

CITY OF PHILADELPHIA
Department of Public Health
Environmental Protection Division
Air Management Services

InterOffice Memo

To: File
From: Maryjoy Ulatowski
Date: June 9, 2015
Subject: 1997 8-Hour RACT Analysis for Cardone Industries - Rising Sun and Whitaker Avenues
(PLID # 03887-2287)

Introduction:

The Clean Air Act (CAA) requires that moderate (or worse) ozone nonattainment areas implement reasonably available control technology (RACT) controls on all major sources of volatile organic compounds (VOC) and nitrogen oxides (NOx). Philadelphia County is part of the Philadelphia-Wilmington-Atlantic City moderate ozone nonattainment area for the 1997 8-hour ozone NAAQS. This document presents the findings of a RACT evaluation for the 1997 8-hour ozone standard for two (2) Cardone Industries, LLC Locations (Rising Sun and Whitaker Ave. Locations) which are currently in operation in Philadelphia.

Company Description:

Cardone Industries (Rising Sun and Whitaker) is an automotive parts re-manufacturing company. The company's air emission sources include spray booths, combustion units, burnout ovens and cold cleaning degreasers.

In the past, Cardone Industries operated several locations in Philadelphia. Starting in 2005, five (5) Cardone locations listed below operated under a Title V Operating (TVOP) No. V04-005 and eventually under TVOP No. V09-019. The five (5) locations were determined to be one single facility for air pollution purposes since the locations were close in proximity and interrelated.

1. 321 Chew Street, Philadelphia, PA 19120 (Plant 20) – PLID2237
2. 500 East Erie Avenue, Philadelphia, PA 19134 (Plants 15-17) – PLID 3888
3. 5500 Tabor Road, Philadelphia, PA 19120 (Plant 21) –PLID 3233/T0156
4. 5501 Whitaker Avenue, Philadelphia, PA 19124 (Plants 90-97) –PLID 2287
5. 5660 Rising Sun Avenue, Philadelphia, PA 19120 (Plants 11-14) – PLID 3887

Chew Street Facility

The Cardone Chew Facility had a 1hr RACT VOC Permit in 1995 under PLID 2237. The 1-hour RACT determination for the Chew Street facility (PA Permit Number 51-2237, PLID 2237 in 1995), dated May 29, 1995, was approved into the SIP by EPA on 10/30/01 (66 FR 54710). Sources in the 1-hr RACT Permit included:

- (1) Degreasing operations with solvent reprocessing and storage (Stoddard Solvent).

As of January 2015, Cardone no longer owns and operate the Chew Facility. Sources from the facility have either been moved to the Rising Sun or Whitaker Avenue locations, shut-down, or moved to other Cardone locations in the United States or other countries. AMS inspected the facility on May 2015 and observed that the facility is now a window and door warehouse and no operations or equipment from Cardone were at the facility.

East Erie Avenue and Tabor Road Locations.

In 1997, the East Erie and Tabor Cardone Locations were minor sources for NOx and VOC; therefore, the locations were not applicable to the 1-hour RACT. Starting in 2005, sources from both the East Erie and Tabor Rd locations along with 3 other Cardone locations were also combined under Cardone's TVOP No. V04-005 and V09-019. As of January 2015, Cardone no longer owns and operate the East Erie and Tabor Locations. As of May 2015, the East Erie Facility is a now a lighting warehouse (500-550 Erie) and a food distributor (428 East Erie). The Tabor Road Facility (5500 Tabor) as of May 2015 is being renovated into a church. Sources from the East Erie or Tabor

locations have either been moved to the Rising Sun or Whitaker Avenue locations, shut-down, or moved to other Cardone locations in the United States or other countries. AMS inspected the East Erie and Tabor Locations on May 2015 and observed that that and no operations or equipment from Cardone were at the locations.

Rising Sun and Whitaker Avenues Locations

The Cardone Rising Sun Ave. Facility had a 1hr RACT VOC Permit in 1995 under PLID 3887. The 1-hour RACT determination for the Rising Sun Ave facility (PA Permit Number 51-3887), dated May 29, 1995, was approved into the SIP by EPA on 10/30/01 (66 FR 54710). Sources in the 1-hr RACT Permit included:

- (1) Degreasing operations with solvent reprocessing and storage (Stoddard Solvent); and
- (2) Miscellaneous architectural coatings.

Degreasing Operations with Solvent Recovery

For Rising Sun Avenue, the Solvent Recovery process was part of original 1-hour RACT analysis and required an installation of a vapor condenser. The solvent recovery process has been out of service because Cardone stopped using Stoddard solvents. The facility cannot re-start the solvent recovery process to process any VOC materials without first obtaining a plan approval or installation permit. No Solvent Recovery is being conducted at the Whitaker and Rising Sun Aves. Any remaining degreasing operations at the Whitaker and Rising Sun facilities are listed in the Cold-Cleaning Degreasers list and addressed in the following RACT analysis.

Architectural Coatings

For Rising Avenue, the of original 1-hour RACT listed miscellaneous architectural coatings in the permit. Cardone's Rising Sun and Whitaker locations do not process or use architectural coatings.

There is no 1-hr RACT determination for the Whitaker Ave in 1995 since the facility was not a major source of NOx or VOC at that time.

This memorandum will discuss RACT applicability for VOC and NOx sources at the 2 remaining Cardone locations (Rising Sun and Whitaker Avenues) in Philadelphia. Equipment used at the locations includes degreasing operations and combustion sources. Below is the facility information for the Rising Sun and Whitaker Locations.

- 1. 5660 Rising Sun Avenue, Philadelphia, PA 19120 (Plants 11-14) – PLID 3887**
- 2. 5501 Whitaker Avenue, Philadelphia, PA 19124 (Plants 90-97) –PLID 2287**

Applicability for NOx and VOC RACT:

Cardone Industries (Rising Sun and Whitaker Avenues) is not a major source for NOx since the potential NOx emissions are less than 100 tons per year, the major source threshold in Philadelphia County that is applicable to NOx RACT for the 1997 8-hour ozone NAAQS.

Cardone Industries (Rising Sun and Whitaker Avenues) under Title V is a major source of VOC having potential emissions greater than 50 tons per year, the major source threshold in Philadelphia County that is applicable to VOC RACT for the 1997 8-hour ozone NAAQS.

Process Descriptions:

Cardone Industries Rising -Whitaker VOC emission sources are as follows:

Surface Coating - 8 spray booths

<i>Source ID</i>	<i>Source Description</i>
SB01	Electrostatic Disk Spray Booth
SB02	Manual Spray Booth Post Spray
SB03	Floor Type Spray Booth Pre-Spray
SB05	Touch-up Spray Booth
SB07	Touch-up Spray Booth
SB08	Manual Spray Booth
SB10	Manual Spray Booth
SB11	Manual Spray Booth

Cold-Cleaning Degreasers - 5 degreasers

Source ID	Source Description
V01	Vibrator Flowthru 55ft
V08	Vibrator 6ft
V15	Ultra Tub Vibrator 17 (5 ft)
V18	Ultra Tub Vibrator 3 (5ft)
V19	Ultra Tub Vibrator (3ft)

Combustion Units

Source ID	Source Description	Rated Capacity
CU-SB04	Conveyorized Forced Air Drying Oven	1.5 MMBTU/hr
CU-W12	Goff Hydropulse Washer	0.5 MMBTU/hr
CU-W13	Goff Hydropulse Washer	0.5 MMBTU/hr
CU-W15	Washer, American Metal Wash	0.3 MMBTU/hr
CU-W16	Parts Washer Beltwasher 2310	0.4 MMBTU/hr
CU-W18	Parts Washing Machine	0.8 MMBTU/hr
CU-W19	Ransohoff tunnel washer	1.9 MMBTU/hr
CU-W20	Goff Hydropulse HP-6 Washer	0.3 MMBTU/hr
CU-W21	Goff Hydropulse HP-3SC (Autoline)	0.3 MMBTU/hr
CU-W22	Kuhl Washing Machine	4.65 MMBTU/hr
CU-W35	Steam Cleaner	0.258MM BTU/hr
CU-W36	Steam Cleaner	0.258,MMBTU/hr
CU-W46	JRI Washer	0.3 MMBTU/hr
CU-W48	CDC Front Washer	0.450 MMBTU/hr
CU-B02	Fulton Thermal Liquid Heater	2.4 MMBTU/hr
CU-B03	Fulton Thermal Liquid Heater	2.4 MMBTU/hr
CU-B04	Propane Backup System Vaporizer	0.84 MMBTU/hr
CU-B05	Backup Propane System Burner	0.84 MMBTU/hr
CU-B21	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B22	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B23	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B24	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B25	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B26	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B27	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B28	Carrier HVAC 48TJD020 Roof unit	0.270 MMBTU/hr
CU-B29	Carrier HVAC 48DKD028 Roof unit	0.255 MMBTU/hr
CU-B30	Carrier HVAC 48DKD028 Roof unit	0.255 MMBTU/hr
CU-B31	Carrier HVAC 48DKD028 Roof unit	0.255 MMBTU/hr
CU-B32	Cambridge HVAC C390 Roof unit	0.4 MMBTU/hr
CU-B33	Cambridge HVAC C390 Roof unit	0.4 MMBTU/hr
CU-B34	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B35	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B36	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B37	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B38	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B39	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B40	Cambridge HVAC C600 Roof unit	0.582 MMBTU/hr
CU-B41	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B42	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B43	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B44	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B45	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B46	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B47	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr

Source ID	Source Description	Rated Capacity
CU-B48	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B49	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B50	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B51	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B52	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B53	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B54	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B55	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B56	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B57	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B58	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B59	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B60	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B61	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B62	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B63	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B64	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B65	Cambridge HVAC C900 Roof unit	0.9 MMBTU/hr
CU-B66	Cambridge HVAC C1200 Roof unit	1.2 MMBTU/hr
CU-B67	Cambridge HVAC C1200 Roof unit	1.2 MMBTU/hr
CU-B68	Cambridge HVAC C1200 Roof unit	1.2 MMBTU/hr
CU-B70	Cambridge HVAC M-136	4.8 MMBTU/hr

Burnout Ovens

Source ID	Source Description	Rated Capacity
CD-O05	Burnout Oven (12 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O06	Burnout Oven (12 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O07	Burnout Oven (12 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O09	Burnout Oven (12 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O11	Burnout Oven (12 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O12	Burnout Oven (8 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O14	Burnout Oven (12 bskt) w/ Integral Afterburner	3 MMBTU/hr
CD-O19	Bayco Oven	3 MMBTU/hr
CD-O15	Seghers Fluid Bed Oven B-3111/RAN	0.93 MMBTU/hr
CD-O20	Burnout Oven (12 bskt) w/ Integral Afterburner (Replace CD-01	3 MMBTU/hr
CD-O21	Burnout Oven (12 bskt) w/ Integral Afterburner (3 MMBTU/hr

Emergency Generator

Source ID	Source Description	Rated Capacity
CB-06	Onan Backup Generator System - Diesel Burnout Oven	1.9 MMBTU/hr

RACT Analysis:

Surface Coating

Each spraybooth at the facility is complying with the RACT requirements of 25 Pa Code §129.52 - Miscellaneous metal parts & products, air-dried coatings.

Cold Cleaning Degreasers – VOC fugitives

The miscellaneous cold degreasing operations include dipping, soaking, and agitating tank operations as well as numerous workstation wiping operations throughout the facility. The potential emissions for the facility degreasing operations are linked to total production capacity for the facility. Each cold-cleaning degreasing operation at the facility is complying with the RACT requirements of 25 PA Code 129.63

For the Chew Street facility the original RACT Plan Approval required Cardone to use operational improvements and better work practices to control VOC emissions: Rags used to wipe solvent shall be stored in closed top containers, solvent collected in drip pans under drain plugs shall be removed promptly, tank lids shall be modified to promote ease of use. The Chew facility is now closed. For the cold cleaning operations at Whitaker and Rising Sun, this requirement is replaced by the presumptive RACT requirements of Pa Code 129.63 and AMR V, Section XIII.A, which are more stringent. Some of the detailed equipment and operation requirements of 25 PA Code 129.63 are listed below;

- 129.63(a)(1)- Immersion cold cleaning machines shall have a free board ratio of 0.50 or greater,
- 129.63(a)(2)- Immersion cold cleaning machines and remote reservoir cold cleaning machines Have a permanent, conspicuous label summarizing the operating requirements in paragraph 129.63(a)(3).
- 129.63(a)(3)(i) -Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
- 129.63(a)(3)(v) - Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately.

AMR V, Section XIII does not allow VOC emissions from leaking process equipment components of 10,000 ppmv VOC or greater or in a liquid state.

Combustion Units and Burnoff Ovens.

Each combustion unit and burnoff oven is less than 20 million BTU and burns natural gas or propane. Thus, all combustion units are complying with 25 PA Code 129.93(c)(1) presumptive RACT requirements for installation, maintenance, and operation in accordance with manufacturer's specification.

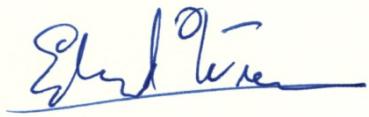
Emergency Generator

The emergency generator is complying with 25 PA Code 129.93(c)(5) presumptive RACT requirements to operate less than 500 hours in a consecutive 12-month period.

RACT Revisions/Modifications:

AMS has determined or recommends the following for the 8-hr RACT.

- 1) Revise the State Implementation Plan (SIP) to remove previous RACT determination/permits for the Cardone Chew Facility since the facility is no longer in operation.
- 2) Revise the State Implementation Plan (SIP) to remove previous RACT determination/permits for the Cardone Rising Sun Ave Facility since the previously approved case-by-case requirements no longer apply. The Rising Sun Facility has been combined under one Title V Operating Permit with the Whitaker Facility. All sources at Whitaker and Rising Sun will be complying with presumptive or CTG RACT requirements as mentioned above.



6/9/15

Edward Wiener, Chief of Source Registration

Date

6/9/2015