DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

P090643672

FACILITY: Kro-Pro		**SRN / ID:** P0906
LOCATION: 1004 East Broadway Avenu, NORTON SHORES		**DISTRICT:** Grand Rapids
CITY: NORTON SHORES		**COUNTY:** MUSKEGON
CONTACT: Jake Krol , President		**ACTIVITY DATE:** 03/07/2018
STAFF: Chris Robinson	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:**
SUBJECT: FY '18 on-site inspection to determine the facility's compliance status with applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

On March 7, 2018 AQD staff Chris Robinson (CR) conducted a scheduled unannounced on-site inspection of Kro-Pro, LLC. to determine the facility's compliance status with applicable air quality rules and regulations.

Kro-Pro is located at 1004 East Broadway Avenue, in Norton Shores, Michigan. AQD staff CR arrived at this location at approximately 12:45 pm and met with Mr. Jake Krol, President. CR provided Mr. Krol with proper AQD credentials and informed him of AQD's intent to perform an inspection of the facility. Mr. Krol provided a tour of the facility as well as pertinent information. No visible emissions or odors were observed.

Weather conditions on March 7, 2018 were approximately 30°F cloudy with North-Northwest winds at approximately 15 mph.

Facility Description

According Kro-Pro's website (https://www.kropromi.com/about/) and confirmed during the inspection process, Proctors Custom Chrome Plating (Proctors) began operations in this location in 2014 and sold to the current owners, which includes Mr. Krol, in January 2017. Mr. Krol has been with this facility since 2007. Kro-Pro, is a plating facility specializing in deburring, snag grinding, polishing, buffing tumbling services, decorative copper plating, decorative nickel plating, and decorative hexavalent chrome plating.

Processes at this facility take place primarily in three different areas of the building which include the Plating Room, the Stripping Room, and the Polishing room. The tanks consist of various types of poly tanks, primarily 15 -55 gallon poly drums. Some metal tanks are utilized in the stripping room.

Plating room processes (**Picture 1)** include Pickling, Copper, Nickel and Chrome Plating operations. All the plating lines start with a sodium hydroxide cleaner and are configured in the following manner:

Cleaner (Sodium Hydroxide, 130°F-150°F) >>

Pickling Line:
Pickling Tanks (30%HCL or 10% Sulfuric Acid, Room Temp) >> 3 Rinse Tanks (Room Temp Water)

Copper Line:
Cyanite Strike (110°F) >> (Sodium cyanite or Copper Cyanite) >> 3 Rinse Tanks (Room Temp Water)

Acid Copper (Room temp) >> 3 Rinse Tanks (Room Temp Water)

Nickel Line:
Index Brite(~130°F) >> Rinse

Hexavalent Chrome Line:
Chrome (110°F with Fume Suppressant Added) >> 3 Rinses (Room Temp Water)
*300amps for 3 minutes/per load

Stripping room operations (**Picture 2**) consists of Nickel, Caustic, Rust and Chrome. These processes include electrolytic and non-electrolytic stripping Methods. Chemicals/Processes associated with these operations are as follows:

Nickel Strip (60% Sulfuric Acid 40% Water, Room Temp)
Caustic Soda Strip for Aluminum (Caustic & Water)
Rust Strip (50% HCl & 50% Water) – These components are mostly sent out for blasting.

Chrome strip includes one large heated metal tank and one small non heated poly tank (Used Sodium Hydroxide from the initial plating line processes)

Processes in the Polishing Room consists of polishing, sanding and grinding which exhaust to an internally vented dust collector. This equipment appears to be exempt per Rule 285(2)(l)(vi)(B). Per Mr. Krol, electropolishing is also conducted in this room which appears exempt per Rule 285(2)(r)(vi).

Compliance Evaluation

Permit to Install (PTI)
Krol-Pro currently does not operate under any AQD issued permit to Install (PTI) and the equipment is not considered to be grandfather since it was installed after 1967. Per discussions with Mr. Krol, Mr. Krol was not aware of any air quality rules or regulations. CR informed Mr. Krol of Rule 201 requirement which states "*that a person shall not install, construct, reconstruct, relocate, or modify any process or process equipment, including control equipment pertaining thereto, which may emit a pollutant, unless a permit to install that authorizes such action is issued by the department, considered to be grandfathered or exempt*".

Emissions from the stripping line are vented directly through an external wall vent (**Picture 2**). Therefore, this equipment is subject to Rule 201 permitting requirements.

Chrome NESAHP (40 CFR 63, Subpart N)
Kro-Pro appears to be subject to the Chrome NESHAP. This facility only uses a fume suppressant for controlling emissions and is subject to the following requirements:

- **Work Practice Standards** (Operation and Maintenance Plan)
- **Monitoring** requirements are control specific. Kro-Pro does not operate any type of scrubber and only uses a Wetting agent-type fume suppressant. This requires the facility to initially monitor surface tension once every four (4) hours of operation with either a stalagmometer or a tensiometer as specified in Method 306B. The frequency may be extended to 40 hours of operation if there are no exceedances during 40 hours of tank operation.
- The following **Records** are required to be completed and maintained:
  - Inspection Records
  - Maintenance Records
  - Malfunction Records
  - Performance Test Results
  - Monitoring Data
  - Excess Emission Records
  - Process records which include:
  - Operating time for each chromium electroplating tank.
  - Date and time fume suppressants are added.
- **An Ongoing Compliance Status Report** is required to be completed annually.

In addition, new chromium electroplating tanks with an initial startup after January 25, 1993, are required to comply with the Chrome NESHAP immediately upon startup. This facility began operations in approximately 2014 as Proctors; therefore expected to be in compliance with these requirements.

The only control for emissions utilized on the chrome plating tank is a fume suppressant. According to Mr. Krol, the facility began using a new fume suppressant in approximately June 2017. SDS's for both fume suppressants and chrome were provided and are included in **Attachment A**. The Chrome NESAHP prohibits the use of PFOS based fume suppressants. The SDS for Kro-Pro's current fume suppressant (Top Shut XO) identified a Fluorine type surface active agent and a Chemical Abstract Service (CAS) number listed as "Trade Secret". CR contacted the manufacturer (Okuno Chemical Industries) and is waiting for more specific chemical information. Kro-Pro also provided an SDS for the fume suppressant they used prior to June 2017. It was identified as BROCO CMS-N2 and contains Polyfluorosulfonic Acid. No cas number was provided so CR contacted the manufacturer, Broco Products Inc. The cas number, 27619-97-2, was provided by phone and identified as being discontinued. Based on information known about the BROCO CMS-N2 suppressant and considering that the CAS numbers do not match the cas number of PFOS (1763-23-1), at this time this product is not considered to be in violation of Subpart N for containing PFOS. Compliance with this requirement for the Top Shut XO fume suppressant is unknown at this time.

Per discussions with Mr. Krol, Mr. Krol was unaware of any Chrome NESHAP requirements and could not provide any required documentation and/or records. Mr. Krol indicated that titrations of the chrome tank are collected and sent to a laboratory for analysis. Surface tension is not measured either by a stalagmometer or tensiometer as required in the Rule. Operating hours of the chromatic acid plating line are not being tracked, dates and amounts of suppressants are not being recorded and no stack testing has been completed. Kro-Pro does not have an O&M plan nor have any Annual Compliance Status Reports been completed or available.

Except for the attached Safety Data Sheets, Mr. Krol could not provide any required records during the inspection nor in response to a follow-up email CR sent on March 12, 2018 requesting any available records. Correspondence is included in **Attachment B**.

Plating & Polishing NESHAP (40 CFR, Subpart WWWWWW)
Per discussions with Mr. Krol, electropolishing is conducted at this facility which may be subject to the plating and polishing NESHAP. However, the AQD is not delegated for this NESHAP at this time and this equipment appears to be exempt from Rule 201 permitting requirements per Rule 285(2)(r)(vi).

Compliance Determination
Mr. Krol indicated that he was unaware of any air quality Rules and Regulations but mentioned that the facility, under the previous owner, was operated under a laboratory/research exemption. CR presented the NESHAP Subpart N definition of a laboratory/research facility to Mr. Krol and Mr. Krol confirmed that they do not meet the requirements of a laboratory/research facility, which CR agrees with.

Staff of the former Proctors facility was informed by the AQD on September 8, 2008 and October 10, 2010, of several air pollution regulatory requirements pertaining to metal finishing operations, which included a Permit to install, 40 CFR 63 subpart N and 40 CFR Subpart WWWWWW. This email correspondence is included in **Attachment B.**

Based on the observations made at the time of this inspection, the facility does not appear to be in compliance with the Chrome NESHAP or Rule 201 requirements. A violation notice will be issued.

List of Attachments
Attachment A - Safety Data Sheets
Attachment B - Correspondence

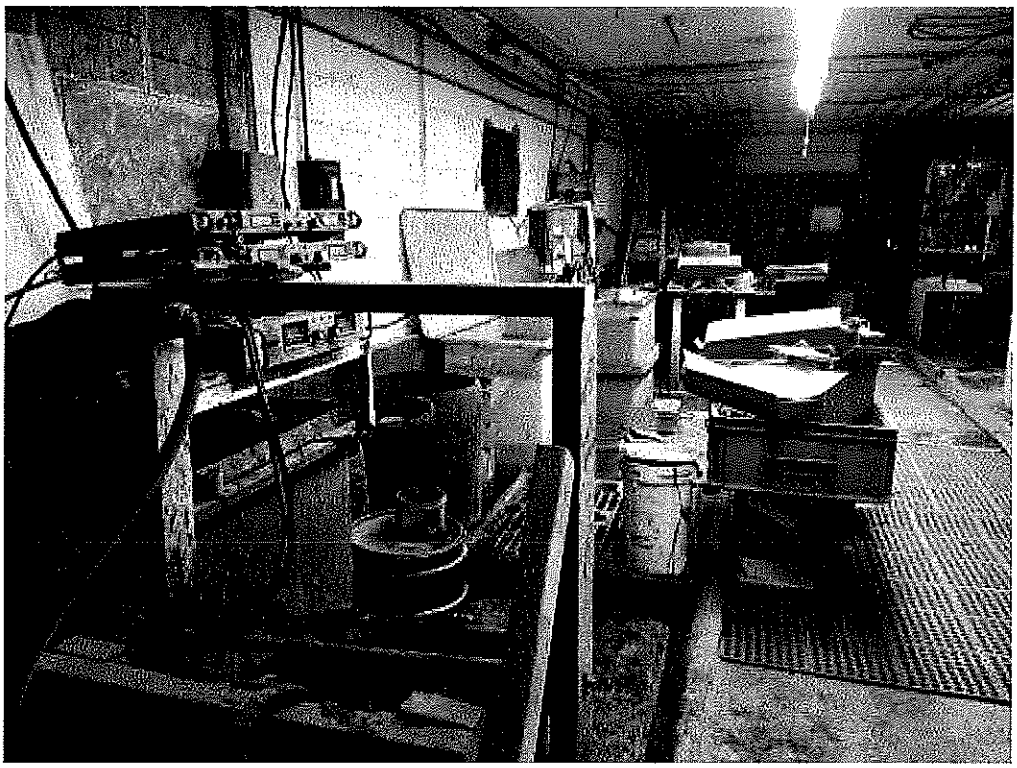

Image 1(Kro-Pro) : Plating Room

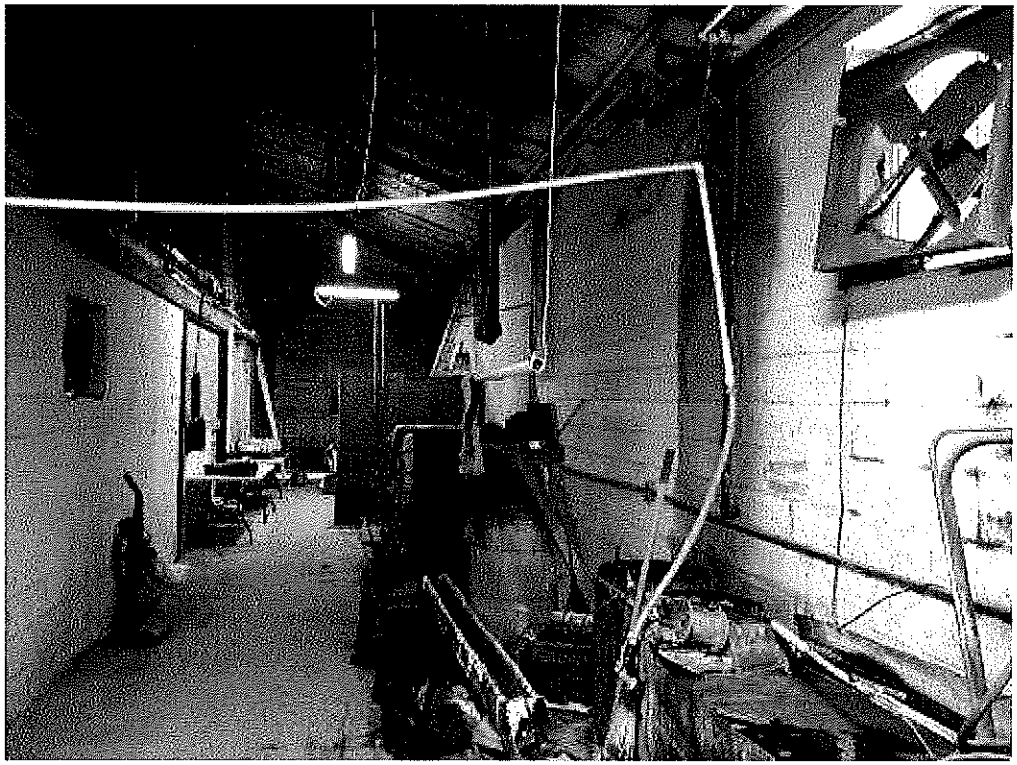

Image 2(Kro-Pro) : Stripping Room

NAME _____ DATE 3/28/2018 SUPERVISOR _____