AGENDA
STATE OF TENNESSEE
REGULAR MEETING
IN-Person AIR POLLUTION CONTROL BOARD
Nashville Room, 3rd Floor Tennessee Tower
312 Rosa L. Parks Avenue
Remote Access Via WebEx link

https://tn.webex.com/tn/j.php?MTID=m36cfd0cb2884ece0480bf24770884d0c

Wednesday August 11, 2021
9:30 A.M.

Note: There will be a Sign-In Sheet available for those who wish to speak for three minutes on a topic(s) shown here. Remote attendees may use the WebEx chat box to type their name and which topic(s) so that someone can call on them at the appropriate time to speak during the meeting.

	Item	Presenter	Page
1.	Roll Call		
2.	Approval of the June 9, 2021 Air Pollution Control Board Meeting Minutes		3
3.	Eastman Chemical Petition for Alternative Monitoring Board Order 21-078	Travis Blake	7
	General Business		
4.	Notice of Pending Rulemaking, Revisions to TAPCR 1200-03-27-.12	Travis Blake	
5.	Fiscal Year Draft 2022- 2023 Title V Workload Analysis	Jimmy Johnston	23
6.	Notice of Pending Rulemaking, Revisions to TAPCR 1200-03-26	Jimmy Johnston	60
7.	Legislative Update	Emily Urban	

The meeting will be held in compliance with Tennessee Code Annotated Section 8-44-108, as amended by Chapter 490 of the 1999 Public Acts of the Tennessee General Assembly. The meeting will be conducted permitting participation by electronic or other means of communication. Consequently, some members of the Tennessee Air Pollution Control Board are allowed to and may participate by electronic or other means of communication and may not be physically present at the announced location of the meeting.

Individuals with disabilities who require special accommodations or alternate communications formats should contact us at the Tennessee Department of Environment and Conservation, William R. Snodgrass Tennessee Tower, Division of Human Resources, 312 Rosa L. Parks Avenue 22nd Floor, Nashville, Tennessee 37243 at (615) 532-0200 (or TDD 1-800-848-0298 for hearing impaired callers) no less than five (5) days prior to the scheduled meeting so reasonable accommodations can be made.

Air Pollution Control Board
of the
State of Tennessee
Regular Meeting

On Wednesday June 9, 2021 at 9:30 A.M., the Air Pollution Control Board of the State of Tennessee, (hereinafter, referred to as the "Board"), began its meeting on the 3rd Floor of the Tennessee Tower in the Nashville Room. The following Board members were physically present.

Dr. Ronnè Adkins
Mr. Steve Gossett
Mr. Mike Haverstick
Dr. Shawn Hawkins
Mr. Richard Holland
Mayor Ken Moore
Mr. Greer Tidwell
Mayor Larry Waters
Mr. Jimmy West

The following Board members joined the meeting via WebEx

Dr. Joshua Fu
Dr. Chunrong Jia
Ms. Caitlin Jennings
Ms. Amy Spann

The following Board member did not attend the meeting

Dr. John Benitez

Ms. Michelle Owenby, Director of Air Pollution Control, welcomed Board members and those attending via WebEx.

The Vice-Chair asked for a Roll Call and the response was as follows:

Dr. Adkins	present	Dr. Benitez	absent

Dr. Fu	present	Mr. Gossett	present
Mr. Haverstick	present	Dr. Hawkins	present
Mr. Holland	present	Dr. Jia	present
Ms. Jennings	present	Mayor Moore	present
Ms. Spann	present	Mr. Tidwell	present
Mayor Waters	present	Mr. West	present

The next item on the agenda was the approval of the minutes from the April 14, 2021 Board meeting. Mayor Moore made a motion to approve the minutes and Mr. Gossett seconded the motion. The April 14, 2021 minutes were approved as written.

The Vice-Chair called for a roll call and the votes were as follows:

Dr. Adkins	yes	Mr. Holland	yes
Dr. Jia	yes	Dr. Fu	yes
Mr. Tidwell	yes	Mr. Gossett	yes
Ms. Jennings	yes	Mayor Waters	yes
Dr. Hawkins	yes	Mr. West	yes
Mayor Moore	yes	Ms. Spann	yes
Mr. Haverstick	yes		

The motion carried with thirteen (13) affirmative votes.

Mr. Travis Blake with the division presented the Board with proposed NOx SIP call approvals for Packaging Corporation of America (PCA), Board Order 21-077. PCA requests approval to use 40 CFR Part 60 Appendix B (Performance Specification 2—Specifications and Test Procedures for SO_2 and NO_X Continuous Emission Monitoring Systems in Stationary Sources) as an alternative to the CEMS requirements of Part 75. The petition states that PCA uses NO_X CEMS to demonstrate compliance with the Counce Mill's

Plantwide Applicability Limit (PAL) permit. Combination Boiler #1 is the only monitor within the mill that is subject to the requirements of 40 CFR Part 75, and the other NO_X sources at the mill operate CEMS in accordance with 40 CFR Part 60. The petition states that PCA wishes to streamline the monitoring requirements among the sources at the mill. Mr. Blake answered questions from the Board. Mr. Tidwell made a motion to approve Board Order 21-077 and Mayor Moore seconded the motion.

The Vice-Chair called for a roll call and the votes were as follows:

Dr. Adkins	yes	Mr. Holland	yes
Dr. Jia	yes	Dr. Fu	yes
Mr. Tidwell	yes	Mr. Gossett	Abstained
Ms. Jennings	yes	Mayor Waters	yes
Dr. Hawkins	yes	Mr. West	yes
Mayor Moore	yes	Ms. Spann	yes
Mr. Haverstick	yes		

The motion carried with twelve (12) affirmative votes.

Mr. Alvin Pratt with the division presented the Board with a power point presentation of the Environmental Measures and Compliance Assurance program. Mr. Pratt answered questions from the Board.

Mr. Paul LaRock with the division presented the Board with the power point presentation on the Review of and Potential Enhancements to State of Tennessee Vehicle Emissions Tampering Regulations. Mr. LaRock answered questions from the Board.

Ms. Michelle Owenby recognized Mr. Steven Gossett on his many years of service on the Air Pollution Control Board. She stated that Mr. Gossett had been on the Board since the Sundquist administration when he was first appointed to the Air Pollution Control Board in 2000 and had been reappointed five times. She congratulated Mr. Gossett on his retirement from Eastman Chemical and wished him well on his future endeavors.

There being on further business to discuss the meeting adjourned at 11:00 am.

_____
(Signed) Michelle Owenby, Technical Secretary
Tennessee Air Pollution Control Board

Approved at Nashville, Tennessee on August 11, 2021

_____
(Signed) Mayor Larry Waters, Vice-Chairman
Tennessee Air Pollution Control Board

_____
(Signed) David Salyers, Chairman
Tennessee Air Pollution Control Board

Eastman Chemical Company

NO_X SIP Call Permit 077509
Board Order 21-078
Clean Air Act §110(l) Demonstration
Response to EPA Comments

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
BUREAU OF ENVIRONMENT
DIVISION OF AIR POLLUTION CONTROL

IN THE MATTER OF	)	
	)	
	)	
Eastman Chemical Company	)	**Order Number: 21-078**
	)	
	)	
Petition for Alternative Monitoring	)	

BOARD ORDER

The following matter came before the Tennessee Air Pollution Control Board on August 11, 2021.

On March 28, 2019, Eastman Chemical Company – Tennessee Operations (Eastman) submitted a petition for a source-specific revision to the Tennessee State Implementation Plan (SIP) for the NO_X SIP Call monitoring requirements for B-253 Boilers 25, 26, 27, 28, and 29 at Eastman's Kingsport facility. The requested revision allows Eastman to comply with the optional NO_X emissions estimation protocol established in 40 CFR Part 75 Appendix E in lieu of the continuous emissions monitoring requirements established by 40 CFR Part 75.

Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-27-.12 (NO_X SIP Call Requirements for Stationary Boilers and Combustion Turbines) limits emissions of nitrogen oxides (NO_X) during the regulatory ozone season (May 1 through September 30 of each year) and TAPCR 1200-03-27-.12(11)(a) requires the owners and operators of an affected unit to comply with the applicable monitoring, recordkeeping, and reporting requirements provided in 40 CFR part 75 for each ozone season. TAPCR 1200-03-27-.12(11)(b) allows the Responsible Official of an affected unit to petition the Technical Secretary for approval of monitoring alternatives.

On March 8, 2019, EPA published a final rule (84 FR 8422) allowing states to amend their SIPs to establish emissions monitoring alternatives to Part 75 for units subject to the NO_X SIP Call. SIPs that approve alternatives to Part 75 must continue to include some form of emissions monitoring requirements for these types of sources, consistent with the NO_X SIP Call's general enforceability and monitoring requirements at § 51.121(f)(1) and (i)(1).

Eastman's petition requests approval to use 40 CFR Part 75 Appendix E (Optional NO_X Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units) as an alternative to the continuous emissions monitoring requirements of Part 75. Appendix E requires sources to use performance testing to determine the NO_X emission rate at a series of representative operating loads, measure the fuel flow rate for each hour of operation, and calculate the NO_X emission rate for each hour using the performance test data. Appendix E also includes quality assurance procedures to ensure that the boiler operation does not deviate from the conditions established during the performance tests and that the monitoring systems are calibrated and maintained. Appendix E requires retesting of the NO_X emission rate every 20 calendar quarters, or more frequently if quality assurance or data availability requirements are not met.

The Technical Secretary has reviewed the petition and recommended that the Board approve Eastman's request for alternative monitoring. In reviewing Eastman's petition, the Technical Secretary determined that: (1) Eastman's NO_X emissions remain substantially below the facility's NO_X budget; (2) collectively, NO_X SIP Call affected facilities in Tennessee are operating well below the state's NO_X budget; (3) the alternative monitoring requirements would be permanent, enforceable and sufficient to determine whether the source is in compliance with the NO_X SIP Call emissions requirements; and (4) the work practice requirements of 40 CFR 63 Subpart DDDDD (periodic tune-ups) will provide additional assurance that the boilers are operating properly.

The Tennessee Air Pollution Control Board finds that the specific monitoring, recordkeeping and reporting requirements/conditions associated with Eastman's B-253 Boilers 25 through 29, as identified in conditions 1 through 19 of operating permit 077509, are acceptable alternatives to the provisions of TAPCR 1200-03-27-.12(11)(a). The Board approves the submittal of operating permit 077509 to U. S. EPA for adoption into Tennessee's State Implementation Plan.

Entered and approved by the following Board members on August 11, 2021.

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

OPERATING PERMIT Issued Pursuant to Tennessee Air Quality Act

Issue Date: ******DRAFT******	Permit Number: 077509 Facility ID: 82-0003
Issued To: Eastman Chemical Company	Installation Address 200 South Wilcox Drive Kingsport
Installation Description Natural Gas-Fired Boilers 25-29 (PES B-253-1)	Emission Source Reference No. 82-0003-01 SIP

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations (TAPCR).

CONDITIONS:

1. Pursuant to 40 CFR §51.121(i)(1), upon issuance of this permit and approval of this permit into Tennessee's State Implementation Plan by U. S. EPA, the permittee may demonstrate compliance with TAPCR 1200-03-27-.12 by monitoring nitrogen oxides (NO_X) emissions from PES B-253-1, Boilers 25 through 29, using the alternative NO_X monitoring provisions contained in **Condition 2** of this permit in lieu of the requirements established by TAPCR 1200-03-27-.12(11)(a).

   Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-09-.03(8), 40 CFR §51.121(i)(1)

2. Pursuant to 40 CFR §51.121(i)(1), upon issuance of this permit and approval of this permit into Tennessee's State Implementation Plan by U.S. EPA, in lieu of the requirements established by TAPCR 1200-03-27-.12(11)(a), the permittee may demonstrate compliance with TAPCR 1200-03-27-.12 by monitoring NO_X emissions from PES B-253-1, Boilers 25 through 29, using the monitoring methodologies set forth in 40 CFR part 75, Appendices D and E, except that the units shall not be required to meet the definition of a "peaking unit" under 40 CFR 72.2 as otherwise required under 40 CFR part 75, Appendix E, section 1.1. For each B-253 boiler, the permittee must continue to monitor NOx emissions in accordance with 40 CFR Part 75 until all required certification testing is performed and approved by the Technical Secretary.

   TAPCR 1200-03-09-.03(8), 40 CFR §51.121(i)(1)

_____
TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

Proposed Approval of Alternative Monitoring and Clean Air Act §110(l) Demonstration

Eastman Chemical Company, B-253 Powerhouse, Boilers 25-29
Tennessee Air Pollution Control Regulations 1200-03-27-.12(11)

On September 17, 2019, Eastman Chemical Company submitted a petition to request approval of alternative monitoring, recordkeeping, and reporting requirements for five boilers subject to the NO_X SIP Call (Boilers 25, 26, 27, 28, and 29) at Eastman's B-253 powerhouse. The Tennessee Department of Environment and Conservation, Division of Air Pollution Control, is proposing to approve Eastman's petition, subject to the limitations and exceptions identified herein.

The specific monitoring requirements for the B-253 powerhouse will be implemented via operating permit 077509. The Division proposes to issue this permit after appropriate notice and comment and to submit the final permit to U. S. EPA for adoption into Tennessee's State Implementation Plan.

I. Background

On October 27, 1998 (63 FR 57356), EPA adopted the *Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone* (NO_X SIP Call), which required 22 States and the District of Columbia to submit State Implementation Plan (SIP) revisions to prohibit specified amounts of NO_X emissions for the purpose of reducing NO_X and ozone transport across State boundaries in the eastern half of the United States. This rule also established the NO_X Budget Trading Program, which allowed States to comply with the required emissions reductions via an interstate cap-and-trade program for electric generating units (EGUs) and for large industrial boilers and combustion turbines (i. e., non-EGUs). Tennessee implemented the NO_X Budget Trading Program between 2003 and 2008, when the program was superseded by the Clean Air Interstate Rule (CAIR) Ozone Season NO_X Trading Program.

EPA replaced CAIR with the Cross-State Air Pollution Rule (CSAPR) NO_X trading programs on January 1, 2015. The applicability provisions of the CSAPR ozone season trading programs cover EGUs only, and non-EGU boilers are not covered under CSAPR. To preserve the NO_X reductions established by the NO_X SIP Call, the Tennessee Air Pollution Control Board approved Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-27-.12 (NO_X SIP Call Requirements for Stationary Boilers and Combustion Turbines). Tennessee submitted the rule to EPA' s Region 4 office on February 27, 2017 and requested that EPA approve the rule into Tennessee's SIP.

TAPCR 1200-03-27-.12(11)(a) requires the owners and operators of an affected unit to comply with the applicable monitoring, recordkeeping, and reporting requirements provided in 40 CFR Part 75 for each control period. On March 8, 2019, EPA published a final rule revising the emissions monitoring provisions required under the NO_X SIP Call (84 FR 8422). This rule allows States to amend their SIPs to establish emissions monitoring alternatives to Part 75 for units subject to the NO_X SIP Call[1]. In approving this rule, EPA stated that the Part 75 monitoring requirements were applied to non-EGU sources in the context of regional emission trading programs, including the NO_X Budget Trading Program and the CAIR NO_X Ozone Season Trading

[1] This revision does not include EGUs or other units subject to the Acid Rain Program or the CSAPR emission trading programs.

Program, which have been discontinued[2]. EPA also noted the substantial margins by which NO_X SIP Call States are complying with their emissions budgets – overall seasonal NO_X emissions from NO_X SIP Call States are less than 40% of the States' NO_X budgets, and no State reported NO_X emissions exceeding 71% of its budget[3].

SIPs that approve alternatives to Part 75 must continue to include some form of emissions monitoring requirements for these types of sources, consistent with the NO_X SIP Call's general enforceability and monitoring requirements at § 51.121(f)(1) and (i)(1).

II. Current Monitoring Requirements

§ 75.10 requires affected sources to install, certify, operate, and maintain, in accordance with all the requirements of Part 75, a NO_X-diluent continuous emission monitoring system (CEMS), consisting of a NO_X pollutant concentration monitor and an O_2 or CO_2 diluent gas monitor, with an automated data acquisition and handling system for measuring and recording NO_X concentration (in ppm), O_2 or CO_2 concentration (in percent O_2 or CO_2) and NO_X emission rate (in lb/MMBtu) discharged to the atmosphere, except as provided in §§75.12 and 75.17 and Subpart E of Part 75. Pursuant to §75.12(c), hourly, quarterly, and annual NO_X emission rates must be calculated from the NO_X concentration, diluent concentration, and percent moisture (if applicable) measurements using the procedures established in Appendix F to Part 75.

III. Requested Alternative Monitoring

The petition requests approval to use 40 CFR Part 75 Appendix E (Optional NO_X Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units) as an alternative to the CEMS requirements of Part 75. Appendix E establishes the following methodology:

1. Establish at least four approximately equally spaced operating load points, ranging from the maximum operating load to the minimum operating load based on the operating history of the unit during the most recent two years or on the projected dispatched load of the unit.

2. Select an excess O_2 level for each fuel that is representative of each load level. Operate the boiler at a normal or conservatively high excess oxygen level in conjunction with these tests. Measure the NO_X and O_2 concentrations at each load point using the test methods specified in Section 2.1.2 of Appendix E.

3. Measure the total heat input (MMBtu) and heat input rate (MMBtu/hr) using the test methods specified in Section 2.1.3 of Appendix E.

[2] EPA notes that Part 75 monitoring is necessary for emission trading programs, because these programs can function only with timely reporting of consistent, quality-assured mass emissions data by all participating units.

[3] For Tennessee, EPA reported the following numbers for 2019:

2019 Ozone Season non-EGU NO_X Emissions (tons)		
NO_X Emissions (tons)	**NO_X Budget**	**Total Emissions (% of Budget)**
1,870	5,666 (3,928*)	34% (48%*)
* The non-EGU portion of Tennessee's NO_X budget is 5,666 tons. Of this total, 1,738 tons are set aside for new source growth, leaving 3,928 tons of NO_X emissions allocated to existing units. The 2018 non-EGU NO_X emissions, as a percentage of Tennessee's NO_X budget, were calculated using both numbers.		

4. Calculate the NO_X emission rate in lb/MMBtu for each sampling point and determine the arithmetic average NO_X emission rates and boiler excess oxygen readings for each test run. Tabulate the results of each baseline correlation test, listing: time of test, duration, operating loads, heat input rate (MMBtu/hr), F-factors, excess oxygen levels, and NO_X concentrations (ppm, dry basis at actual excess oxygen level).

5. Plot the heat input rate (MMBtu/hr) as the independent variable and the NO_X emission rates (lb/MMBtu) as the dependent variable for each load point. Construct the graph by drawing straight line segments between each load point. Draw a horizontal line to the y-axis from the minimum heat input (load) point.

6. Record the time, load, fuel flow rate, and heat input rate for each hour during which the unit combusts fuel. Use the graph of the baseline correlation results (appropriate for the fuel or fuel combination) to determine the NO_X emissions rate (lb/MMBtu) corresponding to the heat input rate (MMBtu/hr). Use the data substitution procedures required by Section 2.5 of Appendix E whenever a valid quality-assured hour of NO_X emission rate data is not obtained.

7. Develop and implement a quality assurance/quality control (QA/QC) plan for the monitoring systems as specified in Appendix B to Part 75. Make all procedures, maintenance records, and ancillary supporting documentation available for review upon request from the permitting authority.

8. Retest the NO_X emission rate of the gas-fired peaking unit or the oil-fired peaking unit while combusting each type of fuel (or fuel mixture) for which a NO_X emission rate versus heat input rate correlation curve was derived, at least once every 20 calendar quarters. If a required retest is not completed by the end of the 20th calendar quarter following the quarter of the last test, use the missing data substitution procedures in Section 2.5 of Appendix E.

   Earlier retesting is required as specified in Section 2.3, under the circumstances indicated below. Test results must be submitted in accordance with §75.60 within 45 days of completing the retesting.

   (a) The NO_X emission rate heat input correlation must be redetermined if the excess oxygen level at any heat input rate (or unit operating load) continuously exceeds by more than 2 percentage points O_2 from the boiler excess oxygen level recorded at the same operating heat input rate during the previous NO_X emission rate test for one or more successive operating periods totaling more than 16 unit operating hours.

   (b) Retesting is required if the NO_X emission rate data availability since the last test is less than 90.0% and the Administrator issues a notice requesting retesting.

IV. Justification for Alternative Monitoring

The petition states that NO_X emission rates from Eastman's B-253 boilers, which were converted from coal to natural gas operation between 2013 and 2018, are approximately 20% of the pre-conversion emission rates. As a result, Eastman operates with a substantial margin of compliance relative to the facility's NO_X allocation.

Eastman's allocation is 3,047 tons, and the petition states that Eastman emitted 70% of its allocation during the 2018 ozone season. The petition also notes that if Boiler 26 had been converted to gas for the 2018 control period, Eastman would have emitted approximately 60% of its allocation. The petition indicates that these boilers burn only pipeline quality natural gas and that the units have similar average NO_X emission rates over the history to-date (Table 1).

Table 1: Comparison of B-253 Boiler Ozone Season NO_X Emission Rates					
Boiler	**Average NO_X Emission Rate (lb/MMBtu)**				
	2016	**2017**	**2018**	**2019**	**2020**
253-25	0.086	0.086	0.085	0.086	0.0953
253-26	N/A*	N/A	N/A	0.085	0.0851
253-27	0.089	0.097	0.093	0.085	0.0889
253-28	N/A	0.083	0.077	0.076	0.0731
253-29	N/A	N/A	0.087	0.086	0.0925
* NO_X emission rates are listed as N/A for boilers that combusted coal during a specific ozone season.					

V. Review of Eastman's Alternative Monitoring Request, Clean Air Act §110(l) Requirements

The Division of Air Pollution Control reviewed Eastman's alternative monitoring request, giving consideration to emissions from the affected unit and the adequacy of the proposed monitoring method.

Attainment and maintenance plans in Tennessee rely upon control of NO_X emissions. Section 110(l) of the Clean Air Act (CAA)[4] prohibits revision of a SIP that would interfere with attainment or maintenance of a NAAQS, reasonable further progress toward attainment of a NAAQS, or any other applicable requirement of the CAA. Because this rule is part of Tennessee's SIP, the requirements of CAA §110(l) must be satisfied before changing the existing monitoring requirements.

The Division proposes to approve Eastman's request. The proposed revision would not interfere with any applicable requirement concerning attainment or maintenance of a NAAQS or reasonable further progress toward attainment of a NAAQS.

- NO_X emissions from Eastman's affected units, including B-253 Boilers 25 through 29, are substantially below the facility's NO_X budget established pursuant to 1200-03-27-.12, and the change would not result in an increase in NO_X emissions. The proposed monitoring alternative would not alter the NO_X SIP Call budget that limits emissions from the affected unit.

- The alternate monitoring requirements are permanent, enforceable and sufficient to determine whether the source is in compliance with the NO_X SIP Call emissions requirements.

- The work practice requirements of 40 CFR 63 Subpart DDDDD (periodic tune-ups) will provide additional assurance of proper boiler operation

[4] "Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter."

V.1. Emissions

EPA's proposed approval of NO_X SIP Call monitoring alternatives (83 FR 48751) notes the substantial margin by which NO_X SIP Call states are complying with the portions of their statewide emissions budgets assigned to large EGUs and large non-EGU boilers and turbines, averaging less than 40% of the statewide NO_X budgets in 2017.

Eastman's B-253 boilers were converted from coal to natural gas operations between 2014 and 2018, as indicated in Table 2. Eastman's NO_X SIP Call allowance allocation is 3,047 tons, and EPA's Clean Air Markets database (Table 3)[5] indicates that Eastman emitted 47% of its allocation during the 2020 ozone season. EPA's data demonstrate a substantial decline in Eastman's ozone season NO_X emissions since 2017, which was driven primarily by repowering of Eastman's B-253 Boilers (Table 4).

Table 2: B-253 Startup Dates Following Conversion to Natural Gas

Boiler	Startup Date Burning Natural Gas
253-25	4/23/2014
253-26	10/4/2018
253-27	4/23/2016
253-28	10/2/2016
253-29	3/30/2018

Table 3: Eastman NO_X Emissions (All NO_X SIP Call Sources), 2003 – 2020

Year	Program	NO_X Emissions (tons)	Heat Input (MMBtu)	NO_X Emission Rate (lb/MMBtu)
2003	NBP	2,931	16,546,038	0.354
2004	NBP	2,488	13,627,131	0.365
2005	NBP	2,730	17,031,695	0.321
2006	NBP	2,833	16,943,526	0.334
2007	NBP	2,623	15,755,547	0.333
2008	CAIROS	2,639	16,086,750	0.328
2009	CAIROS	2,634	14,817,086	0.356
2010	CAIROS	2,961	16,921,905	0.350
2011	CAIROS	2,978	17,021,743	0.350
2012	CAIROS	2,950	16,902,058	0.349
2013	CAIROS	2,930	17,481,472	0.335
2014	CAIROS	2,949	17,106,922	0.345
2015	SIPNOX	3,012	17,350,946	0.347
2016	SIPNOX	2,796	17,279,303	0.324
2017	SIPNOX	2,224	17,593,154	0.253
2018	SIPNOX	2,145	18,346,901	0.234
2019	SIPNOX	1,656	17,585,764	0.188
2020	SIPNOX	1,418	16,554,911	0.171

[5] https://ampd.epa.gov/ampd/

Table 4: Clean Air Markets Emissions Data, 2003-2020 Eastman Chemical Company, B-253 Powerhouse											
		NO_X Emissions (tons)					NO_X Emission Rate (MMBtu)				
Year	Program(s)	253-25	253-26	253-27	253-28	253-29	253-25	253-26	253-27	253-28	253-29
2003	NBP	385.1	324.1	330.6	348.1	182.0	0.376	0.324	0.329	0.321	0.327
2004	NBP	286.2	294.4	349.2	282.5	268.5	0.335	0.369	0.362	0.342	0.340
2005	NBP	304.3	297.8	340.2	304.6	314.0	0.327	0.311	0.319	0.312	0.299
2006	NBP	330.8	316.9	342.7	241.6	329.1	0.330	0.322	0.321	0.306	0.320
2007	NBP	306.9	304.2	313.2	314.7	259.5	0.341	0.327	0.338	0.335	0.307
2008	CAIROS	330.1	327.1	283.8	283.0	274.0	0.332	0.339	0.303	0.317	0.307
2009	CAIROS	283.4	314.1	372.0	292.7	299.2	0.367	0.371	0.398	0.383	0.347
2010	CAIROS	352.6	309.1	356.2	282.6	417.8	0.351	0.320	0.353	0.345	0.452
2011	CAIROS	380.6	381.2	381.7	363.5	364.7	0.387	0.354	0.360	0.371	0.476
2012	CAIROS	329.6	342.1	354.3	368.9	378.8	0.345	0.350	0.350	0.434	0.393
2013	CAIROS	411.0	329.0	309.4	303.2	284.9	0.434	0.318	0.309	0.301	0.315
2014	CAIROS	91.1	266.9	467.7	511.5	342.3	0.086	0.374	0.461	0.521	0.326
2015	SIPNOX	86.6	355.6	427.5	504.3	294.5	0.082	0.332	0.455	0.537	0.343
2016	SIPNOX	79.4	453.2	108.4	424.8	408.7	0.086	0.497	0.089	0.502	0.453
2017	SIPNOX	97.4	410.6	119.9	100.7	247.0	0.086	0.461	0.097	0.083	0.338
2018	SIPNOX	94.4	403.3	96.6	90.0	103.9	0.084	0.553	0.093	0.077	0.087
2019	SIPNOX	92.7	99.7	93.5	74.6	86.8	0.086	0.085	0.085	0.076	0.086
2020	SIPNOX	74.9	89.3	97.4	70.6	101.1	0.0953	0.0851	0.0889	0.0731	0.0925

Table 5 shows Tennessee's NO_X emissions for all affected non-EGU sources subject to the NO_X Budget Trading Program (2003 – 2008), CAIR NO_X Ozone Season Trading Program (2009 – 2014), and State NO_X SIP Call regulation (2015 – 2019). Since the implementation of the NO_X Budget Trading Program in 2004, Tennessee's ozone season NO_X emissions from these affected sources have decreased from 59.8% of Tennessee's non-EGU NO_X Budget in 2004 to 28.6% of Tennessee's non-EGU NO_X Budget in 2020.

Table 5: Statewide Non-EGU NO_X Emissions, 2003 – 2020			
Year	**Total NO_X Emissions (tons)**	**Non-EGU NO_X Budget (tons)**	**% of NO_X Budget**
2003	5,804	5,666	102.4%
2004	3,389	5,666	59.8%
2005	3,879	5,666	68.5%
2006	3,833	5,666	67.6%
2007	3,737	5,666	66.0%
2008	3,661	5,666	64.6%
2009	3,524	5,666	62.2%
2010	3,454	5,666	61.0%
2011	3,476	5,666	61.4%
2012	3,305	5,666	58.3%
2013	3,222	5,666	56.9%
2014	3,241	5,666	57.2%
2015	3,298	5,666	58.2%
2016	3,134	5,666	55.3%
2017	2,350	5,666	41.5%
2018	2,286	5,666	40.4%
2019	1,870	5,666	33.0%
2020	1,623	5,666	28.6%
Data source: U. S. EPA Air Markets Program Database (https://ampd.epa.gov/ampd/)			

Table 6 shows the emissions from specific facilities subject to the NOX SIP Call since 2003. Of the twelve facilities identified in Table 3, four facilities (Cargill, DOE Oak Ridge, DuPont Old Hickory, and Liberty Fibers) shut down their NO_X SIP Call units and three facilities (TVA Cumberland[6], TVA Johnsonville[7], and Valero) added NO_X SIP Call units. One facility (Domtar) is identified in EPA's Clean Air Markets database but has never been granted an allowance allocation or otherwise subjected to the NO_X SIP Call[8]. Of the remaining facilities,

[6] TVA's Cumberland Fossil Plant includes one non-EGU auxiliary boiler. This boiler was operating prior to 2015 but appears to have been counted with TVA's EGU emissions.

[7] TVA's Johnsonville cogeneration facility includes two non-EGU boilers that began operation in 2018.

[8] Domtar's Kingsport facility includes a biomass boiler with a design heat input of 544 MMBtu/hr, but Condition E6-10 of Title Operating Permit 573622 limits the annual capacity factor for other fuels (natural gas and fuel oils) to 10%. The biomass boiler does not meet the

Eastman Chemical, Resolute Forest Products, and Tate & Lyle had significant decreases in NO_X emissions due to full or partial conversions from coal to natural gas operation.

Table 6: Change in NO_X Emissions by Facility						
	Years Subject to the NO_X SIP Call		NO_X Emissions (tons)		NO_X Emission Rate (lb/MMBtu)	
Facility Name	First Year	Last Year	First Year	Last Year	First Year	Last Year
Cargill Corn Milling	2003	2014	5	5	0.039	0.049
TVA Cumberland (non-EGU Boiler)	2015	2019	2	8	0.055	0.058
DOE Oak Ridge Y-12	2003	2009	126	126	0.653	0.582
Domtar Paper Co., LLC	2003	2003	177	177	0.667	0.667
DuPont Old Hickory	2003	2011	366	3	0.586	0.197
Eastman Chemical Company	2003	2019	2,931	1,656	0.354	0.188
TVA Johnsonville (non-EGU Boiler)	2018	2019	1	1	0.005	0.006
Liberty Fibers Corporation	2004	2005	250	206	0.800	0.784
Packaging Corporation of America	2003	2019	14	55	0.172	0.195
Resolute Forest Products	2003	2019	1,304	74	0.886	0.297
Tate & Lyle-Loudon	2003	2019	881	67	0.509	0.054
Valero Refining Company	2013	2019	18	9	0.033	0.038

V.2. Adequacy of Eastman's Proposed Monitoring Method

Eastman's request for approval of alternative monitoring is determined to be acceptable, as follows:

- Appendix E to 40 CFR Part 75[9] establishes sufficient periodic testing requirements to establish the NO_X emission rate for each boiler.

- The monitoring and calculation procedures specified by Appendix E are sufficient to measure NO_X emissions across the range of operating conditions. Continuous monitoring of the oxygen concentration in the boiler duct will assure that the boilers are operated in a manner that is representative of the performance test. The requested alternative includes provisions for additional performance testing if the boiler does not meet the quality assurance requirements established by Appendix E.

- The work practice requirements of 40 CFR 63 Subpart DDDDD (periodic tune-ups) will provide additional assurance of proper boiler operation.

definition of an "affected unit" pursuant to TAPCR 1200-03-27-.12(1)(c)1 (a unit with a maximum design heat input greater than 250 MMBtu/hr that combusts, or will combust during any year, fossil fuel alone or in combination with any other fuel, where fossil fuel is projected to comprise more than 50% of the annual heat input on a Btu basis).

[9] Eastman's request to require periodic testing for a single boiler is discussed in Section VI.

V.2.1. Periodic Testing

Section 2.1 of Appendix E requires periodic testing to establish the NO_X emission rate at varying load levels (minimum of four load levels) and at an excess oxygen concentration that is representative of each load level. The source must measure the fuel flow rate during the performance test to demonstrate that the boiler is operating in accordance with the selected load levels during each performance test. The NO_X performance test must be repeated at least every 20 calendar quarters, or whenever the quality assurance requirements are not met (see Section V.2.2).

V.2.2. Continuous Monitoring and Quality Assurance

Continuous emissions monitoring systems (CEMS) provide the most reliable and timely information for determining compliance, but other methods, including periodic stack testing combined with continuous parametric monitoring, are adequate under many circumstances. When periodic testing and continuous parameter monitoring are used in lieu of CEMS, monitoring must be sufficient to ensure that performance does not degrade after the initial performance test.

For natural gas-fired boilers, Appendix E specifies excess oxygen level as a critical quality assurance parameter and requires monitoring of the excess oxygen level during each hour of boiler operation. The NO_X emission rate and heat input correlation must be redetermined if the excess oxygen level at any heat input rate (or unit operating load) is more than 2 percentage points above the excess oxygen level recorded at the same heat input rate during the performance test "for one or more successive operating periods totaling more than 16 consecutive[10] unit operating hours".

The Division considered whether additional parametric monitoring is required for quality assurance and determined that the monitoring specified by Appendix E is sufficient to assure that boiler performance remains consistent with the performance test.

NO_X emissions are dependent upon fuel nitrogen content, burner temperature, and excess air. The fuel nitrogen content of pipeline natural gas is low and is not expected to vary. Excess air is measured via the oxygen concentration, and the burner temperature is directly proportional to the excess air flow at a given heat input. No other parameters were identified that could affect NO_X emissions.

V.2.3. Periodic Tune-Up Requirements

These boilers are also subject to 40 CFR 63 Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters).

For boilers that use a continuous oxygen trim system to maintain an optimum air-to-fuel ratio, §§63.7540(a)(10) and (12) require a tune-up of the boiler or process heater every 5 years. The tune-up must include, as applicable, inspection, cleaning, and replacement of burner components; inspection and optimization of the flame pattern; inspection and calibration of the system controlling the air-to-fuel ratio; and optimizing total CO emissions, consistent with any NO_X requirement to which the unit is subject.

[10] See U. S. EPA, *Part 75 Emissions Monitoring Policy Manual* (2013), Question 24.8. "Consecutive" can include periods of non-operation, but the clock resets if the parameter returns to normal for even one hour prior to the 16th hour.

VI. Conclusion

The proposed change would not increase NO_X emissions from Eastman's B-253 boilers and would not alter the NO_X SIP Call budget that limits emissions from the affected units because: (1) Eastman's NO_X emissions remain substantially below the facility's NO_X budget established pursuant to 1200-03-27-.12; (2) Tennessee's review of all non-EGUs subject to the NO_X SIP Call demonstrates that NO_X emissions for the collection of affected facilities are operating well below the state's NO_X budget; (3) the alternative monitoring requirements would be permanent, enforceable and sufficient to determine whether the source is in compliance with the NO_X SIP Call emissions requirements; and (4) the work practice requirements of 40 CFR 63 Subpart DDDDD (periodic tune-ups) will provide additional assurance that the boilers are operating properly.

Tennessee requests that EPA adopt the specific monitoring, recordkeeping and reporting requirements/conditions associated with B-253 Boilers 25 through 29 as identified in Conditions 1 through 19 of operating permit 077509. In a separate action, Tennessee is proposing to amend the monitoring requirements TAPCR 1200-03-27-.12(11) by allowing affected units to monitor NO_X emissions in accordance with 40 CFR 60 Subpart D, 40 CFR 60 Subpart Db, or an alternative method approved by the Technical Secretary in a revision to the State Implementation Plan in lieu of the existing requirement to monitor NO_X emissions in accordance with 40 CFR Part 75. Therefore, Tennessee requests conditional approval of the source-specific SIP revision and commits to completion of the amendments to TAPCR 1200-03-27-.12(11) not later than one year after the date of approval of the plan revision. Tennessee understands that any such conditional approval shall be treated as a disapproval if the State fails to comply with such commitment.

Response to U. S. EPA Comments NO_X SIP Call Alternative Monitoring Source-Specific SIP for Eastman Chemical Company	
EPA Comment	**TDEC-APC Response**
1. **Eastman Draft Title V Permit (077509)**. Because the EPA is generally unable to administer customized versions of part 75 monitoring and reporting requirements for individual sources, if Tennessee desires to have Eastman report directly to the EPA under part 75, the permit needs to reflect a complete version of part 75 with the single agreed exception being that the Eastman units would be allowed to use the Appendix E methodology despite not qualifying as "peaking" units. The permit therefore needs to incorporate a much larger set of provisions than currently listed at Conditions 3 through 19 of the draft title V permit. The EPA believes the most practical way of ensuring that all relevant provisions are incorporated is to include all relevant provisions of part 75 by reference rather than itemize the provisions listed in Conditions 3 through 19. Specifically, the EPA is recommending Tennessee replace conditions 3 through 19 with one permit condition that incorporates by reference all requirements of part 75 excluding the peaking unit qualification provisions as described above. Incorporation of part 75 in this manner would allow the Eastman units to use the methodologies at appendices D and E. Alternatively, Tennessee could modify the draft title V permit to have the Eastman units report their test results and hourly emissions and operating data to Tennessee Department of Environment and Conservation (TDEC) Division of Air Quality instead of to the EPA, after which TDEC could report the ozone-season total emissions to the EPA. Should TDEC require Eastman to report its ozone season NOx mass emissions to TDEC rather than the EPA, the State will also need to add an additional condition to permit (077509) to clarify new reporting requirements. The EPA request further discussion with Tennessee respecting the incorporation of Appendix D and E into the title V permit.	Permit 077509 was revised to delete conditions 2 through 19 and to add new condition 2, which adopts the relevant portions of 40 CFR Part 75 by reference, as follows: 2. *Pursuant to 40 CFR §51.121(i)(1), upon issuance of this permit and approval of this permit into Tennessee's State Implementation Plan by U.S. EPA, in lieu of the requirements established by TAPCR 1200-03-27-.12(11)(a), the permittee may demonstrate compliance with TAPCR 1200-03-27-.12 by monitoring NO_X emissions from PES B-253-1, Boilers 25 through 29, using the monitoring methodologies set forth in 40 CFR part 75, Appendices D and E, except that the units shall not be required to meet the definition of a "peaking unit" under 40 CFR 72.2 as otherwise required under 40 CFR part 75, Appendix E, section 1.1. For each B-253 boiler, the permittee must continue to monitor NOx emissions in accordance with 40 CFR Part 75 until all required certification testing is performed and approved by the Technical Secretary.* *TAPCR 1200-03-09-.03(8), 40 CFR §51.121(i)(1)*
2. **Eastman Draft Title V Permit (077509)** - Please ensure that Condition 1 in the draft title V permit references all permit conditions necessary for compliance with NOx SIP Call alternative monitoring requirements (i.e., conditions 2 through 19). Please note this would include the addition of any new permit conditions based on review and consideration of the EPA's prehearing comments.	This comment is no longer applicable, because the original permit language was deleted in response to EPA's comment #1.
3. **Eastman Draft Title V Permit (077509)** – Please note after final conditional approval of the alternative monitoring permit conditions into the Tennessee SIP, any future permit modifications to these conditions would also require a SIP revision and approval. Therefore, the EPA requests that TDEC remove or modify the second sentence in Condition 2 suggesting that the monitoring method could be changed after SIP approval simply by reapplication to TDEC without a further SIP approval	This comment is no longer applicable, because the original permit language was deleted in response to EPA's comment #1.

Response to U. S. EPA Comments NO_X SIP Call Alternative Monitoring Source-Specific SIP for Eastman Chemical Company	
EPA Comment	**TDEC-APC Response**
4. **Eastman Draft Title V Permit (077509) -** Please include a provision in the Eastman title V permit to avoid gaps in monitoring. The EPA notes that there is a similar provision in the Package Corporation of America title V permit to this effect ("The permittee must continue to monitor NOx emissions in accordance with TAPCR 1200-03-27-.12(11)(a) and 40 CFR Part 75 until the monitoring plan required by Condition 3 is approved and all required certification testing is performed and approved by the Technical Secretary.")	New Condition 2 includes the requested language.
5. Conditional Approval Request –The source specific SIP concept respecting non-Part 75 monitoring considerations for Eastman and PCA discussed with Tennessee includes the State requesting conditional approval of the SIP submissions (pursuant to section 110(k)(4) of the Clean Air Act). Specifically, the EPA recommends Tennessee's final source-specific SIP transmittal letter request the EPA conditionally approve the source specific SIPs (i.e. incorporation of the non-Part 75 title V permit conditions into the SIP for Eastman and Package Corporation of America) based on the State's commitment to modify the provisions at Chapter 1200- 3-27.12(11) to specify permissible non-part 75 monitoring and reporting methodologies as allowed under 40 CFR 51.121(i)(1) and include a SIP rule clarification for Eastman NOx ozone season monitoring. Additionally, please provide in the transmittal letter a regulatory schedule for the subsequent SIP revision for Chapter 1200- 3-27.12(11). This SIP revision would be required one year after the effective date of the final conditional approval. The EPA requests further discussion on the conditional approval letter including previous preliminary comments provided to TDEC November 2020.	Tennessee's final source-specific SIP transmittal letter will request that EPA conditionally approve the source specific SIP and will provide a commitment and schedule to modify the provisions at Chapter 1200-3-27.12(11) to specify permissible non-part 75 monitoring and reporting methodologies as allowed under 40 CFR 51.121(i)(1).
6. **Eastman Draft Title V Permit (077509)** – **Condition 1** – Please note, the TAPCR citation TAPCR 1200-03-27-.11 referenced in Condition 1 should be TAPCR 1200-03-27-.12.	The rule citation was corrected in the final permit.
7. 110(l) Demonstration - If available, please consider updating Table 1 with 2020 average NOx emission rate, the 2020 ozone season NOx emissions in Table 3 and statewide in Table 5.	The 110(l) demonstration was updated to incorporate the requested change.
8. **110(l) Demonstration – Section V.1. 2nd paragraph -** If available, please provide the percent of allocations Eastman emitted during the 2020 control period.	The 110(l) demonstration was updated to incorporate the requested change.
9. 110(l) Demonstration – Section V.2.2, pdf page 19 – Please note there is an extra "that" in the last sentence, first paragraph under section V.2.2.	The 110(l) demonstration was corrected to incorporate the requested change.
10. **110(l) Demonstration – Section V.1, pdf page 16 –** Please note data table "Table 3" on page 16 should be labeled "Table 4."	The 110(l) demonstration was corrected to incorporate the requested change.
11. **110(l) Demonstration – Section V.2, pdf page 18 -** Please note, the third bullet item under Section V.2 is missing a period.	The 110(l) demonstration was corrected to incorporate the requested change.

Title V

Workload Analysis

Fiscal Year 2022-2023

Division of Air Pollution Control
October 13, 2021

TABLE OF CONTENTS	PAGE
EXECUTIVE SUMMARY	3
INTRODUCTION	5
ADMINISTRATIVE SERVICES	7
DIRECTOR'S OFFICE	8
SMALL BUSINESS ENVIRON. ASSIST. PROG.	10
COMPLIANCE VALIDATION	12
ENFORCEMENT	13
FIELD SERVICES	15
PERMITTING	17
REGULATORY DEVELOPMENT	21
EMISSIONS INVENTORY AND SPECIAL PROJECTS	23
AMBIENT MONITORING QUALITY CONTROL	24
AMBIENT MONITORING QUALITY ASSURANCE	26
SUMMARY OF FTEs BY FUNCTIONAL UNIT	28
TDEC GENERAL AND ADMINISTRATIVE EXPENSES	29
TITLE V EXPENSE ESTIMATES	30
SUMMARY OF COST SAVING INITIATIVES	32
HISTORIC TITLE V COLLECTIONS AND EXPENSES	33
HISTORICAL TONNAGE PROJECTIONS & COLLECTIONS AND HISTORICAL FEES	34
HISTORICAL FEDERAL PRESUMPTIVE MINIMUM AND PART 71 FEES	36

Executive Summary

Title V Workload Analysis
By the
State of Tennessee
Department of Environment and Conservation
Division of Air Pollution Control

Title V of the Clean Air Act (CAA) and its implementing regulations in 40 CFR Part 70 require the Division of Air Pollution Control to operate a Title V Operating Permit Program. Paragraph 502(b)(3) of the CAA and 40 CFR 70.9 require the collection of fees sufficient to fully fund the program. The proposed methods for implementation and the evidence of financial adequacy to implement and operate a federally approved CAA Title V Operating Permit Program (Title V Program) are described herein.

The CAA Amendments of 1990 included many changes and substantive differences in the body of regulations that comprise the CAA. None are as far reaching in effect as the regulations that detail the procedures for an operating permit program for air contaminant sources and for assessment and collection of fees to allow the regulated sources to pay for the permitting related activities. Each permitting authority identifies, inventories, assesses, and issues permits to all affected sources. Title V fee collection must provide the means for each state air pollution program or permitting authority to fully fund Title V work efforts.

The Division of Air Pollution Control (the Division or APC) within the Tennessee Department of Environment and Conservation (TDEC or the Department) is responsible for permitting air contaminant sources in Tennessee. Upon review and acceptance of the Title V permitting program by the United States Environmental Protection Agency (EPA) on August 28, 1996, the Division became the State's major source Title V permitting authority in 91 of 95 counties in Tennessee. Davidson, Hamilton, Knox and Shelby counties have local air pollution control programs that operate under Certificates of Exemption from the Tennessee Air Pollution Control Board. These agencies regulate the Title V sources within their jurisdictions that are not owned by the State of Tennessee. Local air program activities are not addressed in this plan. TDEC retains the permitting authority for state-owned sources in these counties.

Title V related activities are projected to require 51.6 full-time equivalent (FTE) positions in fiscal year 2022-2023 (FY2023).

This Implementation Plan consists of eleven (11) separate functional units within the Division, plus the Small Business Environmental Assistance Program[1], which has various responsibilities and functions related to Title V. Briefly, these units are:

Administrative Services
Director's Office
Small Business Environmental Assistance
Compliance Validation
Enforcement
Field Services
Permitting
Regulatory Development
Emissions Inventory and Special Projects
Ambient Monitoring Quality Control
Ambient Monitoring Quality Assurance

The activities of each of these units are described in this Workload Analysis. Each functional unit has identified the portion of total workload that can be attributed to Title V activities. In addition to the activities described in this plan, support services are provided to the Division by other bureaus, divisions, and offices within TDEC and the Bureau of Environment (BOE). Each of the divisions and offices within TDEC are charged for these services in accordance with formulae established by TDEC and BOE. A portion of these TDEC General and Administrative (G&A) expenses are charged to Title V fees. Further descriptions of these support services are described in the section of this plan entitled "TDEC General and Administrative Expenses".

The part 70 presumptive fee rate ($/ton) effective for the 12-month period of September 1, 2021 through August 31, 2022 is $TBD. This fee rate represents an increase of TBD% (or $TBD) from the fee rate in effect for the prior 12-month period ($52.79). This increase is based on a calculation of the average monthly change in the Consumer Price Index (All Urban Consumers) for the 12-month period of September 2020 through August 2021 as reported by the U.S. Bureau of Labor Statistics. This information is included for reference purposes only, since Tennessee's Title V fees are not currently based on the federal presumptive minimum fee rate.

[1] Subparagraph 502(b)(3)(A) of the CAA requires that the costs of programs established to fulfill the requirements of section 507 of the CAA (i.e., small business stationary source technical and environmental compliance assistance programs) be funded by Title V fees.

INTRODUCTION

Title V of the CAA mandates that states develop a major source operating permit program, commonly called the Title V Operating Permit Program. The CAA further mandates that the program be funded solely through fees collected from affected sources. Additionally, the CAA requires that the activities of a Small Business Assistance Program must be paid through these fee collections. Subparagraph 502(b)(3)(A) of the CAA requires that a state must establish a fee schedule that results in the collection and retention of revenues sufficient to cover the permit program costs. Subparagraph 502(b)(3)(B) of the CAA states that a fee program shall be deemed adequate if the amount of fees collected is no less than $25 per ton of actual emission, as adjusted by the percentage, if any, by which the Consumer Price Index for the most recent calendar year ending before the beginning of such year exceeds the Consumer Price Index for the calendar year 1989 (i.e., the "presumptive minimum" fee). Should a state elect to establish a fee schedule that would result in the collection and retention of an amount less than the amount that would be presumed to be adequate using the presumptive minimum fee approach, the state must provide a detailed accounting that its fee schedule meets the requirements of 502(b)(3)(A). The Tennessee Air Pollution Control Board has historically elected to prepare an annual workload analysis and set the fees for the current and upcoming year(s) instead of using the presumptive minimum approach.

EPA regulations promulgated to implement and more thoroughly describe Title V may be found at 40 CFR Part 70. Section 70.9 of the federal regulations describes the requirements for the fees in detail.

The workload analysis is prepared in accordance with Tennessee Air Pollution Control Regulation (TAPCR) 1200-03-26-.02(9)(d) to provide justification of fees to the public, the regulated community and the EPA. Additionally, disclosure of this information leads to the development of informed consent and, therefore, acceptance of the program by stakeholders.

On February 10, 2021, the Division issued a Title V workload analysis that covered fiscal year 2021-2022 (FY2022). This workload analysis reflects projected workload for fiscal year 2022-2023 (FY2023).

Many complex requirements are mandated in the CAA and the Part 70 regulations that serve to demonstrate that the state permitting agency will be able to carry out its responsibilities. Section 70.4(b)(8) calls for a description of the program, a demonstration of fiscal soundness of the planned program based on fee projections, and planning for adequate personnel to administer the program.

Several things could happen to require that the workload analysis be revised and subsequently modified. These possibilities include but are not limited to:

- Changes in the air contaminant source population will alter the workload. Many sources have obtained "conditional major" status wherein they opt out of Title V by limiting their potential to emit via a federally enforceable limitation. The Division views the work effort to make a Title V source a conditional major source as Title V work. These sources require more frequent inspections and record reviews to verify that they are operating below the Title V thresholds; and

- Changes in applicable requirements mandated by EPA will also alter the workload.

The workload analysis is provided for each functional unit of the Division. The work of each unit plus the Title V work from the Small Business Environmental Assistance Program is described as it relates to the requirements of Title V. Estimated hours necessary to accomplish the task and, for some functional units, the numbers of tasks to be completed per year are projected.

Combining the hours projected to complete the Title V work and dividing it by 1,609 hours per employee available work time yields the total number of full-time equivalents (FTEs) needed to conduct Title V work.

The 1,609 hours of work time per employee was derived as follows:

Scheduled Payroll Hours per Year	=	1950
Less: Holiday, Vacation & Sick Leave Hours (12.5 Days + 21 Days + 12 Days) X 7.5 hrs./day	=	- 341
Total Work Hours per Employee	=	1609

For many of the work units described in the following sections, the Title V eligible work associated with members of each work unit are estimated as a percentage of total time. All employees are required to enter work time into the Department's personnel management system known as Edison for payroll purposes. Starting with FY2018, the Division made changes to the Edison system that tied all time and other expenses, such as travel expenses, directly to the appropriate funding source. For the Division of Air Pollution Control, available funding types include Title V, non-Title V[2], and EPA's fine particulate matter grant. This system also allows the Division to track time and expenses on a program and location level. For all work activities that could not be directly related to a funding type, such as training, administrative functions, and leave, time is charged to a pre-set Title V/non-Title V "split" ratio. The split ratio was initially set based on a historical ratio of 52% Title V/48% non-Title V. For most of the work units described in this workload analysis, Title V and non-Title V workload estimates for FY2023 are based on actual data obtained during FY2021 as specified in following sections of this analysis. These changes to Edison have resulted in a significant improvement in assessing the percentage of each work unit's time, Title V work, and, as a result, a better estimate of future Title V expenses.

In addition to Edison, most of these work units track Title V and non-Title V time on a daily basis using the Division's database known as Smog Log. Smog Log allows some work units to track time spent on specific projects, such as a permit or inspection.

[2] Non-Title V funding includes annual emissions fees paid by non-Title V facilities, construction permit application fees, modification permit application fees, motor vehicle emissions inspection and maintenance (I&M) fees, visible emissions certification fees, section 105 air quality grant funds received from EPA, state appropriations, and civil penalties. The Division has requested elimination of the I/M program from EPA. Thus, it is anticipated that this program and the I/M fees will be eliminated prior to FY2023.

ADMINISTRATIVE SERVICES

Administration involves activities both directly and indirectly associated with support of the Title V Program. These activities include permit and report tracking, issuance of Notices of Authorization to construct and operate under permits-by-rule, training coordination, processing travel claims, website management, APC board support, fee support, procurement, database management and support, and customer inquiries. The Administrative Services section also provides general administrative support for the entire Division including personnel activities, grants support, management of supplies, reception desk, etc.

Workload supports 3.95 FTEs of Title V work for Administrative Services.

CALCULATION BASIS	Except for work that is directly related to the Permit-by-Rule program (which encompasses only non-Title V sources)[3], Title V administrative activities are based on billing data compiled from FY2019 through FY2021 for the Administrative Services and the procurement staff member. The workload for this work unit includes the head of the Administrative Services team and her staff and the procurement staff member who reports to a different member of the Division's leadership team.
ASSUMPTIONS	The percentage of work that is Title V is assumed to be the same as historical workload.

Table 1 – Administrative Services Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
APC Data Management – Smog Log	2281	1.42
Administrative Support & Management	2747	1.71
Product Procurement	797	0.50
Office Supply Management	199	0.12
Record Maintenance	294	0.18
Training	34	0.02
TOTAL	**6352**	**3.95**

[3] The Administrative Services team also handles several activities related to the I&M program. It is assumed that this program will be eliminated by FY2023. I&M activities are not Title V activities and would not be reflected in this Title V workload analysis regardless of elimination of the program.

DIRECTOR'S OFFICE

The office of the Director is responsible for overseeing the operation of the functions necessary for the development and performance of the Division, including the Title V Program. The Director serves as the Technical Secretary of the Air Pollution Control Board and carries out all the statutory and regulatory responsibilities of the Technical Secretary. The Director's Office is also responsible for coordinating and providing technical support to the Air Pollution Control Board, as well as providing support to the Tennessee Emergency Management Agency during emergency events, both natural and manmade, that impact ambient air quality. The Director's office provides program direction and oversight, coordinating Departmental goals with Division programs and providing reporting, support documents and informational documents for the Department and legislature concerning the operation of the Division. The Director's Office is also responsible for the financial performance of the Division and all associated grant management and support. Included in the Director's Office are individuals who provide management and technical support for multiple programs within the Division. For the purpose of this workload analysis, the Director's Office includes the Director, the Deputy Director of Permitting and Regulatory Development, the Deputy Director of Environmental Measurement and Compliance Assurance, the technical lead for Environmental Measurement and Compliance Assurance, the Environmental Fellow, and the Business Administrator. Activities of the Deputy Director for Field Services and the Field Services technical lead are included in the Field Services portion of this analysis. Activities of the technical lead for Permitting and Regulatory Development are included in the Permitting portion of this analysis.

Workload supports 3.4 FTEs of Title V work for the Director's Office.

CALCULATION BASIS	Title V workload was calculated by the number of existing staff assigned to the Director's Office in this Workload Analysis times the percentage of their workload that is estimated to be Title V related. Percent Title V workload for the Deputy Director for Permitting and Regulatory Development is the average of the three programs he manages (Permitting, Regulatory Development, and Emissions Inventory; average = 51.5%) and the Deputy Director and the technical lead (EC4) for Environmental Measurement and Compliance Assurance is the average of the four programs they lead, excluding PM2.5 funded time (Technical Services, Quality Assurance, Compliance Validation, and Enforcement; average = 51.7%). The Title V percentage for each of these programs is based on billing data gathered during FY2019 through FY2021. Title V time for all other positions is based billing data compiled from FY2019 through FY2021 for the Administrative Services and Directors Office staff.
ASSUMPTIONS	It is assumed that the Title V activities of the Deputy Director of Permitting and Regulatory Development are the same percentage as the average of the Permitting, Regulatory Development, and Emissions Inventory program. It is assumed that the Title V activities of the Deputy Director and the technical lead of the Environmental Measurement and Compliance Assurance programs are the same percentage as the average of the Compliance Validation, Enforcement, Quality Control, and Quality Assurance programs. For all other positions, the percentage of work that is Title V is assumed to be the same as historical workload.

Table 2 – Director's Office Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Deputy Director of Permitting and Regulatory Development	828	0.51
Deputy Director and Technical Lead of Environmental Measurement and Compliance Assurance	1664	1.03
Three Other Director's Office Positions	2988	1.86
TOTAL	**5480**	**3.40**

SMALL BUSINESS ENVIRONMENTAL ASSISTANCE PROGRAM

Program Overview

Section 507 of the CAA requires an environmental compliance assistance program in each state to support small businesses in understanding and complying with air quality regulations. The CAA also requires that this program be funded entirely with Title V fees. Tennessee's program provides confidential assistance free of charge to small businesses. Services include permitting assistance, onsite visits, training, a toll-free hotline, regulatory notifications, outreach, and guidance in preventing and eliminating non-compliance situations. A small business is defined as one that has 100 or fewer employees, is not a major stationary source, and meets the federal Small Business Act's definition of a small business. TDEC policy has expanded the definition of Small Business to include any source that does not have an employee dedicated to environmental compliance.

Required Program Components

(1) State Ombudsman
The Small Business Ombudsman represents small business in regulatory matters, identifies, and proposes solutions to small business technical and compliance problems.
(2) Environmental Technical Assistance
Staff members provide technical, administrative, and permitting assistance. Staff members inform businesses of regulatory requirements in easy-to-understand language. When needed, staff members conduct on-site visits and provide training opportunities.
(3) Compliance Advisory Panel (CAP)
An advisory panel comprised of individuals appointed by the Governor and the legislature, plus one Department representative, is required. The Panel advises and provides technical, administrative and evaluation assistance to the program. The CAP is a seven-member panel.

Program Activities

New Regulations/Sources

- Staff members review regulations, determine potentially impacted sources, develop a strategy for notification and assistance, develop compliance assistance tools, conduct training programs, and work with regulatory programs on outreach activities.
- Staff members assist the Division of Air Pollution Control in developing regulations and programs that impact small businesses.
- Staff members assist potential new companies in understanding regulatory requirements.
- Staff members participate in monthly conference calls on regulations with other SBEAPs and EPA.

Existing Sources

- Staff members respond to small business compliance and permitting questions.
- Staff members monitor enforcement reports to determine sectors with compliance problems and develop compliance assistance strategies.
- Staff members assist companies in meeting permit conditions, including developing tools to meet recordkeeping requirements.
- Staff members assist companies in resolving non-compliance issues, as well as assisting companies in utilizing the Department's self-disclosure audit policy.

Workload supports 2.0 FTEs of Title V work for the Small Business Environmental Assistance Program.

CALCULATION BASIS

Title V of the Clean Air Act requires that activities of the small business assistance programs and the small business ombudsman be funded by Title V fees. Thus, the number of FTEs is based on the current staffing levels of the SBEAP program.

ASSUMPTIONS It is assumed that the SBEAP if fully staffed and that workload reflects historical levels.

Table 3 – Small Business Environmental Assistance Program Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Compliance assistance	1609	1.00
Workshops/training events	805	0.50
Material development	402	0.25
Regulatory Development/Notification	201	0.125
Administration/Other	201	0.125
TOTAL	**3218**	**2.0**

COMPLIANCE VALIDATION

The Compliance Validation Program is an enforcement tool for the Division. Compliance Validation provides a key component in the Division of Air Pollution Control's quality assurance program that ensures the accuracy of the data being submitted by Title V facilities certifying compliance.

The Compliance Validation Program maintains the capability to conduct stack testing. The program also retains the capability to: (1) address special situations as directed by higher management, and (2) ensure that all staff conducting stack test observations are adequately trained to competently observe stack testing conducted by contractors or facility personnel. Observation of stack testing ensures that all proper testing procedures are followed and that facility operation is representative of typical operation. This constitutes the major job function of the program. Observation of stack testing, followed by a technical review of the reports of this testing, constitutes a major Division effort to validate that the emissions values reported from Title V facilities are as accurate as possible. Continuous Emission Monitoring Systems (CEMS) are utilized by some Title V facilities to determine compliance on an on-going basis. Compliance Validation conducts audits of CEMS data to ensure the data submitted is accurate and reviews emissions reports of CEM data to verify compliance with emission standards. Compliance Validation conducts Visible Emission Evaluator Certification (VEE) schools to train state and industry personnel to certify compliance with visible emission standards. The majority of the work done by this group involves facilities is related to Title V.

Responsibility for asbestos renovation and demolition activities was moved to this program in FY2017, but this activity is not considered Title V. The "Other Compliance Validation Activity" category includes things such as administrative report preparation, file clean-up work, regulatory and SIP work, and assigned special projects previously incorporated into major work duties.

Workload supports 3.9 FTEs of Title V work for this program.

CALCULATION BASIS

Projected workload was estimated based on actual time and activity data for FY2021. One position in the Compliance Validation program is primarily dedicated to asbestos demolition and renovation work and is funded entirely by non-Title V funds. Personnel billing data from FY2019 through FY2021 indicates that approximately 63.6% of the remaining Compliance Validation program work is Title V related.

ASSUMPTIONS

It is assumed that FY2023 workload will be similar to historical workload.

Table 4 – Compliance Validation Program Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
CEMS/COMS Data Validation	382	0.24
Source Test Validation	2896	1.80
Stack Testing	201	0.12
CEMS/COMS Report Review	198	0.12
Visible Emissions Evaluation School	725	0.45
Program Management	912	0.57
Training	874	0.54
Other Compliance Validation Activity	124	0.08
TOTAL	**6312**	**3.92**

ENFORCEMENT

The Enforcement program is responsible for processing violations discovered in Tennessee by individuals, Division staff, other government agencies, and facilities. Processing of violations includes responding to the regulated community when a violation occurs, issuing Technical Secretary's Orders, issuing letters resolving noncompliance, and tracking penalties and compliance schedules in orders. Additionally, Enforcement staff track and quality assure (QA) compliance-related data using Smog Log. Much of this data is available to the public via the departmental data-viewer website. Enforcement also serves as a point of contact in enforcement matters between the Division and EPA Region 4.

The Enforcement program is also responsible for management and further development of the Division's Oracle database known as Smog Log. This includes writing and modifying code in development and then implementing revisions with the assistance of the State of Tennessee's Strategic Technology Solutions. Enforcement staff members review requests from Division staff for additional features to help determine which requests should be implemented as time and resources allow.

Enforcement staff members update EPA's Compliance and Enforcement database (Integrated Compliance Information System [ICIS-Air]) on a weekly basis, ensuring the data in the Smog Log database is properly reflected in ICIS-Air. Enforcement is also responsible for entering and quality assuring all data entered in ICIS-Air. The data reported to ICIS-Air includes inspections, report reviews, stack tests, continuous emission monitoring audits, formal and informal enforcement actions, penalties assessed and collected, Federally Reportable Violations, High Priority Violations, facility status (Title V, non-Title V, CM), applicable air programs, facility operational status, etc. The data reported to ICIS-Air is available to the public via EPA's ECHO website.

Workload supports 2.4 FTEs of Title V work for this program.

CALCULATION BASIS

The total amount of workload for the program is estimated based on historical time and activity from FY2020 through FY2021. To determine what portion of that workload was Title V related, billing data compiled from FY2019 through FY2021 was evaluated and indicated that 50% of the Enforcement program work is Title V related.

ASSUMPTIONS

Much of the Enforcement Program workload is based on violations reported or discovered by the Division. The Division does not project future violations. Therefore, enforcement related activity is assumed to be the same as historical workload. Other activity of the program (such as database and computer-related activity) is assumed to remain unchanged.

Table 5 – Enforcement Program Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Enforcement Related Activities	1799	1.12
ICIS-Air Data Management	466	0.29
Smog Log Development	431	0.27
APC Data Management	184	0.11
Computer Hardware/Software Support	25	0.02
Training	38	0.02
Special Projects	206	0.13
Program Management	724	0.45
TOTAL	**3873**	**2.41**

FIELD SERVICES

Field Services program staff are located throughout the state in seven Environmental Field Offices: Johnson City, Knoxville, Chattanooga, Cookeville, Nashville, Columbia, and Jackson. Major duties accomplished by field services staff that are associated with the Title V Program include compliance inspections of Title V stationary sources, review of the majority of Title V semi-annual reports and annual compliance certifications, operation and maintenance of the state's ambient air monitoring network, and investigation and resolution of complaints.

Other Title V duties include responding to inquiries from citizens, local officials, and the regulated community; review and discussion of draft permits; follow-up on enforcement related issues; staff training; involvement in emergency response incidents; participation in public meetings and hearings, various special projects; and maintenance of reports, records and other correspondence.

Workload supports 12.1 FTEs of Title V work for this program.

CALCULATION BASIS

The number of Title V inspections is based on the current Compliance Monitoring Strategy Plan. Title V facilities will generally be inspected on a biennial basis unless the division receives a complaint on the facility, the facility is categorized as a "mega-site," or the facility had compliance issues during the previous on-site inspection. Total inspection workload is based on the number of planned inspections and average inspection time. Average inspection time is based on the actual time from federal fiscal year 2020 (October 1, 2019 through September 30, 2020). The average inspection time included the time spent on reviewing reports. Title V complaint workload is estimated to be 5% of the total complaint workload. Workload associated with the ambient monitoring network is based on actual data for FY2019 through FY2021. The remaining work, including program management, is estimated to be 45% Title V related. This percentage is based on billing data from FY2019 through FY2021.

ASSUMPTIONS

It is assumed that on-site inspections of Title V sources will generally be conducted on a biennial basis unless the division receives a complaint on the facility, the facility is categorized as a "mega-site", or the facility had compliance issues during the previous on-site inspection. It is assumed that the average time for each inspection will be the same as historical data. It is assumed that report review time is consistent with recent historical data. It is assumed that the percentage of complaints related to Title V sources will be similar to historical levels.

Table 6 – Field Services Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Title V Inspections	5055	3.14
Report Reviews	3255	2.02
Complaint Investigations	222	0.14
Ambient Monitoring	2756	1.71
Training	989	0.61
Review of Draft Permits	337	0.21
Special Projects	1124	0.70
Program Management	2607	1.62
Environmental Assistance	315	0.20
Environmental Response	130	0.08
Meetings	1124	0.70
Administrative Activities	1573	0.98
TOTAL	**19,487**	**12.11**

PERMITTING

Permitting staff are located in the Nashville Central Office and the Knoxville Environmental Field Office. The permitting program consists of four sector-based permitting sections. Each section consists of one Environmental Manager 3, one Environmental Consultant 3, and four to five permit writers. A Deputy Director oversees the entire program with the technical assistance of a TDEC-Environmental Consultant 4 (EC4). The Deputy Director's time is included in the Director's office and the EC4 time is included here.

Responsibilities:

The Permitting program has the following responsibilities:

- Issuance of minor source construction and operating permits; review of and response to insignificant activity determinations; issuance of minor source operational flexibility determinations; and issuance of general permits and general permit Notices of Coverage (funding for minor source permitting is not included in this analysis)
- Issuance of conditional major source construction and operating permits (only funding of the first conditional major operating permit that must undergo Title V public notice procedures for a facility is included in this analysis)
- Issuance of construction permits and Title V operating permits to Title V facilities
- Issuance of administrative amendments, minor modifications, and significant modifications to Title V operating permits, as well as operational flexibility determinations
- Issuance of Prevention of Significant Deterioration (PSD) and Non-Attainment New Source Review (NSR) construction permits, including plantwide applicability limit (PAL) permits
- Review of most MACT and NSPS reports, some Title V semi-annual reports (SARs), some annual compliance certifications (ACCs), and review of plans required by MACT and GACT standards (the remaining MACT and NSPS reports, SARs, and ACCs are reviewed by the Field Services Program)
- Issuance of Notices of Violation; assistance to the Enforcement Program, TDEC's Office of General Counsel, and EPA's Office of Enforcement and Compliance Assurance pertaining to enforcement of violations discovered by the Permit Program
- Review of Title V fee Actual Emissions Analysis Report (AEAR) calculations
- Special projects as assigned (only those projects related to Title V issues are included here)
- Attendance at training sessions to stay knowledgeable about federal and state requirements, and remain familiar with source types and new emission control devices
- Management of the sections to ensure that the permitting program operates efficiently

Table 7 below shows the number of applications, modifications and reports in the system as of July 2021. Table 8 is a projection of the hours that will be necessary to review and complete current and new submittals, conduct report reviews, perform Title V related fee duties, enforcement, special projects, and for necessary technical training.

Table 7 – Current and Anticipated New Applications, T5 Sources Only

ACTIVITY	Currently in System as of July 2021	EXPECTED NEW SUBMITTALS IN FY2023
T5 Construction Permits - Non-Major NSR	10	44
T5 Construction Permits - Major NSR (PSD)	3	4
T5 Construction Permits - Major NSR (Non-Attainment)	0	0
Major NSR Plant Wide Applicability Limit (PAL) Permits	0	1
Title V Sources – Initial	4	3
Title V Sources – Renewal	47	56
CAIR and Acid Rain Permits	1	1
Significant Modifications	13	15
Re-opening for Cause	2	2
Minor Modifications	29	75
Administrative Amendments	12	45
Operational Flexibility and 502(b)(10) Changes	3	40
Construction Permit Amendment for Title V Source	3	30
Initial Issuance Conditional Major Sources	5	4
T5 Semi-annual Reports and Annual Compliance Certifications*	5	69
T5 MACT, NSPS, and Miscellaneous Reports*	3	301
T5 AEAR Reports	13	104

*This is the number of reports expected to be reviewed by Permit Program staff. The majority of Title V semiannual reports and compliance certifications will be reviewed by Field Services staff.

Annual planning workload analysis indicates a total of 14.2 that an additional FTE of Title V workload. The Division intends to manage the workload as detailed in the assumptions below. Therefore, the Division has determined that workload supports 13.7 FTEs of Title V work for this program.

CALCULATION BASIS

Permitting activity is based on the actual activity data from FY2021 and planned activity for FY2023. The number of projected Title V construction permits and construction permit amendments to be received was estimated based on the percentages of these two activities for Title V sources for the past three years. The number of Title V renewal applications is based on the number of Title V permits expected to expire between 12/31/2022 and 12/31/2023. The number of initial Title V permits expected is based on the number of greenfield PSD permits projected to be issued in FY2022. Workload for each permitting activity is calculated by multiplying the estimated number of each activity by the average estimated time for each type of activity. The average time for each activity type was derived mostly using data from FY2021 and considering data from FY2019 through FY2020 for some categories. The Title V portion of program management,

training, special projects, and other permitting time is based on the average Title V percentage for all permit program activities for FY2019 through FY2021 (48.3%). There is one Environmental Consultant 3 that is not located in the Permit Program but who does some permitting work. Approximately 50% of that individual's time is Title V permit-related and is reflected in this section of the Workload Analysis. The remainder of that individual's workload is associated with the Regulatory Development Program.

ASSUMPTIONS

It is assumed that the percentage of construction permits and construction permit amendments for Title V sources is the same as recent data. There are 12 facilities in the state with Acid Rain permits. Based on the expiration dates of those permits, it is assumed that one will be issued in FY2023. It is assumed that two Title V permits will need to be reopened for cause in FY2022 due to ongoing SIP development work. It is assumed that the number of initial Title V permit applications received in FY2023 is equal to the number of PSD permits projected to be issued in FY2022. PSD and PAL workload is based on the assumption that the increased economic development in Tennessee that began in FY2021 will continue through FY2023. For the sake of this workload analysis, all EC4 workload is included with the permitting program even though that position also does rule and SIP development, fee-related work, and supports other programs within the Division. That position's work is not counted elsewhere in this analysis.

Due to hiring of new staff members to fill held vacancies during the past two years and the need to train that staff prior to their ability to perform independent permit work, there were 13 backlogged (past the regulatory deadline) Title V actions at the end of FY2021. This number is expected to grow in FY2022. It is assumed that the eight new permit staff (three hired in FY2020 and five hired in FY2021) will be trained to the point that they can handle a full workload in FY2023. It is assumed that management and senior permit staff will continue to work beyond the state's regular weekly work hours to meet permit deadlines. It is also assumed that as the result of several permit efficiency improvements that were recently completed or under development (e.g., revised SOPs, new permit templates and standard conditions, new permit writer training program), permitting efficiencies will increase. As a result of these assumptions, it is assumed that the permitting program will be able to process incoming applications at the rate that they are received, and the permit backlog will begin to be reduced in FY2023. However, if some or all of these assumptions do not come to fruition or the business needs continue to increase at an unexpected rate, additional resources (i.e., FTEs) may be needed to satisfy the Title V permitting program workload. If additional FTEs are needed, they will be addressed in future workload analyses.

Table 8 – Projected Permitting Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Title V sources permit preparation – new sources	537	0.31
Title V sources permit preparation – renewals	5799	3.63
CAIR and Acid Rain Permits	9	0.01
Initial Issuance Conditional major sources	432	0.27
Significant Modifications	480	0.30
Re-opening for Cause	60	0.04
Minor Modifications	1350	0.84
Administrative Amendments	506	0.31
Operational Flexibility and 502(b)(10) Changes	200	0.12
Non-major NSR construction permits and amendments for Title V sources	1293	0.80
Major NSR permits	1900	1.18
PAL permits	365	0.23
Semiannual Report and Annual Compliance Certification Review	185	0.11
MACT, NSPS, and Miscellaneous Report Review	677	0.42
AEAR Report Review	293	0.18
Program Management	2438	1.52
Training	1365	0.85
Special Projects	975	0.61
Other Title V Permitting Time[4]	3138	1.95
TOTAL	**22,002**	**13.68**

[4] Other Permitting time includes APC Board support, complaint investigation, corresponding with EPA, work with multi-jurisdictional organizations, corresponding/assisting the public, enforcement activity, fee support, administrative activity, and General Permit and Permit-by-Rule development.

REGULATORY DEVELOPMENT

The Regulatory Development program has the following responsibilities[5]:

- Development of revisions to Tennessee's air quality rules
- Development of revisions to Tennessee's State Implementation Plan (SIP)
- Computer modeling (dispersion modeling) to support the Division's permitting program
- Photochemical computer modeling to support the development of SIPs
- Mobile source computer modeling using U.S. EPA's MOVES[6] platform to support development of SIPs (non-Title V work).
- Policy analysis and development to assist TDEC's Policy Office or to address air quality-specific issues that are not assigned to the Policy Office
- Special projects as assigned
- Attendance at training sessions to stay knowledgeable of federal and state regulatory and SIP requirements, and technical training related to air pollution sources and controls
- Local program coordination with the four local air programs (Nashville/Davidson, Memphis/Shelby, Chattanooga/Hamilton, and Knoxville/Knox) to ensure local air regulations are as stringent as State requirements, as well as other oversight and coordination duties
- Management of the program to ensure it operates efficiently
- Managing all aspects of the Middle Tennessee and Hamilton County vehicle emission testing programs and their associated functions, including contract negotiation and administration, public outreach, vehicle exemptions, waivers/variances, rule development and mobile model analyses. (This is non-Title V work and it is assumed to have ended by FY2023.)
- Transportation conformity involving the development of mobile emission budgets, calculation of emission credits associated with mobile sources using the latest version of the EPA Mobile model, and production of periodic emission inventories of the sources for submission to the EPA. Conformity responsibilities include implementation of any new rules or guidance, as well as being an active participant in the Interagency Consultation Procedures. Consultation Procedures involve EPA, FHWA, TDOT, state and local air agencies, and Metropolitan Planning Organizations (non-Title V work)
- Coordination and participation in the implementation of diesel retrofit grant programs, including writing proposals for grant opportunities, overseeing the grant process, fulfilling grant requirements, and providing technical support to other TDEC offices regarding diesel retrofit technology (this is non-Title V work, much of which is scheduled to be transitioned to TDEC staff outside the Air Division by FY2023.)

Workload supports 3.0 FTEs of Title V work for this program.

CALCULATION BASIS

Of the work that will be performed by the Regulatory Development program, there are two categories (mobile source modeling and transportation conformity) that are completely non-Title V related. Billing data from FY2019 through FY2021 indicated that 47.7% of non-mobile source related work was Title V related. Thus, for the sake of this workload analysis, 47.7% of all other work, including program management, was estimated to be Title V fundable.

ASSUMPTIONS

It is assumed that the percentage of work that is Title V related is consistent with historical workload from the past three years. It is assumed that the motor vehicle emissions inspection

[6] Motor Vehicle Emissions Simulator

program was terminated and that coordination of diesel retrofit programs is transferred outside of APC prior to the beginning of FY2023. It is assumed that resources made available by these changes will be utilized to meet the rule and SIP workload demand.

Table 9 – Regulatory Development Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Rule Development	1228	0.76
SIP Development	921	0.57
Permit and Photochemical Modeling	1535	0.95
Local Program Support	307	0.19
Special Projects	384	0.24
Project Management	537	0.33
TOTAL	**4912**	**3.04**

EMISSIONS INVENTORY AND SPECIAL PROJECTS

The Emissions Inventory and Special Projects program has the following responsibilities:

- Collecting, quality assuring, and reporting annual and triennial emissions inventories from stationary sources
- Developing and submitting triennial emissions inventories for on-road mobile, non-road mobile and area source inventories (non-Title V work not included in this analysis)
- Managing the Division's Air Emission Inventory databases and updating EPA's databases
- Development and implementation of the Division's online system (SLEIS) for collecting annual and triennial emissions inventories and AEAR reports including training of regulated sources
- Requesting and collecting (SIP-required) annual NOx and VOC emission statements from sources in applicable counties and providing technical assistance to those sources
- Providing technical support to the Department's Division of Fiscal Services pertaining to air permit-related fee invoicing and tracking of fee payment
- Title V fee AEAR tracking, review, data management, and, when necessary, enforcement
- Annual Title V and non-Title V fee invoicing and collections (only work relating to Title V fees is included in this analysis)
- Revisions to Title V and non-Title V fee systems (only work relating to Title V fees is included in this analysis)
- Special projects as assigned (only those projects related to Title V issues are included here)
- Attendance at training sessions to stay knowledgeable about federal and state emissions inventory requirements and technical training related air pollution sources and controls
- Providing assistance for virtual board meetings and other virtual meetings and hearings
- Management of the program to ensure it operates efficiently

Workload supports 2.6 FTEs of Title V work for this program.

CALCULATION BASIS Workload for each task was estimated based on actual time and activity data. The percent of the program's work that is Title V related is based on billing data from FY2019 through FY2021. Billing data compiled from all activities documented from FY2019 through FY2021 indicates that 65% of the Emissions Inventory and Special Projects program work was Title V related.

ASSUMPTIONS It is assumed that this percentage of work that is Title V related is consistent with historical workload.

Table 10 – Emissions Inventory and Special Projects Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Emission Inventory	2302	1.43
Fee Development, Invoicing, and Support	1046	0.65
Program Management	628	0.39
Special Projects	209	0.13
TOTAL	**4185**	**2.60**

AMBIENT MONITORING QUALITY CONTROL

There are two programs that are responsible for the Division's Ambient Monitoring Network, the Quality Control program and the Quality Assurance program. The Quality Control program was previously referred to as Technical Services. The primary responsibility of the Quality Control program is to monitor ambient air quality across the state to assess compliance with national ambient air quality standards. This is accomplished by operating a network of air monitoring stations throughout the state that record air quality data that is subsequently stored in EPA's national database. The work requires continuing evaluation of all monitoring sites to ensure that each site conforms to federal ambient air quality monitoring site criteria and remedying or relocating the sites to the extent necessary to render the site compliant. Monitors require bench and field servicing to ensure all components of the monitors are in compliance with manufacturer specifications and EPA requirements and are calibrated to assure they give a true reading of air quality. Shelter maintenance is also required to make certain the internal shelter temperatures meet federal requirements, that the shelters have no air/water intrusion leaks, that periodic theft and vandalism damages are rectified, and that the electrical/data communication lines are properly connected. In the event of a lightning strike, significant effort must be undertaken to restore the site's operability. While the ambient air monitors measure the emissions impact of all types of air contaminant sources, a portion of those sources are Title V sources and those sources must pay a portion of monitoring expenses.

Workload supports 2.5 FTEs of Title V work for this program.

CALCULATION BASIS

Projected workload was estimated based on actual time and activity data for FY2021. The Division receives CAA section 103 grant funds each year to partially fund the Quality Control program's personnel costs. As a result, approximately 20% of the Ambient Monitoring program's personnel costs is paid using section 103 funds. Upon request of the Air Pollution Control Board, the Division determined the proper cost allocation for the ambient monitoring network (which includes both the Quality Control program and the Quality Assurance program as well as a portion of the Field Services program) based on the sources of air pollutants and precursors in Tennessee. The findings of this analysis were presented to the board on June 10, 2020 and showed, that after subtracting the portion of the PM2.5 network funded by section 103 funds, the proper cost allocation is 52% Title V and 48% non-Title V. When combining these percentages, projected Technical Services workload is estimated to be 42% Title V, 38% non-Title V, and 20% section 103.

ASSUMPTIONS

It is assumed that there will be no significant changes to the network as the result of federal or state requirements.

Table 11 – Quality Control Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Data Management – Input	42	0.03
Data Verification	1260	0.78
Document Development	126	0.08
Equipment Repair, Calibration, and Certification	1176	0.73
Monitoring Site Evaluation and Documentation	84	0.05
Personnel Activities	378	0.23
Program Management	588	0.37
Special Projects	126	0.08
Technical Systems Audit	147	0.09
Training	147	0.09
TOTAL	**4074**	**2.53**

QUALITY ASSURANCE

There are two programs that are responsible for the Division's Ambient Monitoring Network, the Quality Control program and the Quality Assurance program. The Quality Assurance program provides an independent review of ambient air quality monitoring measurements and data reduction/reporting of those measurements prior to uploading the data to EPA's national ambient air database. This process is referred to as data validation. The program is also responsible for the coordination, development, and review of Standard Operating Procedures (SOPs) for each type of ambient air monitor used, Quality Assurance Project Plans (QAPPs), and any other documents that may be necessary to ensure that quality procedures have been developed and are being followed by operators of ambient air monitors in Tennessee for regulatory purposes. Having data that is trusted to be accurate is essential for compliance with federal requirements, regulatory decision making, and for the public to know, with assurance, the quality of the air they breathe.

In addition to developing quality assurance documents and making certain that they are followed, the staff of the Quality Assurance program periodically audit monitoring sites operated within Tennessee's State or Local Air Monitoring Stations (SLAMs) network and sites at industrial facilities. The purpose of these audits is to ensure that ambient data being collected for evaluating regulatory compliance meet quality standards. If issues arise during these performance audits, Quality Assurance staff are responsible for coordinating a corrective action plan with the monitoring site operation personnel to minimize data loss.

The meteorology staff members are responsible for air quality forecasting. These staff members use meteorological parameters and current air quality conditions to predict future air quality. The forecast information is provided to the public so that informed decisions can be made to protect health and also to plan activities that lessen impact on air quality during high pollution days.

Workload supports 2.1 FTEs of Title V work for this program.

CALCULATION BASIS

Projected workload is based on time and activity data. Similar to information presented in the Quality Control section of this workload analysis, the Division receives CAA section 103 grant funds to partially fund the Quality Assurance's personnel cost. Using the same calculations as described in that section, projected Quality Assurance program workload is assumed to be 20% section 103, 42% Title V, and 38% non-Title V.

ASSUMPTIONS

It is assumed that there will be no significant changes to the network as the result of federal or state requirements.

Table 12 – Quality Assurance Title V Workload

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Air Quality Forecasting	462	0.29
AQS Data Validation	420	0.26
Field Auditing	252	0.16
Local Program Field Auditing	378	0.23
Audit Equipment Repair, Calibration, and Certification	420	0.26
Certification and Calibration for Local Programs	84	0.05
Personnel Activities	84	0.05
Program Management	504	0.31
Document Development	84	0.05
SOP Development	76	0.05
Training	126	0.08
Emergency Response	6	0.00
Special Projects	483	0.30
TOTAL	**3379**	**2.09**

SUMMARY OF FTEs BY FUNCTIONAL UNIT

The following table shows the projected FY2023 FTEs needed to complete all Title V activities as indicated in this workload analysis. In addition, the actual Title V FTEs for the past three fiscal years (FY2019 through FY2021) and projected Title V FTEs for FY2022 from the FY2022 Title V Workload Analysis are presented below.

Functional Unit	FY2019 Actual FTEs	FY2020 Actual FTEs	FY2021 Actual FTEs	Projected FY2022 FTEs	Projected FY2023 FTEs
Administrative Services[7]	3.3	4.2	3.9	3.7	4.0
Director's Office	3.7	3.1	2.4	3.2	3.4
Small Business Assistance	2.0	1.9	1.5	2.0	2.0
Compliance Validation	4.1	3.6	3.5	4.0	3.9
Enforcement	2.7	2.6	2.5	2.5	2.4
Field Services	14.1	14.2	14.1	11.6	12.1
Permitting	11.7	10.5	10.2	13.8	13.7
Regulatory Development	1.9	2.4	2.6	3.7	3.0
Emissions Inventory and Special Projects	2.6	2.5	3.2	2.8	2.6
Quality Control	2.5	2.1	3.1	2.5	2.5
Quality Assurance	1.9	2.5	2.2	2.1	2.1
Total Title V FTEs	**50.5**	**49.6**	**49.2**	**51.9**	**51.7**

[7] One position within the Administrative Services program reports to a member of the Leadership team. For FY2019 and FY2020, the Title V work associated with this position was included with the Director's Office. Since the work performed by this position is more administrative in nature, the Title V work associated with this position has been moved to the Administrative Services functional unit for FY2021 and beyond.

TDEC GENERAL AND ADMINISTRATIVE EXPENSES

In addition to Title V eligible costs incurred directly by the Division, the Division is assessed charges by the BOE and TDEC for a number of support activities provided by the other areas of the Department to support the activities of the Division. Some of the Title V related support activities and the offices that provide them are listed below.

- Services of the Commissioner, Deputy Commissioner, Chief of Staff, Assistant Commissioners, and Senior Advisor of the Bureau of the Environment – management and organizational support
- Communications Office – media relations
- Office of External Affairs – outreach and communication to department stakeholders, including local government, other government agencies, the regulated community, public interest groups, and citizens; public meeting and hearing support
- People and Organizational Development Office – all personnel related services including human resources, leadership, staff training, and development
- Office of General Counsel – rulemaking and SIP development support, enforcement activity, legislative services, administrative legal services, policy and guidance interpretation and development, emergency response, risk and safety planning
- Office of Policy & Sustainable Practices – support with rule, SIP, and policy development that require in-depth research, comparison to other state or national programs, or coordination with other state agencies or entities
- Budget and Financial Planning Division – budget development and management as coordinated with the overall department budget and fee collections
- Fiscal Services (Department of Finance & Administration)– accounting
- Purchasing Division – procurement of all necessary equipment and supplies, including monitoring network assets and field and office supplies, equipment inventory and asset management, property contracts, and vehicle services
- Records, Space, and Facilities Division – records and facilities management
- Field Office administrative support staff – support APC Field Services, Compliance Validation, Permitting, and Technical Services staff in seven field offices

G&A expenses are charged to the Division according to formulae based on the percentage of the Division's budget in proportion to that of other BOE division budgets and special reserve funds and the Division's headcount. The Division's G&A expenses are charged to Title V funds, non-Title V funds, and federal grant income.

TITLE V EXPENSE ESTIMATES

An important step in developing a Title V fee system is to estimate future expenses in order to determine if projected revenue, together with the available reserve balance, is sufficient to fund the Title V permitting program. As mentioned earlier, federal regulations preclude the use of non-Title V funds for funding Title V activities. Thus, a failure to collect sufficient funds through the Title V fee system would have significant ramifications on the efficacy of Tennessee's Title V Program and economic development within the state,and could eventually lead to federal intervention. Therefore, when designing a Title V fee system, the Division plans for a reserve at year-end to account for unexpected expenses and unanticipated reductions in fee revenue.

Historical and projected expenses are broken down into four categories: 1) salaries, longevity, and bonuses, 2) benefits, 3) Air Pollution Control (APC) General & Administrative (G&A) Expenses, and 4) TDEC G&A Expenses. APC G&A expenses include expenses such as travel, rent and utility costs for ambient monitoring sites, shipping costs, maintenance and repair costs, third-party professional and administrative expenses, office supplies, field and laboratory supplies, equipment purchases, and charges from other state agencies for services such as telephone and computer services, office rent, liability insurance, and general accounting, purchasing, human resources, and legal services. TDEC G&A expenses are described earlier in this document.

Personnel costs: Personnel costs include salaries, benefits, longevity[8] and bonus pay[9]. Personnel costs are based on the number of positions for each functional unit for FY2023 based on demonstrated workload explained in this Workload Analysis. Longevity and bonus costs are added to regular salaries based on historical levels (4.2% of salary) $25,000 is then added to account for terminal leave. Benefit costs are approximately 45% of salary costs.

APC General & Administrative (G&A) Expenses: APC G&A expenses are based on recent historical averages (FY2017 through FY2021) except for some categories that may have been significantly impacted by financial constraints and/or COVID-19, for which previous data was considered (e.g., 2016-2019). Also, previous data was used for categories which received additional one-time state funds provided in recent years by the legislature for the purpose of rehabilitating the state's ambient monitoring network (i.e., Project Restore).

TDEC General &Administrative (G&A) expenses: Not-to-exceed TDEC G&A expenses were provided by TDEC's Budget and Financial Planning Division.

[8] Longevity pay is based on years of service once an employee has been in state service a certain number of years.

[9] Bonus pay is a feature of the Tennessee TEAM Act's Pay-for-Performance system that awards employees for advanced and outstanding performance.

Table 14 – Historical and Projected Title V Expenses						
Expense Description	**FY2018**	**FY2019**	**FY2020**	**Preliminary[10] FY2021**	**Projected FY2022**	**Projected FY2023**
Regular Salaries, Longevity, & Bonus	$3,377,781	$3,546,448	$3,485,437	$3,449,044	$3,836,448	$3,913,177
Benefits	$1,494,311	$1,503,257	$1,463,404	$1,429,963	$1,660,001	$1,693,201
APC General & Administrative Expenses	$919,969	$653,654	$628,698	$456,996	$758,098	$790,369
TDEC General & Administrative expenses	$1,014,803	$0[11]	$0[11]	$937,100	$998,608	$1,028,566
Grand Total	$6,806,864	$5,703,359	$5,577,539	$6,406,562	$7,253,155	$7,425,340

[10] All expenses except TDEC G&A are through the end of fiscal year FY2021 but prior to close-out. TDEC G&A has not been posted for June 2021, so the amount shown is the "not to exceed" amount for FY2021. Final expenses will be available at a later date and should be included in the final workload analysis.

[11] No TDEC G&A expenses were charged to the Division in FY2019 or FY2020.

FISCAL MANAGEMENT AND COST SAVING INITIATIVES

The Division has made significant efforts in the last few years to establish an accurate financial accounting structure and work practices such that Division and Department expenses can be monitored and properly allocated. This system has been institutionalized within the Division and will continue in FY2023.

The Division will continue, in FY2023, to use travel and training resources efficiently and utilize video conferencing tools effectively.

The Division will continue and expand use of the state supported Alternative Workplace Solutions (AWS) to allow staff members to work from home in lieu of traditional offices. AWS has demonstrated efficiencies in productivity. Corresponding real estate changes, when completed, will provide cost savings.

The Division has completed the rulemaking process to eliminate the requirement to publish public notices for construction permits in a newspaper of general circulation in the area in which the proposed new or modified source is located. The Division will continue to post public notices on its website. This rule change is estimated to save approximately $55,000 per year. The Division experienced savings estimated at $40,000 in FY 2021 as the rule took effect about half-way through the fiscal year.

HISTORICAL TITLE V FEE AND EXPENSE DATA

Tables 15 and 16 on the next two pages show historical Title V information. Table 15 is based on income and expenses during each fiscal year, which runs from July 1st through June 30th. This table is intended to match up with fiscal budget periods. Table 16 provides emissions and financial information for each year of the Title V fee program since 2002. Each row in Table 16 contains information about the Title V fees that were due in a particular year based on that year's fee rates. In each year, the fees for a particular year are due in two different fiscal years. This table is intended to illustrate the trends in emissions and fee collections for each year's Title V fee system.

The two tables present information in slightly different time periods. Historically, Title V fees were based on allowable or actual emissions from July 1st of one year to June 30th of the next (i.e., the state fiscal year) and due on July 1st. Since it was usually impossible for a company to determine and report actual emissions on June 30th, fees based on actual emissions were usually received after July 1st, which is the next fiscal year. Since interest and late penalties don't apply until a fee is 15 days late, a large portion of Title V fees were received between July 1st and July 15th each year. There is also a provision in the fee rules that allow some companies (those paying on an actual or mixed emissions basis) to apply for a 90-day extension on reporting and paying fees. Thus, facilities that could not submit payments by July 15th could, and frequently did, request extensions until September 28th each year without incurring penalties. Both of these situations resulted in a significant amount of Title V fees being collected in the fiscal year following the year in which the fees are based. This is reflected in fiscal year 2015-2016 during which the financial practice of allowing payments received between July 1st and July 15th to be credited for the previous fiscal year ended.

In 2018, the Title V fee deadlines changed with calendar year based fees (which became an option to fiscal year based fees) due on April 1st of each year as well as an estimated 60% of a facility's fees due the same date for facilities that continued to determine fees based on fiscal year emissions. Fees based on allowable emissions are also due April 1st. Ninety-day extensions are still available for facilities who determine fees based on actual emissions. However, with these changes, a much larger percentage (approximately 95%) of Title V fees are now collected in the year in which the fees are based.

Note that the projected and collected tons indicated in Table 16 excludes allowable and reported actual tons for facilities that paid the minimum fee.

Table 15 – Historical Title V Collections and Expenses

Fiscal Year	Fees	Interest, penalties, and internet processing fees	Transfer In	Expenditures	Balance
2002-2003					$1,387,223.12
2003-2004	$5,780,573.30	$17,261.10		$5,299,426.96	$1,885,630.56
2004-2005	$5,773,095.32	$33,124.15		$6,289,281.06	$1,402,568.97
2005-2006	$6,806,903.33	$62,547.16		$6,604,384.65	$1,667,634.81
2006-2007	$6,170,217.54	$67,707.22		$6,993,064.19	$912,495.38
2007-2008	$7,116,004.10	$35,456.47		$7,254,796.79	$809,159.16
2008-2009	$7,939,773.17	$21,518.17		$6,613,669.61	$2,156,780.89
2009-2010	$7,587,853.93	$9317.34		$6,415,182.16	$3,338,770.00
2010-2011	$5,800,630.50	$5527.40		$7,261,266.44	$1,883,661.46
2011-2012	$6,336,163.20	$1636.87		$7,463,530.81	$757,930.72
2012-2013	$6,891,980.16	$1113.83		$6,844,668.87	$806,355.84
2013-2014	$6,844,856.89	$9484.30		$6,543,335.07	$1,117,361.96
2014-2015	$7,040,610.80	$1129.83		$6,694,005.01	$1,465,097.58
2015-2016	$5,321,521.83	$2108.31	$1,919,777.74[12]	$6,094,831.92	$2,613,673.54
2016-2017	$4,617,895.15	$9697.10		$5,687,186.70	$1,554,079.09
2017-2018	$6,293,711.88	$945.29		$6,818,383.34	$1,030,352.92
2018-2019	$6,347,961.86	$5268.62		$5,703,359.09	$1,591,187.35
2019-2020	$5,774,457.15	$7320.71		$5,577,539.13	$1,795,426.09
2020-2021	TBD	TBD	TBD	TBD	TBD

[12] During fiscal year 2015-2016, the Division determined that $1,919,777.74 in non-Title V expenses had been charged to Title V fees over a several year period. This was corrected at the end of fiscal year 2015-2016, resulting in an increased Title V fee balance at the beginning of fiscal year 2016-2017.

Table 16 - Historical Tonnage Projections & Collections and Historical Fees

Year Fees Due	Number Companies	$/Ton Allowable Emissions	$/Ton Actual Emissions	Minimum /Base Fee*	Projected Total Tons	Total Tons Collected	Projected Allowable Tons	Allowable Tons Collected	Projected Actual Tons	Actual Tons Collected	Projected Companies Paying Min./Base	Companies Actually Paying Min./Base	$ Amount Billed	$ Amount Collected
2021 non-EGU	TBD	$40.20	$64.20	$9000/ $5000	93,258	TBD	73,246	TBD	20,0013	TBD	TBD	TBD	TBD	TBD
2021 EGU	TBD	$57.00	$90.00	$9000/ $5000	19,850	TBD	6535	TBD	13,315	TBD	TBD	TBD	TBD	TBD
2020 non-EGU	202	$33.50	$53.50	$7500/ $4000	92,783	96,985	71,943	76,901	20,840	20,084	49	55	$4,361,916.31	$4,383,491.96
2020 EGU	9	$47.00	$75.00	$7500/ $4000	17,724	19,850	4264	6535	13,460	13,315	0	0	$1,341,788,20	$1,341,788.20
2019 non-EGU	204	$33.50	$53.50	$7500/ $4000	90,255	93,206	70,769	73,181	19,486	20,024	57	59	$4,413,431.57	$4,386,631.42
2019 EGU	9	$47.00	$75.00	$7500/ $4000	19,675	20,420	4323	8264	15,352	12,156	0	0	$1,336,098.20	$1,336,098.20
2018 non-EGU	201	$32.50	$43.00	$7500	78,116	86,627	58,114	63,343	20,002	19,284	109	107	$3,787,675.97	$3,780,175.97
2018 EGU	9	$39.00	$49.50	$7500	27,994	26,737	16,642	12,323	11,352	14,414	2	1	1,201,499.94	1,201,499.94
2017 non-EGU	205	$32.50	$43.00	$7500	83,580	108,057	65,071	76,008	18,509	21.292	108	98	$4,083,515.65	$3,916,319.73
2017 EGU	9	$39.00	$49.50	$7500	27,994	28,235	16,642	16,532	11,352	11,719	2	0	$1,224,857.24	$1,224,857.24
2016 non-EGU	205	$32.50	$43.00	$7500	124,500	100,365	104,000	81,260	20,500	19,105	105	97	$4,215,224.16	$4,059,712.98
2016 EGU	11	$39.00	$49.50	$7500	43,000	41,259	39,500	36,603	3500	4656	3	4	$1,691,011.45	$1,691,011.45
2015 non-EGU	205	$28.50	$39.00	$7500	119,500	114,977	102,000	99,567	17,500	15,410	201	200 (83 only paid base)	$4,739,853.72	$4,692,656.26
2015 EGU	10	$45.50	$56.00	$7500	48,000	49,781	46,000	47,616	2000	2165	10	10 (1 only paid base)	$2,362,785.29	$2,362,785.29
*2014 non-EGU	201	$28.50	$39.00	$7500	118,000	121,396	101,000	103,650	17,000	17,746	201	200	$4,712,238.32	$4,646,138.70
*2014 EGU	10	$45.50	$56.00	$7500	57,000	48,802	55,000	46,648	2000	2154	10	10	$2,318,133.81	$2,318,133.81
2013 non-EGU	211	$29.50	$40.00	$7500	184,000	125,576	160,000	105,256	24,000	20,320	105	102	$4,403,500	$4,096,563.73
2013 EGU	9	$45.50	$56.00	$7500	65,000	60,425	62,500	58,110	2500	2315	3	3	$2,795,416.43	$2,795,416.43
2012	214	$28.50	$39.00	$7500	200,000	190,232	175,000	165,782	25,000	24,450	105	108	$5,973,274.94	$6,167,959.21
2011	220	$24.50	$35.00	$6500	210,000	204,961	190,000	179,953	20,000	25,008	110	106	$5,682,497	5,800,630.50
2010	221	$28.50	$39.00	$7500	217,064	211,344.7	195,801	191,346	21,263	19,999	105	111	$7,298,632.70	$7,587,853.93
2009	239	$28.50	$39.00	$7500	217,064	232,996	195,801	206,725.8	21,263	26,271	115	110	$7,835,606.93	$7,939,773.17
2008	243	$26.50	$37.00	$7500	230,489	234,615.4	213,772	207,541.6	16,717	27,073.8	88	119	$7,394,083.80	$7,317,445.36
2007	244	$22.50	$33.00	$5000	257,989	236,936.8	238,232	214,385.8	19,757	22,551	100	96	$6,093,539.15	$6,095,634.93
2006	250	$21.50	$32.00	$4500	284,639	259,420	256,578	232,764	28,061	26,656	100	92	$5,976,181.77	$6,000,240.56
2005	264	$19.50	$30.00	$3500	324,896	290,030.7	294,836	262,405.1	30,050	27,625.6	80	80	$5,869,607.39	$5,874,970.52
2004	267	$19.50	$30.00	$2500	330,731	287,381.9	309,213	258,052.4	21,519	29,329.5	72	56	$6,024,377.47	$6,032,675.99

2003		$17.50	$28.00		321,279								$	$
2002		$13.00	$21.70		382,476								$	$

*For FY 2013-2014, the Division replaced the minimum fee of $7500 with a base fee of $7500. All sources with total allowable emissions (excluding CO) of 250 TPY or less paid only the base fee. All sources with total allowable emissions (excluding CO) greater than 250 TPY paid the base fee plus their total tonnage (excluding CO) times the applicable $/ton value (actual, allowable, or mixed basis). This is also the case for 2014-2015. In 2015-2016, the base fee was replaced with the minimum fee. A base fee was re-instated in 2018-2019 and the minimum fee was retained.

Table 17 - Historical Federal Presumptive Minimum and Part 71 Fees

Presumptive Minimum			Part 71	
Effective	**Fee Rate**		**Effective**	**Fee Rate**
Sept 1989 – Aug 1990	$ 25.00			
Sept 1990 – Aug 1991	$ 26.21			
Sept 1991 – Aug 1992	$ 27.59			
Sept 1992 – Aug 1993	$ 28.43			
Sept 1993 – Aug 1994	$ 29.30			
Sept 1994 – Aug 1995	$ 30.07			
Sept 1995 – Aug 1996	$ 30.93		Calendar Year 1996	$ 32.00
Sept 1996 – Aug 1997	$ 31.78		Calendar Year 1997	$ 32.88
Sept 1997 – Aug 1998	$ 32.65		Calendar Year 1998	$ 33.78
Sept 1998 – Aug 1999	$ 33.21		Calendar Year 1999	$ 34.35
Sept 1999 – Aug 2000	$ 33.82		Calendar Year 2000	$ 34.98
Sept 2000 – Aug 2001	$ 34.87		Calendar Year 2001	$ 36.07
Sept 2001 – Aug 2002	$ 36.03		Calendar Year 2002	$ 37.27
Sept 2002 – Aug 2003	$ 36.60		Calendar Year 2003	$ 37.86
Sept 2003 – Aug 2004	$ 37.43		Calendar Year 2004	$ 38.72
Sept 2004 – Aug 2005	$ 38.29		Calendar Year 2005	$ 39.61
Sept 2005 – Aug 2006	$ 39.48		Calendar Year 2006	$ 40.84
Sept 2006 – Aug 2007	$ 41.02		Calendar Year 2007	$ 42.43
Sept 2007 – Aug 2008	$ 41.96		Calendar Year 2008	$ 43.40
Sept 2008 – Aug 2009	$ 43.75		Calendar Year 2009	$ 45.25
Sept 2009 – Aug 2010	$ 43.83		Calendar Year 2010	$ 45.33
Sept 2010 – Aug 2011	$ 44.48		Calendar Year 2011	$ 46.00
Sept 2011 – Aug 2012	$ 45.55		Calendar Year 2012	$ 47.11
Sept 2012 – Aug 2013	$ 46.73		Calendar Year 2013	$ 48.33
Sept 2013 – Aug 2014	$ 47.52		Calendar Year 2014	$ 49.15
Sept 2014 – Aug 2015	$ 48.27		Calendar Year 2015	$ 49.93
Sept 2015 – Aug 2016	$ 48.49		Calendar Year 2016	$ 50.16
Sept 2016 – Aug 2017	$ 48.88		Calendar Year 2017	$ 50.56
Sept 2017 – Aug 2018	$ 49.85		Calendar Year 2018	$ 51.56
Sept 2018- Aug 2019	$ 51.06		Calendar Year 2019	$ 52.81
Sept 2019 – Aug 2020	$ 52.03		Calendar Year 2020	$ 53.81
Sept 2020 – Aug 2021	$ 52.79		Calendar Year 2021	$ 54.60
Sept 2021 – Aug 2022	TBD		Calendar Year 2022	TBD

Department of
Environment &
Conservation

Draft Title V Workload Analysis

August 11, 2021

Overview

- 1200-03-09-.02(9)(d)(iv): "The emission fee rates enumerated in subpart (iii) [dollar per ton rates] of this part must be supported by the Division's annual workload analysis that is approved by the Board."
- Not subject to rulemaking requirements of Uniform Administrative Procedures Act
  - Intend to make draft workload analysis available during public participation process for Title V fee rule, but workload analysis not subject to public comment or hearing requirements.
- Fiscal Year FY2023 (July 1, 2022 to June 30, 2023)

Workload Estimates (FTEs)

- Overall Workload Based on Actual Activity from FY2021 and Planned Activity for FY2022
- Title V Portion of Work Based on:
  - Actual Title V/Non-Title V Ratio from Edison, or
  - Title V Specific Activity Information (e.g., number of Title V inspections, number of Title V permits and modifications)
- One FTE = 1609 hours per year
  - Considers Holidays, Sick Leave, and Annual Leave

Draft FY2023 Workload Estimates (FTEs)

Functional Unit	FY20201Title V FTEs
Administrative Services	4.0
Director's Office	3.4
Small Business Environmental Assistance Program	2.0
Compliance Validation Program	3.9
Enforcement Program	2.4
Field Services Program	12.1
Permitting Program	13.7
Regulatory Development Program	3.0
Emissions Inventory and Special Projects Program	2.6
Technical Services Program	2.5
Quality Assurance Program	2.1
Total	**51.7**

Estimated FY2023 Title V Expenses

Category	Projected FY2022 Expenses
Regular Salaries, Longevity, & Bonuses	$3,913,177
Benefits	$1,693,201
Air Pollution Control General & Administrative Expenses	$790,369
TDEC General & Administrative Expenses	$1,028,566
Total	**$7,425,340**

Estimated Title V Fee Collections

- December, 2019 – APC Board Adopted Title V Fee Increase
  - Effective Starting with 2021 Fees
  - Projected Fee Collections = $6,819,868
- Actual 2021 Fee Collections
  - Actual Collections through June - $5,817,492
    - 52 Facilities Received Extensions Until 9/28/2021 for AEAR and Final Payment
  - Projected 2021 Collections - $6,273,492
  - For various reasons, the 2019 fee rule is projected to bring in about half a million dollars less than initially predicted.
  - Currently, it is unclear whether any of the half million will return in the long term.

Questions

Department of State
Division of Publications
312 Rosa L. Parks Ave., 8th Floor, Snodgrass/TN Tower
Nashville, TN 37243
Phone: 615-741-2650
Email: publications.information@tn.gov

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Sequence Number: _____
Notice ID(s): _____
File Date: _____

Notice of Rulemaking Hearing

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. § 4-5-204. For questions and copies of the notice, contact the person listed below.

Agency/Board/Commission:	Environment & Conservation
Division:	Air Pollution Control
Contact Person:	Lacey J. Hardin
Address:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor Nashville, TN 37243
Phone:	(615) 532-0545
Email:	Lacey.Hardin@tn.gov

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

ADA Contact:	ADA Coordinator
Address:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 22nd Floor Nashville, Tennessee 37243
Phone:	1-866-253-5827 (toll free) or 615-532-0200 Hearing impaired callers may use the TN Relay Service 1-800-848-0298
Email:	Jennifer.Katzenmiller@tn.gov

Hearing Location(s) (for additional locations, copy and paste table)

Address 1:			
Address 2:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue,		
City:	Nashville, Tennessee		
Zip:	37243		
Hearing Date :			
Hearing Time:		_X_CST/CDT ___EST/EDT	

Alternate Hearing Option

Method 1:	**You may also join electronically.** **Join by going to this link:** **https://urldefense.com/v3/__https://tngov.webex.com/tngov/j.php?MTID=m3523409d4da600861e44e229e8afb48d__;!!PRtDf9A!-TFztxrTx8nrR5SrDljXbs2MT9USuQ_Dvb0Nb9qtR4QgoEONngTTmmtdBOmaJlnF5g$** **Meeting number (access code): 171 773 5094** **Meeting password: iSVutVN5F83**
Method 2:	**Join by phone**

	1-415-655-0003 **Access code: 171 773 5094** **Global call-in numbers are available online at:** **Link for Global Call-in Numbers**

Additional Hearing Information:

If it is hard for you to read, speak, or understand English, TDEC may be able to provide translation or interpretation services free of charge. Please contact Lida Warden at (615) 532-0554 for more information.

The intent and purpose of the Tennessee Air Quality Act is to maintain the purity of the air resources of the state consistent with the protection of normal health, general welfare and physical property of the people, maximum employment, and the full industrial development of the state. To accomplish these objectives, it is necessary to issue construction and operating permits to certain sources of air pollution. Section 502(b)(3)(A) of the federal Clean Air Act (CAA) requires Tennessee, as a state approved by the United States Environmental Protection Agency (EPA) to administer a Title V major source operating permit program ("Title V program"), to collect "an annual fee, or the equivalent over some other period, sufficient to cover all reasonable (direct and indirect) costs required to develop and administer the permit program requirements[.]" To comply with this requirement, the State of Tennessee, Department of Environment and Conservation ("Department"), on behalf of the Air Pollution Control Board ("Board"), is proposing rule amendments that revise the amount of the dollar/ton ($/ton) fee rates, the base fee, and the minimum fee for electric utility generating unit (EGU) and non-EGU sources. The rule amendments also remove the exemption from payment of construction permit fees for sources that are paying annual emission fees pursuant to Tenn. Comp. R. & Regs. 1200-03-26-.02(9).

The proposed fee structure has been determined by the Department to be adequate for funding needs and the most responsive to comments received from stakeholders during the development process. The proposal increases the existing base fee of $5,000 to $6,000, the existing minimum fee of $9,000 to $10,000, the dollar per ton for non-EGU sources from $40.20/ton allowable to $48.50/ton and from $64.20/ton actual to $70.50/ton, and the dollar per ton for EGU sources from $57.00/ton allowable to $68.00/ton and from $90.00/ton actual to $98.50/ton.

There will be a public hearing before a hearing officer on behalf of the Board for the promulgation of amendments to the Tennessee Air Pollution Control Regulations. Revisions considered at this hearing may be adopted by the Board under Tennessee Code Annotated sections 68-201-105, 68-203-103(b)(2), and 68-203-105 which authorize the Board to promulgate rules. The comments received at this hearing will be distributed to the members of the Board for their review in regard to the proposed rule amendments. The hearing will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, Tennessee Code Annotated Title 4, Chapter 5, and will take place in person and electronically in _____ of the William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, ___ Floor, Nashville, Tennessee 37243.

Any individuals with disabilities who wish to participate in these proceedings or to review these filings should contact the Department to discuss any auxiliary aids or services needed to facilitate such participation. Such initial contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to _____ or the date such party intends to review such filings, to allow time to provide such aid or service. Contact the Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 22nd Floor, Nashville, Tennessee 37243, (615) 532-0200. Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298).

If you have any questions about the origination of these rule amendments, you may contact Lacey J. Hardin at (615) 532-0545. For complete copies of the text of the notice, please contact Lacey J. Hardin, Department of Environment and Conservation, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15th Floor, Nashville, TN 37243 or via e-mail at Lacey.Hardin@tn.gov.

All persons interested in the air quality of the state of Tennessee are urged to attend and will be afforded the opportunity to present testimony to the hearing officer regarding the promulgation of amendments to the Tennessee Air Pollution Control Regulations. Any person desiring to present lengthy comments should be prepared at the hearing to offer a written statement to be incorporated into the record. Written statements not presented at the hearings will only be considered part of the record if received by 4:30 p.m. CDT on _____, at the office of the Technical Secretary, Tennessee Air Pollution Control Board, William R.

Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243. Additionally, comments may be submitted via attachments through electronic mail until the close of business on _____. Comments may be submitted via e-mail to Air.Pollution.Control@tn.gov.

Revision Type (check all that apply):

X Amendment
___ New
___ Repeal

Rule(s) (**ALL** chapters and rules contained in filing must be listed. If needed, copy and paste additional tables to accommodate more than one chapter. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	**Chapter Title**
1200-03-26	Administrative Fees Schedule
Rule Number	**Rule Title**
1200-03-26-.02	Construction and Annual Fees

Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to https://sos.tn.gov/products/division-publications/rulemaking-guidelines.

Chapter 1200-03-26
Administrative Fees Schedule

Amendments

Subparagraph (a) of paragraph (5) of Rule 1200-03-26-.02 Construction and Annual Fees is amended by deleting it in its entirety and substituting instead the following:

(a) ~~On and after October 24, 1991, a~~ A responsible official applying for the construction permit [i.e. construction as defined in subparagraph (2)(j) of this rule] required by Rule 1200-03-09-.01 must pay a construction permit application filing/processing fee as set forth in subparagraph (5)(g), Schedule A of this rule ~~unless exempted from construction permit fees pursuant to subparagraph (9)(a) of this rule~~. The fee determined from subparagraph (5)(g), Schedule A of this rule shall be calculated based on increases in emissions of regulated pollutants.

Authority: T.C.A. §§ 68-201-101, et seq. and 4-5-201, et seq.

Part 1 of subparagraph (a) of paragraph (9) of Rule 1200-03-26-.02 Construction and Annual Fees is amended by deleting it in its entirety and substituting instead the following:

1. A responsible official of a major source or a source subject to paragraph (11) of Rule 1200-03-09-.02 (hereinafter, "Paragraph 11 source") must pay an annual fee to the State of Tennessee. A major source or Paragraph 11 source is not subject to the minor and conditional major source annual fees of paragraph (6) of this rule on or after July 1, 1994. ~~Once a major stationary source or Paragraph 11 source begins to pay major source annual fees pursuant to this paragraph (9), it will not be subject to the construction permit fees of paragraph (5) of this rule for any additional construction occurring at the source as long as the source remains a major source or Paragraph 11 source.~~

Authority: T.C.A. §§ 68-201-101, et seq. and 4-5-201, et seq.

Subparagraph (d) of paragraph (9) of Rule 1200-03-26-.02 Construction and Annual Fees is amended by deleting it in its entirety and substituting instead the following:

(d) 1. Notwithstanding the fee rates established by part 2~~.~~ of this subparagraph, a responsible official of any source subject to this paragraph (9) shall pay an annual base fee of ~~$5,000~~ $6,000 for fees due on and after ~~January 1, 2021~~ January 1, 2023. This base fee shall be paid in addition to the annual emission fee established by subpart 2~~.~~(iii) of this subparagraph, but shall be counted toward the applicable minimum fee set forth in subpart 2~~.~~(ii) of this subparagraph.

2. (i) For purposes of this part, an electric utility generating unit (EGU) means any steam electric generating unit or stationary combustion turbine that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale. Also, any steam supplied to a steam distribution system for the purpose of providing steam to a steam electric generator that would produce electrical energy for sale is considered in determining the electrical energy output capacity of the affected EGU.

(ii) Notwithstanding the annual emission fee rates established by subpart (iii) of this part, the annual fee required to be paid by a responsible official of any source subject to this paragraph (9) shall be no less than:

(I) $5,500 for sources (once in always in or OIAI sources) subject to this paragraph (9) solely due to the May 16, 1995 EPA memorandum

entitled, ‘‘Potential to Emit for MACT Standards—Guidance on Timing Issues,’’ from John Seitz, Director, Office of Air Quality Planning and Standards (OAQPS), to EPA Regional Air Division Directors, provided that the source has permitted allowable emissions below the major source thresholds found in part (11)(b)14~~.~~ of Rule 1200-03-09-.02. If the source's permitted allowable emissions are not below those major source thresholds as of October 31 of the annual accounting period for which fees are due under this part, then item (II) of this subpart applies; and

(II) ~~$9,000~~ $10,000 for all other sources subject to this paragraph (9) for fees due on and after ~~January 1, 2021~~ January 1, 2023.

(iii) The emission fee rates applied to calculate the annual fee assessed pursuant to subparagraph (a) of this paragraph shall be as follows:

(I) Fee based on actual emissions: ~~$64.20~~ $70.50 per ton for non-EGU sources and ~~$90.00~~ $98.50 per ton for EGU sources; and

(II) Fee based on allowable emissions: ~~$40.20~~ $48.50 per ton for non-EGU sources and ~~$57.00~~ $68.00 per ton for EGU sources.

(iv) The fees and fee rates enumerated in this subparagraph (d) must be supported by the Division's annual workload analysis that is approved by the Board.

3. The fees and fee rates specified in this subparagraph (d) shall remain in effect until the effective date of an amendment to this subparagraph (d). Any revision to the fees and fee rates must result in the collection of sufficient fee revenue to fund the activities identified in subparagraph (1)(c) of this rule and must be supported by the Division's annual workload analysis that is approved by the Board.

Authority: T.C.A. §§ 68-201-101, et seq. and 4-5-201, et seq.

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: _____

Signature: _____

Name of Officer: Michelle W. Owenby

Title of Officer: Director of the Division of Air Pollution Control

Subscribed and sworn to before me on: _____

Notary Public Signature: _____

My commission expires on: _____

Department of State Use Only

Filed with the Department of State on: _____

_____
Tre Hargett
Secretary of State