



State of Ohio Environmental Protection Agency  
Southwest District

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Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director

March 5, 2009

Mr. Allen Brotherton  
Highland Precision Plating, Inc.  
6940 Willettsville Pike  
P.O. Box 784  
Hillsboro, Ohio 45133

**Re: Highland Precision Plating – Hillsboro - Annual Inspection & Notice of Violation – SNC Determination**

Dear Mr. Brotherton:

On February 5, 2009, I conducted the annual industrial user (IU) inspection of your facility. The facility is regulated under 40 CFR 433.17, New Source Metal Finisher. The inspection covered the plating line, the pretreatment system and the sampling location.

The facility is the same as in previous inspections. The silver cyanide plating is done approximately once a year. Business is down approximately 40% from last year. The bulk of the work being done at the facility is now tin plating. During the first half of 2008, the facility had one daily nickel violation, two violations of the monthly average limit for nickel, and one violation of the monthly average limit for zinc. One of the values was over the Technical Review Criteria (TRC) for the monthly nickel violations. Because of these nickel violations, the facility was in Significant Non-Compliance for the first half of 2008. This inspection will serve as the Notice of Violation (NOV) for these violations. There were problems related to the submittal of the eDMR report for the second half of 2008. The facility is in the process of resubmitting this data. The compliance status for the second half of 2008 will be reviewed when the revised eDMR is submitted. Because of this SNC determination, the facility will receive an overall rating of marginal.

Brief Description of Facility

Highland Precision Plating is a new source metal finisher. The facility is a job shop, and performs copper, nickel, silver, zinc, and tin plating. The majority of the work done at the facility is tin plating.

Regulated Flows and Pretreatment

The regulated flows from the facility are the various rinses from the various plating lines. There are also provisions made in the pretreatment system to dump the concentrate tanks



so they can be bled into the treatment system over time to prevent an upset. Highland Precision Plating is still doing electroless nickel plating. An evaporator unit with no discharge to the treatment system is being used for the nickel. The volume of zinc plating is down. The bulk of the work being done currently is tin plating. The silver cyanide line may be used once a year. There was no discharge from the treatment system at the time of the inspection.

### Sampling

The facility is sampling at the location specified in its indirect discharge permit. Test America is still being used as the contract laboratory. Test America also provides pre-preserved sampling containers for the self-monitoring. The following violations were noted:

<i>Parameter</i>	<i>Date</i>	<i>Reported</i>	<i>Units</i>	<i>Type</i>	<i>Permit Limit</i>
Nickel, Total	04/2008	3,880	ug/L	Monthly	2,380 ug/L
Nickel, Total	06/02/2008	4,770	ug/L	Daily	3,980 ug/L
Nickel, Total	06/2008	2,516	ug/L	Monthly	2,380 ug/L
Zinc, Total	06/2008	1,690	ug/L	Monthly	1,480 ug/L

The facility is in SNC for the Technical Review Criteria (TRC) and chronic violations of the monthly nickel limit. It appears the facility was in compliance in the sampling for August 2008, but that will be evaluated when the data is resubmitted. The facility provided the reasons for the violations, and the steps being taken to prevent them from recurring.

In addition, the facility must report any value that is below the detection limit using the code "AA" with the detection limit. For the Toxic Organic Management Plan certification, the facility should enter the code "AH" and then type the certification statement into the text box provided. These should be used immediately.

### REQUIRED ACTIONS

- 1) Highland Precision Plating must return to compliance with its discharge permit. The data for the second half of 2008 must be resubmitted no later than March 20, 2009. Compliance will be verified at that time.
- 2) Highland Precision Plating must use the correct codes for the submittal of its eDMR data. This should begin immediately. This has been spelled under the section of the report titled "Sampling".

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If you would have any additional questions regarding this report, feel free to contact me at 937.285.6108.

Sincerely,

A handwritten signature in black ink, appearing to read 'Marianne Piekutowski', followed by a horizontal line extending to the right.

Marianne Piekutowski  
District Pretreatment Coordinator  
Division of Surface Water

Enclosure

Cc: Brandon Leeth, Hillsboro  
Ryan Laake, DSW/CO



State of Ohio Environmental Protection Agency  
Southwest District Office

Pretreatment Compliance Inspection Report

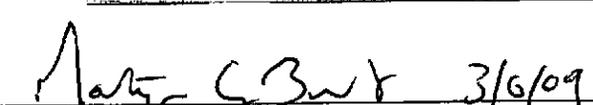
Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1DP00053 DP	OHP000074	02/05/2009	IU	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Highland Precision Plating 6940 Willettsville Pike P.O. Box 784 Hillsboro, Ohio 45133	12:30 pm	10/01/2007
	Exit Time	Permit Expiration Date
	1:30 pm	09/30/2012
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Allen Brotherton, President	937.393.9501	
POTW Receiving Discharge	Categorical Standard(s) or Other Classification	
City of Hillsboro	40 CFR 433.17	

Section C: Areas Evaluated During Inspection			
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)			
M	Pretreatment		

**Section D: Summary of Findings (Attach additional sheets if necessary)**

*See attached report.*

Inspector	Reviewer
 Marianne Piekutowski Division of Surface Water Southwest District Office Date: 3/5/09	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office Date: 3/6/09

# INDUSTRIAL USER INSPECTION CHECKLIST

Facility **Highland Precision Plating**

Date of inspection: **February 5, 2009**

OH Number: **OHP000074**

IDP Number: **1DP00008\*DP**

Facility Representative: **Allen Brotherton**

Inspector(s): **Mari Piekutowski**

## COMPLIANCE

1. Date of last pretreatment inspection: **January 30, 2008**

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

~~Y~~/N

***There was on daily nickel violation in June 2008. There were two monthly nickel violations and one monthly zinc violation during the first half of 2008. The monthly nickel violation met the definition of Significant Non-Compliance (SNC) for the first half of 2008. The facility has returned to compliance for the in August 2008, but the sampling data from October and December 2008 cannot be retrieved.***

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:

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

~~Y~~/N

## FACILITY OPERATIONAL CHARACTERISTICS

5. Number of Employees: **3**

6. Shifts/Day: **1**

7. Production Days/Year: **250**

8. Hours/shift: **8**

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

~~Y~~/N

***The silver cyanide plating is down to maybe once year. The size of the plating line has been reduced also. The electroless and electrolytic nickel is down. The facility is doing mainly tin plating. The facility doing a very small amount of zinc plating. Business is down about 40%.***

10. General facility description and operations:

***Plate electronic components, terminals, connectors, safety deposit box doors, etc. The facility is a job shop and discharges less than 10,000 gallons per day.***

## FACILITY OPERATIONAL CHARACTERISTICS CONTINUED

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

***Tin, brass, copper, steel.***

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

***Business is down about 40%.***

## WASTEWATER TREATMENT

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

***See attached schematic.***

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? Y/N

PTI Number: ***NA*** Date: ***NA***

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

If batch, list the frequency and duration:

17. Who is responsible for operating the treatment system?

***Allen Brotherton.***

18. How often is the treatment system checked?

***Several times a day when running.***

**WASTEWATER TREATMENT CONTINUED**

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

**High level alarms and pH alarms.**

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

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

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

Have bypasses occurred since the last inspection? Y/N

Was the POTW notified? Y/N

23. Are residuals or sludges generated? Y/N

Method of disposal:

**EEl landfill.**

Frequency and amount of disposal:

**This was sent out in October 2008.**

Name of hauler/landfill/disposal facility:

**Environmental Enterprises, Inc.**

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

**F006**

If land applying sludge, is there a sludge management plan? 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
1) Various Plating Line	End-of-process	-	7,800		
<b>Total Regulated Process Flow</b>			<b>7,800</b>		
Non-Contact Cooling					
Blowdown					
Reverse Osmosis					
Demineralizer Regeneration					
Filter Backwash					
Compressor Condensate					
Storm Water					
Other Dilute Flows					
Unregulated Flows (provide list)					
Sanitary			650		
<b>TOTAL FLOW</b>			<b>8,450</b>		

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

*The storm water discharge from the facility has received coverage under the "No Exposure" certification.*

**SELF MONITORING**

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

***The outfall of the wastewater pretreatment system.***

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?

***Cleaned every two weeks or so.***

If estimated, describe method of estimation:

30. Is pH monitored continuously? Y / N  
If yes, how often is the meter calibrated?

***Cleaned weekly.***

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 ***Time composited.*** 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? Y / N

34. Laboratory conducting analyses:

***Test America***

## TOXICS MANAGEMENT

35. Are any listed toxic organics used in the facility? Y/N  
If yes, identify organics:
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? Y/N
39. Identify any potential slug load or spill areas:

*The drains in the plating area all flow to the pretreatment system. Nothing can leave the facility without going through the pretreatment system.*

## REQUIRED FOLLOW-UP ACTIONS

***Highland Precision Plating must use the proper "A" codes for its self-monitoring reports. For parameters that are below the detection limit, the code "AA" must be used with the detection limit. For the Toxic Organics Management Plan, the facility should use the "AH" code and then type the TTO Certification Statement into the text box.***

***Highland Precision Plating must return to compliance with its discharge permit.***

# Highland Precision Plating Process Schematic

## Electroless Nickel

Soak Clean	Electro-clean	Rinse	Acid Pickle	Acid Rinse	Neutralizer	Ammonia Dip	Electroless Nickel	Dragout	Hot Water Rinse
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## Rack Zinc

Zinc Plate	Zinc Dragout	Rinse	Nitric Dip	Chromate Rinse	Chromate	Acid Rinse	Two Acid Tanks	Rinse	Electro-clean	Rinse	Soak Clean	Hot Water	Rack Table
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## Barrel/Rack Acid Zinc and Silver

Nitric Dip	Rinse	Chromate	Acid Rinse	Acid Pickle	Rinse	Electro-clean	Rinse	Soak Clean	Hot Water	Load/Unload Stand
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Zinc Plate	Drag-out	Counter Flow Rinse
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## Barrel Nickel

Nickel Tank	Dragout	3 Station Counterflow Rinse	Acid Rinse	Acid Pickle	Rinse	Copper Electro-clean	Steel Electro-clean	Rinse	Soak Clean	Hot Water	Load/Unload Stand
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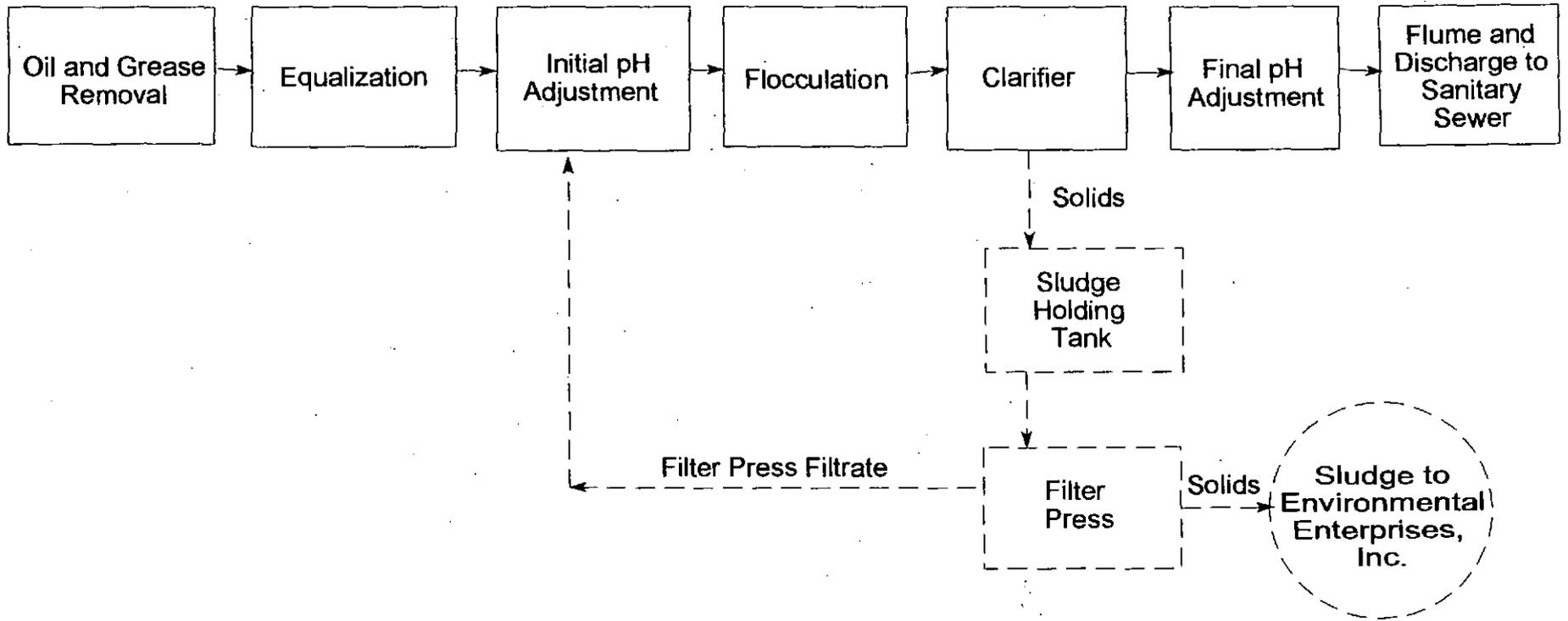
## Barrel Acid Tin

Tin Plate	Dragout	Counter Flow Rinse	Neutralizer	Counter Flow Rinse	Rinse	Acid Pickle	Rinse	Electro Clean Copper	Electro-Clean Steel	Rinse	Soak Clean	Hot Water	Load/Unlc Sta
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## Barrel Acid Tin

3 Station Tin Plate	Dragout Rinse	Counter-Flow Rinse	Neutralizer	Counter-Flow Rinse	Counter-Flow Rinse	Acid Dip	Counter-Flow Rinse	Electro-Clean	Electro-Clean	Rinse	Soak Clean	Hot Water	Load/Unload Stand
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# Highland Precision Plating Pretreatment System Schematic



February 12, 1999