



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

July 23, 2012

RE: Wastewater Compliance Inspection and Notice of Violation and Significant Non-Compliance

Mr. Gary Marker
Twin City Fan
800 High Street
Covington, OH 45318

Dear Mr. Marker:

On June 26th I met with you to conduct a wastewater pretreatment compliance inspection. Prior to the inspection, you notified me that Twin City Fan violated its monthly average zinc limit in April that is likely attributable to a change to your paint preparation procedures as discussed below.

A review of your discharge monitoring reports for the period of January through December 2011 and January through June 2012 revealed the following limit violations:

Table with 4 columns: Parameter, Date, Limit, Reported Value. Rows include Cadmium (March 2011, 70 ug/l limit, 92.65 ug/l reported) and Zinc (April 2012, 1,480 ug/l limit, 1,735 ug/l reported). Includes a note: * See discussion below

In addition to these limit violations, you failed to report monitoring results at the required frequency of once every two months for the following parameters and periods:

Table with 2 columns: Monitoring Period, Missing Parameters or Alternate Reporting Code. Rows show monitoring periods for 2011 and 2012 and the corresponding parameters that were not reported.

Cadmium

When the cadmium result from March 21, 2011 was first revealed, I indicated that I would not issue a notice of violation, in light of a grab sample I collected at the beginning of the same discharge event being below detection. However, since that determination a high, but compliant result from sampling by Twin City Fan on April 29, 2011, and then the next reported sampling result for a discharge on September 1st above the monthly average limit cast the March 21, 2011 result in a different light. It

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was two compliant sample results later in September (said to be collected from two consecutive days of discharge) that brought the monthly average below the limit.

Twin City Fan attributed the reported high cadmium results to unspecified "hardware" in the wastewater collection pit that was removed sometime after the September 1st sampling event. As such, it appears that cadmium was indeed an issue and that my grab sample result at the beginning of the discharge event on March 21st is outweighed by the cadmium results in your subsequent monitoring events and identification of a cause.

Absent any additional violations since you identified and remediated the suspected source, no further action is necessary.

Monitoring Violations

Twin City Fan's failure to monitor at least once during each two month period in accordance with its permit has caused it to be in Significant Non-Compliance (SNC). If you did perform monitoring for the listed missing parameters, then it will be necessary for you to amend the reports to include the data. Please let me know if missing data is to be added to the listed reports.

If there is no discharge during an entire two-month period, your permit instructs you to use reporting code "AC" on the last day of the reporting period.

Given that you were able to monitor cadmium from three discharge events in September 2011, it seems unlikely that there weren't discharges during other monitoring periods. It is otherwise unclear how you were able to discharge approximately 1,400 gallons two days in a row given it normally takes several weeks, or even months, to generate enough wastewater associated with normal production to warrant a discharge. I would appreciate you addressing this observation.

I otherwise recommend you plan to sample early in each monitoring period to maximize the opportunity to satisfy your monitoring obligation. Please explain how you plan to meet your monitoring obligations in the future.

Change in Operations

At the inspection, you informed me of the change made to the paint preparation process. Where you had previously simply applied an acidic solution using a manual power sprayer to both clean and apply an iron phosphate coating (without rinsing), housings are now going through the following four-step application process:

1. Foaming Soap cleaner (Marbella X)

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2. Foaming acid cleaner/phosphate coating (Fast Bond 516)
3. Non-chrome sealer (FR 220)
4. Tap water rinse

Housings that become rusty are treated with a foaming scale remover (Treadbrite).

In addition to the change apparently causing the wastewater to now contain dissolved metals to the point that you have violated your permit limits for at least zinc, it also appears to cause you to generate significantly more wastewater than when operations first began at the facility. Please note that the lack of notification to this office about these changes is a violation of Part III, Item 11 of your Indirect Discharge Permit and Ohio Revised Code 6111.45. In my previous inspection letter, I asked that you provide me notification of any changes.

To determine the appropriate monitoring frequency for your discharge, it is necessary for you to indicate approximately how much wastewater is now generated per operating day and how often you anticipate having a batch discharge. Please submit this information to me by August 20th.

Zinc Violations

The zinc violations appear to be related to changes you have made to the procedure for cleaning and coating the fan housings prior to painting as discussed above.

With the treatment system being originally designed for pH adjustment, you are planning to modify it for metals removal using batch chemical treatment. The treatment plan you provided me during the inspection calls for the following steps:

- Lower the pH to less than 5 using sulfuric acid.
- Add an acid polymer coagulant.
- Raise the pH to between 8.0 and 8.5.
- Add a polymer flocculent.
- Allow gravity separation and decant clear water to the sewer.

Settled solids are to be periodically removed from the bottom of the separation tank for off-site disposal.

I understand that you have already tested this treatment plan and that written treatment procedures are to be finalized soon. I am somewhat concerned that the plan's target pH range for precipitation may be a little low for removing zinc, but actual experience will dictate the appropriate pH for effective removal.

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Regardless of whether additional equipment (different mixers, filters, filter press, sludge storage, chemical feed pumps, etc.) will need to be installed to accomplish the specified treatment, Ohio Revised Code 6111.45 and Ohio Administrative Code 3745-42 require you to obtain a Permit to Install (PTI) for modification of the pretreatment system. The PTI application should include a step-by-step description of the treatment process. Please indicate when you plan to submit a PTI application to this office.

Sampling Documentation

When completing the chain of custody form, please include a description of where samples are collected (e.g.: sampling tap from Tank #2 decant pipe). Also, it is important to indicate what preservatives are used even if the bottles come with preservatives in them.

Please provide a written response to the issues I have raised in this letter by August 20th. If you have any questions concerning this letter or the attached inspection form, please call me at (937) 285-6095.

Sincerely,



Matt Walbridge
Pretreatment Coordinator
Division of Surface Water

MW/tf

Enclosures

cc: Ray Kimmel, Village of Covington
Ryan Laake, Ohio EPA, Central Office, DSW

ec: Doug DeJarnette, Twin City Fan



Environmental
Protection Agency

Southwest District Office

PRETREATMENT INSPECTION REPORT

PERMIT NUMBER
1DP00054*AP

FACILITY NUMBER
OHP000245

DATE CONDUCTED
June 26, 2012

INSPECTION TYPE
I

INSPECTOR
S

FACILITY TYPE
2

TIME IN
1000

TIME OUT
1200

GENERAL INFORMATION

NAME AND LOCATION OF FACILITY
**Twin City Fan Companies, Ltd.
800 High Street
Covington, OH 45318**

POTW RECEIVING DISCHARGE
Village of Covington WWTP

MAILING ADDRESS OF FACILITY
**Twin City Fan Companies, Ltd.
800 High Street
Covington, OH 45318**

MAILING ADDRESS OF CORPORATE HEADQUARTERS
**Twin City Fan & Blower Plant
3801 N. 4th Avenue
Sioux Falls, SD 57104**

CONTACT (NAME/TITLE/PHONE/E-MAIL)

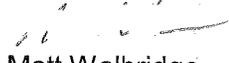
Gary Marker / Plant Manager / (937) 473-3788 / GMarker@aerovent.com

FACILITY EVALUATION (See Inspection letter for a more complete description of findings)

(S = Satisfactory, M = Marginal, U = Unsatisfactory, NA = Not Applicable)

| | | | |
|----------|---------------------------------|-----------|----------------------------------|
| S | Sampling Procedures | NA | Compliance schedule requirements |
| U | Reporting | U | Notification |
| M | Compliance with effluent limits | | Other |

Name and Signature of Inspector(s)


Matt Walbridge

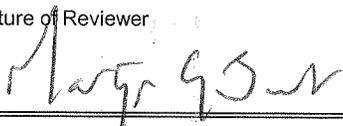
Agency / Office / Telephone

Ohio EPA / Southwest District Office / (937) 285-6095

Date

7-25-12

Signature of Reviewer



Ohio EPA / Southwest District Office / (937) 285-6034

Date

7/25/2012

INDUSTRIAL USER INSPECTION CHECKLIST

Facility *Twin City Fan*

Date of inspection: *June 26, 2012*

Permit Application Number: *OHP000245*

IDP Number: *1DP00054*AP*

Facility Representative: *Gary Marker*

Inspector(s): *Matt Walbridge*

COMPLIANCE

1. Date of last pretreatment inspection: *March 21, 2011*

2. Has the facility been in compliance with its permit limits since the last inspection? Y / N
If no, explain:

Zinc violations in April 2012.

3. Is the facility in compliance with all other requirements?
Sampling procedures Y / N / NA
Reporting (late reporting, failure to report, etc) Y / N / NA
Compliance schedules Y / N / NA
Submitted BMR and 90 day compliance reports Y / N / NA
Any other requirements Y / N / NA

If any of the above five answers is no, explain:

Did not monitor all parameters required by the permit

4. Was the facility required to perform any actions as a result of the last inspection? Y / N
Explain any unresolved actions:

FACILITY OPERATIONAL CHARACTERISTICS

5. Number of Employees: *24 in production, 32 for the whole facility*
6. Shifts/Day: *1*
7. Production Days/Year week : *208*
(4-day work week, Monday-Thursday. Friday and Saturday are for overtime)
8. Hours/shift: *10*

9. Any production changes since the last inspection? Y / N
If yes, explain:

They have changed coating operation. It is now a 5-step process involving foam cleaner, iron phosphating, sealing and rinsing

10. General facility description and operations:

Fabrication including cutting, bending, welding assembly and painting

FACILITY OPERATIONAL CHARACTERISTICS CONTINUED

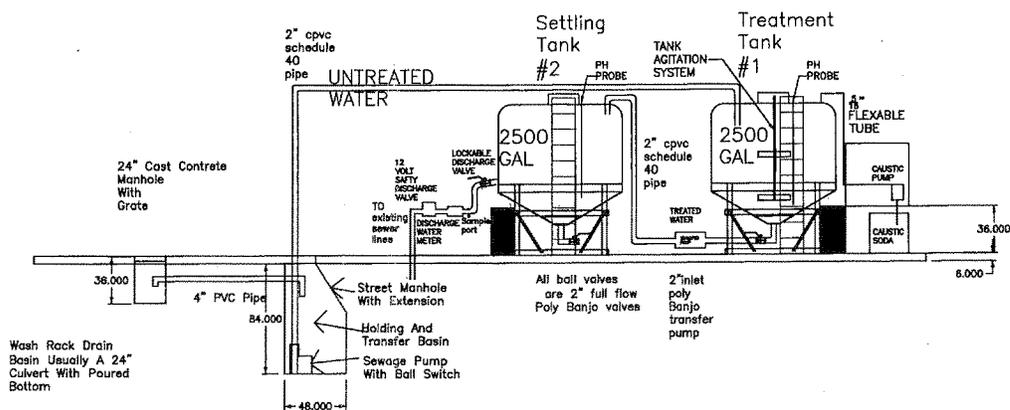
11. Any change in materials used in production since the last inspection? Y/N
 If yes, explain:

Mostly steel with some aluminum and stainless. Very little galvanized metal.

12. Any expansion or production increase expected within the next year? Y/N
 If yes, explain:

WASTEWATER TREATMENT

13. Provide a schematic diagram and description of the wastewater treatment system:



14. Was a PTI issued for the treatment system? Y/N

15. Were there any modifications to the treatment system since the previous inspection? Y/N

If yes, was a PTI obtained? **Not yet – may or may not need a PTI** Y/N

PTI Number: Date:

16. What is the treatment mode of operation? Batch / Continuous / Combination

If batch, list the frequency and duration: **pH is checked/adjusted in stage 1 tank as needed.**

17. Who is responsible for operating the treatment system?

Keith Mitchell (recently hired back) and Tom Brower

18. How often is the treatment system checked?

'As Needed' (the mixer turns on automatically when the level in the 2,500-gallon tank reaches 1,000 gallons. At this point they know to start making plans for treatment)

WASTEWATER TREATMENT CONTINUED

19. Is there an alarm system for the system? Y/N
Explain:

Level and pH alarms

20. Is there an operations and maintenance manual? Y/N

To be updated to reflect new treatment process.

21. Is an inventory of critical spare parts maintained? Y/N
If yes, list:

pH probes.

22. Are there any bypasses in the system? Y/N
If yes, describe the location:

System has a high degree of safety interlocks.

Have bypasses occurred since the last inspection? NA Y/N

Was the POTW notified? NA Y/N

23. Are residuals or sludges generated? Y/N

Method of disposal:

Recent accumulation of sludge in Settling Tank 2 as a result of new treatment being performed was to be pumped out the day after the inspection and disposed of off-site.

Frequency and amount of disposal: **Not determined – with change in operations and treatment, the rate could necessitate solids management through a holding tank or filter press.**

Name of hauler/landfill/disposal facility: **Safety Kleen**

Is any sludge generated subject to RCRA regulations? Y/N

It is unknown whether the new sludge will be a hazardous waste.

If land applying sludge, is there a sludge management plan? NA Y/N

PROCESS AND WASTEWATER INFORMATION

24. List all processes generating wastewater, current wastewater flows, and where applicable, production rates as well as values on which the permit limits are based:

| REGULATED PROCESS | SAMPLE LOCATION | WASTEWATER FLOW (GPD) | | PRODUCTION DATA (SPECIFY UNITS) | |
|--|------------------------------------|-----------------------|--------------------------------------|--|-----------|
| | | Permit | Current | Permit | Current |
| <i>Foam Cleaner, Iron Phosphate, Sealer and Rinse using a Manual Power Sprayer</i> | <i>Discharge from Stage 2 tank</i> | <i>Not limited</i> | <i>~1,750 gallons every 45 days</i> | <i>NA</i> | <i>NA</i> |
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| | | | | | |
| <i>Total Regulated Process Flow</i> | | | <i>~1,750 gallons every 45 days*</i> | <i>* This estimate was provided to me during the inspection.</i> | |
| Noncontact Cooling | | | | | |
| Boiler Condensate | | | | | |
| Reverse Osmosis | | | | | |
| Demineralizer Regeneration | | | | | |
| Softener Regeneration | | | | | |
| Filter Backwash | | | | | |
| Compressor Condensate | | | | | |
| Storm water | | | | | |
| Total of Dilute Flows | | | 0 | | |
| Unregulated Flows | | | 0 | | |
| Sanitary | | | <i>Not present at sampling point</i> | | |
| TOTAL FLOW | | | <i>~1,750 gallons every 45 days*</i> | | |

25. For the above flows not discharged to the POTW, list point of discharge and permit (if any). **NA**

SELF MONITORING

26. Sample location(s) described in the facility's permit:

"Samples shall be taken from the sampling tee of the waste water pretreatment system. Composites shall be equal aliquots pulled at the beginning, middle and end of a batch discharge."

27. Is the facility sampling at the location(s) described in the permit? Y / ~~N~~
If no, describe the actual location:

28. Is the location(s) where the facility is sampling representative? Y / ~~N~~
If no, indicate a representative location:

29. Is the flow measured or estimated? Measured / ~~Estimated~~

If measured, how often is the meter calibrated?

The meter is one that can't be calibrated. It has a dial that reads in hundreds of gallons and a counter that displays thousands of gallons. Also, the plastic holding/settling tanks are graduated.

If estimated, describe method of estimation:

30. Is pH monitored continuously? Y / ~~N~~

If yes, how often is the meter calibrated?

Once every two weeks and right before discharge.

31. Does the facility collect its own samples? Y / ~~N~~
If no, specify the sample collector:

32. Are appropriate sampling procedures followed? Y / ~~N~~
Monitoring frequencies Y / ~~N~~
Sample collection (grab for pH, O&G, CN, phenols, VOCs) Y / ~~N~~
Flow proportioned samples Y / ~~N~~
Proper preservation techniques Y / ~~N~~
Sample holding times Y / ~~N~~
Chain-of-custody forms Y / ~~N~~

33. Are samples analyzed in accordance with 40 CFR 136? **200.7** Y / ~~N~~

34. Laboratory conducting analyses:

Minnesota Valley Testing Laboratory (MVTL) in Bismarck, North Dakota

TOXICS MANAGEMENT

35. Are any listed toxic organics used in the facility? Y / N
If yes, identify organics:
'Xylo' (another name for Xylene) is used only for wiping down surfaces. I was told they hardly use it. Acetone is used in the paint booth.
36. Does the facility have a current toxic organic management plan(TOMP)? Y / N

If yes, is it being implemented? Y / N
37. Has the facility had any uncontrolled releases or spills to the POTW since the previous inspection? If yes, please explain: Y / N
38. Does the facility need a spill prevention plan or slug discharge control plan? Y / N

If yes, does the facility have a written plan? NA Y / N
39. Identify any potential slug load or spill areas: **None identified**

REQUIRED FOLLOW-UP ACTIONS

See inspection letter.

OBSERVATIONS

They had recently completed waste water treatment for metals removal using the new treatment chemicals/procedures. The waste water in Tank #2 was to be decanted to discharge on July 2nd then the remaining sludge (~1/2 tank volume) is to be pumped out for off-site disposal. Tank #2 is then to be power washed.

Tank #1 has approximately 1,600 gallons in it.

Prior to a pit transfer on June 25th, tank #1 was checked for zinc and determined to be OK (0.01 mg/l). It is unknown whether the pit wastewater contained zinc. Approximately 1,000 gallons of this waste water that was in Tank #1 (when it was full) was transferred to a portable temporary storage tank. The contents of the temporary storage tank are to be transferred back to Tank #1. With negligible solids, they said they then expect to test and discharge.

Waste water treatment was identified as being necessary when zinc monitoring in April indicated violations.

New chemicals used to clean and coat the fan housings for painting are dispensed to the power sprayer from a manifold that requires the operator to switch feed valves.

The pH probe in treatment tank #1 was being repaired.

There was a portable tank near the treatment system that was going to be used to stage waste water.

Copper in village potable water test at the tap was shown to be 0.817 mg/l.