



Statement of Basis for Air Operating AOP No. 10762 Toray Composites (America), Inc. Administrative Modification 1

I.	Purpose of this Statement of Basis.....	2
II.	Source Description.....	2
III.	Review of AOP Application.....	4
IV.	CAM, NESHAP, and NSPS Applicability Review	4
V.	Notice of Construction History.....	18
VI.	Compliance History	20
VII.	Emission Inventory	20
VIII.	Explanation of Applicable Requirements	20
IX.	AOP Section II - Monitoring, Maintenance and Recordkeeping.....	38
X.	Deviations	40
XI.	Prohibited Activities	40
XII.	Activities Requiring Additional Approval.....	40
XIII.	Standard Terms and Conditions.....	41
XIV.	Insignificant Emission Units.....	42
XV.	Obsolete Requirements	43
XVI.	Explanation of Changes Made During 2009 AOP Renewal.....	44
XVII.	Public Comments and Agency Responses.....	49
XVIII.	Administrative Modification 1.....	53

I. PURPOSE OF THIS STATEMENT OF BASIS

A. General

This document summarizes the legal and factual basis for the draft AOP conditions in the Air Operating AOP (AOP) to be issued to Toray Composites America, Inc. (Toray Composites) under the authority of the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington (RCW), Chapter 173-401 of the Washington Administrative Code (WAC), and the Puget Sound Clean Air Agency (Agency), previously known as Puget Sound Air Pollution Control Agency (PSAPCA), Regulation I, Article 7. Unlike the AOP, this document is not legally enforceable. It includes references to the applicable statutory or regulatory provisions that relate to Toray Composites air emissions, and provides a description of Toray Composites activities, including a short compliance history.

B. Renewal 1

This document also describes the first, 2009, renewal to the Toray Composites AOP. The AOP is issued for a five year period, at the conclusion on which the AOP must be renewed. The original Toray Composites AOP was issued on June 11, 2002. It expired on June 11, 2007. Toray Composites submitted their AOP renewal application in a timely manner, and the application was deemed to be complete (See Section III.C for details). In accordance with WAC 173-401, the facility was allowed to continue to operate under the old (2002) version of the AOP until a renewal was processed.

II. SOURCE DESCRIPTION

A. Why Toray Composites is an AOP Source

Toray Composites is subject to the requirement to obtain an AOP because it is a “major source” as defined in the federal and state operating AOP regulations [Title V of the federal Clean Air Act Amendments of 1990 and its implementing regulation 40 CFR Part 70, and RCW 70.94.161 and its implementing regulation, Chapter 173-401 WAC]. A major source has the potential to emit more than 100 tons per year of any criteria

pollutant (such as CO, SO₂, NO_x, VOC, particulate matter, etc.) or 10 tons per year or more of any single hazardous air pollutant listed in Section 112(b) of the federal Clean Air Act (such as toluene), or 25 tons per year or more of any combination of hazardous air pollutants.

In the past, both Toray Composites' potential and actual emissions of HAPs exceeded the major source threshold levels. These factors that made the facility a major source. The facility is currently undergoing an expansion such that the future VOC emissions may also exceed the major source thresholds. See Section VII, Emission Inventory, for a brief review of the emissions that Toray Composites has reported.

B. General Description

Toray Composites manufactures carbon fiber composites used in the manufacture of aircraft and sporting goods. The facility has been in operation since 1992, the first three years of which were dedicated to testing, research, and development. Actual production at the facility did not begin until 1995. In April 1997, Toray Composites informed the Agency that emissions of methyl ethyl ketone (MEK) used to clean tools, equipment, and parts would have the potential to exceed 10 tons. At the time of this assertion, MEK was considered a HAP. The Agency required Toray Composites to apply for an AOP.

C. Overview of the Process Used at Toray Composites

The Toray Composites manufacturing process consists of three main steps:

Resin mixing: Epoxy resins are mixed in 200-300 pound batches from raw resins, hardeners, accelerators, and associated ingredients. Mixed resins are poured into 25-pound blocks for future use, then frozen to prevent curing.

Filming: Mixed epoxy resins are applied to release paper in a very thin layer called film.

Prepreg: This is the final operation of the process. Carbon fiber filaments are impregnated with epoxy resins in a mechanical step using the film manufactured in the above step.

The process also includes numerous solvent cleaning steps, which is where much of the solvent emissions from the facility are emitted.

III. REVIEW OF AOP APPLICATION

A. Original AOP

The Agency received an AOP application from Toray Composites on April 15, 1998. On June 11, 1998, the Agency issued written notification to Toray Composites that the application was incomplete. The application did not adequately describe monitoring, recordkeeping, and reference test methods for compliance certification as required under WAC 173-401-510(2)(i)(ii).

The Agency received supplemental information on July 2, 1998, and acknowledged that the application was complete in a letter to Toray Composites dated July 9, 1998. The original AOP was issued on June 11, 2002.

B. AOP Modifications during the first AOP period

No modifications were made to the Toray Composites AOP during the period from June 11, 2002 to October 22, 2008.

C. Renewal 1

On February 22, 2006 the Agency received an application from Toray Composites for renewal of the AOP. The application consisted of a cover letter and critical items required under WAC 173-401-710, such as a compliance plan and certification by the responsible official. On June 6, 2006 the Agency sent a letter to Toray Composites indicating that the renewal application had been found to be complete. The review was done as part of the AOP renewal and the changes made to the AOP are described in Section XVI, Explanation of Changes Made During 2009 AOP Renewal.

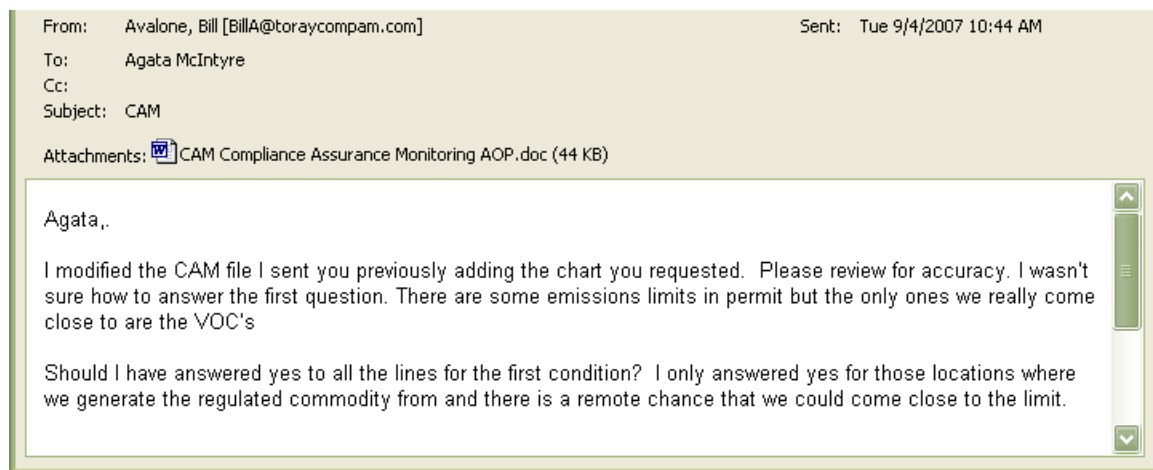
IV. CAM, NESHAP, AND NSPS APPLICABILITY REVIEW

A. CAM

The requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM) apply to major sources that use pollution control systems to achieve compliance with established regulatory or AOP limits. During the AOP renewal process, Toray Composites reviewed the applicability of this rule to the units at the facility. The facility concluded that there

are no major emission units that also use pollution control systems for emission limit compliance. Therefore, CAM does not apply.

The following information was provided by Toray Composites:



Text from the “CAM Compliance Assurance Monitoring AOP.doc” file attached to the above 9/4/2007 email from Bill Avalone:

Toray Composites (America)
Compliance Assurance Monitoring Addendum to AOP 10762 renewal

40 CFR Part 64 Compliance Assurance Monitoring

Under 40 CFR Part 64, as part of the AOP renewal application Toray Composites (America) is required to submit a plan Compliance Assurance Monitoring Plan to the Puget Sound Clean Air Agency for any emission unit that meets the following criteria:

1. The unit is subject to an emission limitation or standard for the applicable regulated air pollutant. {40 CFR 64.2(a)(1) }
2. The unit uses a control device to achieve compliance with any such emissions limitation or standard. {40 CFR 64.2(a)(2) }
3. The emission limitation or standard is not otherwise exempt from the CAM rule, such as by a new source performance standards (NSPS) or national emission standards for hazardous air pollutants (NESHAP) proposed after November 15, 1990, or stratospheric ozone requirements. {40 CFR 64.2(a)(4) }
4. The unit has potential pre-control device emissions of the applicable pollutant of at least 100% of the major source amount. {40 CFR 64.2(a)(3) }

None of the emission units at Toray Composites (America) meet all of the criteria above so we are exempt from the Compliance Assurance Monitoring requirements.

Emission Unit	Location	Emission limitation 40 CFR 64.2(a)(1)	Control Device 40 CFR 64.2(a)(2)	Otherwise exempt 40 CFR 64.2(a)(4)	100% pre-control potential 40 CFR 64.2(a)(3)
EU 1	24" stack from resin mixing	YES (VOC)	NO	NO	YES
EU-2	12" stack from resin mixing	YES (VOC)	NO	NO	YES
EU-3	26" stack in Filming	NO	NO	NO	NO
EU-4	Autoclave room	NO	NO	NO	NO
EU-5	Test chamber in lab	NO	NO	NO	NO
EU-6	Gas fire boilers an heaters	YES (SO _x , NO _x)	NO	NO	NO
EU-7	Back up Diesel generators	NO	NO	NO	NO
EU-8	Prepreg machine	NO	NO	NO	NO
EU-9	Cold solvent batch cleaners	NO	NO	NO	NO

B. NESHAPs

1. 40 CFR 63 Subpart T

The original AOP issued in 2002 included halogenated solvent cleaning requirements (40 CFR 63 Subpart T), which applied to one of the cold solvent cleaning tanks. In its renewal application, Toray Composites requested that these requirements be removed since the cleaner had been decommissioned. The Agency removed these requirements as requested.

2. 40 CFR 63 Subpart OOOO

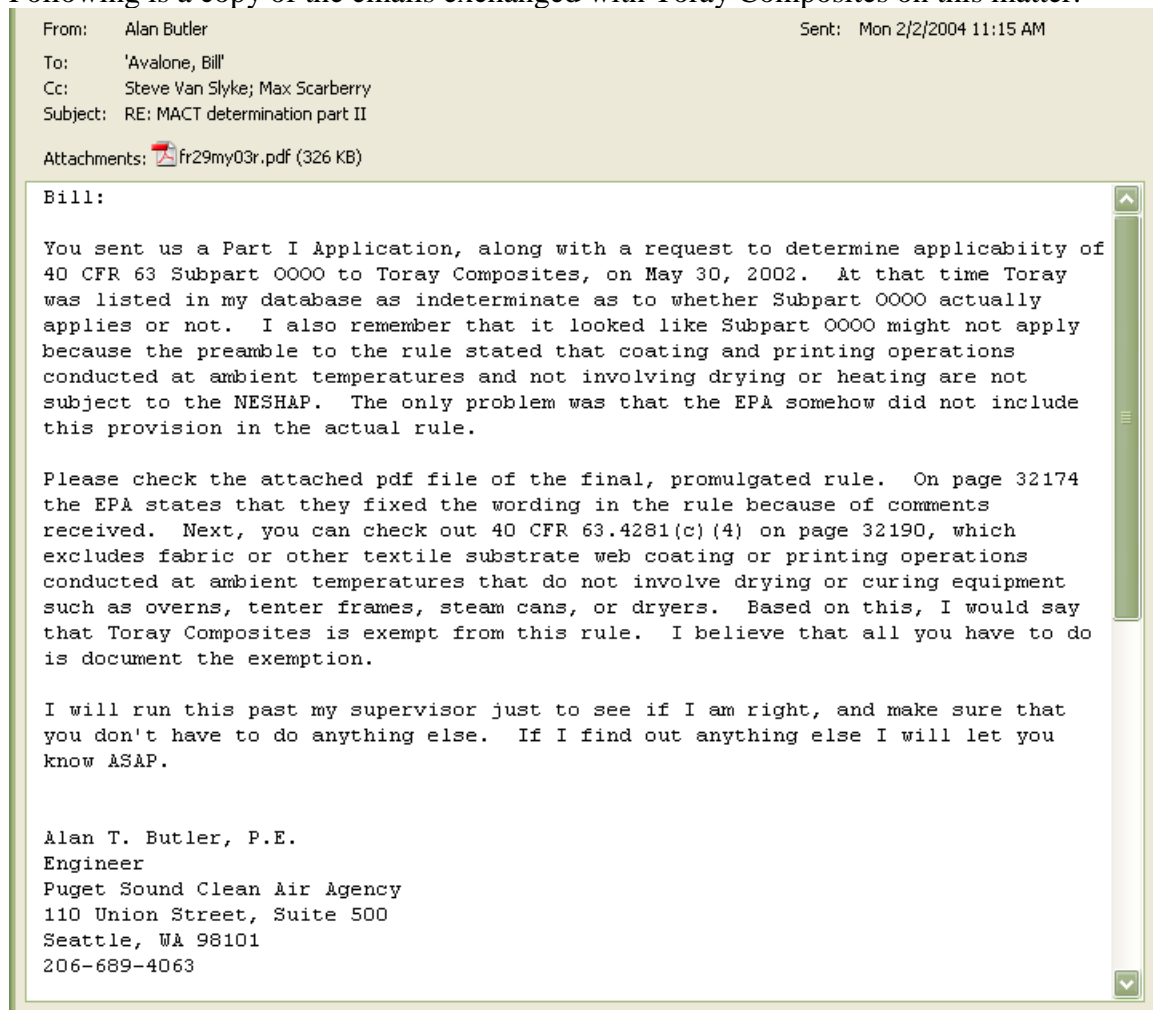
In 2004, the Agency conducted a review of the applicability of 40 CFR 63 Subpart OOOO (Printing, Coating, and Dyeing of Fabrics and Other Textiles) to the facility. Based on discussions with Toray Composites, we concluded that the facility's operations meet the exemption in 40 CFR 63.4281(c)(4), which states:

40 CFR 63.7281(c): “This subpart does not apply to coating, printing, slashing, dyeing, or finishing operations that meet any of the criteria of paragraphs (c)(1) through (5) of this section.” and

40 CFR 63.7281(c)(4): “Fabric and other textile substrate web coating or printing operations conducted at ambient temperatures that do not involve drying or curing equipment such as ovens, tenter frames, steam cans, or dryers.”

Therefore, 40 CFR 63 Subpart OOOO does not apply to Toray Composites.

Following is a copy of the emails exchanged with Toray Composites on this matter:



From: Alan Butler Sent: Mon 2/2/2004 11:15 AM

To: 'Avalone, Bill'

Cc: Steve Van Slyke; Max Scarberry

Subject: RE: MACT determination part II

Attachments: fr29my03r.pdf (326 KB)

Bill:

You sent us a Part I Application, along with a request to determine applicability of 40 CFR 63 Subpart OOOO to Toray Composites, on May 30, 2002. At that time Toray was listed in my database as indeterminate as to whether Subpart OOOO actually applies or not. I also remember that it looked like Subpart OOOO might not apply because the preamble to the rule stated that coating and printing operations conducted at ambient temperatures and not involving drying or heating are not subject to the NESHAP. The only problem was that the EPA somehow did not include this provision in the actual rule.

Please check the attached pdf file of the final, promulgated rule. On page 32174 the EPA states that they fixed the wording in the rule because of comments received. Next, you can check out 40 CFR 63.4281(c)(4) on page 32190, which excludes fabric or other textile substrate web coating or printing operations conducted at ambient temperatures that do not involve drying or curing equipment such as ovens, tenter frames, steam cans, or dryers. Based on this, I would say that Toray Composites is exempt from this rule. I believe that all you have to do is document the exemption.

I will run this past my supervisor just to see if I am right, and make sure that you don't have to do anything else. If I find out anything else I will let you know ASAP.

Alan T. Butler, P.E.
Engineer
Puget Sound Clean Air Agency
110 Union Street, Suite 500
Seattle, WA 98101
206-689-4063



3. Additional NESHAPs

The Agency conducted an additional applicability review and identified the following list of NESHAPs which required further review to determine applicability:

- 40 CFR 63 Subpart U: Group I Polymers and Resins
- 40 CFR 63 Subpart W: Epoxy Resin Production and Non-nylon Polyamides Production NESHAP (Group II Polymers and Resins)

- 40 CFR 63 Subpart JJJ: Group IV Polymers and Resins
- 40 CFR 63 Subpart OOO: Manufacture of Amino/Phenolic Resins (Group III Polymers and Resins)
- 40 CFR 63 Subpart WWW: Reinforced Plastic Composite Production
- 40 CFR 63 Subpart ZZZZ: Stationary Reciprocating Internal Combustion Engines
- 40 CFR 63 Subpart DDDDD: Industrial, Commercial, and Institutional Boilers and Process Heaters (this NESHAP was vacated and remanded by the court on July 30, 2007, leaving Puget Sound Clean Air Agency with a requirement to perform a 112(j) analysis for affected sources)

The Agency reviewed the applicability of these NESHAPs, and shared its analysis with Mr. Bill Avalone of Toray Composites. Mr. Avalone confirmed that the conclusion reached were correct. The correspondence shared with Mr. Avalone and the conclusions reached are discussed below:

From: Avalone, Bill [BillA@toraycompam.com]
To: Agata McIntyre
Cc:
Subject: RE: NESHAPs

Sent: Tue 9/11/2007 3:07 PM

Agata,

I reviewed this document and I agree with everything you have included.

Sorry for the delay

Bill Avalone
Safety & Environmental Manager
Toray Composites (America)
253 846-1777

From: Agata McIntyre [mailto:AgataM@pscleanair.org]
Sent: Tuesday, September 11, 2007 2:54 PM
To: Avalone, Bill
Subject: NESHAPs

Hi Bill,

Just checking in to see if you have had a chance to review the NESHAP document I sent. When you get a chance, could you please take a look at it and let me know if you agree or have any comments?

I did my best to sift through the rules and outline whether (or not) the NESHAPs apply, but I don't know Toray as well as you do, so I'd like to double check that I haven't mis-characterized anything.

Thank you,
Agata McIntyre

From: Agata McIntyre
Sent: Wednesday, August 22, 2007 9:24 AM
To: 'Avalone, Bill'
Subject: RE: MSDS

Bill,

Thank you for all the great information. Attached please find a draft analysis I did of the potential NESHAP applicability issues. Based on my (somewhat limited) knowledge of Toray's operations, these were the NESHAPs that I identified as being potentially applicable, and the reasons why/why not they applied. Could you please review what I put together and let me know if you agree, or if you think of any changes that need to be made? Please note that there are a few items that I highlighted in yellow that I really wasn't very sure about. Once we agree that we've done this review correctly, I'd like to put the discussion into the Statement of Basis.

If, after you've reviewed the attached, you think of additional NESHAPs that we should be taking a look at, please let me know. (In case you're wondering where to find a complete list of the NESHAPs, the following website has a good list: <http://www.epa.gov/ttn/atw/mactfnlalph.html>. If you click on the links on the website, you will also get background documents and technical information that's very useful.)

Thank you,
Agata McIntyre PF

***(a) 40 CFR 63 Subpart U: Group I Polymers and Resins
NESHAP***

This NESHAP applies to major HAP sources with elastomer product process units (EPPU) and associated equipment. An EPPU is defined as “a collection of equipment assembled and connected by hard-piping or duct work, used to process raw materials and to manufacture an elastomer product as its primary product”. Elastomer product means one of the following types of products: Butyl Rubber; Halobutyl Rubber; Epichlorohydrin Elastomer; Ethylene Propylene Rubber; Hypalon™; Neoprene; Nitrile Butadiene Rubber; Nitrile ene Latex; Polybutadiene Rubber/Styrene Butadiene Rubber by Solution; Polysulfide Rubber; Styrene Butadiene Rubber by Emulsion; and Styrene Butadiene Latex.

Toray Composites does not manufacture or use any of the above types of products. The Group I Polymers and Resins NESHAP does not apply.

(b) 40 CFR 63 Subpart W: Epoxy Resin Production and Non-nylon Polyamides Production NESHAP

This NESHAP applies to major HAP sources that manufacture basic liquid epoxy resins (BLR) and wet strength resins (WSR). BLR are resins made by reacting epichlorohydrin and bisphenol A to form diglycidyl ether of bisphenol-A (DGEBA). WSR are polyamide/epichlorohydrin condensates which are used to increase the tensile strength of paper products.

The question of whether the resins made and applied at Toray Composites are BLR is clarified by the 1994 preamble to this rule. In the preamble, EPA stated that “The BLR source category does not include the manufacture of specialty epoxy resins (epoxy resins that are not BLR) or the modification of epoxy resins (BLR that are blended with solvents, reactive diluents, or other resins)”. The raw materials that Toray Composites purchases include resins like EPON 825 and 828, which are both bisphenol A–(epichlorohydrin) epoxy resins. These resins are then blended with other solvents, diluents, and resins to produce the custom resins that Toray Composites applies to carbon fibers. Toray Composites does not purchase raw epichlorohydrin and combine it with raw bisphenol A. Therefore, Toray Composites is not a manufacturer of BLR under the NESHAP.

The resins used at Toray Composites are combined with carbon fibers as part of the final product, and are then used in the manufacture of sporting good and aircraft. They are clearly not WSRs, which, according to the definition “increase the tensile strength of paper products”.

The Epoxy Resin Production and Non-nylon Polyamides Production NESHAP does not apply.

(c) 40 CFR 63 Subpart JJJ: Group IV Polymers and Resins

This NESHAP applies to thermoplastic product process units (TPPU) at facilities that are major sources of HAPs. A thermoplastic product is defined as one of the following types of products:

ABS latex; ABS using a batch emulsion process; ABS using a batch suspension process; ABS using a continuous emulsion process; ABS using a continuous mass process; ASA/AMSAN; EPS; MABS; MBS; nitrile resin; PET using a batch dimethyl terephthalate process; PET using a batch terephthalic acid process; PET using a continuous dimethyl terephthalate process; PET using a continuous terephthalic acid process; PET using a continuous terephthalic acid high viscosity multiple end finisher process; polystyrene resin using a batch process; polystyrene resin using a continuous process; SAN using a batch process; or SAN using a continuous process.

The above acronyms are further defined as:

- ABS: Acrylonitrile butadiene styrene resins
- ASA: Acrylonitrile styrene acrylate resin
- EPS: Expandable polystyrene resin
- MABS: Methyl methacrylate acrylonitrile butadiene styrene resin
- MBS: Methyl methacrylate butadiene styrene resin
- Nitrile resin: means a resin produced through the polymerization of acrylonitrile, methyl acrylate, and butadiene latex using an emulsion process.
- Poly(ethylene terephthalate) resin (PET) means a polymer or copolymer comprised of at least 50 percent bis-(2-hydroxyethyl)-terephthalate by weight.
- Polystyrene resin means a thermoplastic polymer or copolymer comprised of at least 80 percent styrene or para-methylstyrene by weight.
- Styrene acrylonitrile resin (SAN) means copolymers consisting primarily of styrene and acrylonitrile monomer units.

Toray Composites does not use or produce any of the above resins. The Group IV Polymers and Resins NESHAP does not apply.

(d) 40 CFR 63 Subpart OOO: Manufacture of Amino/Phenolic Resins

This NESHAP applies to major HAP sources that produce amino/phenolic resins. The affected source is the total of all amino/phenolic resin process units (APPU) as well as associated operations.

- Amino resin is defined as “a thermoset resin produced through the reaction of formaldehyde, or a formaldehyde containing solution (e.g., aqueous formaldehyde), with compound(s) that contain the amino group; these compounds include melamine, urea, and urea derivatives. Formaldehyde substitutes are exclusively aldehydes.”
- Phenolic resin is defined as “a thermoset resin that is a condensation product of formaldehyde and phenol, or a formaldehyde substitute and/or a phenol substitute. Substitutes for formaldehyde are exclusively aldehydes and include acetaldehyde or furfuraldehyde. Substitutes for phenol include other phenolic starting compounds such as cresols, xylenols, p-tert-butylphenol, p-phenylphenol, nonylphenol, and resorcinols.”
- Amino/phenolic resin process unit (APPU) is defined as a collection of equipment assembled and connected by hardpiping or ductwork used to process raw materials and to manufacture an amino/phenolic resin as its primary product

Toray Composites does purchase and use some resins that could be considered amino/phenolic resins. However, these resins are not manufactured at Toray Composites from their raw components. The applicability of this NESHAP hinges on whether the resins are manufactured from their raw components. Since Toray Composites does not manufacture these resins from their raw components, but rather purchases them pre-made and ready to further modify, the Manufacture of Amino/Phenolic Resins NESHAP does not apply.

(e) 40 CFR 63 Subpart WWWW: Reinforced Plastic Composite Production

A facility is subject to this NESHAP if the facility is a major source of HAP emissions and produces reinforced plastic composites. For purposes of the NESHAP definition, reinforced plastic composites production is limited to operations in which reinforced and/or nonreinforced plastic composites or plastic molding compounds are manufactured using thermoset resins and/or gel coats that contain styrene. The resins used at Toray Composites do not contain styrene. In addition, Toray Composites does not manufacture the plastic composites or molding compounds themselves. The facility only manufactures the prepreg which is then purchased by other facilities that cut and shape the prepreg into composite parts. Therefore, the Reinforced Plastic Composite Production NESHAP does not apply.

(f) 40 CFR 63 Subpart ZZZZ: Stationary Reciprocating Internal Combustion Engines (RICE)

An affected source is any existing, new, or reconstructed stationary RICE excluding stationary RICE being tested at a stationary RICE test cell/stand. According to the information provided by Toray Composites, the facility currently operates three stationary emergency generators that are affected sources under this rule. See Section VIII.C.3(a) Generators: 40 CFR 63 Subpart ZZZZ for additional information.

(g) 40 CFR 63 Subpart DDDDD: Industrial, Commercial, and Institutional Boilers and Process Heaters

(i) Affected sources

This NESHAP applied to boilers and process heaters, both new and existing. 40 CFR 63.7575 indicated that the definition of a process heater does not include units used for comfort heat, space heat, or autoclaves. Therefore, the space heaters and autoclaves at Toray Composites are exempt.

Toray Composites has two 6 MMBtu/hr natural gas fired boilers, which were installed in 1993, and two 6 MMBtu/hr natural gas fired boilers which were installed in 2007. All four boilers qualified as small, gaseous fuel fired boilers under the NESHAP. Such units were technically “affected sources” under the NESHAP, but according to NESHAP guidance, they have no requirements.

(ii) 112(j) in general

The Clean Air Act (CAA) requires EPA to issue National Emissions Standards for Hazardous Air Pollutants (NESHAPs) over a 10-year schedule. If EPA misses a regulatory deadline established through CAA Section 112(e) by 18 months, Section 112(j) requires state and local permitting authorities to step in and revise the operating AOPs of affected major sources to contain air toxic emission limits equivalent to the limits that EPA should have established. Puget Sound Clean Air Agency has been delegated authority for both the operating AOP and NESHAP programs (see Appendix A to 40 CFR 70, July 26, 2007, for operating AOP approval status and the February 4, 2008 NESHAP delegation letter from EPA to Puget Sound Clean Air Agency for the NESHAP delegation status), and has incorporated by reference the relevant federal regulations into the Puget Sound Clean Air Agency regulations. Therefore, Puget Sound Clean Air Agency has the responsibility to process any necessary Section 112(j) determinations in its jurisdiction.

EPA established a detailed process by which Section 112(j) determinations are to be handled. This process established guidelines for both the affected sources and state/local permitting agencies. The process begins with an affected facility filing an application for a case-by-case MACT determination if the applicable NESHAP had not been timely promulgated. Provisions were also made for how to proceed if a 112(j) determination was incorporated into the AOP, and EPA subsequently promulgated a delayed NESHAP. According to Section 112(j) guidance documents, if EPA issues a delayed NESHAP, the AOP must be revised, as necessary, to incorporate the NESHAP.

The NESHAP for boilers and process heaters (40 CFR 63 Subpart DDDDD) was one of a list of NESHAPs scheduled for promulgation by November 15, 2000 (67 FR 6521). EPA did not meet the promulgation schedule for the NESHAP, which triggered the 112(j) process. Since the promulgation schedule wasn't met, the Puget Sound Clean Air Agency stepped in and notified Toray Composites that a 112(j) Part 1 application was needed by May 15, 2002 for boilers and process heaters at the facility. Toray Composites submitted a Part 1 application on May 30, 2002, requesting an applicability determination. The Agency acknowledged receipt of the application in a July 24, 2002 letter to Toray Composites.

EPA proposed a draft version to 40 CFR 63 Subpart DDDDD in a January 13, 2003 Federal Register posting (68 FR 1660), which was published after the deadline for the 112(j) Part 1 application but before the deadline for the Part 2 application. Since the final NESHAP was anticipated at any time, the Puget Sound Clean Air Agency did not require Toray Composites to submit a Part 2 application. 40 CFR 63 Subpart DDDDD was codified on September 13, 2004 (69 FR 55217), putting an end to the need for a Part 2 application. However, on July 30, 2007 the Columbia District Circuit Court of Appeals issued a decision to vacate and remand 40 CFR 63 Subpart DDDDD. This action left the Puget Sound Clean Air Agency without an enforceable NESHAP, and led to renewed discussion regarding whether a 112(j) Part 2 application was needed.

Toray Composites voluntarily provided a Part 2 application on October 27, 2008 which discussed four 6 MMBtu/hr natural gas fired boilers. The application was reviewed and deemed to be complete on October 28, 2008.

40 CFR 63.55 provides guidance for how to make case-by-case MACT 112(j) determinations. 40 CFR 63.55(a) states: “the permitting authority must establish hazardous air pollutant emissions limitations equivalent to the limitations that would apply if an emission standard had been issued in a timely manner”. This idea of equivalency is an overarching principle for how to make Section 112(j) determinations. 40 CFR 63.55(a)(1)-(4) describes additional requirements and principles for setting emissions limits. In summary, they are:

- Emission limitations must be established for equipment and activities for which the section 112(j) deadline has passed.
- Each emission limitation for an existing affected source must reflect the maximum achievable degree of reduction in emissions of HAPs, taking into account the factors described in the regulation. This limitation must not be less stringent than the Maximum Achievable Control Technology (MACT) floor established according to Section 112(d)(3)(A) and (B).

- Each emission limitation for a new affected source must reflect the maximum achievable degree of reduction in emissions of HAPs, taking into account the factors described in the regulation. This limitation must not be less stringent than the emission limitation achieved in practice by the best controlled similar source, established according to Section 112(d)(3).
- The permitting authority must select a specific design, equipment, work practice, operational standard, or combination thereof, when it is not feasible to prescribe or enforce an equivalent emission limitation due to the nature of the process or pollutant.

As discussed above, 40 CFR 63.55 provides guidance for state and local agencies on how to make 112(j) determinations in the absence of a NESHAP promulgated by EPA. In this case, since EPA did in fact promulgate 40 CFR 63 Subpart DDDDD, there's no guess work about what limits would be "equivalent to the limitations that would apply if an emission standard had been issued in a timely manner". One can simply look to the NESHAP. In addition, EPA already did a throughout analysis using the principles described in 63.55(a)(1)-(4). This analysis is discussed in Section III of the following federal register postings: January 13, 2003 (68 FR 1660), September 13, 2004 (69 FR 55217), June 27, 2005 (70 FR 36907), October 31, 2005 (70 FR 62264), and December 28, 2005 (70 FR 76918). Since EPA has already completed an analysis based on the principles in 40 CFR 63.55, the Puget Sound Clean Air Agency has determined that the Agency's responsibilities under 40 CFR 63.55(a) can be satisfied by relying on EPA's work. Therefore, in making its 112(j) determinations, the Puget Sound Clean Air Agency intends to rely on EPA's analysis and conclusions for 40 CFR 63 Subpart DDDDD.

40 CFR 63.52(f) discusses what needs to be included in the operating AOP for a 112(j) determination. In summary, the necessary items are:

- An equivalent emission limitation or, if applicable, an alternative emission limitation;
- An emission standard or limitation that is equivalent to existing source MACT and an emission standard or emission limitation that is equivalent to new source MACT;
- Specify the affected source, and whether it's existing, new, or reconstructed;
- Specify any notification, operation and maintenance, performance testing, monitoring, and reporting and recordkeeping requirements;

- Specify any additional emission limits, production limits, operational limits or other terms and conditions necessary to ensure practicable enforceability; and
- Specify compliance certifications, testing, monitoring, reporting and recordkeeping requirements and dates by which compliance must be achieved.

The Puget Sound Clean Air Agency will evaluate the above items in the Toray Composites operating AOP for the boilers and process heaters subject to the 112(j) analysis. As discussed above, the information included in the AOP will be based on the conclusions reached by EPA in its analysis for the boiler and process heater NESHAP, 40 CFR 63 Subpart DDDDD.

C. NSPS

New NSPS have been promulgated since the issuance of the original Toray Composites AOP, and were evaluated for applicability as part of the AOP renewal. 40 CFR 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines (CI ICE) was found to apply to engines manufactured after April 1, 2006 that are not fire pump engines. Toray Composites has two emergency generators that are affected sources for purposes of this NSPS. See Section VIII.C.3(b) Generators: 40 CFR 60 Subpart IIII for additional information.

V. NOTICE OF CONSTRUCTION HISTORY

Notice of Construction Order of Approval No. 5015, issued July 8, 1993. The Agency issued this Order of Approval for Toray Composites to construct their present facility. The Order of Approval was for the following equipment: “Resin Preparation/Impregnation Process including two Absolute Aire Heaters at 1.35 MMBtu/hr each, two Cleaver Brooks Boilers at 6 MM/Btu/hr each, Resin Mixing Room at 13,600 cfm, Washing Tanks with fan exhaust stack at 19,770 cfm, Filming/Mixing/Curing Room with fan exhaust stack at 15,200 cfm, a Prepreg Mixing/Curing Room at 6,000 cfm, and a Physical Test Lab Bench with fan exhaust stack at 2,460 cfm. Order of Approval No. 5015 required Toray Composites to use lidded containers when using methylene chloride, to use acetone to rinse filtered carbon fibers prior to drying, and sets an emission limit of 10 tons per year for methyl ethyl ketone. This Order of Approval has since been superseded. Therefore, none of the requirements from the Order of Approval are included in the AOP.

Notice of Construction Order of Approval No. 6963, issued July 29, 1998. This Order of Approval supercedes Notice of Construction Order of Approval No. 5015. The equipment and the operating practice requirements are unchanged; the only difference between Notice of Construction Order of Approval No. 5015 and Notice of Construction Order of Approval No. 6963 is that the 10 ton per year emission limit for MEK is removed.

Notice of Construction Order of Approval No. 7986, issued January 31, 2000. This Order of Approval was issued for one Cold Solvent Cleaning Machine using methylene chloride. This tank has now been decommissioned, and according to Toray Composites, will not be used again. Therefore, this Order of Approval is obsolete and the Order of Approval conditions were not included in the AOP.

Notice of Construction Order of Approval No. 9066, issued August 17, 2004. This Order of Approval was issued for a new prepreg line, including resin mixers and solvent tanks. Approval was granted after the original AOP was issued in 2002. The Order of Approval was held as an off-AOP change, which meant that the conditions from the Order of Approval were not included in the AOP until the 2009 AOP renewal. The equipment is now installed at the facility and the Order of Approval conditions have been included in the AOP as part of the renewal.

Notice of Construction Order of Approval No. 9535, issued January 23, 2007. This Order of Approval was issued for a new prepreg line, including three resin mixers and six solvent tanks. Similarly to Order of Approval 9066, approval was granted after the original AOP was issued in 2002, and the Order of Approval was held as an off-AOP change. In the mean time, this Order of Approval was cancelled and superseded by Order of Approval 10002. Therefore, this Order of Approval is obsolete and is not included in the AOP.

Notice of Construction Order of Approval No. 10002, issued March 3, 2009. This Order of Approval supersedes Notice of Construction Order of Approval No. 9535 for the new prepreg line. During the process of installing the equipment approved by Order of Approval 9535, Toray Composites determined that an additional mixer (R-10) was needed. The mixer was added to the Order of Approval, and the approval was re-issued under No. 10002.

VI. COMPLIANCE HISTORY

During the past five years, the Agency:

- Conducted annual on-site compliance inspections of Toray Composites.
- Has taken one enforcement action against Toray Composites, for failure to submit a timely semi-annual AOP certification report for January through June 2008, as required by AOP Section V.Q.2. NOV 3-004958 was issued and is still open at this time.
- Has taken one enforcement action against Toray Composites for failure to submit a pre-construction Notice of Construction application for mixer R-10. NOV 3-004988 was issued and closed on 2/9/09 after Toray Composites submitted the application. (Mixer R-10 is now permitted under Order of Approval No. 10002.)
- Has no record of receiving complaints concerning Toray Composites.

VII. EMISSION INVENTORY

A brief summary of key reported emissions is included in the table below. For additional details, see Attachment A.

Pollutant	2007	2006	2005	2004	2003
Toluene	2	2	11	8	4
MEK	21	14	9	9	10
Methanol	1	1	6	4	2
Methylene Chloride	1	2	1	0.5	0.25
VOC Total	54	29	35	27	21

VIII. EXPLANATION OF APPLICABLE REQUIREMENTS

Applicable requirements are listed in several sections of this AOP as outlined below. The AOP only lists the requirements that the Agency has determined to be within the scope of the definition of “applicable requirements” under the operating AOP program. Toray Composites is legally responsible for complying with all applicable requirements of the operating AOP as well as other requirements that do not fit the definition of “applicable requirements” found in Chapter 173-401 of the Washington Administrative Code

(WAC). Some of the applicable requirements contain monitoring, maintenance and recordkeeping that require detailed explanation in this statement of basis. The specific conditions are listed below, along with any necessary explanations in monitoring, maintenance and recordkeeping requirements.

A. AOP Sections I and II In General

1. How the tables in AOP Section I work

Section I in Agency AOPs is set up in tabular form. Section I.A. contains the requirements that are applicable to Toray Composites on a facility-wide basis. Section I.B. contains requirements applicable only to specific emission units within the facility. It should be noted here that all the requirements in Section I.A. apply to the specific emission units as well. If the monitoring, maintenance and recordkeeping method for any requirement in Section I.A. is more extensive for a specific emission unit, that requirement is repeated in Section I.B. with the additional monitoring, maintenance and recordkeeping requirements.

The tables in Section I of the AOP list all the local (Agency), state (Department of Ecology), and federal (EPA) emission limits and emission limiting operational requirements that apply to the facility and emission units within the facility. All requirements are federally enforceable unless they are identified in column two by the words “*STATE ONLY.*”

Table Format:

Column 1: The first column identifies the requirement. I.A.1 is the first facility-wide requirement. EU-1.5 is the fifth requirement for Emission Unit 1. This column is for information only and the information contained in the column is not enforceable.

Column 2: The second column contains the actual rule citation for each individual requirement. This can be an Agency requirement from Regulation I, II, or III, a Department of Ecology requirement (WAC or RCW), or a federal requirement such as a New Source Performance Standard (NSPS) or a National Emission Standard for Hazardous Air Pollutants (NESHAP).

Column 3: The third column contains the adoption or effective date of the requirement. In some cases, the effective dates of the Federally Enforceable, or “SIP¹,” requirement and the Non-Federally Enforceable, or “State Only,” requirement are different because either the state has not yet submitted the regulation to the EPA for approval into the State Implementation Plan (SIP) or the EPA has not yet approved it. “*STATE ONLY*” adoption dates are in *italicized* font. When the EPA does approve the new requirement into the SIP, the old requirement will be replaced and superseded by the new requirement. This replacement will take place automatically, with no changes being made to this AOP until the AOP is renewed. The new requirement will be enforceable by the EPA as well as the Agency from the date that it is adopted into the SIP, and the old requirement will no longer be an applicable requirement.

Column 4: The fourth column paraphrases the requirement. This column is for information only and the information contained in the column is not enforceable. The actual enforceable requirement is embodied in the requirement cited in the second and third columns.

Column 5: The fifth column identifies the Monitoring, Maintenance & Recordkeeping Method methods described in Section II of the AOP. Following these methods is required to “reasonably assure continuous compliance”, and is an enforceable requirement of the AOP. Note that all inspections, tests, and other actions must be documented (the specific recordkeeping requirement for this is in Section V.O.4 of the AOP).

¹ “SIP” is an abbreviation for “state implementation plan” which is a plan for improving or maintaining air quality and complying with the Federal Clean Air Act. The Federal Clean Air Act requires states to submit these plans to the US EPA for its review and approval. This plan must contain the rules and regulations of the state agency or local air authority necessary to implement the programs mandated by Federal law. Once the EPA adopts the plan or elements of it, the plan and its requirements become “federally enforceable” by EPA. New or modified state or local rules are not federally enforceable until they are “adopted into the SIP” by the EPA.

Columns 6 and 7: The sixth column identifies the averaging time for the reference test method, while the seventh column identifies the test method itself. This test method is to be used if and when a source test is required. In some cases where the applicable requirement does not cite a test method, one has been added.

In the event of conflict or omission between the information contained in the fourth and sixth columns and the actual statute or regulation cited in the second column, the requirements and language of the actual statute or regulation cited shall govern. For more information regarding any of the requirements cited in the second and third columns, refer to the actual requirements cited.

2. How monitoring methods in Section II of the AOP were originally determined

These are the basic AOP requirements:

- Each AOP has to contain all the air quality requirements that apply to the facility.
- The AOP has to describe exactly how the source would comply with each of the requirements.
- The “responsible official” for the facility has to certify “continuous compliance” with every applicable requirement.

Agency AOPs have the emissions standards and operating limits in tabular form in Section I of the AOP, and the monitoring methods in Section II. An AOP is not supposed to add any new requirements, or make any existing requirements more stringent, but sometimes “gap-filling” a monitoring method is necessary:

- All emission limits contained in EPA’s National Emission Standards for Hazardous Air Pollutants (NESHAPs) have acceptable monitoring methods built in. These may be simply placed in the AOP.
- PSD AOPs and minor new source review AOPs (i.e. Notice of Construction Orders of Approval) issued after the launch of the air operating program usually include monitoring methods that are designed to reasonably assure continuous compliance. Those also may be placed in the AOP.

- Older minor new source review AOPs, older federal New Source Performance Standards (NSPS), and state and local emission limits either had very little or no on-going monitoring. Special “gap-filling” monitoring methods had to be developed for these requirements, as provided under WAC 173-401-615(1)(b).

Whenever the Agency uses a “gap-filling” monitoring method, we determine the monitoring frequency using criteria contained in EPA’s April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*. We consider “the five criteria” listed below in determining how often the facility should perform a monitoring activity: hourly, once per shift, daily, weekly, monthly, quarterly, annually, and so on. These five criteria are:

- 1) **Initial compliance.** One source may have never have violated a requirement, but it still applies. The next source, however, may really have to work to stay in compliance with the requirement. For example, walk-around inspections for fugitive emissions may be needed more often at a steel mill with an outdoor scrap yard than at a truck assembly facility with indoor manufacturing operations.
- 2) **Margin of compliance.** The monitoring method and frequency are designed so that the source will identify a problem early and take corrective action before a violation occurs. For example, the opacity limit on a baghouse might be 20%, but a properly maintained baghouse should not have any visible emissions. The monitoring for the baghouse may specify periodic inspections for visible dust, with a requirement to further examine the operation of the baghouse if any dust is seen.
- 3) **Variability of process and emissions.** A highly variable process may need more frequent watching than one that runs only intermittently, or one that runs continuously at an “easy” rate.
- 4) **Environmental impacts of problems.** More frequent inspections may be required for a process for which a maintenance problem is likely to result in emissions that would have a significant environmental impact.
- 5) **Technical considerations.** The facility is required to perform routine maintenance on all equipment in accordance with an acceptable operation and maintenance (O&M) Plan. Frequently, it is sufficient to operate, maintain, and monitor equipment in accordance with manufacturer’s instructions. Where such operations, maintenance,

and monitoring has been found to be insufficient, the Agency has stepped in with gapfilling measures.

B. AOP Section I.A. (Facility-Wide)

1. Requirement I.A.2 (Opacity)

Both WAC 173-400-040(1) and Agency Regulation I, Section 9.03 standards are 20% opacity and apply to all stationary sources.

The monitoring method is based on monthly visual inspections of all emission points at Toray Composites. Toray Composites must take corrective action or use the reference test method, WDOE Method 9A, to determine opacity if any visible emissions are noted. The Puget Sound Clean Air Agency has determined that the monitoring should be monthly for the reasons listed below.

- 1) **Initial compliance.** The Agency has not observed visible emissions from the facility during any inspection.
- 2) **Margin of compliance.** The monitoring method is designed so that the source will take corrective action before a violation of the underlying emission standard occurs. Because there are no significant processes at Toray Composites that would cause visible emissions, the margin of compliance is extremely wide.
- 3) **Variability of process and emissions.** There is little variation in the process and emissions.
- 4) **Environmental impacts of problems.** A maintenance problem is unlikely to result in emissions that would have a significant opacity impact.
- 5) **Technical considerations.** In addition to the monthly opacity monitoring, Toray Composites is required to inspect all areas of the facility that have a reasonable chance of having opacity emissions at least once per quarter, and is required to follow O&M Manual procedures for minimizing entrainment of dust. Toray Composites has demonstrated over the first permitting period that this schedule of monitoring is sufficient to assure compliance with the opacity requirement.

2. Requirements I.A.3 and I.A.4 (PM₁₀)

Agency Regulation I, Section 9.09 limits particulate emissions to 0.05 grain per dry standard cubic foot (gr/dscf) from equipment used in a manufacturing process. WAC 173-400-060 limits particulate emissions to 0.1 gr/dscf from general process units (i.e., units using a procedure or a combination of procedures for the purpose of causing a change in material by either chemical or physical means, excluding combustion).

The Agency has determined that the monitoring should be monthly, employing the same monitoring method at the same frequency, for the same reasons, as the opacity requirements in Requirement I.A.2. The facility does not normally have particulate emissions from any of its equipment. Monitoring for visible emissions would identify particulate emissions, and would lead the facility to look for underlying problems that are causing the emissions.

3. Requirement I.A.5 (PM₁₀ from combustion sources)

WAC 173-400-050(1) limits particulate emissions to 0.1 gr/dscf corrected to 7% O₂ from combustion units (units using combustion for waste disposal, steam production, chemical recovery or other process requirements; but excludes outdoor burning.). Toray Composites burns only pipeline grade natural gas and fuels that are certified to comply with the fuel oil standards of Regulation I, Section 9.08. It can be shown, as in Section V.B.4 for SO₂, that if fuels are properly burned, Toray Composites is incapable of violating this standard while complying with the other requirements. Improper fuel burning that would result in high particulate emissions would also cause opacity problems and would be detected by the opacity monitoring requirement or through complaint response. Therefore, the monitoring method specified for this requirement is monthly opacity monitoring.

4. Requirement I.A.6 (SO₂)

The Agency Regulation I, Section 9.07 and WAC 173-400-040(6) have been grouped together under Requirements IA.6 since they are equivalent requirements (SO₂ emissions not to exceed 1,000 parts per million on a dry, volumetric basis² (ppm)) and have the same monitoring requirements.

The second paragraph of WAC 173-400-040(6), which is not in the Agency regulations and is not adopted into the SIP, allows for exceptions to this requirement if the source can demonstrate that there is no feasible method of reducing the SO₂ concentrations to 1,000 ppm. This requirement is not federally enforceable and is not an applicable requirement for sources regulated by the Agency.

The boilers and heaters burn only natural gas, and the diesel engines burn only distillate or very low sulfur oil. The following calculations show that it is mathematically impossible for a unit to emit 1,000 ppm sulfur dioxide while burning natural gas or very low sulfur oil. Therefore, no additional monitoring is required.

Natural gas:

Natural gas means a mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as the gas sold or distributed by any utility company regulated by the Washington Utilities and Transportation Commission. Natural gas may also be referred to as “pipeline quality natural gas.” Toray Composites receives

² “ppm” means “parts per million on a dry, volumetric basis.” Sometimes this is written as “ppmdv.” Stack gas is usually sampled through a probe placed somewhere in the middle of the stack cross-section. The moisture is removed from the gas stream as part of the sampling process. The stack gas sample is analyzed for the pollutant in question, with the lab results being calculated as cubic feet (or meters) of pollutant per million cubic feet (or meters) of dry stack gas. If you had a stack with 50% moisture that was running right at the 1,000 ppm SO₂ standard, you would have 1,000 cubic feet of SO₂ for every million cubic feet of dry stack gas. You would also have 1,000 cubic foot of SO₂ for every *two* million cubic feet of “wet” (as is) stack gas, which is 500 ppm. This is why it’s important to know how stack sampling is done and why stack sampling and continuous emission monitoring methods are so specific.

the same natural gas as all of the other natural gas consumers, private and industrial, in the Northwest. According to Section 1.4-3 of AP-42, natural gas contains approximately 2000 grains of sulfur per million cubic feet, which is equivalent to approximately 3.4 parts of sulfur per million cubic feet of natural gas, as shown in the following calculation:

$$\frac{2,000 \text{ gr } S}{1,000,000 \text{ ft}^3 \text{ nat. gas}} \times \frac{1 \text{ lb}}{7000 \text{ gr}} \times \frac{385 \frac{\text{ft}^3}{\text{mole } S}}{32 \frac{\text{lb}}{\text{mole } S}} = 3.44 \times 10^{-6} \frac{\text{ft}^3 S}{\text{ft}^3 \text{ nat. gas}} \equiv 3.44 \text{ ppmdv } S$$

According to *Perry's Chemical Engineer's Handbook*, each cubic foot of natural gas requires approximately 10 cubic feet of air for combustion, yielding approximately 11 cubic feet of combustion exhaust gases, consisting mostly of nitrogen, water vapor, and carbon dioxide. The sulfur in the natural gas will almost all be converted to sulfur dioxide, with each cubic foot of sulfur producing the same volume of sulfur dioxide. Since each cubic foot of natural gas contains 4.08×10^{-5} cubic foot of sulfur, each cubic foot of stack exhaust will contain approximately:

$$3.44 \times 10^{-6} \frac{\text{ft}^3 S}{\text{ft}^3 \text{ nat. gas}} \times \frac{1 \text{ ft}^3 \text{ SO}_2}{1 \text{ ft}^3 S} \times \frac{1 \text{ ft}^3 \text{ nat. gas}}{11 \text{ ft}^3 \text{ stack exhaust}} = 3.13 \times 10^{-7} \frac{\text{ft}^3 \text{ SO}_2}{\text{ft}^3 \text{ stack exhaust}}$$

This is equivalent to 0.31 ppmdv SO₂. Note that this estimated value is less than one-tenth of one percent of the 1,000 ppm SO₂ standard. Therefore, it is reasonable to assume that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO₂ limits in Agency Regulation I, Section 9.07 and WAC 173-400-040(6).

Oil, "very low sulfur" and "distillate":

"Very low sulfur oil" is defined by the US EPA in NSPS Subpart Db as "an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input." "Distillate oil" is defined in NSPS Subpart Db as "fuel oils that contain 0.05% weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 23, as defined by the American Society of Testing and

³ ASTM D396-78 requires that No. 2 fuel oil containing greater than 0.05% sulfur be dyed with Solvent Red 164 at the concentration spectrally equivalent to at least 3.9 pounds of the solid dye Standard Red 26 per 1,000 barrels in accordance with the mandates of the US EPA and IRS.

Materials in ASTM D396-78, Standard Specifications for Fuel Oils, which has been incorporated by reference into 40 CFR 60.17.”

We can use the conversion factors given in 40 CFR 60 Appendix A, Reference Method 19 to estimate the maximum possible SO₂ concentration in the diesel exhaust in ppm if all the diesel engine was burning 0.5% sulfur oil and emitting 0.5 lb/MMBtu SO₂.

According to Table 19.1, burning a million Btu of oil produces 9,190 dry standard cubic feet of stack gas. One part per million SO₂ is equivalent to 1.66×10^{-7} pound of sulfur dioxide per dry standard cubic foot.

$$0.5 \text{ lb } SO_2 / \text{MMBtu} \times \frac{1 \text{ MMBtu}}{9,190 \text{ dscf}} \times \frac{1 \text{ ppmdv}}{1.66 \times 10^{-7} \frac{\text{dscf}}{\text{lb}}} = 327.7 \text{ ppmdv } SO_2$$

Based on the above calculations, it is reasonable to assume that the Toray Composites facility will not emit SO₂ in excess of 1,000 ppmdv if the boilers, heaters, and diesel engine burn only natural gas or very low sulfur oil. Therefore, no additional monitoring is required.

5. Requirement I.A. 7 (HCl)

Agency Regulation I, Section 9.10(a) specifies that HCl emissions shall not exceed 100 ppm (dry), corrected to 7% O₂ for combustion sources, including both internal and external combustion units. Toray Composites can only burn pipeline grade natural gas and diesel, and neither of these fuels can contain chlorine in sufficient quantities to cause the HCl emission limit to be exceeded. Therefore, no additional monitoring is required.

6. Requirements I.A.8 and 1.A.9 (nuisance)

Agency Regulation I, Section 9.11 and WAC 173-400-040(5) are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. WAC 173-400-040(2) addresses fallout emissions that are deposited beyond the facility property, and which may cause a nuisance. All of these requirements have been grouped together because they are so similar in nature. The monitoring method for all these requirements is based on responding to complaints and general inspections of the facility to identify any emissions that are likely to be injurious to human health, plant or animal life, or property, or that unreasonably interfere with enjoyment of life and property. As discussed above, in the last five years the facility has not received any complaints about

nuisance emissions from Toray Composites. Therefore, the Agency has determined that complaint response requirements in Section II.A.1(b) as well as the monthly and quarterly inspections required in Section II.A.1(c) of the AOP are sufficient to monitor for changes that would cause nuisance emissions.

WAC 173-400-040(4) address odors. The monitoring method is based on responding to complaints, quarterly inspections of the facility to identify emissions of odor-bearing contaminants, and correcting any problems identified as a result of the inspection or investigation. Receiving complaints does not necessarily mean Toray Composites is in violation of this requirement, since the regulation does not prohibit the emission of odors, but prohibits the emissions of odors if good practices are not employed to control emissions. Toray Composites does not generally emit odors that would cause a complaint, and in the last five years the Agency has not received any odor complaints. Complaints will trigger action by Toray Composites to investigate and correct problems that could result in a violation.

The Agency has determined that the monitoring should be complaint response, as per AOP Section II.A.1(b), along with quarterly facility-wide inspections and monthly checks for visible emissions and fugitive dust from emission generating equipment and near the exits of exhaust ducts as per Section II.A.1(c) for the reasons listed below. These factors are consistent with EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*.

- 1) Initial compliance. The Agency has received no complaints regarding fugitive dust or odor emissions from Toray Composites over the past five years, and has not observed visible or odorous emissions from plant activities during any inspection. Therefore, we conclude that it is generally in compliance with the nuisance requirements.
- 2) Margin of compliance. The monitoring method is designed so that the source will take corrective action before a violation of the underlying emission standard occurs.
- 3) Variability of process and emissions. There is little variation in the process and emissions.
- 4) Environmental impacts of problems. A maintenance problem is unlikely to result in emissions that would have a significant environmental impact.

- 5) Technical considerations. There are no storage piles to blow away in the wind. There are no processes that have a significant potential to generate fugitive particulate or gaseous or odor-bearing emissions. The vast majority of facility operations take place indoors, so the potential nuisance impacts are minimized by being contained inside the building.

7. Requirements I.A. 10, I.A. 11 (Fugitive emissions)

WAC 173-400-040(3) addresses fugitive dust emissions for some activities, and WAC 173-400-040(8) requires reasonable precautions or reasonably available control technology (RACT) to control fugitive emissions. Agency Regulation I, Section 9.15 requires the use of reasonable precautions for fugitive dust and lists some examples of reasonable precautions. As discussed above, Toray Composites conducts the vast majority of its manufacturing operations indoors, and the majority of its roads and parking lots are paved. In the past five years, the Agency has not received any complaints about fugitive dust emissions, and has not cited Toray Composites for causing fugitive dust emissions. Therefore, we conclude that the margin of compliance is generally high.

Based on the factors above, we conclude that the appropriate monitoring method for this requirement is as-needed complaint response, as per AOP Section II.A.1(b), along with quarterly facility-wide inspections and monthly checks for visible emissions and fugitive dust from emission generating equipment and near the exits of exhaust ducts as per Section II.A.1(c) for the reasons listed below.

8. Requirement I.A.12 (maintain equipment)

Agency Regulation I, Section 9.20 requires Toray Composites to maintain equipment in good working order. Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under Agency Regulation I, Article 6, while Section 9.20(b) applies to equipment that didn't receive an Notice of Construction Order of Approval. The Agency has determined that following the requirements of Section II.B, the O&M Plan, provides sufficient monitoring criteria for compliance with Section 9.20(a) and 9.20(b). However, the Agency reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

9. Requirements I.A.13 (O&M plan)

In accordance with Agency Regulation I, Section 7.09(b), Toray Composites is required to develop and implement an O&M Plan to assure continuous compliance with Agency Regulations I, II and III. The requirement specifies that the plan shall reflect good industrial practice, but does not define how to determine good industrial practice. To clarify the requirement, the Agency added that in most instances following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice. The Agency also added language establishing criteria for determining if good industrial practice is being used. These may include, but are not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. The Agency added this wording in response to Washington State court decision, *Longview Fibre Co. v. DOE*, 89, Wn. App. 627 (1998), which held that similar wording was not vague and gave sufficient notice of the prohibited conduct. Agency Regulation I, Section 7.09(b) also requires Toray Composites to promptly correct any defective equipment. However the underlying requirement in most instances does not define "promptly"; hence for significant emission units and applicable requirements that Toray Composites has a reasonable possibility of violating or that a violation would cause an air quality problem, the Agency added clarification that "promptly" usually means within 24 hours. For many insignificant emission units and equipment not listed in the AOP, the meaning of "promptly" will vary because the emission sources and suitable pollution control techniques vary widely, depending on the contaminant sources and the pollution control technology employed. However, the AOP identifies a means by which to identify if Toray Composites is following good industrial practice.

Toray Composites must report to the Agency any instances where it failed to promptly repair any defective equipment. Toray Composites has the right to claim certain problems were a result of an emergency or unavoidable.

Following these requirements demonstrates that Toray Composites has properly implemented the O&M Plan, but it does not prohibit the Agency or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation.

10. Requirement I.A.14 (maintain equipment)

Similarly to Agency Regulation I Section 9.20(a), RCW 70.94.152(7) requires Toray Composites to maintain equipment in good working order. The Agency has determined that following the requirements of Section II.B, the O&M Plan, provides sufficient monitoring criteria to certify that the equipment has been maintained in good working order. However, the Agency reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

11. Requirement I.A.15

RCW 70.94.040 is similar to Agency Regulation I, Section 9.11 and is listed separately here because it is not a federally enforceable requirement.

C. AOP Section I. B. (Emission Unit Specific)

Section I.B. of the AOP lists applicable requirements that are specific to an emission unit or activity. The Generally Applicable Requirements of Section I.A. apply to all the emission units listed in Section I.B. and are not repeated in this section. Monitoring Methods and Reference Methods are also identified if they are different from, or in addition to, those listed in Section I.A.

The EPA incorporated what the EPA has determined to be “all necessary monitoring” into all recently promulgated federal air pollution regulations. In general, where a recently adopted federal regulation does not identify a monitoring method, the AOP does not identify one either. For some older federal air pollution regulations, the Agency has determined on a case by case basis that additional monitoring to be necessary. In these cases, monitoring has been added consistent with WAC 173-401-615(1)(b).

1. Emission Unit #1 (EU-1): Activities and equipment which have no specific Order of Approval requirements, no NESHAP requirements, and no NSPS requirements.

Some of the units in this section were approved through an Order of Approval without specific requirements, while others were exempted from Order of Approval review all together. None of the units in this section are subject to NESHAP or NSPS requirements.

The common factors between the units in this section are that they are relatively clean,

and that they do not have any additional applicable requirements beyond those in Section I.A. However, since they are not IEUs, the Agency determined that they needed to be specifically identified in the AOP.

2. Emission Unit #2 (EU-2): Activities and equipment with specific requirements in an Order of Approval, but no NESHAP or NSPS requirements

The general requirements in Section I.A. also apply to all the units in this EU. The units in the EU, specifically the resin mixers and solvent wash tanks, have the potential to emit fairly significant quantities of solvents. In addition to complying with the requirements of Section I.A, the units in this section that were permitted by Orders of Approval 6963, 9066, and 10002 are required to use best management practices for minimizing evaporation of organic solvents into the atmosphere, including the collection of organic solvent used for cleanup of all equipment into normally closed containers, and keeping containers used for the storage and disposal of organic solvent closed except when these containers are being cleaned or when materials are being added.

Note that in addition to the solvent cleaning tanks discussed in the AOP, Toray Composites also has tanks No. 7 and No. 8 which were decommissioned as of the time of the AOP renewal (see email January 14, 2009 email from Bill Avalone to Agata McIntyre, Section XVII.B.1). These tanks may be used again for a future operation, but this future use will need to be evaluated to determine what regulatory standards may apply and whether a Notice of Construction Order of Approval is needed.

3. Emission Unit #3 (EU-3): Activities and equipment with NESHAP or NSPS requirements

This EU consists of:

- Generators that are subject to requirements under 40 CFR 63 Subpart ZZZZ (Reciprocating Internal Combustion Engine (RICE) NESHAP); some of these units also have requirements under 40 CFR 60 Subpart IIII (Stationary Compression Ignition Internal Combustion Engines NSPS) and
- Boilers subject to the requirements of a MACT 112(j) analysis and 40 CFR 63.52(f).

Similarly to EU-1 and EU-2, the general requirements in Section I.A. also apply to all the units in this EU. The additional specific requirements that apply to this EU, including NESHAP, NSPS, and MACT 112(j) requirements, are discussed below:

(a) Generators: 40 CFR 63 Subpart ZZZZ

An affected source is any existing, new, or reconstructed stationary RICE excluding stationary RICE being tested at a stationary RICE test cell/stand.

According to the information provided by Toray Composites, the facility operates 3 stationary emergency generators that are affected sources under this rule. The generator at TCA-1 is 240 hp and was installed in 1993. The generator at TCA-4 is 367 hp and was installed in 2007. The generator at TCA-5 is 617 hp and was also installed in 2007.

- The 240 hp generator is considered an existing emergency generator. While the generator is an affected source, according to 40 CFR 63.6590(b)(3), the generator doesn't need to meet the requirements of Subpart A or Subpart ZZZZ and has no initial notification requirements.
- The 367 hp generator is considered a new emergency generator. According to 40 CFR 63.6590(c), new emergency generators that are less than 500 hp must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart III.
- The 617 hp generator is considered a new emergency generator. According to 40 CFR 63.590(b)(1)(i), new emergency generators that are more than 500 hp do not have to meet the requirements of Subpart ZZZZ or Subpart A except for the initial notification requirements of 40 CFR 63.6645(h).

(b) Generators: 40 CFR 60 Subpart IIII

40 CFR 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines (CI ICE) applies to engines that commenced construction after July 11, 2005 and are manufactured after April 1, 2006, and are not fire pump engines. 40 CFR 60.4205 discusses the requirements for owners of emergency engines. 40 CFR 60.4205(a) states that pre-2007 model year emergency engines with a displacement less than 10 L per cylinder must comply with the emission limits in Table 1. CFR 60.4205(b) states that

engines with a model year of 2007 and later and a displacement of less than 30 L per cylinder must comply with the standards for non-road CI engines in 40 CFR 60.4202. According to 40 CFR 60.4211, compliance with this regulation can be demonstrated by keeping records of performance test results for each pollutant for a test conducted on a similar engine. There are no restrictions on the hours of engine operation in emergency service. However, 40 CFR 60.4211(e) does restrict the hours of operation for purposes of maintenance checks and readiness testing to 100 hours per year.

(i) Emergency Generator at TCA-4

According to the records provided by Toray Composites, the emergency generator at TCA-4 was manufactured in June, 2005. This is before April 1, 2006, which is the rule applicability date cited in 40 CFR 60.4200 for the CI ICE NSPS. Therefore, the requirements of the CI ICE NSPS do not apply to TCA-4. (Note that Toray Composites provided data about the generator as part of this analysis. TCA-4 has a displacement of 2 L per cylinder, a total displacement of 12 L, and 367 hp. The emissions from a similar engine are 0.31 g/hp-hr HC, 6.14 g/hp-hr NO_x, 0.85 lb/hp-hr CO, and 0.29 lb/hp-hr PM.)

(ii) Emergency Generator at TCA-5

The emergency generator at TCA-5 was manufactured in August 2006. Hence, the requirements of 40 CFR 60.4205(a) for pre-2007 model year engines apply. TCA-5 has a cylinder displacement of 2.0 L per cylinder, a total displacement of 16.0 L, and 617 hp. Toray Composites has records from the engine manufacturer of source tests for a 600 hp SD400 engine which is a similar unit:

Pollutant	Table 1 limit (g/hp-hr)	SD 400 Engine Emissions (g/hp-hr)	Does engine comply?
HC	1.0	0.14	Yes
NO _x	6.9	6.9	Yes
CO	8.5	1.1	Yes
PM	0.4	0.35	Yes

(c)

(d) Boilers

As discussed in Section IV.B.3(g)(ii), the Puget Sound Clean Air Agency has decided to base its 112(j) decision on the conclusions reached by EPA in the boiler and process heater NESHAP. Toray Composites has four 6 MMBtu/hr natural gas fired (no back-up fuel) boilers, two installed in 1993 and two in 2007. Such units qualified as small, gaseous fuel fired boilers under the NESHAP, and were technically “affected sources”. However, these units had no requirements, including no initial notification requirements.

Based on the conclusions reached by EPA in 40 CFR 63 Subpart DDDDD, the Puget Sound Clean Air Agency also concludes that all 4 boilers will have no requirements resulting from the 112(j) analysis.

The Agency has determined that following the requirements in Section I.A provides sufficient monitoring for the boilers. However, the Agency reserves the right to evaluate the maintenance of these units to determine if they are being maintained in good working order.

(e) Monitoring for EU-3

The units discussed in this section are relatively “clean” in that they emit no smoke during normal operation. The boilers burn only natural gas, and the emergency generators burn diesel. The hours of operation of the emergency generators are very limited. Therefore, the opportunities during which there could be smoke or odor emissions from these units are limited.

As discussed earlier, the general requirements in Section I.A. also apply to the units in this EU. The units in this EU do not have specific Order of Approval conditions or Orders of Approval monitoring requirements. In fact, the majority of the units were exempt from Order of Approval. The majority of the requirements discussed in this section stem from NSPS and NESHAP. The monitoring for these NSPS and NESHAP requirements includes keeping documentation on file and tracking the hours of operation of certain emergency generators.

The Agency has determined that following these requirements in addition to the requirements in Section I.A provides sufficient monitoring. However, the Agency reserves the right to evaluate the maintenance of these units to determine if they are being maintained in good working order.

IX. AOP SECTION II - MONITORING, MAINTENANCE AND RECORDKEEPING

Toray Composites must follow the requirements contained in Section II of the AOP, Monitoring, Maintenance and Recordkeeping Requirements. Failure to follow a requirement in Section II may not necessarily be a violation of the underlying applicable emission standard in Section I. However, not following a requirement of Section II is a violation of Section II and Toray Composites must report such violations (as well as violations or deviations from any other AOP condition) as a deviation under Section V.Q.1 of the AOP. In addition, all information collected as a result of implementing Section II can be used as credible evidence under Section V.N.2 of the AOP. Reporting a deviation and taking corrective action does not relieve Toray Composites from its obligation to comply with the underlying applicable requirement.

A standard Agency Notice of Construction Order of Approval condition requires that the equipment, device, or process be installed according to plans and specifications submitted to the Agency. Once the equipment is installed, the Agency requires certification by the applicant that the installation was as approved; this is usually done with a Notice of Completion. Normally within six months to a year after receiving a Notice of Completion, an Agency inspector verifies by inspection that the equipment was installed as specified and in accordance with the Notice of Construction Order of Approval. While the Notice of Completion is a one-time requirement, Toray Composites cannot change the approved equipment in such a manner that requires an Order without first obtaining a Notice of Construction Order of Approval which is addressed in Section IV.A of the AOP. In most cases, once Toray Composites has filed the Notice of Completion and an Agency inspector has verified that the equipment was installed according to the Order of Approval, the Agency considers Order Condition No. 1 an obsolete condition. However, in some cases in the AOP, the Agency has identified a need to specify that the equipment cannot be altered in such a manner that requires a Notice of Construction Order of Approval.

A. Monitoring Frequency

In determining the appropriate monitoring frequencies for monitoring identified in Section II.A of the AOP, the Agency considered several factors, including the following:

- 1) Toray Composites compliance history and the likelihood of violating the applicable requirement;
- 2) The complexity of the emission unit including the variability of emissions over time;
- 3) The likelihood that the monitoring would detect a compliance problem;
- 4) The likely environmental impacts of a deviation;
- 5) Whether add-on controls are necessary for the unit to meet the emission limit;
- 6) Other measures that Toray Composites may have in place to identify problems;
- 7) The type of monitoring, process, maintenance, or control equipment data already available for the emissions unit;
- 8) The technical and economic considerations associated with the range of possible monitoring methods; and
- 9) The type of monitoring found on similar emissions units.

Section II.A of the AOP requires Toray Composites to conduct quarterly facility-wide inspections. These inspections are to include checking for prohibited activities under Section III of the AOP and activities that require additional approval under Section IV of the AOP, as well as checking for any “nuisance” odor bearing contaminants. The AOP also requires monthly inspections of the facility for visible emissions as well as fugitive dust or fall out. The Agency determined the frequency of these inspections after considering the potential for emissions, the lack of federally required monitoring, Toray Composites in-house training practices, and similar factors. If problems are identified, Toray Composites has the responsibility to not only correct the specific problem, but also to adjust the work practices and training to prevent future problems.

Section II.B of the AOP adds requirements for specific pieces of equipment, including requirements stemming from Orders of Approval and applicable NSPS.

X. DEVIATIONS

“Deviation” means any situation in which an emissions unit fails to meet a AOP term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping required by Section II of the AOP. Failure to follow a requirement in Section II may not necessarily be a deviation of the underlying applicable emission standard in Section I. However, not following a requirement of Section II is a deviation of Section II and Toray Composites must report such deviations, as well as deviations from any other AOP condition, as a deviation under Section V.Q.1 of the AOP. In addition, all information collected as a result of implementing Section II can be used as credible evidence under Section V.N.2. of the AOP.

XI. PROHIBITED ACTIVITIES

Some of the requirements Toray Composites identified in the original operating AOP application are included in Section III as prohibited activities. The Agency has listed these activities in this section to highlight that they cannot occur at the facility. Since these activities are prohibited, routine monitoring of parameters is not appropriate; however, the AOP does require Toray Composites to look for such activities during a routine facility-wide inspection.

XII. ACTIVITIES REQUIRING ADDITIONAL APPROVAL

Some of the requirements Toray Composites identified in the original operating permit application are included in Section IV as activities that require additional approval. For new source review, the AOP language has been simplified. Chapter 173-460 WAC and Agency Regulation I, Article 6 New Source Review Programs require approval to construct, install, establish, or modify an air contaminant source. All these requirements apply, but the language in these requirements has been incorporated into one section to simplify the AOP language. WAC 173-400-110 applies statewide, yet defers to local authority programs which provide the same, equivalent function. Since the Agency has had a New Source Review program under Regulation I, Article 6 for many years, the regulatory program used to review activities for this purpose is Regulation I, Article 6 and not the statewide version administered by the Washington Department of Ecology, is listed in the AOP.

XIII. STANDARD TERMS AND CONDITIONS

This section contains the standard terms and conditions specifically listed in WAC 173-401-620, as well as other conditions that apply to Toray Composites.

Some of the requirements Toray Composites identified in the operating AOP application are included in Section V, Standard Terms and Conditions. This provided an easier mechanism for describing requirements that are more general in nature. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620.

Section V.P.1 of the AOP requires Toray Composites to report deviations of the AOP to the Agency, normally within 30 days after the end of the month. Section V.P.2 of the AOP requires that a responsible official certify all required reports at least once every six months. Toray Composites may submit the certification with the report or certify all the reports submitted in the previous six months. For example, if Toray Composites detected a deviation in February, it must report the deviation to the Agency by March 30th. A responsible official must certify the report according to WAC 173-401-520 at the time the report is submitted or any other time within six months of submitting the report. One certification by the responsible official will fulfill this requirement for up to six monthly deviation reports.

If Toray Composites does not detect any deviations to report for a six-month period, then Toray Composites shall report that there were no deviations during the six-month period.

Section V.W of the AOP requires Toray Composites to comply with Section 112(r) Risk Management program of the EPA, as required in 40 CFR Part 68. Toray Composites has certified that it does not use any 112(r) regulated substances in excess of the threshold quantities.

XIV. INSIGNIFICANT EMISSION UNITS

As of the date of AOP issuance, the emission units listed below are defined as insignificant for the reasons indicated.

A. Exempt due to emissions of emission unit below threshold value [WAC 173-401-530(4)]

None.

B. Exempt due to size or capacity of emission unit [WAC 173-401-533]

ID	Unit or Activity	Citation	Parameter	Criterion	Actual
1.	Medium tank (heated to minimum extent necessary to avoid solidification of contents)	WAC 173-401-533(2)(a)	Capacity, gallons	260	< 260
2.	Diesel fuel tank	WAC 173-401-533(2)(c)	Capacity, gallons	10,000	< 10,000
3.	Surface coating spray cans	WAC 173-401-533(2)(q)	Paint use, gallons per day	2	< 2
4.	Air handling units (space heaters) – gas burners	WAC 173-401-533(2)(r)	MMBtu/hr	5	< 5

XV. OBSOLETE REQUIREMENTS

The Agency has issued Notice of Construction Orders of Approval No. 5015, 6963, 7986, 9066, 9535, and 10002 to Toray Composites. Each of these Orders of Approval contains at least one condition that requires Toray Composites to do something one-time, and one-time only. The Agency has determined that some of the approval conditions are now informational statements because they have already been complied with and, therefore, do not meet the criteria of being applicable requirements. Those approval conditions are described here and are not listed in the AOP.

Notice of Construction Order of Approval No. 7986, issued on January 31, 2000, has been cancelled because Toray Composites has discontinued use of methylene chloride cold solvent wash tank. Toray Composites would have to submit a Notice of Construction application and obtain an Order of Approval in order to use methylene chloride in a cold solvent tank. Subpart T of the National Emission Standards for Hazardous Air Pollutants no longer applies to Toray Composites, because chlorinated solvents are no longer used in cold solvent washing tanks.

Notice of Construction Order of Approval No. 5015 was superseded and cancelled by Order of Approval No. 6963.

Notice of Construction Order of Approval No. 9535 was superseded and cancelled by Order of Approval No. 10002.

Condition No. 1 in Notice of Construction Orders of Approval Nos. 6963, 9066, and 10002 requires the applicant to install the approved equipment according to the specifications submitted to the Agency. This requirement is in every Notice of Construction Order of Approval and has been verified through inspections by the Agency.

Condition No. 2 in Notice of Construction Orders of Approval Nos. 6963, 9066, and 10002 informs the applicant that the approval does not relieve it of the requirement to comply with any requirement of any other governmental agency. This condition is in every Notice of Construction Order of Approval and is informational only.

XVI. EXPLANATION OF CHANGES MADE DURING 2009 AOP RENEWAL

The format of the AOP was changed to the latest Agency form, and numerous date references throughout the AOP were updated due to rule changes since the last time the AOP was open. Changes involving decisions by the Agency, or that were otherwise substantive, are described below:

A. Changes to Section I Table Format

The tables in Section I have been changed. Previously, facility-wide requirements and requirements for each emission unit were expressed in two tables each. The first table contained requirements that were in the State Implementation Plan (SIP) and were therefore “federally enforceable,” immediately followed by a second table with the requirements that were “*STATE ONLY*” enforceable. Also, there was a notation below each of the old, federally enforceable requirements stating that the requirement would be superseded by the new requirement, once that new requirement was adopted into the SIP. The new table style consolidates the two-table system into a single table for facility wide requirements and for each emission unit requirements. The notations below each of the “dual” requirements have been replaced with a single explanation of the SIP and *STATE ONLY* adoption process and the display conventions used in all the tables. This one-time explanation is contained in the paragraph between the Section I heading and the requirements tables. The *STATE ONLY* requirements are shown with their federally enforceable counterparts, with the dates *italicized*, as shown below:

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Emission Standard Period	Reference Test Method
General						
I.A.1 →	WAC ² 173-400-040-¶ WAC ² 173-400-040- (<i>STATE ONLY</i>)	9/23/93¶ <i>2/10/05</i>	All emission units are required to use RACT.	No monitoring required	N/A	N/A
• Opacity Standards						
I.A.2 →	Puget Sound Clean Air Agency Reg. I-9.03 (except for 9.03(e))¶ Puget Sound Clean Air Agency Reg. I-9.03-¶ (<i>STATE ONLY</i>)¶ WAC ² 173-400-040(1)¶ WAC ² 173-400-040(1)- (<i>STATE ONLY</i>)	3/11/99-¶ ¶ 3/25/04-¶ ¶ 9/23/93¶ <i>2/10/05</i>	Toray Composites shall not emit any air pollutants which exhibit greater than 20% opacity for a period or periods aggregating more than 3 minutes in any hour.	II.A.1(a) Opacity monitoring	More than 3 min. in any 1 hr.	Ecology Reference Method 9A, 7/12/1990-¶ (See Section X)

B. Changes in Facility-wide applicable requirements

I.A.1 The generic requirement from the very beginning of WAC 173-400-040 was inserted here. This requirement states that all emission units are required to use, at a minimum, reasonably available control technology (RACT). Also, if two emissions units emit into a single stack, and we can't tell which pollutants are coming from which source, the most restrictive requirements that would apply to the individual emissions units apply to the common stack. The paraphrase of the requirement (column 4 in the table) only discusses the RACT requirement, but the entire requirement applies.

I.A.4 and I.A.5 Toray Composites wanted requirements I.A. 4 (WAC 173-400-060) and I.A.5 (WAC 173-400-050(1)) deleted or moved, but the Agency determined that those conditions should stay. This is because they apply statewide, throughout all of the Agency's jurisdiction, and therefore throughout the entire Toray Composites facility. These requirements had been previously listed as exempt, but the earlier determination has been overridden. Periodic opacity monitoring (Section II.A.(1)(a)- Opacity Monitoring) has been required as the monitoring method.

I.A.14 RCW 70.94.152(7) has been moved from EU-1.32 to I.A.14 because this requirement applies throughout the facility.

C. Changes to Section I.B

This section contains requirements that apply to specific emission units, as opposed to the generally applicable, facility wide, requirements, which are listed in section I.A. The new applicable requirements from NOC 9066 and 10002 have been added to Section I.B, as well as the requirements of the newly applicable RICE NESHAP, CI ICE NSPS, and a MACT 112(j) analysis for the boilers. The EUs have been re-grouped in a slightly different order. This re-grouping was necessitated by the addition of the equipment permitted under Orders of Approval 9066 and 10002 and the applicability of the new NESHAP and NSPS regulations.

In addition, in accordance with the Agency's most recent AOP template, some of the monitoring requirements that used to be listed in Section I.B have been moved to Section II. These monitoring requirements still apply to the same units and in the same way, they are just housed in a different part of the AOP. (The requirements in Section I.B are cross

referenced to the monitoring, maintenance, and recordkeeping methods in Section II of the AOP.)

D. Changes to Section II

Section II.A was updated with monitoring, maintenance, and recordkeeping requirements stemming from Order of Approvals 9066 and 10002. Rule references throughout the section were updated to the latest date of the rule. Sections II.A.1(a) and II.A.1(b) were updated according to the Agency's latest AOP template, and statements were added concerning the consequences of not taking corrective actions as described in the AOP. Section II.A.1(a) was also updated with a discussion of the fact that all observations using reference test methods must be reported to the Agency within 30 days after the end of the month in which the observation occurred. A monitoring method of "Best Management Practices for Minimizing Evaporation of Organic Compounds" was added to Section II.A.2(a), and will be used for compliance with conditions in Orders of Approval 6963, 9066, and 10002. Section II.A.2(b) now contains the requirements to maintain information on file for at least 5 years from the date a record is made. This is a standard provision of the current AOP template. Section II.A.2(c) contains a requirement to keep emergency generator documentation on files as per 40 CFR 60.4211(b). The requirements for methylene chloride cold solvent cleaning machines were removed from Section II since the methylene chloride cold solvent cleaner has been decommissioned, and Toray Composites has no plans to use the cleaner in the future.

Section II.B was updated with the latest AOP template language concerning O&M Plans. Discussion of the O&M Plan for batch cold solvent cleaners was removed since this discussion was mostly concerned with the methylene chloride solvent cleaner which has been decommissioned. Existing cold solvent cleaners will need to follow the general O&M requirements discussed in Section II.B. Discussion of the general recordkeeping requirements was moved from Section II to Section V.O in accordance with the Agency's latest AOP template. Superfluous cross-references regarding the location of the IEU requirements and reporting requirements were removed from Sections II.B.3 and II.C.

E. Changes to Section III

Changes were made to the following sub-sections of Section III in accordance with the Agency's latest AOP template:

- Updates were made to the outdoor burning and refuse burning sections.
- The section discussing circumvention was deleted.
- Numerous date citations were updated to the latest version of the rule.
- Discussion regarding ambient standards and circumvention was removed.
- Sections discussing tampering requirements and false statements were added.

F. Changes to Section IV

Section IV.A-C: The dates and regulatory references in these sections were updated in accordance with the Agency's latest AOP template.

Section IV.D: This section, which describes Agency Regulation I, Section 9.16 was renumbered to match the numbering used in the regulation. In addition, new outdoor spray coating requirements stemming from the 2/22/07 version of Agency Regulation I Section 9.16 were added.

Section IV.E: This section, discussing prohibitions against operating in violation with the Requirements of 40 CFR 61 or 63, was removed consistent with the Agency's latest AOP template.

G. Changes to Section V

Regulatory citations were updated with the latest date of the regulation throughout Section V. The Agency has moved offices, so changes were made to the Agency's mailing address, referenced in several places in Section V.

Section V.L: A discussion about compliance schedules was added. This discussion is part of the Agency's current AOP template language for this section.

Section V.M: A comment was added to clarify the fact that the compliance certifications are for the calendar year. The Agency's offices address was updated. In addition, the Agency recently updated Regulation I Section 7.09(c) to include a requirement that reports be sent in electronically. This requirement will become applicable as of June 30, 2009 and was added to section V.M.

Section V.N: The Agency's Regulation I Section 3.07(b), dealing with compliance testing, was updated on 3/23/06. The new enforceable language from the 3/23/06 version of the rule was added to Section V.N, and the old, now obsolete, language was removed. Section V.N.2, which discussed requirements for continuous emission monitors, was removed since Toray does not operate any CEMs. The Agency's update to Regulation I Section 7.09(c), which discusses sending in reports electronically, was also added.

Section V.O. This section about recordkeeping used to be part of Section II. The language was moved from Section II to Section V to be consistent with the Agency's latest AOP template. Changes to the language in this recordkeeping section were also made to be consistent with the current template language.

Section V.Q. This section was overhauled. An effort was made to make the reporting subsection more understandable without losing the legal requirements. The majority of the reporting requirements did not need to be changed. However, reporting requirements did need to be added for the newly applicable RICE NESHAP as well as 40 CFR 63.9(j). The requirements of Regulation I Section 7.09(c) were also added. The Summary table in Section V.Q.7 was overhauled to simplify the table and include only those requirements that Toray Composites will need to submit on a routine basis. The old table included numerous reports which were submitted infrequently, which diluted the usefulness of the summary table.

Section V.S: This section has been updated to be consistent with the Agency's most current AOP template.

Section V.W: The requirement to certify compliance with this section in accordance with V.M was added.

Section V.Z: This section has been revised to include new wording to accommodate the changes in WAC 173-401-530(2) with regard to monitoring of insignificant emissions

units. Inclusion of this new wording, which was developed after several meetings with EPA Region X, is mandatory.

H. Changes to Section VI

Regulatory citations were updated with the latest date of the regulation throughout Section VI.

XVII. PUBLIC COMMENTS AND AGENCY RESPONSES

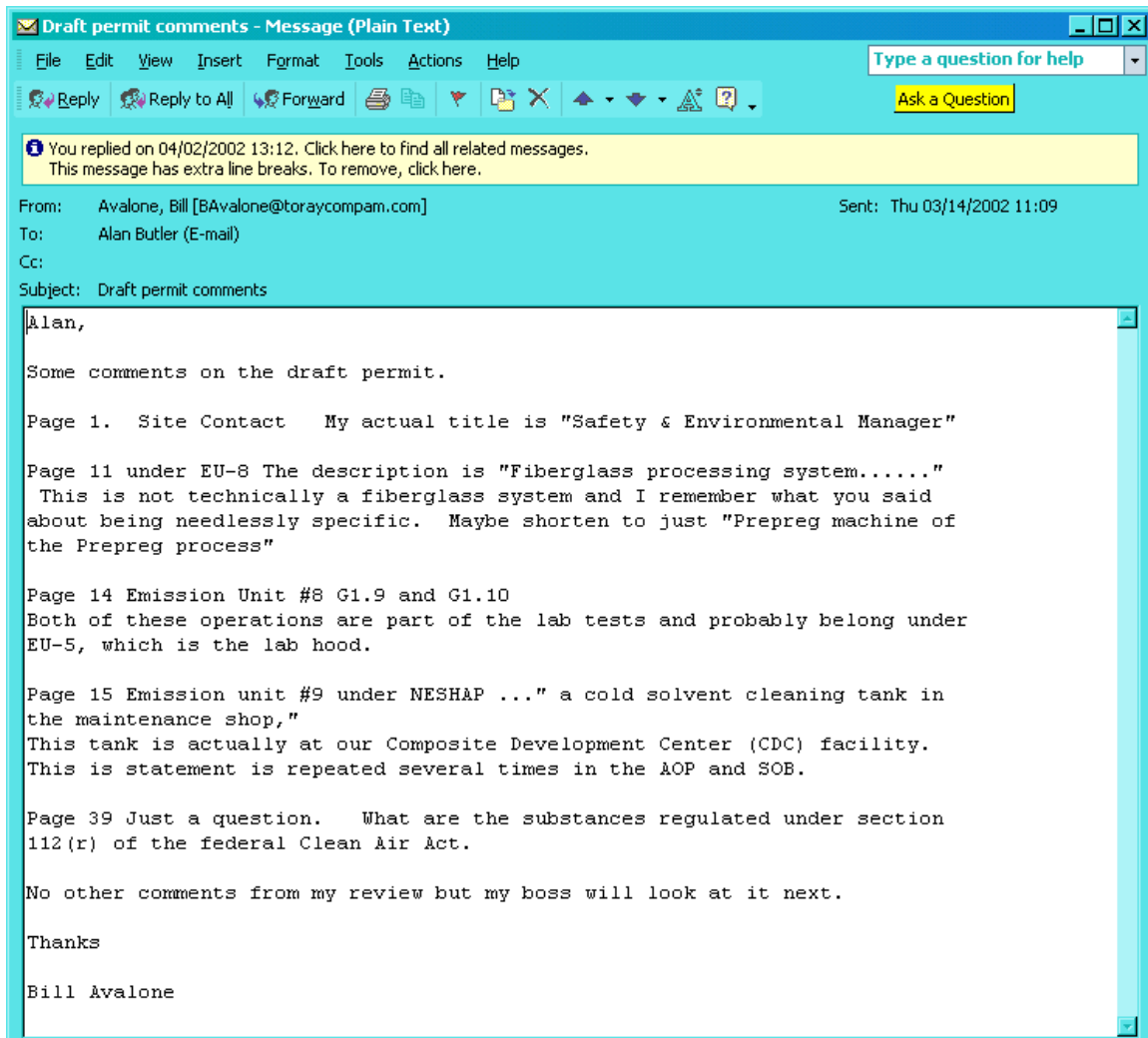
A. 2002 AOP Issuance

1. Public Comment Notice

The Toray Composites AOP was out for 30 day public comment starting on February 28, 2002 and ending on March 30, 2002. A copy of the public comment notice is available in the Puget Sound Clean Air Agency central files.

2. 2002 Comments Received

One comment was received, an E-mail from Bill Avalone, Safety & Environmental Manager of Toray Composites.



3. Responses to 2002 Comments by Toray Composites

Mr. Avalone's correct title was placed on Page 1 of the AOP.

"Fiberglass processing system" was removed from all descriptions of the "Prepreg machine of the prepreg process" throughout the AOP and the SOB.

Operations described under G-1.9 and G-1.10 that had been erroneously grouped under EU-8 were grouped under the Lab Hood EU-5. This caused the operations to be re-numbered as G-1.6 and G-1.7.

References to location of the cold solvent cleaning tank were changed from "maintenance shop" to Composite Development Center (CDC) Facility" throughout the AOP and the SOB.

B. 2009 AOP Renewal

1. Toray comments prior to public comment period

From: Avalone, Bill [BillA@toraycompam.com] Sent: Tue 1/13/2009 12:44 PM

To: Agata McIntyre

Cc:

Subject: permit comments

Agata,

Thanks for the reminder about the permit comments. With the R-10 oversight and the holiday I forgot all about them.

Page 10
Bottom line of table we actually have 9 filming machines not 3.

Page 12

I am not sure the cold solvent cleaner history is correct.

I would have said that tanks 1-4 were part of the original construction.

Tanks 5 and 6 were part of the CDC expansion.

Tanks 7 & 8 were added to the main production building with the TCA 4 expansion.

Tanks 9-14 were added with this expansion, TCA 5.

That is all I found.

Bill Avalone
Safety & Environmental Manager
Toray Composites (America)
253 846-1777

From: Agata McIntyre Sent: Tue 1/13/2009 1:24 PM

To: 'Avalone, Bill'

Cc:

Subject: RE: permit comments

Thank you Bill. I corrected the reference for the filming machines, as well as cold solvent tanks 1-4 (NOC 6963), 5 & 6 (NOC 9066), and 9-14 (NOC 9535). However, I can't seem to find a cross reference for the correct NOC for tanks 7 and 8. Which NOC were these installed under?

Agata McIntyre, PE

From: Avalone, Bill [BillA@toraycompam.com] Sent: Wed 1/14/2009 8:18 AM
To: Agata McIntyre
Cc:
Subject: RE: permit comments

Agata,

Sorry I had to think about this for awhile.

We put tanks 7&8 in when we built the Composite Development center around 1994. It was an R&D center and the tanks were only to be used with Acetone and there was no production coming out of the facility so I don't think we needed an NOC.

Several years later we converted one of the tanks to Methylene chloride which we permitted and have since decommissioned.

The CDC was closed for a couple of years and has now reopened as the Technical Center another R&D facility. Currently they are not using the wash tanks in any capacity.

I guess the question is how do we document this so we can remember it in another 5 years.

Hope that helps.

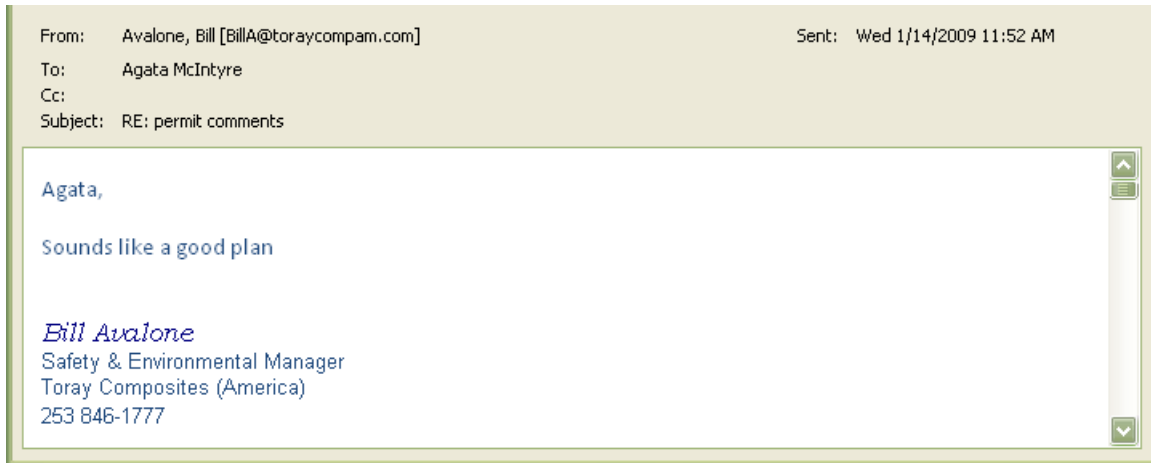
Bill Avalone
Safety & Environmental Manager
Toray Composites (America)
253 846-1777

From: Agata McIntyre Sent: Wed 1/14/2009 11:20 AM
To: 'Avalone, Bill'
Cc:
Subject: RE: permit comments

Aha, thanks for the clarification. How about if I put a copy of this email into the statement of basis? It's one of the first places I look when I have questions about permit history, and it will document that we talked about this allread.

Since the tanks am't being used, and we don't know what they might be used for in the future, how about if we don't list them in the AOP? This should help avoid confusion if the tanks are used in some new way in the future.

Thank you,
Agata McIntyre, PE



XVIII. ADMINISTRATIVE MODIFICATION 1

On February 3, the Agency received a letter from Toray Composites requesting the responsible official be changed from Hank Duran to Dennis Frett. That change was made.