

To: Quinnipiac River Fund
Copy: Roger Reynolds, CFE
From: Alan M. Kosloff
Date: 10-27-14
Re: Summary of Indirect Discharger Review Project

In fulfillment of this year's grant obligations, students from the CULI environmental clinic worked on an initial evaluation of indirect dischargers to the Quinnipiac River. The students' involvement having terminated, my firm has completed the project. The ultimate goal of the project is to identify indirect dischargers with violations that would warrant civil action by CFE.

The students began the project by identifying the indirect dischargers, obtaining the permits from DEEP, and creating a spreadsheet of the dischargers' individual effluent limits. The students then began the difficult process of obtaining DMR discharge information for each discharger, with the intention of comparing that information to the permit limitations to identify violations. At the time the students were working on the project, they found that gathering that information from DEEP or EPA in a useful format was quite difficult.

Over the past summer, however, EPA made significant upgrades to its ECHO online database, providing reasonably user friendly access to DMR (facility discharge monitoring reports) data. The ECHO site now includes data charts and tables providing a rolling 5 years of data for each facility, along with other facility information, including information on formal government enforcement actions.

Utilizing this data, we have created a spreadsheet identifying violations for the past five years (the last month of data being August or September of 2014). The spreadsheet includes the permit limitations and, for each limit, the DMR data for each violation. DMR data that is not a violation of a permit limit is not included. Each facility has its own tabbed page in the

spreadsheet and those tabs have been color coded to indicate the severity of violations. The color code is subjective based on number of violations, type of pollutant, and the degree of violation. Tabs in red, orange, and yellow indicate some violation in descending order of severity; green indicates no reported violation in the five year time period.

The following facilities are tabbed red for significant violations:

1. Tradebe Treatment and Recycling Northeast, LLC
47 Gracey Avenue, Meriden, CT 06451
SP0001028

This facility has had multiple permit limit violations for a number of pollutants including, without limitation, antimony, lead, cobalt, and copper. The ECHO site reports a state enforcement action resulting in a consent order in 2010 with a fine of \$31,000. This enforcement action may cover some of the noted violations. However, a number of the violations occur after the September, 2010 settlement date, indicating ongoing compliance problems.

2. Consolidated Industries Acquisition Corporation
677 Mixville Road, Cheshire, CT 06410
SP0002317

This facility has multiple flouride violations. A state action resulting in a consent order and penalty of \$12,900 was settled in February of 2012. There are violations that post date the enforcement action.

3. OGS Technologies, Inc.
1885 Peck Lane, Cheshire, CT 06410
SP0002397

This facility has just a few violations. However, one of the two nickel violations is nearly double the permit limit, and there are hexavalent chromium violations. ECHO does not report any formal enforcement actions.

4. New England Linen Supply Co., Inc.
149 Derby Avenue, New Haven, CT 06511
SP0002412

This facility has numerous pH violations. ECHO does not report any formal enforcement actions.

Recommendations:

- Consider whether action against the four facilities listed above is warranted and review the spreadsheet for other facilities of current interest. I have discussed our findings with Roger Reynolds of CFE at length and he asked us to provide him with a copy of both this memo and the facility spreadsheet for his review.
- Establish a program to continually monitor the ECHO database for all dischargers of interest. ECHO provides a powerful tool, allowing for relatively easy monitoring for reported violations from any discharger of interest.

NOT ALL DMR DATA IS REFLECTED ON ECHO - FOLLOW UP WITH DEEP

TABLE A

Discharge Serial Number: 201-1

Monitoring Location: 1

Wastewater Description: Process wastewater from suture manufacturing

Monitoring Location Description: After final pH adjustment tank

Discharge is to: Town of North Haven Water Pollution Control Facility

Parameter	Units	Exc. Date	Flow/Time Based Monitoring				Instantaneous Monitoring		
			Average Monthly Limit	MDL	Sample / Reporting Frequency^	Sample Type	Inst. Limit or Req'd Range	Sample / Reporting Frequency ^	Sample Type
Acenaphthene*	µg/l		19	47	2/Year	DC	70.5	NR	NR
Acenaphthene*	gr/d		2.88	7.116	2/Year	DC	N/A	NR	NR
Anthracene*	µg/l		19	47	2/Year	DC	70.5	NR	NR
Anthracene*	gr/d		2.88	7.116	2/Year	DC	N/A	NR	NR
Benzene*	gr/d		57	N/A	NR	N/A	134	2/Year	Grab
Benzene*	gr/d		8.629	20.288	NR	N/A	N/A	NR	NR
Bis(2-ethylhexyl)phthalate	µg/l		95	258	2/Year	DC	387	NR	NR
Bis(2-ethylhexyl)phthalate	gr/d		14.383	39.06	2/Year	DC	N/A	NR	NR
Carbon Tetrachloride*	µg/l		142	N/A	NR	N/A	380	2/Year	Grab
Carbon Tetrachloride*	gr/d		21.498	57.532	NR	N/A	N/A	NR	N/A
Chlorobenzene*	µg/l		142	N/A	NR	N/A	380	2/Year	Grab
Chlorobenzene*	gr/d		21.498	57.532	NR	N/A	N/A	NR	N/A
Chloroethane*	µg/l		110	N/A	NR	N/A	295	2/Year	Grab
Chloroethane*	gr/d		16.654	44.663	NR	N/A	N/A	NR	NR
Chloroform*	µg/l		111	N/A	NR	N/A	325	2/Year	Grab
Chloroform*	gr/d		16.805	49.205	NR	N/A	N/A	NR	NR
Di-n-butyl phthalate*	µg/l		20	43	2/Year	DC	64.5	NR	NR
Di-n-butyl phthalate*	gr/d		3.028	6.51	2/Year	DC	N/A	NR	NR
1,2-Dichlorobenzene*	µg/l		196	N/A	NR	N/A	794	2/Year	Grab
1, 2-Dichlorobenzene*	gr/d		29.674	120.21	NR	N/A	N/A	NR	NR
1, 3-Dichlorobenzene*	µg/l		142	N/A	NR	N/A	380	2/Year	Grab
1, 3-Dichlorobenzene*	gr/d		21.5	57.532	NR	N/A	N/A	NR	NR
1, 4-Dichlorobenzene*	µg/l		142	N/A	NR	N/A	380	2/Year	Grab
1, 4-Dichlorobenzene*	gr/d		21.5	57.532	NR	N/A	N/A	NR	NR
1, 1-Dichloroethane*	µg/l		22	N/A	NR	N/A	59	2/Year	Grab
1, 1-Dichloroethane*	gr/d		3.31	8.933	NR	N/A	N/A	NR	NR
1, 2-Dichloroethane*	µg/l		180	N/A	NR	N/A	574	2/Year	Grab
1, 2-Dichloroethane*	gr/d		27.252	86.903	NR	N/A	N/A	NR	NR
1, 1-Dichloroethylene*	gr/d		22	N/A	NR	N/A	60	2/Year	Grab
1, 1-Dichloroethylene*	gr/d		3.31	9.084	NR	N/A	N/A	NR	NR
1,2-trans-Dichloroethylene*	µg/l		25	N/A	NR	N/A	66	2/Year	Grab
1,2-trans-Dichloroethylene*	gr/d		3.785	9.992	NR	N/A	N/A	NR	NR
1,2-Dichloropropane*	µg/l		196	N/A	NR	N/A	794	2/Year	Grab
1,2-Dichloropropane*	gr/d		29.674	120.12	NR	N/A	N/A	NR	M
1,3-Dichloropropylene*	µg/l		196	N/A	NR	N/A	794	2/Year	Grab
1,3-Dichloropropylene*	gr/d		29.674	120.12	NR	DC	N/A	NR	NR
Diethyl phthalate*	µg/l		46	113	2/Year	DC	169.5	NR	NR
Diethyl phthalate*	gr/d		6.964	17.108	2/Year	DC	N/A	NR	NR
Dimethyl phthalate*	µg/l		19	47	2/Year	DC	70.5	NR	NR
Dimethyl phthalate*	gr/d		2.876	7.116	2/Year	DC	N/A	NR	NR
4,6-Dinitro-o-cresol*	µg/l		78	277	2/Year	DC	415.5	NR	NR
4,6-Dinitro-o-cresol*	gr/d		11.809	41.938	2/Year	N/A	N/A	NR	NR
Ethylacetate*	mg/l		N/A	N/A	NR	N/A	--	2/Year	NR
Ethylbenzene*	µg/l		142	N/A	NR	N/A	380	2/Year	NR
Ethylbenzene*	gr/d		21.498	57.532	NR	ee footnote	N/A	NR	Grab
Flow, Average Daily	gpd		40,000	N/A	ntinuous/Mon	ee footnote	N/A	NR	Grab
Flow, Maximum! during 24 hour period	gpd		N/A	80,000	ntinuous/Mon	Daily Flow	N/A	NR	N/A
Flow, Total (Day of Sampling)	gpd		N/A	80,000	2/Year	DC	N/A	NR	N/A

Fluoranthene*	µg/l	22	54	2/Year	DC	81	NR	N/A
Fluoranthene*	gr/d	3.31	8.176	2/Year	DC	N/A	NR	N/A
Fluorene*	µg/l	19	47	2/Year	DC	70.5	NR	NR
Fluorene*	gr/d	2.877	7.116	2/Year	DC	N/A	NR	NR
Formaldehyde*	mg/l	N/A	--	2/Year	DC	N/A	NR	NR
Hexachlorobenzene*	µg/l	196	794	2/Year	DC	1191	NR	NR
Hexachlorobenzene*	gr/d	29.674	120.21	2/Year	DC	N/A	NR	NR
Hexachlorobutadiene*	µg/l	142	380	2/Year	DC	570	NR	NR
Hexachlorobutadiene*	gr/d	21.499	57.532	2/Year	DC	N/A	NR	NR
Hexachloroethane*	µg/l	196	794	2/Year	DC	1191	NR	NR
Hexachloroethane*	gr/d	29.674	120.21	2/Year	DC	N/A	NR	NR
Methyl Chloride*	µg/l	110	N/A	NR	N/A	295	2/Year	Grab
Methyl Chloride*	gr/d	16.654	44.66	NR	N/A	N/A	NR	N/A
Methylene Chloride*	µg/l	36	N/A	NR	N/A	170	2/Year	Grab
Methylene Chloride*	gr/d	5.45	25.74	NR	N/A	N/A	NR	N/A
Napthalene*	µg/l	19	47	2/Year	DC	70.5	NR	NR
Napthalene*	gr/d	2,876	7.116	2/Year	DC	N/A	NR	NR
Nitrobenzene*	µg/l	2,237	6,402	2/Year	DC	9603	NR	NR
Nitrobenzene*	gr/d	338.68	969.26	2/Year	DC	N/A	NR	NR
2-Nitrophenol*	µg/l	65	231	2/Year	DC	346.5	NR	NR
2-Nitrophenol*	gr/d	9.841	34.97	2/Year	DC	N/A	NR	NR
4-Nitrophenol*	µg/l	162	576	2/Year	DC	864	NR	NR
4-Nitrophenol*	gr/d	24.526	87.206	2/Year	DC	N/A	NR	NR
Oil & Grease, hydrocarbon, total petrol	mg/l	N/A	NR	NR	N/A	100	2/Year	Grab
pH Day of Sampling	S.U.	N/A	N/A	NR	N/A	6.0-10.0	2/Year	RDS
PH Continuous	S.U.	N/A	N/A	NR	N/A	6.0-10.0	tinuous/Mon	RDM
Phenanthrene*	µg/l	19	47	2/Year	DC	70.5	NR	NR
Phenanthrene*	gr/d	2.877	7.116	2/Year	DC	N/A	NR	NR
Pyrene*	µg/l	20	48	2/Year	DC	72	NR	NR
Pyrene*	gr/d	3.028	7.267	2/Year	DC	N/A	NR	NR
Suspended Solids, total	mg/l	N/A	--	2/Year	DC	N/A	NR	NR
Tetrachloroethylene*	µg/l	52	N/A	NR	N/A	164	2/Year	Grab
Tetrachloroethylene*	gr/d	7.873	24.83	NR	N/A	N/A	NR	NR
Tin	µg/l	N/A	--	2/Year	DC	N/A	NR	NR
Toluene*	µg/l	N/A	N/A	NR	N/A	74	2/Year	Grab
Toluene*	gr/d	N/A	11.204	NR	N/A	N/A	NR	NR
Total Cyanide*	µg/l	420	N/A	NR	N/A	1,200	2/Year	Grab
Total Cyanide*	gr/d	63.588	181.68	NR	N/A	N/A	NR	NR
Total Lead*	µg/l	320	690	2/Year	DC	1035	NR	NR
Total Lead*	gr/d	48.448	104.467	2/Year	DC	N/A	NR	NR
Total Zinc*	µg/l	1,050	2,610	2/Year	DC	3915	NR	NR
Total Zinc*	gr/d	158.97	395.154	2/Year	DC	N/A	NR	NR
1, 2, 4-Trichlorobenzene*	µg/l	196	794	2/Year	DC	1191	NR	NR
1, 2, 4-Trichlorobenzene*	gr/d	29.674	120.211	2/Year	DC	N/A	NR	NR
1, 1, 1-Trichloroethane*	µg/l	22	N/A	NR	N/A	59	2/Year	Grab
1, 1, 1-Trichloroethane*	gr/d	3.31	8.933	NR	N/A	N/A	NR	NR
1, 1, 2-Trichloroethane*	µg/l	32	N/A	NR	N/A	127	2/Year	Grab
1, 1, 2-Trichloroethane*	gr/d	4.845	19.228	NR	N/A	N/A	NR	NR
Trichloroethylene*	µg/l	26	N/A	NR	N/A	69	2/Year	Grab
Trichloroethylene*	gr/d	3.936	10.447	NR	N/A	N/A	NR	NR
Vinyl Chloride*	µg/l	97	N/A	NR	N/A	172	2/Year	Grab
Vinyl Chloride*	gr/d	14.685	26.041	NR	N/A	N/A	NR	NR

TABLE B

Discharge Serial Number: 202-1

Monitoring Location: 1

Wastewater Description: Chemical etch, cleaning, electropolishing, pickling, tumbling and cleaning of surgical needles and biosurg

Monitoring Location Description: after pH adjustment system

Discharge is to: Town of North Haven Water Pollution Control Facility

Parameter	Units	Exc. Date	Flow/Time Based Monitoring				Instantaneous Monitoring		
			Average Monthly Limit	MDL	Sample / Reporting Frequency [^]	Sample Type	Inst. Limit or Req'd Range	Sample / Reporting Frequency [^]	Sample Type
Cadmium, total*	mg/l		0.07	0.11	2/Year	DC	0.165	NR	N/A

Chromium, total	mg/l	1	2	Monthly	DC	3	NR	N/A
Copper, total	mg/l	1	2	Monthly	DC	3	NR	N/A
Cyanide, total*	mg/l	0.65	1.2	2/Year	DC	1.8	NR	N/A
Flow Rate (Average and Maximum Daily)	gpd	--	6,000	Continuous	See Remarks	N/A	NR	N/A
Flow, Day of Sampling!	gpd	N/A	6,000	Monthly	Daily Flow	N/A	NR	N/A
Lead, total*	mg/l	0.1	0.5	Monthly	DC	0.75	NR	N/A
Nickel, total	mg/l	1	2	Monthly	DC	3	NR	N/A
pH, Day of Sampling	S.U.	N/A	N/A	NR	N/A	6.0-10	Monthly	RDS
pH, Continuous	S.U.	N/A	N/A	NR	N/A	6.0-10	Continuous	RDM
Silver, total	mg/l	0.1	0.43	2/Year	DC	0.645	NR	N/A
Zinc, total	mg/l	1	2	Monthly	DC	3	NR	N/A
Total Total Toxic Organics	mg/l	N/A	N/A	NR	N/A	2.13	Monthly	Grab

Table B Footnotes and Remarks:

Footnotes:

! = For this parameter, the Permittee shall maintain at the facility a record of the Flow for each day of discharge and shall report the average daily flow.
 ^ = The first entry in this column is the "Sample Frequency." If this entry is not followed by a "Reporting Frequency" and the "Sample Frequency"

Remarks:

* Although Cadmium, Total, Cyanide, Total, Lead, Total and Silver, Total are regulated chemicals included in the federal wastewater discharge permit.

TABLE C

Discharge Serial Number: 203-1

Monitoring Location: 1

Wastewater Description: Molding Polymer Clip Washing Wastewaters

Monitoring Location Description: Directly from discharge hose leading from spray rinse machine

Discharge is to: Town of North Haven Water Pollution Control Facility

Parameter	Units	Exc. Date	Flow/Time Based Monitoring				Instantaneous Monitoring		
			Average Monthly Limit	MDL	Sample / Reporting Frequency [^]	Sample Type	Inst. Limit or Req'd Range	Sample / Reporting Frequency [^]	Sample Type
Copper, total	mg/l		N/A	N/A	NR	N/A	3	Annual	Grab
Flow, Day of Sampling	gpd		N/A	2,600	Annual	Daily Flow	N/A	NR	N/A
pH Day of Sampling	S.U.		N/A	N/A	NR	N/A	5.5-10.5	Annual	Grab
Zinc, total	mg/l		N/A	N/A	NR	N/A	3	Annual	Grab

Table C Footnotes:

Footnotes:

[^] = The first entry in this column is the "Sample Frequency." If this entry is not followed by a "Reporting Frequency" and the "Sample Frequency"

TABLE D

Discharge Serial Number: 204-1

Monitoring Location: 1

Wastewater Description: Laboratory Wastewaters Main Building

Monitoring Location Description: Directly from individual laboratory sinks

Discharge is to: Town of North Haven Water Pollution Control Facility

Parameter	Units	Exc. Date	Flow/Time Based Monitoring				Instantaneous Monitoring		
			Average Monthly Limit	MDL	Sample / Reporting Frequency [^]	Sample Type	Inst. Limit or Req'd Range	Sample / Reporting Frequency [^]	Sample Type
Copper, total	mg/l	6/30/2014	N/A	2.44	Annual	Composite	3	NR	N/A
pH Day of Sampling	S.U.	6/30/2013	N/A	N/A	NR	N/A	5.5-10.5	Annual	RDS!
Zinc, total	mg/l		1	2	Annual	Composite	3	NR	N/A

Table D Footnotes and Remarks:

Footnotes:

[^] = The first entry in this column is the "Sample Frequency." If this entry is not followed by a "Reporting Frequency" and the "Sample Frequency"

* = The permittee shall combine a grab sample from two (2) separate laboratory sinks to meet the annual sampling requirements contained in Table D

! = Range During Sampling means the range of pH from all grab samples used to create a composite sample.

Remarks:

Only secondary rinses are allowed to discharge via the drains. Concentrated solutions and first rinses shall not be disposed of through sinks, but through drains.

TABLE E

Discharge Serial Number: 205-1

Monitoring Location: 1

Wastewater Description: Laboratory Wastewaters Main Building

Monitoring Location Description: N/A- Monitoring Not Required

Only secondary rinses are allowed to discharge via the drains. Concentrated solutions and first rinses shall not be disposed of through sinks, but through drains.

TABLE F

Discharge Serial Number: 206-1

Monitoring Location: 1

Wastewater Description: Laboratory Wastewaters, Needle Manufacturing

Monitoring Location Description: N/A- Monitoring Not Required

Only secondary rinses are allowed to discharge via the drains. Concentrated solutions and first rinses shall not be disposed of through