a Query

A query allows the user to create a subset of the data base using search criteria. After selecting one of the four query options on the RBLC Web, specify the search criteria in the input form and then run by clicking the "Run query now" button. Once the query has located matching determinations, the results can be viewed on-line or downloaded as a report file. Additional instructions and query information are available on the query Web pages and through the help system.

Except for "Query by RBLC Identifier", RBLC query options require the user to select an RBLC data base based on the time period that entries were first added to the RBLC. These data time periods are defined in Section 2.2.1 of this volume.

2.3.3 Query by RBLC Identifier

This option is the fastest way to find a permit on the RBLC web. A query by the RBLC Identifier requires only one input, the RBLC ID. Up to three RBLC identifiers can be used in a single query. This query will find all valid RBLC IDs in the NSR Early Notification/Under Review and the RBLC data bases.

The correct format of an RBLC ID is **AA-nnnn**, where **AA** is the 2-letter state abbreviation and **nnnn** is a 4-digit number that uniquely identifies the permit. Some older permits use a single letter suffix (e.g., CA-0001.A) to further distinguish among related determinations. Input for this single letter suffix field is not case sensitive.

2.3.4 Query by Process Type

The Query by Process Type option is designed to provide general information about a particular type of process, such as natural gas combustion turbines or rotogravure printing. Numeric process type codes are the primary method of classifying source categories in the RBLC data base. Appendix C contains a complete listing of the process type codes used in the RBLC.

This option has two steps. First, select a broad process category by clicking on the down arrow in the main process category drop-down selection list (shown in Figure 2.2). Scroll to the desired major category, highlight it, and click on the selected item. Click the "Next Step" button to continue.

The second step for this query option is shown in Figure 2.3. The selections for this step are:

- ? A list of the data base options for the RBLC permit data base. Users can search entries from the entry period of interest.

? A list of specific process type codes. The contents of the list depend on the earlier selection of a major category. To find all of the determinations with processes in a major process category, choose the first item in the list (the .000 code).

Refer to Appendix C to review all of the RBLC process codes. The standard or advanced query options allow the user to query on the process name.

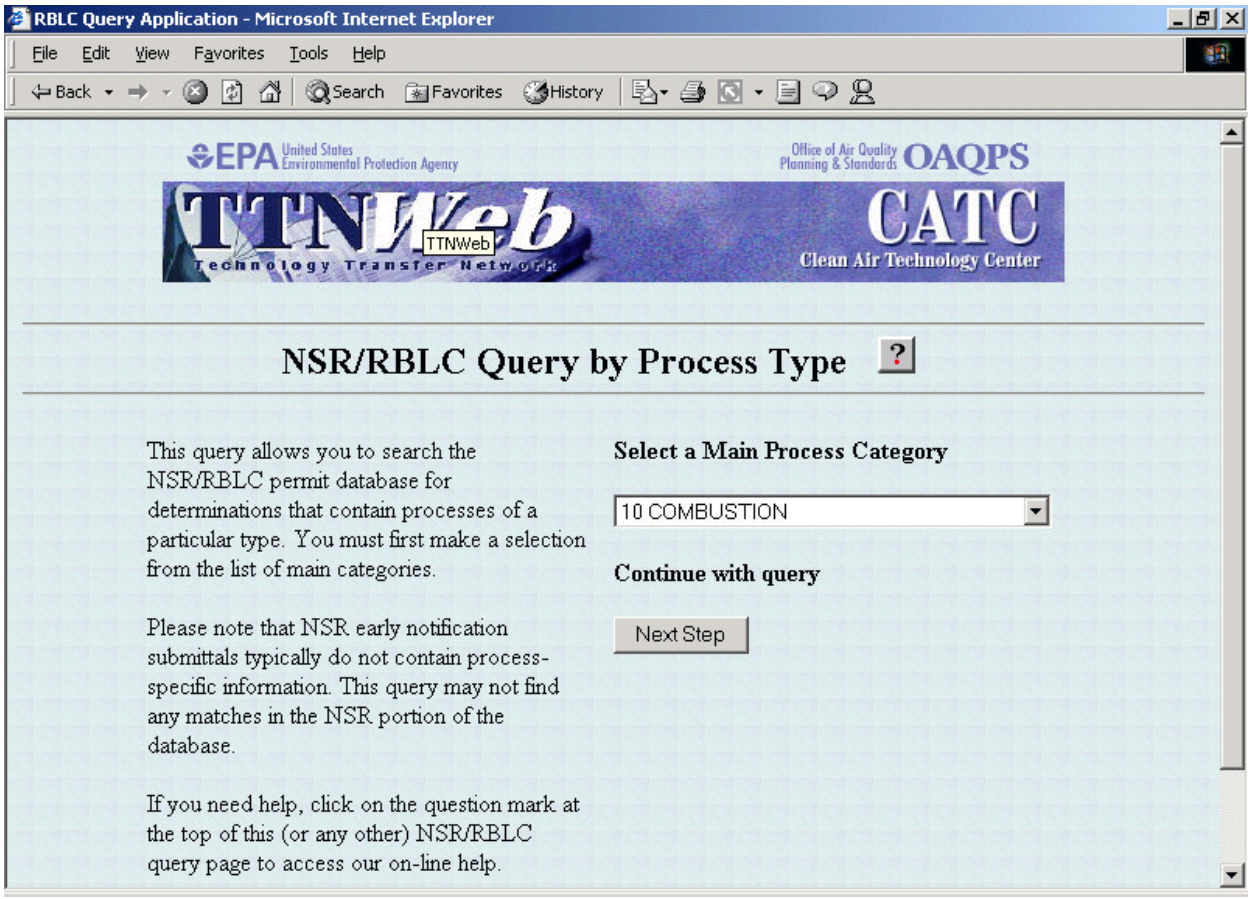


Figure 2.2: Query by Process Type Step One

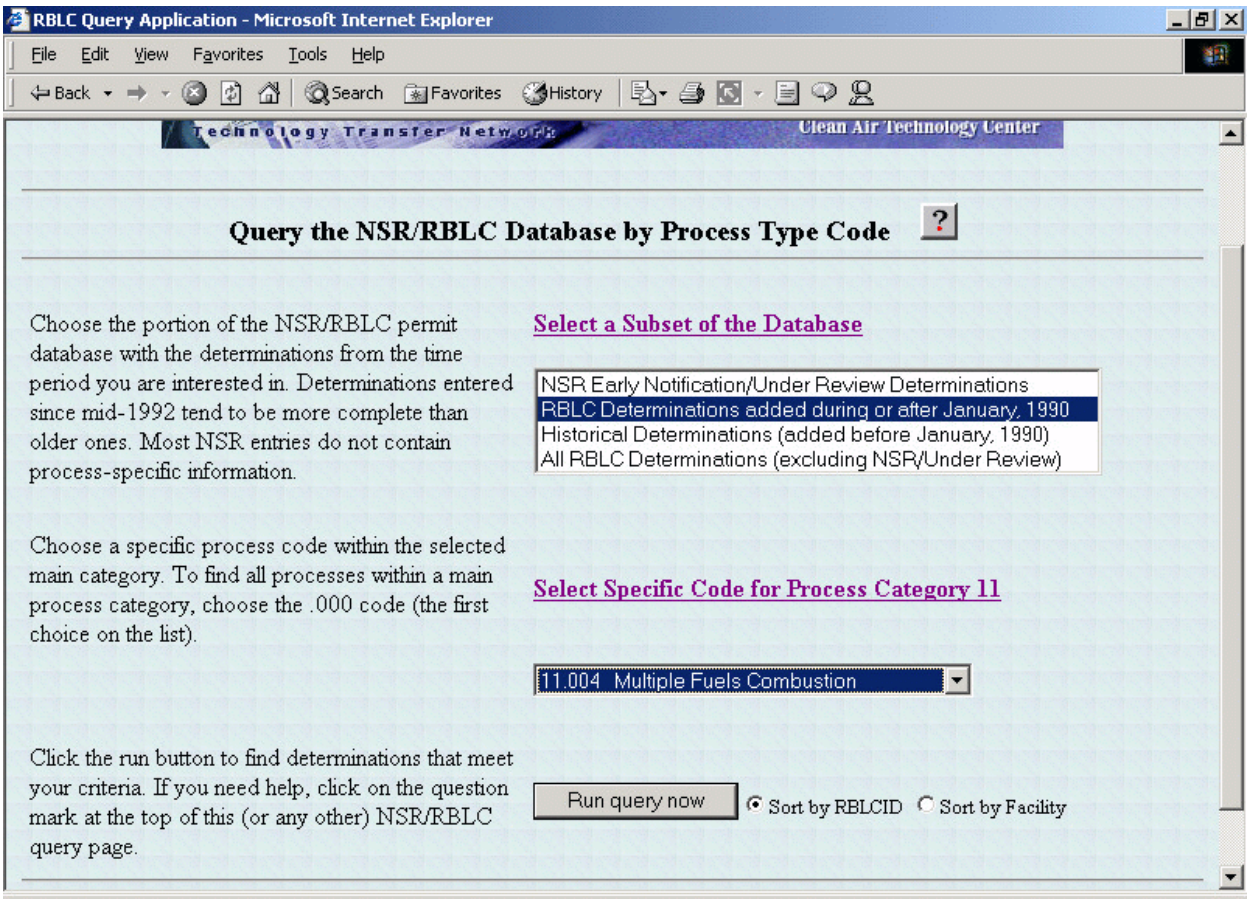


Figure 2.3: Query by Process Type Step Two

For example, a search for process type 11.000 finds all external combustion processes from 11.001 to 11.999. However, because this type of query may find a large number of matching records, it may be more efficient to select a specific process code to refine the query.

EXAMPLE - USING THE RIGHT PROCESS CODE

Problem: We want to compare controls for VOC emissions from wire coil coating operations, but a query for process type code 41.011 (metal coil surface coating) yields only three such operations listed in the RBLC data base, and two of those were entered in the 1980's. Can we locate similar operations that might provide usable information?

Solution: Query instead on process type code 41.000, which yields 663 process entries. Browse these to identify useful related process type codes and control methods, and use the Standard or Advanced Query forms to build a more specific query.

After selecting a data base and a process type code, click the “Run query now” button to execute the query. The results of the query are displayed in a table, sorted by either facility name or RBLC ID. To examine the results of the query, click on one of the RBLC IDs. View the information for a facility, and select from the links shown on each screen to view process and pollutant information. Sections 2.4 and 2.5, Viewing Query Results and Data Base Reports, describe how to view and download query results.

2.3.5 Standard Query

The standard query option provides more flexibility in examining the permit data base. It allows queries on data fields other than process type or RBLC ID, and it supports queries based on multiple data fields. When a data value must be one of a particular set of choices, these choices are presented in a pick list.

More than one search criteria section can be filled out for the standard query. Try to select enough criteria to match a manageable number of records, without being so restrictive that the query finds no matches or the query is so complex that it takes too long to run. Usually, two to three criteria work well. Be sure not to specify mutually exclusive criteria, such as selecting North Carolina as the facility location, but a permitting agency in Texas.

Search criteria are used to match data base records with the values specified in the query. In most cases, the data specified will need to be exact matches. Some records (i.e., date of determination entry, facility identifier, and control efficiency) allow the use of comparison operators to define a range of potential values. For numbers, the allowable operators are equals, greater than, or less than. Operators for alphanumeric fields allow you to match any part of the data, match the beginning characters only, or specify an exact match of every character.

A total of eight data elements can be searched and include:

1) NSR/RBLC Date Selection
2) Facility or Industry Identifiers
3) Facility Location
4) Permit Information
5) Plantwide Emissions
6) Process Information
7) Pollutant Information
8) Emissions Abatement Information

Each of these eight data elements that can be searched using the RBLC standard query are described below, along with instructions on their use.

NSR/RBLC Date Selection

? Choose an RBLC data base.

? Choose an additional date element from the date range pick list:

- ? Date added to RBLC
- ? Date last modified
- ? Date permit issued

Enter a "from" date and/or a "to" date. The query will find dates greater than or equal to the "from" date and less than or equal to the "to" date.

EXAMPLE - QUERY BY DATE

Problem: To get a summary of determinations entered and modified by a specific agency during the last three months of the year 1999.

Solution: Choose Date Last Modified, and in the date fields, enter 09/01/99 and 12/31/99. In the Permit Information section of the query, select the agency's name from the pick list(e.g., AZ002 - Maricopa Co. Air Pollution Control, AZ), then run the query.

The RBLC Web is flexible about the format of dates. Dates may be entered in a numeric mm/dd/yyyy or m/dd/yy format or spelled out, i.e, 'Jan 1, 1998'. If the system cannot recognize the date as it has been entered, it will prompt the user to go back and enter another date value.

Facility or Industry Identifiers

These selections allow the user to query based on a facility or company name, an RBLC ID, or by SIC code. Select a facility identifier from the pick list (see the items listed below) and enter the appropriate value to match.

- ? Company name
- ? Plant name
- ? RBLC Identifier (RBLC ID)

Any of these facility identifiers can be entered as either complete or partial names. Enter a complete RBLC ID to locate one specific determination. When the search criteria is the RBLC ID, the query will run faster if the exact match operator is used. Choose one of the following comparison operators:

? **Containing** performs a word search and matches all facilities that contain the

specified value anywhere in the facility name data element.

? **Beginning with** finds only those facilities whose facility name data element begins with the value specified.

? **Exact match** is the most restrictive operator and requires a character by character match between the value specified and the facility data element.

Comparison operators are particularly useful when searching text fields such as the facility name. For example, when using the Beginning With operator and specifying **THE PA** as the value to match, the result set will include "THE PAPER CLIP FACTORY," "THE PA ELECTRIC PROJECT," and "THE PASTRY SHOP," but not "PASTEURIZATION INC." Using the Exact Match operator would probably give you an empty result set. Specifying **PA** as the value to match with the Containing operator would find all of these facilities, plus names such as "PRINCIPAL REPAIRS" and "CONSOLIDATED PAVERS."

For a more general industry-based search, choose from the pick list of SIC codes to retrieve a broad set of facilities in a particular industry. Many older permits were added to the data base without a SIC code, so queries may not find all matching records. A list of SIC codes can be downloaded from the RBLC documents section, available from the RBLC home page.

Facility Location

The data base may be queried by EPA Region; State or U.S. territory; or up to twenty Class One protected areas in combination with a distance to Class One borders. The latter combination will find facilities that are near any of the National Parks and other protected areas that have been selected. Selection options are:

? Select the EPA Region in which facilities are located; or

? Enter a state abbreviation (this option will supersede an EPA Region selection); or

? Select Class One affected boundaries.

Permit Information

The permit information option allows a query based on the permitting agency, a permit number, or a plant ID code (formatted according to EPA standards). Query options are:

? Choose a state or local permitting agency from the list provided to obtain a listing of all determinations entered by a specific agency. Enter the first letter of the state of interest to scroll to the appropriate agency codes. Appendix B lists all agency codes used in the RBLC.

? Enter a permit number to locate one specific determination. Every permitting agency uses its own format for permit numbers. It can be difficult to exactly match a permit number. Try using a more general search criteria, and make a note of the RBLC ID so the permit can be quickly located in the future.

- ? Enter the AIRS facility number/universal plant ID to identify all of the determinations in the data base that are associated with a specific facility. However, the AIRS facility number field is not a required field for entries, and it may not be the most reliable query field.

Plantwide Emissions

Plantwide emissions data are available primarily for NSR early notification entries. These emissions are a non-required field for data entry, so not all facilities will have this information. These data may be searched by individual criteria pollutant. Any facilities with emissions reported greater than zero for the chosen pollutant will be displayed. Alternatively, the user may query on "Pollutant Name" under the "POLLUTANT INFORMATION" category for additional information.

Process Information

The data base can be queried by process information by entering a word or phrase that describes a particular process, selecting from the pick list of process type codes, and/or entering a Source Classification Code (SCC). Process type codes are the primary method of classifying source categories in the permit data base, and a query is most likely to be successful if the process code is specified. Process names and SCCs can be used to narrowly define a broad process category. Be aware that many older facilities in the data base were entered without SCCs, and a query on a SCC may not find all matching processes. Detailed process information may not be available for NSR early notification entries.

- ? Enter a partial or complete process name. This search criterion automatically uses the containing operator and works especially well when combined with one of the other process data elements. Appendix D lists common process names used in the RBLC.
- ? Choose from the list of process type codes. Enter a number between 1 and 9 to scroll to the process codes starting with that digit. Appendix C lists all process codes used in the RBLC.
- ? Enter a SCC code. Many older permits were added to the data base without a SCC code, so the query may not find all matching records. A list of SCC codes can be downloaded from the RBLC Documents section, available from the RBLC home page. A higher level SCC (i.e., one with fewer digits) can be used to identify a less specific process.

Pollutant Information

Pollutant information includes the pollutant name or its Chemical Abstracts Service (CAS) number, and emission type (i.e. point, area or fugitive). When querying on emission type, it is strongly recommend that some facility or process-level criteria be included in the query to reduce

the size of the query results. Detailed pollutant information may not be available for NSR early notification entries. Query options are:

- ? Specify a pollutant name. Choose from one of the criteria pollutants in the pick list, or choose 'Specify other' and type the pollutant name. Appendix D of this User's Manual lists pollutants abbreviations. The RBLC standard is to use the chemical abbreviation for a pollutant, for example 'CO' for carbon monoxide.
- ? Enter a CAS number. This is the recommended method for finding a specific pollutant because it accounts for any variations in pollutant names. A listing of CAS numbers is in Appendix D of this volume.
- ? Choose from the list of available emission types. This selection works best when used in combination with other criteria because it matches a large number of data base entries.

Emissions Abatement Information

Emissions abatement information includes the regulatory program under which the limit was established, the method used to control emissions, a particular pollution prevention technique or add-on control that was used to achieve the emissions limit, and/or the percent efficiency of the control method used. Partial words work best for queries on control description, because they allow for spelling variations. For control efficiency information, specify a comparison operator. Emissions abatement information may not be available for NSR early notification entries.

- ? Specify the regulatory basis under which limits were established (e.g., BACT-PSD, or NSPS). Choose from the pick list of the most common values for basis in the data base, or choose 'Specify other' and type in a value.
- ? Choose the control method code that describes the method used to achieve the emissions abatement. Control method codes are: A (add-on control), P (pollution prevention), B (both), and N (none). This selection works best when used in combination with other criteria because it matches a large number of data base entries.
- ? Enter a word or phrase for the particular pollution prevention method or add-on equipment that was used.
- ? Select a control efficiency threshold as a percentage. Thresholds can be specified as either equals, greater than or less than. Very often, a measure of efficiency is not provided with the submittal, so a query on this data element may not find many matching records.

EXAMPLE: USING THE STANDARD QUERY FORM

***Problem*:** Too many determinations.

The RBLC Web data base is being consulted to identify nitrogen oxide (NO_x) control methods applied to natural gas turbines. A quick query using just the process type code for natural gas internal combustion and NO_x yields 251 determinations, an overwhelming number. What sort of query options can be used to refine the search?

***Solution*:** Define needs, experiment with options, run several queries.

The study is focusing on just turbines, so using the process name could possibly reduce the number of determinations in the results. However, using the process type code, pollutant, and "turbine" in the process name field still yields 172 determinations.

A further limit is that results of this work will be used in the state of California, so that specifying California determinations should reflect State rules and practices. Using the location/state option, along with those previously selected, results in 24 determinations, a very manageable number. Further queries identify those determinations that have add-on controls (3), pollution prevention (8), or both (12). Further research could identify states with similar NO_x rules, or having identified a likely pollution control method, the standard query or advanced query could be used to identify all instances of that control method for review.

Once all search criteria for the standard query have been specified, select the method for sorting the results table. Results can be sorted by facility name or by RBLC ID (see Figure 2.4). Click on the "Run query now" button to begin the query, or click the "Reset" button to start over with a blank standard query form.

The results of the query are displayed in a table. Examining the results of the query or downloading the results to a local PC are discussed in Section 2.4.

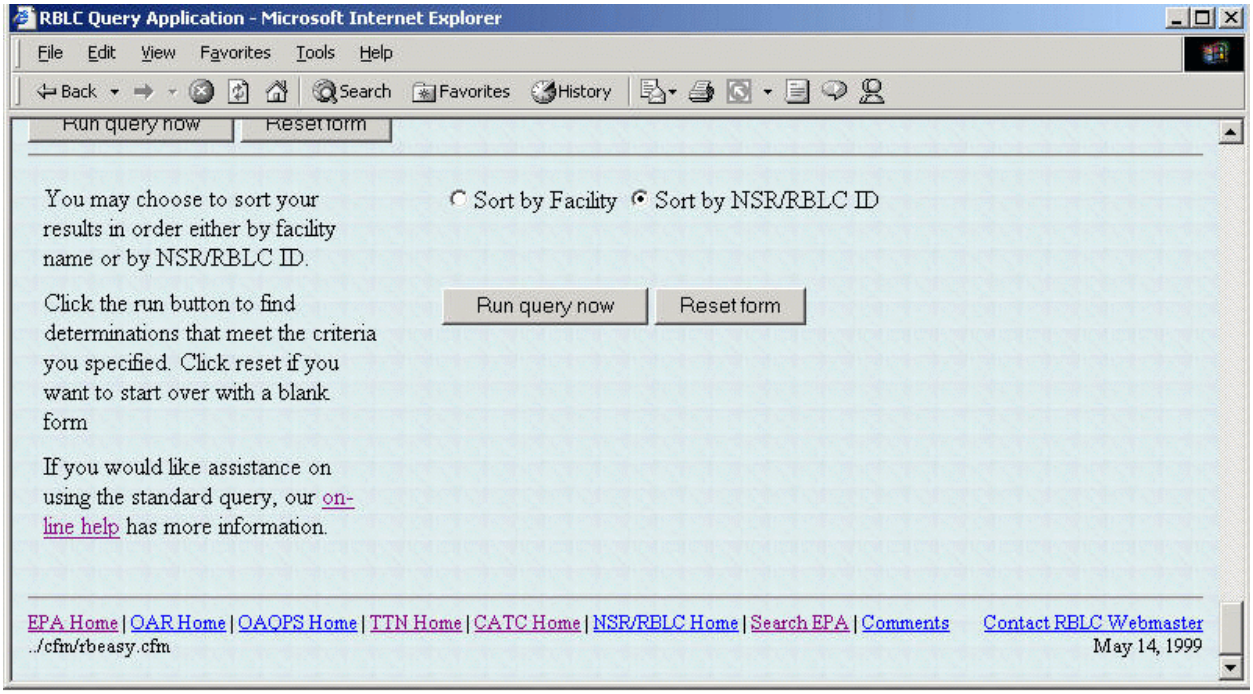


Figure 2.4: Run Options for Standard Query

2.3.6 Advanced Query

The advanced query option lets the user create search criteria by choosing from pick lists of data elements, entering desired values, and applying a selection of data operators. Two search criteria can be combined using 'AND' or 'OR' logical connectors for more selective queries. Figure 2.5 illustrates the initial part of the advanced query page. Although similar to the standard query, the advanced query option does not provide sets of allowable values for data elements. These must be entered by the user. In general, the user should know what information each data element contains to use this option effectively. Use the on-line help and this document's discussions of data base elements in Section 2.2, and standard query options in Section 2.3.5, when running the advanced query. As with other query options, the user must select a RBLC permit data base.

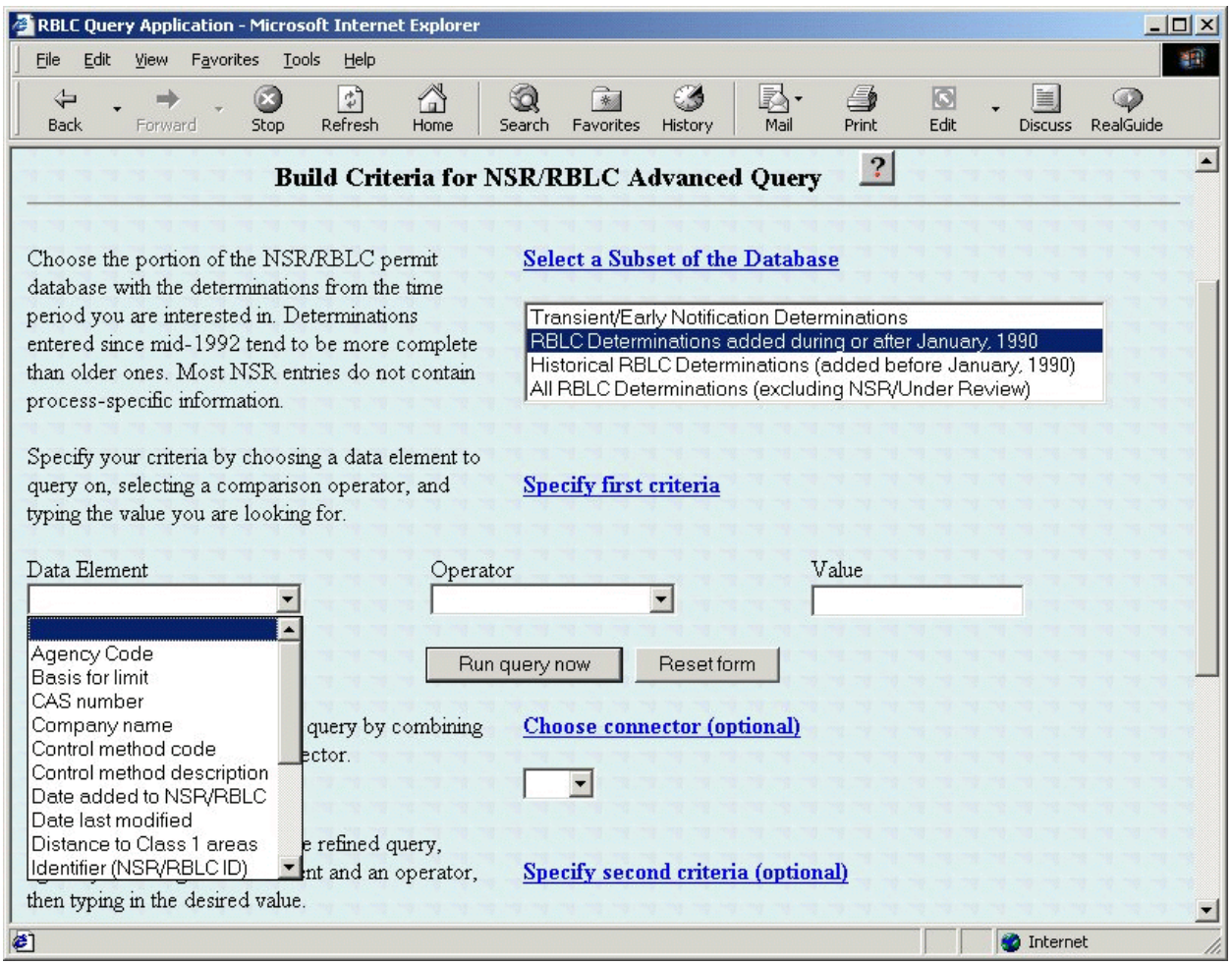


Figure 2.5: Advanced Query

Specify the first search criteria by choosing a data element and a comparison operator from the pick lists. Then type the desired alphanumeric value for the data element in the text box. Entries are not case sensitive. The searchable data elements are:

- Agency code;
- Basis for limit;
- CAS number;
- Control method code;
- Control method description;
- Date added to RBLC;
- Date last modified;
- Distance to Class 1 area;
- Facility name;
- Identifier (RBLC ID);

- Plant (facility) name;
- Pollutant name;
- Process name;
- Process type code;
- Region;
- SCC code;
- SIC code; and
- State.

All three fields: data element, operator, and value, must be entered. At this point, the user can click the "Run Query Now" button to run the query using only one set of search criteria, or a second set of search criteria can be added by choosing one the following logical connectors:

- **And** finds records that match **both** of the search criteria.
- **Or** finds records that match **either one** of the search criteria.

If a connector is selected, the second criteria set must be specified by choosing data elements from the second criteria pick lists, and entering a desired value. Be careful not to specify mutually exclusive criteria. For example, specifying "State equals NC and State equals FL" will not find any matching records.

Before clicking the "Run query now" button, choose the results table sorting method, either by facility name or by RBLC ID. The "Reset form" button can be used to start over with a blank query form. Query results are displayed in a table, which is discussed in Section 2.4.

2.4 QUERY RESULTS

The query results for all RBLC query options are displayed as a table of links to additional information and are organized by RBLC ID or facility name, depending on the selected option. The table includes RBLC ID, facility name, city, and state, along with other information that varies depending upon which query options were used (Figure 2.6). Note that the search criteria used for the query appear towards the top of the page as a reminder. Each row in the table represents a determination that matched the search criteria. When querying by process type, a facility may appear with multiple rows, one for each matching process found by the query. Results can be viewed on-line or saved in any of the RBLC standard output formats, which are discussed in Section 2.5.

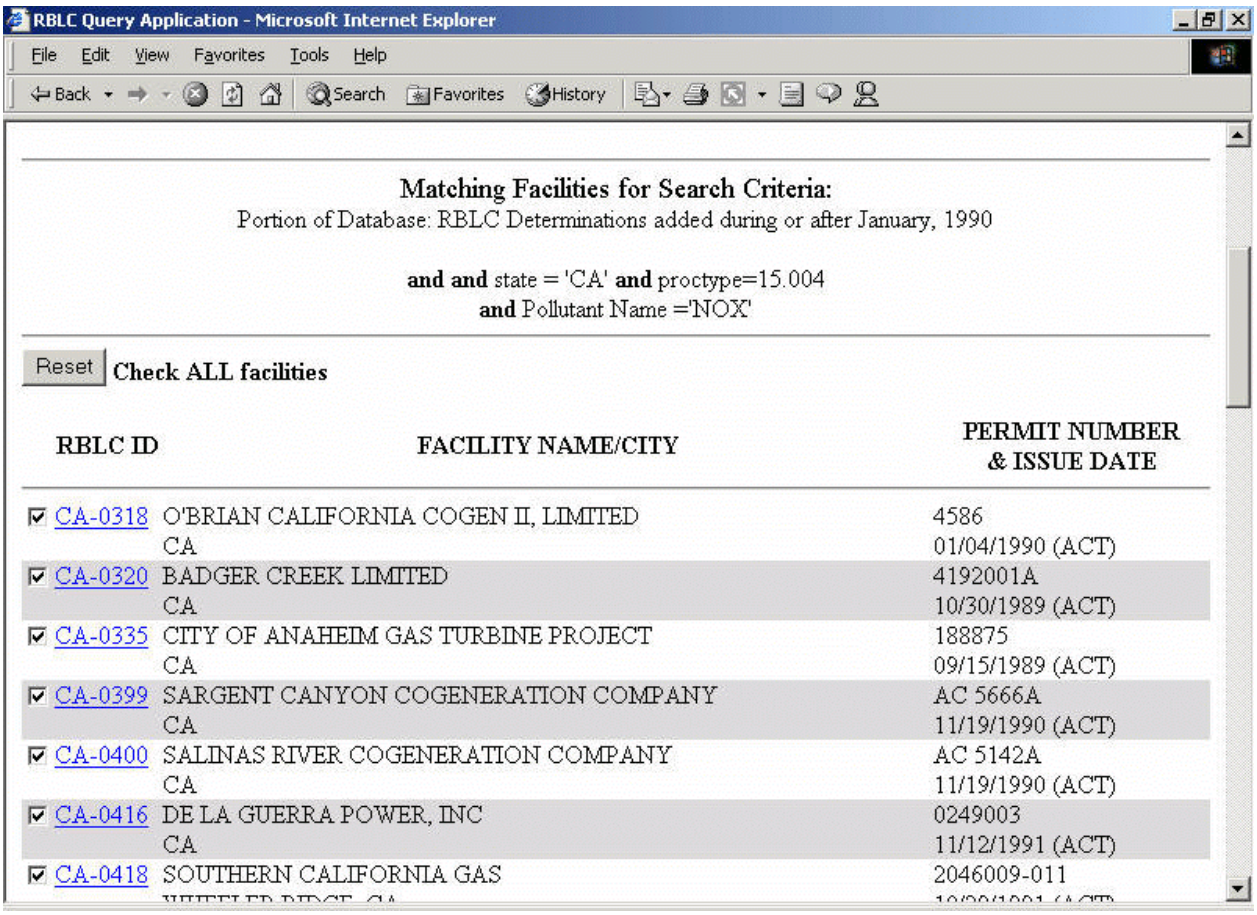


Figure 2.6: Results Table for a Standard Query

2.4.1 Navigating the Query Results

Each RBLC Web page has navigation buttons to assist in moving through the Web site, and links at the bottom of the page include links to the RBLC query option page and the RBLC Home page. Use these buttons and links rather than the Web browser's navigation buttons, which may result in inaccurate information because of the way that browsers cache information. If a query is not successful, return to the query page and respecify the search criteria. Check to make sure that a misspelled word or an invalid value for a search element is not the problem.

The results table displays a maximum of 150 records at a time. Any reports generated from the results table will contain only the facilities displayed on the current page. When more than 150 records are returned by a query, a link to the next 150 records appears just above the results table. Users can move through pages of results using the Next 150 Facilities and Previous 150 Facilities links. Separate reports have to be generated for each page of the results table.

2.4.2 Viewing Query Results

Information about each of the determinations is organized by facility, process, and pollutant. The RBLC ID in the results table links to details about the permitted facility for that determination. Successively deeper levels of information are viewed by clicking on the navigation buttons that appear at the top of each subsequent detail page. Refer to Section 2.2 for more information about facility, process and pollutant level data elements. Pollutant level data is accessed from its associated process level page. Use the "Query Results" button to return to the query results table and pick another facility to view.

Facility Level Data

The first page that is displayed when the RBLC ID link is selected is the determination's facility-level information (see Figure 2.7 for an example). Navigation buttons are available on this page for viewing query results, plant-wide information, and process information.

If a facility has multiple processes, they are all displayed on a process list page by selecting the "Process Information" button. Each process in the list is a link to a process detail page that displays additional information about that process. The process detail page appears immediately if the facility has only one process.

Process Level Data

The process detail page (Figure 2.8) presents specifics about the process. Use the navigation buttons at the top of the screen to go back to the process list (if any) to select other processes for viewing. On process level pages, navigation buttons are available for query results, facility information, plant-wide information, and pollutant information. Click the "Pollutant Information" button to move to pollutant level detail.

If a process has multiple pollutants, they are all displayed on a pollutant list page. Each pollutant in the list is a link to a pollutant detail page that displays additional information about that pollutant. The pollutant detail page appears immediately if the process has only one pollutant.

Pollutant Level Data

The pollutant detail page (Figure 2.9) presents specifics about emissions of the particular pollutant. Use the navigation buttons at the top of the screen to go back to the pollutant list (if any) to select and view other pollutants. On pollutant level pages, navigation buttons are available for query results, facility information, plant-wide information, and process information.

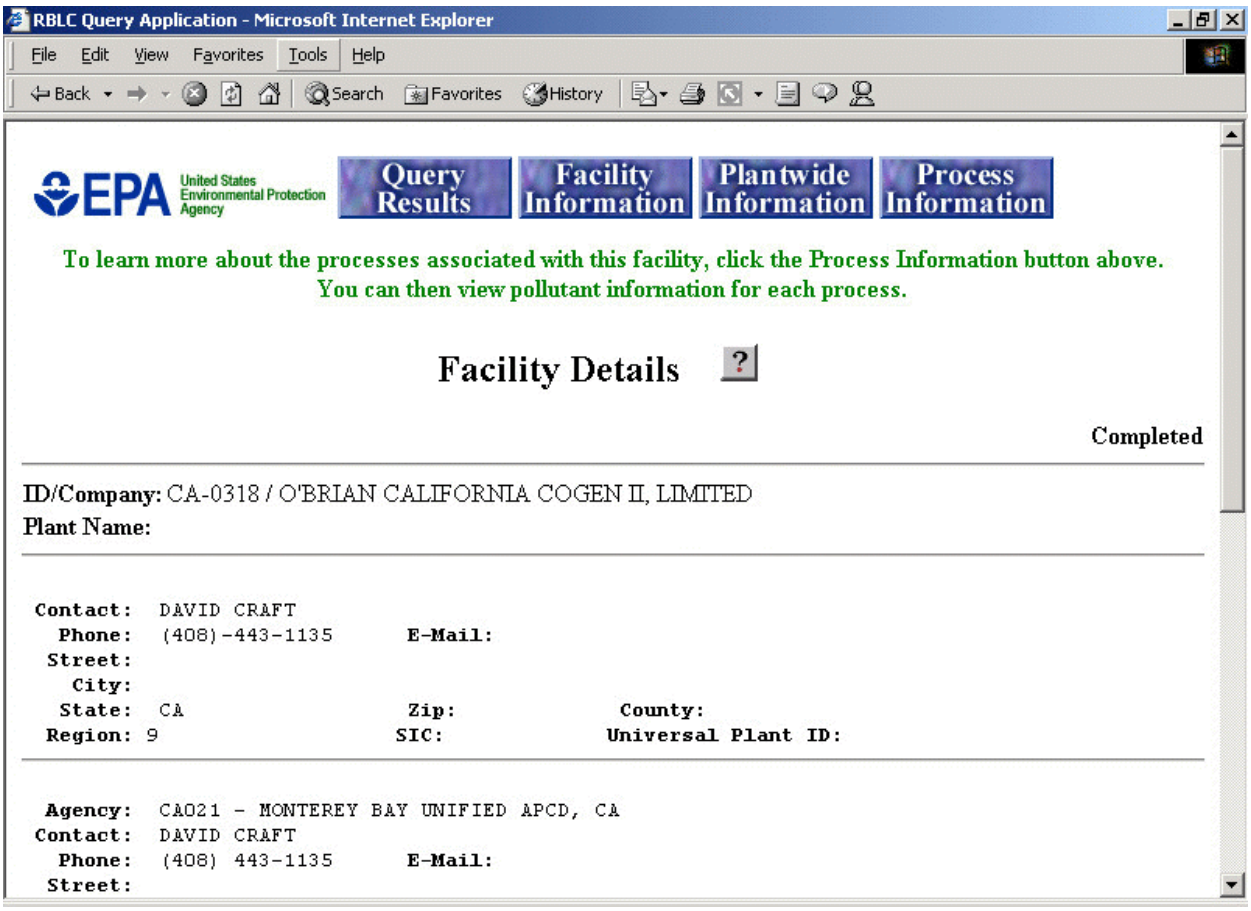


Figure 2.7: Facility Level Detail Page

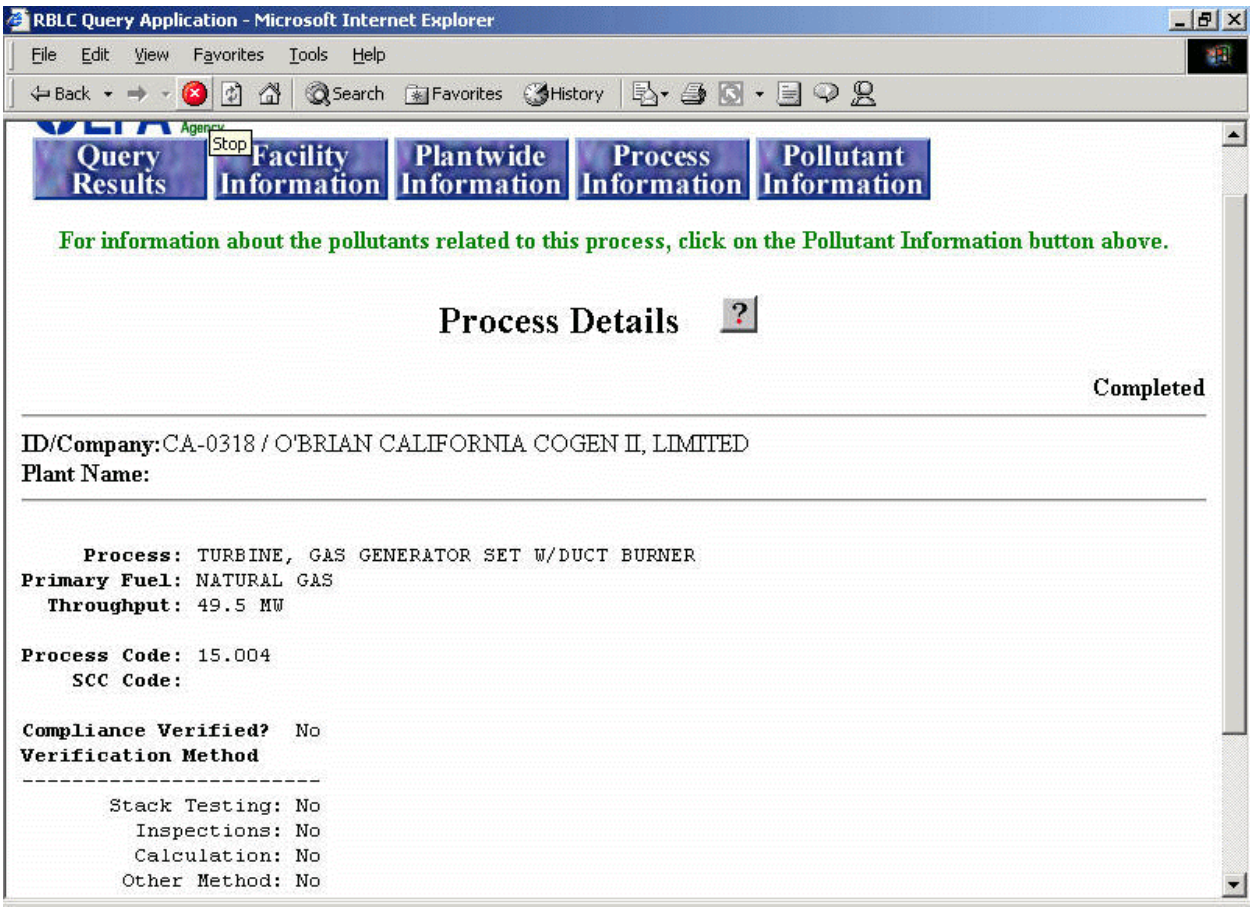


Figure 2.8: Process Level Detail Page

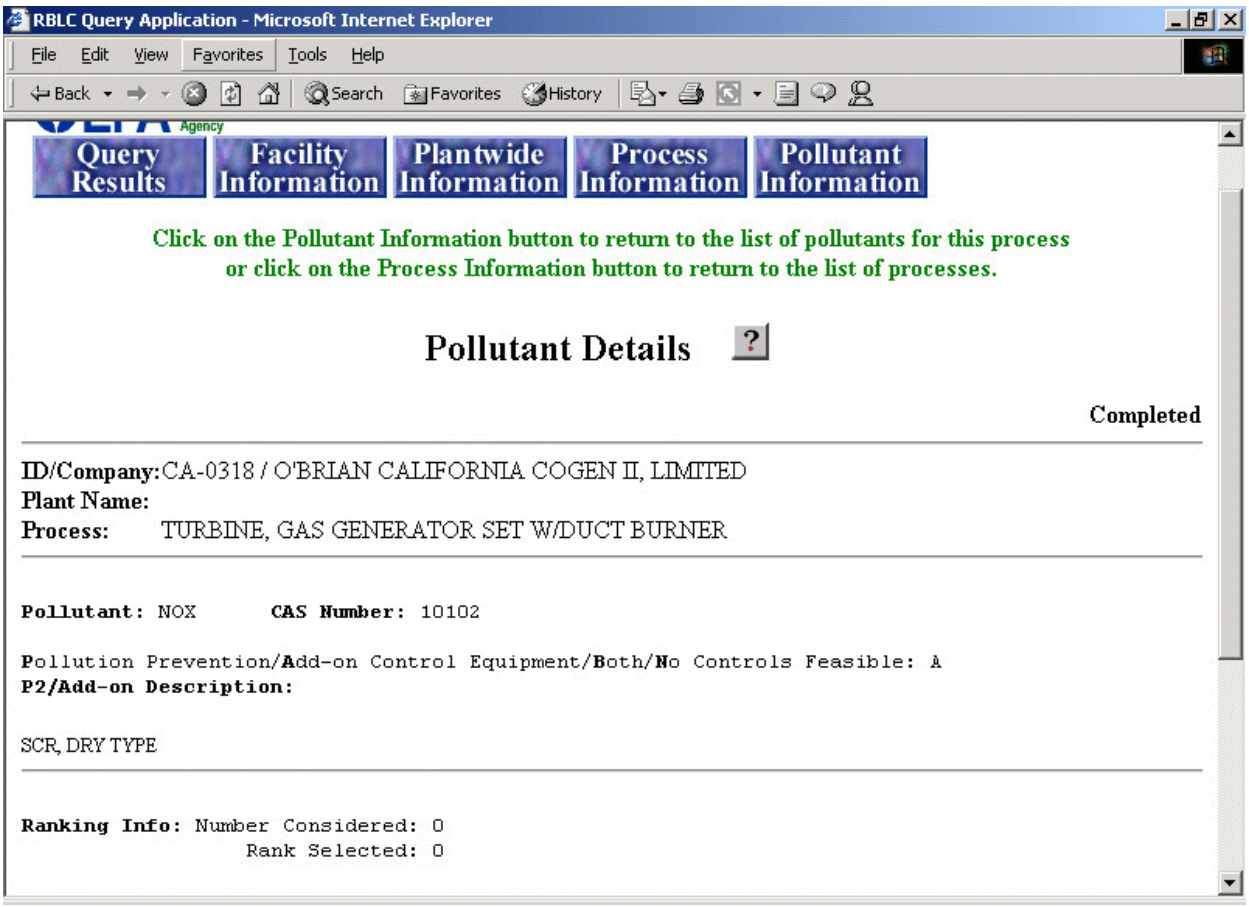


Figure 2.9: Pollutant Level Detail Page

2.5 DATA BASE REPORTS

There are five pre-defined report formats available for RBLC permit data base queries. These reports can be viewed on-line, or downloaded to a PC.

2.5.1 Generating a Report

Available report formats are listed in a pick list at the bottom of the results page (Figure 2.10). Both summary and detail formats are available. Summary reports include all of the facilities displayed in the results table. These reports are fairly short and do not take a long time to create. Detail reports can be very lengthy depending on the size of the result set. To reduce run time, facilities can be excluded from reports using the check boxes in the first column next to each RBLC ID in the results table.

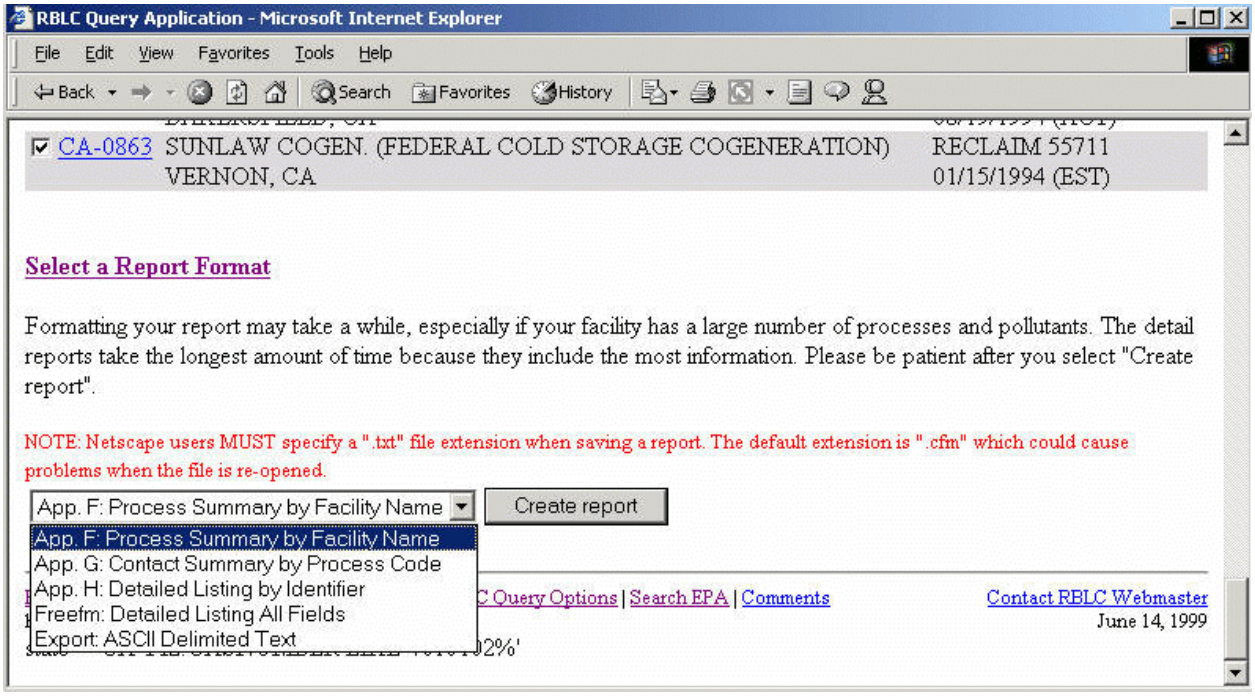


Figure 2.10: Download Report Format Selection

As mentioned in the section on viewing query results, any report will contain only the facilities shown on the current page (a maximum of 150 determinations). No more than 150 determinations may be downloaded at one time. Create one or more reports for facilities on the current page before proceeding to work with the next group of records.

Choose a format from the list, then click the "Create report" button to generate the report. Formatting a report may take some time, especially for a large number of facilities. The detail reports take the longest time to generate because they include the most information. All reports are created as ASCII text.

The following report formats are available:

? **Index of Control Technology Determinations (formerly Appendix F)**: Determinations are sorted alphabetically by facility name. This format reports RBLC ID, facility name, permit date, and process code and description.

? **Control Technology Determinations by Process Type Code (formerly Appendix G)**: Process records are sorted by numeric process code. This format reports RBLC ID, facility name, permitting agency, and name and telephone number for contact person who is knowledgeable about the determination.

? **Detailed Source Listing (formerly Appendix H)**: Determinations are sorted by

RBLC ID. This format reports most of the information in the permit data base for selected facilities. Because it includes details about all processes and pollutants, this is a very lengthy report.

? **Freeform - Detailed Listing All Fields**: Determinations are sorted by RBLC ID. This is the optional method for reporting literally all information in the permit data base for selected facilities. Again, this is a very long report.

? **Export - ASCII Delimited Text**: Determinations are sorted by RBLC ID. This report saves selected data fields in a quoted, comma-delimited format that is suitable for importing into desktop data bases or spreadsheets. Information reported includes RBLC ID, facility name, city, state, process code and description, process throughput, pollutant and emission limit, basis for limit, and a description of emission abatement method.

2.5.2 Downloading RBLC Information

When the RBLC Web has finished creating the report, either a **Save** dialog box or the report itself will be displayed. The exact action depends upon the browser configuration. If the report appears on the browser, choose the Save As command from the browser File menu to save the report file. Then, use the back button to return to the results table. Netscape© users must specify a ".txt" file extension when saving a report. The default extension is ".cfm" which could cause problems when the file is re-opened. When using other browsers, using a “.txt” file extension is also recommended if the file will be used with word processing or spreadsheet software.

The report can also be printed directly from the RBLC Web using the browser print function.

SECTION 3:
RBLC REGULATION DATA BASE QUERIES AND DATA STRUCTURE

The RBLC Federal/State Regulations data base contains summaries of federal regulations enacted in response to the Clean Air Act and Amendments. These rules include Maximum Achievable Control Technology (MACT) standards, National Emission Standards for Hazardous Air Pollutants (NESHAP), New Source Performance Standards (NSPS), as well as Control Techniques Guidelines (CTG) which specify requirements for Reasonably Available Control Technology (RACT).

Registration is not required to use the RBLC Web regulation data base. Click on "RBLC Data Base Query" from the RBLC home page to query the RBLC data bases. From the data base query page, select one of the regulation data base options to query or browse the regulation data base, use the on-line help, or link to additional resources. This section outlines the data base structure and elements in the regulation data base, searching the regulation data base and usage options, and shows how to use the three data base query options, and reports.

3.1 DATA BASE ELEMENTS AND STRUCTURE

The organization of the regulation data base is similar to that of the RBLC's permit determination data base. Each entry, or rule, in the regulation data base contains three levels:

- Regulation,
- Process, and
- Pollutant data.

A rule is associated with the type of facility that is the source of the pollutants governed by the regulation. The type of facility might be a particular type of plant, such as a coke oven or vinyl chloride manufacturing plant, or a generic operation such as waste transfer. This source is referred to as the affected facility.

Each affected facility consists of one or more different processes that are regulated by the rule. Regulations can specify different emission standards for new and existing sources or for different size sources. Therefore, a rule may contain the same general process but different emission limits for sources with different capacities or construction dates. Each process, in turn, consists of information on one or more pollutants and the emission limits required by the regulation. Each rule for an affected facility must have at least one process and at least one pollutant.

The EPA maintains a file on each of the three levels (rule/affected facility, process, and pollutant) in the regulation data base. Unlike the permit data base, the information is not stored in data bases defined by their date of entry to the RBLC Web. All information is entered and stored in a single data base.

The information that EPA maintains in the data base is listed below. Data elements that can be used in a query are marked with a (*).

Rule / Affected Facility Information

? RULE ID*: The unique identification number assigned to each regulation by the system. The number consists of the letter "R" followed by the State abbreviation and a four digit number. For federal regulations, the abbreviation is "US", i.e. RUS-0001 is the first entry made for federal regulations.

? AFFECTED FACILITY NAME*: A character field describing the facility, plant, or operation affected by the regulation.

? SIC CODE*: The standard industrial classification (SIC) code for facilities used throughout the Office of Air and Radiation (OAR) at EPA. A list of valid SIC codes is available as a drop down list in the query portion of the RBLC web site, or can be downloaded as a file from the RBLC Documents list.

? STATE: Two-character abbreviation for the State in which the regulation applies. "US" is the abbreviation used for federal rules.

? EPA REGION: EPA region number (1-10) corresponding to the State. Zero (0) is used as the region for federal rules.

? REGULATORY BASIS*: The statutory basis under which the agency issues the regulation. The choices which may be entered are:

- CTG/RACT -- Control Technique Guidelines/Reasonably Achievable Control Technology;
- MACT -- Maximum Achievable Control Technology;
- NESHAP -- National Emission Standards for Hazardous Air Pollutants;
- NSPS -- New Source Performance Standards;
- 183(e)/BAC -- Commercial and Consumer Products standard/Best Available Control; and
- Other.

? STATUS OF THE REGULATION: A character field describing the legal status of the regulation (proposed, in effect, etc.).

? AGENCY INFORMATION: Four fields which provide information on the regulatory agency. The first field is the agency code (see Appendix B); the second is the agency name (automatically assigned based on the agency code). The third and fourth fields provide a contact name and phone number for the person at the

regulatory agency who can answer questions regarding the regulation.

? REGULATION NUMBER*: A number which the regulatory agency assigns to the regulation. If the rule is issued by EPA, this number would identify the appropriate part and subpart of the Code of Federal Regulations (CFR).

? BACKGROUND INFORMATION DOCUMENT (BID): A number which the regulatory agency assigns to the document that contain technical, cost, and other information supporting the regulation. A second field is available for the title of the document.

? SCHEDULING INFORMATION: Key dates in the development of the regulation are stored in the data base, such as the following:

- Date technical support documentation was completed;
- Date public notice was given;
- Date rule was proposed; and
- Date final rule became effective*.

The data base also includes character fields for a reference to the legal publication in which rules were announced. For federal rules, this is the Federal Register (FR).

? NOTES: Fields that includes explanatory information about the regulation.

? ON-LINE FILE INFORMATION: These two fields are for federal regulations only and list the documents (text of regulation, any supporting documentation, etc.) and their location if the rule is available for downloading from the OAR Policy and Guidance web site.

? ENTRY DATE*: Date when the regulation was first entered into the regulation data base.

? LAST UPDATE*: Date when changes were last made to the data base for this regulation.

Process Information:

? PROCESS DESCRIPTION*: The description of the process being regulated (see examples in Appendix A, and abbreviations and descriptors for processes in Appendix D).

? PROCESS TYPE CODE*: A numeric code assigned to each process used to categorize determinations. Codes and their descriptors can be found in Appendix

C and in a drop down list in the standard regulation query portion of the RBLC web site.

? SCC CODE*: The source classification code (SCC) for processes used throughout the Office of Air and Radiation (OAR) at EPA. A list of valid SCC codes can be downloaded as a file from the RBLC Documents list.

? SIZE/CAPACITY AND UNITS: Information on the size or capacity of the process unit, often specified using a range or a capacity threshold. These fields are also used to indicate construction or modification dates, such as when different standards apply to process units depending on the date the operation commences.

? PROCESS NOTES: This field includes explanatory information specific to the regulation of this process.

Pollutant Information:

? POLLUTANT NAME*: The name of the pollutant being controlled. Pollutant names can be found in Appendix D.

? CHEMICAL ABSTRACT SERVICE (CAS) NUMBER*: The Chemical Abstract Service number for the pollutant. CAS numbers can be found in Appendix D.

? PRIMARY EMISSION LIMIT AND UNITS: The primary emission limit listed in the regulation. For rules that do not have numeric limits, the units may refer to the demonstrated technology descriptions or to the notes.

? ALTERNATIVE EMISSION LIMIT AND UNITS: If provided in the rule, these numbers represent any alternative emission limitations which the affected facility may meet.

? PERCENT EFFICIENCY (CONTROL EFFICIENCY)*: The design efficiency required by the regulation, often based on a particular type of control equipment and/or pollution prevention method, and expressed as a percentage.

? TYPE OF EMISSION CONTROLLED*: A one-character field indicating whether the emission is fugitive (F), point source (P), or area source (A).

? DEMONSTRATED TECHNOLOGY DESCRIPTION*: A description of the specific add-on control equipment or pollution prevention techniques used to meet the emission limits of the regulation. Pollution prevention often includes continuous monitoring requirements, work practice standards, or operator training and qualification.

? COST DATA: Control costs for a model facility. The model plant is generally described in the process notes. Costs contained in the regulation data base include:

- Year of the dollar used in cost calculations;
- Capital cost to purchase and install control equipment;
- Annualized cost (amortized capital costs plus annual operation and maintenance (O&M) costs); and
- Cost effectiveness in dollars per ton.

3.2 SEARCHING THE REGULATION DATA BASE

3.2.1 Planning the Query

The RBLC regulation data base can be searched using three query options as discussed below. These options allow the user to browse the regulation listings or build sophisticated queries using multiple search criteria. Users should review the data base elements listed in the preceding section, and note those that can be used in a query.

3.2.2 How to Run a Query

The three query options available for the RBLC regulation data base are listed and described directly below in Section 3.2.3. Choose one of these options to begin a query. Query criteria are selected using the same tools as those in the permit data base query system: pick lists, buttons, and text fields. After defining criteria, click on the "Run Query Now" button to run the query.

All RBLC query options present an overview of the query results in a table that lists the RBLC Rule ID, the regulatory basis, the name of the affected facility and whether the rule is available on-line. Each option also supports viewing and saving the results in any of the RBLC standard output formats. See Section 3.3 to learn more about viewing results and generating reports.

3.2.3 Regulation Data Base Query Options

Choose one of the following three options under " Regulation Data Base Queries" to locate information in the regulation data base. Then, follow the directions on the screen to define a query.

? **Scan All Regulations**: displays all regulations in the data base in groups of 50, sorted alphabetically by affected facility.

? **Standard Query:** provides a query form with a format similar to that used for the

permit data base standard query. Allows users to build a search criteria by choosing from multiple data elements, such as regulation identifiers, facility type, pollutants, and control information. Where appropriate, pick lists of allowable values are provided.

? **Advanced Query:** allows users to choose from pick lists of data elements and enter desired values to build a search criteria. Criteria can be combined for more selective queries. In general, users should know what each data element contains to use this option effectively.

3.2.3.1 Scan All Regulations

Choose the scan option to easily view the entire regulation data base. All entries to the data base are displayed in a table of fifty entries per page and entries can be selected for download. Results are sorted alphabetically by affected facility name.

3.2.3.2 Standard Query

The standard query option offers flexibility in examining the regulation data base. It allows queries on several data fields (process code or pollutant for example), and it supports combining data fields for more selective queries.

The initial part of the Standard Query option displays links to groups of related query fields, (e.g., regulation identification or process information). These links can be used to move directly to those fields, or the user can scroll through the page. Search criteria are defined by filling out the appropriate sections of the form.

Figure 3.1 shows part of the standard query input form for the regulation identification section. Brief instructions for each group of data elements appears below each group's input fields.

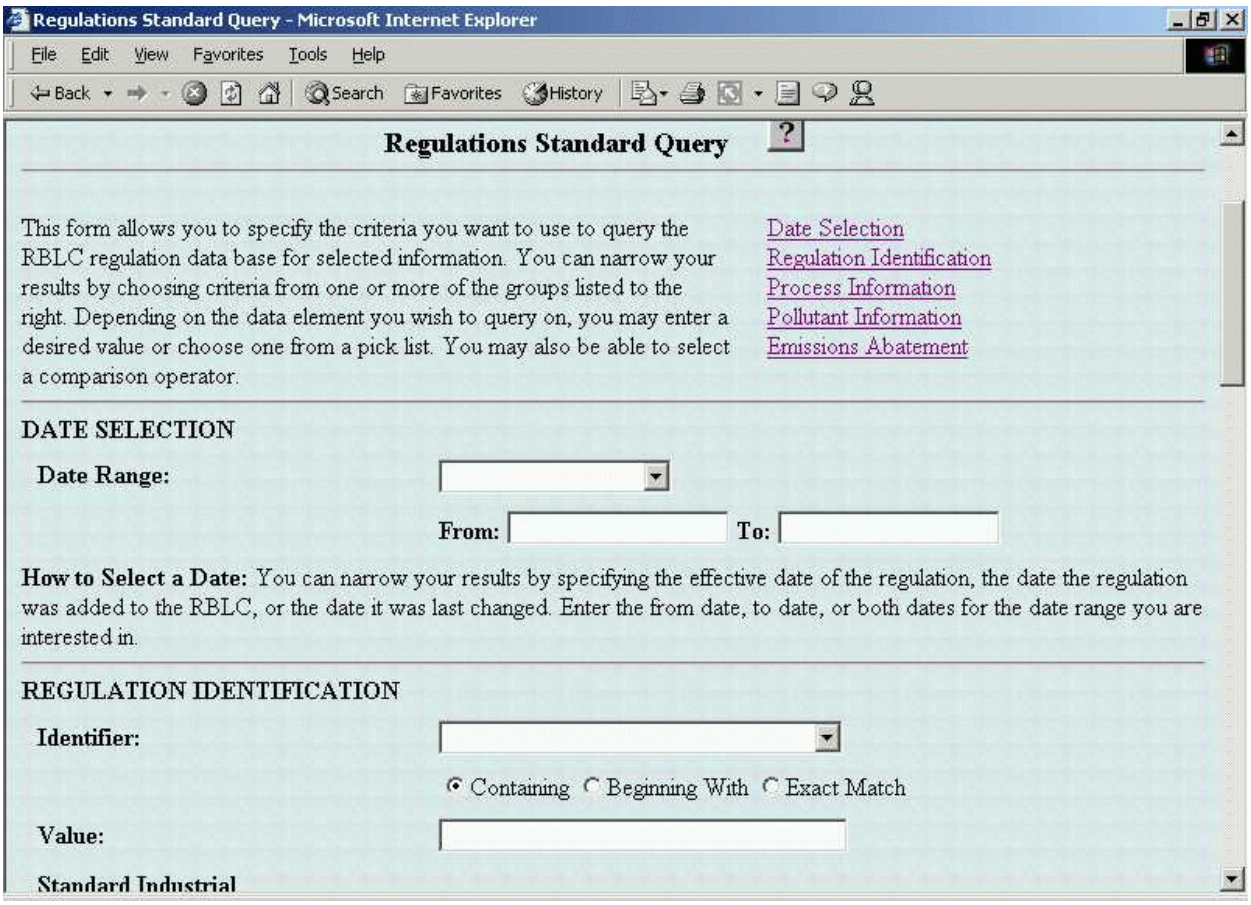


Figure 3.1: Regulation Data Base Standard Query

Some data elements can be matched in one of several ways. These elements are presented in the query form with a comparison operator and a value field for entering matching text or numbers. For example, the allowable operators for numbers are equals, greater than, or less than. Operators for alphanumeric fields allow a match of any part of the data, beginning characters only, or an exact match of every character.

One or more of the search criteria fields can be filled out for the standard query. Try to select enough criteria to match a manageable number of records, without being so restrictive that the query finds no matches or being so complex that the query takes a long time to run. Usually, two to three criteria work well. Be sure not to specify mutually exclusive criteria.

Five groups of data elements can be queried by the RBLC standard query:

1) Date Selection;
2) Regulation Identification;
3) Process Information;

4) Pollutant Information; and
5) Emission Abatement.

These groups are discussed below.

Dates

? Choose a date element from the date range pick list:

? Date added to RBLC
? Date last modified
? Date rule is effective

Enter a “from” date and/or a “to” date to define the date range. The query will find dates greater than or equal to the “from” date and less than or equal to the "to" date.

Dates may be entered in a numeric mm/dd/yyyy format or spelled out, i.e, ‘Jan 1, 1998’. If the system cannot recognize the date as it has been entered, it will prompt the user to go back and enter another date value.

Be aware that a query on the data element “date rule is effective” will not find proposed rules and guidance documents.

Regulation Identifiers

? Select an identifier from the pick list (see below) and enter the desired value to match, using comparison operators to find entries containing, beginning with, or exactly matching the entered text. Regulation identifiers are:

? Affected facility
? Rule Identifier (Rule ID)
? Rule number

Enter an RBLC Rule ID or rule number in the value field to locate one specific regulation. The format for Rule IDs is “RAA-NNNN”, similar to the format for RBLC IDs with “R” added as a prefix (see the description of Rule ID in Section 3.1). The format for rule number varies. CTG entries do not have rule numbers. Most federal rules take the form “40 CFR Part nn Subpart aaa”. If the appropriate part and subpart of the CFR in which a rule was published are known, use the rule number.

? Choose from the pick list of SIC codes to retrieve a set of facilities in a particular

industry. A list of SIC codes can be downloaded from the RBLC documents section, available from the RBLC home page.

? Select a regulatory basis from the pick list to retrieve all rules enacted under a particular federal statute.

The comparison operators used when querying a regulation identifier are:

? Containing - performs a word search and matches all affected facilities that contain the specified value anywhere in the selected data element. This is the recommended comparison operator for all regulation identifiers except Rule ID.

? Beginning with - finds only those affected facilities whose facility name begins with the value specified.

? Exact match - is the most restrictive operator and requires a character by character match between the value specified and the facility data element. This is the recommended comparison operator for matching Rule ID.

Process Information

? Enter a partial or complete process name. This search criterion automatically uses the “containing” operator and works especially well when combined with one of the other process data elements. Appendix D lists common process names used in the RBLC.

? Choose a process type code from the pick list. Enter a number between 1 and 9 to scroll to that part of the process code list. Appendix C lists allowable process codes. A higher level process type code (i.e., “NN.000") can be used to identify a larger group of related process types.

? Enter a SCC code. Many older permits were added to the data base without a SCC code, so the query may not find all matching records. A list of SCC codes can be downloaded from the RBLC Documents section, available from the RBLC Web.

Pollutant Information

- ? Specify a pollutant name. Choose from one of the criteria pollutants in the pick list, or choose 'Specify other' and type the pollutant name abbreviation. Appendix D of this User's Manual lists pollutant abbreviations. The RBLC standard is to use the chemical abbreviation for a pollutant name, for example 'CO' for carbon monoxide.

- ? Enter the appropriate CAS number. This is the recommended method for finding a specific pollutant because it accounts for any variations in pollutant names. A listing of CAS numbers is in Appendix D of this volume.

- ? Choose from the list of available emission types (point, area, or fugitive). This selection works best when used in combination with other criteria because it matches a large number of data base entries.

Emissions Abatement Information

- ? Enter a word or phrase for the demonstrated technology description, i.e., the pollution prevention or add-on equipment control method to be used in the query.

- ? Specify a control efficiency threshold as a percentage. Very often, a measure of efficiency is not specified with the regulation, so a query on this data element may not find many matching records.

When the search criteria are complete, scroll to the bottom of the page and choose the results table sorting method. The results table can be sorted either by affected facility name or by Rule ID. Click the "Run query now" button to begin the query. Click the "Reset form" button to start over with a blank standard query form.

An overview of the results of the query are displayed in a table. Examining the results of the query or downloading the results are discussed in Section 3.3.

3.2.3.3 Advanced Query

The advanced query option lets the user create search criteria by choosing from pick lists of data elements, entering desired values, and applying a selection of data operators. Two search criteria can be combined using 'AND' or 'OR' logical connectors for more selective queries. Figure 3.2 illustrates the initial part of the advanced query page. Although similar to the standard query, the advanced query option does not provide sets of allowable values for data elements. These must be entered by the user. In general, the user should know what information each data element contains to use this option effectively. Use the on-line help and this document's discussions of data base elements in Section 3.1, and standard query options in Section 3.2.3.2,

when running the advanced query.

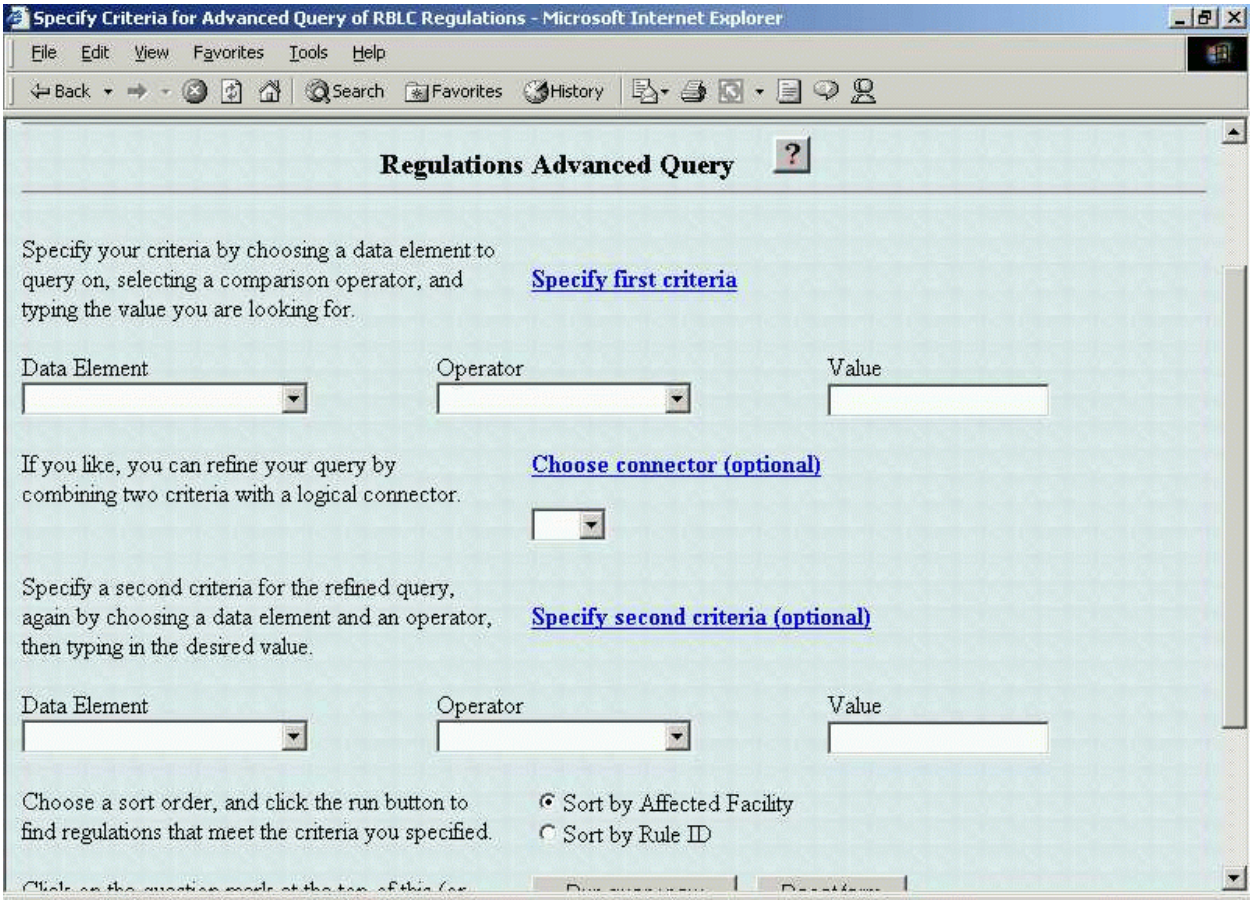


Figure 3.2: Regulation Data Base Advanced Query

Specify the first search criteria by choosing a data element and a comparison operator from the pick lists. Then type the desired value for the data element in the text box. Entries are not case sensitive. The searchable data elements are:

- ? Affected facility;
- ? CAS number;
- ? Control efficiency;
- ? Control method description (demonstrated technology description);
- ? Date added to RBLC;
- ? Date last modified;
- ? Date rule is effective;
- ? Emission type;

- Identifier (RBLC Rule ID);
- Pollutant name;
- Process name;
- Process type code;
- Regulatory basis;
- Rule number;
- SCC code; and
- SIC code.

All three fields: data element, operator, and value, must be entered. At this point, the user can click the "Run Query Now" button to run the query using only one set of search criteria, or a second set of search criteria can be added by choosing one the following logical connectors:

- **AND** finds records that match **both** of the search criteria.
- **OR** finds records that match **either one** of the search criteria.

If a connector is selected, the second criteria set must be specified by choosing data elements from the second criteria pick lists, and entering a desired value, as described above. Be careful not to specify mutually exclusive criteria. For example, specifying "Pollutant equals CO AND CAS number equals 10102-44-0 (the CAS number for NO_2)" will not find any matching records.

Before clicking the "Run query now" button, choose the results table sorting method, either by facility name or by RBLC ID. The "Reset form" button can be used to start over with a blank query form. Query results are displayed in a table, which is discussed in Section 3.4.

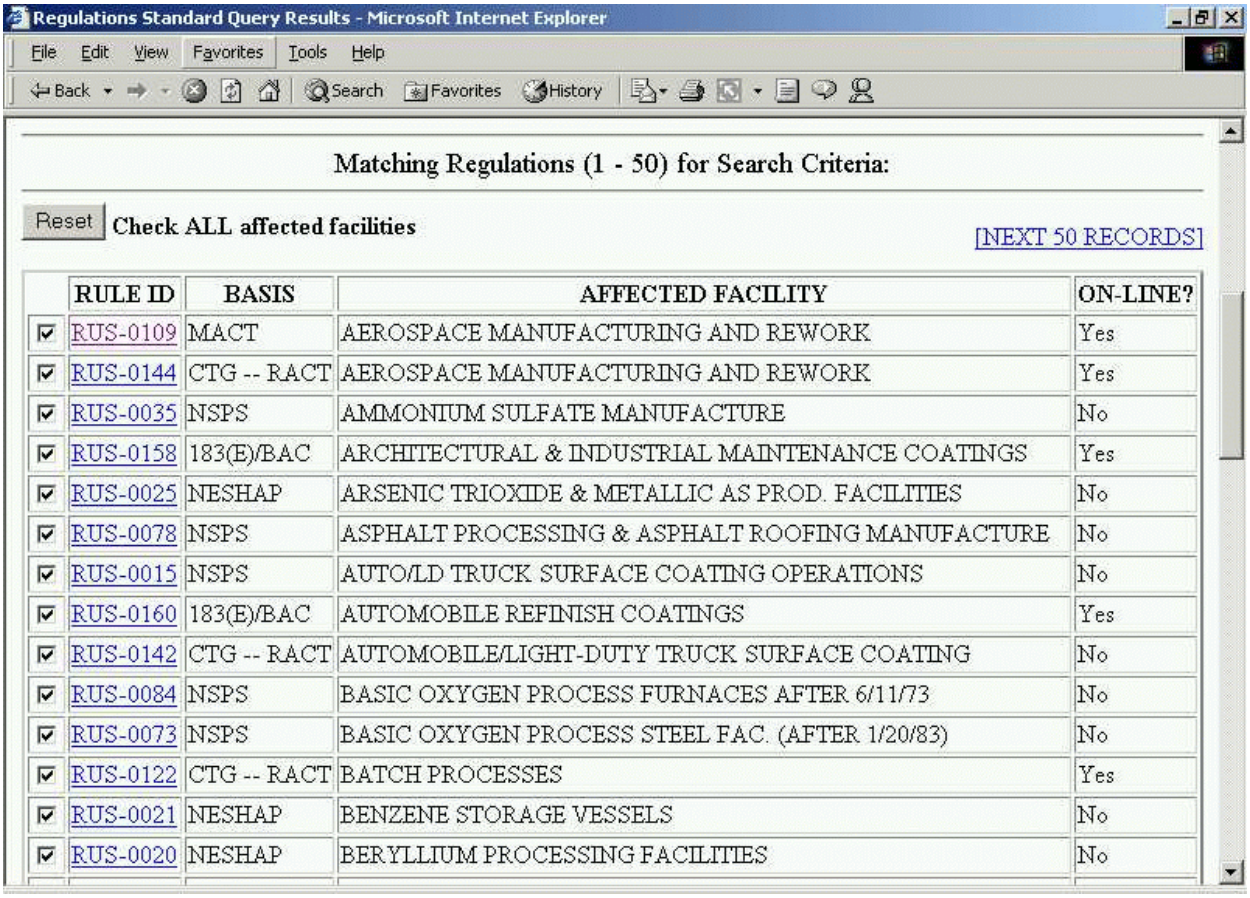
3.3 Query Results

The results for all RBLC query options are displayed as a table with links to additional information and are organized by RBLC Rule ID or affected facility name, depending on the selected option (Figure 3.3). Each row in the table represents a regulation for one affected facility. The table displays Rule ID, affected facility, regulatory basis, and whether the regulation text or any supporting technical document is available on-line. When a standard or advanced query have been run, the search criteria used for the query appear towards the top of the page. Results can be viewed on-line or saved in any of the RBLC standard output formats, which are discussed in Section 3.3.2 below.

3.3.1 Navigating the Query Results

The RBLC Web regulation data base pages have navigation buttons to assist in moving through query results pages, and links at the bottom of the page to the RBLC query option page and the RBLC Home page. Use these buttons when they are available rather than the Web browser's navigation buttons, which may result in inaccurate information because of the way that

browsers cache information. If a query is not successful, use the navigation button "Query Results" to return to the query page and respecify the search criteria. Check to make sure that a misspelled word or an invalid value for a search element is not the problem.



	RULE ID	BASIS	AFFECTED FACILITY	ON-LINE?
☑	RUS-0109	MACT	AEROSPACE MANUFACTURING AND REWORK	Yes
☑	RUS-0144	CTG -- RACT	AEROSPACE MANUFACTURING AND REWORK	Yes
☑	RUS-0035	NSPS	AMMONIUM SULFATE MANUFACTURE	No
☑	RUS-0158	183(E)/BAC	ARCHITECTURAL & INDUSTRIAL MAINTENANCE COATINGS	Yes
☑	RUS-0025	NESHAP	ARSENIC TRIOXIDE & METALLIC AS PROD. FACILITIES	No
☑	RUS-0078	NSPS	ASPHALT PROCESSING & ASPHALT ROOFING MANUFACTURE	No
☑	RUS-0015	NSPS	AUTO/LD TRUCK SURFACE COATING OPERATIONS	No
☑	RUS-0160	183(E)/BAC	AUTOMOBILE REFINISH COATINGS	Yes
☑	RUS-0142	CTG -- RACT	AUTOMOBILE/LIGHT-DUTY TRUCK SURFACE COATING	No
☑	RUS-0084	NSPS	BASIC OXYGEN PROCESS FURNACES AFTER 6/11/73	No
☑	RUS-0073	NSPS	BASIC OXYGEN PROCESS STEEL FAC. (AFTER 1/20/83)	No
☑	RUS-0122	CTG -- RACT	BATCH PROCESSES	Yes
☑	RUS-0021	NESHAP	BENZENE STORAGE VESSELS	No
☑	RUS-0020	NESHAP	BERYLLIUM PROCESSING FACILITIES	No

Figure 3.3: Results Table for Regulation Data Base

The results table displays a maximum of 50 records at a time. Reports generated from the results table will contain only the facilities displayed on the current page. When more than 50 records are returned by a query, a link to the next 50 records appears above the results table. To work with the next or the previous group of records, click on this link.

3.3.2 Viewing Query Results

Information about each of the regulations in the RBLC Web is organized into affected facility, process, and pollutant pages. Click on a Rule ID in the results table to access these pages. For each regulation, there is one regulation details page, one or more process details pages and one or more pollutant details pages. When there is more than one process, the process details pages are summarized on a list page, which will provide links to the individual details

pages. Successively deeper levels of information are viewed by clicking on these links. Use the navigation buttons to return to previous pages, including the query results table.

The first page displayed after clicking on a Rule ID in the results table will present process level information, either the single process for the affected facility, or a list of processes. Pollutant information pages are accessed through the emitting process' details page.

Use the "View Regulation Details" button on the process list or process details pages to view information about the type of facility governed by the regulation and the regulation itself (Figure 3.4). Section 3.1 lists and describes this information as separate data elements. Use the "Process Information" to return to the process list.

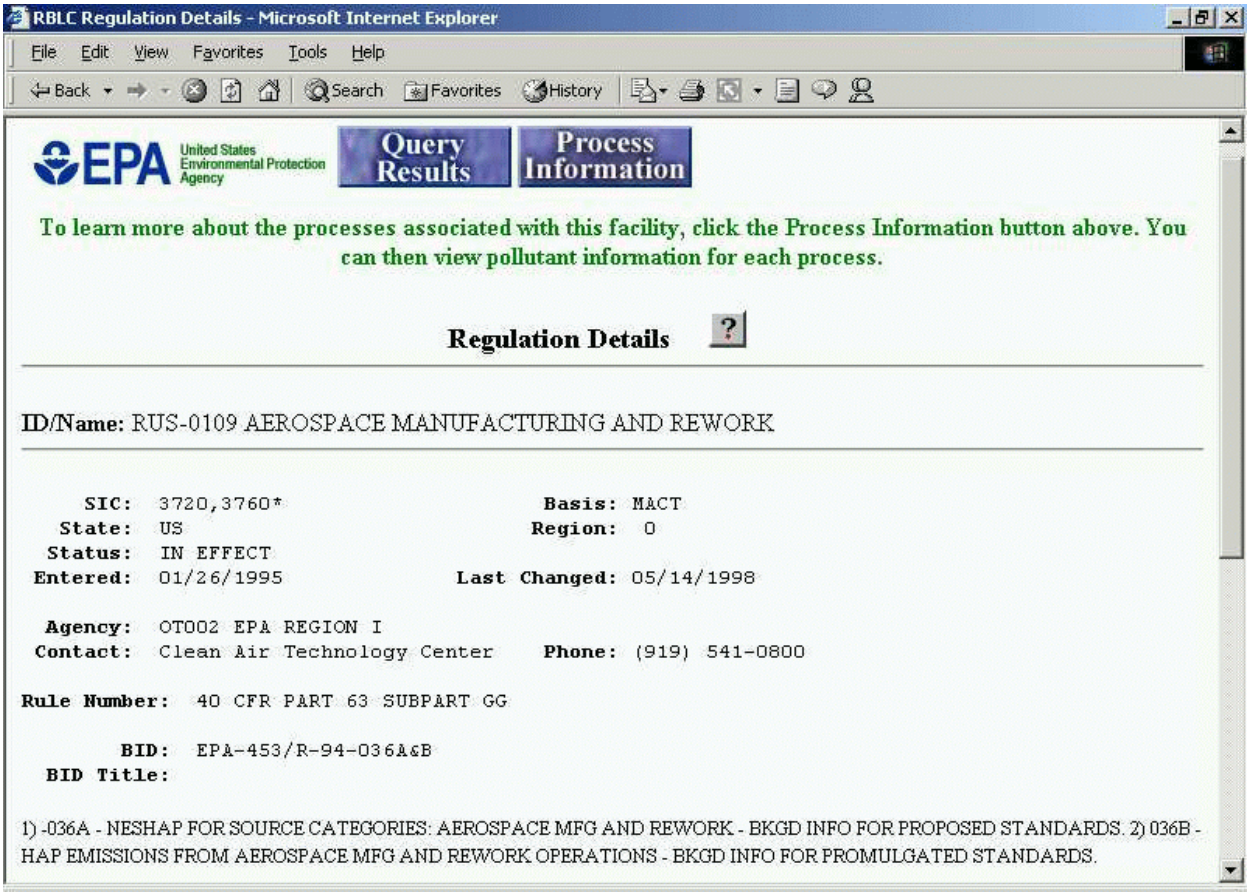


Figure 3.4: Regulation Details Page

The process details page presents specifics about the process (Figure 3.5). Use the "Process Information" button to go back to the process list to select other processes for viewing. Click the " Pollutant Information" button to move down to the next level of detail. Click the "Regulation Details" button to review detailed information about the regulation.

The pollutants for a process are displayed on a pollutant list page. Each pollutant name in the list is a link to a pollutant detail page that displays additional information about that pollutant (Figure 3.6). Use the "Pollutant Information" button to go back to the pollutant list.

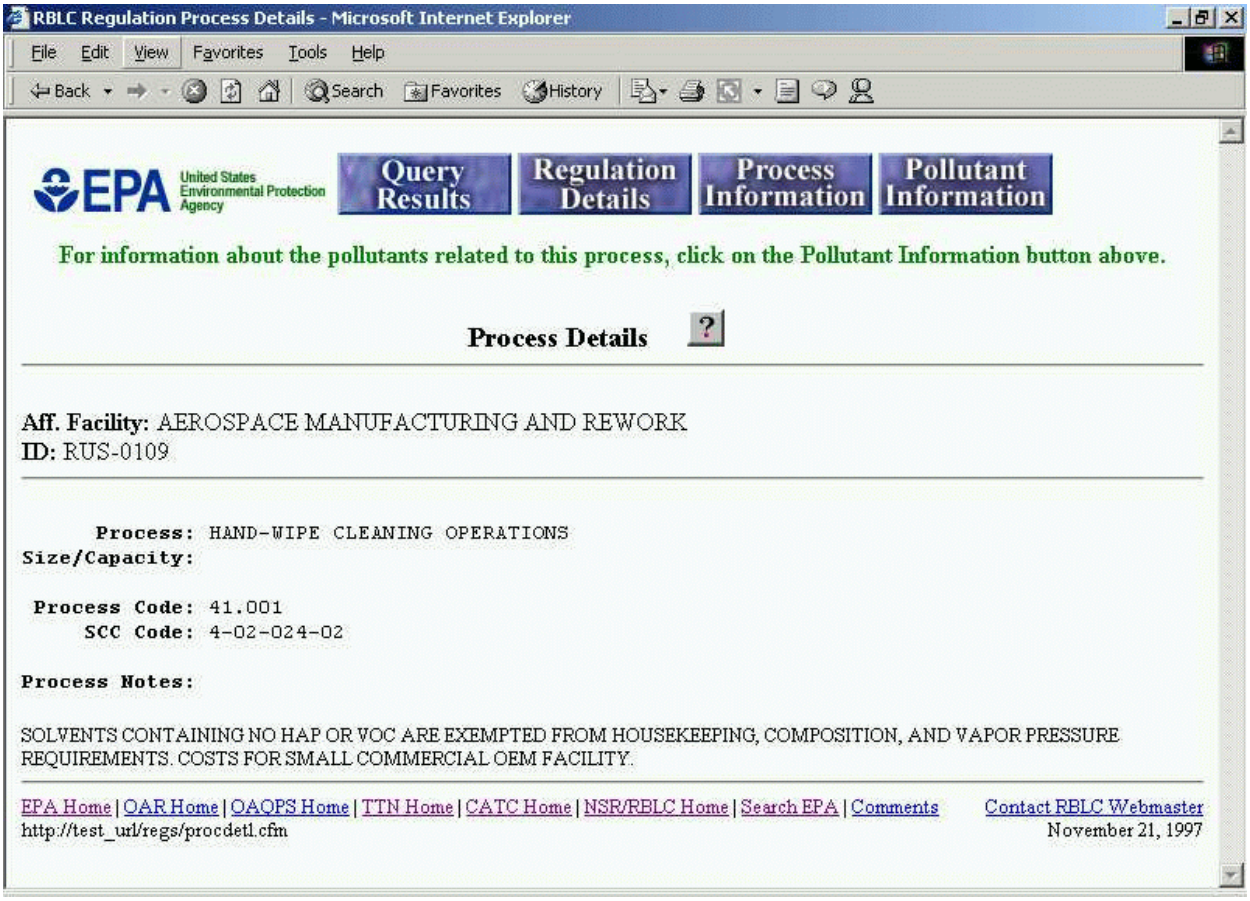


Figure 3.5: Process Details Page

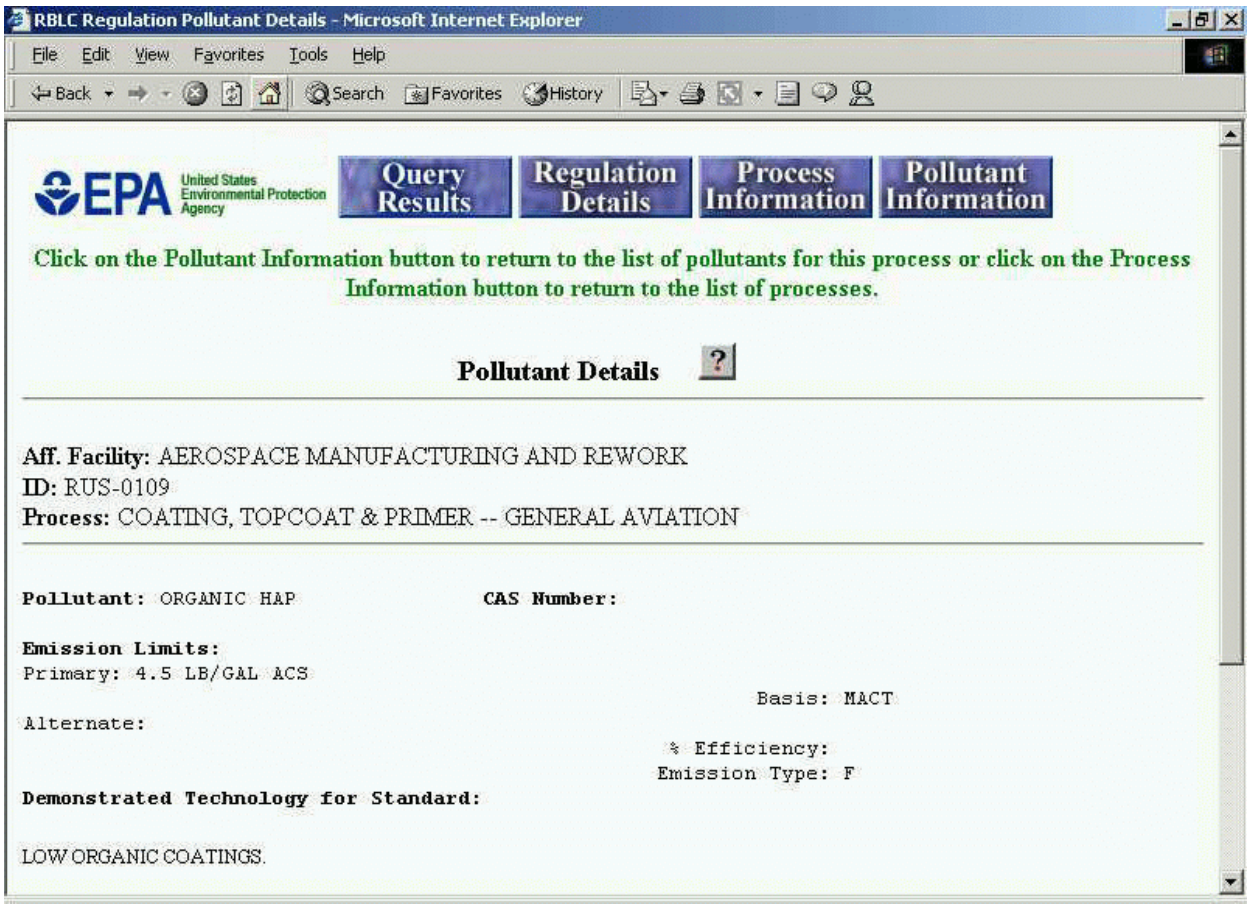


Figure 3.6: Pollutant Details Page

3.3.3 Generating Data Base Reports

There are two pre-defined report formats available for RBLC regulation data base queries. These reports can be viewed on-line, or downloaded to a PC. The report formats are listed in a pick list at the bottom of the results page (Figure 3.7). Choose a report format from the list, and click the create button to generate the report. Formatting a report may take some time, especially for a large number of affected facilities. All reports are created as ASCII text.

Formatting time for reports can be reduced by selecting specific facilities using the check box in the first column next to each Rule ID in the results table. Initially all affected facilities are checked and will be included in the detail reports. Use the check box next to an affected facility to de-select the facility. Click the reset button to re-select all affected facilities.

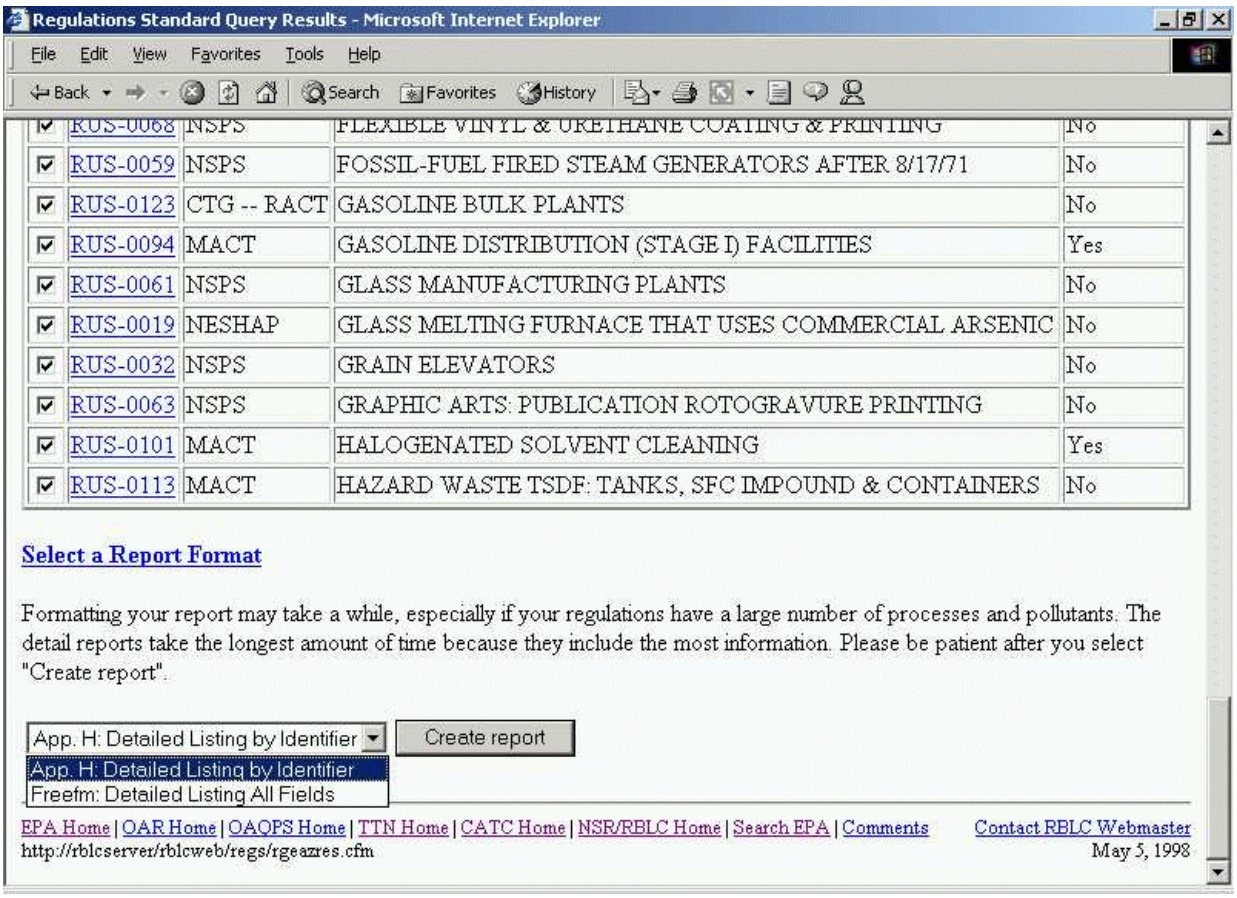


Figure 3.7: Report Format Options

The following report formats are available:

? **Detailed Listing by Rule ID (formerly Appendix H)**: reports most of the information in the regulation data base. Because it includes details about all processes and pollutants for selected affected facilities, this is a very lengthy report.

? **Freeform - Detailed Listing All Fields**: optional method for reporting literally all information in the regulation data base for selected affected facilities. Again, this is a very long report.

Because the results table displays a maximum of 50 records at a time, reports that are created will contain only the affected facilities shown on the current page. **A maximum of 50 regulations can be downloaded at one time.** Use the links on the results table to move to other sets of 50 records.

When the RBLC Web has finished creating the report, either a **Save** dialog box or the report itself

will be displayed. The exact action depends upon the browser configuration. If the report appears on the browser, choose the Save As command from the browser File menu to save the report file. Then, use the back button to return to the results table. Netscape© users must specify a ".txt" file extension when saving a report. The default extension is ".cfm" which could cause problems when the file is re-opened. When using other browsers, using a “.txt” file extension is also recommended if the file will be used with word processing or spreadsheet software.

The report can also be printed directly from the RBLC Web using the browser print function.

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing.)

1. REPORT NO. EPA 456/B-01-001A	2.	3. RECIPIENT'S ACCESSION NO.
4. TITLE AND SUBTITLE User's Manual for the RACT/BACT/LAER Clearinghouse (RBLC) Web, Volume 1 - Web Basics		5. REPORT DATE June 2001
		6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) Joseph E. Steigerwald		8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Clean Air Technology Center ITG, ITPID, OAQPS U.S. EPA RTP, NC 27711		10. PROGRAM ELEMENT NO.
		11. CONTRACT/GRANT NO. 68-D-98-172
12. SPONSORING AGENCY NAME AND ADDRESS Director, Office of Air Quality Planning and Standards Office of Air and Radiation U.S. Environmental Protection Agency Research Triangle Park, North Carolina 27711		13. TYPE OF REPORT AND PERIOD COVERED Final
		14. SPONSORING AGENCY CODE EPA/200/04

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Clean Air Act as amended in 1977 prescribes several technology-based limitations affecting new or modified air pollution sources: 1) new source performance standards (NSPS), 2) best available control technology (BACT), and 3) lowest achievable emission rate (LAER).

The basic purposes of the RACT/BACT/LAER Clearinghouse are 1) to provide State and local air pollution control agencies with current information on case-by-case control technology determinations that are made nationwide and 2) promote communication, cooperation, and sharing of control technology information among the permitting agencies. This document details how the RBLC site on the World Wide Web is organized and operates. It includes information on how to do a data base query, generate a custom report, and enter/edit information into the RBLC (if authorized).

The RBLC has now moved to the Web. The RBLC Web address is:

http://www.epa.gov/ttn/catc/

Clicking on the RBLC logo on this page allows access to all of the information in the RBLC including interactive queries, customized reports, and downloadable copies of this and other RBLC documents.

Volume 1 includes RBLC background and overview information and information on searching the RBLC Permit and Regulation data bases.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field Group
Best Available Control Technology Lowest Achievable Emission Rate Control Technology Center New Source Review Reasonable Achievable Control Technology	Air Pollution Control	

18. DISTRIBUTION STATEMENT Release Unlimited, Available from NTIS 5285 Port Royal Rd. Springfield, VA 22161	19. SECURITY CLASS *(This Report)* Unclassified	21. NO. OF PAGES
	20. SECURITY CLASS *(This Page)* Unclassified	22. PRICE

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