



DMR Pollutant Loading Tool (Beta Version)

EPA LOOKUP TABLE SEARCH USER GUIDE

1. OVERVIEW

You have a new tool for analyses of wastewater pollutant discharge data. This tool, the Discharge Monitoring Report (DMR) Pollutant Loading Tool (abbreviated “Loading Tool”) provides you with pollutant loadings you can use to understand who is discharging what pollutant and where.

The tool calculates pollutant loadings from permit and DMR data from EPA’s Permit Compliance System (PCS) and Integrated Compliance Information System for the National Pollutant Discharge Elimination System (ICIS-NPDES). This tool helps you access wastewater pollutant discharge data, if you are a general user or if you are a more technical user:

- If you are a **general user**, you can use the *EZ Search* to quickly find discharge monitoring data based on simple searches.
- If you are a **technical user** (e.g., NPDES permit writer, watershed modeler, or regulatory agency), you can use the *Advanced Search* to access more detailed discharge monitoring data that you can download in a comma-separated value (CSV) file for further analysis in your own software application.

The Loading Tool is divided into six tabs, with the “Overview” as the default view:

- Overview: This tab provides general background information about the tool.
- EZ Search: Allows you to perform simple searches.
- Facility Search: Provides you direct access to facility-level information, one facility at a time.
- Advanced Search: Offers you increased flexibility on search criteria and allows you to download data as a CSV file for post processing.
- EPA Look-up Table Search: Allows you to search crosswalks used by the Loading Tool to link information from different data sources.
- Users Guide/Technical Documents: Provides the instructions, guides, and metadata to assist you with using the Loading Tool and interpreting its output.

This document provides guidance for using the EPA Look-Up Table Searches. You can find guidance for using the EZ Search, Facility Search, and Advanced Search in the *User’s Guide for using the EZ Search, Facility Search, and Advanced Search*.

2. EPA LOOK-UP TABLE SEARCHES

The Loading Tool uses information from several data sources. Different data sources may use different codes or categories to describe the same facility, pollutant, industry, or watershed. For example, a facility may be identified by its NPDES ID, Toxic Inventory Release (TRI) ID and Clean Watershed Needs Survey (CWNS) ID. If you know one code or category for a facility, pollutant, industry, or watershed, you can use the Look-Up Table Searches to find the codes or categories used in other databases for that facility, pollutant, industry, or watershed. EPA created four look-up tables for these searches:

- Facility ID Look-up;
- Pollutant Look-up;
- Industry Code Look-up; and
- Watershed Look-up.

2.1 Facility ID Look-Up

Using the Facility ID Look-up, you can specify any one of the facility ID fields shown in Figure 2-1. When you click *Search*, the Loading Tool will display any matching IDs for the other facility ID fields. Note that searching on one type of facility ID may produce multiple results for other facility IDs. Multiple results are displayed in a list format within to the results field, as shown in Figure 2-2.

Facility Crosswalk	
NPDES ID	<input type="text"/>
FRS ID	<input type="text" value="110000747924"/>
TRI ID	<input type="text"/>
CWNS ID (POTWs only)	<input type="text"/>
<input type="button" value="Search"/>	

Enter a Program ID in any one of the search fields provided.

Facility Crosswalk	
NPDES ID	<input type="text" value="IN0051845"/>
FRS ID	<input type="text" value="110000747924"/>
TRI ID	<input type="text" value="47635RCKPR2791N"/>
CWNS ID (POTWs only)	<input type="text"/>
<input type="button" value="Search"/>	

Figure 2-1. Facility ID Look-Up

2.2 Pollutant Look-Up

Using the Pollutant Look-Up, you can enter either a pollutant name or Chemical Abstracts Service (CAS) Number, as shown in Figure 2-2. When you click *Search*, the Loading Tool will display the corresponding parameter code(s), pollutant code, system registry service (SRS) IDs, pollutant toxic weighting factor (TWF), and pollutant category(ies).

The image shows two side-by-side screenshots of the 'Pollutant Crosswalk' tool. The left screenshot shows the search input field containing 'selenium'. A callout box points to this field with the text: 'Enter either a pollutant name or a CAS number.' The right screenshot shows the results of the search, listing several parameter codes for selenium, such as '00981 - Selenium, total recoverable' and '7782492' for the CAS number.

Figure 2-2. Pollutant Look-Up

2.3 Industry Code Look-Up

Using the Industry Code Look-Up, you can enter a Standard Industrial classification (SIC) code, a North American Industry Classification System (NAICS) code, or an Effluent Guidelines Point Source Category Code(s), shown in Figure 2-3. When you click *Search*, the Loading Tool will return the corresponding Point Source Category Code(s), SIC code(s), and NAICS code(s). EPA developed this linkage to assign facility discharges to Point Source Categories for its annual review analysis. The annual review includes discharges reported to TRI, the Permit Compliance System (PCS), and the Integrated Compliance Information System for the NPDES (ICIS-NPDES). TRI uses NAICS codes to categorize industrial activities at facilities, while PCS and ICIS-NPDES use SIC codes. Because EPA developed the look-up to link SIC codes and NAICS codes to Point Source Categories, and because there is not a one-to-one match between SIC codes and NAICS codes, the search does not directly link SIC codes to NAICS codes.¹

The image shows two side-by-side screenshots of the 'Industry Crosswalk' tool. The left screenshot shows the search input field containing '2869'. A callout box points to this field with the text: 'Enter an Industry Code in any one of the search fields provided.' The right screenshot shows the results of the search, displaying the NAICS code and the Point Source Category Code '414'.

Figure 2-3. Industry Code Look-Up

¹ The 1997 Economic Census provides a Bridge Between NAICS and SIC codes, available online at <http://www.census.gov/epcd/ec97brdg/>

2.4 Watershed Look-Up

Using the Watershed Look-Up, you can enter a 5-digit zip code as shown in Figure 2-4 and the Loading Tool will return the corresponding 12 digit hydrologic unit codes (HUC-12). The Loading Tool uses a WATERS web service to connect zip codes to HUC-12 codes. The geographic boundaries for zip codes are different from watershed boundaries and some zip codes comprise more than one watershed; therefore, searching on a zip code can return more than one HUC-12 code.

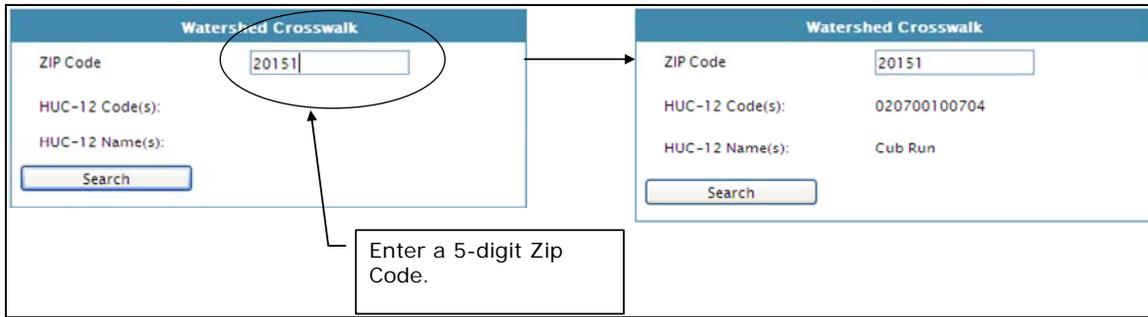


Figure 2-4. Watershed Look-Up

2.5 Glossary of Search Terms

Term	Description
4-Digit SIC Code:	Code that describes the primary activity of the facility. The first two-digits define a major business sector and the last two-digits denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).
CAS Number:	Chemical Abstract Service Number assigned by the American Chemical Society that uniquely identifies a chemical.
City, State:	The city name and two-character state abbreviation for the facility location.
CWNS ID (POTWs only):	Number used to uniquely identify facilities in EPA's Clean Watersheds Needs Survey (CWNS). Note: CWNS only contains information for municipal wastewater treatment plants.
Facility Name:	The primary name used to identify a facility in PCS or ICIS-NPDES.
FRS ID:	12-character code used to uniquely identify a facility site within the EPA Facility Registry System (FRS) database.

Term	Description
HUC-12 Code:	<p>Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC).</p> <p>The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.</p>
HUC Name:	<p>The name that corresponds to the HUC-12 Code. It is usually the name for the most significant body of water in the subwatershed.</p> <p>The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OW/WBD_NAD83) which obtains the HUC Name from the Natural Resources Conservation Service's Watershed Boundary Dataset.</p>
NAICS Code:	<p>Six-digit code that identifies NAICS industries and has replaced the U.S. Standard Industrial Classification (SIC) system. The first two-digits represent the industry sector, in which there exist 20 broad sectors. The third digit represents the industry subsector, the fourth digit represents the industry group, the fifth digit represents the industry, and the sixth digit specifies the country (i.e. U.S., Canada, or Mexico). See U.S. Census website for more information (http://www.census.gov/epcd/www/naicstab.htm)</p>
NPDES ID:	<p>A nine-character code used to uniquely identify a permitted NPDES facility. The NPDES permit program regulates the direct discharge of pollutants into US waters.</p>
Point Source Category Code:	<p>A three-digit code that corresponds to an Effluent Limitations Guideline's 40 CFR Part. For example, Point Source Category Code 414 corresponds to Organic, Chemicals, Plastics, and Synthetic Fibers (40 CFR Part 414).</p>
Pollutant Code:	<p>Five-character code in ICIS-NDPES that uniquely links to a pollutant name and CAS number.</p>
Pollutant Name:	<p>The name used in PCS or ICIS-NPDES to identify the substance discharged.</p>
Substance Registry Service (SRS) ID:	<p>Unique ID numbers to substances, such as chemicals, biological organisms, physical properties, and miscellaneous objects by EPA's Substance Registry Services, to provide a common substance identification method across multiple regulatory programs.</p>
SIC Code:	<p>Four-digit Standard Industrial Classification code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information.</p>

Term	Description
TRI ID:	Number used to uniquely identify facilities in EPA's TRI database. This ID is also known as the Toxics Release Inventory Facility Identification Number (TRIFID). TRI is a database available to the public that includes toxic chemical releases and waste management activities reported annually by industries.
TWF:	<p>EPA's Office of Water's Engineering and Analysis Division (EAD) developed TWFs for use in its effluent limitations guidelines and standards (ELGs) development program to allow comparison of pollutants with varying toxicities using data from PCS, ICIS-NPDES, and EPA's Toxics Release Inventory (TRI).² The DMR Pollutant Loading Tool makes this data more available to the public (as this facility specific TWPE discharges were previously available only through EPA's docket system supporting its ELG program).</p> <p>Where data are available, these TWFs reflect both aquatic life and human health effects. For each facility that reports PCS and ICIS-NPDES, EPA multiplies the pounds of discharged pollutants by pollutant-specific TWFs. This calculation results in an estimate of the discharged toxic-weighted pound equivalents (TWPEs). For example, total mercury (CAS No. 7439976) has a TWF equal to 117 TWPE/lbs-mercury while total copper (CAS No. 7440508) has a TWF equal to 0.63 TWPE/lbs-copper. Therefore a discharge of 1 pound of mercury equals 117 TWPE discharged while a discharge of 1 pound of copper equals 0.63 TWPE discharged. Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).</p> <p>See a general discussion of how EPA develops, calculates, and uses TWFs in the following document: "Toxic Weighting Factor Development in Support of CWA 304(m) Planning Process," June 2006. [Available at: www.regulations.gov. Document No. EPA-HQ-OW-2004-0032-1634].</p>
ZIP code:	The 5-digit mail code for the facility address.

² See a general discussion of how EPA develops, calculates, and uses TWFs in the following document: "Toxic Weighting Factor Development in Support of CWA 304(m) Planning Process," June 2006. [Available at: www.regulations.gov. Document No. EPA-HQ-OW-2004-0032-1634].