

**Environmental  
Protection Agency**

Commissioner, Governor  
Lt. Governor  
Director

August 4, 2011

RE: 3DP00033\*DP  
UNITED CIRCUITS, INC.  
INDUSTRIAL USER INSPECTION  
GRAFTON  
LORAIN COUNTY

Mr. Gary W. Jump  
United Circuits, Inc.  
1000 Commerce Drive  
Grafton, OH 44044

Dear Mr. Jump:

On July 20, 2011, representatives of this office conducted an Industrial User Inspection of the above facility. The Ohio EPA was represented by Ryan Laake, Donna Kniss, William Beitel and Brittnee Halpin. Hobart Wells represented the Village of Grafton. You and Frank Schubert represented the company. United Circuits, Inc. discharges waste water to the Village of Grafton wastewater treatment plant (WWTP) and has been issued Indirect Discharge (IDP) permit 3DP00010\*DP. The purpose of the inspection was to evaluate compliance with the existing IDP.

United Circuits manufactures printed circuit boards. The company currently has four full-time employees and one part-time employee, working one shift/day five days/week. Wastewater from process operations flows through drains into a sump, and is then pumped into a 3000 gallon batch treatment tank. When 2950 gallons of water is collected, the batch is treated and then the solids are allowed to settle. The treated water is decanted through four ports on the side of the tank. Samples are collected from the discharge from each port and pH analyzed; the four samples are then composited. We discussed the need to continue to collect pH data from four samples, and determined that the pH of the composited sample should be sufficient. The gallons/day numbers reported on the discharge monitoring reports (DMRs) are determined by dividing 2950 by the number of production days.

The fourth, lowest decant port was added after the system was initially installed, and was made of flexible hose that has been significantly flattened in one area. If United Circuits plans to continue using this decant port, this flexible hose must be replaced with permanent pipe. The pH buffer solutions used to evaluate treatment tank pH values were expired; current, unexpired buffer solutions must be used.

Samples are collected by United Circuits personnel and are analyzed by North Coast Environmental. Sample bottles and a cooler are provided by North Coast. The sample bottles for cyanide and metals, containing caustic and nitric acid as preservatives, were stored in a refrigerator with food, which is unacceptable for both sample integrity and

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worker safety. A review of the chain-of-custody (COC) forms showed that the "received by" and "relinquished by" data was not complete, or there was a significant time discrepancy, indicating that there were periods when the sample integrity could be compromised. Our discussions during the inspection seemed to indicate that the samples remain controlled, but the COCs do not reflect that.

A review of the discharge monitoring report (DMR) data showed that United Circuits has not submitted DMRs since November 2009. During the inspection, you indicated that there were problems with data submission, but that United Circuits had continued collecting samples. You provided copies of the North Coast reports for samples taken on January 10, 2010, February 18, 2010, May 10, 2010, January 13, 2011, February 22, 2011, and May 11, 2011. All sample results were in compliance with IDP permit limits. I believe that you had the second half 2010 data and inadvertently omitted providing a copy; you can either provide hard copies to this office, or ensure that the data has been successfully submitted through eDMR.

You indicated that spent etchant is returned to the manufacturer, and that sludge from the pretreatment system is managed as a non-hazardous waste. United Circuits should evaluate its records to ensure the characterization and disposition of all waste streams is fully documented and the records easily accessible.

Please respond within 30 days of the receipt of this letter, documenting the steps that will be taken to address the issues identified above. If you have any questions or comments, please contact me at (330) 963-1285. I can also be reached via e-mail at [donna.kniss@epa.state.oh.us](mailto:donna.kniss@epa.state.oh.us).

Sincerely,



Donna J. Kniss  
District Engineer  
Division of Surface Water

DJK/mt

pc: Hobart Wells, Grafton WWTP  
Ryan Laake, Ohio EPA, CO, DSW

ec: Chuck Allen, Ohio EPA, NEDO, DSW

File: Pretreatment Industrial User/Permit-Compliance