

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

N187247771

FACILITY: Southern Lithoplate Inc.		SRN / ID: N1872
LOCATION: 4150 Danvers Court SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Cory Kirkbride ,		ACTIVITY DATE: 01/09/2019
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, scheduled inspection and met with Cory Kirkbride, Facilities Staff.

FACILITY DESCRIPTION

Southern Lithoplate conducts an electrochemical anodizing and graining process for lithographic plates on aluminum coil. The pre-treatment process and the coating process is included in Permit to Install No. 37-06A. While there are two separate lines covered in the permit, only Line #3 is currently operational and there are no current plans for Line #2 to be put back in service.

The rolls of aluminum are unwound, and the sheet is pulled through tensioners and to the process. The thin sheet of aluminum travels through the FG-TANKS which is pre-treatment using solutions including acids and rinses to prepare the aluminum to receive the coating. The aluminum sheet then goes through the first coater that uses a solvent based coating. This coating application area is enclosed and vented to a regenerative thermal oxidizer (RTO). The aluminum sheet travels through ovens and is coated again with a water-based coating that is not vented to a control device. The finished product is used as lithographic plates.

COMPLIANCE EVALUATION

Permit to Install No. 307-06A

FG-TANKS

The tanks in the flexible group continue to operate as permitted with a limit on the acid emissions of 6.0 tons per year based on a 12-month rolling time period intended to include controlled emissions from both Line #2 and Line #3. Acid emissions are being calculated properly with a reported 142.646 pounds per month, and 0.86 tons per 12-month rolling time period. Line #2 is permanently out of service.

During the inspection, I did not observe any improper disposal practices at the facility. The Malfunction Abatement Plan is dated March 25, 2011 and AQD staff will request that the document be updated. Currently, the facility is not conducting all of the proper maintenance activities as specified in the plan. Specifically, the requirements for monitoring the scrubber are not being documented as frequently as the plan specifies. During the inspection, I identified that the scrubber inlet ductwork had been leaking acid water onto the concrete pad below. This was evidenced by the destruction of a portion of the concrete that was visibly wet as the acid water was continuously dripping down. This is process moisture condensing prior to the control device. I pointed out that a storm drain was nearby as well. The leak and damage were pointed out to Mr. Kirkbride who took immediate action to address the problem. He called a contractor who came the next day to repair the leak in the stack. (see attached email and photos)

FG-COATERS&OVENS

This flexible group has a VOC limit of 15.5 lb/hr which is a limit intended to include controlled emissions from Line #2 and Line #3 as well as the uncontrolled emissions during bypass when applying a water-based coating with a VOC content of 0.5% by weight or less. The testing/monitoring method to demonstrate compliance with this lb/hr limit is stack testing. As previously noted, Line #2 is permanently out of service. A stack test was conducted in 2011 with a reported lb/hr emission rate of 0.094.

The permit also limits total VOC to 66.0 tons per 12-month rolling time period as determined at the end of each month. The reported 12-month rolling emissions for a time period of January 2018-December 2018 are 10.818 tons. There is a material limit for VOC of 0.5% by weight for waterborne coatings used during RTO bypass. A detailed review of materials was conducted, and much of that information is proprietary due to the formulation data needed to verify ingredients. The results of the review indicate that the coatings used on coater #2 of Line #3 that bypass the RTO have a VOC content less than 0.5% by weight as required.

During the inspection, I did not observe any improper disposal practices at the facility. The Malfunction Abatement Plan is dated March 25, 2011 and AQD staff will request that the document be updated. The plan is not prescriptive enough with regard to inspections of the RTO. A recent RTO malfunction occurred that completely took the unit out of service. Proper preventative maintenance could have prevented this failure. The plan also states that "in the event of a major malfunction that could potentially damage the RTO control system, the control system may be bypassed to ensure operational reliability of the system". This statement is in direct conflict of the permit requirement that states, "The permittee shall not operate FG-COATERS&OVENS unless the RTO is installed, maintained and operated in a satisfactory manner, unless waterborne coatings with VOC content of <0.5% by weight are used."

Due to the lack of maintenance on the RTO and the scrubber a violation of Rule 910 has been identified for failure to maintain the control equipment at the facility. A Violation Notice will be issued.

It was learned during the inspection that the RTO was in-operable and the line continued to operate. The dates of the occurrences were from October 22-25 2018 resulting in 1,981.22 pounds of uncontrolled emissions and from December 17, 2018 to January 2, 2019 resulting in 5,961.17 pounds of uncontrolled emissions. Continuing to operate the coating line without the control device is a violation of Permit to Install No. 37-06A, Special Condition IV.2.

Facility staff had the Adwest RTO service staff come out to trouble shoot the unit. I requested a copy of the report, which was received. The report indicated that there were 5 items of suggested maintenance, with number one being that the tadpole seals need installation ASAP on the hot gas bypass and the that the unit's media was low and as a result, the temperature probes were exposed.

The facility recordkeeping was extensively reviewed, and is unnecessarily complex, however the format is specifically allowed by the permit. Mr. Kirkbride indicated that he is considering changing the recordkeeping format to a simpler mass balance approach. There were no deficiencies identified in the recordkeeping, and Mr. Kirkbride and I spoke so that I could receive clarification on areas as needed.

SUMMARY

Southern Lithoplate, Inc., was in non-compliance at the time of the inspection. Records are attached, and some of the formulation data is confidential and has been placed in the confidential file.

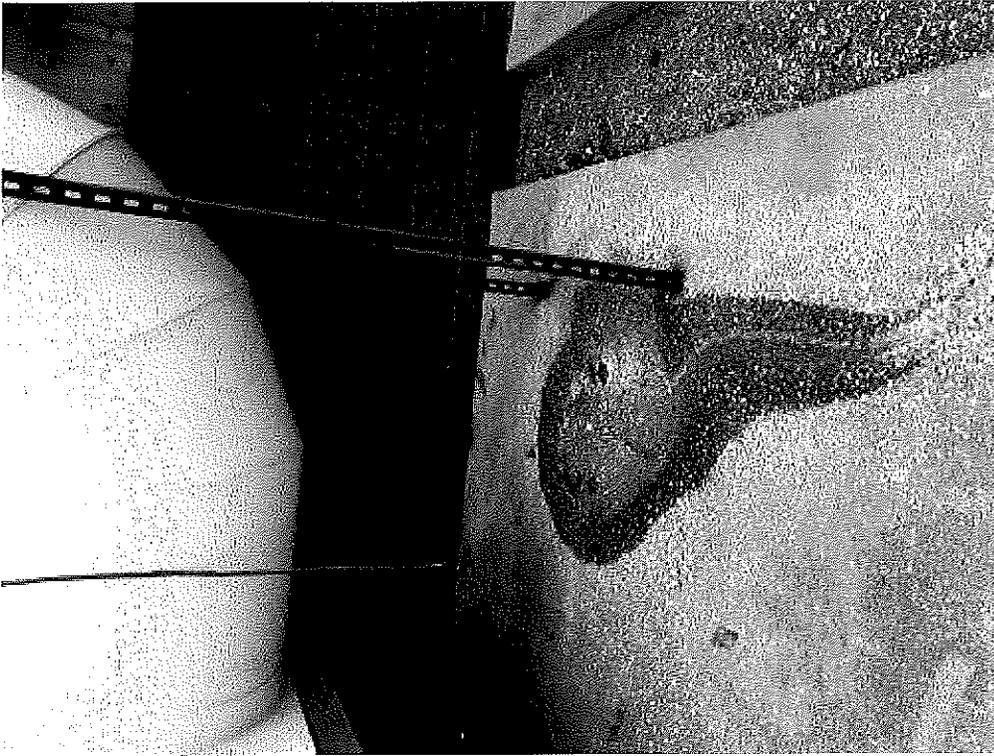


Image 1(Scrubber leak) : Leak of acid water from inlet duct, pre-control.

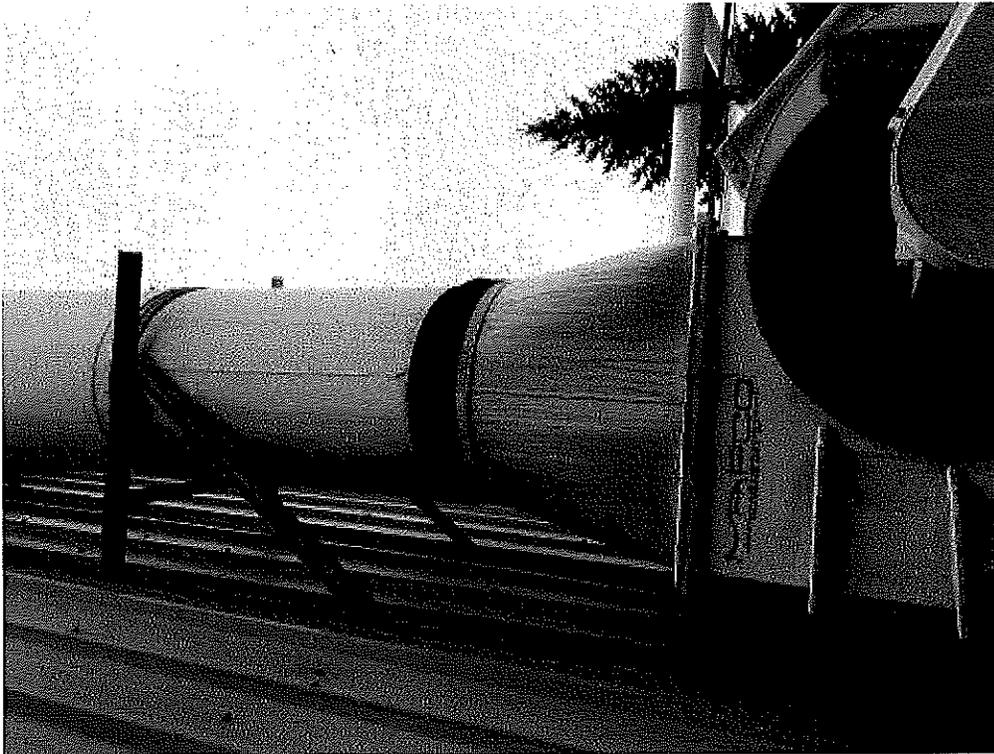


Image 2(Scrubber stack) : Scrubber stack.

NAME April Longman

DATE 2-8-19

SUPERVISOR [Signature]