

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: April 2, 2020

Effective Date: April 2, 2020

Expiration Date: [REDACTED]

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

TITLE V Permit No: 04-00033

Federal Tax Id - Plant Code: 36-3203832-1

Owner Information

Name: NOVA CHEM INC
Mailing Address: 400 FRANKFORT RD
MONACA, PA 15061-2212

Plant Information

Plant: NOVA CHEM CO/BEAVER
Location: 04 Beaver County 04947 Potter Township
SIC Code: 2821 Manufacturing - Plastics Materials And Resins

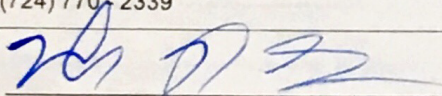
Responsible Official

Name: TIM FORD
Title: MFG LEADER
Phone: (724) 770 - 2468

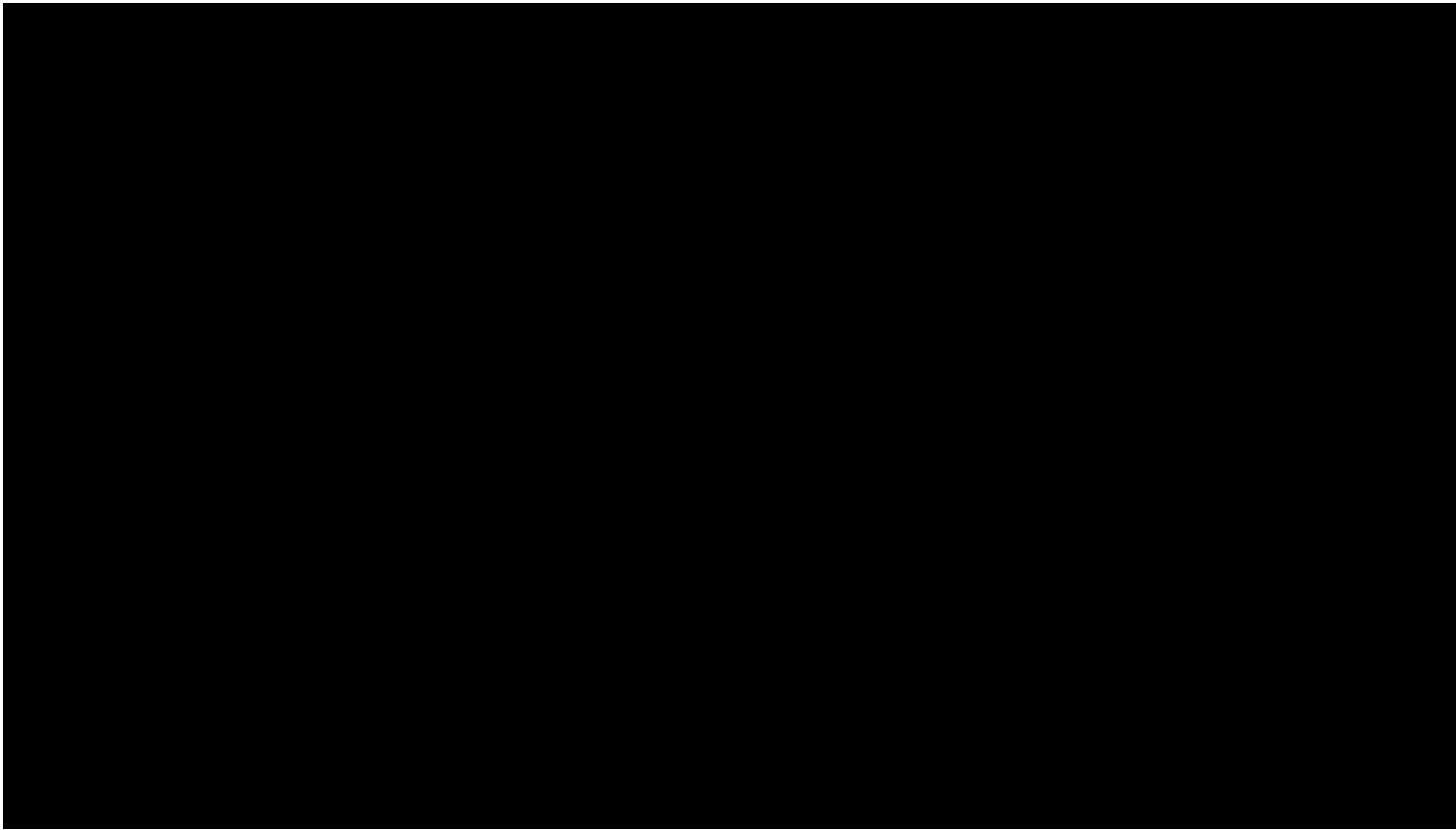
Permit Contact Person

Name: ANDREA DAVISON
Title: SR ENVIR ENG
Phone: (724) 770 2339

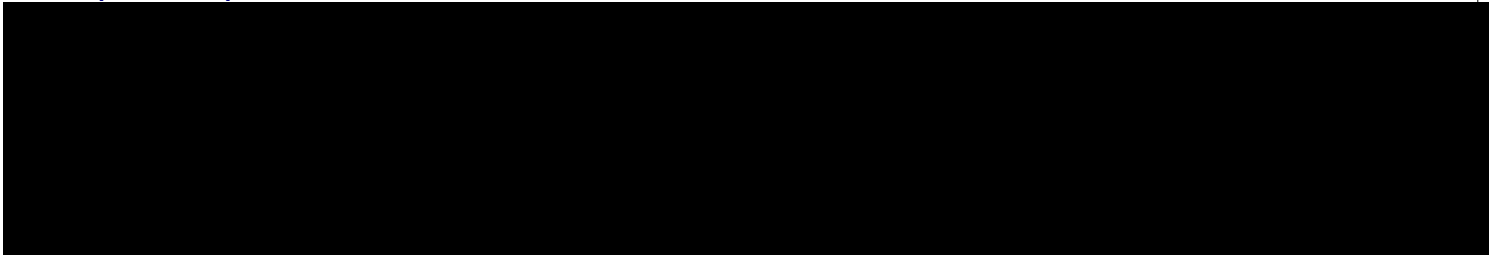
[Signature]


MARK R. GOROG, P.E., ENVIRONMENTAL PROGRAM MANAGER, SOUTHWEST REGION

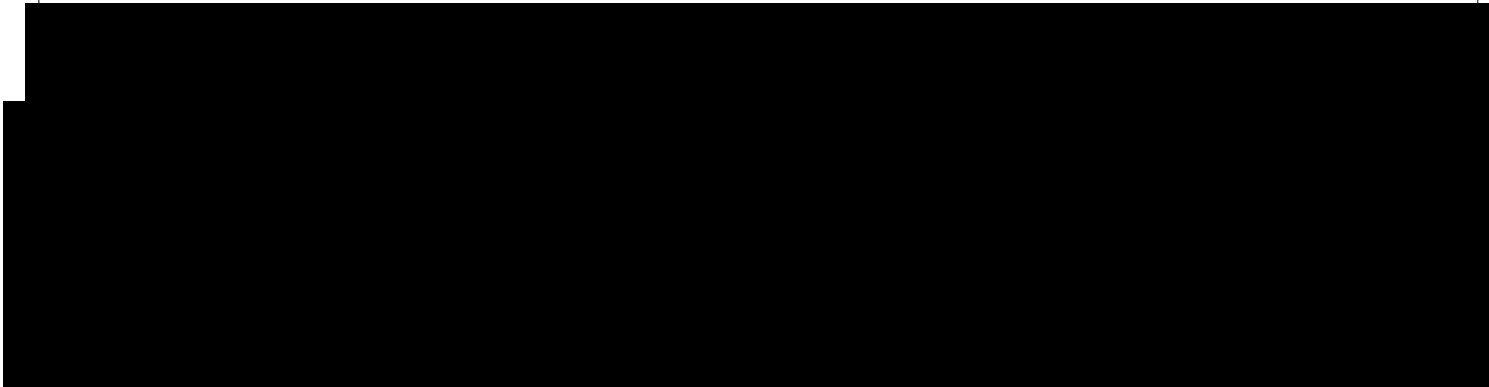
Pages 2-9, 11-233, 236-237, and 242-247 are redacted entirely

**SECTION B. General Title V Requirements**

#008

**Compliance Requirements**

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.



**SECTION E. Source Group Restrictions.**

Group Name: RACT 2 SOURCES

Group Description: RACT 2 Sources

Sources included in this group

ID	Name
105	RACT 2 - D3 AND D4 EPS EQUIPMENT
205	RACT 2 - D2 PROCESS EQUIPMENT
305	RACT 2 - D3 DYLENE EQUIPMENT
605	RACT 2 - D3 EXTRUSION LINE 3
705	RACT 2 - FIELD STORAGE EQUIPMENT
805	RACT 2 - GENERAL PLANT SOURCES
905	RACT 2 - FUEL BURNING EQUIPMENT

I. RESTRICTIONS.**Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The total facility wide VOC emissions for the RACT 2-affected equipment (i.e. Source IDs 105, 205, 305, 605, 705, and 805) shall not exceed 310 tons in any consecutive 12-month period.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with the Alternative RACT and Compliance Proposal, the RACT 2 VOC emission limits for the facility include:

Source ID 105 - 227 tons per rolling 12-month period
Source ID 205 - 57 tons per rolling 12-month period
Source ID 305 - 11 tons per rolling 12-month period
Source ID 605 - 7 tons per rolling 12-month period
Source ID 705 - 5 tons per rolling 12-month period
Source ID 805 - 3 tons per rolling 12-month period

003 [25 Pa. Code §129.99]

Alternative RACT proposal and petition for alternative compliance schedule.

In accordance with 25 Pa. Code §129.99(e)(2), RACT for these sources is:

1) Operation of only two of the four D4 EPS Dryer Check Bins below at any one time. As a result, the potential VOC emissions for the Source 105 - RACT 2 D3 AND D4 EPS EQUIPMENT, which these bins fall under, is reduced by 25.82 tons per year of VOC. This reduces the RACT 2 - Source 105 RACT cap from 253 tons of VOC per rolling 12-month period (RACT 1 cap) to 227 tons of VOC per rolling 12-month period (RACT 2 cap).

2) Operation at any time in accordance with good air pollution control practices.

RACT 2 Source Name/Description
Equipment ID

101-15	D4 EPS #1 Dryer Check Bin #1410
101-16	D4 EPS #1 Dryer Check Bin #1411
101-17	D4 EPS #2 Dryer Check Bin #1420
101-18	D4 EPS #2 Dryer Check Bin #1421

**SECTION E. Source Group Restrictions.**

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

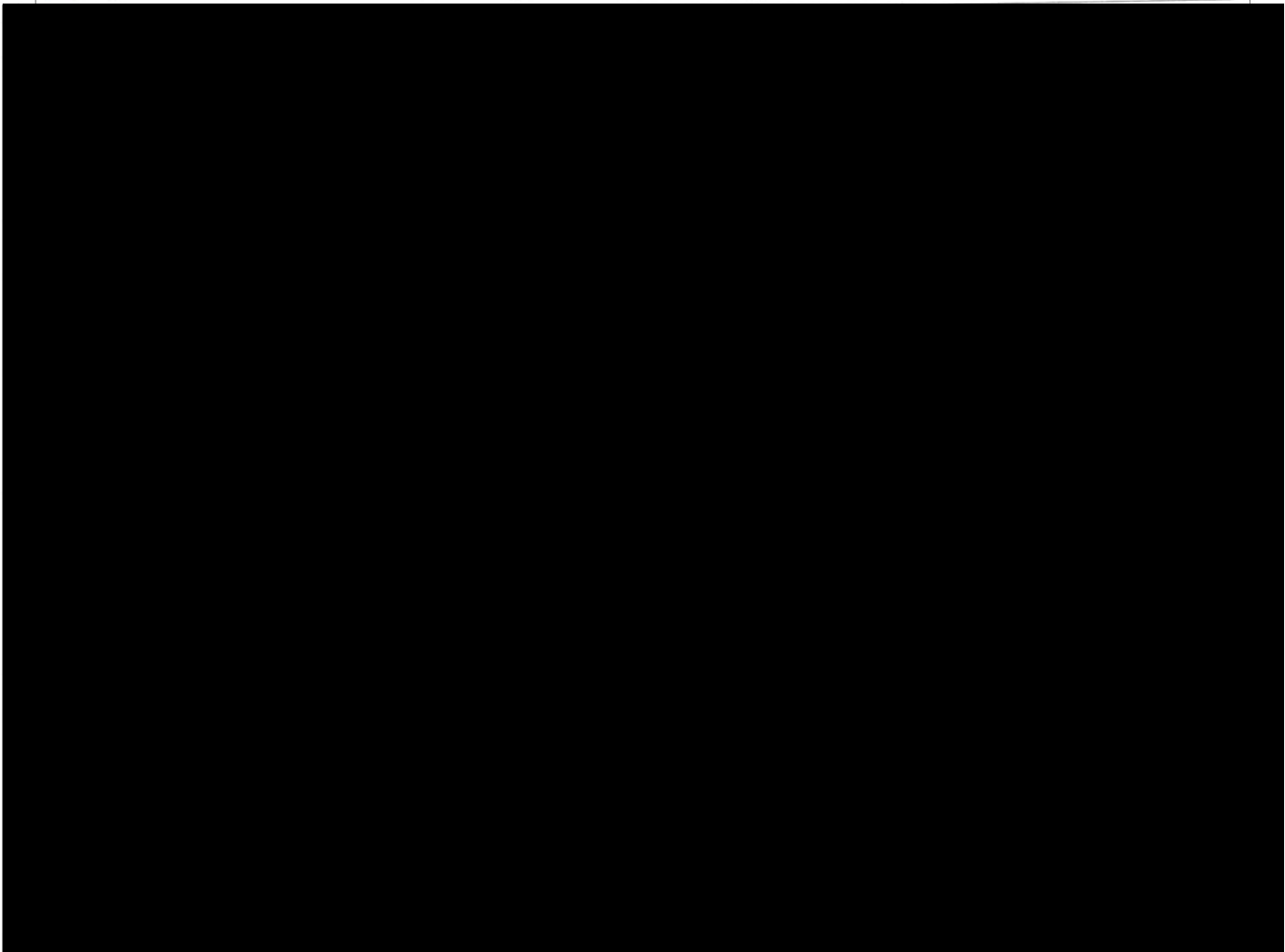
The owner/operator shall maintain records of monthly and 12-month rolling VOC emissions for Source IDs 105, 205, 305, 605, 705, and 805.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The owner/operator shall maintain 12-month rolling records in accordance with 25 Pa Code 129.100 to demonstrate compliance with the emission limits established herein.



**SECTION E. Source Group Restrictions.****# 011 [25 Pa. Code §129.99]****Alternative RACT proposal and petition for alternative compliance schedule.**

In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT proposal for the following sources which have the potential to emit equal to or greater than 2.7 tpy of VOC. RACT for these sources is the operation in accordance with the Best Management Practices submitted to PADEP, or as updated and kept on file, and keep records of maintenance performed at applicable emissions units.

RACT 2 Equipment ID	Source Name/Description
101-12	D3 EPS Sump
201-23	Waste Water Sump
301-16	Wastewater
801-01	North Basin
801-02	Aeration Lagoon
801-03	Quiescent Lagoon

012 [25 Pa. Code §129.99]**Alternative RACT proposal and petition for alternative compliance schedule.**

In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT proposal for the following sources which have the potential to emit equal to or greater than 2.7 tpy of VOC. RACT for these sources is the operation in accordance with the Best Management Practices submitted to PADEP, or as updated and kept on file, and keep records of maintenance performed at applicable emissions units.

RACT 2 Equipment ID	Source Name/Description
101-46	D3 Railcar Unloading
201-24	D2 Railcar Unloading

013 [25 Pa. Code §129.99]**Alternative RACT proposal and petition for alternative compliance schedule.**

In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT proposal for the following sources which have the potential to emit equal to or greater than 2.7 tpy of VOC. RACT for these sources is the operation in accordance with the Best Management Practices submitted to PADEP, or as updated and kept on file, and keep records of maintenance performed at applicable emissions units.

RACT 2 Equipment ID	Source Name/Description
201-11	ARCEL Carter Day Dryer
201-12	ARCEL Carter Day Dryer Maxi Surge Bin

**SECTION E. Source Group Restrictions.****# 014 [25 Pa. Code §129.99]****Alternative RACT proposal and petition for alternative compliance schedule.**

In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT 2 proposal for Source Group 101 which includes uncontrolled (uncaptured) sources under Source ID 135. These sources have a potential to emit equal to or greater than 2.7 tpy of VOC. RACT 2 includes the reduction in VOC generated from the four D4 EPS Dryer Check Bins (marked with * below) by operating only two of the four bins at any one time and operation of Source Group 101 sources in accordance with the Best Management Practices submitted to PADEP, or as updated and kept on file, and keep records of maintenance performed at applicable emissions units. This operational restriction will reduce the RACT 2 - D3 AND D4 EPS EQUIPMENT and Facility wide RACT 2 caps by 25.82 tons of VOC based on a rolling 12-month period.

RACT 2 Source Name/Description
Equipment ID

101-05	D3 EPS Airveying Pneumatic Cyclone/Filter Receiver 1265
101-06	D3 EPS Airveying Pneumatic Cyclone/Filter Receiver 1260
101-07	D3 EPS Packaging Bin 1218
101-08	D3 EPS Packaging Bin 1208
*101-15	D4 EPS #1 Dryer Check Bin #1410
*101-16	D4 EPS #1 Dryer Check Bin #1411
*101-17	D4 EPS #2 Dryer Check Bin #1420
*101-18	D4 EPS #2 Dryer Check Bin #1421
101-19	D4 EPS Line 1 Packaging Bin 1412
101-22	D4 EPS Line 2 Packaging Bin 1422

015 [25 Pa. Code §129.99]**Alternative RACT proposal and petition for alternative compliance schedule.**

VOC RACT 2 conditions for sources subject to 25 Pa. Code §129.99(e)(2):

a) In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT proposal for the following sources which have the potential to emit equal to or greater than 2.7 tpy of VOC. RACT for these sources is the use of existing Control Device ID C111 -Thermal Oxidizer (RCO/RTO) G-4625 as the primary control device with Control Device ID C112 - Back-up Direct Fired Thermal Oxidizer (DFTO) as the secondary backup control device. These emission control devices comprise the Pentane Emissions Reduction System (PERS) which reduces VOC emissions from Source 101 controlled emission units with a destruction efficiency at or greater than 97% pursuant to Section D, Source Level Requirements, Source ID 110, Condition #003 of TVOP-04-00033:

RACT 2 Source Name/Description
Equipment ID

101-01	D3 EPS #3 Hold Tank
101-02	D3 EPS Dryer #4
101-03	D3 EPS Packaging Net Weigh Hopper
101-04	D3 EPS Packaging Net Weigh
101-09	D3 EPS #4 Acid Wash Kettle
101-10	D3 EPS #3 Acid Wash Kettle
101-11	D3 EPS No. 4 Bird Centrifuge
101-25	D3 EPS Pneumatic Transfer Cyclone for 4B10 Airvey System
101-26	D3 EPS Pneumatic Transfer Cyclone for 4B11 Airvey System
101-27	D3 EPS 4B10 and 4B11 System Backup
101-28	D3 EPS "A" Packaging Line Net Weigher Hopper
101-29	D3 EPS "B" Packaging Line Net Weigher Hopper
101-30	D3 EPS #1 Acid Wash Kettle
101-31	D3 EPS #2 Acid Wash Kettle
101-32	D3 EPS #3 Acid Wash Kettle
101-33	D3 EPS #4 Acid Wash Kettle

**SECTION E. Source Group Restrictions.**

101-34	D3 EPS Reactor #401
101-35	D3 EPS Reactor #402
101-36	D3 EPS #1 Bird Centrifuge
101-37	D3 EPS #1 Gala Dryer
101-38	D3 EPS #1 Fluidized Dryer
101-39	D3 EPS #2 Gala Dryer
101-40	D3 EPS #2 Fluidized Dryer
101-44	Pentane Emission Reduction System - PERS [RTO/RCO Oxidizer]
101-45	Pentane Emission Reduction System - PERS [DFTO]

016 [25 Pa. Code §129.99]**Alternative RACT proposal and petition for alternative compliance schedule.**

VOC RACT 2 conditions for sources subject to 25 Pa. Code §129.99(e)(2):

In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT proposal for the following sources which have the potential to emit equal to or greater than 2.7 tpy of VOC. RACT for these sources is the use of existing Control Device ID C230 - D2 Catalytic Oxidizer (CATOX). These emission units comprise Source ID 230 - D2 Equipment controlled by CATOX. Process exhaust from the Source ID 201 controlled emission units are captured and routed to a CATOX which destroys pentane emissions. The CATOX reduces VOC emissions from Source ID 201 controlled emission units with a destruction efficiency at or greater than 98% pursuant to Section D, Source Level Requirements, Source ID 230, Condition #001 of TVOP-04-00033:

RACT 2

Equipment ID	Source Name/Description
201-04	ARCEL Reactor 2 (201)
201-07	ARCEL Reactor 1 (199)
201-08	Package Bin Exhaust
201-10	ARCEL 380 Airvey System Pneumatic Cyclone
201-22	Catalytic Oxidizer (CATOX)

017 [25 Pa. Code §129.99]**Alternative RACT proposal and petition for alternative compliance schedule.**

VOC RACT 2 conditions for sources subject to 25 Pa. Code §129.99(e)(2):

In accordance with 25 Pa. Code §129.99(e)(2), the Department approves the permittee's alternative RACT proposal for the following sources which have the potential to emit equal to or greater than 2.7 tpy of VOC. RACT for these sources is the use of existing Control Device ID C315 - SERS (12 Unit Reflux Condenser System). These emission units comprise Source ID 315 - Sources Controlled by Styrene Emissions Reduction System (SERS). The SERS condenser system reduces VOC emissions from the Source ID 301 controlled emissions units with a control efficiency of approximately 89%:

RACT 2

Equipment ID	Source Name/Description
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301-01	Dylene Reactor 301
301-02	Dylene Reactor 302
301-03	Dylene Reactor 303
301-04	Dylene Reactor 304
301-05	Dylene Reactor 305
301-06	Dylene Reactor 306
101/301-07	Dylene Reactor 307
101/301-08	Dylene Reactor 308
101/301-09	Dylene Reactor 309
101/301-10	Dylene Reactor 310
301-11	Dylene Reactor 311
301-12	Dylene Reactor 312

**SECTION E. Source Group Restrictions.**

301-17

Styrene Emissions Reduction (SERS) Control Stack

