

Three Years and \$3,000,000 Later

A Pretreatment Enforcement Case Study

2023

INDIANAPOLIS
FIVE CITIES PLUS

About CWA Authority, Inc.

- 2 Advanced Wastewater Treatment Plants
 - Belmont (300 MGD)
 - Southport (250 MGD)
- Over 3,400 miles piping within the Collection system
 - Approximately 450 miles of Interceptors (large diameter sewers >36” diameter)
- 130 permitted combined sewer overflows (CSOs) during wet weather
- Pretreatment Program Control Authority for City of Indianapolis



Today's Discussion

- CSO Emergency Response and Remediation
- Investigation Follow-up and Inspections
- Enforcement Round 1
- Post Enforcement Monitoring and Inspections
- Enforcement Rounds 2+ and Resolution



Initial Identification of Release

- September 2019 - Member of public called Marion County Public Health Department (MCPHD)
 - Report of black oily material in the White River and along banks near CSO outfall
- MCPHD, IDEM, and EPA field investigation triggered notification to Authority
 - Upon notification, Authority staff immediately responded
 - EPA On-Scene Coordinator on site to assist IDEM
 - Directed Authority to call National Response Center





Emergency Response and Remediation

Field Investigation

- Authority inspected potential source(s) of oily material along a nearby 20" sewer and 3 interceptors
 - Started at CSO outfall and evaluated manholes upstream
 - 20" sewer - No oily material observed
 - Interceptor #1 - No oily material observed
 - Interceptor #2 - No oily material observed
 - Interceptor #3 - Observed oily material
- Hydrocarbon Fingerprinting analysis
 - (C8-C40) Semi-Quantitative Molecular Characterization by GC/MS
- Samples collected from each accessible manhole from the CSO outfall to the Industry with Industrial Discharge Permit
 - Water and solid materials were collected
- Technical Expert hired by counsel to evaluate results



Continued Sampling up Interceptor #3 - 9/19/19 Right-of-Way (ROW) Manhole in Front of Industry



Analysis and Evaluation of Field Investigation Data

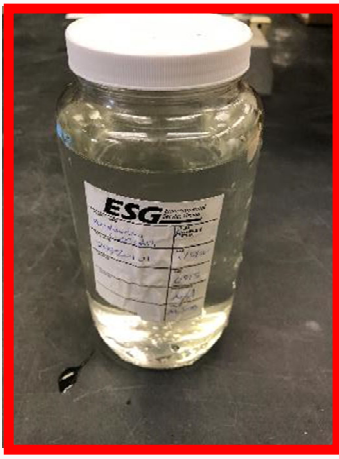
- Collected samples per recommendation of agencies, laboratory, and technical expert to determine fingerprint of oily material (Tier 2 scan and alkyl PAH biomarker analysis)
- Provided all data to technical expert for review and evaluation
- Technical expert concluded that oily material found in residue sampled at CSO outfall and in collection system originated from Industry

Targeted Visual Discrete Sampling

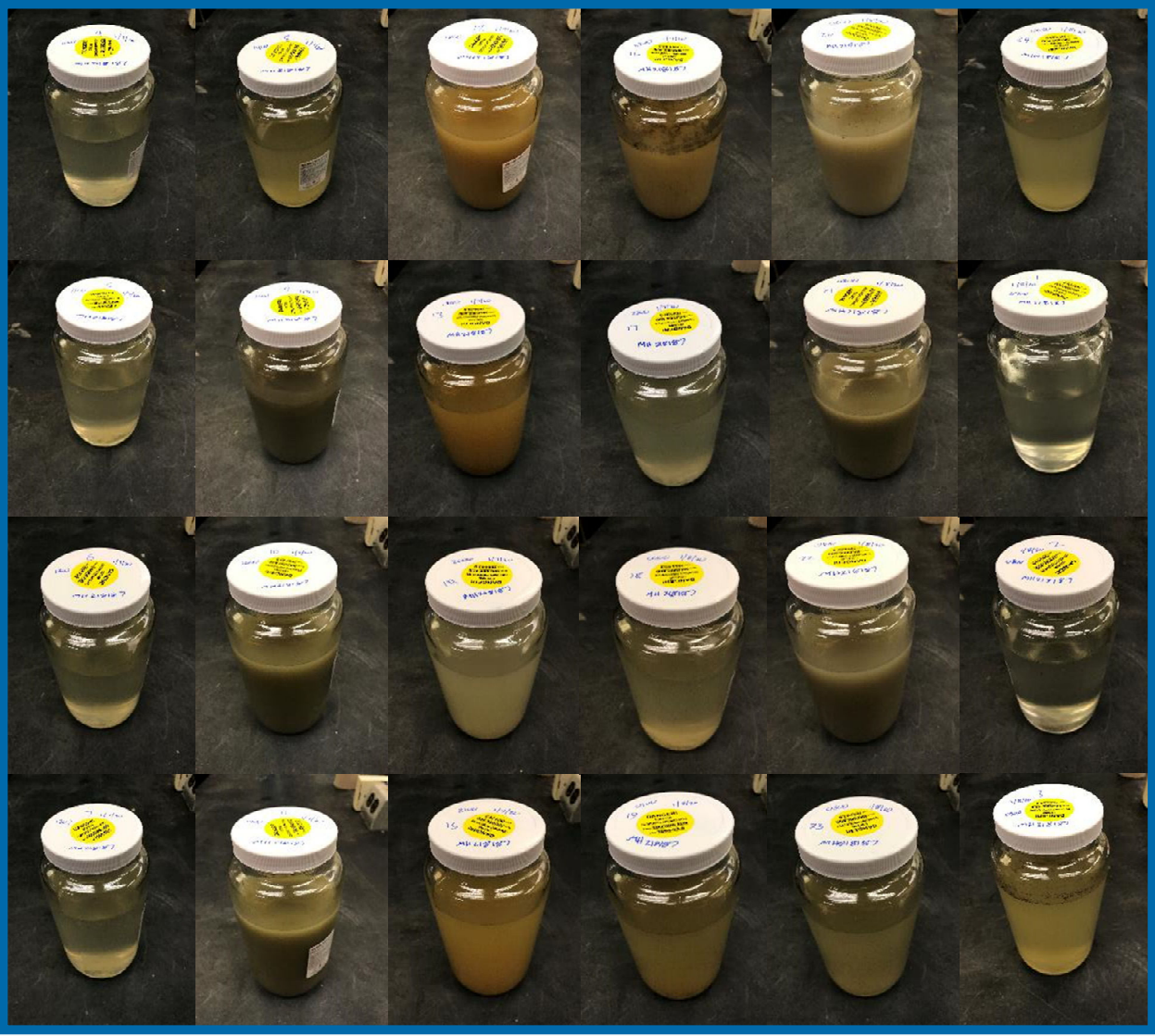
- Multiple sampling locations
- Industry compliance monitoring point (inside facility)
- ROW manhole (access to Industry lateral before connection to Authority sewer)
- Upstream manhole (located upstream of the Industry's lateral connection)
- Composite: Compliance Monitoring Point
- Discrete: ROW and Upstream manholes



1/7-8/20
Event



↑
Discharge
from
Industry
Compliance
Sample
Point



Compliance Inspections and Collection of Additional Evidence

- Obtained Search Warrant in anticipation of refusal of entry
- Conducted unannounced inspections as follow-up to oily material found in Interceptor #3
 - Full evaluation of the Industry
 - Collected samples for hydrocarbon analysis (fingerprinting)
 - Completed Dye Testing of Industry's sewers
- Conclusion: Industry was source of oily material discharged at CSO outfall
 - Other possible sources ruled out during investigation
 - Observation and analysis of material directly at Industry along Interceptor #3 from CSO outfall to Industry
 - Confirmation from technical expert's evaluation of data

Enforcement Round 1

- Notice of Violation issued to Industrial User - August 2020
 - Causing Adverse Impact to Sewer
 - Failure to Implement Slug Control Plan to Prevent Adverse Impacts
 - Interference with the Proper Operation of Authority Sewer System
 - Failure to Collect and Analyze Samples
 - Failure to Maintain in Good Working Order and Operate Treatment or Control Facilities or Systems
 - Failure to Develop and Maintain an Adequate Slug Control Plan
 - Failure to Comply with Permit Limits
- Industry denied responsibility - Oily material came from other locations
 - Oil from storm sewers because Indianapolis is CSO community
 - Stormwater along street flowed into Inceptor #3 causing issue
 - Our Hydrocarbon Finger-printing Technical Expert was wrong



Compliance Agreement - March 2021

- Revised Discharge Permit
 - Increased Self-Monitored sampling for TPH
 - Incorporated requirements from Compliance Agreement
 - Required reporting outage of Key Control Equipment
- Reimbursed Authority for emergency response and remediation - \$479,000
- Payment to Authority for future sewer cleaning - \$750,000
- Civil Penalty - \$385,000
- Reimbursement for expenses - \$35,800
 - Audit of Slug Control Plan
 - Purchase and installation of video equipment
 - Purchase and installation of remote sampling equipment
- Up to \$4,080 per month reimbursement for compliance oversight by our contractor
- CA effective for 3 years
- Total Penalties and Damages Assessed = \$1,614,000

Post Compliance Agreement

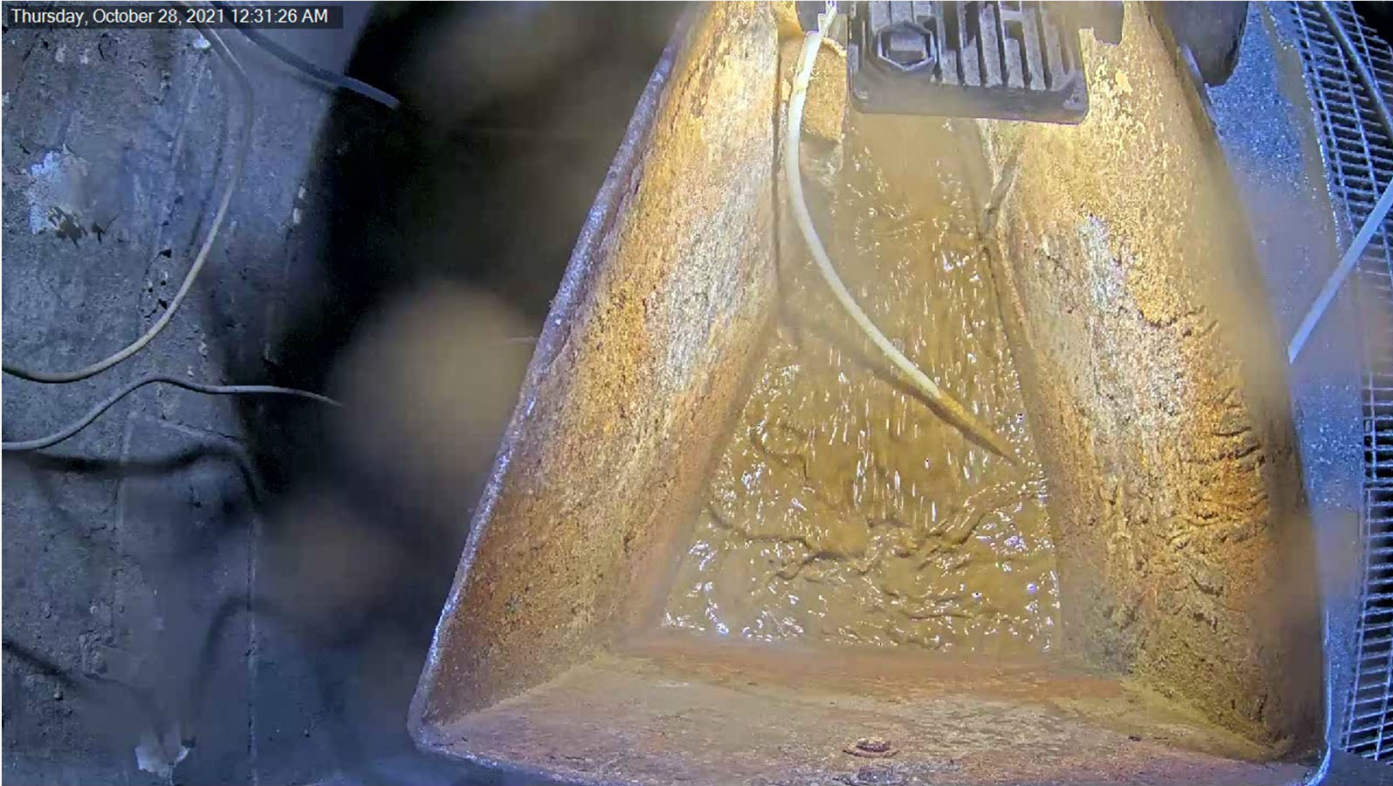
- Live video surveillance from 3 cameras inside facility to observe operation of treatment equipment - “There’s an app for that.”
- Remote triggered composite sampling from permanent refrigerated sampler inside facility - “There’s an app for that, too.”
- Unannounced compliance oversight inspections by Authority’s contractor on a near daily basis including off hours and weekends
- Continued ROW manhole sampling at least weekly basis and increased sampling inside Industry



Video Surveillance



Video Surveillance



Lesson Learned for Additional Oversight

- Third party inspection roles, responsibilities, and expectations
- Equipment limitations, sampling and surveillance
- Things can be unplugged...
- Record retention, data storage, and employee communications
- Pretreatment program documents review



Enforcement Rounds 2+ for New Violations

NOVs and Breach of CA:

#1- Issued August 2021 with 34 Violations

#2 - Issued September 2021 with 13 Violations including dilution at monitoring point and failure to provide unabated access (change in Industry discharge when compliance oversight contractor conducted inspection)

Notice of Hearing:

- Issued November 2021 with March 2022 hearing date



Violations Continued to Occur

NOVs and Breach of CA (continued):

#3 - Issued December 2021 with 25 violations

#4 - Issued January 2022 with 31 violations

Notice of Permit Revocation:

- Issued February 2022
- Compliance must be achieved by August 2022
- Hearing to be held in November 2022

NOVs and Breach of CA (continued):

#5 - Issued April 2022 with 42 violations

#6 - Issued June 2022 with 46 violations

#7 - Issued September 2022 with 39 violations



The Scorecard for Enforcement

- **258 Violations alleged after Compliance Agreement executed in March 2021**
 - **224 Discharge Limit Violations**
 - 186 Daily and Month violations at Industry Compliance Point (inside Industry) - both Authority and Self-monitored
 - 38 at ROW manhole (by Authority)
 - 23 for failure by Industry to comply with sampling procedures
 - 11 other violations (dilution, damage to sewer, failure to provide access, and failure to maintain treatment equipment)



Resolution of Allegations Post CA

- **Resolution with Addendum to original Compliance Agreement (CA) - finalized November 2022**
- **Total Penalties and Damages Assessed = \$995,000**
 - Direct damages - \$295,000
 - Stipulated penalties (violation of CA) - \$14,700
 - Civil Penalty - \$685,300
- **Ceased discharge of regulated wastewater - November 2022**
 - Permanent plugging of sewer lateral from Industry's wastewater treatment building
 - Verified with smoke testing
- **Surrender of Permit - November 2022**



Permanent Ceasing of Discharge



Results Required Time, Energy, and Resources

- Over 300 unannounced inspections by Compliance Oversight contractor between May 2021 and November 2022
- Samples collected:
 - 300 Self-monitored samples
 - 230 Surveillance samples by Authority
- 11 staff on internal team - Pretreatment and Wastewater Ops
- 4 Technical Expert Witnesses
- 5 Legal Counsel supported enforcement and hearing process
- Total Time from initial Response to Final Resolution over 3 years
- Total Penalties and Damages Assessed paid by Industry = \$2,694,260
 - Enforcement Round 1 = \$1,614,800
 - Compliance Oversight = \$84,460
 - Final Resolution = \$995,000

Questions

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