

Pinal County Air Quality Control District

**Reasonably Available Control Technology (RACT) Analysis, Negative Declaration and  
Rules Adoption**

Prepared by the Pinal County Air Quality Control District pursuant to Sections 182(b)(2) and 182(f) of  
the Clean Air Act for the Pinal County portion of the

Phoenix Metro Nonattainment Area for the

2008 8-hour Ozone National Ambient Air Quality Standard

Proposed Analysis Released April 20, 2020 for public review/comments

Public Hearing August 5, 2020

Staff Report

## Table of Contents

Reasonably Available Control Technology (RACT) Analysis, Negative Declaration and Rules Adoption ....	1
EXECUTIVE SUMMARY .....	3
BACKGROUND .....	4
Negative Declaration – Major Sources .....	8
State Implementation Plan Submittal .....	9
Appendices.....	11
Appendix A: PCAQCD Permitted Sources in the Pinal County portion of the Phoenix-Mesa Ozone Nonattainment Area (as of April, 2020) .....	12
Appendix B: Additional Negative Declarations .....	14
Appendix C: Cutback Asphalt emails .....	15
Appendix D: Chapter 5, Articles 13 and 20 Rulemaking proposals were posted online on 4/20/20 at <a href="https://www.pinalcountyz.gov/AirQuality/Pages/Rulemaking.aspx">https://www.pinalcountyz.gov/AirQuality/Pages/Rulemaking.aspx</a> .....	16
CHAPTER 5, ARTICLE 13 .....	16
ARTICLE 13 - SURFACE COATING OPERATIONS.....	16
CHAPTER 5, ARTICLE 20.....	16
ARTICLE 20. STORAGE AND LOADING OF GASOLINE AT GASOLINE DISPENSING FACILITIES.....	16

## **EXECUTIVE SUMMARY**

The Clean Air Act requires certain sources in ozone nonattainment areas to implement control methods called reasonably available control technology (RACT). The United States Environmental Protection Agency defines RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

The RACT requirement is meant to ensure that moderate and above ozone nonattainment areas have in place RACT for all source categories covered by a Control Techniques Guidelines (CTG) document and for major sources of volatile organic compounds or oxides of nitrogen ~~that are not subject to a CTG~~. A local air District adopts the control methods if it has a source in its area subject to a CTG. Alternatively, the local District may declare that there are no sources in its area subject to a RACT requirement, and then the requirement to adopt a rule for those sources is no longer applicable. This is known as a "Negative Declaration."

On August 9, 2019, (84 FR 39196) the U.S. EPA finalized a partial and limited disapproval of Pinal County Air Quality Control District's (PCAQCD) Reasonably Available Control Technology (RACT) Analysis, Negative Declaration and Rules Adoption for the 2008 8-hour ozone national ambient air quality standards. The U.S. EPA determined that for specified source categories, rules or negative declarations were required but were missing from PCAQCD's submittal, and that the two rules in PCAQCD's SIP submittal contained approvability issues which preclude their full approval.

The PCAQCD worked closely with the U.S. EPA to address the identified deficiencies and to strengthen the rules. Once the additional negative declarations and amended rules in Appendices B and D are adopted by the Pinal County Board of Supervisors (BOS), they shall be submitted to the Arizona Department of Environmental Quality (ADEQ) for transmission to the U.S. EPA as a revision to the State Implementation Plan.

## **BACKGROUND**

### **National Ambient Air Quality Standards for Ozone**

Sections 182(b)(2) and 182(f) of the federal CAA requires the Pinal County Air Quality Control District (PCAQCD) to submit a revision to the State Implementation Plan (SIP) to implement Reasonably Available Control Technology (RACT) for each category of volatile organic compound (VOC) sources covered by a Control Techniques Guidelines (CTG) document and for any major<sup>1</sup> stationary source not covered by a CTG document within the nonattainment area. Alternatively, areas may adopt a negative declaration documenting that the air district has no stationary sources or emitting facilities subject to the CTGs.

States and Air Districts must submit negative declarations for those source categories for which they are not adopting CTG-based regulations (because they have no sources above the CTG recommended threshold) regardless of whether such negative declarations were made for an earlier SIP. This is necessary since there may now be sources in the nonattainment area that previously did not exist, or in areas where the boundaries of the nonattainment area have expanded, there may be sources in the new portion of the nonattainment area which should not be overlooked.

The negative declaration must go through the same public review requirements as any other SIP submittal.

On August 9, 2019, (84 FR 39196) the U.S. EPA finalized a partial and limited disapproval of PCAQCD's Reasonably Available Control Technology (RACT) Analysis, Negative Declaration and Rules Adoption for the 2008 8-hour ozone national ambient air quality standards. The U.S. EPA determined that for specified source categories, rules or negative declarations were required but were missing from PCAQCD's submittal. Specifically, the U.S. EPA wrote in its proposed rule that "our review found that the cutback asphalt CTG and certain sections of the [Miscellaneous Metal and Plastic Parts (MMPP)] CTG were not addressed by either a negative declaration or a RACT rule. Also, the District must adopt negative declarations for major VOC and major NO<sub>x</sub> sources since available data shows the District does not have stationary sources in the ozone nonattainment area that emit at least 100 tpy." (84 FR 20838, 20840) The EPA also found that the two rules in PCAQCD's SIP submittal contained approvability issues which preclude their full approval. This submittal is intended to cure the identified deficiencies. In addition, the EPA noted that although a RACT submission for the 2016 CTG for the Oil and Natural Gas Industry (EPA-453/B-16-001) was not yet due at the time of the submission of the RACT SIP, a submittal for that source category is now due. Accordingly, the District is also submitting a negative declaration for this source category.

The PCAQCD worked closely with the U.S. EPA to address the identified deficiencies and to strengthen the rules. As a result, the District is now submitting negative declarations for the cutback asphalt and portions of the MMPP CTG, as well as for major sources of VOC and NO<sub>x</sub>. The District has also corrected the identified deficiencies in the submitted rules that were the basis of limited disapprovals. Once the

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<sup>1</sup> The definition of a *major source* is dependent on the severity of the air quality problem in a region. For Pinal County Air Pollution Control District, which contains part of a Moderate ozone nonattainment area, the major source threshold is the potential to emit 100 tons per year of VOC or NO<sub>x</sub>.

Pinal County Air Quality Control District

additional negative declarations and amended rules in Appendices B and D are adopted by the Pinal County Board of Supervisors (BOS), they shall be submitted to the Arizona Department of Environmental Quality (ADEQ) for transmission to the U.S. EPA as a revision to the State Implementation Plan.

The Clean Air Act (CAA) was adopted in 1970. The legislation authorized the development of comprehensive federal and state regulations to limit emissions from stationary and mobile sources. The CAA was amended in 1977 and again in 1990. The CAA and amendments require the United States Environmental Protection Agency (US EPA) to adopt national ambient air quality standards (NAAQS) for six criteria pollutants: ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. US EPA formally designates areas as "nonattainment" (not meeting the standard), "unclassifiable/attainment" (meeting the standard or expected to be meeting the standard despite a lack of monitoring data), or "unclassifiable" (insufficient data to classify). The CAA requires US EPA to conduct a periodic review of the science upon which the standards are based and the standards themselves.

Ground level ozone is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of sunlight. Ozone-related adverse health effects range from decreased lung function and increased respiratory symptoms to serious indicators of respiratory morbidity including emergency department visits and hospital admissions from respiratory causes, and possibly cardiovascular-related morbidity.

The US EPA first promulgated NAAQS for ozone in 1971 with revisions in 1979, 1997, 2008 and 2015. The standard began as a 1-hour averaging time and later changed to an 8-hour averaging time, which was determined to be more health protective.

### **Nonattainment Area within the District**

The US EPA revised the ozone NAAQS effective May 27, 2008. The revision lowered the level of the 8-hour standard to 0.075 ppm. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. The revision was to provide increased protection for children and other "at risk" populations.

A small portion of Pinal County was designated nonattainment for the 2008 8-hour ozone NAAQS effective July 20, 2012. This portion of the District is part of the Phoenix Metro nonattainment area and was classified as a "marginal" nonattainment area. As a marginal nonattainment area, the area was required to meet the 2008 8-hour ozone NAAQS by July 20, 2015.

The remaining portions of the county were designated attainment. Unfortunately the Phoenix metro 8-hour ozone nonattainment area didn't attain the standard by July 20, 2015 and was reclassified to "moderate" nonattainment (81 FR 26697). However a proposed finding of attainment of the NAAQS for the area by its Moderate area attainment date of July 20, 2018 has been made (84 FR 27566). This determination was based on quality assured and certified ozone data for the nonattainment area for the period 2015-2017. The EPA final rule was published in the Federal Register on November 12, 2019 (84 FR 60920).

The finding of attainment however does not negate the need for ozone RACT rules. Per the proposed finding of attainment, "We are not proposing to suspend the attainment-related requirements for the Phoenix NAA under 40 CFR 51.1118 at this time because ozone monitoring data for 2018 are not consistent with continued attainment of the standard in the Phoenix NAA. We also note that, if finalized, this proposed determination that the Phoenix ozone NAA has attained the 2008 ozone NAAQS would not constitute a redesignation of the area to attainment for the 2008 ozone standard. Under CAA section 107(d)(3)(E), redesignations to attainment require states to meet a number of additional statutory criteria, including the EPA's approval of a SIP revision demonstrating maintenance of the standard for 10 years after redesignation. The designation status of the Phoenix area will remain Moderate nonattainment for the 2008 ozone NAAQS until such time as the EPA determines that the area meets the CAA requirements for redesignation to attainment." (84 FR 27570, June 13, 2019).

### **Reasonably Available Control Technology Requirement**

The CAA requires certain sources in ozone nonattainment areas to implement control methods called RACT. The US EPA defines RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology (i.e., devices, systems, process modification, or other apparatus or techniques that reduce air pollution) that is reasonably available considering technological and economic feasibility. The RACT requirement is meant to ensure that all moderate and above ozone nonattainment areas have in place all RACT for source categories covered by a document and for major sources<sup>2</sup> of VOC or NO<sub>x</sub> that are not subject to a CTG.

Sections 182(b)(2) and 182(f) of the CAA requires a revision to the SIP to implement RACT for each category of VOC sources in the ozone nonattainment areas covered by a CTG document and for any major stationary source of VOC or NO<sub>x</sub> not covered by a CTG document. A District adopts the control methods if it has a source in its area subject to a CTG.

Alternatively, the District may declare that there are no sources in its area subject to a RACT requirement because it has no sources above the CTG recommended threshold, and then the requirement to adopt a rule for those sources is no longer applicable. This is known as a "Negative Declaration."

Each time US EPA promulgates a revision to the ozone NAAQS, a District with a nonattainment area classified as Moderate or above must re-affirm its Negative Declarations for those source categories for which it is not adopting CTG-based regulations regardless of whether such negative declarations were made for an earlier standard. This is necessary since there may now be sources in the nonattainment area that previously did not exist, or in areas where the boundaries of the nonattainment area have expanded,

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<sup>2</sup> The definition of a *major source* is dependent on the severity of the air quality problem in a region. For the Pinal County portion of the Phoenix-Mesa moderate nonattainment area, the major source threshold is the potential to emit at least 100 tons per year of VOC or NO<sub>x</sub>.

Pinal County Air Quality Control District

there may be sources in the new portion of the nonattainment area which should not be overlooked.

The negative declaration must go through the same public review requirements as any other SIP submittal. The RACT Analysis and/or Negative Declaration must be submitted to the US EPA within two years from the effective date of the designations.

### **Negative Declaration – Major Sources**

To determine that there are no operating facilities in the Pinal County portion of the ozone nonattainment area that fall under a source category with RACT guidance besides surface coatings and gasoline service stations, the following checks were conducted:

- District internal database of permitted stationary sources.
- Internet website searches for key words.
- County planning records.

**District Internal Database of Permitted Stationary Sources:** The results of the review of the District's stationary source database are included as Appendix A. The largest source of VOC emissions associated with surface coating operations in the nonattainment area is 0.4 tons per year. The largest source (and most abundant source type with 15 permitted) of gasoline service station VOC emissions in the nonattainment area is 26 tons per year.

**Internet Search:** The District staff conducted internet website searches for businesses located in the Pinal County portion of the ozone nonattainment area. Since the County already has a low permitting threshold (1 ton per year), all possible industrial sources have already been identified and determined not to surpass the CTG applicability (excluding the aforementioned surface coating facility and gas stations).

**County Planning Records:** Through the County's "One Stop Shop" the District is routed each new permit application that undergoes review through the planning department of Pinal County for the unincorporated areas within the nonattainment area. Through this process, the District is alerted to any potential new sources. The District has not received any permit applications from potential new sources in unincorporated areas of the nonattainment area.

Additionally for projects within the City of Apache Junction developers are told by the City that a dust permit is needed for any projects 0.1 acres or larger. Therefore developers associated with any projects of that scope are told to go to the County for a dust permit. It is then through that process that the County determines if an industrial permit is necessary for new sources within the Apache Junction city limit. The District has not received any permit applications from potential new sources in the incorporated area of the nonattainment area.

As a result of these searches, the District has determined that outside of the gasoline service stations and surface coating operation there are no other operating facilities in the Pinal County portion of the ozone nonattainment area that fall under a source category with RACT guidance. The District is making a Negative Declaration for all CTG's listed in Appendix C except Design Criteria for Stage I Vapor Control Systems—Gasoline Service Stations (EPA-450/R-75-102 1975/11) and Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coating (EPA-453/R-08-003, September 2008), excluding Tables 3 through 6 of the Miscellaneous Metal and Plastic Parts Coating (Plastic Parts and Products, Automotive/Transportation and

Pinal County Air Quality Control District  
 Business Machine Plastic Parts, Pleasure Craft Coatings, Motor Vehicle Materials) which will also be included in Appendix C since there are no such surface coating activities which take place in the Pinal County portion of the ozone nonattainment area.

There is one Title V source in the Pinal County portion of the nonattainment area which is a landfill and as such doesn't have a CTG. This facility is currently subject to the 40 CFR Part 60, Subpart WWW Standards of Performance (NSPS) for Municipal Solid Waste Landfills and the 40 CFR Part 63, Subpart AAAA National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Waste Landfills.

The design capacity of the landfill is estimated at 14.18 million cubic yards or 8.5 million tons. The facility's Non Methane Organic Compounds (NMOC) emissions were first reported to exceed the collection/controls-required threshold of 50 Mg per year in January 2015. Therefore the landfill submitted a Gas collection and Control System (GCCS) design plan in January 2016 and installed the GCCS as required by 40 CFR Part 60 Subpart WWW by the required date of July 30, 2017. This facility is also subject to the emission guidelines found in 40 CFR Part 60, Subparts Cf and XXX.

The facility's potential to emit of 15.5 tpy for nonmethane organic compounds and 30.72 tpy for oxides of nitrogen (NOx) are well below the 100 tpy threshold for major stationary sources in Moderate ozone nonattainment areas. Therefore there are no major VOC and no major NOx sources in the Pinal County portion of the Moderate ozone nonattainment area.

As a result of these searches, the District has determined that it has no stationary sources or emitting facilities that are subject to the CTGs listed in Table 1 and copied in Appendix B, and has no major stationary sources of VOC or NOx and does not anticipate those sources in the near future. On August 9, 2019 (84 FR 39196), the US EPA approved a number of PCAQCD negative declarations for the 2008 8-hour ozone NAAQS. The negative declarations in Table 1 are in addition to the ones approved in the August 9, 2019 action.

**Table 1 Negative Declarations**

DOCUMENT NUMBER	SOURCE CATEGORY
EPA-450/2-77-037	Cutback Asphalt
EPA 453/R-08-003	Miscellaneous Metal Parts Coatings Tables 3 - 6 Plastic Parts and Products; Automotive/Transportation and Business Machine Plastic Parts; Pleasure Craft Surface Coatings; Motor Vehicle Materials
EPA-453/B-16-001	Control Techniques Guidelines for the Oil and Natural Gas Industry
N/A	Major non CTG VOC sources
N/A	Major NOx sources

**State Implementation Plan Submittal**

The District made the negative declarations and amended rules available for public comment. The Pinal County Board of Supervisors may adopt the amended rules (Appendix D) and negative declarations (Appendix B) and direct staff to forward them to the Arizona Department of Environmental Quality (ADEQ) for submittal to the U.S. EPA as a SIP revision.



## **Appendices**

Appendix A: PCAQCD Permitted Sources in the Pinal County portion of the Phoenix-Mesa Ozone Nonattainment Area as of April, 2020

Appendix B: Additional Negative Declarations as of April, 2020

Appendix C: Cutback asphalt emails

Appendix D: PCAQCD Rules Chapter 5, Articles 13 and 20 as amended <Insert Board of Supervisors Adoption Date>

**Appendix A: PCAQCD Permitted Sources in the Pinal County portion of the Phoenix-Mesa Ozone Nonattainment Area**  
**(as of April, 2020)**

<b>Facility Name</b>	<b>Permit #</b>	<b>SIC Code(s)</b>	<b>2018_Actual VOC Emissions (TPY)</b>	<b>Allowable VOC Emissions</b>
Treasure Chest Granite Pit	B31311.000	1423	0	1.4
Top Drawer	B31214.000	2511	0.35	2.9
Magnum Products	B31270.000	2891	0	0
Apache Junction Plant #31	B31267.000	3273	0	0.6
American Steel	B31287.000	3441	0.32	2.2
R-N-R Steel	S13212.000	3441	0.06	1.9
Kloeckner Metals	B31205.000	3443	0	0
Rolling Plains Construction	C31248.A01	3443	1.85	90.0
A-1 Steel	S13207.000	7692	0.59	3.0
Section 8	B31203.000	3443	0.03	1.0
Cave's Canopies and Steel	S13192.000	3449	0.13	3.0
Studio Iron	B31317.000	3479	0.58	3.0
Wastewater Treatment Plant No.1	S16129.000	4952	0	0
Wal-Mart Store #1381	S10123.000	5399	0	0.1
Circle K Store #2701556	S12632.000	5411	0.52	37.0
Circle K Store #2701989	S12633.000	5411	1.69	37.0
Circle K Store #2708746	S12641.000	5411	1.01	37.0
Circle K Store #2741647	S12668.000	5411	5.93	37.0
Canyon Food Mart	S12695.000	5411	1.87	37.0
4 Sons Chevron	S12650.000	5411	0.96	37.0
4 Sons Food Store #505	S12599.000	5411	1.53	37.0
Circle K Store #3444	S12582.000	5411	14.77	37.0
Fry's Fuel Center #665	S12663.000	5411	26.1	37.0
Goldfield Chevron	S12618.000	5411	1.63	37.0
Shell Foodmart	S12596.A01	5411	0.36	37.0

Facility Name	Permit #	SIC Code(s)	2018_Actual VOC Emissions (TPY)	Allowable VOC Emissions
Firebird Fuel ((less than 10,000 gallons per month throughput))	S12604.000	5541	0.17	0.1
Quiktrip Store #437	S12644.000	5541	13	37.0
Circle K Store #2703442	S12615.000	5541	2.34	37.0
Roadhaven Resort	S10129.000	7033	0	0.1
Sunrise RV Resort	S10127.000	7033	0	0.3
Arnold Auto Center	S13214.000	7532	0.20	2.0
Broken Wheel Enterprises	S13220.000	7532	0.02	2.0
Linx Auto Body	S13216.000	7532	0.60	2.0
Gamez Auto Body	S13230.000	7532	0.50	2.0
Gear Head Sheds	S13203.000	7532	0.48	2.0
Banner Goldfield Medical Center	B31330.000	8062	0.03	0.4
Apache Junction Health Center	S10117.000	8051	0	0.1
Golden Sun RV Resort	S10115.000		0	0.1
Golden Vista RV Resort	S10119.000		0	0.1
Superstition East Central Office	S16140.000		0	0
Apache Junction Landfill	V20670.R01		9.19	15.1
Temcon Concrete Construction (East Yard) (less than 10,000 gallons per month throughput)	S12696.000		0	2.0
Torco Race Fuels ((less than 10,000 gallons per month throughput))	S12612.000		0.57	2.0
Superstition Crematory	B31224.000	7261	0	0.1
88 Trails	S12674.000	5541	N/A <sup>3</sup>	37.0
Chevron 3940	S12595.000	5541	2.91	37.0
Entrada Del Oro Wastewater	S16105.000	4952	0	0.1
Paul Biancalana	S13223.000	7532	N/A <sup>2</sup>	0.4
Superstition Area Water Plant	S16120.000	4941	0	0.1
Booster Station 2/Well 6 (permit issued 2019)	S16139.000	4952	N/A	0.1

<sup>3</sup> Permits for 88 Trails and Paul Biancalana were issued in late 2018, therefore there were no emissions reported for 2018.

## Appendix B: Additional Negative Declarations<sup>4</sup>

The District has reviewed its permit files and emission inventory, as well as business listings and county planning records, and has determined that there are no stationary sources or emitting facilities for the following categories. Therefore the Pinal County Air Quality Control District is adopting the following additional Negative Declarations. The District also does not anticipate these sources in the near future.

DOCUMENT NUMBER	SOURCE CATEGORY
EPA-450/2-77-037	Cutback Asphalt
EPA 453/R-08-003	Miscellaneous Metal Parts Coatings Tables 3 - 6 Plastic Parts and Products; Automotive/Transportation and Business Machine Plastic Parts; Pleasure Craft Surface Coatings; Motor Vehicle Materials
EPA-453/B-16-001	Control Techniques Guidelines for the Oil and Natural Gas Industry
N/A	Major non CTG VOC sources
N/A	Major NO <sub>x</sub> sources

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<sup>4</sup> On August 9, 2019 (84 FR 39196), the US EPA approved a number of PCAQCD negative declarations for the 2008 8-hour ozone NAAQS. These negative declarations are in addition to the ones approved in the August 9, 2019 action.

## Appendix C: Cutback Asphalt emails

The following emails from Pinal County and City of Apache Junction Public Works demonstrate the lack of use of cutback asphalt in the ozone nonattainment area. Therefore cutback asphalt has been included in the negative declaration table in Appendix C.

From: Shane Kiesow <[skiesow@AJCity.Net](mailto:skiesow@AJCity.Net)>  
Sent: Tuesday, February 12, 2019 5:53 PM  
To: Scott DiBiase  
Subject: RE: Cutback asphalt

Hi Scott. Our quantities of asphalt materials used on average would take me some considerable time to quantify however, **we have not used any cutback asphalts for several years now and the asphalt treatments that may contain cutbacks we no longer have in our “toolbox” inventory of choices.** So I think, to answer your question, I'm confident our use will be 0% use of cutbacks of the total asphalt we use in future thus probably allowing you to make the negative declaration. If I missed the intent of your question, feel free to get back to me. Best,

Shane Kiesow  
Public Works Manager  
575 E. Baseline Ave.  
Apache Junction, AZ 85119

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From: Joe Ortiz  
Sent: Thursday, February 14, 2019 3:28 PM  
To: Scott DiBiase  
Subject: RE: Cutback asphalt question

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Scott,

**We haven't utilized cutbacks for several years.** Our current asphaltic materials either utilize a chemical additive or are an emulsion to assist with breaking of the asphalt. At this time we don't anticipate going back to cutbacks.

If you have any other questions or concerns please feel free to contact me.

Thanks,

Joe

Joe R. Ortiz  
Public Works Manager - Operations & Technology Branch  
Public Works Department  
31 North Pinal Street, Building F  
P.O. Box 727  
Florence, AZ 85132  
520-866-6413

**Appendix D: Chapter 5, Articles 13 and 20**  
Rulemaking proposals were posted online on 4/20/20 at  
<https://www.pinalcountyz.gov/AirQuality/Pages/Rulemaking.aspx>

**CHAPTER 5, ARTICLE 13**

**ARTICLE 13 - SURFACE COATING OPERATIONS**

**CHAPTER 5, ARTICLE 20.**

**ARTICLE 20. STORAGE AND LOADING OF GASOLINE AT GASOLINE DISPENSING FACILITIES**

BOS Resolutions go here