

MEMORANDUM

TO: Robert Girard

FROM: Rickey Bouffard

DATE: March 2, 2016

SUBJECT: Proposal to Revise State Implementation Plan to Remove Obsolete Single Source RACT Orders

The Department of Energy and Environmental Protection (DEEP) is proposing to submit to EPA a revision to the State Implementation Plan ([SIP](#)) requesting the following obsolete single source volatile organic compound (VOC) Reasonably Available Control Technology (RACT) orders be removed from the SIP:

Consent Order #8010, Addenda A and B issued to Sikorsky Aircraft Corporation,
Consent Order #8011 issued to Dow Chemical Company,
Consent Order #8014 issued to Pratt & Whitney Aircraft.

CO #8010, with Addenda A and B, was superseded by CO #8246 and was closed on August 26, 2004. CO #8011 and #8014 will be closed after the public hearing and all comments, if any, are addressed.

An analysis of the requirements of each order presented in this memorandum to support the determination that these orders are no longer needed as a compliance mechanism and should, therefore, be removed from the SIP.

Consent Order #8010 & Addenda A and B Sikorsky Aircraft Corporation 6900 Main Street, Stratford

Sikorsky Aircraft Corporation (Sikorsky) manufactures, overhauls and repairs military and commercial helicopters at their 6900 Main Street facility in Stratford Connecticut. Sikorsky is a Title V source (Permit No. [178-0086-TV](#)) located in a severe ozone non-attainment area as defined in RCSA §22a-174-1. At this facility, Sikorsky exceeds the major source threshold for nitrogen oxides (NO_x), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

Section 22a-174-20(ee) of the Regulations of Connecticut State Agencies (RCSA), enacted in 1982, required stationary sources with potential VOC emissions of greater than 100 tons per year to implement Reasonably Available Control Technology (RACT), if not already subject to a regulation adopted pursuant to a Control Techniques Guideline (CTG) issued by EPA. It was determined that Sikorsky had potential VOC emissions from otherwise unregulated processes of 504 tons per year.

The Commissioner issued Administrative Order #945 to Sikorsky in 1986, which required them to investigate and to implement VOC RACT for their spray booths, solvent degreasers and

flowcoater. Administrative Order #8010 was issued on October 18, 1988 that determined RACT for the Stratford facility. Sikorsky subsequently appealed the Order, but the RACT determination was upheld in a final decision rendered on September 29, 1989, and issued as a final Order on January 29, 1990.

Subsequent to the issuance of Order #8010, Sikorsky submitted to the Commissioner, in 1991, an Alternative Emission Reduction Plan (AERP). The AERP proposed the banking of VOC credits resulting from the reformulation of certain coatings and the shutdown of degreasing equipment. This was necessary because Sikorsky was unable to comply with the coating limits of Order #8010. To solve this problem, it was proposed to define specific coating limits based on those already promulgated by several air quality management districts in California. A revised AERP was submitted in 1994 and two Addenda were drafted to the Order. Addendum A set source specific coating limits for a number of specialty coatings and Addendum B provided for emission credits as the result of previous degreaser shutdowns. The Commissioner signed both Addendum A and Addendum B on September 29, 1995. Order #8010 and the Addenda were approved by EPA and incorporated into the SIP on February 9, 1998 (63FR 6484).

The VOC emission credits provided by Addendum B expired on January 1, 2000. In December 1999, Sikorsky sent a letter to the Department concerning the impending expiration of the emission credits on January 1, 2000. Sikorsky requested that they be allowed to adopt the specialty coating limits that were promulgated in the Aerospace CTG. The Aerospace CTG allows higher coating limits than RCSA section 22a-174-20(s) and also allows up to 200 gallons/year for a "de minimis" exemption of low use, high VOC content coatings.

On February 28, 2000, the Department received a VOC RACT Notification/Compliance Plan from Sikorsky. In this plan, they chose to implement the Aerospace CTG by permit or order. At that time, the Department began considering the feasibility of their request; however, by July 2000, it was determined that Sikorsky did not have potential emissions greater than 25 tons/year after exempting those portions of the coating operations that were subject to RCSA section 22a-174-20(s). At that time, it became apparent that Sikorsky may not be in compliance with the RCSA section 22a-174-20(s) VOC coating limits and an alternative solution was sought to bring them back into compliance.

Sikorsky proposed that the coating limits in Addendum A be revised to reflect those in the Aerospace CTG and to raise the de minimis exemption to 200 gallons/year. To determine the level of non-compliance with the RCSA section 22a-174-20(s) VOC coating limits, a compliance inspection was conducted on March 14, 2001 by Air Bureau staff. After the required records were produced, it was determined, on June 1, 2001, that Sikorsky had used an excess of 322 gallons of non-compliant coatings for the calendar year 2000. On September 7, 2001, NOV #14758 was issued to Sikorsky for violation of RCSA section 22a-174-20(s).

On October 17, 2001, the Department received Sikorsky's compliance statement. In the compliance statement, Sikorsky requested that Order #8010 be revised or that the Aerospace CTG be adopted into the Regulations. Since this was a RCSA section 22a-174-20(s) violation, the only existing compliance options available were to choose the compliance methods of section 20(bb) or to choose the alternative emission reductions of RCSA section 22a-174-20(cc) and submit an AERP. Sikorsky submitted an AERP on July 18, 2002 and a supplement to the AERP in March 2003.

Consent Order #8246 was issued to Sikorsky on October 31, 2003, incorporating the AERP. Consent Order #8246 superseded Order #8010 and Order #8010, with Addenda A and B, was closed on August 26, 2004.

Consent Order #8011
Dow Chemical Company
1761 Route 12, Gales Ferry

Dow Chemical Company (Dow) owned and operated a plastics materials and resins manufacturing operation at 1761 Route 12, Gales Ferry (aka Allyn's Point). Dow was issued Notice of Violation #10809 on February 4, 1986, because, as of January 24, 1986, the company had not demonstrated compliance with Section 22a-174-20(ee) of the Administrative Regulations for the Abatement of Air Pollution by the December 31, 1985 deadline. Section 22a-174-20(ee) (formerly section 19-508-20(ee)) required the owner/operator of any premise with actual emissions of one hundred (100) tons per year or more of volatile organic compounds (VOCs) to use Reasonably Available Control Technology (RACT) to limit the discharge of VOCs or submit a compliance plan by December 31, 1985. The NOV was closed and referred for further enforcement action on March 11, 1986. Dow was issued State Order 8011 on October 11, 1988. The order required Dow to implement VOC reduction measures and verify VOC emission limitations. Compliance with State Order 8011 was determined to constitute site-specific RACT. CO #8011 was approved by EPA and incorporated into the SIP on March 8, 1989 (54FR 9781).

In a letter dated October 10, 2011, Dow requested that CO 8011 be revoked. Dow has divested most of its manufacturing operations at the site to Trinseo, LLC (formerly Styron) and Americas Styrenics, LLC (AmSty). Dow is no longer considered a Title V source because it does not have potential emissions greater than any major source threshold, does not operate any unit that, by regulation, would require a Title V permit and is not considered a part of a single stationary source with either Trinseo or AmSty. Trinseo and AmSty constitute a single stationary source under common control at the Allyn's Point site and their emissions are aggregated for applicability determinations. The Trinseo/AmSty source is major for NO_x, but not VOCs. Although the companies could have applied for a single Title V permit, they opted to obtain separate Title V permits, Permit Nos. 092-0028-TV and 092-0027-TV, respectively.

The conditions of State Order 8011 no longer reflect Dow's operations. Dow no longer owns or operates the equipment covered in the order. The Styrofoam process line has been shut down and the rest of the equipment has been transferred to either Trinseo or AmSty. The order requirements for the operational equipment do not need to be incorporated into new orders; because, all of the requirements are covered by existing regulations and/or permits. Closing the order will have no air quality impact. The requirements of State Order 8011 are listed below with the reason the requirements are no longer necessary:

1 & 2 - Styrofoam process line

The order required Dow to evaluate reducing or replacing methyl chloride as a blowing agent and limits the VOC emissions rate.

Dow ceased operations of the Styrofoam process line in December 2009. In July 2010, a new source review permit was issued, but Dow did not and has no plans on reconstructing and restarting this line in the foreseeable future. During a Title V inspection conducted on August

1, 2011, the inspector, Debbie Tedford, confirmed that the process line had been dismantled by removal of the coolers, electronics and computer components and that no Styrofoam has been manufactured on site since December 21, 2009 (Inspection Log No. 2011-0245-PIQ). Permit No. 092-0026 was revoked on October 28, 2011.

3 – Styrene-Butadiene Latex Manufacturing Facility

RACT was determined to be compliance with NSR Permit #092-0016, which incorporated Best Available Control Technology (BACT).

Permit #092-0016 has been transferred to Trinseo and the requirements of the permit have been incorporated into Title V permit #092-0078-TV.

4 – Polystyrene Manufacturing Facility (Plant G) and

5 – Acrylonitrile- Butadiene- Styrene Manufacturing Facility (Plant E)

RACT was determined to be compliance with Sections 22a-174-20(y) and 22a -174-20(x) of the Regulations of Connecticut State Agencies (RCSA). In addition, emissions are not to exceed 0.12 pounds of VOC per 1000 pounds of product over any three hour period of normal plant operation.

RCSA sections 22a-174-20(y) and 22a -174-20(x) constitute RACT. Section 22a-174-20(y)(2) limits VOC emissions from a continuous polystyrene resin manufacturing facility to no more than 0.12 kg of VOC/1000 kg of product (0.24 lbs. of VOC/2000 lbs. of product) over any one hour period. Although the emission rate is the same, the averaging period is shorter, making section 22a-174-20(y)(2) more stringent than the order. This emission rate limit is included as condition III.B.1.a in Title V Permit No. 092-0027-TV.

The order includes an additional requirement for Plant E: emissions from the condenser vacuum vent and the extruder demister die exhaust vent be less than the Maximum Allowable Stack Concentration (MASC) pursuant to Section 22a-174-29 at any time that the operation produces the impact acrylonitrile copolymer.

Both Plant G and E are subject to the MASC requirements of section 22a-174-29. Permit condition III.B.4.a of Title V Permit No. 092-0027-TV limits the concentration of any HAP to “not exceed the MASC at the source’s discharge point(s).”

6 - Storage Vessels

For any storage tank with a capacity between 10,000 and 40,000 gallons containing any VOC with a vapor pressure of ≥ 1.5 psia at operating temperatures, RACT was determined to be the installation and maintenance of conservation vent valves.

This requirement is met by compliance with RCSA section 22a-174-20(x)(6):

(6) Requirements for an open-ended valve.

The owner or operator shall install on each open-ended valve or line a cap, a blind flange, a plug, or a second closed valve which must remain attached to seal the open ended valve at all times except during operations requiring process fluid flow through the open line except in circumstances, as approved by the “Commissioner” by permit or order, where this may cause a safety problem.

For storage tanks with a capacity > 40,000, the order determined RACT to be demonstration of compliance with section 22a-174-20(a)(2).

Tanks with a capacity > 40,000 and storing VOC with a vapor pressure ≥ 0.75 psia are subject to the VOC control requirements of section 22a-174-20(a).

Sources subject to RCSA sections 22a-174-20(a), (x), and (y) are exempt from RCSA sections 22a-174-20(ee) and 22a-174-32. Sections 22a-174-20(a), (x), and (y) define RACT for those sources, so including them in a RACT order is unnecessary.

Consent Order #8014

Pratt & Whitney Aircraft

400 Main Street, East Hartford

Pratt & Whitney, located at 400 Main St, East Hartford was issued CO #8014 on March 31, 1989 to enforce RACT pursuant to Section 22a-174-20(ee) of the Regulations of Connecticut State Agencies (RCSA) for their Vapor Degreasers and their hand wiping operations. The Consent Order approved RACT proposal for the 33 vapor degreasers at this premises. The Consent Order listed several requirements for any open top vapor degreaser that uses any other solvent that is considered a VOC. The Consent Order also included requirements for the hand wiping operations. CO #8014 was approved by EPA and incorporated into the SIP on May 30, 1989 (54FR 22891).

Pratt & Whitney was required to implement Reasonably Available Control Technology (RACT) for volatile organic compounds (VOC) pursuant to the old RCSA Section 20(ee), which stated that RACT was required if actual VOC emissions were over 100 tons per year. Pratt & Whitney's VOC emissions were over 100 tons per year. According to the "Once-In/Always-In" principle published in a Memorandum from the Environmental Protection Agency (EPA) in January 1996, once a source became subject to a RACT determination, it remained subject to that RACT determination. This was to prevent "back-sliding" of any source. The only other alternatives were to remove all existing equipment or if existing regulations were more or equally stringent than the RACT determination.

On December 15, 2006, Pratt & Whitney requested to close out this consent order. Administrative Enforcement staff performed a comparison of the order requirements and the then updated regulations from RCSA Section 22a-174-20. The 2007 version of RCSA section 22a-174-20(l), which covered vapor degreasers, was at least as stringent as the requirements of Consent Order 8014. Any new vapor degreasers would be subject to this section of the Regulations. These standards were equal or more stringent than the requirements in the Consent Order. In addition, as all vapor degreasers referenced in the Order were removed from the premises, applicable requirements from the Order were no longer valid.

Although hand wiping operations at Pratt were subject to the federal requirements in 40 CFR 63 Subpart GG, this only applied if the solvent contained a federal hazardous pollutant. In 2010, RCSA section 22a-174-20(ii) was promulgated and defined VOC RACT for hand wiping operations. The requirements of RCSA section 22a-174-20(ii) were at least as stringent as the requirements in Order #8014. Therefore, the principle of "no back-sliding" was satisfied.