

Tracking No. 0712-01

From: [REDACTED]
To: [REDACTED]
Date: 7/12/2011 9:37 AM
Subject: 2010-016-115-EN

07/12/2011 09:47 AM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: RON
Last Name: ARMSTRONG
Company/Organization: ACCP

[REDACTED]

Rule: 2010-016-115-EN

Comments:

EPA has obviously put a target on the back of Texas. As a small businessman; it will take more than simply lowering taxes to get me to expand my business. The one thing no successful businessman can handle is the constant changing of regulations that potentially put any equipment and increased employment to support said equipment when one never knows if he or she will be allowed to operate purchased equipment. A reasonable and prudent businessman needs to be able to plan and that has been impossible with the ever-changing regulations that EPA has come forth with.



AmericanCoatings
ASSOCIATION

July 18, 2011

Michael Parrish
MC 205, Office of Legal Services
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, Texas 78711-3087

**RE: Rule Project Number 2010-016-115-EN; Texas Industrial Cleaning Solvents;
ACA Comments**

Dear Mr. Parrish:

The American Coatings Association (ACA)¹ appreciates this opportunity to comment on the adoption of the Industrial Cleaning Solvent CTG in Texas. ACA submitted initial comments on January 5, 2010 and appreciates TCEQ exempting coating, ink and adhesive manufacturing from the Industrial Solvent Cleaning VOC limits (Section 115.461(c)(13)), since these VOC limits would not allow effective cleaning at these operations.

Please note that ACA also requested that resin manufacturing (specifically resins used in the manufacture of coatings) be exempted as well, since the proposed low VOC limits would not allow effective cleaning of resin manufacturing equipment. Please refer to our January 5, 2010 comments for additional details.

It is our understanding that TCEQ did not exempt resin manufacturing operations since EPA did not expressly recommend exempting resin manufacturing operations in the Industrial Solvent Cleaning CTG. However, EPA specifically suggests exempting the cleaning of resin and polyester resin application equipment, and EPA does reference the exemptions from the two rules that EPA used to develop the CTG – Bay Area 8-4 and South Coast AQMD Rule 1171. It is important to note that both of these rules exempt resin manufacturing operations from the solvent cleaning VOC limits as follows:

¹ The American Coatings Association (ACA) is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

SCAQMD Rule 1171 (g) Exemptions:

“(2)(E) Cleaning operations subject to Rule 1141 – Control of Volatile Organic Compound Emissions from Resin Manufacturing, and Rule 1141.1 – Coatings and Ink Manufacturing.”

Bay Area 8-4, Section 113 Exemption, Specified Operations

“This Rule shall not apply to operations that are subject to the requirements of other Rules of this Regulation 8, or which comply with appropriate limitations of those Rules prior to their effective dates.”

Please note that Bay Area regulates resin manufacturing under Regulation 8, Rule 36. Since the Bay Area resin manufacturing regulation is under Regulation 8, the Bay Area solvent cleaning rule 8-4 does not apply to resin manufacturing operations.

Note that Maryland (26.11.19.09-1(A)(6)(b)(ii)) exempted coating, ink, adhesive and resin manufacturing operations from the industrial solvent cleaning regulations, and EPA approved Maryland’s State Implementation Plan, stating that it complied with the RACT requirements in the CTG. 76 Fed. Reg. 9656.

If over ACA’s objection, TCEQ cannot exempt resin manufacturing operations from the Industrial Solvent Cleaning VOC limits, ACA suggests that TCEQ adopt rule language similar to the language currently being adopted in WI, IL, OH, IN, MO.

“Cleaning Operations:

(a) The owner or operator of a coating, ink, adhesive or resin manufacturing facility subject to this subsection shall use at least one of the following methods when cleaning mixing vats, high dispersion mills, grinding mills, tote tanks, and roller mills, except as provided in paragraph (b):

1. Use a solvent or solvent solution that either contains less than 0.20 kilograms of VOC per liter (1.67 pounds per gallon) or has a VOC composite partial vapor pressure of less than or equal to 8 mm of Hg at 20°C. The solvent or solvent solution shall be collected and stored in closed containers.

2. Implement the following work practices:

- a. Maintain the equipment being cleaned as leak free.
- b. Drain VOC-containing cleaning materials from the cleaned equipment upon completion of cleaning.
- c. Store or dispose of VOC-containing cleaning materials, including waste solvent, in a manner that will prevent evaporation into the atmosphere.
- d. Store all VOC-containing cleaning materials in closed containers.

3. Collect and vent the emissions from equipment cleaning to an emission control system that has an overall control efficiency of 80% or more on a mass basis. If incineration is used to control emissions, at least 90% of the organic carbon shall be oxidized to carbon dioxide.

4. Use no more than 228 liters (60 gallons) of virgin solvent per month. Solvent or solvent solution that is reused or recycled (either onsite or offsite), for further use in equipment cleaning or the manufacture of coating is not included in this limit.

(b) The owner or operator of a facility engaged in wipe cleaning using a solvent or solvent solution may not do either of the following:

1. Use open containers for the storage or disposal of cloth or paper impregnated with solvent or solvent solution that is used for cleanup, or coating removal.

2. Store solvent or solvent solutions for cleanup or coating removal in open containers.”

Thank you for the opportunity to comment. If you have any questions or need any further information on the issues discussed here, please feel free to contact me at (202) 462-6272.

Sincerely,

/s/

David Darling, P.E.
Senior Director, Environmental Affairs

Cc: Amy Hambrick, EPA

*** Sent via email ***

BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

IN THE MATTER OF:

CHAPTER 115 VOLATILE ORGANIC COMPOUNDS (VOC) REASONABLY AVAILABLE
CONTROL TECHNOLOGY (RACT) RULE REVISIONS, 2010-016-115-EN

TESTIMONY OF THOMAS A. HOERMANN

My name is Thomas A. Hoermann. I am Regional Regulatory Affairs Specialist for International Paint LLC, which is the Americas Business Unit for Marine, Protective, and Yacht Coatings within AkzoNobel, the world's largest paints and coatings company. International Paint Yacht Coatings, sold under the brand names Awlgrip and Interlux, are recognized for their continuing technical innovation, stringent quality controls, and superlative finish on pleasure craft ranging from family boats to superyachts around the world. International Paint proudly operates a major coatings manufacturing facility, with associated R&D labs and administrative offices, at 6001 Antoine Drive in northwest Houston.

Introduction

I am here today on behalf of Mr. James Sell, Senior Counsel of the American Coatings Association (ACA). Although Mr. Sell is unable to participate in today's proceedings, he has previously submitted informal comments on this rulemaking to TCEQ Staff. These were entitled "ACA Comments on Pleasure Craft CTG: Modifications Required to South Coast Rule 1106.1 for Establishing a Suitable RACT Standard for the Pleasure Craft Coatings Industry", and were sent via email on January 12, 2011.

Also included in that email was an EPA Memorandum from Steven D. Page, Director of the Office of Air Quality Planning and Standards, dated June 01, 2010, subject: "Control Technique Guidelines for Miscellaneous Metal and Plastic Part Coatings – Industry Request for Reconsideration". For the sake of brevity, the "EPA Control Technique Guideline for Miscellaneous Metal and Plastic Part Coatings" will be subsequently referred to as "the EPA CTG".

With reference to the information previously submitted by Mr. Sell, and to formal written comments that will be submitted during the comment period for this rulemaking, the following summary points are offered for the Commission's consideration:

The Pleasure Craft provisions of the EPA CTG do not represent Reasonably Available Control Technology (RACT) for this industry sector.

The Draft EPA CTG did not mention pleasure craft surface coating operations. EPA introduced the language of South Coast Air Quality Management Division (SCAQMD) Rule 1106.1 "Pleasure Craft Coating Operations" into the Final EPA CTG. This was apparently done with concern that pleasure craft surface coating operations might otherwise be subject to the various general categories, and their more restrictive VOC limits, for Miscellaneous Metal Parts and Products (based on SCAQMD Rules 1107 and 1125) and Miscellaneous Plastic Parts and Products (based on SCAQMD Rule 1145 and Michigan Rule 336.1632). However, there was no opportunity for the pleasure craft industry to provide comments on this EPA action.

Had that opportunity been extended, the pleasure craft industry would have provided the following reasons to support our contention that SCAQMD Rule 1106.1, as included in the Final EPA CTG, does not represent RACT:

1. The VOC limits and compliance dates in SCAQMD Rule 1106.1 were too restrictive to allow coating manufacturers to formulate products that meet the VOC limits, while also maintaining adequate technical performance and meeting customers' aesthetic requirements. As a result, pleasure craft manufacturers relocated from the South Coast area to other locations in the US.

2. The compliance dates in SCAQMD Rule 1106.1 and the EPA CTG do not provide sufficient time for coating manufacturers to formulate products that comply with the restrictive VOC limits, while also meeting the technical performance and aesthetic requirements of pleasure craft manufacturers and owners. An example is antifouling coatings, which must be registered as biocidal products under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and corresponding State programs. This process can add years to the actual development and performance testing of new lower-VOC antifouling coatings.

3. SCAQMD Rule 1106.1, like other SCAQMD rules, was developed and adopted to deal with the severe ozone non-attainment conditions in the South Coast air basin. These conditions are not experienced in other areas of California or the US, and thus the provisions of South Coast regulations should not be identified as "RACT" for other areas.

4. Even in the State of California, only five other Air Quality Management Districts have found the need to introduce rules to regulate pleasure craft surface coating operations. These rules differ from SCAQMD Rule 1106.1 in varying degrees.

5. SCAQMD Rule 1106.1 was adopted in 1992, and most recently revised in 1999. Since then, there have been developments in the marine and pleasure craft industry that provide the basis for revised VOC limits for some coating categories, and the introduction of new categories and VOC limits for other coatings. An example is a new category of "Antifouling Sealer/Tie Coat". This category of coatings was developed to allow the use of non-biocidal coatings that comply with Annex 1 of the International Maritime Organization Antifouling Systems Convention (IMO-AFS), which was written in 2001. These developments are not addressed in SCAQMD Rule 1106.1 or the EPA CTG.

Development of RACT that is appropriate for Pleasure Craft Surface Coating operations should address the following points:

1. Consideration of an "Averaging Approach" as an alternative compliance option. This approach is successfully used in Europe to provide flexibility to coating manufacturers and end-use customers to provide VOC emission reductions while minimizing adverse economic and productivity impacts at each affected facility.
2. Provision of appropriate time until the final compliance date to allow the development, testing, and commercial introduction of low-VOC pleasure craft coatings. Rushing products into this market has the potential for disastrous consequences, as boat builders and pleasure craft owners tend to be conservative; they choose coatings with demonstrated performance that best protect the value of their products/investments. A period of four years is suggested to allow completion of existing development projects to bring lower-VOC pleasure craft coatings to the US market.
3. Revision of the categories and VOC limits from the CTG to address current and future product developments in the pleasure craft industry. Examples include revised VOC limits for several coating categories; a revised definition of "Extreme High Gloss" topcoats; and the introduction of a new category definition and VOC limit for "Antifouling Sealer/Tie Coat" coatings.

The EPA CTG should be consistent with other EPA rulemaking for this industrial sector.

The pleasure craft industry is aware that EPA is currently evaluating the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair Operations (40 CFR Part 63 Subpart II). This process may result in a revised Subpart II MACT Standard and/or a new Area Source Standard for HAPs emissions from Pleasure Craft Surface Coating operations. Coatings manufacturers have already provided product information to EPA to assist in this process, and the industry supports rulemaking that will provide a consistent approach to reduce emissions of both VOC and HAPs in this industrial sector.

The Pleasure Craft Industry is ready and willing to work with Federal, State, and Local air agencies on this issue.

The pleasure craft industry was not afforded the usual opportunity to consult with EPA during the development of the EPA CTG. We therefore feel it is imperative to work with EPA, its Regional Offices, and State and Local agencies to develop RACT rules that provide reductions in VOC emissions, while meeting the performance and productivity requirements of an important US industry that is under increasing pressure from economic conditions and global competition.

Thank you for your attention and consideration.



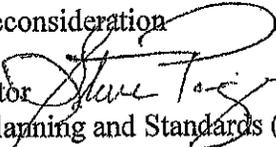
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

JUN 01 2010

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Control Technique Guidelines for Miscellaneous Metal and Plastic Part Coatings – Industry Request for Reconsideration

FROM: Stephen D. Page, Director 
Office of Air Quality Planning and Standards (C404-04)

TO: Chief, Air Branch
Regions I-X

The purpose of this memorandum is to inform EPA Regional Offices that members of the pleasure craft industry have contacted EPA to request changes to the Control Techniques Guidelines (CTG) for Miscellaneous Metal and Plastic Part Coatings (MMPPC) (EPA-453/R-08-0373). This memorandum serves as a reminder to EPA Regional Offices of the role that CTG play in the State Implementation Plans (SIP) process for ozone nonattainment areas. CTG provide information and recommendations for state and local air pollution control agencies to consider when developing rules to meet the Clean Air Act's (CAA) reasonably available control technology (RACT) requirements. Specifically, we reiterate that the information contained in CTG, including the MMPPC CTG, is provided only as guidance. The CTG do not impose any legally binding requirements on any entity. State and local air pollution control agencies are free to implement other technically-sound approaches that are consistent with the CAA and EPA's implementing regulations. Therefore, EPA does not intend to revise the MMPPC CTG. Instead, EPA is recommending that the pleasure craft industry work together with state agencies in the RACT rule development process for MMPPC to assess what is reasonable for the specific sources regulated under each state's rules. EPA will evaluate the state-developed RACT rules and determine through notice and comment rulemaking in the SIP approval process, whether the submitted rules meet the RACT requirements of the CAA and EPA's regulations.

BACKGROUND

The MMPPC CTG were published on October 7, 2008 (73 FR 58486). On September 14, 2009, EPA was contacted by the pleasure craft industry with a request for EPA to reconsider some of the emission limits for volatile organic compounds (VOC) recommended in the MMPPC CTG. In its letter to EPA, industry asserted that three of the emission limits for VOC, recommended in the MMPPC CTG for pleasure craft, were too low considering the performance requirements of pleasure craft coatings, and that overall, the VOC emission limits recommended in the MMPPC

CTG did not represent RACT for the national pleasure craft coatings industry. To get further clarification of the issues, EPA held an industry conference call and spoke with individual industry members on several other occasions. The pleasure craft industry presented what they deemed to be technological and feasibility challenges to meeting the VOC emission limits recommended in the MMPPC CTG.

Table 2 of the MMPPC CTG recommends the following VOC content limits (expressed in terms of mass of VOC per volume of coating, excluding water and exempt compounds, as applied) for surface coating of pleasure craft:

Table 2. Pleasure Craft Surface Coating VOC Content Limits

Coating Category	kg VOC/liter coating	lbs VOC/gal coating
Extreme High Gloss Topcoat	0.49	4.1
High Gloss Topcoat	0.42	3.5
Pretreatment Wash Primers	0.78	6.5
Finish Primer/Surfacer	0.42	3.5
High Build Primer Surfacer	0.34	2.8
Aluminum Substrate Antifoulant Coating	0.56	4.7
Other Substrate Antifoulant Coating	0.33	2.8
All other pleasure craft surface coatings for metal or plastic	0.42	3.5

Also, the MMPPC CTG provide an option to meet alternate emission rate limits based on low-VOC coatings and add-on controls. Table 10 of the MMPPC CTG recommends the following emission rate limits for pleasure craft operations:

Table 10. Pleasure Craft Surface Coating VOC Emission Rate Limits (VOC per Volume Solids)

Coating Category	kg VOC/liter solids	lbs VOC/gal solids
Extreme High Gloss Topcoat	1.10	9.2
High Gloss Topcoat	0.80	6.7
Pretreatment Wash Primers	6.67	55.6
Finish Primer/Surfacer	0.80	6.7
High Build Primer Surfacer	0.55	4.6
Aluminum Substrate Antifoulant Coating	1.53	12.8
Other Substrate Antifoulant Coating	0.53	4.4
All other pleasure craft surface coatings for metal or plastic	0.80	6.7

The three pleasure craft categories that industry requested EPA to reconsider were extreme gloss, high gloss and antifoulant coatings. Industry urged EPA to revise the MMPPC CTG to include an averaging approach as a compliance option to allow pleasure craft coating facilities to use a combination of high and low VOC-containing products as long as the average value was kept

below a level specified by EPA. In summary, the pleasure craft industry suggested that the CTG be revised to include (one or all of) the following measures:

1. Regulate VOC emissions from facilities using pleasure craft coatings by including an averaging approach as a compliance option. If this is not deemed possible, then points 2 and 3 should apply.
2. Amend the MMPPC CTG "Finish Primer/Surfacer" VOC limit from 420g/L to 600g/L for a four-year interim period to allow coating manufacturers and users sufficient time to develop and implement compliant coatings.
3. Make permanent changes to the MMPPC CTG with immediate and permanent effects, as follows:
 - Add an additional specialty category of "Antifouling Sealer/Tie Coat" with VOC limit of 420g/L to align the MMPPC CTG with the International Maritime Organization's International Convention on the Control of Harmful Antifouling Systems on Ships;
 - Change the VOC emission limits in the category, "Other Substrate Antifoulant Coating" from 330g/L to 400g/L;
 - Change the VOC emission limits in the category, "Extreme High Gloss" from 420 g/L to 600 g/L, reflecting the very specialized nature of the coatings in this category; and
 - Revise the coating category definition of "Extreme High Gloss Topcoat" to read: *"Extreme high gloss coating means any coating which achieves greater than 90 percent reflectance on a 60° meter when tested by ASTM Method D 523-89."*
4. Make the provisions and VOC limits in the pleasure craft categories of the MMPPC CTG consistent with the requirements of the planned revision to the Shipbuilding MACT Standard.

OAQPS RECOMMENDATION

After careful evaluation of the issues raised by the pleasure craft industry, OAQPS is recommending that the pleasure craft industry work with state agencies during their RACT rule development process to assess what is reasonable for the specific sources regulated because the CTG impose no legally binding requirements on any entity, including pleasure craft coating facilities. CAA Section 172(c)(1) provides that SIPs for nonattainment areas must include "reasonably available control measures" (RACT), including RACT, for sources of emissions. Section 182(b)(2)(A) provides that for certain nonattainment areas, states must revise their SIPs to include RACT for each category of VOC sources covered by a CTG document issued between November 15, 1990, and the date of attainment. The CTG are intended to provide state and local air pollution control authorities with information to assist them in determining RACT for VOC.

Based on available information and data, EPA has provided recommendations for RACT for MMPPC operations, including pleasure craft coating operations, in the MMPPC CTG. States can use the recommendations from the MMPPC CTG to inform their own determination as to what constitutes RACT for VOC for pleasure craft coating operations in their particular ozone nonattainment areas.

Regardless of whether a state chooses to implement the recommendations contained in the MMPPC CTG through state rules, or to issue state rules that adopt different approaches, states must submit their RACT rules to EPA for review and approval as part of the SIP process. EPA will evaluate the state's RACT rules and determine, through notice and comment rulemaking in the SIP approval process, whether the submitted rules meet the RACT requirements of the CAA and EPA's regulations. If a state proposes to adopt any of the recommendations in the MMPPC CTG into its state RACT rules, interested parties can comment on and raise objections about the application of any specific RACT recommendation in the MMPPC CTG to a particular situation during the development of the state rules and EPA's SIP approval process.

Should you have further questions, please contact Kaye Whitfield of my staff at 919-541-2509 or whitfield.kaye@epa.gov.

OAR-10-000-7927

OAQPS/SPPD/NRCG:KWhitfield/jrogers(x14487):RTP/E143-
03/042310/F:JRoger08/KWhitfield/ OAR100007927MMPPC Response Steve Page – Kaye
20May10.doc

Coordinated with AQPD.

January 12, 2011

**ACA Comments on Pleasure Craft CTG
Modifications required to South Coast rule 1106.1 for establishing a
suitable RACT standard for the pleasure craft coatings industry**

Summary

The required changes to rule 1106.1 to form a RACT standard for the pleasure craft coatings industry are summarised in table 1.

Table 1 -- Showing required changes by industry compared to limits in rule 1106.1 (changes indicated by red font)

Coating Category	CTG VOC content taken from South Coast rule 1106.1 (g/L)	Industry VOC Proposal for RACT (g/L)
Extreme High Gloss Coating*	490	600
High Gloss Coating	420	420
Pre-Treatment Wash Primer**	780	780
Finish Primer/Surfacer	420	600
High Build Primer Surfacer	340	340
Aluminum Substrate Antifoulant Coating	560	560
Other Substrate Antifoulant Coating	330	400
All other pleasure craft surface coatings for metal and plastic	420	420
Antifouling Sealer/Tie Coat (new category)		420

* Revised definition required: Extreme High Gloss coating means any coating which achieves greater than 90 percent reflection on a 60° meter when tested by ASTM Method D523-89

** Revised definition required: Pre-Treatment Wash Primer means a coating which contains no more than 25 percent solids, by weight, and at least 0.1 percent acids, by weight; is used to provide surface etching; and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.

The following sections provide more detail to substantiate proposed modifications

Revised VOC limit for *Finish Primer/Surfacer* category

Boat owners have very high expectations for the final look of their boats. The finish is expected to be super smooth, super glossy (almost 'mirror-like') and durable. Coatings can be applied by a variety of application methods (brush, roller or spray) and must flow out to give a smooth, glossy finish. In order to flow out and achieve such effects, products with a higher solvent content (lower solids content) are required for both the topcoats and the primers which go beneath them

Introducing high solids/low VOC primers that provide a smooth, easy-to-sand surface necessary to provide the aesthetics demanded by owners will require significant time to develop and evaluate. Currently, high solids/low VOC primers often require additional sanding, creating more dust, to achieve the same smooth surface that is obtained with currently available products. This would necessitate a change in working practices in yards to overcome the increased health hazard associated with the increased dust levels.

An additional issue relating to a switch to lower VOC Finish/Primer surfacers is that the cost can be as much as 40% or more higher than currently available, higher VOC products. This, in combination with increased labor costs associated with the additional sanding needed to remove the increased surface texture, will make yards in areas where a VOC limit of 420g/lit is implemented uncompetitive with yards in other states.

As an **interim** measure to ensure that competitive products can be supplied into ozone non-compliance areas during the next **four** years that meet the aesthetic and performance requirements demanded by boat owners, the industry requires VOC levels of the Rule 1106.1 "Finish Primer/Surfacer" coating category to be revised from 420 g/L to **600 g/L**.

(See panels showing differences between high and low VOC containing primers which fit into this category)

Revised VOC limit for Extreme High Gloss Coating category

The *Extreme High Gloss Coatings* category represents a comparatively small but **critical, high value** segment of the overall pleasure craft market.

The aesthetic properties that topcoats give to the topsides of pleasure craft are of primary importance to boat owners, a fact that should be neither underestimated nor dismissed. The owner has invested a significant sum of money into owning his yacht and the quality of the final appearance is its 'crowning glory'. If boat owners cannot achieve the desired super-glossy, mirror-like finish, they will not settle for an inferior solution – they will simply have their boats painted elsewhere. These coatings are professionally applied so any restriction on their use that reduces the competitiveness of individual yards will have a direct and immediate bearing on employment levels and local revenues.

High solids topcoats have not been well received in the North American pleasure craft coating market. In general, applicators and boat owners have found the finish that these products provide to be inferior to traditional, higher VOC containing products. This can be seen clearly in the situation where a yacht coated with a high solids topcoat is moored alongside one coated with a traditional finish.

Although high solids and water-based technologies are available and in use in other industries (e.g. car refinishing and aviation) the controlled application conditions which make the use of these coatings possible in those industries are neither available nor possible for the pleasure craft coating industry. Despite much product development activity, the lower VOC technologies available at this time do not provide the appearance and functionality required from a pleasure craft *Extreme High Gloss Coating*. Some low VOC topcoats, originating from the car refinish market and now being marketed for pleasure craft usage, are based on a polymer type that provides reduced durability. These coatings have a reduced lifetime and their use will necessitate a more frequent recoating schedule which means in relative terms, more VOC is emitted.

An additional issue relating to a switch to lower VOC extreme high gloss topcoats is that the cost can be as much as 60% or more higher than currently available, higher VOC products. The resultant increase in scheme cost will make yards in areas where a VOC limit of 490g/lit is implemented uncompetitive with yards in other states or in other countries.

A final point of importance is that in a typical *extreme high gloss coatings* scheme, the topcoat represents less than 40% of the overall VOC burden and less than 10% of total yacht coatings on an annualised basis. Rule 1106.1 was developed to tackle serious ozone non-attainment in South Coast AQMD in California. It is overly severe and restrictive for adoption for the majority of non-attainment areas where the problem is 'Moderate' according to the EPA. The industry feels that restricting the VOC of some of the other coating categories and setting the VOC limit for Extreme High Gloss topcoats to **600 g/L**, will provide the state with a balanced VOC reduction strategy that is appropriate to the challenge and that does not seriously impact the competitiveness of the industry. This VOC limit change should be permanent as industry does not foresee any new technology emerging that can offer a route to providing performance characteristics which are acceptable by the pleasure craft coating industry.

(see topcoat panels which demonstrate difference in appearance between high solids and traditional formulations).

Revised Coating Category Definition for Extreme High Gloss Topcoat

As mentioned above, application of topcoats is undertaken in a variety of environmental conditions that can have an effect on the final gloss level of the product at the point of application. To manage this variation it is suggested that the gloss level stated in the definition of the Extreme High Gloss Topcoats category be lowered slightly to read;

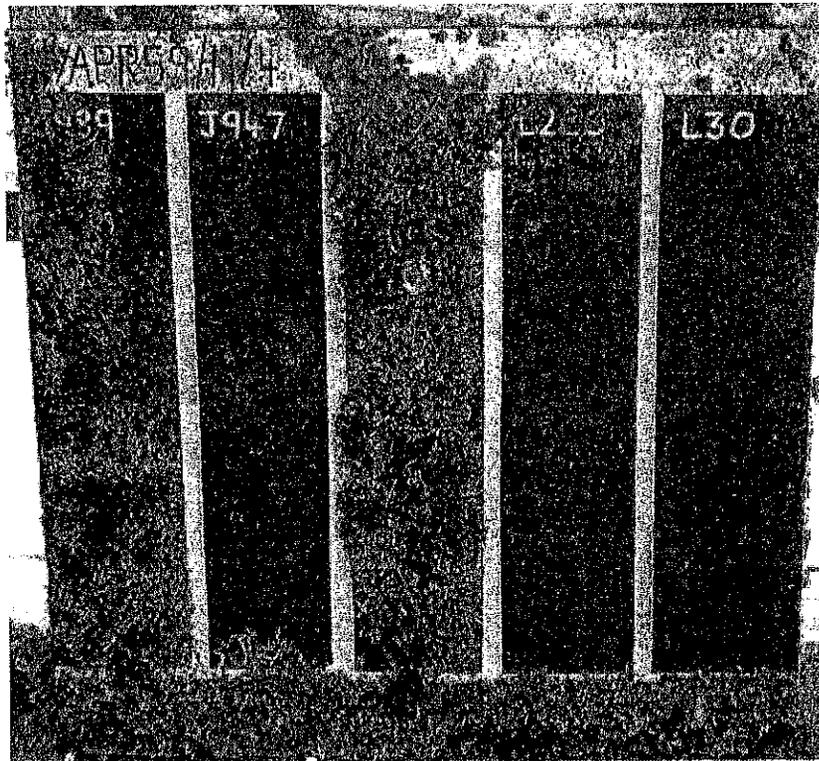
*“Extreme high gloss coating means any coating which achieves **greater than 90 percent** reflectance on a 60° meter when tested by ASTM Method D 523-89”*

Revised VOC limit for Other Substrate Antifoulant Coating

Significant time and effort have been invested by industry to develop low VOC antifouling coatings suitable for use on pleasure craft. Low VOC/Zero VOC technology is constantly evolving and improving. The key is to set VOC targets at a realistic level based on what we know today in order to ensure the maximum compromise between performance, cost, appearance, drying time and application characteristics.

Formulations are currently registered with the EPA on the basis of the percentage weight of biocide in the wet paint. As the VOC is reduced then the solvent must be replaced with something non-volatile, effectively reducing the percentage of biocide in the dry film with a concomitant reduction in performance/reduced lifetime of the coating. This may mean more frequent application of the antifouling, potentially leading to a greater overall VOC impact. It is also true that high solids/low VOC coatings tend to dry slower than their high VOC counterparts and this can impact the overall productivity of a yard for example. Similarly, water based technologies are not a panacea to the VOC challenge, though water-based technologies are being very heavily scrutinised by coatings manufacturers. In general water based coatings can only be formulated at low volume solids (30% compared to say 60%+ for an equivalent solvent-based system). This inevitably means thin films containing less biocide (which affects the performance and lifetime of the coating)

The data below shows the performance challenge with changing VOC. Panels 1-3 (left) are all based on the same active package. The two rightmost panels are standard solvent based controls.



VOC 328g/l std 460 g/l w/based 68g/l std 468 g/l 350 g/L

In addition, technologies for low VOC antifouling often result in a rougher film. The roughness of the hull contributes directly to drag which is seen as a particular issue in the case of racing yachts

The National Emission Standard for HAPs for Shipbuilding and Ship Repair (40 CFR Part 63 Subpart II) limits antifoulings in the US to 400g/L. Likewise SCAQMD Marine Rule 1106 applies a VOC limit for antifouling coatings of 400g/L. Industry believes this limit is more suitable to represent RACT for this coating category, given the current state of the existing technology. Certainly we find no justification in setting a limit lower than that applied to the National Emission Standards for HAPs for Shipbuilding and Ship Repair and the SCAQMD 1106 limits. The following VOC limit amendment is therefore required;

Category of "Other Substrate Antifoulant Coating" – amend from 330g/L to **400g/L**

(see demonstration films which show a low VOC water based Antifouling compared to a solvent based equivalent)

Additional Speciality Category and VOC Limit: Antifouling Sealer/Tie Coat

Rule 1106.1 is dated and there are more recent requirements for an additional category to reflect pleasure craft coatings of the modern day which are more environmentally friendly and/or compliant with International law.

A new category is required as a result of the International Maritime Organisation Antifouling Systems convention (IMO AFS) and should be added to the categories taken from Rule 1106.1. This convention was ratified in 2007 and houses a list of substances banned from use in antifoulings in Annex 1. Tri Butyl Tin (TBT) is the first addition to Annex 1 and the use of this biocide in antifoulings on the hulls of any marine vessels entering the waters of countries which are signatories to the convention is controlled according to the requirements of Annex 1 of the AFS. A specialised coating type is required to seal in old TBT containing antifoulings and to promote adhesion of biocide-free, non-stick foul release coatings when applied to vessels. The use of biocide-free coatings brings significant environmental benefits.

The category should be named '**Antifouling Sealer/Tie Coat**' with a maximum VOC content of **420 g/L**. Antifouling Sealer Coats and Tie Coats have been introduced into the market largely to facilitate compliance with Annex 1 of the IMO-Antifouling Systems Convention (2001).

Antifouling Sealer/Tie Coats must contain a VOC up to 420 g/L in order to facilitate adequate penetration into an underlying paint film for maximum adhesion. They also contain a high degree of polymeric material (hence need a higher VOC content to maintain an acceptable application viscosity) so the coating can form a flexible yet complete barrier over an underlying paint film. An appropriate definition for this type of coating would be...

"a coating applied over Biocidal antifouling coating for the purpose of preventing release of biocides into the environment and/or to promote adhesion between an antifouling and a primer or other antifoulings."

Revised definition for the category of "Pretreatment Wash Primer"

The current definition of *Pretreatment Wash Primer* in South Coast rule 1106.1 is restricting the development of alternative products which would be considerably less toxic to humans and the environment than those used currently. Products which meet the current definition for this are formulated to contain known carcinogens such as zinc chromate (CAS 13530-65-9) and zinc tetroxy chromate (CAS 37300-23-5)¹ due to the excellent anti-corrosive properties of these materials.

In most cases the approach taken in the CTG is to define the control category in terms of the product attribute. For example, the definition of a High Gloss Topcoat refers specifically to the performance attribute of the product – the gloss result. However, in the case of the "*Pretreatment Wash Primer*" category, the approach has been to define the category both in terms of the formulation parameters (acid content and solids content) and the performance attribute of the product (surface etching). By taking this approach, South Coast EPA has very much tied industry to the current, well established but very toxic zinc-based etch primers. This definition requires amending **to allow for the introduction of safer, alternative etch systems which are not based on zinc tetroxy chromate.**

Industry would like a permanent modification made to the definition so that it reads as follows;

"PRETREATMENT WASH PRIMER means a coating which contains no more than 25 percent solids, by weight, and at least 0.1 percent acids, by weight; is used to provide surface etching; and is applied directly to fibreglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings"

The 'percent solids' value must be raised from 12 to **25** to allow for an increased quantity of safer (non-carcinogenic) replacement pigment which is required for equivalent coating performance. These replacement formulations require a reduced level of acid to perform adequately therefore it is also necessary to reduce the deminimus value associated to 'percent acids' from 0.5 to **0.1**.

Request Small Container Exemption

Many industrial and commercial coatings VOC regulations include a small container exemption confined to not exceed a litre or a quart. They also often include an annual limitation on the amount used.

Architectural and industrial maintenance rules also contain such exemptions.

The purpose behind these exemptions is to allow for small repairs and touches ups to existing coatings that if done in timely manner can often avoid larger paint jobs later. In the commercial or industrial setting, the small container exemptions allows minor repairs at the end of the painting line to avoid having to completely recoat the object of product. Thus the higher VOC materials actually reduce overall VOC emissions by allowing such repairs and touch ups to avoid complete overall or redo paint jobs.

¹ Rated as known carcinogens by Occupational Safety & Health Administrator (OSHA), National Toxicology Program (NTP), and International Agency for Research on Cancer (IARC)

Tracking No. 0725-01

From: [REDACTED]
To: [REDACTED]
Date: 7/25/2011 2:02 PM
Subject: 2010-016-115-EN

07/25/2011 02:13 PM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: Jean
Last Name: Carleton
Company/Organization: Hensley Industries

[REDACTED]

Fax Number:

Rule: 2010-016-115-EN

Comments:

Please clarify what MOLD-SEAL COATING is.
We are a steel foundry. We use several types of pastes and coatings in our core and mold making processes such as mold-release, core paste and refractory coating (mold wash). None of these are coatings for the parts.
Thanks

Tracking No. 0804-01

From: [REDACTED]
To: [REDACTED]
Date: 8/4/2011 1:05 PM
Subject: 2010-016-115-EN

08/04/2011 01:15 PM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: Doreen
Last Name: Monteleone
Company/Organization: Flexographic Technical Association

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Rule: 2010-016-115-EN

Comments:

The Flexographic Technical Association (FTA) represents flexographic printers throughout the United States. As such, we are providing the following comments on the proposed rulemaking, Chapter 115, Control of Air Pollution from Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT) Rule Revisions which will impact flexible packaging printers in Texas.

FTA strongly disagrees with the Texas Commission on Environmental Quality (TCEQ)'s recommendation to require 80% overall control efficiency of VOCs regardless of the first installation date of the oxidizer. This may require printers that have oxidizers installed at an earlier date to replace equipment and would be a significant financial hardship as new oxidizers start in the hundreds of thousands of dollars.

U.S. EPA's Control Technique Guidelines for Flexible Package Printing (2006) recommends a more reasonable approach consistent with a RACT regulation. Whereby add on controls installed prior to specific dates may have a lower overall control of VOC emissions as follows:

- 65% for presses installed before 3/14/95 with a control device installed before the RACT rule was adopted;
- 70% for presses installed before 3/14/95 and a control device installed on or after the date the rule is adopted;
- 75% for presses installed after 3/14/95 with a control device installed prior to when the rule was adopted
- 80% for presses installed after 3/14/95 with a control device installed on or after the date the rule was adopted

TCEQ's approach would require companies with an older oxidizer and wants to expand and install a new press to replace its control device.

The comment that U.S. EPA's approach would create backsliding is not justified. The proposed rule states, "Imposing this policy may encourage the installation of older, less efficient equipment and may create potential backsliding." Instead, TCEQ's proposal would impose unnecessary financial hardship and prevent business expansion in Texas.

This is contrary to being Reasonably available control technology.

Tracking No. 0807-30

08/07/2011 07:33 PM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: Linda

Last Name: Kee

Company/Organization: GREEN Environmental Consulting, Inc.

[REDACTED]

Fax Number:

Rule: 2010-016-115-EN

Comments:

Dear Sir or Madam:

Thank you for the opportunity to comment on the proposed 30 TAC Chapter 115 revision published in the June 24, 2011 Texas Register. Our comments below are in regard to Rule Project Number 2010-016-115-EN for the proposed control techniques guidelines reasonably available control technology (RACT) rule amendments.

Comment #1

The proposed 30 TAC 115.450(a)(3) "Applicability and Definitions" section states:

§115.450. Applicability and Definitions.

(a) Applicability. In the Dallas-Fort Worth and Houston-Galveston-Brazoria areas, as defined in §115.10 of this title (relating to Definitions), the requirements in this division apply to the following surface coating processes, except as specified in paragraph (5) of this subsection:

...

(3) miscellaneous metal parts and products coating at the original equipment manufacturer, off-site job shops that coat new parts and products or that recoat used parts and products, and designated on-site maintenance shops that recoat used parts and products;

We suggest that "designated on-site maintenance shops that recoat used parts and products" be defined further in the definitions section. We suggest that the definition include the concept that the maintenance and coating that occurs would be for equipment that is used onsite, by adding the underlined sentence below to the preamble's description (from page 3846 of the referenced Texas Register):

"A designated on-site maintenance shop is an area designated at a site where coatings are applied to one or more miscellaneous metal parts or products on a routine basis. These miscellaneous metal parts or products would be those that are used elsewhere onsite as part of that site's permanent operations."

Comment #2

The proposed section 30 TAC 115.450(c)(5)(I) definition for "Extreme Performance Coating" (page 3883 of the referenced Texas Register), is as follows:

(I) Extreme performance coating--A coating used on a metal or plastic surface where the coated surface is, in its intended use, subject to one of the following conditions. Extreme performance coatings include, but are not limited to, coatings applied to locomotives, railroad cars, farm machinery, and heavy-duty trucks:

- (i) chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures, or solutions;
- (ii) repeated exposure to temperatures in excess of 250 degrees Fahrenheit (121 degrees Celsius); or
- (iii) repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents

The current definition, given in 30 TAC 115.420(a)(9)(C), states:

(C) Extreme performance coating--A coating intended for exposure to extreme environmental conditions, such as continuous outdoor exposure; temperatures frequently above 95 degrees Celsius (203 degrees Fahrenheit); detergents; abrasive and scouring agents; solvents; and corrosive solutions, chemicals, or atmospheres.

Some of our clients coat marine shipping containers and/or downhole drilling equipment. The coatings used on these products clearly meet the current definition of "extreme performance coating" because in both cases, the equipment is exposed to extreme environmental conditions. We would like to be certain that this type of coating usage continues to meet the definition of "extreme performance coating", and so we request that the proposed definition be modified as follows:

(I) Extreme performance coating--A coating used on a metal or plastic surface where the coated surface is, in its intended use, subject to one of the following conditions. Extreme performance coatings include, but are not limited to, coatings applied to locomotives, railroad cars, farm machinery, ~~and~~ heavy-duty trucks, marine shipping containers, and downhole drilling equipment:

- (i) chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures, or solutions;
- (ii) repeated exposure to temperatures in excess of 250 degrees Fahrenheit (121 degrees Celsius); or
- (iii) repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents; or
- (iv) exposure to extreme environmental conditions, such as continuous outdoor exposure.

Comment #3

We request that the term "low-VOC coatings" be removed from one occurrence in the proposed 30 TAC 115.453(a)(1), as shown below:

(1) The owner or operator shall not apply coatings that exceed the volatile organic compounds (VOC) limits for each of the coating categories in this paragraph. The limits must be met by applying low-VOC coatings to meet the specified VOC content limits on a pound of VOC per gallon of coating basis (lb VOC/gal coating), as delivered to the application system (minus water and exempt solvent), or by applying ~~low-VOC~~ coatings in combination with a vapor control system, as defined in \approx 115.10 (relating to Definitions), to meet the specified VOC emission limits on a pound of VOC per gallon of solids basis (lb VOC/gal solids).

If this verbiage were removed, it would be clear that the option **of using a VOC coating that exceeds the VOC emissions limits, in conjunction with controls, would be available.**

Comment #4

The proposed 30 TAC 115.453, "Control Requirements" states:

(c) The owner or operator of any surface coating process subject to this division shall not apply coatings unless one of the following coating application systems is used:

- (1) electrostatic application;
- (2) high-volume, low-pressure (HVLP) spray;
- (3) flow coat;
- (4) roller coat;
- (5) dip coat;
- (6) brush coat; or
- (7) other coating application system capable of achieving a transfer efficiency equivalent to or better than that achieved by HVLP spray. For the purpose of this requirement, the transfer efficiency of HVLP spray is assumed to be 65%.

We would like to ensure that the list above includes hand-held paint rollers. Often the term "roller coat," listed in (4), refers to rollers used in an industrial rolling machine that mechanically applies coating, and we would like it to be clear that hand-held paint rollers are included as an acceptable coating application method. We suggest modifying (6) as follows:

(6) brush coat or hand-held roller coat; or

Thank you very much,

Linda Kee
GREEN Environmental Consulting

Tracking No. 0808-25

08/08/2011 01:58 PM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: Christina

Last Name: Wisdom

Company/Organization: Texas Chemical Council

[REDACTED]

Rule: 2010-016-115-EN

Comments:



TEXAS CHEMICAL COUNCIL

1402 Nueces Street • Austin, Texas 78701-1586 • (512) 646-6400 • Fax (512) 646-6420

August 8, 2011

Mr. Michael Parrish
Office of Legal Services
MC-205
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

**RE: Rule Project Number 2010-016-115-EN
Proposed Revisions to 30 TAC Chapter 115 Volatile Organic Compounds Reasonably Available Control Technology Rule Revisions**

Dear Mr. Parrish:

The Texas Chemical Council (TCC) appreciates the opportunity to comment on the proposed rulemaking by the Texas Commission on Environmental Quality (TCEQ) to amend 30 TAC Chapter 115 concerning Volatile Organic Compound (VOC) Reasonably Available Control Technology (RACT) rule revisions.

TCC is a statewide trade association representing over 70 chemical manufacturers with more than 200 Texas facilities. The Texas chemical industry has invested more than \$50 billion in physical assets in the state, pays over \$1 billion annually in state and local taxes and over \$20 billion in federal income taxes. TCC's members provide approximately 70,000 direct jobs and over 400,000 indirect jobs to Texans across the state. TCC member companies manufacture products that improve the quality of life for all Americans and millions of people around the world.

TCC appreciates the work that TCEQ staff put into this rule proposal. That said, there are many aspects of the proposal that TCC members found confusing and on those issues, seek clarification from the agency. Please find TCC's detailed comments below.

Comments on Division 5, Surface Coating Processes

(1) According to 30 TAC 115.450 concerning applicability and definitions, the requirements apply to “miscellaneous metal parts and products” (115.450(a)(3)) and to “miscellaneous plastic parts and products” (115.450(a)(4)).

However, the proposed rule includes specific surface coating categories defined in 115.450(c), which include “miscellaneous metal and plastic parts” at 115.450(c)(5). A specific definition of “miscellaneous metal parts and products” is included at 115.450(c)(5)(Q), but there is no subsequent mention of plastic parts and products. TCEQ should clarify whether miscellaneous plastic parts and products are included in this category and avoid the use of numerous similar

terms that only create confusion.

(2) Furthermore, proposed 30 TAC 115.450(a)(3) indicates the rule applies to miscellaneous metal parts and products coating “*at the original equipment manufacturer, off-site job shops that coat new parts and products or that recoat used parts and products, and designated on-site maintenance shops that recoat used parts and products.*”

A chemical plant may on occasion coat newly fabricated piping or other equipment at an on-site maintenance shop. TCC requests that TCEQ staff clarify whether or not it is their intent to regulate this activity which appears to fall outside of the definition of “miscellaneous metal parts and products,” while the recoating of some equipment at an on-site job shop appears included. TCC also points out a statement by the U.S. Environmental Protection Agency (EPA) in the preamble to the Maximum Available Control Technology (MACT) MMMM for Surface Coating of Miscellaneous Metal Parts and Products (69 Fed. Reg. 143 (Jan. 2, 2004), the intent of which was to exclude “facility maintenance operations” as noted below:

Comment: ...One commenter requested clarification that coating activities at industrial sites to maintain the structural and operational integrity of process equipment are not covered by the final rule. Many industries coat new and existing support structures, piping, and equipment as part of routine maintenance activities, but they do not produce and coat metal parts for commercial sale. ...

Response: **The EPA agrees that the surface coating of equipment and tools used by a manufacturing facility (compared to machinery and tools that are sold as industrial products) should be considered part of facility maintenance operations and not part of the miscellaneous metal parts and products surface coating source category.** The final rule includes a definition of “facility maintenance operations” that includes the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility. Infrastructure may include buildings, tools, and equipment needed to support the function of the facility that are fixed in place, or are occasionally used offsite.”

In addition, TCC requests that TCEQ clarify whether this same type of activity conducted at an on-site lay-down yard would be a regulated activity. For example, in the current Division 2, painting of pipes in the lay-down yard is covered under 115.421(a)(9) (A)(ii) as “low-bake coating.” Therefore, a VOC emissions limit of 3.5lbs/gal applies. However, in the new Division 5, the same painting of pipes is covered under 115.453(a)(1)(C) Table 1 and seems to contain more categories. If a regulated entity does not meet the definition of “extreme performance coating,” is that facility now covered under the “General Coating” category and therefore expected to have a reduced VOC emission limit of 2.8 lbs/gal? TCC opposes this interpretation as it will have a significant impact on the types of paints its members can use in their lay-down yards.

(3) With regard to the exemptions, TCC requests that TCEQ clarify in 115.451(6)(C) whether exemptions for “safety indicated coatings” include those temperature-sensitive coatings used to identify hazards in an industrial setting. Furthermore, TCC is assuming the exemptions and definition of “architectural coating” in this section includes painting pipes in the process unit because they are “in the field” and “stationary structures.” Please confirm whether this

interpretation is correct and whether the rules apply only to lay-down yards and not pipes in the process units.

(4) If an activity were subject to the specific surface coating definition for miscellaneous metal and plastic parts (30 TAC 115.450(c)(5)), it might be classified as “extreme performance coating” (30 TAC 115.450(c)(5)(I)), “heat resistant coating” (30 TAC 115.450(c)(5)(J)), or as “miscellaneous metal parts and products” coating (30 TAC 115.450(c)(5)(Q)), depending on the application. The control requirements for miscellaneous metal parts and products are provided in 30 TAC 115.453(a)(C) for the miscellaneous metal parts and products category.

It is not evident when Table 1 versus Table 2 control requirements governs. TCC requests that the Agency clarify the intended use of Table 1 versus Table 2.

(5) Furthermore, the rules define “Extreme Performance Coating” in 115.450(c)(5)(I) and specifically mention “chronic exposure to corrosive, caustic, or acidic agents.” TCC requests clarification of that term, i.e., is it intended to mean painting outside of pipes that carry acids and caustics, or does it mean painting inside of pipes that carry acids and caustics?

Comments on Division 6, Industrial Cleaning Solvents

(6) Appendix A of the “Draft CTG: Industrial Cleaning Solvents” (EPA-453/P-06-001, August 1, 2006) lists the “focus industries” as automotive manufacturing and related businesses, electrical components, furniture, magnetic tape, packaging, and photographic supplies. In discussing applicability (page 4), EPA states that the “CTG should have broad applicability to industrial cleaning operations that have VOC emissions of at least 15 lb/day, before controls.” However, EPA suggests that cleaning of “miscellaneous metals parts” coatings be *excluded* from applicability (page 7). Therefore, cleaning of miscellaneous metal parts in the petrochemical industry should be exempted from this division.

(7) Furthermore, the Industrial Cleaning Solvents rule should clearly exempt cleaning operations that do not involve the removal of uncured adhesives, inks, and coatings, and contaminants such as dirt, soil, oil, and grease. For example, in the chemical industry, piping and equipment is often flushed with solvent during process turnarounds or product changeovers. These cleaning operations would likely already be regulated by 30 TAC Chapter 115, Vent Gas Control or Batch Processes rule.

(8) The exemption in 115.461(b) should specifically exclude process or operations that are subject to and complying with 30 TAC Chapter 115, Subchapter B, Division 2 (Vent Gas Control) or Division 6 (Batch Processes), including any qualifying exemptions. The exemption in 115.461(b) should be revised similar to the wording in the Reg 5 Vent Gas Control rule (115.127(a)(6)) to state: “A cleaning operation is exempt from this division (relating to Industrial Cleaning Solvents) if all of the VOC emissions from the cleaning operation originate from a source(s) for which another division within Chapter 115 (for example, Vent Gas Control, Degreasing Processes, Batch Processes) has established a control requirement(s), emission specification(s), or exemption(s) which applies to that VOC source category in that county.”

(9) The term “janitorial cleaning” is defined in 115.460 as if it were intended to be exempted from the Industrial Cleaning Solvents rule. However, the exemption was inadvertently left out of the exemption section 115.461 and needs to be added.

Comments on Division 7, Miscellaneous Industrial Adhesives

(10) Applicability in 30 TAC 115.470 is broadly stated to apply to any owner/operator of a manufacturing or repair facility using adhesives for any adhesive application process specified in 30 TAC 115.473, which lists as an application process “other adhesive primer” applications. Chemical plants may use adhesives in limited applications such as to attach wear pads on piping to prevent metal-to-metal contact. As another example, adhesives might be used from time to time to repair or replace floor tiles in company buildings. While we expect these limited applications can meet the 3 ton/year exemption in 30 TAC 115.471, recordkeeping under 30 TAC 115.478 (b) would be required.

TCC suggests that TCEQ revise the “applicability” provisions to specifically define “other adhesive primers” as “other adhesive primers, other than incidental industrial use.”

Conclusion

Thank you again for your consideration of these comments on the proposed amendments to 30 TAC Chapter 115. Please contact me at (512) 646-6403 or wisdom@txchemcouncil.org should you need additional clarification or information.

Yours respectfully,

A handwritten signature in black ink that reads "Christina T. Wisdom". The signature is written in a cursive, flowing style.

Christina T. Wisdom
Vice President & General Counsel

Tracking No. 0808-28

08/08/2011 02:45 PM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: Kirk

Last Name: Hummel

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Street Address: 2101 NASA Parkway

City: Houston

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Fax Number:

Rule: 2010-016-115-EN

Comments:

Michael Parrish
Office of Legal Services (MC 205)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Comment on: Chapter 115 Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT) Rule Revisions (Rule Log 2010-016-115-EN)

The National Aeronautics and Space Administration (NASA) operates three locations in Houston: the Johnson Space Center (JSC), Ellington Field (EF), and Sonny Carter Training Facility (SCTF) and one location in El Paso: the El Paso Forward Operating Location. TCEQ has proposed rulemaking to implement the recommendations in the EPA's Control Techniques Guideline documents for determining RACT. NASA welcomes the opportunity to comment on the technological and economic feasibility of the proposed rules, specifically in the areas of surface coating, solvents, and adhesives.

Our comments below address areas of the rule on which NASA requests clarification or modification:

1. Exempt on-site maintenance shops;
2. Exempt NASA's manned spacecraft research and development centers from Division 5;
3. Update and Streamline Requirements for Solvent Cleaning Operations;
4. Exempt Janitorial cleaning from Solvent Cleaning;
5. Exempt NASA's manned spacecraft research and development centers from Division 7; and
6. Exempt Consumer adhesives from Division 7

1. On-site maintenance shops

Problem/Issue: According to §115.450(a)(3), the rule applies to miscellaneous metal part and product coating at the original equipment manufacturer, off-site job shops that coat new and used parts and products or that recoat used parts and products, and designated on-site maintenance shops that recoat used parts and products. The category of designated on-site maintenance shops was created several years ago and first appeared in the Division 2 applicability at §115.420(b)(9)(F), and is described in the current preamble as an area designated at a site where coatings are applied to one or more miscellaneous metal parts or products on a routine basis. TCEQ should remove on-site maintenance shops from the applicability of both Divisions for the following reasons. First, TCEQ has not defined this type of facility in the rules, and it is unclear what frequency would be considered "routine". Second, EPA's Control Techniques Guideline document for Miscellaneous Metal and Plastic Parts Coatings does not include on-site maintenance shops¹. The Federal MACT standard for Miscellaneous Metal Parts and Products in 40 CFR 63 Subpart Mmmm excludes facility maintenance operations from the rule². Finally,

¹ U.S. EPA, Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings: (EPA-453/R-08-003), September 2008. (Page 5)
"The CTG applies to manufacturers of miscellaneous metal and plastic parts that surface-coat the parts they produce. The final CTG also applies to facilities that perform surface coating of miscellaneous metal and plastic parts on a contract basis."

² 40 CFR Section 63.3881(c)(2) states that the rule does not apply to surface coating or a coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

industrial maintenance coatings are already covered by the National AIM rule in 40 CFR Part 59 Subpart D. NASA is not a manufacturing facility, and does not routinely perform surface coating or recoating on used parts or products in on-site maintenance shops, but we are concerned that the proposed rule applicability is confusing and would be very difficult to implement.

Suggestion/Recommendation: TCEQ should delete designated on-site maintenance shops that recoat used parts and products from §115.450(a)(3) and §115.420(b)(9)(F). TCEQ should instead clarify the exemption in §115.451(1) to add industrial maintenance coatings:

For example, architectural coatings applied in the field to stationary structures and their appurtenances, portable buildings, pavements, or curbs, or industrial maintenance coatings in on-site maintenance shops at a property would not be included in the calculations.

2. Exempt NASA's manned spacecraft research and development centers from Division 5

Problem/Issue: In §115.450(a)(3) and (a)(4), the rules apply to original equipment manufacturer and off-site job shops that coat miscellaneous metal and plastic parts and products. NASA's manned spacecraft centers perform application of specialty surface coatings to non-production mock-ups, prototypes, fixtures, and displays. The current proposed rule exemption in §115.451(13) has narrowly worded language that exempts coatings that are applied to test panels and coupons as part of research and development, quality control, or performance testing activities at paint research or manufacturing facilities. The current Chapter 115 Subchapter E Division 2 surface coating rule has two exemptions:

- §115.427(a)(1)(A) excludes aerospace vehicles and components from coverage under the miscellaneous metal parts and products (MMPP) coating category, and
- §115.427(a)(3)(J) excludes research and development activities from Division 2 where cleaning and coating of aerospace vehicles or components is performed.

NASA and Department of Defense are already exempt from the Federal MACT standard (40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products) in 40 CFR §63.3881(c)(4). The basis for this exemption request is that reformulating solvents or coatings requires extensive field testing before they can be approved for use in spacecraft systems including prototype/ development articles. Updating the coatings for which there is a NASA specification requires updating the documentation. The proposed regulation would be impractical and extremely costly for NASA facilities because of the complexity of coating operations, the number of coatings and solvents used, and the number of different items and substrates coated. NASA may use small amounts of hundreds of different coatings, and each material is subject to its own engineering specifications. Frequent changes in the mix of prototypes are unpredictable and dictated by future mission requirements, and would prevent compliance using either the averaging or add-on control options. Additionally, TCEQ should specifically exempt coating of museum/historical items because NASA must use historically accurate coatings for these items. Therefore, TCEQ should explicitly exempt NASA's manned spacecraft research and development centers.

Suggestion/Recommendation: NASA requests a new exemption in §115.451(14). Proposed revision:
(14) The surface coating of metal or plastic parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the Texas National Guard) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the Texas National Guard).

3. Update and Streamline Requirements for Solvent Cleaning Operations

Problem/Issue: Chapter 115 Subchapter E, Division 1 (Degreasing Processes) regulates equipment such as cold cleaners and vapor degreasers that use VOC-containing solvents. Chapter 115 Subchapter E, Division 1 was adopted in 1979 when cleaning solvents were traditional VOC such as trichloroethylene or naphtha. This regulation needs to be updated to reflect low-VOC and aqueous cleaning solvents. The proposed exemption in Division 6 §115.461(b) to exempt other solvent cleaning operations covered elsewhere in Chapter 115 is a missed opportunity to update and streamline the requirements for degreasing processes. This is also an opportunity to make the air permitting requirements congruent with Chapter 115 requirements.

Suggestion/Recommendation: TCEQ should amend or revise the proposed rule to update or replace definitions and existing requirements for solvent degreasing processes in Chapter 115 Division 1. Specifically, aqueous detergents, surfactants, and other cleaning solutions containing not more than one percent of any organic compound should be exempted from Chapter 115 as they are from the permitting process. Additionally, compounds with low vapor pressure <0.01 mm Hg (0.0002 psia) at a temperature not to exceed 104⁰F are not considered air contaminants for air permitting and should not be subject to Chapter 115 either.

TCEQ acknowledges in the preamble that small sources with actual emissions of less than 3 TPY should not be subject to the control requirements because it is not economically feasible and does not constitute RACT. This suggested change would not constitute backsliding because EPA encourages States to use the latest information to determine RACT. EPA's 2006 CTG "presumptive RACT" recommendations cover the entire spectrum of industrial cleaning categories, and specifically included degreasing processes.³

4. Include Janitorial Exemption for Solvent Cleaning Operations

Problem/Issue: In §115.460(b)(3), TCEQ defines Janitorial cleaning, but did not actually include an exemption. EPA's 2006 Industrial Cleaning Solvents CTG recommends janitorial cleaning be excluded from the applicability for the proposed rule requirements.

Suggestion/Recommendation: TCEQ should revise the applicability in §115.460(a). Proposed revision:
(a) Applicability. Except as specified in §115.461 of this title (relating to Exemptions), the requirements in this division apply to solvent cleaning operations in the Dallas-Fort Worth and Houston-Galveston-Brazoria areas, as defined in §115.10 of this title (relating to Definitions). Residential and janitorial cleaning are not considered solvent cleaning operations.

³ U.S. EPA, Control Techniques Guidelines: Industrial Cleaning Solvents (EPA 453/R-06-001), September 2006. (Page 10) "The total VOC emissions from solvent cleaning operations (64,000 Mg/yr (71,000 tpy) were determined by first assigning the VOC emissions from solvent cleaning operations at each facility using the 2002 National Emissions Inventory (NEI) database to one of two general groups: parts cleaners, and other solvent cleaning operations. The parts cleaner subgroup included emissions from all SCC codes with a "degreasing" or cold solvent cleaning/stripping classification in SCC_L3. VOC emissions from this subcategory are approximately 4,000 Mg/yr (4,400 tpy). The other solvent cleaning operations included all other SCCs that were identified as solvent cleaning operations."

5. Exempt NASA's manned spacecraft research and development centers from Division 7

Problem/Issue: In §115.470(a), the rules apply to manufacturing or repair facilities with adhesive application processes. NASA's manned spacecraft centers perform application of adhesives to non-production mock-ups, prototypes, fixtures, and displays. The current proposed rule exemption in §115.471 has narrowly worded language that provides exemptions for (1) research and development, quality assurance, or analytical laboratory and (2) assembly, repair, or manufacturing of aerospace or undersea-based weapons systems.

The basis for this exemption request is that reformulating adhesives requires extensive field testing before they can be approved for use in spacecraft systems including prototype/ development articles. Updating the adhesives for which there is a NASA specification requires updating the documentation. The proposed regulation would be impractical and extremely costly for NASA facilities because of the complexity of adhesive operations, the number of adhesives used, and the number of different items and substrates bonded together. NASA may use small amounts of hundreds of different adhesives, and each material is subject to its own engineering specifications. Frequent changes in the mix of prototypes are unpredictable and dictated by future mission requirements, and would prevent compliance using either the averaging or add-on control options. Therefore, TCEQ should explicitly exempt NASA's manned spacecraft research and development centers.

Suggestion/Recommendation: NASA requests a new exemption at §115.471(d). Proposed revision:
(d) Adhesives or adhesive primers used on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the Texas National Guard) and the National Aeronautics and Space Administration are exempt from the requirements in this division.

6. Exempt Consumer adhesives from Division 7

Problem/Issue: In §115.470(a), the rules apply to manufacturing or repair facilities with adhesive application processes. Among the categories of adhesive materials regulated in §115.473 are a number of substances that are more likely to be used for institutional purposes or at construction sites rather than in manufacturing facilities. Such materials include ceramic tile installation adhesive; cove base installation adhesive; floor covering installation adhesives; and single-ply roof membrane installation or repair adhesives. It is not clear how the rule will apply to these materials that are used at thousands of sites statewide that are not manufacturing facilities. In the Federal Register notice for the Industrial Adhesive CTG (73 FR 40255), EPA stated that the miscellaneous industrial adhesives category does not include adhesives and adhesive primers that are subject to the National Volatile Organic Compound Emission Standards for Consumer Products, 40 CFR part 59, subpart C.

Suggestion/Recommendation: NASA requests a new exemption at §115.471(e). Proposed revision:
(e) Adhesives or adhesive primers subject to the National Volatile Organic Compound Emission Standards for Consumer Products, 40 CFR part 59, subpart C are exempt from the requirements in this division.

Tracking No. 0808-30

08/08/2011 04:32 PM

This email is a confirmation of the comment that was submitted for the referenced rulemaking.

First Name: Kate

Last Name: Bates

Company/Organization: US Navy

Street Address: PO Box 30, Bldg 903

City: Jacksonville

State: FL

Zip Code: 32210

Phone Number:

Fax Number:

Rule: 2010-016-115-EN

Comments:

Frances Dowiak
Air Quality Planning Section (MC 206)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Comment on: Chapter 115 Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT) Rule Revisions (Rule Log 2010-016-115-EN)

The United States Navy operates in the Dallas-Fort Worth Metropolitan area and currently our facility operations are not subject to the proposed rule. Yet, due to our ever changing operations and mission requirements the Navy could become subject to the rule and our increasing budget constraints would make it difficult for the Navy to meet these requirements in the future. Therefore, the Navy considers it prudent to make comments on this proposed rule at this time. TCEQ has proposed rulemaking to implement the recommendations in the EPA's Control Techniques Guideline documents for determining RACT. The Navy welcomes the opportunity to comment on the technological and economic feasibility of the proposed rules, specifically in the areas of surface coating, solvents, and adhesives.

Our comments below address areas of the rule on which the Navy requests clarification or modification:

1. Exempt on-site maintenance shops;
2. Exempt Department of Defense activities from Division 5
3. Update and Streamline Requirements for Solvent Cleaning Operations;
4. Exempt Janitorial cleaning from Solvent Cleaning;
5. Exempt Consumer adhesives from Division 7

1. On-site maintenance shops

Problem/Issue: According to §115.450(a)(3), the rule applies to miscellaneous metal part and product coating at the original equipment manufacturer, off-site job shops that coat new and used parts and products or that recoat used parts and products, and designated on-site maintenance shops that recoat used parts and products. The category of designated on-site maintenance shops was created several years ago and first appeared in the Division 2 applicability at §115.420(b)(9)(F), and is described in the current preamble as an area designated at a site where coatings are applied to one or more miscellaneous metal parts or products on a routine basis. TCEQ should remove on-site maintenance shops from the applicability of both Divisions 2 and 5 for three reasons. First, TCEQ has not defined what constitutes an on-site maintenance shop, and it is unclear what frequency is "routine". Second, EPA's Control Techniques Guideline document for Miscellaneous Metal and Plastic Parts Coatings does not include on-site maintenance shops¹. The Federal Maximum Achievable Control Technology (MACT) standard for Miscellaneous Metal Parts and Products in 40 CFR 63 Subpart Mmmm excludes facility

¹ U.S. EPA, Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings: (EPA-453/R-08-003), September 2008. (Page 5)
"The CTG applies to manufacturers of miscellaneous metal and plastic parts that surface-coat the parts they produce. The final CTG also applies to facilities that perform surface coating of miscellaneous metal and plastic parts on a contract basis."

maintenance operations from the rule². Finally, industrial maintenance coatings are already covered by the National Architectural and Industrial Maintenance (AIM) rule in 40 CFR Part 59 Subpart D. The Navy is concerned the proposed rule applicability is confusing and would result in inadequate compliance efforts or unnecessary costs to effectively comply with the rule.

Suggestion/Recommendation: TCEQ should delete designated on-site maintenance shops that recoat used parts and products from §115.450(a)(3) and §115.420(b)(9)(F). TCEQ should instead clarify the exemption in §115.451(1) to add industrial maintenance coatings:

For example, architectural coatings applied in the field to stationary structures and their appurtenances, portable buildings, pavements, or curbs, or industrial maintenance coatings in on-site maintenance shops at a property would not be included in the calculations.

2. Exempt Department of Defense (DoD) activities from Division 5

Problem/Issue: In §115.450(a)(3) and (a)(4), the rules apply to original equipment manufacturer and off-site job shops that coat miscellaneous metal and plastic parts and products. The current proposed rule exemption in §115.451(13) has narrowly worded language that exempts coatings that are applied to test panels and coupons as part of research and development, quality control, or performance testing activities at paint research or manufacturing facilities. The current Chapter 115 Subchapter E Division 2 surface coating rule has two exemptions:

- §115.427(a)(1)(A) excludes aerospace vehicles and components from coverage under the miscellaneous metal parts and products (MMPP) coating category, and
- §115.427(a)(3)(J) excludes research and development activities from Division 2 where cleaning and coating of aerospace vehicles or components is performed.

NASA and Department of Defense are exempt from the Federal MACT standard (40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products) in 40 CFR §63.3881(c)(4). We request that a similar exemption be included in this rule. The basis for this exemption request is that reformulating solvents or coatings requires extensive and costly field testing before they can be approved for use in military applications. Updating the coatings for which there is a Military specification requires updating the documentation Navy wide. The proposed regulation would be impractical and extremely costly for DoD facilities because of the complexity of coating operations, the number of coatings and solvents used, and the number of different items and substrates coated. The DoD may use small amounts of hundreds of different coatings, and each material is subject to its own engineering specifications. Frequent changes in the mix of prototypes are unpredictable and dictated by future mission requirements, and would prevent compliance using either the averaging or add-on control options. The alternate option of adding vapor control technology can be equally as challenging and costly due to the number and quantity of coating operations that can occur on DoD installations. Additionally, TCEQ should specifically exempt coating of museum/historical items because the DoD must use historically accurate coatings for these items.

Suggestion/Recommendation: The Navy requests a new exemption in §115.451(14) to reflect the Federal MACT standard exemption already in place. Proposed revision:

² 40 CFR Section 63.3881(c)(2) states that the rule does not apply to surface coating or a coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(14) The surface coating of metal or plastic parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the Texas National Guard) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the Texas National Guard).

3. Update and Streamline Requirements for Solvent Cleaning Operations

Problem/Issue: Chapter 115 Subchapter E, Division 1 (Degreasing Processes) regulates equipment such as cold cleaners and vapor degreasers that use VOC-containing solvents. Chapter 115 Subchapter E, Division 1 was adopted in 1979 when cleaning solvents were traditional VOC such as trichloroethylene or naphtha. This regulation needs to be updated to reflect low-VOC and aqueous cleaning solvents. The proposed exemption in Division 6 §115.461(b) to exempt other solvent cleaning operations covered elsewhere in Chapter 115 is a missed opportunity to update and streamline the requirements for degreasing processes. This is also an opportunity to make TCEQ air permitting requirements congruent with Chapter 115 requirements.

Suggestion/Recommendation: TCEQ should amend or revise the proposed rule to update or replace definitions and existing requirements for solvent degreasing processes in Chapter 115 Division 1. Specifically, aqueous detergents, surfactants, and other cleaning solutions containing not more than one percent of any organic compound should be exempted from Chapter 115 as they are from the Texas permitting process. Additionally, compounds with low vapor pressure <0.01 mm Hg (0.0002 psia) at a temperature not to exceed 104⁰F are not considered air contaminants for air permitting in Texas and should not be subject to Chapter 115 either.

4. Include Janitorial Exemption for Solvent Cleaning Operations

Problem/Issue: In §115.460(b)(3), TCEQ defines Janitorial cleaning, but did not include an exemption for janitorial cleaning. EPA's 2006 Industrial Cleaning Solvents CTG recommends excluding janitorial cleaning from the applicability for the proposed rule requirements.

Suggestion/Recommendation: TCEQ should revise the applicability in §115.460(a). Proposed revision:
(a) Applicability. Except as specified in §115.461 of this title (relating to Exemptions), the requirements in this division apply to solvent cleaning operations in the Dallas-Fort Worth and Houston-Galveston-Brazoria areas, as defined in §115.10 of this title (relating to Definitions). Residential and janitorial cleaning is not considered solvent cleaning operations.

5. Exempt Consumer adhesives from Division 7

Problem/Issue: In §115.470(a), the rules apply to manufacturing or repair facilities with adhesive application processes. Among the categories of adhesive materials regulated in §115.473 are a number of substances that are more likely to be used for institutional purposes or at construction sites rather than in manufacturing facilities. Such materials include ceramic tile installation adhesive; cove base installation adhesive; floor covering installation adhesives; and single-ply roof membrane installation or repair adhesives. It is not clear how the rule will apply to these materials that are used at thousands of non-manufacturing facility sites statewide.

Suggestion/Recommendation: The Navy requests a new exemption at §115.471(e). Proposed revision:
(e) Adhesives or adhesive primers used for general consumer and/or non-manufacturing applications are exempt from the requirements in this division.

Tracking No. 0808-34

Dear Mr. Dowiak,

Please find attached for the American Coatings Association comments on the above referenced CTG as it pertains to VOC limits for pleasure craft coatings. I have also attached a letter sent to OAQPS formally requesting reconsideration of this CTG for the reasons listed in said document. As you will see, the ACA believes that this matter was not settled with their initial memorandum of June 1, 2010 (also attached). Do not hesitate to contact me with any questions.

Regards,
John

John Hopewell
Asst. Director Environmental Affairs & International Programs
American Coatings Association

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Tracking No. 0808-33

From: Michael Parrish

To: Schubert, Ray

CC: Anderson, Lindley; Goodin, Chance; Meiller, Vincent; Spencer, Joyce; ...

Date: 8/8/2011 5:43 PM

Subject: Chapter 115 Comment - EPA

Attachments: [EPA.pdf](#)

Attached

Fax Transmission

To: Michael Parrish, MC 205
Fax: 512-239-4808

Re: Comments on proposed SIP revision
Rule Project No. 2010-016-115-EN

From: Carrie Paige, EPA Region 6
Phone: 214-665-6521

Total: 18 pages, including fax cover sheet

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733**AUG 08 2011**

Ms. Charlotte Horn
Texas Register Team
Office of Legal Services, MC 205
Texas Commission on Environmental Quality
PO Box 13087
Austin, TX 78711-3087

Dear Ms. Horn:

Thank you for the opportunity to submit comments on revisions proposed to the Texas Commission on Environmental Quality State Implementation Plan (SIP). These revisions are:

- a) Chapter 115 VOC Storage Tank Rule Amendments
Rule Project No. 2010-025-115-EN
- b) Chapter 115 CTG RACT Rule Amendments
Rule Project No. 2010-016-115-EN
- c) DFW SIP Attainment Demonstration Revision (including photochemical modeling, weight of evidence, RACT, RACM, an MVEB, and a contingency plan) Rule Project No. 2010-022-SIP-NR
- d) DFW SIP Reasonable Further Progress Revision
Rule Project No. 2010-023-SIP-NR
- e) HGB RACT Analysis Update SIP Revision
Rule Project No. 2010-028-SIP-NR
- f) DFW Attainment Demonstration and Reasonable Further Progress (RFP)
SIP Revision Supplements

These SIP revisions are important for Texas' plan to address ozone air quality problems in the state. We appreciate the efforts of the State in developing these SIP revisions.

Our detailed comments on the proposed rules are included as an enclosure to this letter. Please contact me or my staff if you have any questions. For questions about our comments on the DFW SIP proposals, please contact Ms. Carrie Paige at 214-665-6521. Please direct questions about comments on the VOC storage tank rules, CTG RACT rules, or the DFW or HGB RACT analysis to Ms. Ellen Belk at 214-665-2164.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Guy Donaldson".

Guy Donaldson, Chief
Air Planning Section (6PD-L)

Enclosure

Cc: Lola Brown, MC 206
Michael Parrish, MC 205
Jamie Zeck, MC 206

Internet Address (URL) - <http://www.epa.gov/earth1r6/>

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Detailed Comments***Control of VOC Emissions from Storage and Transfer Operations for the Eight-Hour Ozone Standard (Rule Project No. 2010-025-115-EN)***

The amendments in this proposed rule would apply to nonattainment and near nonattainment areas, and would change VOC control requirements in 30 TAC Chapter 115, Subchapter B, Division 1, Storage of Volatile Organic Compounds. These revisions would require a more stringent level of control for VOC storage in the Dallas – Fort Worth 1997 eight hour ozone nonattainment area. In addition, this proposed rulemaking would clarify rule requirements and allow for the use of alternative control options for affected owners or operators in the following areas: HGB 1997 8-hour ozone nonattainment area, Beaumont-Port Arthur area, and in Arkansas, Bexar, Calhoun, El Paso, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties. Our comments on this rulemaking project are as follows:

1. EPA Region 6 is supportive of TCEQ's efforts to expand controls for additional VOC emissions in the DFW area. Also, EPA appreciates the decision made by TCEQ requiring 95% control in 115.112(f)(3)(A).
2. Please confirm that this new rule includes all of the components needed for enforcement purposes. As explained in the preamble, "... the compliance date for new requirements in the DFW area will be December 1, 2012". However, if compliance with the new requirements would necessitate emptying and degassing the tank, compliance would not be required until the next time the tank is emptied or degassed but no later than December 1, 2021. In particular, please explain how existing reporting requirements are sufficient for inspectors to be able to verify the most recent time that a vessel was emptied or degassed and, if necessary, add additional reporting requirements which provide for the enforceability of this rule.
3. With respect to any credit which may be taken for reductions from this rule in the reasonable further progress plan or attainment plan, please explain how the reductions were calculated. In particular, please explain how the credit has been appropriately prorated to reflect that many storage tanks may not be controlled until after the deadline for RFP or attainment because of the extended period allowed for compliance.

Detailed Comments

Control of VOC Emissions for Eight Control Techniques Guideline (CTG) Categories. (Rule Project No. 2010-016-115-EN)

The amendments in this proposed rule would change VOC control requirements in 30 TAC Chapter 115 Subchapter E, Solvent-Using Processes for eight Control Techniques Guidelines (CTG) categories issued in 2006, 2007, and 2008. The CTG categories included in this proposal are: Flexible Packaging Printing Materials; Industrial Cleaning Solvents; Large Appliance Coatings; Metal Furniture Coatings; Paper, Film, and Foil Coatings; Auto and Light-Duty Truck Assembly Coatings; Miscellaneous Industrial Adhesives; and Miscellaneous Metal and Plastic Parts Coatings. Our comments on this rulemaking project are as follows:

1. Compliance Dates

Please consider whether these rule revisions should be enhanced to require compliance where possible by the beginning of the ozone season, March 1, 2013. The rules as proposed make a distinction between owners and operators becoming subject to the requirements and complying with the requirements, allowing an additional 60 days for compliance after becoming subject.

For example, as indicated in proposed Division 3: Flexible Packaging Printing Materials 115.439(d), "The owner or operator of a flexible package printing line in the Dallas-Fort Worth and Houston-Galveston-Brazoria areas that becomes subject to the requirements of this division after March 1, 2013, shall comply with the requirements in this division no later than 60 days after becoming subject."

Given this, please consider modifying the rule to require compliance with these regulations no later than March 1, 2013.

Also, please use similar modifications in other compliance sections which are similarly worded, such as: §115.459(b), and §115.469(b).

2. Reasonably Available Control Technology (RACT) Requirements.

Absent the requisite demonstration, EPA will not be able to approve portions of the proposed rules. This is because the proposed rules replace emissions limits previously adopted as RACT with less stringent emissions limits. A demonstration from the State showing that the SIP-approved limits are no longer RACT, will be required for EPA's approval.

EPA's interpretation of the applicable provisions of the CAA is contained in the memorandum titled "Approving SIP Revisions Addressing VOC RACT Requirements for Certain Coatings Categories" dated March 17, 2011. This memo is included as an appendix at the end of our comments. The memo states that "for situations in which a

State has previously determined that more stringent applicability thresholds and/or control levels are RACT for one or more sources in a source category and the sources have complied with those requirements, then those existing controls should be considered RACT for such sources. Further, "if a state chooses to revise more stringent rules that are already in the approved SIP, so that those rules reflect the less-stringent recommended limits in the new CTGs, there are additional considerations . . . The state would need to first demonstrate that the SIP approved control requirements are not reasonably available considering technological and economic feasibility, consistent with EPA's definition of RACT." Sources have been complying with these limits in some cases for 20 years or more. Texas should explain how it is no longer RACT for these sources to continue to comply with the old limits.

Therefore absent a demonstration portions of the following proposed Division 5 rules may not be approvable these include: Surface Coating Processes §115.453 and Control Requirements. Specifically, EPA anticipates not being able to approve some of the revisions proposed for Large Appliances, Metal Furniture, Miscellaneous Metal Parts and Products, Miscellaneous Plastic Parts and Products, and possibly other sections, including portions of the following:

Division 5: Surface Coating Processes §115.453 Control Requirements:
§115.453(1)(A) Large Appliances
§115.453(1)(B) Metal Furniture
§115.453(1)(C) Miscellaneous Metal Parts and Products
§115.453(1)(D) Miscellaneous Plastic Parts and Products

3. Director's Discretion

The proposed §115.454(b) provides for alternate control requirements approved by the executive director:

§115.454(b) For any surface coating process or processes at a specific property, the executive director may approve requirements different from those in §115.453(a)(1)(A) of this title (relating to Control Requirements) based upon the executive director's determination that such requirements will result in the lowest emission rate that is technologically and economically reasonable. When the executive director makes such a determination, the executive director shall specify the date or dates by which such different requirements must be met and shall specify any requirements to be met in the interim. If the emissions resulting from such different requirements equal or exceed 25 tons a year for a property, the determinations for that property must be reviewed every five years. Executive director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for approval by the United States Environmental Protection Agency in cases where specified criteria for determining equivalency have not been clearly identified in applicable sections of this chapter.

The rule should be revised to make clear that any alternative requirements to §115.453(a)(1)(A), approved by the executive director under §115.454(b) would need to be submitted as a site specific SIP revision for approval by EPA to ensure it meets the requirements for enforceability and public hearings.

4. Division 5: Control Requirements for Surface Coating Processes. Title.

It would be helpful to readily distinguish the rules in this division from those in Division 2. The proposed title for this new Division 5, "Control Requirements for Surface Coating Processes", seems very similar to Division 2, "Surface Coating Processes".

Detailed Comments: Project No. 2010-022-SIP-NR

Dallas-Fort Worth Attainment Demonstration State Implementation Plan Revision
for the 1997 Eight-Hour Ozone Standard Nonattainment Area.

The proposed DFW attainment demonstration SIP revision contains Federal Clean Air Act required SIP elements, including a photochemical modeling analysis, a weight of evidence analysis, a RACT analysis, a reasonably available control measures analysis, a motor vehicle emissions budget (MVEB) for 2012, and a contingency plan. This proposed revision includes concurrent rulemakings to update control requirements for certain coatings operations, in response to recommended RACT requirements in CTG documents issued by the EPA and VOC storage tank rule revisions to update existing and provide new control measures for the DFW area. This proposed revision also includes an on-road emissions supplement to the proposed attainment demonstration SIP.

1. Reasonably Available Control Technology (RACT) Requirements:

Absent a proper demonstration EPA will not be able to approve portions of the proposed rules because the revised limits replace emissions limits previously adopted as RACT with less stringent emissions limits. Without a demonstration from the State that the SIP-approved limits are no longer RACT, considering technological and economic feasibility, the proposed rule will not be approvable. EPA's interpretation of the applicable requirements of the CAA is provided in the memorandum entitled, "Approving SIP Revisions Addressing VOC RACT Requirements for Certain Coatings Categories" dated March 17, 2011. This memo is included as an appendix at the end of our comments. In general, for situations in which a State has previously determined that more stringent applicability thresholds and/or control levels are RACT for one or more sources in a source category and the sources have complied with those requirements, then those existing controls should be considered RACT for such sources. ... If a state chooses to revise more stringent rules that are already in the approved SIP, so that those rules reflect the less-stringent recommended limits in the new CTGs, there are additional considerations.... The state would need to first demonstrate that the SIP approved control requirements are not reasonably available considering technological and economic feasibility, consistent with EPA's definition of RACT."

Therefore, the portions of proposed Division 5 rules which are not approvable without a RACT demonstration include: Surface Coating Processes §115.453 Control Requirements. Specifically, EPA anticipates not being able to approve some of the revisions proposed for Large Appliances, Metal Furniture, Miscellaneous Metal Parts and Products, Miscellaneous Plastic Parts and Products, and possibly other sections, including portions of the following:

Division 5: Surface Coating Processes §115.453 Control Requirements:

- §115.453(1)(A) Large Appliances
- §115.453(1)(B) Metal Furniture
- §115.453(1)(C) Miscellaneous Metal Parts and Products
- §115.453(1)(D) Miscellaneous Plastic Parts and Products

2. Motor Vehicle Emission Budgets (MVEBs) and use of the Motor Vehicle Emission Simulator (MOVES) emission modeling system:

EPA Region 6 appreciates the work done by TCEQ and the NCTCOG to incorporate an approximation of MOVES mobile modeling outputs into the proposed attainment demonstration and RFP SIPs for the DFW area. MOVES is EPA's approved model for use in SIP submissions and transportation conformity analyses, because it represents the Agency's most current assessment of on-road mobile source emissions (75 FR 9411).

As noted in the proposed attainment demonstration SIP Revision, Section 3.7.6.3 (Expected Changes to SIP Revision Adoption with MOVES), "[w]hether MOBILE6.2 or MOVES is used for on-road emissions inventory development, the DFW area is anticipated to attain the 1997 eight-hour ozone NAAQS by the June 15, 2013 deadline". It is encouraging to see that the area is predicted to attain the standard by the deadline when on-road emissions are estimated using MOVES. Consistent with EPA's guidance for the use of MOVES in the development of SIPs and conformity determinations, Texas should proceed with finalizing attainment demonstration and RFP SIPs using the MOVES emissions modeling results. This would include establishing MOVES-based MVEBs for the DFW area.

The Supplement to the proposed attainment demonstration incorporates the use of the MOVES2010a emission modeling system. MOVES2010a incorporates new car and light truck energy and greenhouse gas rates and a number of other improvements. Unless substantial work with MOVES has been done, the TCEQ should use MOVES2010a and take full advantage of the improvements incorporated in this version.

Modeling/Weight of Evidence

The State has proposed, based on a technical demonstration including modeling and other evidence that the Dallas/Fort Worth areas will attain the 1997 ozone standard by the end of the 2012 ozone season. Based on the current monitoring data and the limited reductions that will happen between now in 2012, however, it seems unlikely that the area will attain. We note that the 2008 and 2009 years and even 2010 had higher wind speeds than normal that resulted in conditions less conducive to ozone formation. The 2011 period has been slightly above normal so far, as it has been very hot, but has had some low wind days and higher wind days. We note that based on the preliminary data that the area's current design value is 88 ppb, short of the 84 ppb goal. To attain by 2012 will require a significant reduction from current monitored levels.

The discussion of ozone design value monitors on page 5-12 and Table 5-4 is not current and does not reflect ozone data for 2010. This information should be updated to include current data.

Evaluation of the model performance data and source apportionment indicates that the model may be oversensitive to low-level NOx reductions. We note that the kv-200 patch

to induce more vertical mixing may be resulting in better performance in the base case, but also making the model overly sensitive to low-level NOx reductions as the atmosphere may not be mixing as rapidly as the patch is indicating. This may compensate for emission estimation errors in the base, thus resulting in better model performance but also over-predicting the benefit of NOx reductions. Comparison of baseline modeling and model performance using the MOVES and MOBILE6.2 emission inventories should provide useful information on the model's sensitivity to changes in low-level NOx emissions.

We also noted that the modeling seems to project significant reductions in ozone levels due to out-of-state emission reductions. We think there may be some error in the magnitude of reductions being projected and request that TCEQ do comparisons with reductions expected with the new Cross State Air Pollution Reduction Rule. A model sensitivity run may help understand if this is part of the discrepancies of the model system.

The calculated RRF values used to project the 2012 DV shown on Table 3-26 range from 0.786 to 0.832, indicating a significant reduction in predicted ozone concentrations over a relatively short period of time. We note that the retrospective analysis (Table 3-24) shows observed RRFs from 1999 to 2006 range from 0.872 to 0.966. In calculation of RRFs, there is some concern that a cut-off of 70 ppb may be too low for determination of which days to include in the RRF calculation. Additional analysis of the sensitivity of the RRF calculation to using a higher cut-off value and including fewer days in the calculation, as well as an evaluation of the day-to-day variability of the RRFs and meteorology on those days, should be provided. Furthermore, evaluation of the sensitivity of RRF values to cell array size should be included, supporting TCEQ's choice of a 3x3 grid cell array about each monitor.

3. General

Throughout the submittal, we notice references to 2010 ozone data as preliminary. Please provide current ozone values in the final submittals.

We are pleased to see improvements to the area source emissions inventories, although the improvements indicate increased emissions from oil and gas activities in the area.

Regarding the discussion on the Clean Fuel Fleet (CFF) requirement, the state should review the CFF equivalency demonstration submitted by the TCEQ for the Beaumont/Port Arthur area, which was approved on October 20, 2010 (75 FR 64675). Since the CFF must be addressed in the DFW SIP, a similar equivalency demonstration is a reasonable option for consideration in the DFW area.

Regarding the discussion on gasoline vapor recovery and the removal of Stage II requirements on pages 4-6 and 4-7, please note that Stage II refueling requirements apply in serious, severe and extreme ozone nonattainment areas, provided the EPA has not yet

found that onboard refueling vapor recovery (ORVR) is in widespread use in the motor vehicle fleet and waived the section 182(b)(3) requirement.¹ Should the EPA finalize the rule as proposed at 76 FR 41731, then Parker, Johnson, Ellis, Kaufman and Rockwall counties would not be required to implement Stage II vapor recovery, nor would the state have to submit a demonstration that ORVR is in widespread use in these counties.

Regarding RACM, as indicated in Appendix G of the state's submittal, in order to advance attainment by one year (i.e., by June 15, 2012), the state would have to implement any additional control measures needed for attainment by the beginning of the 2011 ozone season, which has already passed. Thus, at this time, EPA believes there is insufficient time to implement additional controls that would advance attainment. However, Section 172(c)(1) of the Act requires SIPs to provide for the implementation of all RACM as "expeditiously as practicable" and for attainment of the standard. Therefore, and in light of the preliminary and increasing ozone design values (DVs) in the area, we encourage the state to provide a more robust RACM analysis that includes the magnitude of emissions reductions that would advance the attainment date at the monitors with the highest future DVs. Finally, we encourage the State to explore new technologies and pilot test new strategies to further reduce ozone in the DFW area.

All nine counties in the serious ozone nonattainment area must meet the requirements specified under section 182(c) of the CAA. We have accounted for all but three of these requirements; please specify where the state's rules address how Parker, Johnson, Ellis, Kaufman and Rockwall counties meet the de minimis rule (section 182(c)(6)), the special rules for modification of sources (section 182(c)(7) and (8)), and the increased offset ratio of 1.2 to 1 (section 182(c)(10)).

In the On-road Emissions Supplement to the Proposed DFW Attainment Demonstration, the sentence at the bottom of page 2 appears to be unfinished. We suspect it would direct the reader to Tables 2-3 and 2-4. Please confirm by finishing the sentence.

The state has submitted two recent revisions to Chapter 117 for:

- 1) low-temperature drying ovens at 117.403(a)(12); and
- 2) biogas fired lean-burn engines.

Please confirm that emission increases from these revisions have been captured in the attainment modeling.

¹ On July 15, 2011 (76 FR 41731), the EPA proposed criteria for determining whether ORVR is in widespread use for purposes of controlling motor vehicle refueling emissions throughout the motor vehicle fleet. Based on the proposed criteria, the EPA is proposing to determine that June 30, 2013 will be the date when widespread use will occur and the Stage II waiver will be effective.

Detailed Comments: Project No. 2010-023-SIP-NR

**Dallas-Fort Worth Reasonable Further Progress State Implementation Plan Revision
for the 1997 Eight-Hour Ozone Standard**

The proposed DFW RFP SIP revision contains an analysis of the DFW serious ozone nonattainment area's progress toward attainment of the 1997 eight-hour ozone standard. RFP requirements include annual incremental reductions in ozone precursor emissions (NOx and VOC) out to an area's attainment year, reductions in ozone precursor emissions as contingency measures for designated milestone years and for the attainment year, and updated RFP MVEBs for an area's milestone years. This proposed SIP revision would incorporate a concurrently proposed revision to Chapter 115 that would reduce VOC emissions from affected sources in the DFW area. (We are providing comments on the proposed revisions to Chapter 115 under Rule Project No. 2010-025-115-EN elsewhere.)

1. The Supplement to the RFP indicates that the state is considering using the emissions reductions earned through the TERP to successfully demonstrate RFP for 2011, which we fully support.

2. The state's modeling analysis demonstrates that reducing NOx emissions in the DFW area is more effective in reducing the area's 8-hour ozone design value than reducing VOC emissions, thus substitution of creditable NOx emissions reductions is allowable in this RFP.² For the 2012 milestone year, the proposed VOC emissions reductions fall short of meeting the VOC target by 9.79% to 13.82%, depending on which transportation model is used. The NOx emissions reductions must therefore provide an excess of the same percentage as the VOC shortfall (9.79% to 13.82%) to compensate for the VOC shortfall and maintain the increment of RFP of 3% and this is provided. We show the calculations below, using the emission levels provided in the state's proposal and supplement. Lines 6-8 are not included in the state's submittals, but are required to demonstrate consistency with RFP and the EPA's NOx Substitution Guidance.

² See EPA's NOx Substitution Guidance, December 1993. In addition, on August 5, 1994, we issued "Clarification of Policy for Nitrogen Oxides (NOx) Substitution," Memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards.

NOx emissions reductions needed to balance VOC shortfall, in tpd unless otherwise noted.

Description	NOx	VOC
Mobile6.2 Model		
1. 2012 Target emissions levels	393.59	463.25
2. 2012 Forecast/Projected emissions levels	324.28	517.11
3. Excess (shortfall) [(line 1) – (line 2)]	69.31	(53.86)
4. Amount for contingency measure (3% of 2012 ABY) ³	15.43 (3%)	0%
5. Excess (shortfall) [(line 3) – (line 4)]	53.88	(53.86)
6. Percent of shortfall from VOC target		11.63%
7. 11.63% of NOx target (to cover 11.63% VOC shortfall)	45.77 (11.63%)	
8. Adjusted excess in NOx reductions [(line 5) – (line 7)]	8.11	
MOVES Model		
1. 2012 Target emissions levels	500.21	445.89
2. 2012 Forecast/Projected emissions levels	398.81	507.50
3. Excess (shortfall) [(line 1) – (line 2)]	101.40	(61.61)
4. Amount for contingency measure (3% of 2012 ABY) ⁴	19.43 (3%)	0%
5. Excess (shortfall) [(line 3) – (line 4)]	81.97	(61.61)
6. Percent of shortfall from VOC target		13.82%
7. 13.82% of NOx target (to cover 13.82% VOC shortfall)	69.13 (13.82%)	
8. Adjusted excess in NOx reductions [(line 5) – (line 7)]	12.84	
MOVES2010a Model		
1. 2012 Target emissions levels	481.78	471.95
2. 2012 Forecast/Projected emissions levels	379.09	518.14
3. Excess (shortfall) [(line 1) – (line 2)]	102.69	(46.19)
4. Amount for contingency measure (3% of 2012 ABY) ⁵	18.91 (3%)	0%
5. Excess (shortfall) [(line 3) – (line 4)]	83.78	(46.19)
6. Percent of shortfall from VOC target		9.79%
7. 8.91% of NOx target (to cover 9.79% VOC shortfall)	47.17 (9.79%)	
8. Adjusted excess in NOx reductions [(line 5) – (line 7)]	36.61	

For the Mobile6.2 and both of the MOVES models, the percent of excess in NOx emissions reductions is greater than the percent of shortfall in VOC emissions reductions and provides the area with the required average of 3% per year in emissions reductions. However, the state will need to adjust the amount of “excess reductions from 2012 RFP demonstration” in the tables that show how the state satisfies the 3% emissions reductions that are required for contingency measures, should the area fail to attain the 1997 ozone standard by June 15, 2013.

3. One of the creditable reduction strategies used in the calculation of the total 2011-2012 control reductions is “Storage tank rule 95 control/25 limit.” See Appendix 1, sheet 43. The VOC emissions reductions provided for this strategy is 14.37 tpd. On sheet 44 of Appendix 1, we see

³ Per the state’s proposal, the 2012 adjusted base year (ABY) emissions inventory for NOx, using the Mobile6.2 model, is 514.47 tpd.

⁴ Per the state’s proposal, the 2012 ABY emissions inventory for NOx, using the MOVES model, is 647.80 tpd

⁵ Per the state’s proposal, the 2012 ABY emissions inventory for NOx, using MOVES2010a, is 630.46 tpd

the creditable reduction strategies used in the calculation for the 2012-2013 contingency measures. Again the "Storage tank rule 95 control/25 limit" is listed as one of the control strategies, but the total VOC emissions reductions for this strategy is 0.00. Please confirm that the credit for emissions reductions has been appropriately prorated for 2011-2012 and 2012-2013, to reflect the extended period allowed for compliance with this rule.

4. Please review the tables throughout the proposed submittal (including Appendices and Supplements) for mathematical errors. We found several errors, for example: Table 3-1 in Chapter 3, the sum at step 5D is 105.44 but the table reads 106.96; step 6 shows an error in subtraction; Table 4-29 shows an error in addition; etc.

Detailed Comments

The proposed HGB SIP revision provides a RACT analysis update in response to (CTG) documents that have not yet been included in the HGB Attainment Demonstration (AD) SIP Revision for the 1997 8-hour ozone standard and incorporate concurrently proposed CTG-related rulemaking for the HGB area. SIP Project No. 2010-028-SIP-NR. Our comments on this rulemaking project are as follows:

1. Reasonably Available Control Technology (RACT) Requirements.

The EPA will not be able to approve portions of the proposed rules which replace emissions limits previously adopted as RACT with less stringent emissions limits without a demonstration from the State that the SIP-approved limits are no longer RACT, considering technological and economic feasibility, as explained further below. The EPA's interpretation of the applicable requirements of the CAA is provided in the memorandum entitled, "Approving SIP Revisions Addressing VOC RACT Requirements for Certain Coatings Categories" dated March 17, 2011. This memo is included as an appendix at the end of our comments. In general, for situations in which a State has previously determined that more stringent applicability thresholds and/or control levels are RACT for one or more sources in a source category and the sources have complied with those requirements, then those existing controls should be considered RACT for such sources. ... If a state choose to revise more stringent rules that are already in the approved SIP, so that those rules reflect the less-stringent recommended limits in the new CTGs, there are additional considerations . . . The state would need to first demonstrate that the SIP approved control requirements are not reasonably available considering technological and economic feasibility, consistent with the EPA's definition of RACT."

Therefore, the portions of proposed to Division 5 rules which may not be approvable include: Surface Coating Processes §115.453 Control Requirements. Specifically, EPA anticipates not being able to approve some of the revisions proposed for Large Appliances, Metal Furniture, Miscellaneous Metal Parts and Products, Miscellaneous Plastic Parts and Products, and possibly other sections, including portions of the following:

Division 5: Surface Coating Processes §115.453 Control Requirements:

§115.453(1)(A) Large Appliances

§115.453(1)(B) Metal Furniture

§115.453(1)(C) Miscellaneous Metal Parts and Products

§115.453(1)(D) Miscellaneous Plastic Parts and Products

Appendix

Attached Memorandum: "Approving SIP Revisions Addressing VOC RACT Requirements for Certain Coatings Categories", dated March 17, 2011 from Scott Mathias to Regional Air Division Directors. (3 pages)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 17 2011

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Approving SIP Revisions Addressing VOC RACT Requirements for Certain Coatings Categories

FROM: Scott Mathias, Interim Director *Scott Mathias*
Air Quality Policy Division (2539-01)

TO: Regional Air Division Directors

The Office of Air Quality Planning and Standards has received requests from Regional Offices for guidance on approving State Implementation Plan (SIP) revisions resulting from newly-issued Control Techniques Guidelines (CTGs) documents. These CTGs provide recommendations to inform state determinations as to what constitutes reasonably available control technology (RACT). In some cases, the newly-issued CTGs contain recommended emission limits that are less stringent than limits recommended in older CTGs covering the same industry, and may be less stringent than limits already adopted into SIPs based on the older CTGs. This is the case for industries covered by CTGs pertaining to Large Appliance Coatings, Metal Furniture Coatings, and Miscellaneous Metal and Plastic Parts Coatings.

The U. S. Environmental Protection Agency (EPA) issued new CTGs for these categories in 2007 and 2008, under authority of Clean Air Act (CAA) section 183(e), to address volatile organic compound (VOC) emissions from categories of consumer and commercial products. They replace similar CTGs issued by EPA in 1977 and 1978. The new CTGs recommend more stringent limits for general use coatings, but also include new recommendations for several "specialty use" categories that are less stringent than the general use limits established in the 1970s guidelines.

States are required to submit a SIP revision in response to any newly-issued CTGs.¹ If an existing SIP contains requirements that are not less stringent than the applicability thresholds and/or coating operations limits recommended in new CTGs, the state may choose to submit as a SIP revision a certification that the existing SIP meets RACT requirements.

¹ CAA section 182(b)(2) requires Moderate and above ozone nonattainment areas to revise SIPs when a new CTG is issued by EPA after 1990. EPA is required to set a SIP submission deadline with the issuance of each CTG. For CTGs we have issued in the past several years, we have specified a submission deadline of one year after the CTG was issued (See 72 FR 57215 Oct 9, 2007 and 73 FR 5848 Oct 7, 2008).

We anticipate that EPA Regional Offices would be able to approve the RACT determinations in these circumstances. We note that EPA's recommendations in CTGs are generally treated as "presumptive" RACT and states may demonstrate that other limits are RACT for one or more sources within the source category addressed by the CTG. Where a state has previously determined that more stringent applicability thresholds and/or control levels are RACT for one or more sources in a source category and the sources have complied with those requirements, then those existing controls should be considered RACT for such sources.

If a state chooses to revise more stringent rules that are already in the approved SIP, so that those rules reflect the less-stringent recommended limits in the new CTGs, there are additional considerations that must be factored into any EPA decision to approve the SIP revision. The state would need to first demonstrate that the SIP-approved control requirements are not reasonably available considering technological and economic feasibility, consistent with EPA's definition of RACT. *See* 44 FR 53762 (September 17, 1979). In addition, in order to comply with the SIP approval conditions of CAA section 110(l), the state would need to demonstrate that the revision to the SIP would not interfere with attainment of, or reasonable further progress toward attainment of, the National Ambient Air Quality Standards, nor interfere with any other applicable requirement of the CAA. This would be demonstrated if the stricter limits on general use coatings provide sufficient emission reductions to entirely offset any emission increase caused by adopting the less stringent limits for specialty coatings. Alternatively, the state could adopt supplemental measures that achieve additional emission reductions from another source category in another industry to offset the increased emissions from the specialty coatings. In general, if a proposed SIP revision achieves the same or greater emission reductions as the approved SIP within the same timeframe as provided under the existing plan, the Regional Office should be able to determine that the SIP revision is consistent with the approval conditions of CAA section 110(l).

The public dockets for the Large Appliance Coatings and the Metal Furniture Coatings CTGs contain information that states may find helpful in determining the reductions that can be achieved by adopting the new general use category CTG limits for these industries. According to the docketed information, the estimated reductions from the new CTGs are 30 to 35 percent greater than from the older CTGs. *See* documents EPA-HQ-OAR-2007-0329-0009 and EPA-HQ-OAR-2007-0334-0010 in dockets EPA-HQ-OAR-2007-0329 and EPA-HQ-OAR-2007-0334, respectively. The increase in emissions reductions in any specific nonattainment area may vary depending on the volume usage distribution among the general and specialty categories in that area. The dockets for the new CTGs do not contain area-specific analyses of potential emissions reductions. Generally, if a state believes the volume usage distribution among the general and specialty categories in the docket is representative of the distribution in the nonattainment area, we believe that if a state undertakes wholesale adoption of the new categorical limits in a specific CTG, the state may rely on the assessments in the docket to demonstrate that the range of new limits will result in an overall reduction in emissions from the collection of covered coatings. However, if a state adopts some specialty category limits, but not all of the new categorical limits, or determines that it has a different volume usage distribution among categories, the state may need to do an area-specific assessment of whether tighter restrictions for some coatings, coupled with

less stringent restrictions on other coatings would provide overall equal or greater emissions reductions than the set of rules based on the recommendations in the 1970s guidelines.

If you have further questions on SIP-related issues you should contact Butch Stackhouse at (919) 541-5208. If you have further technical questions on the topics covered in this memorandum you should contact Kaye Whitfield at (919) 541-2509.

cc: Robin Dunkins, SPPD
Kimber Scavo, AQP
David Orlin, OGC
Sara Schneeberg, OGC

Tracking No. 0808-34-Sup A

ACA Comments on the Miscellaneous Metal and Plastic Parts CTG -

Modifications required to Pleasure Craft CTG for establishing a suitable RACT standard for the pleasure craft coatings industry

Summary

The required changes to rule 1106.1 to form a RACT standard for the pleasure craft coatings industry are summarised in table 1.

Table 1 – Showing required changes by industry compared to limits in rule 1106.1 (changes indicated by red font)

Coating Category	CTG VOC content taken from South Coast rule 1106.1 (g/L)	Industry VOC Proposal for RACT (g/L)
Extreme High Gloss Coating*	490	600
High Gloss Coating	420	420
Pre-Treatment Wash Primer**	780	780
Finish Primer/Surfacer	420	600
High Build Primer Surfacer	340	340
Aluminum Substrate Antifoulant Coating	560	560
Other Substrate Antifoulant Coating	330	400
All other pleasure craft surface coatings for metal and plastic	420	420
Antifouling Sealer/Tie Coat (new category)		420

* Revised definition required: Extreme High Gloss coating means any coating which achieves greater than 90 percent reflection on a 60° meter when tested by ASTM Method D523-89

** Revised definition required: Pre-Treatment Wash Primer means a coating which contains no more than 25 percent solids, by weight, and at least 0.1 percent acids, by weight; is used to provide surface etching; and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.

The following sections provide more detail to substantiate proposed modifications

Revised VOC limit for Finish Primer/Surfacer category

Boat owners have very high expectations for the final look of their boats. The finish is expected to be super smooth, super glossy (almost ‘mirror-like’) and durable. Coatings can be applied by a variety of application methods (brush, roller or spray) and must flow out to give a smooth, glossy finish. In order to flow out and achieve such effects, products with a higher solvent content (lower solids content) are required for both the topcoats and the primers which go beneath them

Introducing high solids/low VOC primers that provide a smooth, easy-to-sand surface necessary to provide the aesthetics demanded by owners will require significant time to develop and evaluate. Currently, high solids/low VOC primers often require additional sanding, creating more dust, to achieve

the same smooth surface that is obtained with currently available products. This would necessitate a change in working practices in yards to overcome the increased health hazard associated with the increased dust levels.

An additional issue relating to a switch to lower VOC Finish/Primer surfacers is that the cost can be as much as 40% or more higher than currently available, higher VOC products. This, in combination with increased labor costs associated with the additional sanding needed to remove the increased surface texture, will make yards in areas where a VOC limit of 420g/lit is implemented uncompetitive with yards in other states.

As an **interim** measure to ensure that competitive products can be supplied into ozone non-compliance areas during the next **four** years that meet the aesthetic and performance requirements demanded by boat owners, the industry requires VOC levels of the Rule 1106.1 "Finish Primer/Surfacer" coating category to be revised from 420 g/L to **600 g/L**.

Revised VOC limit for Extreme High Gloss Coating category

The *Extreme High Gloss Coatings* category represents a comparatively small but **critical, high value** segment of the overall pleasure craft market.

The aesthetic properties that topcoats give to the topsides of pleasure craft are of primary importance to boat owners, a fact that should be neither underestimated nor dismissed. The owner has invested a significant sum of money into owning his yacht and the quality of the final appearance is its 'crowning glory'. If boat owners cannot achieve the desired super-glossy, mirror-like finish, they will not settle for an inferior solution – they will simply have their boats painted elsewhere. These coatings are professionally applied so any restriction on their use that reduces the competitiveness of individual yards will have a direct and immediate bearing on employment levels and local revenues.

High solids topcoats have not been well received in the North American pleasure craft coating market. In general, applicators and boat owners have found the finish that these products provide to be inferior to traditional, higher VOC containing products. This can be seen clearly in the situation where a yacht coated with a high solids topcoat is moored alongside one coated with a traditional finish.

Although high solids and water-based technologies are available and in use in other industries (e.g. car refinishing and aviation) the controlled application conditions which make the use of these coatings possible in those industries are neither available nor possible for the pleasure craft coating industry. Despite much product development activity, the lower VOC technologies available at this time do not provide the appearance and functionality required from a pleasure craft *Extreme High Gloss Coating*. Some low VOC topcoats, originating from the car refinish market and now being marketed for pleasure craft usage, are based on a polymer type that provides reduced durability. These coatings have a reduced lifetime and their use will necessitate a more frequent recoating schedule which means in relative terms, more VOC is emitted.

An additional issue relating to a switch to lower VOC extreme high gloss topcoats is that the cost can be as much as 60% or more higher than currently available, higher VOC products. The resultant increase in scheme cost will make yards in areas where a VOC limit of 490g/lit is implemented uncompetitive with yards in other states or in other countries.

A final point of importance is that in a typical *extreme high gloss coatings* scheme, the topcoat represents less than 40% of the overall VOC burden and less than 10% of total yacht coatings on an annualised basis. Rule 1106.1 was developed to tackle serious ozone non-attainment in South Coast AQMD in California. It is overly severe and restrictive for adoption for the majority of non-attainment areas where the problem is 'Moderate' according to the EPA. The industry feels that restricting the VOC of some of the other coating categories and setting the VOC limit for Extreme High Gloss topcoats to **600 g/L**, will

provide the state with a balanced VOC reduction strategy that is appropriate to the challenge and that does not seriously impact the competitiveness of the industry. This VOC limit change should be permanent as industry does not foresee any new technology emerging that can offer a route to providing performance characteristics which are acceptable by the pleasure craft coating industry.

Revised Coating Category Definition for *Extreme High Gloss Topcoat*

As mentioned above, application of topcoats is undertaken in a variety of environmental conditions that can have an effect on the final gloss level of the product at the point of application. To manage this variation it is suggested that the gloss level stated in the definition of the Extreme High Gloss Topcoats category be lowered slightly to read;

*“Extreme high gloss coating means any coating which achieves **greater than 90** percent reflectance on a 60° meter when tested by ASTM Method D 523-89”*

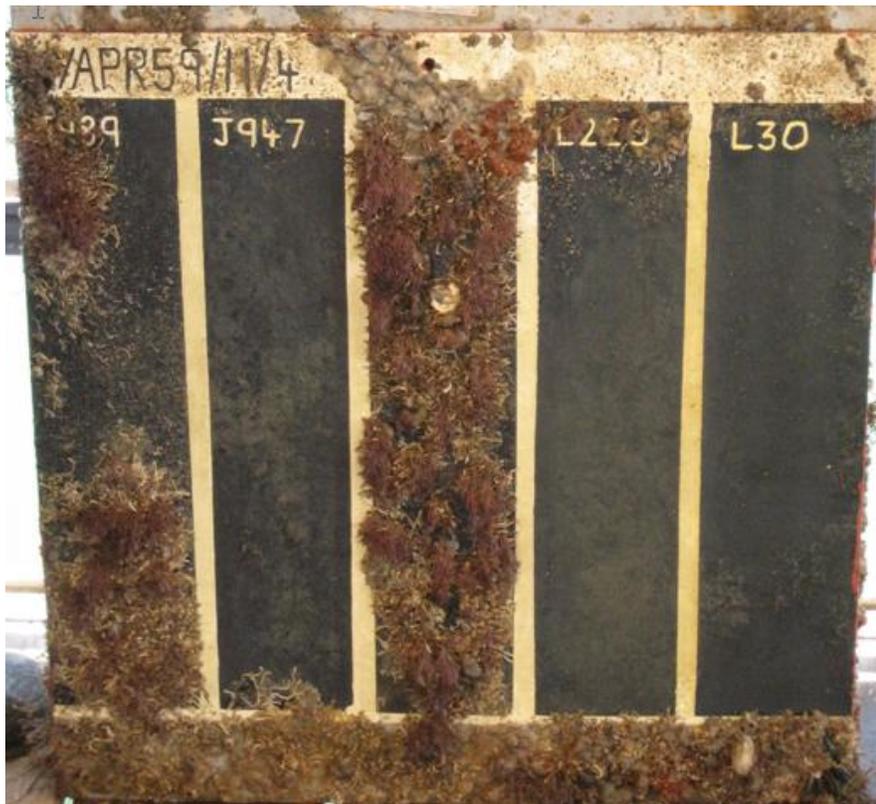
Revised VOC limit for Other Substrate Antifoulant Coating

Significant time and effort have been invested by industry to develop low VOC antifouling coatings suitable for use on pleasure craft. Low VOC/Zero VOC technology is constantly evolving and improving. The key is to set VOC targets at a realistic level based on what we know today in order to ensure the maximum compromise between performance, cost, appearance, drying time and application characteristics.

Formulations are currently registered with the EPA on the basis of the percentage weight of biocide in the wet paint. As the VOC is reduced then the solvent must be replaced with something non-volatile, effectively reducing the percentage of biocide in the dry film with a concomitant reduction in performance/reduced lifetime of the coating. This may mean more frequent application of the antifouling, potentially leading to a greater overall VOC impact. It is also true that high solids/low VOC coatings tend to dry slower than their high VOC counterparts and this can impact the overall productivity of a yard for example. Similarly, water based technologies are not a panacea to the VOC challenge, though water-based technologies are being very heavily scrutinised by coatings manufacturers. In general water based coatings can only be formulated at low volume solids (30% compared to say 60%+ for an equivalent solvent-based system). This inevitably means thin films containing less biocide (which affects the performance and lifetime of the coating)

The data below shows the performance challenge with changing VOC. Panels 1-3 (left) are all based on the same active package. The two rightmost panels are standard solvent based controls.

VOC 328g/l std 460 g/l w/based 68g/l std 468 g/l 350 g/L



In addition, technologies for low VOC antifouling often result in a rougher film. The roughness of the hull contributes directly to drag which is seen as a particular issue in the case of racing yachts

The National Emission Standard for HAPs for Shipbuilding and Ship Repair (40 CFR Part 63 Subpart II) limits antifoulings in the US to 400g/L. Likewise SCAQMD Marine Rule 1106 applies a VOC limit for antifouling coatings of 400g/L. Industry believes this limit is more suitable to represent RACT for this coating category, given the current state of the existing technology. Certainly we find no justification in setting a limit lower than that applied to the National Emission Standards for HAPs for Shipbuilding and Ship Repair and the SCAQMD 1106 limits. The following VOC limit amendment is therefore required;

Category of “Other Substrate Antifoulant Coating” – amend from 330g/L to **400g/L**

Additional Speciality Category and VOC Limit: Antifouling Sealer/Tie Coat

Rule 1106.1 is dated and there are more recent requirements for an additional category to reflect pleasure craft coatings of the modern day which are more environmentally friendly and/or compliant with International law.

A new category is required as a result of the International Maritime Organisation Antifouling Systems convention (IMO AFS) and should be added to the categories taken from Rule 1106.1. This convention was ratified in 2007 and houses a list of substances banned from use in antifoulings in Annex 1. Tri Butyl Tin (TBT) is the first addition to Annex 1 and the use of this biocide in antifoulings on the hulls of any marine vessels entering the waters of countries which are signatories to the convention is controlled according to the requirements of Annex 1 of the AFS. A specialised coating type is required to seal in old TBT containing antifoulings and to promote adhesion of biocide-free, non-stick foul release coatings when applied to vessels. The use of biocide-free coatings brings significant environmental benefits.

The category should be named ‘**Antifouling Sealer/Tie Coat**’ with a maximum VOC content of **420 g/L**. Antifouling Sealer Coats and Tie Coats have been introduced into the market largely to facilitate compliance with Annex 1 of the IMO-Antifouling Systems Convention (2001).

Antifouling Sealer/Tie Coats must contain a VOC up to 420 g/L in order to facilitate adequate penetration into an underlying paint film for maximum adhesion. They also contain a high degree of polymeric material (hence need a higher VOC content to maintain an acceptable application viscosity) so the coating can form a flexible yet complete barrier over an underlying paint film. An appropriate definition for this type of coating would be...

“a coating applied over Biocidal antifouling coating for the purpose of preventing release of biocides into the environment and/or to promote adhesion between an antifouling and a primer or other antifoulings.”

Revised definition for the category of “Pretreatment Wash Primer

The current definition of *Pretreatment Wash Primer* in South Coast rule 1106.1 is restricting the development of alternative products which would be considerably less toxic to humans and the environment than those used currently. Products which meet the current definition for this are formulated to contain known carcinogens such as zinc chromate (CAS 13530-65-9) and zinc tetroxy chromate (CAS 37300-23-5)¹ due to the excellent anti-corrosive properties of these materials.

In most cases the approach taken in the CTG is to define the control category in terms of the product attribute. For example, the definition of a High Gloss Topcoat refers specifically to the performance attribute of the product – the gloss result. However, in the case of the “*Pretreatment Wash Primer*” category, the approach has been to define the category both in terms of the formulation parameters (acid content and solids content) and the performance attribute of the product (surface etching). By taking this approach, South Coast EPA has very much tied industry to the current, well established but very toxic

¹ Rated as known carcinogens by Occupational Safety & Health Administrator (OSHA), National Toxicology Program (NTP), and International Agency for Research on Cancer (IARC)

zinc-based etch primers. This definition requires amending **to allow for the introduction of safer, alternative etch systems which are not based on zinc tetroxy chromate.**

Industry would like a permanent modification made to the definition so that it reads as follows;

“PRETREATMENT WASH PRIMER means a coating which contains no more than 25 percent solids, by weight, and at least 0.1 percent acids, by weight; is used to provide surface etching; and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings”

The ‘percent solids’ value must be raised from 12 to **25** to allow for an increased quantity of safer (non-carcinogenic) replacement pigment which is required for equivalent coating performance. These replacement formulations require a reduced level of acid to perform adequately therefore it is also necessary to reduce the minimum value associated to ‘percent acids’ from 0.5 to **0.1**.

Request Small Container Exemption

Many industrial and commercial coatings VOC regulations include a small container exemption confined to not exceed a litre or a quart. They also often include an annual limitation on the amount used.

Architectural and industrial maintenance rules also contain such exemptions.

The purpose behind these exemptions is to allow for small repairs and touch ups to existing coatings that if done in timely manner can often avoid larger paint jobs later. In the commercial or industrial setting, the small container exemptions allows minor repairs at the end of the painting line to avoid having to completely recoat the object of product. Thus the higher VOC materials actually reduce overall VOC emissions by allowing such repairs and touch ups to avoid complete overall or redo paint jobs.

Respectfully Submitted,

John Hopewell
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American Coatings Association
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August 8, 2011

Butch Stackhouse
Environmental Protection Agency
Air and Radiation
C539-01,
RTP, NC 27711

Lisa Sutton
Office of Air Quality Planning Standards (C504-03)
Environmental Protection Agency
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RE: Pleasure Craft Control Techniques Guidelines

Dear Mr. Stackhouse and Ms. Sutton,

The American Coatings Association (ACA)¹ is forwarding comments submitted on the Pleasure Craft regulation Control Techniques Guidelines (CTG), previously submitted on this aspect of the Miscellaneous Metal and Plastic Parts CTG (Group IV). ACA continues to object to this standard being deemed RACT for Pleasure Craft coatings for the reasons outlined below and in the attached documents.

In addition, ACA objects to USEPA's June 10, 2010 letter in response to the above referenced comments, which states that in determining whether to adopt this aspect of the CTG, individual states are free to make their own decisions since this is a departure from the traditional USEPA position that CTGs are presumptively RACT. Unfortunately, this fact is not stated clearly in the letter so that some states believe that if they do not adopt the CTG as written, that their SIP submissions will be rejected by USEPA Regional Authorities.

ACA has worked closely with OAQPS for over two decades in providing access to its members' coatings expertise when OAQPS has developed national rules and CTGs affecting coatings. We have not always agreed with the final decisions of OAQPS, but ACA has demonstrated our willingness and have been forthcoming with member knowledge and data. Thus, ACA was unable to provide this input on the Pleasure Craft

¹ ACA is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

CTG as it was never published for notice and comment. The first time the Guidelines were published was in the final CTG for Miscellaneous Metal and Plastic Parts.²

Given that ACA and the industry had no advance notice of the rulemaking before the final Guidelines were published, ACA identified the difficulties with the VOC limits of the Pleasure Craft standard in as timely a manner as possible once the Association was alerted to the new rule. Industry's concerns about appropriate VOC limits being set for pleasure craft coatings, were, however, noted by USEPA in its Summary of Public Comments Received on Draft Control Techniques Guidelines for Consumer and Commercial Products Categories:

“One commenter (0412-0034) reported that they were working with marine coating suppliers to determine appropriate VOC content levels to preserve quality and durability, and would provide suggested limits at a later date.” See Summary of Public Comments Received on Draft Control Techniques Guidelines for Consumer and Commercial Products Categories (September 2008 EPA-HQ-OAR-2008-0415-0024) <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2008-0415-0024>

This was in response to comments made by the National Marine Manufacturers Association.

In addition, at this time, ACA also contacted OAQPS in this regard, suggesting that EPA use the information and data submitted to the Agency in the development of the NESHAP for Pleasure Craft, which further supported industry assertions that the VOC limits under the CTG were not appropriate and higher limits are necessary. Finally, others in the industry, once they became aware of the problem after the CTG was final, also alerted USEPA to the problem and followed up. See attached letter from Mankiewicz Coatings.

After numerous discussions on the issue, OAQPS did provide ACA with the attached June 10, 2010 letter to the Regions and the states, giving the states permission to develop their own RACT standards for pleasure craft independently of the CTG. Unfortunately, the letter is not as clear as it might be, thus, some states are reluctant to act independently of the CTG because they believe EPA still views the CTG as “presumptive RACT” and fear their State Implementation Plans (SIPs) will be rejected if they do not adopt the CTG in its entirety.

Aside from the fact that the CTG process here did not fully vet the Pleasure Craft coatings VOC limits of SCAQMD Rule 1106.1 which were identified as RACT in the CTG, by failing to include it in the proposal, it also was not reviewed by the Office of

² Compare the Proposed Determination and Draft CTG in the Federal Register at: <http://www.epa.gov/ttn/atw/183e/gen/fr14jy08.pdf> (no mention of pleasure craft) to the Final Determination and final CTG in the Federal Register at: <http://www.epa.gov/ttn/atw/183e/gen/fr07oc08.pdf> (pleasure craft is discussed for first time as a final determination with appeal only by way of federal litigation).

Management and Budget (OMB). See OMB material in Docket.

<http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2008-0411-0003> and <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2008-0412-0013>

The Miscellaneous Metal and Plastic Parts CTG (Group IV) was considered a “Significant regulatory action” because EPA found that it raised “novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth [in] Executive order [12866]”. 73 Federal Register 58481 (October 7, 2008)
<http://www.epa.gov/ttn/atw/183e/gen/fro70co8.pdf>

One of those principles is:

“(11) Each agency shall tailor its regulations to impose the least burden on society, including individuals, businesses of differing sizes, and other entities (including small communities and governmental entities), consistent with obtaining the regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations.”

Hence, a major tenet of administrative law – that regulations are thoroughly evaluated for technological feasibility and cost effectiveness by the affected stakeholders – *and that of the OMB review thought by EPA to be necessary and mandated in this instance* – were absent with respect to the Pleasure Craft aspects of the Miscellaneous Metal and Plastic Parts CTG (Group IV).

Because of the nature of the CTG process we had only two choices – we could bring suit within 60 days in federal court or we could rely on our long cooperative relationship with OAQPS to resolve the matter in way that was in keeping with that relationship. ACA chose the latter course, and since then has been working with the states and OAQPS to obtain an in depth review of the technology.

In keeping with that choice, after discussions with EPA Region 6 officials, we decided in April to forego an objection to the proposed Louisiana SIP approval containing the Miscellaneous Metal and Plastic Parts CTG (Group IV). We did so because it was made clear by Region 6 officials that a delay in the SIP approval would present major problems for the Baton Rouge area and that we could work with state officials after the approval to modify the rule. Unfortunately, our calls to discuss the matter with the identified state official have not been returned.

If EPA cannot act on this matter now and in a timely matter, either by reconsideration of the CTG standards for pleasure crafts as a whole, or at the very least a new, clearer letter in this regard to the Regions and states, ACA will be compelled to object to any future SIP proposals that contain the Pleasure Craft portion of the Miscellaneous and Metal Parts CTG (Group IV). As evidenced in the recent Louisiana SIP approval, ACA will be forced to make the case formally in every instance, delaying and in some cases disrupting SIP approval processes for the states. This would be unfortunate as EPA still possesses the requisite data to change its recommendations for pleasure crafts. Review

of the NESHAP data would clearly show that the limits from Rule 1106.1, which EPA used in the pleasure craft CTG, are in fact not “reasonably available control technology”. A review of the history surrounding the development of 1106.1 in SCAQMD and its impact on the industry should have given pause to any thinking that since the rule had been on the books for so long it must be “reasonably available technology”. First it is noteworthy that these limits were recognized by the SCAQMD as being technology-forcing when adopted.

"The VOC limits were decreased from 650 g/l to 490 g/l for Extreme High Gloss Topcoats, 600 g/l to 420 g/l for Finish Primers, and 400 g/l to 150 g/l for Antifoulants. At the time of rule adoption, the July 1, 1994 VOC limits were considered technology forcing. Coatings meeting the July 1, 1994 VOC limits were either in development or undergoing initial introduction into the pleasure craft coating industry."

See <http://www.aqmd.gov/hb/1999/99012a.html>

Subsequently as indicated in the 1999 rulemaking amending 1106.1 to provide for higher limits in these key areas, SCAQMD found that the hoped for technology had not developed. A two year suspension of the lower limits was provided. Unfortunately the limits with which we have issues have still not moved into the realm of technical feasibility for the reasons stated in our fuller comments. As our comments point out, because of the continuing impossibility of the lower limits to be effectively met for certain key categories, the final remnants of the industry decamped from the SCAQMD on the expiration of the two year suspension of the lower limits.

Further it should be noted that the CTG itself found that the SCAQMD Rule 1106.1 limits were generally stricter than the few rules in other air districts that specifically addressed pleasure coatings. It is noteworthy that two of these, Ventura and San Diego - areas with large pleasure craft populations - specify 650 grams per liter limits for extreme high gloss coatings. Moreover it appears that the decision to go forward with the stricter SCAQMD limits despite this was based in part because the rule had been on the books for some time.

“All but three of these limits have been in place since 1994 and the remaining three (extreme high gloss coatings, finish primer/surfacer, and non-aluminum antifoulant coatings) have been in effect since 2001. There is no indication that the SCAQMD Rule 1106.1 VOC limits recommended by the commenters are unachievable or unreasonable for sources outside these California Districts.” CTG Document

Thus even on the basis of simply examining the rules in California specifically addressing pleasure coatings, a real question should have arisen as to the reasonableness of selecting the SCAQMD Rule 1106.1 limits for a nationally applicable RACT standard.

Another reason for not using the 1994 Rule as current RACT for pleasure craft coatings is that when 1106.1 was adopted, the antifouling biocide TBT had not yet been banned by the International Maritime Organization (IMO). Consequently, the regulation does not provide for an Antifouling Sealer/Tie Coat category which is applied to hulls to contain TBT as is required if it is not completely removed.

As a technical matter, Rule 1106.1 was developed on the basis of the “best available retrofit control technology” (BARCT) under the California Clean Air Act, which is more stringent than the national RACT standard. As characterized by California Air Resources Board staff documents³:

“BARCT is a state version of RACT, although it has stringency more akin to BACT [“best available control technology”] as defined by the federal Clean Air Act. BARCT is required under certain conditions in California districts having moderate, serious, severe, or extreme air pollution as defined by Section 40921.5, Chapter 10, Part 1, Division 26 of the Health and Safety Code.”

While a long-lived BARCT standard may evolve into a national RACT standard with the passage of time and with industry effort to improve technology and application techniques, this has not occurred with all of the 1106.1 standards. As is shown in the attached position paper, industry has made significant efforts to develop lower VOC coatings for the coatings at issue here.

It is also noteworthy that there are only four limits with which we disagree, and one of these is for a new coatings category that did not even exist at the time Rule 1106.1 was adopted. As noted earlier the Antifouling Sealer/Tie Coat category was developed to seal in TBT antifouling coatings that were subsequently banned by the IMO.

ACA has made great strides in overcoming the position EPA has put the industry in given the lack of notice and comment on the pleasure craft standards in the Miscellaneous Plastic and Metal Parts CTG and the impossibility of the VOC limits contained in those standards. In fact the following agencies have agreed with ACA’s position and have or are proposing to modify the CTG accordingly:

Connecticut Department of Environmental Protection, Bureau of Air Management
Missouri Department of Natural Resources, Division of Environmental Quality, Air Pollution Control Program
New Hampshire Department of Environmental Services, Air Resources Division
Illinois Environmental Protection Agency, Bureau of Air
Ohio Environmental Protection Agency, Division of Air Pollution Control

However, we continue to need EPA’s assistance in correcting the matter as some jurisdictions are still concerned with not adopting the CTG in its entirety. Maricopa County, Arizona, for example was considering following ACA’s recommendations but has hesitated to do so because of concerns that USEPA would follow its usual approach of considering CTG standards as presumptively RACT in this case. Indiana and North Carolina have also adopted the CTG limits - Indiana before we had a chance to discuss the matter, and North Carolina in part because of concerns of the USEPA SIP approval process.

³ For more details see <http://www.arb.ca.gov/bact/docs/ssrcalifornia.htm>

Thus, ACA would greatly appreciate USEPA's reconsideration of the limits it set in the Pleasure Craft aspect of the Miscellaneous Metal and Plastic Parts CTG. If it determines that it can not do this, then we would greatly appreciate clarifying in a clearer manner to the state and regional EPA clean air planning officials that they are not bound by the standards in the CTG and can make their own determinations based on current coatings technology information. In closing, we think any fair minded person would see that the normally full vetting process employed by USEPA in the development of CTGs with extensive discussions with affected parties did not occur with respect to the Pleasure Craft aspect of the Miscellaneous Metal and Plastic Parts CTG and thus some of the limits specified do not reflect "reasonably available control technology".

Again, OAQPS can confirm this by examining the pleasure craft coatings data that has been submitted to it for the development of the NESHAP for pleasure craft coatings. We also believe that any proposal made by EPA here should also be reviewed by OMB as for the reasons stated in the proposal of the CTG. In advance, thank you for your consideration of this matter. ACA looks forward to your prompt response in this regard. Please do not hesitate to contact us for further information or if you would like to meet directly on the subject.

Sincerely,

John Hopewell
Asst. Director, Environmental Affairs
American Coatings Association



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

JUN 01 2010

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Control Technique Guidelines for Miscellaneous Metal and Plastic Part Coatings – Industry Request for Reconsideration

FROM: Stephen D. Page, Director *Steve Page*
Office of Air Quality Planning and Standards (C404-04)

TO: Chief, Air Branch
Regions I-X

The purpose of this memorandum is to inform EPA Regional Offices that members of the pleasure craft industry have contacted EPA to request changes to the Control Techniques Guidelines (CTG) for Miscellaneous Metal and Plastic Part Coatings (MMPPC) (EPA-453/R-08-0373). This memorandum serves as a reminder to EPA Regional Offices of the role that CTG play in the State Implementation Plans (SIP) process for ozone nonattainment areas. CTG provide information and recommendations for state and local air pollution control agencies to consider when developing rules to meet the Clean Air Act's (CAA) reasonably available control technology (RACT) requirements. Specifically, we reiterate that the information contained in CTG, including the MMPPC CTG, is provided only as guidance. The CTG do not impose any legally binding requirements on any entity. State and local air pollution control agencies are free to implement other technically-sound approaches that are consistent with the CAA and EPA's implementing regulations. Therefore, EPA does not intend to revise the MMPPC CTG. Instead, EPA is recommending that the pleasure craft industry work together with state agencies in the RACT rule development process for MMPPC to assess what is reasonable for the specific sources regulated under each state's rules. EPA will evaluate the state-developed RACT rules and determine through notice and comment rulemaking in the SIP approval process, whether the submitted rules meet the RACT requirements of the CAA and EPA's regulations.

BACKGROUND

The MMPPC CTG were published on October 7, 2008 (73 FR 58486). On September 14, 2009, EPA was contacted by the pleasure craft industry with a request for EPA to reconsider some of the emission limits for volatile organic compounds (VOC) recommended in the MMPPC CTG. In its letter to EPA, industry asserted that three of the emission limits for VOC, recommended in the MMPPC CTG for pleasure craft, were too low considering the performance requirements of pleasure craft coatings, and that overall, the VOC emission limits recommended in the MMPPC

CTG did not represent RACT for the national pleasure craft coatings industry. To get further clarification of the issues, EPA held an industry conference call and spoke with individual industry members on several other occasions. The pleasure craft industry presented what they deemed to be technological and feasibility challenges to meeting the VOC emission limits recommended in the MMPPC CTG.

Table 2 of the MMPPC CTG recommends the following VOC content limits (expressed in terms of mass of VOC per volume of coating, excluding water and exempt compounds, as applied) for surface coating of pleasure craft:

Table 2. Pleasure Craft Surface Coating VOC Content Limits

Coating Category	kg VOC/liter coating	lbs VOC/gal coating
Extreme High Gloss Topcoat	0.49	4.1
High Gloss Topcoat	0.42	3.5
Pretreatment Wash Primers	0.78	6.5
Finish Primer/Surfacer	0.42	3.5
High Build Primer Surfacer	0.34	2.8
Aluminum Substrate Antifoulant Coating	0.56	4.7
Other Substrate Antifoulant Coating	0.33	2.8
All other pleasure craft surface coatings for metal or plastic	0.42	3.5

Also, the MMPPC CTG provide an option to meet alternate emission rate limits based on low-VOC coatings and add-on controls. Table 10 of the MMPPC CTG recommends the following emission rate limits for pleasure craft operations:

Table 10. Pleasure Craft Surface Coating VOC Emission Rate Limits (VOC per Volume Solids)

Coating Category	kg VOC/liter solids	lbs VOC/gal solids
Extreme High Gloss Topcoat	1.10	9.2
High Gloss Topcoat	0.80	6.7
Pretreatment Wash Primers	6.67	55.6
Finish Primer/Surfacer	0.80	6.7
High Build Primer Surfacer	0.55	4.6
Aluminum Substrate Antifoulant Coating	1.53	12.8
Other Substrate Antifoulant Coating	0.53	4.4
All other pleasure craft surface coatings for metal or plastic	0.80	6.7

The three pleasure craft categories that industry requested EPA to reconsider were extreme gloss, high gloss and antifoulant coatings. Industry urged EPA to revise the MMPPC CTG to include an averaging approach as a compliance option to allow pleasure craft coating facilities to use a combination of high and low VOC-containing products as long as the average value was kept

below a level specified by EPA. In summary, the pleasure craft industry suggested that the CTG be revised to include (one or all of) the following measures:

1. Regulate VOC emissions from facilities using pleasure craft coatings by including an averaging approach as a compliance option. If this is not deemed possible, then points 2 and 3 should apply.
2. Amend the MMPPC CTG "Finish Primer/Surfacer" VOC limit from 420g/L to **600g/L** for a four-year interim period to allow coating manufacturers and users sufficient time to develop and implement compliant coatings.
3. Make permanent changes to the MMPPC CTG with immediate and permanent effects, as follows:
 - Add an additional specialty category of "Antifouling Sealer/Tie Coat" with VOC limit of **420g/L** to align the MMPPC CTG with the International Maritime Organization's International Convention on the Control of Harmful Antifouling Systems on Ships;
 - Change the VOC emission limits in the category, "Other Substrate Antifoulant Coating" from 330g/L to **400g/L**;
 - Change the VOC emission limits in the category, "Extreme High Gloss" from 420 g/L to **600 g/L**, reflecting the very specialized nature of the coatings in this category; and
 - Revise the coating category definition of "Extreme High Gloss Topcoat" to read: *"Extreme high gloss coating means any coating which achieves **greater than 90 percent** reflectance on a 60° meter when tested by ASTM Method D 523-89."*
4. Make the provisions and VOC limits in the pleasure craft categories of the MMPPC CTG consistent with the requirements of the planned revision to the Shipbuilding MACT Standard.

OAQPS RECOMMENDATION

After careful evaluation of the issues raised by the pleasure craft industry, OAQPS is recommending that the pleasure craft industry work with state agencies during their RACT rule development process to assess what is reasonable for the specific sources regulated because the CTG impose no legally binding requirements on any entity, including pleasure craft coating facilities. CAA Section 172(c)(1) provides that SIPs for nonattainment areas must include "reasonably available control measures" (RACM), including RACT, for sources of emissions. Section 182(b)(2)(A) provides that for certain nonattainment areas, states must revise their SIPs to include RACT for each category of VOC sources covered by a CTG document issued between November 15, 1990, and the date of attainment. The CTG are intended to provide state and local air pollution control authorities with information to assist them in determining RACT for VOC.

Based on available information and data, EPA has provided recommendations for RACT for MMPPC operations, including pleasure craft coating operations, in the MMPPC CTG. States can use the recommendations from the MMPPC CTG to inform their own determination as to what constitutes RACT for VOC for pleasure craft coating operations in their particular ozone nonattainment areas.

Regardless of whether a state chooses to implement the recommendations contained in the MMPPC CTG through state rules, or to issue state rules that adopt different approaches, states must submit their RACT rules to EPA for review and approval as part of the SIP process. EPA will evaluate the state's RACT rules and determine, through notice and comment rulemaking in the SIP approval process, whether the submitted rules meet the RACT requirements of the CAA and EPA's regulations. If a state proposes to adopt any of the recommendations in the MMPPC CTG into its state RACT rules, interested parties can comment on and raise objections about the application of any specific RACT recommendation in the MMPPC CTG to a particular situation during the development of the state rules and EPA's SIP approval process.

Should you have further questions, please contact Kaye Whitfield of my staff at 919-541-2509 or whitfield.kaye@epa.gov.

OAR-10-000-7927

OAQPS/SPPD/NRCG:KWhitfield/jrogers(x14487):RTP/E143-
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