

# **Title V**

## **Workload Analysis**

**Draft**

**Fiscal Year 2020-2021**



**Division of Air Pollution Control**  
**September 11, 2019**

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## **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 54.9 full-time equivalent (FTE) positions in fiscal year 2020-2021 (FY2021).

This Implementation Plan consists of eleven (11) separate functional units within the Division, plus the Small Business Environmental Assistance Program<sup>1</sup>, 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
- Technical Services
- Quality Assurance

The activities of each of these units are described in this Workload Analysis. Each functional unit has identified that portion of its 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".

For FY2021, the Division will be

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The part 70 presumptive fee rate (\$/ton) effective for the 12-month period of September 1, 2019 through August 31, 2020 is \$TBD. This fee rate represents an increase of TBD% (or \$TBD) from the fee rate in effect for the prior 12-month period (\$51.06). 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 2018 through August 2019 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.

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<sup>1</sup> 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 May 8, 2019, the Division issued a Title V workload analysis that covered fiscal year 2019-2020 (FY2020). This workload analysis reflects projected workload for fiscal year 2020-2021 (FY2021).

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 actual or allowable emissions base upon which the fee rate was calculated;
- Changes in the air contaminant source population will alter both the emission base and 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	=	<u>- 341</u>
Total Work Hours per Employee	=	<u>1609</u>

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<sup>2</sup>, and EPA's fine particulate matter grant. This new 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 has initially been 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 FY2021 are based on actual data obtained during FY2019 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.

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<sup>2</sup> 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 fees, visible emissions certification fees, section 105 air quality grant funds received from EPA, state appropriations, and civil penalties.

## 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, receptionist duties, 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 4.7 FTEs of Title V work for Administrative Services.

### CALCULATION BASIS

Because the nature of administrative work is varied and often very short in duration on task by task basis, it is not practical for these staff to track their work for billing purposes. Therefore, administration FTEs are based on the number of staff in this work unit and the application of the default Title V (52%)/non-Title V (48%) billing ratio. One position deals mainly with motor vehicle inspection and maintenance (I/M) program activities and is thus 100% non-Title V funded. One additional FTE will be added in FY2021 for succession planning and cross-training.

### ASSUMPTIONS

Not applicable.

**Table 1 – Administrative Services Workload**

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Administrative Support	7530	4.7

## 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 of 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. 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 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 3.1 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 (50.0%) and the Deputy Director and the technical lead (EC4) for Environmental Measurement and Compliance Assurance (54.0%) is based on billing data gathered during FY2018 and FY2019 for their related programs. Title V time for all other positions is based on the billing default of 52%.

### ASSUMPTIONS

It is assumed that the Title V activities of the Deputy Director of Permitting and Regulatory Development are the same percentage as the total staff and managers in the Permitting, Regulatory Development, and Emissions Inventory program (50%). 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 total staff of the Compliance Validation, Enforcement, Technical Services, and Quality Assurance programs (54%). For all other positions, 52% of Director's Office time is assumed to be Title V.



**Table 2 – Director’s Office Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Deputy Director of Permitting and Regulatory Development	805	0.50
Deputy Director and Technical Lead of Environmental Measurement and Compliance Assurance	1737	1.08
Three Other Director’s Office Positions	2510	1.56
<b>TOTAL</b>	<b>4704</b>	<b>3.1</b>

## 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.

### 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 workload and staffing levels of the SBEAP remain unchanged from current levels.

**Table 3 – Small Business Environmental Assistance Program Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Compliance assistance	1609	1
Workshops/training events	804.5	0.5
Material development	402	0.25
Regulatory Development/Notification	201	0.125
Administration/Other	201	0.125
<b>TOTAL</b>	<b>3218</b>	<b>2.0</b>

## COMPLIANCE VALIDATION

The Compliance Validation program provides a key component in the Division's quality assurance program that ensures the accuracy of the data being submitted by Title V Sources certifying compliance. Continuous Emission Monitoring Systems (CEMS) are utilized by some Title V sources to determine compliance on an ongoing basis. Compliance Validation will conduct audits of CEMS data to ensure the data submitted is accurate. Compliance Validation conducts Visible Emission Evaluator Certification (VEE) schools to train state and industry personnel to certify compliance with visible emission standards, and utilizes its source testing capabilities to determine compliance of Title V sources with respect to mass emission standards. Sources with control equipment are periodically checked to assure that control equipment is being maintained and monitoring parameters are sufficient. Responsibility for asbestos renovation and demolition activities was moved to this program in FY2017, but this activity is not considered Title V time. The miscellaneous category of work includes such things as activities in support of the permitting program, regulatory development, State Implementation Plan (SIP) support, and assigned special projects previously incorporated into major work duties.

Workload supports 4.1 FTEs of Title V work for this program.

### CALCULATION BASIS

Projected workload was estimated based on actual time and activity data for FY2019. 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 FY2018 and FY2019 indicates that approximately 70% of the remaining Compliance Validation program work is Title V related.

### ASSUMPTIONS

Not applicable.

**Table 4 – Compliance Validation Program Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Title V CEM Activities	798	0.50
Title V Source Testing Activities	3136	1.95
Visible Emissions Evaluation School	706	0.44
Program Management	1126	0.70
Training	170	0.11
Other Compliance Validation Activity	634	0.39
<b>TOTAL</b>	<b>5943</b>	<b>4.1</b>

## ENFORCEMENT

The Enforcement program is responsible for processing violations discovered in Tennessee by individuals, 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 (T5, non-T5, 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 2.6 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 FY2017 through FY2019. To determine what portion of that workload was Title V related, billing data compiled from FY2018 and FY2019 was evaluated and indicated that approximately 47% 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 Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Enforcement Related Activities	1851	1.15
ICIS-Air Data Management	680	0.42
Smog Log Development	473	0.29
APC Data Management	141	0.09
Computer Hardware/Software Support	101	0.06
Training	165	0.10
Special Projects	324	0.20
Program Management	491	0.31
<b>TOTAL</b>	<b>4225</b>	<b>2.6</b>

## 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 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, and various special projects; providing support to individuals and companies with fleets about mechanical issues related to the Motor Vehicle Inspection and Maintenance program (not Title V work); and maintenance of reports, records and other correspondence.

Workload supports 15.3 FTEs of Title V work for this program.

### CALCULATION BASIS

Total inspection workload is based on the number of planned inspections and average inspection time. Average inspection time is based on actual time and activity from FY2018. Time spent on reviewing reports is included in the inspection time for those sources. Title V complaint workload is estimated to be 5% of total complaint workload. Workload associated with the ambient monitoring network is based on actual data for FY2017 through FY2019. The Field Services Program also conducts motor vehicle inspection work, which is not a Title V activity. The remaining work, including program management, is estimated to be 60% Title V related. This percentage is based on billing data from FY2018 and FY2019.

### ASSUMPTIONS

It is assumed that all Title V and Conditional Major sources are inspected once per year. Full Compliance Evaluations for the state's eight "mega-sources" are on either 2 or 3 year cycles. True Minor sources are inspected as time allows and it is assumed that 250 true minor sources will be inspected. It is assumed that the average time for each inspection will be the same as historical data.

**Table 6 – Field Services Title V Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Title V Inspections (including report review)	10,260	6.38
Complaint Investigations	200	0.12
Ambient Monitoring	3300	2.05
Training	1860	1.16
Review of Draft Permits	480	0.30
Special Projects	1200	0.75
Program Management	3000	1.86
Environmental Response	246	0.15
Meetings	1800	1.12
Other Title V Activities	2184	1.36
<b>TOTAL</b>	<b>24,530</b>	<b>15.3</b>



## PERMITTING

Permitting staff are located in the Nashville Central Office with the exception of two permit staff members located in the Knoxville Environmental Field Office. Starting January 1, 2019, the permitting program was reorganized to a sector-based permitting structure consisting of four 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
- 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 2019. 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, enforcement, and special projects, and for necessary technical training.

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

ACTIVITY	Currently in System as of July 2019	EXPECTED NEW SUBMITTALS
T5 Construction Permits - Non-Major NSR	13	50
T5 Construction Permits - Major NSR (PSD)	1	3
T5 Construction Permits - Major NSR (Non-Attainment)	0	0
Major NSR Plant Wide Applicability Limit (PAL) Permits	0	1
Title V Sources – Initial	6	4
Title V Sources – Renewal	59	41
CAIR and Acid Rain Permits	1	0
Significant Modifications	11	17
Re-opening for Cause	0	0
Minor Modifications	39	98
Administrative Amendments	2	46
Operational Flexibility and 502(b)(10) Changes	4	35
Construction Permit Amendment for Title V Source	2	15
Initial Issuance Conditional Major Sources	7	5
T5 Semi-annual Reports*	0	60
T5 MACT/NSPS Reports*	4	273
T5 Annual Compliance Certifications*	0	29

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

Workload supports 13.8 FTEs of Title V work for this program.

## CALCULATION BASIS

Workload for each permitting activity is calculated by multiplying the estimated number of each activity multiplied by the average estimated time for each type of activity. The average time for each activity type was derived using data from January 1, 2018, through mid-June, 2019. Estimated time for Other Permitting Time, Special Projects, Training, and Permitting Management are based on actual FY2019 time through mid-June, 2019 (i.e., 11.5 months), extrapolated to 12 months. The Title V portion of these four activities is based on actual data for FY2018 and FY2019, which indicates that 66% of this time is Title V related. There is one Environmental Consultant 3 located in the Emissions Inventory and Special Projects Program. Approximately 60% of that individual's time is permit-related and reflected in this section of the Workload Analysis. The remainder of that individual's workload is associated with the Emissions Inventory and Special Projects Program.

## ASSUMPTIONS

January 1, 2018, was selected as the starting point for data analysis because the General Permit and Permit-by-Rule Program began shortly after. It is assumed that workload following implementation of these two programs is representative of future workload. It is assumed that all of EC4 workload is permit related.

**Table 8 – Projected Permitting Workload**

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
Title V sources permit preparation – new sources	404	0.25
Title V sources permit preparation – renewals	4141	2.57
CAIR and Acid Rain Permits	50	0.03
Initial Issuance Conditional major sources	425	0.26
Significant Modifications	799	0.50
Re-opening for Cause	0	0
Minor Modifications	2058	1.28
Administrative Amendments	460	0.29
Operational Flexibility and 502(b)(10) Changes	140	0.09
Semiannual Report Review (T5 and MACT)	126	0.09
Annual Compliance Certification Review	61	0.04
MACT and NSPS Report Review	605	0.38
Program Management	2745	1.71
Training	1342	0.83
Special Projects	1830	1.14
Permit preparation time for Title V non-major NSR construction permits and amendments	1620	1.01
Other Title V Permitting Time <sup>3</sup>	4270	2.65
Permit preparation time for major NSR permits	750	0.47
Permit preparation time for PAL permits	365	0.23
<b>TOTAL</b>	<b>22,191</b>	<b>13.8</b>

### Reorganization to Sector-Based Permitting:

Sector-based permitting is an organizational structure in which permit applications and reports are assigned to permitting sections according to the industry type. Sector-based permitting sections are organized so that sources subject to similar state and federal regulations and with similar processes are grouped into a single section. This promotes specialization by the management and staff of each of these sections, allowing for the development of skills and the training of staff to be targeted based on the types of industries and regulations that each section manages. This type of organization leads to permitting consistency for similar source types, efficiency in the permitting process, and a deeper understanding of sources and their applicable regulations by the permitting staff.

The Division recently completed reorganization to sector-based permitting. Current sector assignments for the four permitting sections are as follows:

#### Composite Materials Permitting Section

<sup>3</sup> 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.

- Dry Cleaners, Fiberglass Reinforced Plastic, Natural Gas Distribution, Asphalt Plants, Minerals (including quarries and concrete plants), Gasoline Dispensing Facilities, Department of Energy Facilities, Crematories

#### Surface Coating and Combustion Permitting Section

- Surface Coating, Electric Generation, Incinerators, Boilers and Stationary Engines (including hospitals, schools, colleges, and universities, and military bases), Cotton Gins, Distilleries, Glass, Brick, Tile, Charcoal Production, Lead Acid Battery Plants

#### Chemical, Wood, and Food Permitting Section

- Chemical plants, Tires and Rubber Products, Plastic Products, Commercial Ethylene Oxide Sterilizers, Mineral Wool Production, Polystyrene and Polyurethane Foam, Paint and Ink Manufacturing, Agricultural Products, Wood Products, Tobacco, Marine and Rail Transportation Facilities, Bakeries, Poultry, Feed and Grain, Bulk Petroleum Storage

#### Paper and Metal Permitting Section

- Pulp & Paper Mills, Printing & Coating, Primary and Secondary Metal Manufacturing, Landfills

All of the permits issued by each section are reviewed by the Environmental Consultant 3 within that section. The Environmental Consultant 3 reviews all permits for accuracy, clarity and consistency prior to issuance. The Environmental Manager of each section is responsible for timeliness, productivity, workload distribution, performance management, and other management responsibilities. The Environmental Manager's, and to a lesser extent the Environmental Consultant 3's, also draft permits as necessary in order to ensure that permitting skills are maintained, balance staff workload, and handle permits requiring advanced permitting skills. The Environmental Consultant 3's are also responsible for developing "tools" to improve clarity, consistency and efficiency such as standard permit conditions, permit templates for assigned industry types, development of additional general permits, and development and implementation of a comprehensive permit writer training program.

#### **Non-Title V Permit Alternatives:**

General Permits and Permits-by Rule: The Division has been working the last several years to develop alternatives to traditional permits for certain categories of sources that could be considered insignificant except for the fact that a federal rule (MACT or NSPS) applies. Two new permit categories have been created through rulemaking, general permits and permit-by-rule. These traditional permit alternatives are currently only available to true minor sources, but as a result of the adoption of the federal rules some Title V and conditional major facilities will benefit by gaining the ability to classify some sources currently included in their permits as insignificant activities or insignificant emission units.

## REGULATORY DEVELOPMENT

The Regulatory Development program has the following responsibilities:

- 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
- 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
- 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. (non-Title V work)
- 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 the writing of proposals for grant opportunities, overseeing the grant process, and fulfilling grant requirements, and providing technical support to other TDEC offices regarding diesel retrofit technology (non-Title V work)
- 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

Workload supports 1.9 FTEs of Title V work for this program.

### CALCULATION BASIS

There are two positions that are predominantly dedicated to non-Title V activities (motor vehicle emission testing, transportation conformity, and diesel retrofit program) and local program support. Of these two individuals, it is estimated that 0.4 FTE is dedicated to local program support, a portion of which is billed to Title V. The Title V workload for local program support and for the rest of the staff is based on billing data from FY2018 and FY2019. This data indicates that 37% of this activity is Title V related. One additional FTE will be added in FY2021 for succession planning, cross-training, and to support workload that is delayed due to staffing shortage.

### ASSUMPTIONS

It is assumed that this percentage of work that is Title V related is consistent with historical workload from the past two years.

**Table 9 – Regulatory Development Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Rule Development <sup>4</sup>	714	0.44
SIP Development	276	0.30
Permit and Photochemical Modeling	1072	0.67
Local Program Support	238	0.15
Special Projects	123	0.08
Project Management	357	0.22
<b>TOTAL</b>	<b>2952</b>	<b>1.9</b>

<sup>4</sup> Approximately 0.2 FTE in rule and SIP development is carried out by a staff member located in the Emissions Inventory and Special Projects Program, which is discussed later in this document.

## 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 NO<sub>x</sub> 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 (non-Title V work not included in this analysis)
- 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
- Management of the program to ensure it operates efficiently

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

### CALCULATION BASIS

Members of this program have emissions inventory and fee responsibilities and one has rule and SIP development responsibilities. In addition, all staff handles special projects for the Division. Workload for each task was estimated based on actual time and activity data (including permitting regulatory development time) and the program manager's estimates of historical and expected tasks. The percent of the program's work that is Title V related is based on billing data from FY2018 and FY2019. One of the staff also has permitting responsibilities. That permitting workload is reported in the Permitting section of this workload analysis and the remainder is reflected here.

### ASSUMPTIONS

Billing data compiled from all activities documented during FY2018 and FY2019 indicates that approximately 60% of the Emissions Inventory and Special Projects program work is Title V related. While emission inventory and fee work is fairly predictable, regulatory development and special project work, and the Title V portion of this work, can vary. 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 Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Rule and SIP Development	193	0.12
Emission Inventory	2124	1.32
Fee Development, Invoicing, and Support	965	0.60
Program Management	579	0.36
Special Projects	386	0.24
<b>TOTAL</b>	<b>4247</b>	<b>2.6</b>

**Emissions Inventory and Special Project Program Improvement Efforts:**

SLEIS: Division staff members are working on implementation of the State and Local Emissions Inventory System (SLEIS), a web-based application that will allow permitted facilities to compile and submit point source emissions inventory data to the Division in accordance with regulatory reporting. This new online tool will modernize and improve Tennessee's emission inventory work. APC received CROMERR certification on May 7, 2018, which will allow the use of SLEIS by the regulated community. APC pilot tested the new SLEIS application with a few select facilities in 2018 and has expanded the pilot test in 2019. Full scale use of SLEIS is expected with the 2019 annual emissions inventory reports due in 2020. In addition, APC worked with Tennessee Strategic Technology Solutions to link SLEIS to APC's in-house database, known as Smog Log, and to add modules to allow permit fee reporting (see below). The Division partnered with the Arizona Department of Environmental Quality on an EPA e-enterprise grant to provide funding for this effort.

Online Title V Fee Reporting: APC is working with Tennessee Strategic Technology Solutions to add a portal to the SLEIS emissions inventory application discussed above that will allow submittal of Title V Actual Emissions Analysis Reports (AEARs). Use of SLEIS for AEAR submissions will also allow APC to access Title V fee related data on a real-time basis, which, in turn will allow for quicker and more accurate projection of Title V revenues. This improvement will be pilot tested in coming months.



## TECHNICAL SERVICES

The primary responsibility of the Technical Services 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 remediating 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 temperature meet federal requirements, that the shelter has 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 the cost of those monitoring expenses.

As part of resolving the Sullivan County/Kingsport, Tennessee SO<sub>2</sub> nonattainment area, the Division recently installed two additional SO<sub>2</sub> ambient monitoring sites<sup>5</sup>. Over time, the Division hopes to reduce the number of monitoring sites when each monitor has sufficient data to make a clean data determination, thus allowing the Division to petition EPA to shut down the site. However, EPA approval is required before a site can be shut down. Long term, there will always be at least one site to satisfy minimum EPA maintenance area monitoring requirements. As the predominate source of SO<sub>2</sub> emissions in the area is a Title V source, the costs needed to conduct this monitoring would generally be covered using Title V fees.

The Technical Services program recently completed the process of performing an extensive update of the ambient air monitoring network called Project Restore. The Division was granted a one-time budget supplement of 1.55 million dollars from the State of Tennessee to purchase 10 air quality monitoring shelters, replace aging and obsolete ambient air monitoring equipment, and upgrade network communications. This one-time budget supplement granted by the state legislature provided the funding to complete Project Restore without the use of Title V funds. The Division developed a long-term strategy for replacing ambient monitoring equipment and shelters on a routine schedule as equipment reaches the end of its expected life. This will prevent the need for a large influx of one-time funds and large-scale replacement efforts like Project Restore. It is anticipated that the replacement schedule will start in FY2021. Thus, funds sufficient to cover these costs have been added to estimated expenses for FY2021.

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 FY2019 and adjusted for the addition of two new SO<sub>2</sub> ambient monitoring sites during FY2019. The Division is expected to receive approximately \$210,000 in FY2021 in CAA section 103 grant funding to partially fund the Technical Services program's personnel costs. As a result, the Technical Services program is assumed to be 20% section 103, 42% Title V, and 38% non-Title V. The Title V workload for the Technical Services program is calculated as 42% of the total workload of the program.

### ASSUMPTIONS

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

**Table 11 – Technical Services Workload**

ACTIVITIES	ESTIMATED TITLE V HOURS/YR	ESTIMATED TITLE V FTE/YR
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<sup>5</sup> There are also two existing sulfur dioxide monitors in the Kingsport area.

Air Monitoring	84	0.05
APC Data Management	504	0.31
Maintenance, Calibration, Trouble Shooting	1764	1.10
Other Time, Administration, Personnel Activities, Office Work, Special Projects	84	0.05
Program Management	672	0.42
Quality Control	546	0.34
SOP and QAPP Management	210	0.13
Training	168	0.10
<b>TOTAL</b>	<b>4032</b>	<b>2.5</b>

## QUALITY ASSURANCE

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, and 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 2.3 FTEs of Title V work for this program.

### **CALCULATION BASIS**

Projected workload is based on time and activity data. The Division is expected to receive approximately \$210,000 in FY2021 in CAA section 103 grant funding to partially fund the Quality Assurance program's personnel costs. As a result, the Quality Assurance program is assumed to be 20% section 103, 42% Title V, and 38% non-Title V. The Title V workload for the Quality Assurance program is calculated as 42% of the total workload of the program.

### **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 Workload**

<b>ACTIVITIES</b>	<b>ESTIMATED TITLE V HOURS/YR</b>	<b>ESTIMATED TITLE V FTE/YR</b>
Air Quality Forecasting	798	0.50
AQS Data Validation	302	0.19
Field Auditing	546	0.34
Audit Preparation and Documentation	756	0.47
Modeling	21	0.01
Other Time, Administration, Personnel Activities, Office Work, Special Projects	63	0.04
Program Management	504	0.31
SOP and QAPP Development	210	0.13
Training	210	0.13
Emergency Response	8	0.01
eSIMs		0.03
Troubleshooting/Maintenance/Tech Support	50	
Special Projects	210	0.13
<b>TOTAL</b>	<b>3679</b>	<b>2.3</b>

## SUMMARY OF FTEs BY FUNCTIONAL UNIT

The following table shows the projected FY2021 FTEs needed to complete all Title V activities as indicated in this workload analysis. In addition, the actual Title V FTEs for the current fiscal year (FY2019) and projected actual Title V FTEs for FY2020 from the FY2020 Title V Workload Analysis are presented below.

**Table 13 – FTEs by Functional Unit<sup>6</sup>**

<b>Functional Unit</b>	<b>FY2019 Actual FTEs</b>	<b>Planned FY2020 FTEs</b>	<b>Required FY2021 FTEs</b>
Administrative Services <sup>7</sup>	3.3	3.6	4.7
Director's Office	3.7	3.8	3.1
Small Business Assistance	2.0	2.0	2.0
Compliance Validation	4.1	4.1 <sup>8</sup>	4.1
Enforcement	2.7	2.3	2.6
Field Services	14.1	13.5	15.3
Permitting	11.7	12.2	13.8
Regulatory Development	1.9	1.9	1.9
Emissions Inventory and Special Projects	2.6	2.8	2.6
Technical Services	2.5	2.5	2.5
Quality Assurance	1.9	2.1	2.3
<b>Total Title V FTEs</b>	<b>50.7</b>	<b>50.8</b>	<b>54.9</b>

<sup>6</sup> The FY2019 Actual FTE numbers are based on actual time billed to Title V in FY2019. Required FY2021 FTEs are based on the workload estimates necessary to operate the Title V program as indicated in this Workload Analysis and based on the most recent data regarding total workload and the portion thereof that is likely to be Title V related. Actual FY2019 FTEs were lower than Required FY2021 FTEs because 1) several positions needed to complete Title V tasks have been held vacant due to financial constraints (in Administrative Services, Enforcement, Permitting, and Regulatory Development), 2) others were vacant during at least part of FY2019 while a vacated position was being re-filled, 3) some staff transferred to different programs during the fiscal year which affected those programs workload, and 4) actual Title V work in FY2019 was slightly different from that projected for FY2021, which is projected using longer-term data. Planned FY2020 FTEs are taken directly from the FY2020 Title V Workload Analysis approved by the Air Pollution Control Board on May 8, 2019, and based on data and assumptions available at that time. FY2020 FTEs, with the exception of the adjustment to Compliance Validation FTEs indicated below, have not been altered from what was reported in that Workload Analysis.

<sup>7</sup> One position within the Division reports to a member of the Leadership team. For FY2018 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.

<sup>8</sup> The FY2020 Workload Analysis indicated compliance validation time was estimated to be 88% Title V related (with the exception of asbestos work). However, FY 2018 and 2019 actual billing data suggests the Title V time is closer to 70% Title V related. Therefore, we have adjusted the FY2020 planned FTEs to reflect more of what we expect the actuals to show for the fiscal year.

## 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, 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 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<sup>9</sup> and bonus pay<sup>10</sup>. Personnel costs are based on the number of positions for each functional unit for FY2021 based on demonstrated workload with adjustments made for two additional FTEs as 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 a nine year historical average (FY2010 through FY2018). An additional \$110,000 per year is included to fund the ambient monitoring equipment long-term replacement schedule.

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

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<sup>9</sup> Longevity pay is based on years of service once an employee has been in state service a certain number of years.

<sup>10</sup> Bonus pay is a feature of the Tennessee TEAM Act's Pay-for-Performance system that awards employees for advanced and outstanding performance.

<b>Table 14 – Historical and Projected Title V Expenses</b>								
<b>Expense Description</b>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>Preliminary FY2019</b>	<b>Projected FY2020</b>	<b>Projected FY2021</b>
Regular Salaries, Longevity, & Bonus	\$3,202,792	\$2,837,762	\$2,900,876	\$2,655,183	\$3,377,781	\$3,546,448	\$3,498,492	\$3,903,332
Benefits	\$1,281,379	\$1,153,670	\$1,145,871	\$1,092,142	\$1,494,311	\$1,503,257	\$1,560,428	\$1,676,903
APC General & Administrative Expenses	\$1,015,885	\$932,403	\$1,288,469	\$980,420	\$919,969	\$629,952	\$992,963	\$1,110,000
TDEC General & Administrative expenses	\$851,048	\$892,744	\$866,639	\$962,205	\$1,014,803	\$0 <sup>11</sup>	\$0 <sup>12</sup>	\$1,120,604
Grand Total	\$6,355,428	\$5,818,610	\$6,201,855	\$5,689,960	\$6,806,864	\$5,679,658	\$6,184,113	\$7,810,839

<sup>11</sup> No TDEC G&A expenses were charged to the Division in FY2019.

<sup>12</sup> No TDEC G&A expenses will be charged to the Division in FY2020.



## TITLE V FEE COLLECTION ESTIMATES

The Division has projected the amount of Title V fees that will be collected for FY2019 fees<sup>13</sup> and FY2020 fees based on projected tonnage these periods and the fee system that will be in place in starting in FY2019. For facilities that determine fees based on actual or a mixture of actual and allowable emissions, projected tonnage was determined by starting with allowable and actual emissions as invoiced or reported for 2017-2018 fees on AEAR reports. Emissions for facilities which determine fees based on allowable emissions were determined using the 2019 invoiced amounts. Adjustments<sup>14</sup> were made for two facilities (TVA Johnsonville and TVA Gallatin) to account for changes at those facilities that occurred near the end of 2017.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

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<sup>23</sup> Estimate includes facilities paying the \$4000 base fee as part of the minimum fee.

## SUMMARY OF COST SAVING INITIATIVES

The Division has made significant efforts in the last few years to establish an accurate financial accounting structure and establish 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 FY2021.

The Division will continue, in FY2021, 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.

The Division will continue the development and use of alternatives to standard construction and operating permits. This includes general permits, permits-by-rule, and combined construction and operating permits. The Division has initiated general permits and permits-by-rule for a small number of source categories and will add categories over time. The Division has initiated a pilot program for combined construction and operating permits.

The Division has begun 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 would continue to post public notices on its website. Should this rule change become effective it should save approximately \$55,000 per year. Approximately one-third of all construction permit applications are for new or modified sources at Title V facilities.

The Division has developed an online portal, known as SLEIS, for submitting emissions inventories. Pilot testing of SLEIS is ongoing and is scheduled to be fully implemented in FY2020. In addition, a portal will be added to SLEIS to allow submittal of annual Title V Actual Emissions Analysis Reports (AEARs). Pilot testing of the AEAR portal is planned for calendar year 2020. Implementation of SLEIS for emissions inventories and AEARs should result in efficiency improvements for both the Division and the regulated community.

**Table 15 – Historical Title V Collections and Expenses**

Fiscal Year	Fees	Interest and penalties	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 <sup>24</sup>	\$6,094,831.92	\$2,613,673.54
2016-2017	\$4,617,895.15	\$9697.10		\$5,687,186.70	\$1,377,827.25
2017-2018	\$6,303,601.88	\$896.29		\$6,740,536	\$1,419,663
2018-2019	TBD	TBD		TBD	TBD

<sup>24</sup> 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**

Fiscal Year	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
18-19 non-EGU	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
18-19 EGU	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
17-18 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
17-18 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
16-17 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
16-17 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
15-16 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
15-16 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
14-15 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
14-15 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
*13-14 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
*13-14 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
12-13 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
12-13 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
11-12	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
10-11	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
09-10	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
08-09	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
07-08	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
06-07	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
05-06	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
04-05	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
03-04	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
02-03		\$17.50	\$28.00		321,279								\$	\$
01-02		\$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.

**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	TBD	Calendar Year 2020	TBD