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

N545942939

FACILITY: SAGE CONTROL ORDNANCE INC		SRN / ID: N5459
LOCATION: 6340 SAGE ST, OSCODA		DISTRICT: Saginaw Bay
CITY: OSCODA		COUNTY: IOSCO
CONTACT: John Klein , President		ACTIVITY DATE: 01/04/2018
STAFF: Meg Sheehan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: One Permit to Install (PTI 588-94) is associated with the referenced facility and was issued on March 15, 1995. The referenced permit is for an ammunition loading process for crowd control ("tear gas") chemical agents with a two-stage filtration system (activated carbon and a HEPA filter). Site inspection activities were conducted with the intent of determining the compliance status of the facility.		
RESOLVED COMPLAINTS:		

At 11:00 a.m. Thursday, January 4, 2018, Meg Sheehan and Chris Hare conducted a scheduled site inspection at Sage Control Ordnance, Inc., (SCO) located at the Temporary Weapon Storage Area on the former Wurtsmith Air Force Base. One Permit to Install (PTI 588-94) is associated with the referenced facility and was issued on March 15, 1995. The referenced permit is for an ammunition loading process for crowd control ("tear gas") chemical agents with a two-stage filtration system (activated carbon and a HEPA filter). Site inspection activities were conducted with the intent of determining the compliance status of the facility.

Mr. John Klein (President), Mr. Robert TenEyck and Mr. Shane Conner of SCO provided a tour of the tear gas production building, and general overview of operation and practices. A total of five buildings are associated with production and storage of ammunitions produced by SCO, but only the tear gas production building was inspected. There were no visible stacks on the other buildings, and Mr. Klein reported that the tear gas production was the only source of air contaminants. The other buildings included the explosive loading building, smoke rounds production building, and buildings associated with the package and shipping of product as well as general storage and facilities maintenance. Copies of the aerial photos showing the building layouts, product sheet obtained from the company website, and Material Safety Data Sheets (MSDS) for chemicals of concern may be found in the file. For additional background information on the facility and permit, please see Sharon LeBlanc's site inspection report from June 3, 2009.

The permitted process that was inspected is the loading and sealing of the projectile load of "tear gas". Chemicals used in its manufacturing are TACs, and include 0-Chlorobenzylidenemalononitrile (CS) and Oleoresin Capsicum (OC). CS and OC are kept in sealed drums as well as a locked metal box inside the production building. Staff reported that the product is generated based on demand, and was not in operation at the time of the inspection.

Two special conditions are included with the permit. Per Special Condition 15, there cannot be any visible emissions from the process. Because the facility was not operational at the time of the inspection, this could not be evaluated. However, after inspection of the process inside the building as well as the filter outside the building, all emissions appear to be self-contained with no emission point, so it is unlikely that there would be any visible emissions. Per Special Condition 16, a two-stage filtration system including an activated carbon module and a HEPA filter must be installed and operated properly. Based on the inspection of the filter, this condition appears to be met. The filter unit is connected to a hood/vent system which is used to collect dust and particulate materials generated during production activities, remove the particulates and re-circulate the treated air back into the building. Staff reported that the filters have not been replaced, due to the infrequency of the process. Photos of the filter, which is located outside and behind the tear gas production building, can be found in the 6-3-2009 inspection report. Photos of the work station inside the building can be found at the end of this report.

Recordkeeping is not required under PTI 588-94, however SCO personnel provided data for the number of rounds/loads produced via email. In 2017, Sage Control Ordinance produced 868 loads of tear gas product. At the time of the permit application, SCO projected production rates of 26,538 loads during the second year of production. Material usage rates are also not required under the current permit. According to the previous inspection report, if a maximum of 5 grams/load is used in the process, in 2017 SCO would have used approximately 4,340 grams (9.6 pounds) of material.

Based on the information collected during the January 4, 2018 site visit, it appears that the facility is being operated in compliance with its PTI.

MCS

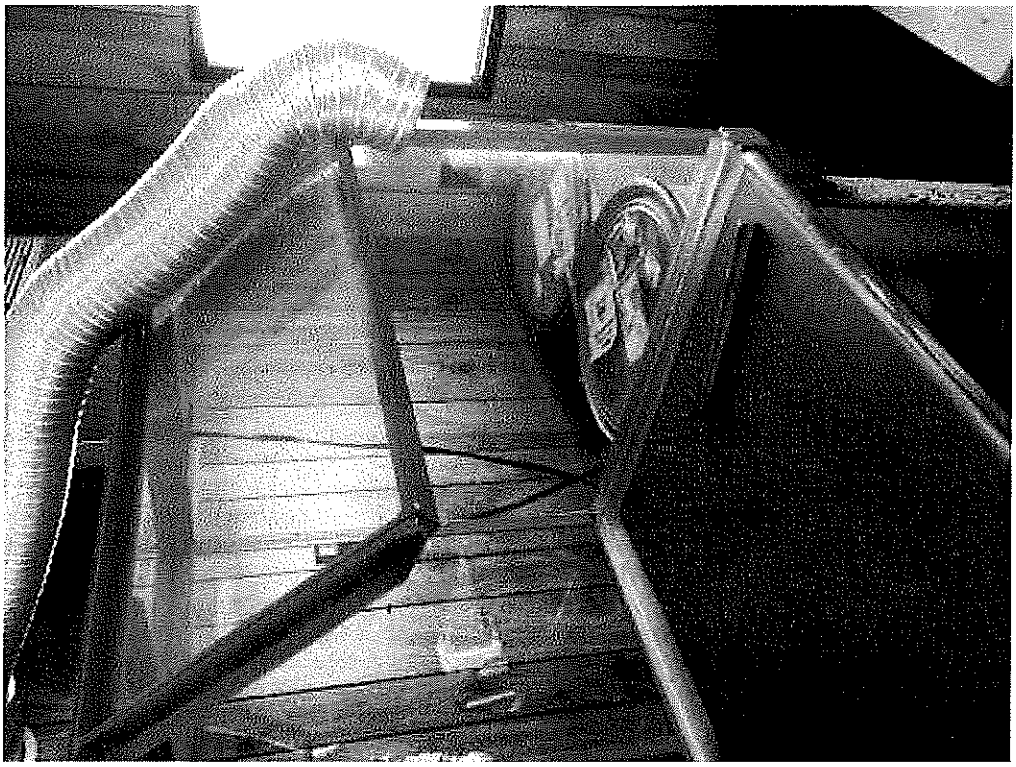

Image 1(Work Station) : Part of the work station beneath a glass enclosure inside the tear gas production building

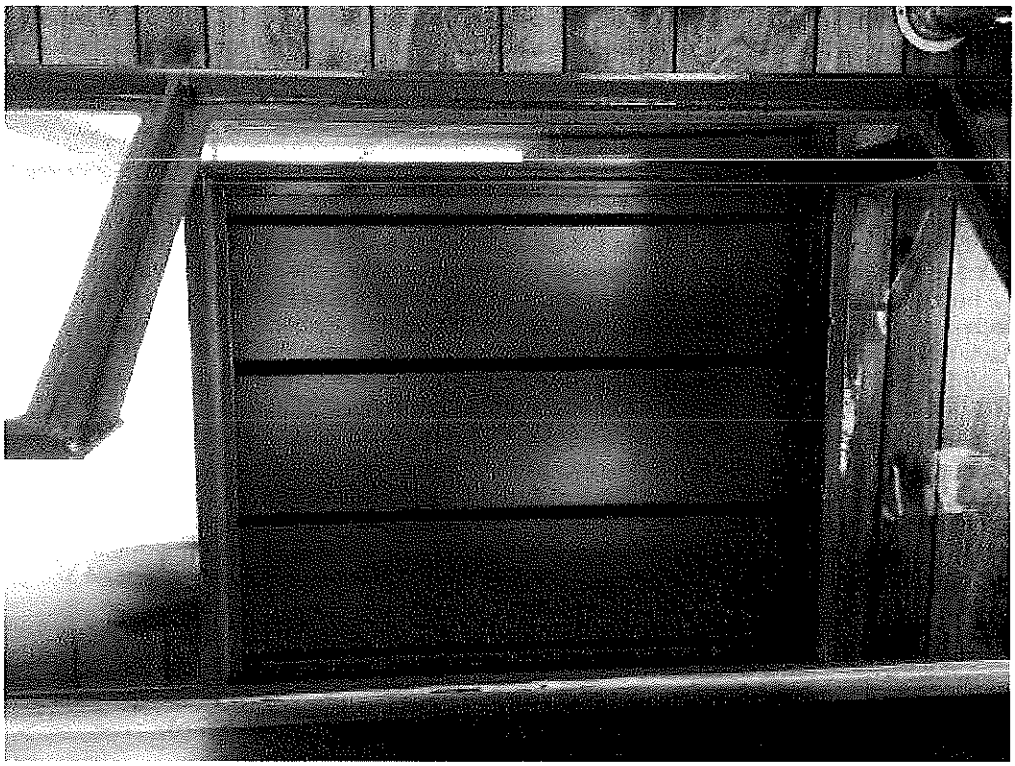

Image 2(Vent) : The vent behind the work station and under glass that connects to the two-stage filtration system outside.

Image 3(Chemical Storage) : The drums on the left contain OC and CS back-up product, and the locked metal box on the floor contains OC and CS currently in use.

NAME Meg Sheehan DATE 1/5/18 SUPERVISOR C. Hare