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

P010747074

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| **FACILITY:** Condat Corp | | **SRN / ID:** P0107 |
| **LOCATION:** 250 South Industrial Dr., SALINE | | **DISTRICT:** Jackson |
| **CITY:** SALINE | | **COUNTY:** WASHTENAW |
| **CONTACT:** Brant Shimko , Technical Manager | | **ACTIVITY DATE:** 11/16/2018 |
| **STAFF:** Mike Kovalchick | **COMPLIANCE STATUS:** Non Compliance | **SOURCE CLASS:** MINOR |
| **SUBJECT:** Unannounced compliance inspection. | | |
| **RESOLVED COMPLAINTS:** | | |

**Minor Source:**

**Facility Contacts**

Brant Shimko-Technical Manager

Phone 734-915-7687 bshimko@condatcorp.com

Katelyn Staley-Lab Technician

Phone 734-944-4994 ext. 101

**Purpose**

On November 16, 2018, I conducted an unannounced compliance inspection of Condat Corporation (Company) located in Saline, Michigan in Washtenaw County. I was accompanied by Stephenie Weems with the AQD Jackson District Office. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules.

**Facility Location**

The facility is located in a commercial business park in Saline. See attached aerial photo.

**Facility Background**

The facility was last inspected on 12/18/2013 and found to be in compliance. This facility manufactures various industrial lubricants, both "wet" and "dry" for use as release agents in foundries, metal wire drawing, specialty chain oils, drilling lubricants, etc. These lubricants are produced from mixtures of sodium and calcium base chemicals and fatty acids, such as stearic acid/ester which are heated up to 450 deg. F. to form various soaps, including graphite-based soaps. Some of these compounds are mixed in dry mixers, with associated particulate emissions being picked-up at various mixers and transfer points and evacuated to baghouses.

The manufacturing process consists of four mixers and two processing lines for their dry lubricant products. Two mixers and one processing line are dedicated to their sodium stearate-based products. The first mixer has a 5,000-pound capacity, the other a 2000-pound capacity. The other two mixers and processing line are dedicated to their calcium stearate-based products. Both calcium mixers have a 1750-pound capacity. They use two different pollution control systems to control the dust. The mixers are ventilated to a 2 cyclone/baghouse combined system manufactured by ACT Inc. The processing lines are ventilated to a cartridge style baghouse manufactured by MAC Equipment.

Cyclones are used on the mixers to remove moisture from the product being manufactured. There are 2 cyclones, one that is 44" to remove large particulate and moisture, the other a 30" high efficiency cyclone to remove finer particulate and the remaining moisture. From there, it goes into the baghouse for final filtering.

The processing lines are controlled using a baghouse style dust collector. During processing, the intermediate product is either milled or sifted to achieve specific grain size distribution. Dust generation points have been isolated to ensure the ductwork maintains adequate suction at these points.

Currently, the two processing lines are controlled by one baghouse but historically by 2 separate baghouses and

will be returned to 2 separate baghouses soon. The processes are heated up using a 800K Btu/hour natural gas fired boiler using a recirculating heat transfer fluid called Paratherm as the medium that actually heats up the chemicals.

**Regulatory Applicability**

The Company has been using Rule 290/291 permit exemption rules to operate their chemical/mixing processes.

40 CFR Part 63 Subpart VVVVVV National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources does not apply as the mixing processes don't meet the definition of a chemical manufacturing process unit (CMPU) as defined in this federal regulation.

Rule 282 (2) (b) (i) permit exemption rules that applies to an 800K BTU/hour natural gas fired boiler.

Various parts of Rule 282 (2) permit exemption rule applies to several chemical storage tanks due to the low volatility of the compounds.

**Arrival & Facility Contact**

Visible emissions or odors were not observed upon our approach to the Company's facility. We arrived at 9:30 am, proceeded to the facility office to request access for an inspection, provided our identification and spoke with Brant Shimko. I informed him of our intent to conduct a facility inspection and to review the various records as necessary.

Brant extended his full cooperation and fully addressed my questions.

**Pre-Inspection Meeting**

Brant outlined that the Company currently has 63 employees and operates from 6:00 am to 10:30 pm generally 5 days a week. They have plans to expand their operations with construction starting in January and should be completed by March.

**Onsite Inspection**

Brant gave us a tour of the facility. A moderate chemical odor was prevalent throughout the facility. (Brant said the odor was coming from the fatty chemicals.) He first showed us the baghouse used to control their 4 mixers. It is proceeded by 2 small cyclones connected is series. See attached photos. The baghouse does not have a pressure drop gauge on it. Brant indicated that they have a company that services the baghouse once a month. Next, he showed us the dry baghouse used to control their 2 processing lines. See attached photos. The magnehelic gauge was showing a pressure drop of 6" across the baghouse which Brant described as normal. (Note: Both baghouse exhaust system exited vertically through the roof. The stacks were not visible outside from the parking lot and a roof inspection was not conducted due to weather conditions.) We exited the bay with the control equipment and entered an adjacent bay with the chemical process equipment. It looked like several mixing vats that had an associated ventilation system that exited through a wall into the adjacent bay with the baghouses. See attached photos. The floor was covered with a layer of dust. I noted a large bay door adjacent to this that I pointed out to Brant. He did indicate that the bay door needs to be kept closed as the building draft can potentially blow the dust out the bay door. It can become a problem in the Summer time when workers want to open it to provide additional airflow into the very hot process bay. Brant indicated that there are no chemical reactions going on. Rather, it is a simply mixing of ingredients together at relatively high temperature to make their product. Near this area was a natural gas fired boiler that uses a recirculating heat transfer fluid to heat the mixing vats. See attached photos.

We walked through additional areas of the plant that contained other processes that appeared to not vent emissions or that were tied into the baghouse collection systems. There were also several large storage tanks containing caustic and other chemicals with little or no vapor pressure, so they contained no external venting system. There was also a large bay containing a lot of totes containing various chemicals. See attached photos.

**Recordkeeping/Permit Requirements Review**

Attachment (1) includes 3 test summary sheets provided during the inspection from stack testing conducted back in 2014 for the sodium and calcium processes where emissions at that time exited either through a wet scrubber

or baghouse.

Attachment (2) is a Rule 290 permit exemption demonstration provided by the Company via email on November 27, 2018 for the cyclones/baghouse emission unit and the dry baghouse emission unit. The Company used previous stack testing data and potential to emit calculations in attempt to show compliance with this rule. (This approach falls under Rule 291.) Furthermore, previous stacking test may not be representative of actual emissions since all the control equipment has been reconfigured and production levels have generally increased. Material usage records were not provided nor is there any indication that the compounds that were tested for in the stack tests represent potential emissions from the chemical formulations that are being used today. Based on the information provided, the Company also doesn't meet Rule 291 (2) (a) as potential emissions exceed 0.12 tons per year of certain toxic air contaminants including acetaldehyde, ethylbenzene, acrolein and formaldehyde (Potential 0.14 tons/year.)

**Post-Inspection Meeting**

We held a brief post-inspection meeting with Brant. Katelyn Staley, a lab technician for the Company was also in attendance. I requested that they submit records that showed compliance with Rule 290. We thanked Brant and Katelyn for their time and cooperation, and we departed the facility at approximately 11 am.

**Compliance Summary**

The Company did not provide adequate calculations/records to demonstrate that they could comply with Rule 290 or Rule 291 permit exemptions rules; therefore the Company is out of compliance with Rule 201-No Permit to Install for the mixer emission unit and the 2 processing lines emission unit.

The Company will be sent a Violation Notice (VN) that outlines the above allegations and will be given 21 days to respond.

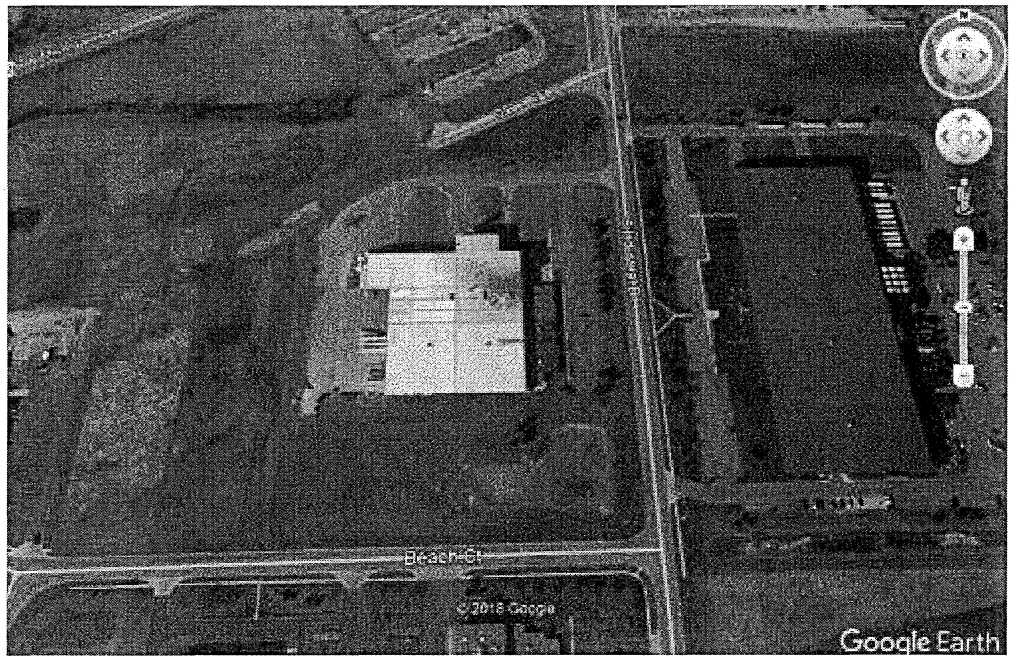
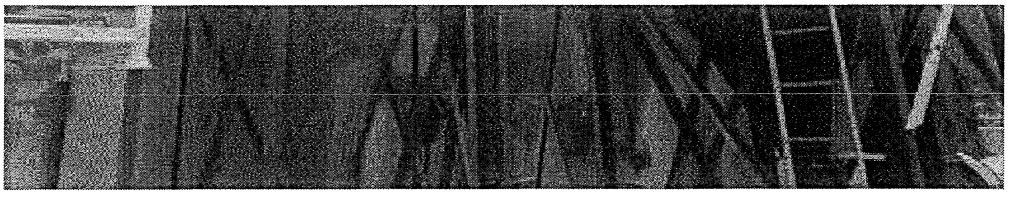
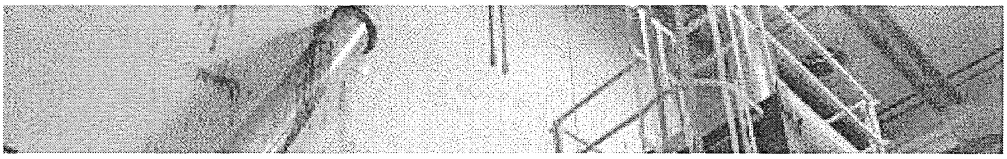



**Image 1(Aerial photo) :** Aerial photo.





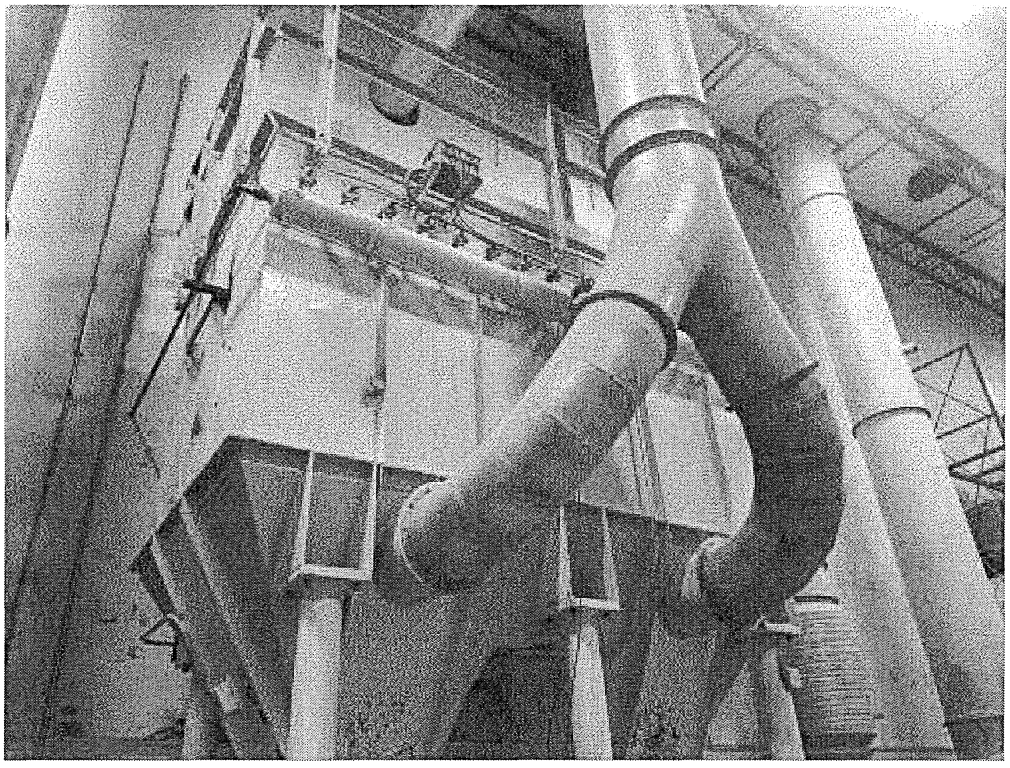


**Image 3(Baghouse) :** Baghouse that control 2 process lines.

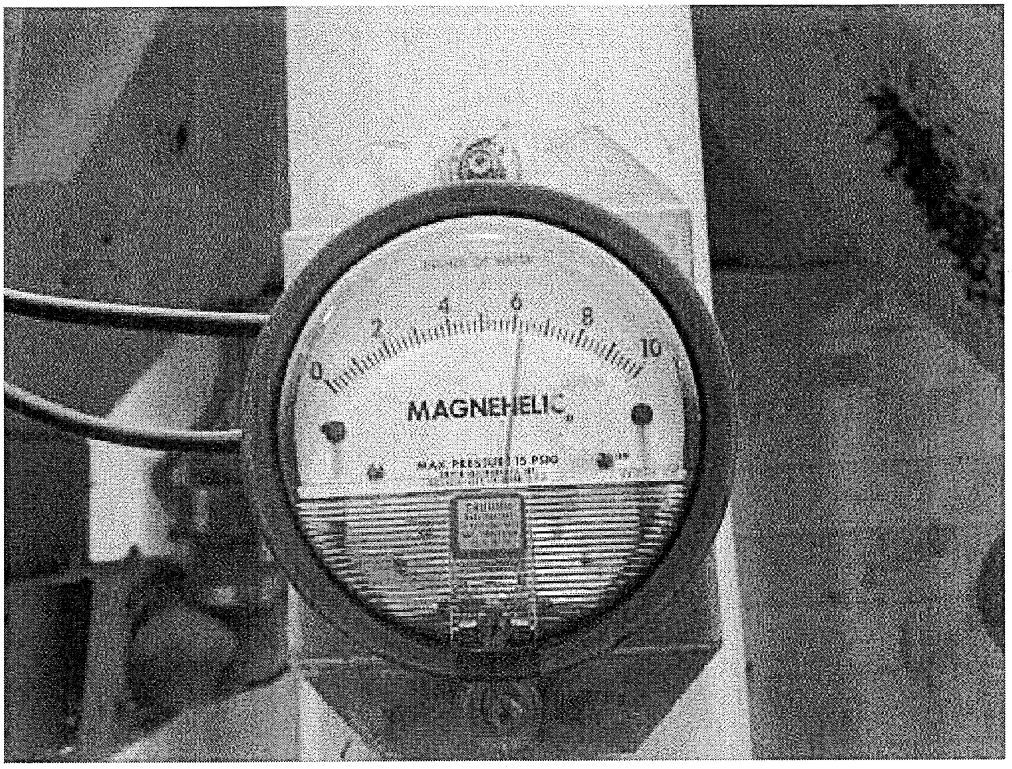



**Image 4(Magnehelic) :** Magnehelic pressure gauge.

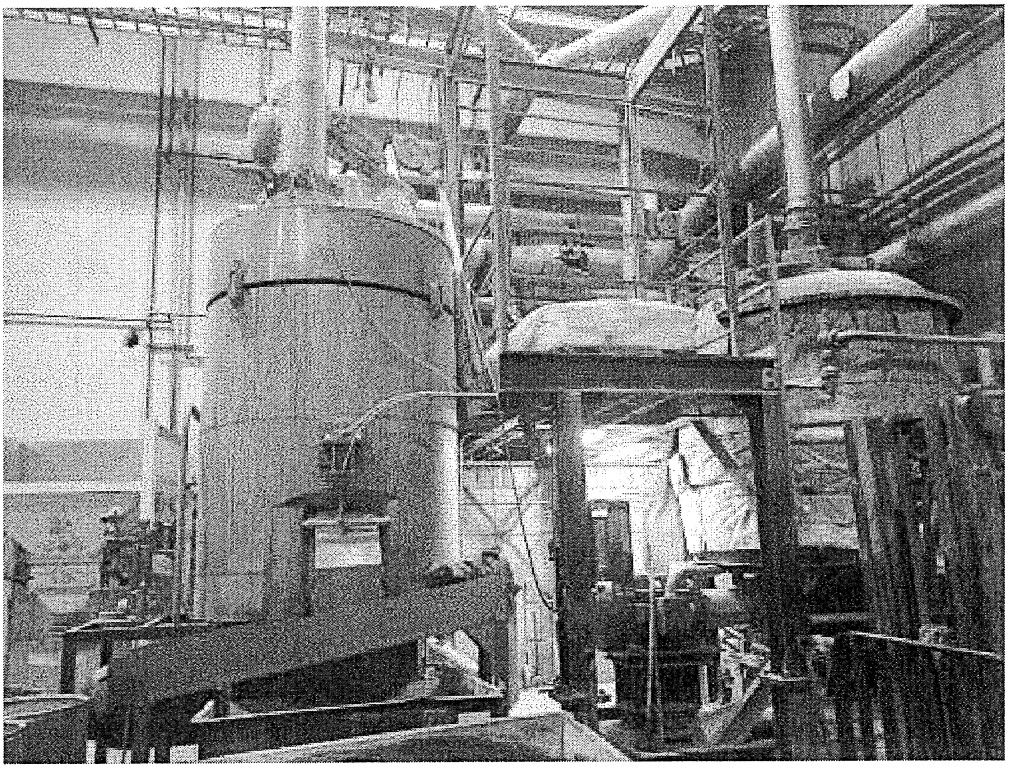


**Image 5(Mixers) :** Mixers and associated ventilation equipment.

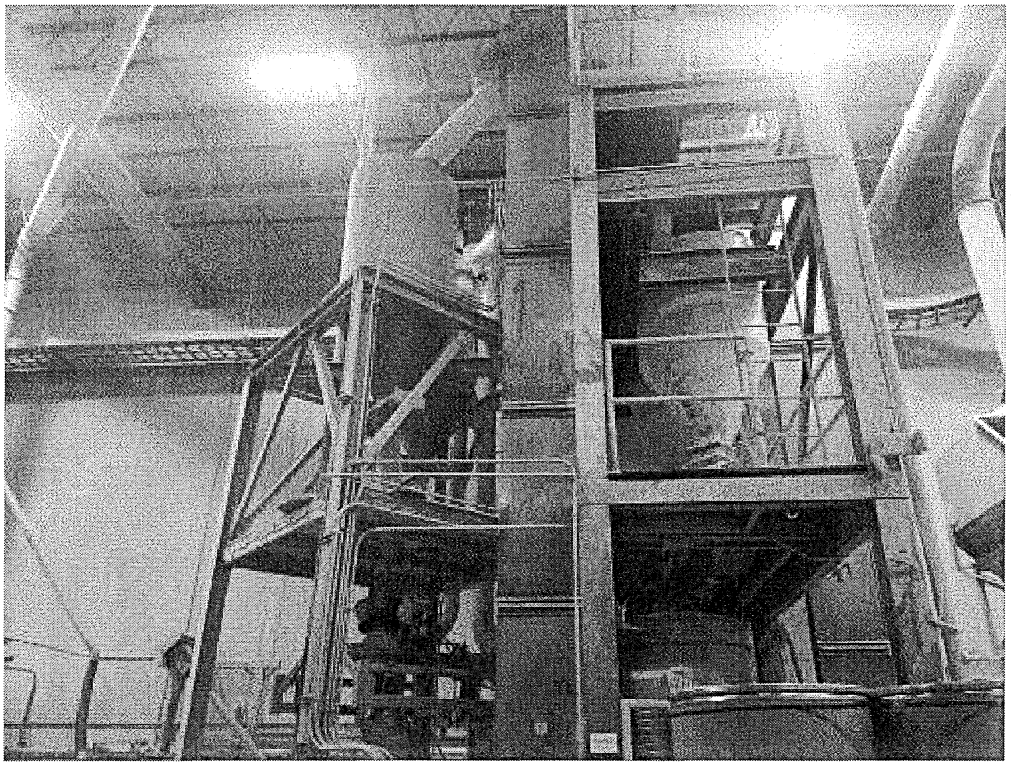


**Image 6(Process equipment) :** More process equipment and associated ventilation equipment.

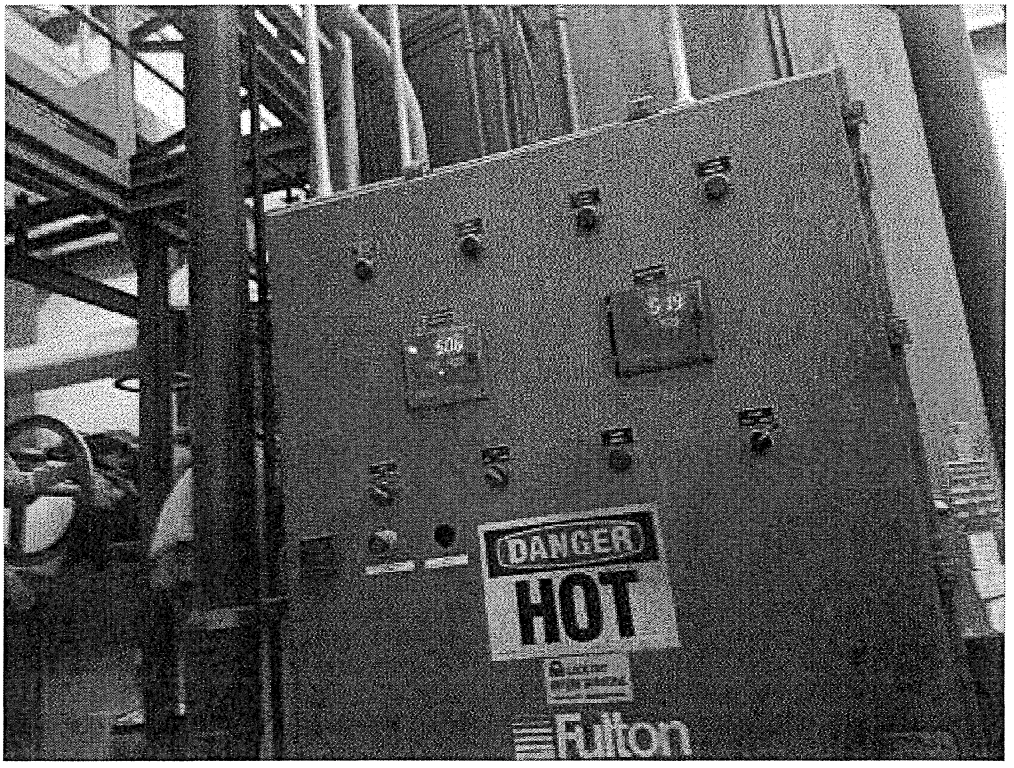



**Image 7(Boiler) :** Natural gas fired boiler.

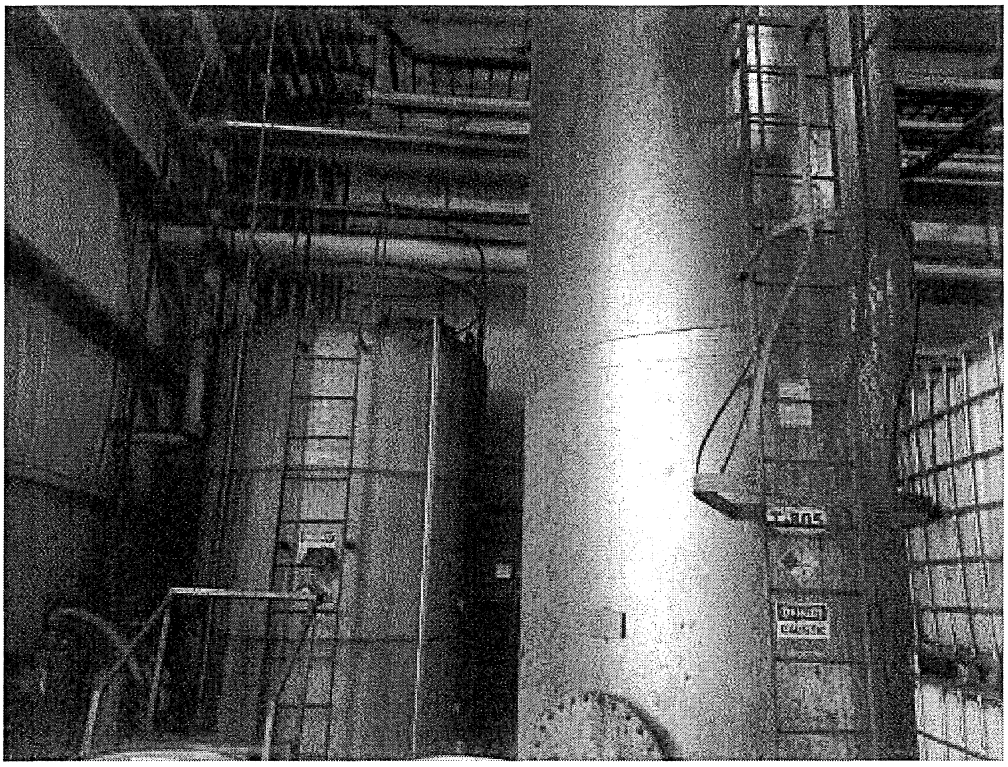


**Image 8(Caustic tank) :** Caustic tank

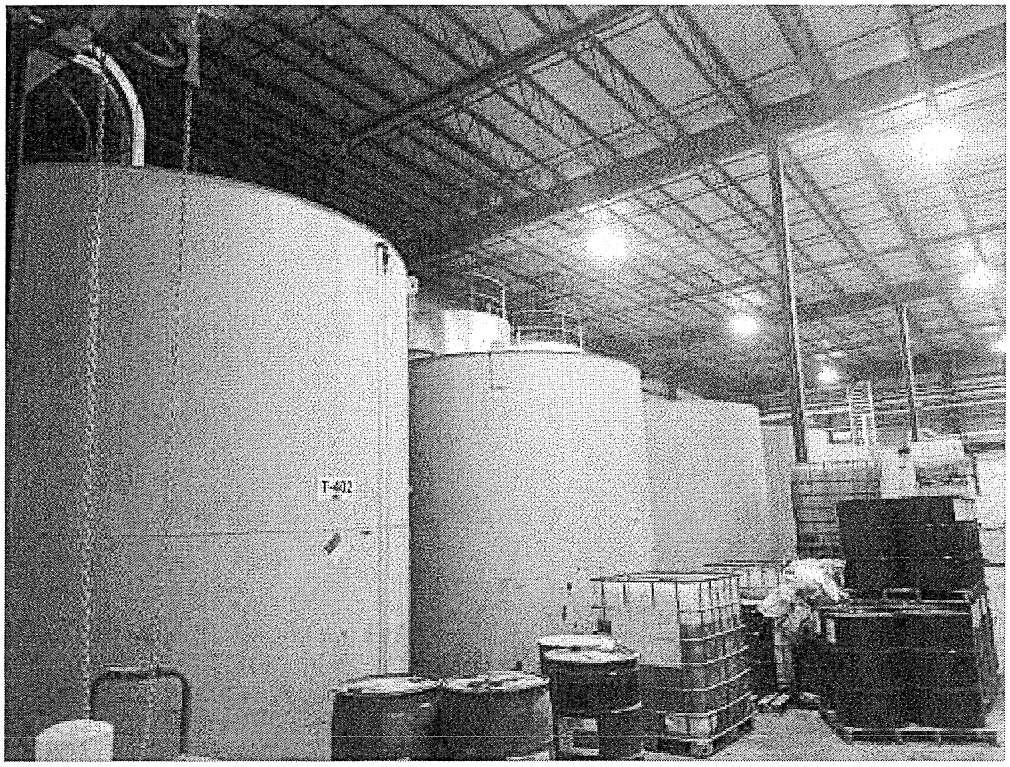



**Image 9(Chemical storage) :** Chemical storage.

NAME M. Kowalchuk DATE 11/28/2018 SUPERVISOR