



# 2023 Annual Mercury Report

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for the City of Decatur, Indiana

**Karey Fuelling, Superintendent**

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## **INTRODUCTION**

This annual mercury report has been prepared in accordance with 327 Indiana Administrative Code (IAC) 5-3.5-9(a)(8) to document the City of Decatur's (City) compliance with its Streamlined Mercury Variance (SMV) Pollutant Minimization Program Plan (PMPP) as incorporated in National Pollutant Discharge Elimination System (NPDES) Permit No. IN0039314.

The City completed all planned activities stated in the PMPP by the scheduled action date and is following the SMV-related requirements of its NPDES permit.

City staff believes the current level of involvement can be maintained with existing staff and resources.

## **PMPP IMPLEMENTATION PROGRESS**

The following tables document the internal, general public, and sector mercury discharge reduction activities as outlined in the PMPP and the City's progress on completing the specified activities. All planned activities have been completed on schedule.

### **Pollutant Minimization Program Plan (PMPP)**

Tables 1 thru 7 show activities as outlined in Part 5, of the March 2020 PMPP, along with the City's progress to date.

**Table 1 Internal Mercury Discharge Reduction Activities**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule of Action</b>	<b>Documentation</b>
Identification of responsibilities under P.L.225- with 2001	Identify new WWTP staff and familiarize them with responsibilities under P.L.225-2001 during training	Completion of training of all applicable staff	Annual review	No new staff members this year
Continue use of form letter requesting trace mercury content for suppliers of common items ordered	Mail letter to suppliers and vendors	Supplier and vendor response	As items ordered	No change in suppliers
Part 3 Pollutant Minimization Program awareness mercury material to be incorporated in safety memorandum.	Staff awareness in the form of a signed attendance and memo on record	Staff participation	Annual refresher training	Completed by all staff, documentation on file
Continue use of purchasing SOP to give preference to mercury free products, replacing those found to contain mercury when feasible	Identification of products that contain mercury	List of products which contain mercury that may be replaced with mercury- free in the future; retaining purchase records of mercury- free parts/ equipment and number of mercury-bearing items replaced	Retain records of mercury parts and equipment purchased; review and update list annually	No currently listed mercury containing products or equipment replaced with mercury free

**Table 2 General Public Mercury Discharge Reduction Activities**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule of Action</b>	<b>Documentation</b>
Mercury awareness radio spot outlining program	Education of NPDES mercury limit to develop an understanding of need for cooperation	Number of educational radio spots transmitted to public	Renew contract annually with local sports broadcasting station	Monthly invoices for broadcast expenses available upon request
Replace informative notice on monthly water/sewer bill with informative notice on City website	Educational awareness of potential sources of mercury and how to identify its presence in some product descriptions	Confirmation of notice on website	Once per calendar year	Announcement placed on utility bills and the City's website

**Table 3 Sector Mercury Discharge Reduction Activities-Public and Private Educational Laboratories**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule Of Action</b>	<b>Documentation</b>
Identify and contact science dept. heads and mail BMP letter	Education awareness	Date mailed And content	Annual review	No new science department heads
Update potential contributor list	Keep a current list of all potential Contributors of mercury within the collection system	Updated list of potential contributors	Annual review and update	No laboratories removed from the list
Site visits regarding reduction efforts	Verbal confirmation of mercury discharge minimization awareness	Number of site visits conducted	Conduct annual site visits to 10 business/industries identified in Section 2. B	Awareness information delivered to one public lab this year

**Table 4 Sector Mercury Reduction Activities-General Industry and SIU's**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule of Action</b>	<b>Documentation</b>
Identify any new Industries/SIU's and mail chemical/equipment literature	Education awareness	Date mailed And content	Annual review	Two new industries/SIU's identified
Update of potential contributors of mercury within the collection system	Keep a current list of all potential contributors of mercury within the collection system	Updated list of potential contributors	Review and update annually	One industry removed
Site visits regarding reduction efforts	Verbal confirmation of mercury discharge minimization	Number of site visits conducted	Conduct annual site visits to 10 businesses/industries identified in Section 2. B	Three general industries/SIU visited this year

**Table 5 Sector Mercury Discharge Reduction Activities-Dental Clinics**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule of Action</b>	<b>Documentation</b>
Identify any new dental clinics and mail appropriate American Dental Assoc. BMP literature	Education of NPDES mercury limit to develop an understanding of need for cooperation	Date mailed and content	Annual review	No new clinics identified
Update of potential contributor list	Keep a current list of all potential contributors of mercury within the collection system	Updated list of potential contributors	Review and update annually	No dental clinics removed from list
Site visits regarding reduction efforts	Verbal confirmation of mercury discharge minimization	Number of site visits conducted	Conduct annual site visits to 10 businesses/industries identified in Section 2. B	No dental clinics visited this year

**Table 6 Sector Mercury Discharge Reduction Activities-Medical Facilities  
(Hospitals, Clinics, Nursing Homes, Veterinary Facilities)**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule of Action</b>	<b>Documentation</b>
Identify any new medical facilities and mail appropriate American Hospital Assoc. BMP literature	Education of NPDES mercury limit to develop an understanding of need for cooperation	Date mailed and content	Annual review	No new facility identified
Update of potential contributor list	Keep a current list of all potential contributors of mercury within the collection system	Updated list of potential contributors	Review and update annually	No medical facilities removed from list
Site visits regarding reduction efforts	Verbal confirmation of mercury discharge minimization awareness	Number of site visits conducted	Conduct annual site visits to 10 businesses/ industries identified in Section 2. B	Visited two medical facilities this year

**Table 7 Sector Mercury Discharge Reduction Activities-Other Identified Area Businesses (Auto Repair Shops, HVAC Service Businesses)**

<b>Activity</b>	<b>Goal</b>	<b>Measure of Performance</b>	<b>Schedule of Action</b>	<b>Documentation</b>
Identify any new businesses and mail appropriate mercury awareness letter outlining program	Education of NPDES mercury limit to develop an understanding of need for cooperation	Date mailed and content	Annual review	No new business identified
Update potential contributor list	Keep a current list of all potential contributors of mercury within the collection system	Updated list of potential contributors	Review and update annually	One potential contributor removed from the list
Site visits regarding reduction efforts	Verbal confirmation of mercury discharge minimization awareness	Number of site visits conducted	Conduct annual site visits to 10 businesses/ industries identified in Section 2. B	Mercury awareness information delivered to four Auto Repair/HVAC shops

## **Mercury Monitoring Data**

The following tables document the City's 2023 mercury monitoring data.

### **A. Influent and Effluent Monitoring Data**

The City conducts W WTP Influent and Effluent mercury monitoring every two months as required by its NPDES permit. Influent and effluent mercury testing is conducted by Purves Environmental, Inc. using Test Method United States Environmental Protection Agency (USEPA) 1631E.



**Table 8 Influent & Effluent Mercury Monitoring Data**

<b>Date</b>	<b>Influent Concentration (ng/l)</b>	<b>Effluent Concentration (ng/l)</b>
February 10, 2023	26.4	3.42
February 13, 2023	2430	8.14
April 14, 2023	39	1.67
April 27, 2023	16.1	6.01
June 9, 2023	69.7	3.83
June 22, 2023	122	7.67
August 4, 2023	21	4.73
August 17, 2023	35.4	5.84
October 11, 2023	20.8	4.67
November 14, 2023	64.7	1.87
December 6, 2023	10.4	1.87
December 20, 2023	24.4	2.72
Average	239.99	4.37
Maximum	2430	8.14
Minimum	10.4	1.67

## B. Biosolids Monitoring Data

The City conducts biannual Biosolids mercury monitoring as required by its Class A Marketing and Distribution Biosolids permit. All Biosolids testing is currently conducted by Element Materials Technology using Test Method USEPA 6020. Results are summarized in Table 9.

**Table 9 Biosolids Mercury Monitoring Data**

<b>Date</b>	<b>Dry Basis Concentration (mg/kg)</b>
February 1, 2023	0.513
July 26, 2023	0.514

## **Current PMPP Evaluation**

Although no equipment was replaced this year with mercury free equipment, the city will continue to look for comparable mercury free alternatives.

Ten site visits were conducted to distribute mercury discharge minimization awareness materials. All sites confirmed that an owner, building manager or maintenance person would read the material. Decatur will continue dialog with potential contributors to keep them educated on safe handling and disposal of mercury containing items. Mercury information is always available on the City's website in addition to posts on Facebook linking to the information.



# Appendix A

## Current Mercury Source Inventory

## Current Inventory

Table A.1 provides a current, complete inventory of mercury uses and sources at the WWTP site and off-site lift stations within the collection system.

**Table A.1 Current Mercury Source Inventory**

Mercury Source	Location	Mercury Quantity (per source)	Source Quantity (Total)*	Mercury Quantity (Total)
Linear Fluorescent Bulbs-building lighting	Maintenance Office and basement; Activated Sludge Building; ATAD Building; Administration Building; Lift Station Buildings	10 mg	223	2.23g
Compact fluorescent Bulbs- building lighting	Maintenance Office and Basement; Activated Sludge Building; ATAD Building; Administration Building	5 mg	6	0.03g
Mercury Vapor bulbs- Building lighting	Maintenance Office and Basement; Activated Sludge Building; ATAD Building; Administration Building	50 mg	15	0.75g
UV lamps	UV Disinfection Structure	66 mg	72	4.75g
UV lamps	Activated Sludge Building	66 mg	17	1.12g
Mercury Float Switches	WWTP and off-site Lift stations	1.6g	101	161.6 g

Building lighting estimated quantities obtained from IMERC lighting fact sheet, actual data from manufacturers not obtained.

[http://www.newmoa.org/prevention/mercury/imerc/factsheets/lighting\\_2014.pdf](http://www.newmoa.org/prevention/mercury/imerc/factsheets/lighting_2014.pdf)

\*Source Quantity updated 1/10/2024

At this time, the City does not intend to find mercury-free replacement items for the previously listed mercury sources.

1. As mercury containing bulbs burn out they are replaced with LED lighting. WWTP staff has completed mercury awareness training and all mercury-containing light bulbs will be managed as a hazardous waste and recycled at the end of their useful life through the Adams County Solid Waste Management District. The WWTP staff will continue to replace with LED lighting as long as it remains cost effective.
2. Mercury-containing ultraviolet (UV) bulbs will continue to be used for WWTP effluent disinfection. WWTP staff has completed mercury awareness training and all

UV lamps and ballasts are managed as a hazardous waste and recycled at the end of their useful life through Waste Management. Used lamps are stored in a designated area away from daily traffic until a recycling carton can be filled and recycled. Recycling typically occurs once a year.

3. Mercury containing float switches will continue to be used for equipment and process control at the WWTP and in the collection system because of their reliability and performance. The WWTP staff previously attempted mercury-free alternatives and found the reliability and performance to be substandard. WWTP staff has completed mercury awareness training and all mercury-containing float switches will be managed as a hazardous waste and recycled at the end of their useful life through the Adams County Solid Waste Management District. As the float switches need to be replaced, the WWTP staff will evaluate alternative process controls available at that time.

**Mercury Containing Items Recycled**

1. 22 Linear fluorescent bulbs
2. 9 Floats



# Appendix B

## Current Mercury Source List

### Current List

Table B.1 provides a current list of businesses, laboratories and industries that may discharge mercury.

### Sources Eliminated

1. D&B Auto Service
2. Lance Campers

### Sources added to list

1. Adams County Regional Sewer District
2. Panacea Powder & Ceramic Coating

**Table B.1 Current Mercury Source List**

Name	Type	Address	Telephone Number
8 <sup>th</sup> Street Oil	Auto Repair	316 North Eight St.	260-301-9388
Adams County Truck Repair	Auto Repair	424 Winchester Street, PO Box 22	260-724-9955
Bodies Performance Exhaust	Auto Repair	1015 South Hampton Drive	260-724-2599
Bowers Paint Studio	Auto Repair	1805 W Monroe Street	260-701-6283
Braun's Garage	Auto Repair	1209 Washington Street	260-728-9633
Craig's Auto Repair	Auto Repair	1749 Patterson Street	260-701-1973
Custom Car Care	Auto Repair	603 N Thirteenth Street	260-724-2210
EDZ Motorcycle	Auto Repair	235 N First Street	260-724-4006
Expert Transmission and Auto	Auto Repair	104 Belmont Road	260-724-2434
Flat Line Auto	Auto Repair	334 N Twelfth Street	260-301-9000
Hi-Way Service	Auto Repair	1013 N Second Street	260-724-2928
John's Auto Sales and Service	Auto Repair	134 S Thirteenth Street	260-724-8254
Johnson's Auto Sales	Auto Repair	325 S Thirteenth Street	260-728-2329
Kelley Automotive Group	Auto Repair	1313 S Thirteenth Street	260-724-8525
Kelley Body Shop	Auto Repair	950 S Eleventh Street	260-724-3013
Ligenfelter Performance Eng.	Auto Repair	1557 Winchester Road	260-724-2552
Millers Auto Recycling	Auto Repair	706 N Eleventh Street	260-515-6386
P and B Trucking	Auto Repair	2203 Patterson Street	260-728-4314
Piqua Repairs	Auto Repair	803 S Eleventh Street	260-724-7687
R and B Body Shop	Auto Repair	1027 South Hampton Drive	260-724-8936
Schnitz Racing	Auto Repair	222 N Third Street	260-728-9457
Shifferly Automotive	Auto Repair	704 N Thirteenth Street	260-724-4443
Strickland Brothers	Auto Repair	951 N Thirteenth Street	260-724-4747
Superior Auto, Inc.	Auto Repair	409 S Thirteenth Street	260-724-9585
Decatur Family Dentistry	Dental Clinic	1020 South Hampton Drive	260-724-8410
Riverstone Dental	Dental Clinic	234 N First Street	260-724-7032
Adams County Reg. Sewer District	General Industry/ SIU	313 West Jefferson Street, Room 337	260-724-2995

<b>Name</b>	<b>Type</b>	<b>Address</b>	<b>Telephone Number</b>
Champion Home Builders, Inc.	General Industry/ SIU	1418 South Thirteenth Street	260-383-4444
Country Butcher	General Industry/ SIU	400 South Chambers Drive	419-852-7836
Esteves Group	General Industry/ SIU	1921 Patterson Street	260-728-9272
Gilpin Inc.	General Industry/ SIU	1819 Patterson Street	260-724-9155
Goldshield Fiberglass, Inc.	General Industry/ SIU	2004 Patterson Street PO Box 496	260-728-2476
Mid-States Tool & Machine, Inc.	General Industry/ SIU	2220 Patterson Street	260-728-9797
Panacea Powder & Ceramic Coating	General Industry/ SIU	1013 Commerce Drive	260-728-4222
REV Recreation Group	General Industry/ SIU	1031 US 224 E, PO Box 1007	260-728-2121
Thunderbird Products	General Industry/ SIU	2200 W Monroe Street PO Box 1003	260-724-9111
Baker & Son's Plumbing & Heating	HVAC Service	702 Nuttman Avenue	260-724-3607
Haugk Co. Inc.	HVAC Service	1711 Patterson Street	260-724-9184
Masters Heating and Cooling	HVAC Service	1045 Eleventh Street	260-724-2615
McIntire Heating and Cooling	HVAC Service	704 Dierkes Street	260-724-2010
Bellmont Senior High School	Laboratory	1000 E North Adams Drive	260-724-7121
Adams Memorial Hospital	Medical Facilities	1100 Mercer Avenue	260-724-2145
FMCNA Tri-County Dialysis Center	Medical Facilities	817 S Thirteenth Street	260-724-8303
Parkview Behavioral Health -Park Center	Medical Facilities	809 High Street	260-724-9669
Well Now Urgent Care	Medical Facilities	632 South Thirteenth Street	260-706-2013
Woodcrest of Decatur	Nursing Homes	1300 Mercer Avenue	260-724-3311
Red Barn Veterinarian Care	Veterinary	957 S Eleventh Street	260-728-2276