

B7018

FY 2017 Insp
SM CMS

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

B701841365

FACILITY: GENERAL FILTERS, INC.		SRN / ID: B7018
LOCATION: 43800 GRAND RIVER AVE, NOVI		DISTRICT: Southeast Michigan
CITY: NOVI		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 06/19/2017
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2017 SM CMS inspection of General Filters		
RESOLVED COMPLAINTS:		

B7018 - SAR - 2017 06 19

General Filters, Inc. (B7018)
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Novi, Michigan 48375-1115
Phone: (248) 476-5100 or (800) 476-5101 ext. 204
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Permit-to-Install Nos. 63-93A (PTI No. 63-93A, SC 13 limit: 9 pph & 9 tpy VOC & SC 14 limit: 1,475 gallons per year trichloroethylene (TCE) - TCE vapor degreaser subject to Area MACT T) dated February 27, 1998 and 179-01 (PTI No. 179-01, FG-SS, SC 1.1 limit: 9 tpy Single HAP & 1.2 limit: 22.5 tpy Aggregate HAPs - ROP & MACT major opt-out) dated July 19, 2001.

Idle: TCE vapor degreaser idled since 2010. However, it can be turned on by a switch and, hence, is perfectly operable.

Voids: PTI No. 25-791 (voided on 10/17/1996; incinerator with afterburner) and 63-93 (voided on 07/19/2001). PTI Application No. 803-93 (voided on 02/02/1994)

ROP: Renewable Operating Permit application ROP # 199600073 voided on September 28, 1999.

Subject to: area source National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T; NESHAP/ MACT T); Correction; 29484 Federal Register / Vol. 60, No. 107 / Monday, June 5, 1995 / Rules and Regulations; amended National Air Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T); Final Rule; Page 25138 Federal Register / Vol. 72, No. 85 / Thursday, May 3, 2007 / Rules and Regulations

Initial Notification Received Date: August 23, 1995 (40 CFR, Part 63, Subpart T; NESHAP/ MACT T). The vapor degreaser was installed in August 1966. New vapor degreaser installed in September 1997 replaced the existing degreaser in order to comply with MACT T.

Permanently exempt from Area Source NESHAP/ MACT T ROP: Exemption of Certain Area Sources From Title V Operating Permit Programs, Final Rule; 75320 Federal Register / Vol. 70, No. 242 / Monday, December 19, 2005 / Rules and Regulations

On June 19, 2017, I conducted a level-2 self-initiated FY 2017 SM CMS inspection of General Filters, 43800 Grand River Avenue, Novi, Michigan 48376-8025. The inspection was

GeneralAire TERSus Models 1200 and 2000 (10 inches wide and 21 inch High) remove all three categories of indoor air contaminants: particulate, gases, germs using MERV13 electrostatic filtration, ultraviolet (UV) disinfection and photocatalytic purification.

25-79I (incinerator with afterburner) Voided 10/17/1996

This is designed for burning 100 pounds per batch of Type I waste. The equipment has been out of service for at least 25 years. The equipment has been removed and hauled away. PTI No. 25-79I was voided on October 10, 1996, based AQD inspection.

63-93A (Detrex VS-800-E vapor degreaser) - Idle

This vapor degreaser equipment was installed in September 1997 in order comply with the degreaser NESHAP / MACT T. The degreaser solvent is electrically heated. Heated vapor cleans the oil filter can upon condensing on the can's surface. The degreaser is equipped with two sets of cooling coils: water jacket (primary) and freeboard refrigerated chiller (secondary), which is above the primary. The chiller coils are finned to increase heat transfer area. The refrigeration unit maintains chiller coils below freezing temperature. This is a closed system with no vent. Styrofoam cover is used to cover the degreaser to prevent heat transfer from ambient room to the degreaser (PTI No. 63-98A, SC16). Fugitive emissions are emitted indoors only; i.e. there is no ventilation to outside air (PTI No. 63-98A, SC26); any escape of TCE vapors are definitely detected by human nose. When degreasing solvent gets dirty (maybe once in six months when regularly used), the dirty solvent is boiled off, condensed and collected in a sump for recovery of clean solvent. Concentrated dirt, practically solvent-free, is disposed of in accordance with proper waste management practices; i.e. the waste is treated as RCRA Hazardous Waste and properly disposed of and manifested per RCRA. Make-up solvent, trichloroethylene (TCE), is added. Parts are kept in the degreaser for 5-10 minutes for degreasing. Once a week, the degreaser was running before CY2009. About 25 gallons of waste (sludge) was disposed of every six months during normal operations before 2009; but recently there is no disposal since the is idled since 2010.

All degreasing takes place in the vapor zone (i.e., parts are NOT immersed in liquid solvent) as TCE condenses on parts being cleaned. Contaminated solvent drips into the solvent tank. This degreaser equipment has no ventilation indicating practically nil TCE emissions; odor can be detected in the room if vapors escape.

Oil filter cans are degreased in the vapor degreaser. Cans are placed in a basket. TCE vapor condenses on a can surface to perform cleaning (PTI No. 63-98A, SC17). A can in a basket is held with a slope such that TCE liquid drips back into the degreaser's tank (PTI No. 63-98A, SC17.e). One basket per batch is placed in the vapor zone for cleaning, which lasts for 10-15 minutes (PTI No. 63-98A, SC17). All cleaning takes place in the vapor zone; parts are not immersed in liquid. The basket is raised and held in the tank until all liquid drips, about 15 minutes (PTI No. 63-98A, SC17). No solvent spray operation is present (PTI No. 63-98A, SC17).

All degreasing is for fuel oil filter cans. The operation begins with starting first refrigerated chiller and water jacket (PTI No. 63-98A, SC17.f). Then, after 15-30 minutes, turn TCE liquid heater on for about an hour until the liquid temperature reaches 180 deg F. The interlock system does not allow spray work at all if temperature has not reached minimum 175 deg F. Upon reaching these stable vapor liquid equilibrium and condenser temperature conditions, a basket of cans is inserted so that condensed TCE liquid falls into the degreaser's tank (PTI No. 63-98A, SC17.e). During February 2008 inspection, incorrect basket was installed such

The vapor degreaser is subject to NESHAP for Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T; Federal Register / Vol. 59, No. 231 / Friday, December 2, 1994). In 1995, a correction was promulgated [National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T; NESHAP/ MACT T); Correction; 29484 Federal Register / Vol. 60, No. 107 / Monday, June 5, 1995 / Rules and Regulations] In 2007, NESHAP / MACT T was amended: National Air Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T); Final Rule; Page 25138 Federal Register / Vol. 72, No. 85 / Thursday, May 3, 2007 / Rules and Regulations]

The provisions of NESHAP / MACT T apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. The concentration of these solvents may be determined using EPA test method 18, material safety data sheets, or engineering calculations.

General Filter keeps monthly and annual trichloroethylene (TCE) emissions records. Total TCE emissions are 0 pounds (0 gal – idled since 2010) per year in CY 2013-15 (Vs. 1,649 lbs/yr in CY 2007 & 532 lbs/yr in CY 2009), not including reclaims (PTI No. 63-93A, SC 14 limit: 1, 475 gallons per year). The total HAP emissions are **268** (Vs 307 in CY 2013) pounds per year due to both coating HAP (**268** lbs/yr CY2016) and TCE (0 lbs/yr CY2016 - idle) (PTI No. 63-93A, SC13 limit: 9 tpy VOC; PTI No. 179-01, SC 1.1 & SC 1.2 limits: 9 (single) and 22.5 (aggregate) tons of HAPs per year) Vs 2,725 pounds per year in CY 2007. 0 gallons (0 lbs. - idle) of TCE per year were used in CY2016 (PTI No. 63-93A, SC14 limit: 1,475 gal TCE) Vs 136 gallons of TCE per year in CY 2007.

CY 2016 coating usage: **145** gallons of coatings were used in the booths (2). Red P/N 30035 = **30** gal / yr. Blue Lacquer P/N 30086 = **115** gal / yr.

CY 2016 VOC = **30** gal / yr.*1.23 lbs. VOC /gal (water-based red coating) + **115** gal / yr. * 4.79 lbs. VOC /gal (blue lacquer) = 36.9 + 550.85 = 587.75 = **588** pounds of VOC per year.

Coating usage has substantially reduced because only lids (mostly red, sparingly blue) are coated and cans themselves are powder coated at Burkard of Clinton Twp.; few years ago General Filter used liquid coatings to coat cans in its Novi facility.

Mr. Redner stated that free board ratio is 1.0 (PTI No. 63-93A SC 16 limit: 0.75). Parts handling system speed is 2.5 meters per minute (PTI No. 63-93A SC 16 limit: 3.4 m/min. or less). Sliding cover is present and, in addition, Styrephome cover is placed on it as an insulator. The degreaser is equipped with auto-start-and-shut-down device (PTI No. 63-93A, SC 17)

General Filter is no longer required to submit Rule 208a registration. A letter of violation dated April 24, 2001 was sent by certified mail for failure to submit 208a registration. Consequently, General Filter obtained a ROP opt-out Permit-to-Install No. 179-01 dated July 19, 2001.

All paints are water based. Red and blue colors are used for oil filter can tops. The cans used to be flow-coated; but discontinued. Flow coat booth is removed as stated before. Now (since Jan 2010) the cans are powder coated at Burkard.