Fiscal Note for Amendment of 15A NCAC 02D .1904 and 15A NCAC 02Q .0810

Rule Citation Number 15A NCAC 02D .1904 and 15A NCAC 02Q .0810

Rule Topic: Amendments to Rules for Air Curtain Incinerators

Commission: Environmental Management Commission (EMC)

DEQ Division: Division of Air Quality

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Impact Summary:

State government:	None beyond the effect of S.L. 2024-51 and 40 CFR Part 60.
Local government:	None beyond the effect of S.L. 2024-51 and 40 CFR Part 60.
Substantial impact:	No
Private Sector:	None beyond the effect of S.L. 2024-51 and 40 CFR Part 60.

Authority: G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10); 143-215.108; S.L. 2011-394, s.2; 40 CFR 60.2865

Necessity: To remove the Title V permitting requirements for Other Solid Waste Incineration (OSWI) air curtain incinerators (ACIs) in accordance with the United States Environmental Protection Agency's (EPA's) revision to the Title V permitting requirements for OSWI units in Title 40 of the Code of Federal Regulations (40 CFR) Part 60, Subparts EEEE and FFFF, effective April 17, 2024.

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Acronyms

Abbreviation	Term
$	dollars
%	percent
15A NCAC	Title 15A of the North Carolina Administrative Code
40 CFR	Title 40 of the Code of Federal Regulations
ACC	Annual Compliance Certification
ACI	air curtain incinerator
CAA	Clean Air Act
CISWI	Commercial and Industrial Solid Waste Incineration
CO	carbon monoxide
CPI	Consumer Price Index
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EG	Emission Guidelines
EMC	Environmental Management Commission
EPA	United States Environmental Protection Agency
FR	Federal Register
HAP	hazardous air pollutant
lbs	pounds
NC	North Carolina
NCGA	North Carolina General Assembly
N.C.G.S.	North Carolina General Statute
NC OSHR	North Carolina Office of State Human Resources
NPV	Net Present Value
NSPS	New Source Performance Standards
OSWI	Other Solid Waste Incineration
PM10	Particulate with an aerodynamic diameter less than or equal to a nominal 10 micrometers
SJVAPCD	San Joaquin Valley Air Pollution Control District
tpd	tons per day
tpy	tons per year

I. Introduction

North Carolina codifies the EPA's requirements for ACIs in Title 15A of the North Carolina Administrative Code (15A NCAC), Subchapter 02D, Section .1900, *Open Burning*. Specifically, Rule 02D .1904, *Air Curtain Incinerators*, contains the requirements for new and existing ACIs. ACIs are incineration units that forcefully project a curtain of air across an open, integrated combustion chamber, open pit, or trench in which combustion occurs. Additionally, Rule 02Q .0810, *Air Curtain Burners*, is an exclusionary rule that provides exemptions from Title V permitting requirements for certain ACIs.

Effective on April 17, 2024, the EPA removed the Title V permitting requirement for OSWI ACIs through revisions to 40 CFR Part 60, Subpart EEEE (New Source Performance Standards (NSPS)) and Subpart FFFF (Emission Guidelines (EG)). The DAQ is updating Rules 02D .1904 and 02Q .0810 to be consistent with the EPA's changes. The DAQ is also proposing other revisions throughout Rule 02D .1904 to clarify the requirements for these units.

II. Background

The requirements in Rule 02D .1904 provide the conditions for the operation of new and existing ACIs. The rule was originally adopted and became effective on July 1, 1996, and required permits for ACIs at permanent sites, as well as those with materials transported from other sites. At that time, ACIs with the potential to burn 15,000 tons of material or more per year were subject to 15A NCAC 02Q .0500, *Title V Procedures*. Subsequently, the EPA promulgated federal NSPS and EG for Commercial and Industrial Solid Waste Incineration (CISWI) units on December 1, 2000, in 40 CFR Part 60, Subparts CCCC and DDDD, respectively, which also included requirements for CISWI ACIs. These federal rules required all CISWI units to obtain and hold Title V permits, and the EPA later clarified that this Title V permitting requirement also applies to ACIs covered under the CISWI regulations. On December 16, 2005, the EPA promulgated federal NSPS and EGs for OSWI units under 40 CFR Part 60, Subparts EEEE and FFFF, which required all OSWI units (and OSWI ACIs) to also obtain and hold Title V permits. Under Subparts EEEE and FFFF, certain ACIs are only subject to a small subset of the requirements, and these are termed "OSWI ACIs" for the purposes of this analysis. These "OSWI ACIs" include: ACIs with a capacity of less than 35 tpd that burn only the materials listed below, collected from the general public and from residential, commercial, institutional, and industrial sources; and ACIs located at institutional facilities that burn only the materials listed below, generated at that institutional facility;

- 100% wood waste;
- 100% clean lumber;
- 100% yard waste; or
- 100% mixture of these materials.

Similarly, the federal CISWI Regulations (Subparts CCCC and DDDD) carve out a subset of requirements for certain ACIs covered under those rules, and these ACIs are termed "CISWI ACIs" for the purposes of this analysis. A "CISWI ACI" is an ACI with a capacity of greater than or equal to 35 tpd that burns only: 100% wood waste; 100% clean lumber; or 100% mixture of only wood waste, clean lumber, and yard waste. An illustration of "OSWI ACI" and "CISWI ACI" applicability is provided in Appendix A of this fiscal note.

The readoption of 15A NCAC 02D .1904 on September 1, 2019, updated the State's ACI Rule to align with the federal rules for CISWI and OSWI ACIs and required that all new and existing ACIs obtain a General Title V Operating Permit pursuant to 15A NCAC 02Q .0509 (for permanent ACIs) or .0510 (for temporary ACIs).

On August 31, 2020, the EPA performed a five-year review of the NSPS and EG for OSWI units. Following the five-year review, the EPA proposed changes to the NSPS and EG for OSWI units to simplify the compliance obligations for owners and operators of ACIs. Among other changes, the EPA proposed removing the Title V permitting requirement for OSWI ACIs.[1] The ACIs relieved of the Title V permitting requirement must not be located at Title V major sources or otherwise subject to Title V permit requirements, and they must also comply with opacity limitations established by the EPA. On April 17, 2024, the EPA finalized the portion of the August 2020 proposal that eliminates the Title V permit requirement for OSWI ACIs through changes to 40 CFR Part 60, Subparts EEEE and FFFF.[2]

On October 10, 2024, the North Carolina General Assembly (NCGA) passed House Bill 149, also known as the Disaster Recovery Act of 2024, in response to Hurricane Helene.[3] Section 10.5.(c) of the Act stated that owners and operators of permanent and temporary ACIs subject to 40 CFR Part 60, Subparts EEEE and FFFF shall not be required to obtain a General Title V Operating Permit. This change applies to OSWI ACIs. Section 10.5.(d) of the Act requires that the Environmental Management Commission (EMC) amend Rule 02D .1904 to be consistent with Section 10.5.(c), which will be in effect until the revised permanent rule is effective. Since Section 10.5 of the Act is already in effect, it is considered part of the baseline, or business-as-usual operations, for the purposes of this analysis. Nevertheless, this fiscal note estimates the impacts of the removal of the Title V permitting requirement for OSWI ACIs. However, the costs and savings discussed in this fiscal note are attributable to the Disaster Recovery Act of 2024, rather than this rulemaking.

The DAQ is also proposing amendments to Rule 02Q .0810. The rules in 15A NCAC 02Q .0800, termed the "Exclusionary Rules," provide that certain types of facilities can be excluded from Title V permitting requirements (i.e., remain a minor source) if their actual annual throughput or production rate remains below the threshold ("exclusionary limit") established in the 02Q .0800 rule applicable to that industry. The exclusionary limits in each of the 02Q .0800 rules are calculated as the highest throughputs that a facility could have while keeping emissions below the Title V major source thresholds (100 tons per year (tpy) of each criteria pollutant, 10 tpy of any individual hazardous air pollutant (HAP), and 25 tpy of all HAPs combined). Rule 02Q .0810 was originally adopted and became effective on December 1, 2005, and exempted air curtain burners that combusted less than 8,100 tons of land clearing debris per year from the requirements of Rule 02Q .0500 (i.e., Title V permitting). This exclusionary limit is proposed to be amended to be consistent with current federal requirements for ACIs and will include updated emission factors.

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[1] Federal Register (FR), Volume 85, No. 169, 85 FR 54178, August 31, 2020. https://www.govinfo.gov/content/pkg/FR-2020-08-31/pdf/2020-17730.pdf

[2] U.S. EPA, 89 FR 27392, April 17, 2024. https://www.govinfo.gov/content/pkg/FR-2024-04-17/pdf/2024-08270.pdf

[3] NCGA, The Disaster Recovery Act of 2024, October 10, 2024. https://www.ncleg.gov/Sessions/2023/Bills/House/PDF/H149v5.pdf

III. Reason for Rule Amendments

To reflect the EPA's revision to permitting requirements for OSWI ACIs in 40 CFR Part 60, Subparts EEEE and FFFF, and pursuant to Section 10.5.(d) of the Disaster Recovery Act of 2024 passed by the NCGA, the DAQ is proposing to remove the requirement to obtain a Title V permit for OSWI ACIs. To qualify for the exclusion, the facility must not be otherwise subject to Title V requirements. The DAQ is also proposing to amend the exclusionary limit for air curtain burners in Rule 02Q .0810 as further described in Section IV of this fiscal note.

IV. Proposed Rule Amendments

15A NCAC 02D .1904, *Air Curtain Incinerators*

This Rule is proposed for amendment to remove the Title V permitting requirement for OSWI ACIs. Additionally, there are proposed changes based on comments from DAQ staff, including revisions to recordkeeping and reporting requirements, clarification of how to determine compliance with opacity limits, and the specification of best management practices on maximum ash accumulation in an ACI.

15A NCAC 02Q .0810, *Air Curtain Burners*

The proposed revisions to Rule 02Q .0810 include recalculating the Title V exclusionary limit that exempts air curtain burners from the Title V permitting requirements in 15A NCAC 02Q .0500, using emission factors for ACIs published by the San Joaquin Valley Air Pollution Control District (SJVAPCD).[4] The current exclusionary limit in Rule 02Q .0810 is derived from a 1996 EPA Study on Open Burning.[5] The SJVAPCD ACI emission factors are more representative of modern ACIs and are currently used for permitting ACIs in North Carolina and other states. The limiting pollutant (i.e., highest emission factor) from the SJVAPCD is carbon monoxide (CO), with an emission factor of 2.6 pounds (lbs) of CO emitted per ton of material burned. This factor results in a new exclusionary limit of 76,000 tons of material per year. All OSWI ACIs in North Carolina burn less than 35 tpd of only wood waste, clean lumber, yard waste, or a mixture of these materials, which equals a maximum of 12,775 tons of material per year. Consequently, Exclusionary Rule 02Q .0810 will only apply to CISWI ACIs. CISWI ACIs are still currently required to maintain a Title V permit pursuant to federal requirements (as incorporated into Rule 02D .1904), so the revisions to Rule 02Q .0810 will not change the current permitting requirements for any unit. Rather, Rule 02Q .0810 will serve as a "backstop" in the event that the EPA later removes the Title V permitting requirement for CISWI ACIs that burn only wood waste, clean lumber, yard waste, or a mixture of these materials. Additionally, the Rule is modified to clarify that it does not supersede the permitting requirements of Rule 02D .1904.

[4] San Joaquin Valley Air Pollution Control District, Air Curtain Incinerator Emission Factor Determination, March 10, 2017. https://ww2.valleyair.org/media/dpipwseq/criteria-air-incinerator-ef-determination-analysis.pdf

[5] U.S. EPA, Evaluation of Emissions from the Open Burning of Land-Clearing Debris, October 1996, EPA-600/R-96-128. https://nepis.epa.gov/Exe/ZyPDF.cgi/P1003CHS.PDF?Dockey=P1003CHS.PDF

V. Estimating the Fiscal Impacts

This section provides a summary of the costs and savings associated with the proposed revisions to these Rules. For consistency, the fiscal estimations presented throughout this analysis are provided in inflation-adjusted 2024-dollar (in 2024$) terms, except where noted otherwise. This analysis covers a five-year period from 2025 through 2029.

Since the federal rules and Rule 02D .1904 currently require that all CISWI ACIs obtain a Title V permit (regardless of annual emissions), the proposed changes to Exclusionary Rule 02Q .0810 will not have any fiscal or environmental impact upon the Rule changes becoming effective. As a result, the remainder of this analysis focuses only on the proposed changes to Rule 02D .1904.

A. Regulated Community

In North Carolina, 18 facilities currently hold General Title V permits for OSWI ACIs. Upon revision of Rules 02D .1904 and 02Q .0810, as described in Sections II through IV of this analysis, these facilities would no longer need to hold a Title V permit unless the facility otherwise meets the definition of a major source in 15A NCAC 02Q .0103, which is not expected for any of these 18 facilities. The facilities are listed in Table 1 below. Four of these facilities are municipally owned, and the impacts to these facilities are shown separately in Table 14 and Table 15 of Subsection V.C, as well as Table 16 through Table 19 in Section VII. Together, the local government and private sector facilities make up the regulated community. Although DAQ acknowledges that additional new OSWI ACIs may choose to locate in North Carolina in the coming years, DAQ also notes that some of the existing OSWI ACI facilities have not operated their ACIs in several years and could potentially shut down. As these possibilities cannot be accurately estimated, the total number of OSWI ACIs in North Carolina is assumed to remain constant over the time period of this analysis.

Table 1: OSWI ACI Facilities with Title V Permits

Facility Name	DAQ Facility ID	DAQ Region	Title V Permit Issuance	Permit Renewal Required
City of Jacksonville - ACI	6700171	Wilmington	1/4/21	12/31/25
Collins Tree Service Pit	1600155	Wilmington	4/14/20	3/31/25
M. J. Price Construction Co., Inc.	4200206	Raleigh	3/21/24	2/28/29
Chuck's Construction Mine	1000127	Wilmington	5/20/20	12/31/24
Town of Williamston WWTP - ACI	5900127	Washington	3/2/21	2/28/26
Thomas Simpson Construction - ACI	1600157	Wilmington	3/18/21	2/28/26
Laurinburg Yard Waste Burn Site	8300110	Fayetteville	8/25/21	7/31/26
Bullfrog Bella ACI	2400168	Wilmington	11/10/21	10/21/26
Ham Farms ACI	4000042	Washington	12/16/21	11/30/26
Tar Heel ACI	8000201	Mooresville	2/9/22	1/31/27
Richmond Co. ACI	7700103	Fayetteville	5/10/22	4/30/27
HOM Dev ACI	2800051	Washington	5/19/22	4/30/27
C & H Norris Const. Co., Inc.	2400161	Wilmington	10/20/20	9/30/25
Carolina Tree and Landscaping	1000118	Wilmington	10/27/20	9/30/25
Coastal River Investments, LLC	6700161	Wilmington	10/27/20	9/30/25
Frank Horne Const., Inc.	2400153	Wilmington	10/20/20	9/30/25
Maxton Public Works (ACI)	7800245	Fayetteville	2/28/24	1/31/29
Richard Abernathy Grading and Septic, Inc. - Mt. Ulla Site	4900341	Mooresville	3/2/22	2/28/27

Permit Fee Costs and Savings

One major impact of the removal of the Title V permitting requirement for OSWI ACIs is the change in annual permit fees that these facilities are required to pay each year for holding a Title V permit. The 18 facilities identified in Table 1 currently have General Title V ACI permits, which have annual permit fees of 10% of the standard Title V permit annual fees.[6] Pursuant to

[6] 15A NCAC 02Q .0203 establishes the permit fees for holders of air quality permits and specifies that Title V fees are adjusted for inflation each year. Therefore, the DAQ publishes a list of the current fees each year on its website.

15A NCAC 02Q .0203 and .0204, Title V permit fees are composed of a base fee and a tonnage fee, and Title V fees are increased each year by the percent increase in the Consumer Price Index (CPI) from the U.S. Bureau of Labor Statistics. As of the date of this analysis, the fees for calendar year 2025 are known and published on the DAQ website ($1,059 base fee and $4.83 per ton of emissions)[7], but the Title V permit fees for calendar years 2026 through 2029 are unknown. To estimate the future CPI adjustments for these years, the average increases in CPI from 2017-2025 were averaged, and this value (2.11%) was used to estimate future fees. Atypical levels of inflation made the 2023 and 2024 CPIs outliers, so these years were excluded from the average.[8] Subsection VII.C of this fiscal note contains a sensitivity analysis of this variable and summarizes how the results of this cost-benefit analysis would change if a different CPI value was assumed to estimate inflation for 2026 through 2029.

This analysis assumes that all 18 OSWI ACI facilities have their Title V permits rescinded during calendar year 2025, which would occur upon request by the facility. Every facility is invoiced for their annual permit fees at a different date throughout the year, which is based on the date that the facility was issued its first air quality permit. The facility is invoiced on this same date every year at the amount corresponding to the facility's permit classification as of the invoice date. Since some of these facilities may have billing dates earlier in the calendar year (i.e., prior to having their Title V permit rescinded), they may still pay Title V permit fees in 2025, while others may have their Title V permits rescinded (or converted to non-Title V permits) prior to their billing date. For the purposes of this analysis, it is assumed that half of the 18 affected facilities will rescind their Title V permits prior to their 2025 billing date (thus not incurring Title V permit fees in 2025), while the other 9 affected facilities still pay Title V permit fees in 2025. Beginning in 2026, the analysis assumes that all 18 affected facilities experience Title V permit fee savings. With the enactment of the Disaster Recovery Act of 2024, these facilities can already request recission of their Title V permit, but only two have done so, as of the date of this analysis. The actual date that the remaining 16 facilities will request to rescind their Title V permits will be a business decision for each facility, likely based on how much time is left in the term of their current permit, the costs of continuing to hold and comply with their Title V permit, and potential costs associated with applying for a new small permit.

While the base fee is a flat fee that all Title V permit holders pay each year ($1,059 for 2025, increased by the CPI adjustment factor each year thereafter), each facility pays a different amount in tonnage fees, equal to the tonnage fee factor ($4.83 in 2025, increased by the CPI adjustment factor each year thereafter) multiplied by the sum of all emissions of regulated air pollutants reported by the facility's most recent emissions inventory.[9] To estimate the savings in tonnage

[7] The current calendar year 2025 permit fees are available at: https://www.deq.nc.gov/media/47050/download?attachment

[8] U.S. Bureau of Labor Statistics, Consumer Price Index Historical Tables for U.S. City Average, accessed on January 16, 2024. https://www.bls.gov/regions/mid-atlantic/data/consumerpriceindexhistorical_us_table.htm

[9] Pursuant to 15A NCAC 02Q .0203(g), emissions of CO and greenhouse gases are not included in the actual emissions used to determine tonnage fees, as well as any pollutant regulated solely because it is a Class I or II substance listed pursuant to Section 602 of the CAA (ozone depletors), and any pollutant regulated solely because it is subject to a regulation or standard pursuant to Section 112(r) of the CAA (accidental releases).

fees experienced by the facilities, the total tons of billable emissions reported from each facility were summed for each of the last three years, and the average of these yearly tonnages (24 tpy of emissions across the 18 facilities, with 0 tpy from the municipally owned facilities) was assumed to be the annual emissions from the facilities as a whole for each year of the analysis. Using this methodology, the 18 facilities are estimated to save a total of approximately $84,506 (in 2024$) in Title V permit fees over the next five years, as shown in Table 2 below. Although Title V permits need to be renewed every five years, there is no fee charged for renewal applications; therefore, renewal application fees are not applicable for this analysis.

Table 2: Regulated Community Title V Permit Fee Savings

Nominal $					**2024$**
Year	**Permit Fee Type**	**Fee**	**Units**	**Total Savings**	**Total Savings**
2025	Basic Permit Fee	$1,059/facility	9 facilities	$9,529	$9,333
	Tonnage Factor Fee	$4.83/ton	12 tons	$58	$57
2026	Basic Permit Fee	$1,081/facility	18 facilities	$19,460	$18,665
	Tonnage Factor Fee	$4.93/ton	24 tons	$118	$113
2027	Basic Permit Fee	$1,104/facility	18 facilities	$19,870	$18,666
	Tonnage Factor Fee	$5.03/ton	24 tons	$121	$113
2028	Basic Permit Fee	$1,127/facility	18 facilities	$20,290	$18,666
	Tonnage Factor Fee	$5.14/ton	24 tons	$123	$113
2029	Basic Permit Fee	$1,151/facility	18 facilities	$20,716	$18,666
	Tonnage Factor Fee	$5.25/ton	24 tons	$126	$114
Five-Year Total Savings in Title V Permit Fees				**$90,411**	**$84,506**

* The sum of individual items may not equal totals due to rounding.

Although these 18 facilities will no longer be required by Rule 02D .1904 to obtain a Title V permit, they may need to obtain a Construction and Operation Permit (commonly referred to as a non-Title V permit, State permit or small permit) issued pursuant to the provisions of 15A NCAC 02Q .0300 if they do not qualify for one of the exemptions listed in 15A NCAC 02Q .0102, *Activities Exempted from Permit Requirements*. The exemption most applicable to these OSWI ACIs is provided in Rule 02Q .0102(d), which specifies that facilities whose actual emissions of particulate matter (PM_{10}), sulfur dioxide, nitrogen oxides, volatile organic compounds, CO, HAPs, and toxic air pollutants are each less than 5 tpy and whose actual total aggregate emissions are less than 10 tpy are not required to obtain a small permit (except for synthetic minor facilities). Based on a review of emissions inventory data from these facilities over the last three years, one facility from the private sector is anticipated to still need a small permit. While the remaining 17 OSWI ACI facilities appear to *possibly* qualify for the aforementioned exemption

under 15A NCAC 02Q .0102(d), they may still choose to apply for and obtain a small permit under the provisions of 02Q .0300. A facility may wish to hold a small permit for a variety of reasons, such as to allow growth in future operations that may result in actual emissions greater than the exemption thresholds. Due to the uncertainty associated with whether these facilities will be required to obtain small permits, this analysis captures both scenarios, resulting in a range of estimated costs and savings.

Small permits have a one-time application fee of $50 and an annual basic permit fee of $250, and these fees are not currently adjusted for inflation annually. Small permits are issued for a period of eight years, and there is no renewal application fee. The proposed changes would result in $1,224 (in 2024$) in costs over five years to the one facility that would be required to obtain a small permit, as shown in Table 3 below.

Table 3: Regulated Community Small Permit Fee Costs for One Small Facility Scenario (undiscounted)

Nominal $						2024$
Year	**Permit Fee Type**	**Occurrence**	**Fee**	**Units**	**Total Cost**	**Total Cost**
2025	Application Fee	Once	$50/facility	1 facility	$50	$49
	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$245
2026	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$240
2027	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$235
2028	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$230
2029	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$225
Five-Year Total Cost of Small Permit Fees					**$1,300**	**$1,224**

As previously stated, it is assumed that half of the 18 facilities will rescind their Title V permits prior to their 2025 billing date. These nine facilities can then obtain small permits and pay only small permit fees in 2025. Beginning in 2026, it is assumed that all 18 affected facilities experience Title V permit fee savings. If the other 17 facilities also obtained small permits (either because they do not qualify for a permit exemption or because they choose to obtain a small permit regardless), the resulting small permit fee costs to all 18 facilities would total $19,823 (in 2024$) in costs across a five-year period, as shown in Table 4 below.

Table 4: Regulated Community Small Permit Fee Costs for 18 Small Facilities Scenario (undiscounted)

Nominal $						2024$
Year	**Permit Fee Type**	**Occurrence**	**Fee**	**Units**	**Total Cost**	**Total Cost**
2025	Application Fee	Once	$50/facility	18 facilities	$900	$881
	Annual Permit Fee	Annually	$250/facility	9 facilities	$2,250	$2,204
2026	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,316
2027	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,227
2028	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,140
2029	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,055
Five-Year Total Cost of Small Permit Fees					**$21,150**	**$19,823**

Labor Costs and Savings

In addition to the annual permit fees, the facilities are expected to experience savings under the proposed rule change through avoided labor costs associated with maintaining compliance, reporting, and preparing renewal applications for their Title V permit. As stated above, Title V permits are issued for a term of five years and must be renewed towards the end of each five-year cycle. Based on the complexity of the renewal application, the estimated cost of preparing a General Title V ACI permit renewal application includes the labor of an Engineer with 0-5 years' experience for approximately 20 hours. In addition, it is assumed that the permit application requires two hours of manager review and four hours of clerical labor. The facilities are also required to submit an Annual Compliance Certification (ACC) report and an Emissions Inventory each year, which are each estimated to require approximately four hours of labor from an Engineer I with 0-5 years' experience, one hour of manager review, and two hours of clerical labor. Hourly pay is calculated using the mean hourly rate for General and Operations Managers (11-1021), Environmental Engineers (17-2081), and Secretaries and Administrative Assistants (43-6014) from the U.S. Bureau of Labor Statistics.[10] The fully loaded hourly rates were calculated using the benefits and overhead percentages from the EPA Control Cost Manual.[11] It is assumed that each facility will still prepare an ACC report in 2025 and emission inventories in

[10] U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2023, State (xls). https://www.bls.gov/oes/tables.htm

[11] U.S EPA, EPA Air Pollution Control Cost Manual – Sixth Edition, January 2002. https://cfpub.epa.gov/si/si_public_record_Report.cfm?Lab=OAQPS&dirEntryId=338054#:~:text=The%20EPA%20Air%20Pollution%20Control%20Cost%20Manual%20provides,with%20EPA%20regulations%20or%20completing%20air%20pollution%20permits.

2025 and 2026. Table 5 below summarizes the estimated labor savings to the 18 facilities that will no longer be required to hold General Title V ACI permits.

Table 5: Regulated Community Title V Permit Labor Savings for 18 Facilities (undiscounted 2024$)

Task	Staff	Occurrence per facility	Hours of Labor	Hourly Pay (2024$/hr)	Savings Per Facility (2024$)*
Permit Renewal Application Preparation	Engineer I	Every 5 years	20	$101	$2,024
	Manager		2	$127	$255
	Clerical		4	$41	$165
	Total Labor Savings per Renewal Application				**$2,444**
Average Annual Permit Renewal Application Labor Savings per Facility					**$489**
Total Five-Year Permit Renewal Application Labor Savings (18 Facilities)					**$43,992**
ACC Preparation	Engineer I	Annually	4	$101	$405
	Manager		1	$127	$127
	Clerical		2	$41	$83
	Total Labor Savings per ACC Report				**$615**
Total Annual Labor Savings for ACC Reports (18 Facilities)					**$11,067**
Total Five-Year ACC Report Labor Savings (18 Facilities)					**$44,268**
Emission Inventory Preparation	Engineer I	Annually	4	$101	$405
	Manager		1	$127	$127
	Clerical		2	$41	$83
	Total Labor Savings per Emission Inventory Submission				**$615**
Total Annual Labor Savings for Emission Inventory Submissions (18 Facilities)					**$11,067**
Total Five-Year Emission Inventory Submission Labor Savings (18 Facilities)					**$33,201**

* The sum of individual items may not equal totals due to rounding.

As shown in Table 5 above, the labor saved by the regulated community for preparing and submitting General Title V ACI permit renewal applications is estimated at a total of $43,992 (in 2024$) over the next five years. Additionally, the facilities are estimated to save a total of $44,268 (in 2024$) over the next five years for preparing and submitting ACC reports for Title V facilities. The facilities will also save an estimated $33,201 (in 2024$) for the preparation of emission inventories. Combining these savings results in an estimated $121,461 saved by the regulated community in labor over the next five-year period. These savings average to about $1,350 per year for each facility but would be experienced at different times by each facility,

dependent on the expiration date of their current Title V permit. Table 16 through Table 19 in Section VII below divide the savings by year of occurrence.

At least one facility will still need to obtain a small permit, which will require labor to prepare an initial application. When a facility changes permit classifications, the renewal date remains the same; therefore, there will also be labor costs for preparing a renewal application and emission inventory when the facility approaches the expiration date of the current Title V permit. The estimated cost for the initial application includes 40 hours of labor for an Engineer with 0-5 years' experience, four hours of manager review, and eight hours of clerical labor. These costs are the same for preparation of a renewal application and emission inventory. Table 6 below summarizes the costs to the one facility that will be required to obtain a small permit.

Table 6: Regulated Community Small Permit Labor Costs for One Small Facility Scenario (undiscounted 2024$)

Task	Staff	Occurrence per facility	Hours of Labor	Hourly Pay (2024$/hr)	Total Costs (2024$)*
Combined Renewal and Initial Small Permit Application Preparation	Engineer I	Once	40	$101	$4,048
	Manager		4	$127	$510
	Clerical		8	$41	$331
Total Initial Application Labor Costs (1 Facility)					**$4,888**

* The sum of individual items may not equal totals due to rounding.

As shown in Table 6 above, the one facility that will be required to obtain a small permit is estimated to spend a total of $4,888 (in 2024$) on preparing their initial permit application. This facility's next renewal date is within 2025, so it is assumed that the facility will submit one application covering renewal and conversion of their Title V permit to a small permit. This is a one-time cost estimated to only occur in 2025. The facility's small permit would be issued for a permit term of eight years, so the next renewal of this permit would fall outside the five-year window used for this analysis.

Though it is expected that the other 17 facilities may not be required to obtain small permits, they may still choose to obtain one. The resulting small permit labor costs to all 18 facilities would be $87,984 (in 2024$) for preparing initial permit applications. Six of the facilities' current Title V permits are expiring in 2025, so it is assumed that those six facilities will submit one application covering both renewal and conversion of their Title V permit to a small facility permit. The remaining 12 facilities will keep the same permit renewal date for their small permit as currently specified for their Title V permit, so these facilities are expected to incur a total of $58,656 (in 2024$) in labor costs over the next five years for preparing permit renewal applications and emission inventories, as shown in Table 7 below. The permit renewal and emission inventory costs would occur in different years, dependent upon the expiration date of each facility's current

Title V permit. Table 16 through Table 19 in Section VII below distribute the costs to their year of occurrence over the next five years.

Table 7: Regulated Community Small Permit Labor Costs for 18 Small Facilities Scenario (undiscounted 2024$)

Task	Staff	Occurrence per facility	Hours of Labor	Hourly Pay (2024$/hr)	Total Costs (2024$)*
Initial Application Preparation	Engineer I	Once	40	$101	$4,048
	Manager		4	$127	$510
	Clerical		8	$41	$331
Total Initial Application Labor Costs Per Facility					**$4,888**
Total Initial Application Labor Costs (18 facilities)					**$87,984**
Renewal Application and Emission Inventory Preparation and Submission	Engineer I	Every 8 years	40	$101	$4,048
	Manager		4	$127	$510
	Clerical		8	$41	$331
Total Renewal Application and Emission Inventory Labor Costs Per Facility					**$4,888**
Total Renewal Application and Emission Inventory Labor Costs (12 Facilities)					**$58,656**

* The sum of individual items may not equal totals due to rounding.

B. State Government Impacts

The estimated costs and savings to State government mirror those described for the regulated community in the Subsection V.A, with some additions, as described in this subsection.

Permit Fee Revenues

The DAQ anticipates an impact on State government due to this proposed rule change because the State would no longer receive Title V permit fees from affected facilities. The DAQ currently has 34 active General Title V ACI permits. Sixteen of these permits are for CISWI units, which will still be required to maintain a Title V permit. Under the proposed change in permitting requirements, the 18 facilities with OSWI ACIs would be excluded from the requirement to hold a Title V permit pursuant to 15A NCAC 02Q .0500. As stated above, these 18 facilities currently have General Title V ACI permits, and the 2025 fees for these permits are a basic permit fee of $1,059 and an emission fee of $4.83 per ton. Future fees were estimated using a CPI of 2.11% to account for inflation.

As in the regulated community analysis in Subsection V.A above, it is assumed that nine facilities will rescind their Title V permits prior to their 2025 billing date and therefore will not pay Title V permit fees to the DAQ in 2025, while the other nine affected facilities will still pay these fees. Beginning in 2026, the analysis assumes that all 18 affected facilities will have rescinded their Title V permits. The DAQ is estimated to lose $84,506 (in 2024$) in revenue over the next five years from no longer receiving General Title V ACI annual permit and tonnage factor fees, as shown in Table 8 below.

Table 8: State Government – Loss of Revenue from Title V Permit Fees for 18 Facilities (undiscounted)

Nominal $					2024$
Year	**Permit Fee Type**	**Fee**	**Units**	**Total Costs**	**Total Costs***
2025	Basic Permit Fee	$1,059/facility	9 facilities	$9,529	$9,333
	Tonnage Factor Fee	$4.83/ton	12 tons	$58	$57
2026	Basic Permit Fee	$1,081/facility	18 facilities	$19,460	$18,665
	Tonnage Factor Fee	$4.93/ton	24 tons	$118	$113
2027	Basic Permit Fee	$1,104/facility	18 facilities	$19,870	$18,666
	Tonnage Factor Fee	$5.03/ton	24 tons	$121	$113
2028	Basic Permit Fee	$1,127/facility	18 facilities	$20,290	$18,666
	Tonnage Factor Fee	$5.14/ton	24 tons	$123	$113
2029	Basic Permit Fee	$1,151/facility	18 facilities	$20,716	$18,666
	Tonnage Factor Fee	$5.25/ton	24 tons	$126	$114
Five-Year Total Loss of Revenue from Title V Permit Fees				**$90,411**	**$84,506**

* The sum of individual items may not equal totals due to rounding.

Based on emissions data from the last three years, it is predicted that 17 of the OSWI ACIs will no longer be required to obtain any permit, while one will be required to obtain a small permit. Small permits have an application fee of $50 (Nominal $) and an annual basic permit fee of $250 (Nominal $). These changes result in $1,224 (in 2024$) in additional revenue from small permit fees over the next five years, as shown in Table 9 below.

Table 9: State Government Small Permit Fee Revenue for One Small Facility Scenario (undiscounted)

Nominal $						2024$
Year	**Permit Fee Type**	**Occurrence**	**Fee**	**Units**	**Total Cost**	**Total Revenue**
2025	Application Fee	Once	$50/facility	1 facility	$50	$49
	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$245
2026	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$240
2027	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$235
2028	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$230
2029	Annual Permit Fee	Annually	$250/facility	1 facility	$250	$225
Five-Year Total Revenue					**$1,300**	**$1,224**

If the other 17 facilities also obtained small permits, the resulting small permit fee revenue to all 18 facilities would be $900 (in Nominal $) in one-time permit application fees and $4,500 (in Nominal $) annually in permit fees. It is assumed that half of the 18 facilities will pay small permit fees in 2025, but all the facilities will pay starting in 2026. These fees would total $19,823 (in 2024$) of revenue over the next five years, as shown in Table 10 below.

Table 10: State Government Small Permit Fee Revenue for 18 Small Facilities Scenario (undiscounted)

Nominal $						2024$
Year	**Permit Fee Type**	**Occurrence**	**Fee**	**Units**	**Total Cost**	**Total Revenue**
2025	Application Fee	Once	$50/facility	18 facilities	$900	$881
	Annual Permit Fee	Annually	$250/facility	9 facilities	$2,250	$2,204
2026	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,316
2027	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,227
2028	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,140
2029	Annual Permit Fee	Annually	$250/facility	18 facilities	$4,500	$4,055
Five-Year Total Revenue from Small Permit Fees					**$21,150**	**$19,823**

Labor Costs and Savings

The State government will also have a change in labor expended as a result of the proposed rulemaking, resulting in savings in labor costs from reviewing and enforcing Title V permits. Due to the complexity and nature of the General Title V ACI permit, it is reasonable for a State Engineer I to conduct the permit renewal reviews. The DAQ estimates that this type of permit review requires 16 hours of labor. Additionally, inspecting each facility is estimated to require an Engineer I eight hours annually, and it is estimated to require an Engineer I one hour each to review the ACC report and emission inventory. Facility inspections and ACC Report reviews are assumed to still take place in 2025 but will stop in 2026. Emission inventory reviews will take place through 2026 to account for 2025 emissions. The labor saved by DAQ for annual tasks is estimated to be a total of $43,472 (in 2024$) over the next five years, which averages to $483 per facility per year. Additionally, the DAQ is estimated to save a total of $15,361 (in 2024$) over the next five years for labor spent reviewing and processing renewal applications for these Title V permits. The savings from renewal applications average to about $3,072 (in 2024$) per year but would occur in increments of $853 (for each of the 18 facilities) since the facilities would not all renew their permits in the same year. Table 16 through Table 19 in Section VII below allocate the permit renewal labor costs to the year in which each facility would need to complete their renewal. Combining these annual and five-year savings results in an estimated $58,833 (in 2024$) in labor saved by DAQ over the next five-year period. These savings are summarized in Table 11 below.

Table 11: State Government Title V Permit Labor Savings for 18 Facilities (undiscounted)

Task	Staff	Occurrence per facility	Hours of Labor	Hourly Pay (2024$/hr)	Total Savings (2024$)
Permit Renewal Application Review	Engineer I	Every 5 years	16	$51	$814
	Engineering Supervisor I		0.5	$78	$39
	Total Labor Savings per Permit Renewal Application				**$853**
Average Annual Labor Savings per Facility					**$171**
Total Five-Year Permit Renewal Application Labor Savings (18 Facilities)					**$15,361**
Facility Inspection	Engineer I	Annually	8	$51	$407
	Engineering Supervisor I		0.5	$78	$39
	Total Labor Savings per Facility Inspection				**$446**
Total Annual Labor Savings for Facility Inspections (18 Facilities)					**$8,033**
Total Five-Year Facility Inspection Labor Savings (18 Facilities)					**$32,130**
ACC Report Review and Processing	Engineer I	Annually	1	$51	$51
	Engineering Supervisor I		0.5	$78	$39
	Total Labor Savings per ACC Report				**$90**
Total Annual Labor Savings for ACC Reports (18 Facilities)					**$1,620**
Total Five-Year ACC Report Labor Savings (18 Facilities)					**$6,481**
Emission Inventory Review	Engineer I	Annually	1	$51	$51
	Engineering Supervisor I		0.5	$78	$39
	Total Labor Savings per Emission Inventory Submission				**$90**
Total Annual Labor Savings for Emission Inventory Submissions (18 Facilities)					**$1,620**
Total Five-Year Emission Inventory Submission Labor Savings (18 Facilities)					**$4,861**

* The sum of individual items may not equal totals due to rounding.

Hourly pay is calculated with an estimated 2,080 annual work hours and using the North Carolina Office of State Human Resources (NC OSHR) Total Compensation Calculator for an Engineer I using the first quarter of salary schedule NC16 and five years of experience.[12] The Engineering

[12] NC OSHR, Salary Schedule NC, accessed on January 31, 2025. https://oshr.nc.gov/state-employee-resources/classification-compensation/compensation/salary-schedule-nc

Supervisor I pay is calculated using the midpoint of salary schedule NC21 and twenty years of experience.[13]

The State government will have additional labor costs due to the one facility that will need to obtain a small permit. An initial small permit application is estimated to require 40 hours of labor for a State Engineer I to review, while a facility inspection will require 8 hours every other year. An Engineering Supervisor I will spend one hour each on reviewing the initial permit application and the biennial facility inspection. Since this facility's next permit expiration date is in 2025, it is assumed that permit renewal will be combined with the initial small permit review. These expenditures are summarized in Table 12 below. Combining the labor costs results in an estimated $2,599 (in 2024$) spent by the DAQ over the next five-year period, which averages to approximately $520 per year. Table 16and Table 18 in Section VII below allocate each cost to the year in which it would occur.

Table 12: State Government Small Permit Labor Costs for One Small Facility Scenario (undiscounted)

Task	Staff	Occurrence per facility	Hours of Labor	Hourly Pay (2024$/hr)	Total Costs (2024$)
Initial Permit Application Review	Engineer I	Once	40	$51	$2,036
	Engineering Supervisor I		1	$78	$78
Total Labor Costs per Initial Permit Application					**$2,114**
Facility Inspection	Engineer I	Every 2 years	8	$51	$407
	Engineering Supervisor I		1	$78	$78
Total Inspection Labor Costs per Facility					**$485**

* The sum of individual items may not equal totals due to rounding.

It is also possible that all 18 facilities will obtain a small permit. In this analysis, labor costs for reviewing initial permit applications and permit renewal applications for the six facilities with a permit renewal date in 2025 are combined. The 12 facilities with permit renewal dates later than 2025 are assumed to submit a separate application for each, so the State will incur labor costs for both applications. It is also assumed that all 18 facilities will already be inspected as part of their Title V permit compliance in 2025, so the DAQ will not incur additional labor costs for facility inspection in that year. Starting in 2026, it is assumed that the facilities will be inspected every other year as part of ensuring compliance with their small permits. If the other 17 facilities with

[13] NC OSHR, Total Compensation Calculator, accessed on January 31, 2025. https://oshr.nc.gov/state-employee-resources/classification-compensation/total-compensation-calculator

an OSWI ACI also obtain a small permit, the DAQ will spend $38,050 (in 2024$) on labor costs for reviewing initial small permit applications, $20,481 (in 2024$) on permit renewal and emission inventory reviews, and $17,473 (in 2024$) on facility inspections over the next five years. These costs are summarized in Table 13 below. Combining these costs results in an estimated $76,005 spent by the DAQ over the next five-year period, which averages to approximately $15,201 per year. Table 17 and Table 19 in Section VII below allocate the cost to the year in which the facility would need to renew its permit.

Table 13: State Government Small Permit Labor Costs for 18 Small Facilities Scenario (undiscounted)

Task	Staff	Occurrence per facility	Hours of Labor	Hourly Pay (2024$/hr)	Total Costs (2024$)
Initial Permit Application Review	Engineer I	Once	40	$51	$2,036
	Engineering Supervisor I		1	$78	$78
	Total Labor Costs per Initial Permit Application				**$2,114**
Total Initial Permit Application Review Labor Costs (18 Facilities)					**$38,050**
Permit Renewal and Emission Inventory Review	Engineer I	Every 8 years	32	$51	$1,629
	Engineering Supervisor I		1	$78	$78
	Total Labor Costs per Permit Renewal Application				**$1,707**
Total Permit Renewal Application Review Labor Costs (12 Facilities)					**$20,481**
Facility Inspection	Engineer I	Every 2 years	8	$51	$407
	Engineering Supervisor I		1	$78	$78
	Total Inspection Labor Costs per Facility				**$485**
Total 5-Year Small Facility Inspection Labor Costs (18 Facilities)[14]					**$17,473**

* The sum of individual items may not equal totals due to rounding.

[14] As explained within this Section, Title V facilities are inspected every year and non-Title V facilities are inspected every 1-5 years. This analysis assumes that all 18 facilities will be inspected as Title V facilities in 2025 and then

C. Local Government Impacts

It is expected that there will be no cost impacts to the local government air quality agencies as the result of the proposed rule revisions. The local programs in the State include the Asheville Buncombe Air Quality Agency, Mecklenburg County Air Quality, and Forsyth County Office of Environmental Assistance & Protection. To the extent these local programs may incorporate the changes in Title V permitting requirements in 15A NCAC 02D .1904 and 15A NCAC 02Q .0810 into their own respective rules, these local air agencies may experience impacts of similar nature to those described for State government in Subsection V.B above. Currently, there are no known facilities under the jurisdiction of these local programs holding Title V permits for OSWI ACIs. Therefore, this analysis does not include any fiscal impacts to the local air quality programs as a result of the proposed amendments.

As noted in Subsection V.A, four of the 18 OSWI ACIs are owned by local governments (counties or municipalities): City of Jacksonville, Town of Williamston WWTP, Richmond Co ACI, and Maxton Public Works ACI. Therefore, a portion of the impacts described and estimated in Subsection V.A above will be experienced by these four local government entities, as presented in Table 14 and Table 15 below. It is important to note that the impacts presented in Table 14 and Table 15 are duplicative of a portion of the impacts already presented throughout Subsection V.A, which included impacts to all regulated entities. Similar to the assumptions stated previously, the estimated local government impacts assume that half of these local government-owned ACIs (i.e., two facilities) are billed in 2025 prior to rescinding their Title V permit, and all four facilities begin experiencing Title V permit fee savings beginning in 2026. Since these four facilities reported zero billable emissions for their 2021-2023 permit fees, they were not allocated any of the annual tonnage fee savings from Table 2 above, and they are assumed to not obtain a small facility permit under the "1 Small Facility" scenario, as shown in Table 14.

inspected as small facilities every two years thereafter. Therefore, the total 5-Year Small Inspection Labor Costs in Table 13 ($17,473) are calculated assuming that 9 facilities are inspected each year from 2026-2029.

Table 14: Summary of Impacts to Local Governments for 1 Small Facility Scenario

undiscounted, inflation-adjusted 2024$						
Permit Type	**Savings(+)/Cost(-) Type**	**2025**	**2026**	**2027**	**2028**	**2029**
Title V	Annual Basic Permit Fee (savings) (Table 2)	$2,074	$4,148	$4,148	$4,148	$4,148
	Annual Tonnage Factor Fee (savings) (Table 2)	$0	$0	$0	$0	$0
	Labor – ACC Report Preparation (savings) (Table 5)	$0	$2,459	$2,459	$2,459	$2,459
	Labor – Emission Inventory Preparation (savings) (Table 5)	$0	$0	$2,459	$2,459	$2,459
	Labor – Renewal Application Preparation (savings) (Table 5)	$2,444	$2,444	$2,444	$0	$2,444
Small	Application Fees (costs) (Table 3)	$0	$0	$0	$0	$0
	Annual Basic Permit Fee (costs) (Table 3)	$0	$0	$0	$0	$0
	Labor - Small Permit Application Preparation (costs) (Table 6)	$0	$0	$0	$0	$0
	Labor –Renewal Application and Emission Inventory Preparation (costs) (Table 6)	$0	$0	$0	$0	$0
Total Yearly Impact to Local Government		**$4,518**	**$9,051**	**$11,511**	**$9,067**	**$11,511**
Total Impact to Local Government		**$45,657**				

As these four facilities have renewal dates in 2025, 2026, 2027, and 2029, the avoided costs associated with preparing Title V renewal applications and the increased labor costs for preparing small facility renewal applications and emissions inventories are allocated to those years accordingly. Consistent with the assumption for all of the regulated entities in Subsection V.A, it is assumed that the facility with a renewal date in 2025 will submit one combined application that addresses both the renewal and conversion of their Title V permit to a small permit, so these labor costs only appear in the estimations for the preparation of the initial small permit application.

Table 15: Summary of Impacts to Local Governments for 18 Small Facilities Scenario

undiscounted, inflation-adjusted 2024$						
Permit Type	**Savings(+)/Cost(-) Type**	**2025**	**2026**	**2027**	**2028**	**2029**
Title V	Annual Basic Permit Fee (Table 2)	$2,074	$4,148	$4,148	$4,148	$4,148
	Annual Tonnage Factor Fee (Table 2)	$0	$0	$0	$0	$0
	Labor – ACC Report Preparation (Table 5)	$0	$2,459	$2,459	$2,459	$2,459
	Labor – Emission Inventory Preparation (Table 5)	$0	$0	$2,459	$2,459	$2,459
	Labor – Renewal Application Preparation (Table 5)	$2,444	$2,444	$2,444	$0	$2,444
Small	Application Fees (Table 4)	-$196	$0	$0	$0	$0
	Annual Basic Permit Fee (Table 4)	-$490	-$959	-$939	-$920	-$901
	Labor - Small Permit Application Preparation (Table 7)	-$19,552	$0	$0	$0	$0
	Labor –Renewal Application and Emission Inventory Preparation (Table 7)	$0	-$4,888	-$4,888	$0	-$4,888
Total Yearly Impact to Local Government**		**-$15,720**	**$3,204**	**$5,683**	**$8,147**	**$5,722**
Total Impact to Local Government		**$7,036**				

* The sum of individual items may not equal totals due to rounding.
**Costs and reduced DAQ revenues are shown as negative values; savings and avoided costs are shown as positive values.

As shown in the tables above, both scenarios result in an estimated net savings to local government entities over the five-year period.

VI. Public Health and Environmental Impacts

The EPA's action only removed the Title V permit requirement for OSWI ACIs and did not impact other requirements. This change in permitting requirements is not expected to cause impacts on air quality. The exemption reduces permit fees associated with the operation of a facility, but the facility must still comply with all other applicable federal, state, and/or local air quality rules and regulations. Most notably, affected ACIs are still subject to the opacity limits and recordkeeping requirements in Rule 02D .1904. An EPA Fact Sheet on the final OSWI rule states that "this final action will not increase emissions. Air curtain incinerators that burn only these three types of waste will be required to continue to comply with the opacity requirements in the Other Solid Waste Incinerator (OSWI) rule."[15] It is assumed that these facilities will not change their throughput and will continue to comply with all other requirements of Rule 02D .1904. Since emission levels from the ACIs are not expected to change, this analysis does not estimate any impact on public health or the environment.

[15] U.S. EPA, Fact Sheet: Other Solid Waste Incinerators – Air Curtain Incinerators and Title V Permit Provisions Final Rule, April 11, 2024. https://www.epa.gov/system/files/documents/2024-04/fact-sheet_acirule_final-4-11-2024.pdf

VII. Cost and Benefit Summary

The DAQ developed a cost and benefit analysis of the proposed rule changes for 15A NCAC 02D .1904 and 15A NCAC 02Q .0810. This section summarizes the costs and savings described throughout this fiscal analysis, including the impacts to 18 affected facilities and the state government. It is important to note that this section shows costs and reduced DAQ revenues as negative values, while savings and avoided costs are shown as positive values.

It is also important to note that the costs, savings, and revenue impacts summarized in this analysis are not attributable to this proposed rulemaking. Rather, these impacts are attributable to the Disaster Recovery Act of 2024, which enacted this change in permitting requirements for OSWI ACIs until such time that Rule 02D .1904 is revised to align with EPA's recent changes to the corresponding federal requirements.

A. Summary of Impacts to the Regulated Community and State Government (Undiscounted)

Table 16 below provides a summary of the impacts of the proposed rule changes to the regulated community and the North Carolina state government, under the scenario where one private sector facility must still obtain a small permit. The results in Table 16 assume the other affected facilities will no longer be required to pay Title V permit fees or incur labor costs from either a Title V permit or a small permit. The state government will also save in labor costs but will have a loss of revenue from no longer receiving the Title V permit fees from these facilities. The costs and savings are converted to 2024$ using the average CPI increase discussed in Section V above. Although this analysis assumes that all 18 OSWI ACI facilities will have their Title V permits rescinded in calendar year 2025, the facilities will still need to submit an annual Emissions Inventory in 2026, covering their 2025 emissions. Therefore, labor savings associated with preparing and reviewing Title V Emissions Inventory submittals are shown in Table 16 through Table 19 beginning in 2027. Similarly, the facilities will be required to submit one final ACC report after rescinding their Title V permit within 2025, so the associated labor savings are shown beginning in 2026. As shown in Table 16 below, the analysis of this scenario results in yearly savings ranging from $14,354 to $38,944 (undiscounted 2024$) across the 14 OSWI ACI private sector facilities and $4,518 to $45,657 (undiscounted 2024$) across the 14 OSWI ACI local government facilities. There are also yearly costs to state government ranging between $3,858 and $7,762 (undiscounted 2024$) over the next five-year period from 2025 through 2029, primarily due to lost Title V fee revenue. However, the overall net impact to all entities in this scenario is a net savings of $172,321 (undiscounted 2024$) over the timeframe of this analysis.

Table 16: Summary of Impacts to Private Sector, Local Government and State Government, Undiscounted

Permit Type	Savings(+)/Cost(-) Type	2025	2026	2027	2028	2029
Private Sector (undiscounted, inflation-adjusted 2024$)						
Title V	Annual Permit Fee (Table 2)	$7,259	$14,517	$14,518	$14,518	$14,518
	Tonnage Factor Fee (Table 2)	$57	$113	$113	$113	$114
	Staff Time – ACC Preparation (Table 5)	$0	$8,608	$8,608	$8,608	$8,608
	Staff Time – Emission Inventory Preparation (Table 5)	$0	$0	$8,608	$8,608	$8,608
	Staff Time – Permit Renewal Applications (Table 5)	$12,220	$9,776	$7,332	$0	$4,888
Small	Application Fees (Table 3)	-$49	$0	$0	$0	$0
	Annual Permit Fee (Table 3)	-$245	-$240	-$235	-$230	-$225
	Staff Time - Initial Application Preparation (Table 6)	-$4,888	$0	$0	$0	$0
Total Yearly Net Savings for Private Sector**		**$14,354**	**$32,775**	**$38,944**	**$31,617**	**$36,509**
Total Net Savings for Private Sector, 2025-2029				**$154,198**		
Local Government (undiscounted, inflation-adjusted 2024$)						
Title V	Annual Basic Permit Fee (Table 2)	$2,074	$4,148	$4,148	$4,148	$4,148
	Annual Tonnage Factor Fee (Table 2)	$0	$0	$0	$0	$0
	Staff Time – ACC Report Preparation (Table 5)	$0	$2,459	$2,459	$2,459	$2,459
	Staff Time – Emission Inventory Preparation (Table 5)	$0	$0	$2,459	$2,459	$2,459
	Staff Time – Renewal Application Preparation (Table 5)	$2,444	$2,444	$2,444	$0	$2,444
Small	Application Fees (Table 3)	$0	$0	$0	$0	$0
	Annual Basic Permit Fee (Table 3)	$0	$0	$0	$0	$0
	Labor - Small Permit Application Preparation (Table 6)	$0	$0	$0	$0	$0
Total Yearly Net Savings for Local Government**		**$4,518**	**$9,051**	**$11,511**	**$9,067**	**$11,511**
Total Net Savings for Local Government, 2025-2029				**$45,657**		
State Government (DAQ) (undiscounted, inflation-adjusted 2024$)						
Title V	Annual Permit Fee (Table 8)	-$9,333	-$18,665	-$18,666	-$18,666	-$18,666
	Tonnage Factor Fee (Table 8)	-$57	-$113	-$113	-$113	-$114
	Staff Time – Inspections (Table 11)	$0	$8,033	$8,033	$8,033	$8,033
	Labor – ACC Review and Processing (Table 11)	$0	$1,620	$1,620	$1,620	$1,620
	Labor - Emission Inventory Review (Table 11)	$0	$0	$1,620	$1,620	$1,620
	Labor – Permit Renewal (Table 11)	$5,120	$4,267	$3,414	$0	$2,560
Small	Application Fees (Table 9)	$49	$0	$0	$0	$0
	Annual Permit Fee (Table 9)	$245	$240	$235	$230	$225
	Labor – Inspections (Table 12)	$0	-$485	$0	-$485	$0
	Labor - Initial Permit Application Review (Table 12)	-$2,114	$0	$0	$0	$0
Total Yearly Net Savings for State Government**		**-$6,089**	**-$5,105**	**-$3,858**	**-$7,762**	**-$4,721**
Total Net Savings for State Government, 2025-2029				**-$27,535**		

* The sum of individual items may not equal totals due to rounding.
**Costs and reduced DAQ revenues are shown as negative values; savings and avoided costs are shown as positive values.

Table 17 below provides a summary similar to Table 16 but assumes that all 18 facilities with an OSWI ACI will obtain a small permit. As shown, the results for 2026 through 2029 in this scenario are directionally consistent with the results presented above for the scenario with only one small facility. The State is estimated to experience net costs each year from 2025 through 2029, totaling $81,856 for the five-year period (undiscounted 2024$), primarily due to the loss in Title V fee revenue and labor costs of reviewing and processing 18 small permit applications in 2025. The private sector and local government are estimated to experience five-year savings of $32,468 and $7,036 (undiscounted 2024$), respectively.

The overall net impact to all entities in this scenario is a net cost of $42,352 (undiscounted 2024$) over the timeframe of this analysis.

Table 17: Summary of Impacts to Private Sector, Local Government and State Government, Undiscounted

Permit Type	Savings(+)/Cost(-) Type	2025	2026	2027	2028	2029
Private Sector (undiscounted, inflation-adjusted 2024$)						
Title V	Annual Permit Fee (Table 2)	$7,259	$14,517	$14,518	$14,518	$14,518
	Tonnage Factor Fee (Table 2)	$57	$113	$113	$113	$114
	Staff Time – ACC Preparation (Table 5)	$0	$8,608	$8,608	$8,608	$8,608
	Staff Time - Emission Inventory Preparation (Table 5)	$0	$0	$8,608	$8,608	$8,608
	Staff Time – Renewal Application and Emission Inventory Preparation (Table 5)	$12,220	$9,776	$7,332	$0	$4,888
Small	Application Fees (Table 4)	-$686	$0	$0	$0	$0
	Annual Permit Fee (Table 4)	-$1,714	-$3,357	-$3,288	-$3,220	-$3,154
	Staff Time - Initial Application Preparation (Table 7)	-$68,432	$0	$0	$0	$0
	Staff Time –Renewal Application and Emission Inventory Preparation (Table 7)	$0	-$19,552	-$14,664	$0	-$9,776
Total Yearly Net Savings for Private Sector**		**-$51,296**	**$10,105**	**$21,227**	**$28,627**	**$23,805**
Total Net Savings for Private Sector, 2025-2029				**$32,468**		
Local Government (undiscounted, inflation-adjusted 2024$)						
Title V	Annual Permit Fee (Table 2)	$2,074	$4,148	$4,148	$4,148	$4,148
	Tonnage Factor Fee (Table 2)	$0	$0	$0	$0	$0
	Staff Time – ACC Preparation (Table 5)	$0	$2,459	$2,459	$2,459	$2,459
	Staff Time - Emission Inventory Preparation (Table 5)	$0	$0	$2,459	$2,459	$2,459
	Staff Time – Renewal Application and Emission Inventory Preparation (Table 5)	$2,444	$2,444	$2,444	$0	$2,444
Small	Application Fees (Table 4)	-$196	$0	$0	$0	$0
	Annual Permit Fee (Table 4)	-$490	-$959	-$939	-$920	-$901
	Staff Time - Initial Application Preparation (Table 7)	-$19,552	$0	$0	$0	$0
	Staff Time –Renewal Application and Emission Inventory Preparation (Table 7)	$0	-$4,888	-$4,888	$0	-$4,888
Total Yearly Net Savings for Local Government **		**-$15,720**	**$3,204**	**$5,683**	**$8,147**	**$5,722**
Total Net Savings for Local Government, 2025-2029				**$7,036**		
State Government (DAQ) (undiscounted, inflation-adjusted 2024$)						
Title V	Annual Permit Fee (Table 8)	-$9,333	-$18,665	-$18,666	-$18,666	-$18,666
	Tonnage Factor Fee (Table 8)	-$57	-$113	-$113	-$113	-$114
	Staff Time – Inspections (Table 11)	$0	$8,033	$8,033	$8,033	$8,033
	Staff Time – ACC Review and Processing (Table 11)	$0	$1,620	$1,620	$1,620	$1,620
	Staff Time - Emission Inventory Review (Table 11)	$0	$0	$1,620	$1,620	$1,620
	Staff Time – Permit Renewal (Table 11)	$5,120	$4,267	$3,414	$0	$2,560
Small	Application Fees (Table 10)	$881	$0	$0	$0	$0
	Annual Permit Fee (Table 10)	$2,204	$4,316	$4,227	$4,140	$4,055
	Staff Time – Inspections (Table 13)	$0	-$4,368	-$4,368	-$4,368	-$4,368
	Staff Time - Initial Permit Application Review (Table 13)	-$38,050	$0	$0	$0	$0
	Staff Time – Permit Renewal and Emission Inventory Review (Table 13)	$0	-$8,534	-$6,827	$0	-$5,120
Total Yearly Net Savings for State Government**		**-$39,234**	**-$13,445**	**-$11,061**	**-$7,735**	**-$10,380**
Total Net Savings for State Government, 2025-2029				**-$81,856**		

* The sum of individual items may not equal totals due to rounding.

**Costs and reduced DAQ revenues are shown as negative values; savings and avoided costs are shown as positive values.

B. Net Present Value Impacts

Discounting is a way of adjusting costs and benefits occurring at different points in time into a common period so that they can be compared equivalently. Future year costs and benefits are converted into present day values using a 7% discount rate as directed by N.C.G.S. 150B-21.4(b1)(5). These year-by-year impacts are then summed to determine the net present value (NPV) of all costs and benefits. In this analysis, a negative NPV indicates that the quantified costs outweigh the quantified benefits, while a positive NPV indicates that the quantified benefits outweigh the quantified costs. Table 18 below summarizes the present value costs and savings for the private sector, local government, and state government for the scenario with one small facility at a 7% discount rate, and Table 19summarizes the discounted costs and savings for a scenario with 18 small facilities.

Table 18 captures the same costs, savings, and revenue impacts as Table 16, but shows them as present values to account for the time value of money. As shown below, the total NPV of all quantified impacts on the private sector, local government, and state government from 2025 through 2029 is estimated to be a savings of $138,044 (2024$) using a 7% discount rate for this scenario.

Table 18: Summary of Impacts to Private Sector, Local Government and State Government, 7% Discount Rate (1 Small Facility Scenario)

Permit Type	Savings(+)/Cost(-) Type	2025	2026	2027	2028	2029
Private Sector (present value @7% Discount Rate, 2024$)						
Title V	Annual Permit Fee	$6,784	$12,680	$11,851	$11,076	$10,351
	Tonnage Factor Fee	$53	$99	$93	$87	$81
	Staff Time – ACC Preparation	$0	$7,518	$7,026	$6,567	$6,137
	Staff Time - Emission Inventory Preparation	$0	$0	$7,026	$6,567	$6,137
	Staff Time – Renewal Application and Emission Inventory Preparation	$11,421	$8,539	$5,985	$0	$3,485
Small	Application Fees	-$46	$0	$0	$0	$0
	Annual Permit Fee	-$229	-$209	-$192	-$175	-$161
	Staff Time - Initial Application Preparation	-$4,568	$0	$0	$0	$0
Total Yearly Net Savings for Private Sector		**$13,415**	**$28,627**	**$31,790**	**$24,121**	**$26,031**
Total Net Savings for Private Sector, 2025-2029				**$123,982**		
Local Government (present value @7% Discount Rate, 2024$)						
Title V	Annual Permit Fee	$1,938	$3,623	$3,386	$3,165	$2,957
	Tonnage Factor Fee	$0	$0	$0	$0	$0
	Staff Time – ACC Preparation	$0	$2,148	$2,008	$1,876	$1,753
	Staff Time - Emission Inventory Preparation	$0	$0	$2,008	$1,876	$1,753
	Staff Time – Renewal Application and Emission Inventory Preparation	$2,284	$2,135	$1,995	$0	$1,743
Small	Application Fees	$0	$0	$0	$0	$0
	Annual Permit Fee	$0	$0	$0	$0	$0
	Staff Time - Initial Application Preparation	$0	$0	$0	$0	$0
Total Yearly Net Savings for Local Government		**$4,222**	**$7,906**	**$9,396**	**$6,917**	**$8,207**
Total Net Savings for Local Government, 2025-2029				**$36,648**		
State Government (DAQ) (present value @7% Discount Rate, 2024$)						
Title V	Annual Permit Fee	-$8,722	-$16,303	-$15,237	-$14,241	-$13,308
	Tonnage Factor Fee	-$53	-$99	-$93	-$87	-$81
	Staff Time – Inspections	$0	$7,016	$6,557	$6,128	$5,727
	Staff Time – ACC Review and Processing	$0	$1,415	$1,323	$1,236	$1,155
	Staff Time - Emission Inventory Review	$0	$0	$1,323	$1,236	$1,155
	Staff Time – Permit Renewal	$4,785	$3,727	$2,786	$0	$1,825
Small	Application Fees	$46	$0	$0	$0	$0
	Annual Permit Fee	$229	$209	$192	$175	$161
	Staff Time – Inspections	$0	-$424	$0	-$370	$0
	Staff Time - Initial Permit Application Review	-$1,976	$0	$0	$0	$0
Total Yearly Net Savings for State Government		**-$5,691**	**-$4,459**	**-$3,149**	**-$5,922**	**-$3,366**
Total Net Savings for State Government, 2025-2029				**-$22,586**		
Summary (present value @7% Discount Rate, 2024$)						
Total Yearly Impacts to All Entities (net savings)		**$11,946**	**$32,074**	**$38,037**	**$25,116**	**$30,872**
NPV of Quantified Impacts to All Entities, 2025-2029 (net savings)				**$138,044**		

* The sum of individual items may not equal totals due to rounding.
**Costs and reduced DAQ revenues are shown as negative values; savings and avoided costs are shown as positive values.

Table 19 captures the same costs, savings, and revenue impacts as Table 17, but shown as present values to account for the time value of money. As shown below, the total NPV of all quantified

impacts on the private sector, local government, and state government from 2025 through 2029 is estimated to be a net cost of $50,676 (2024$) using a 7% discount rate for a scenario where all 18 current OSWI ACIs obtain small permits, although the annual present value of net impacts in 2027 through 2029 is shown to be a net savings.

Table 19: Summary of Impacts Private Sector, Local Government and State Government, 7% Discount Rate

Permit Type	Savings(+)/Cost(-) Type	2025	2026	2027	2028	2029
Private Sector (present value @7% Discount Rate, 2024$)						
Title V	Annual Permit Fee	$6,784	$12,680	$11,851	$11,076	$10,351
	Tonnage Factor Fee	$53	$99	$93	$87	$81
	Staff Time-ACC Preparation	$0	$7,518	$7,026	$6,567	$6,137
	Staff Time-Emission Inventory Preparation	$0	$0	$7,026	$6,567	$6,137
	Staff Time-Renewal Application and Emission Inventory Preparation	$11,421	$8,539	$5,985	$0	$3,485
Small	Application Fees	-$641	$0	$0	$0	$0
	Annual Permit Fee	-$1,602	-$2,932	-$2,684	-$2,457	-$2,248
	Staff Time-Initial Application Preparation	-$63,955	$0	$0	$0	$0
	Staff Time-Renewal Application and Emission Inventory Preparation	$0	-$17,078	-$11,970	$0	-$6,970
Total Yearly Net Savings for Private Sector		**-$47,940**	**$8,826**	**$17,327**	**$21,839**	**$16,973**
Total Net Savings for Private Sector, 2025-2029				**$17,025**		
Local Government (present value @7% Discount Rate, 2024$)						
Title V	Annual Permit Fee	$1,938	$3,623	$3,386	$3,165	$2,957
	Tonnage Factor Fee	$0	$0	$0	$0	$0
	Staff Time-ACC Preparation	$0	$2,148	$2,008	$1,876	$1,753
	Staff Time-Emission Inventory Preparation	$0	$0	$2,008	$1,876	$1,753
	Staff Time-Renewal Application and Emission Inventory Preparation	$2,284	$2,135	$1,995	$0	$1,743
Small	Application Fees	-$183	$0	$0	$0	$0
	Annual Permit Fee	-$458	-$838	-$767	-$702	-$642
	Staff Time-Initial Application Preparation	-$18,273	$0	$0	$0	$0
	Staff Time-Renewal Application and Emission Inventory Preparation	$0	-$4,269	-$3,990	$0	-$3,485
Total Yearly Net Savings for Local Government		-$14,691	$2,798	$4,639	$6,215	$4,079
Total Net Savings for Local Government, 2025-2029				**$3,041**		
State Government (DAQ) (present value @7% Discount Rate, 2024$)						
Title V	Annual Permit Fee	-$8,722	-$16,303	-$15,237	-$14,241	-$13,308
	Tonnage Factor Fee	-$53	-$99	-$93	-$87	-$81
	Staff Time-Inspections	$0	$7,016	$6,557	$6,128	$5,727
	Staff Time-ACC Review and Processing	$0	$1,415	$1,323	$1,236	$1,155
	Staff Time-Emission Inventory Review	$0	$0	$1,323	$1,236	$1,155
	Staff Time-Permit Renewal	$4,785	$3,727	$2,786	$0	$1,825
Small	Application Fees	$824	$0	$0	$0	$0
	Annual Permit Fee	$2,059	$3,770	$3,451	$3,158	$2,891
	Staff Time-Inspections	$0	-$3,815	-$3,566	-$3,333	-$3,115
	Staff Time-Initial Permit Application Review	-$35,561	$0	$0	$0	$0
	Staff Time-Permit Renewal and Emission Inventory Review	$0	-$7,454	-$5,573	$0	-$3,651
Total Yearly Net Savings for State Government		**-$36,668**	**-$11,743**	**-$9,029**	**-$5,901**	**-$7,401**
Total Net Savings for State Government, 2025-2029				**-$70,742**		
Summary (present value @7% Discount Rate, 2024$)						
	Total Yearly Impacts to all Entities (net savings)	**-$99,299**	**-$118**	**$12,937**	**$22,153**	**$13,651**
	NPV of Quantified Impacts to All Entities, 2025-2029 (net savings)			**-$50,676**		

* The sum of individual items may not equal totals due to rounding.

**Costs and reduced DAQ revenues are shown as negative values; savings and avoided costs are shown as positive values.

C. Uncertainties and Limitations

Future ACIs in North Carolina

It is difficult to predict how many new OSWI ACIs will begin operating in North Carolina in the future. Because of the proposed Rule changes, the private sector and local government will not have to pay Title V fees and labor costs for any new OSWI ACIs. As a result, the state government will no longer receive these Title V fees but will also be relieved of labor costs. Any new OSWI ACI could also qualify for a small permit, which has its own associated costs and savings. Additionally, it is possible that some OSWI ACIs could shut down in the future. The number of OSWI ACIs was assumed to be constant for this analysis due to the uncertainty of predicting the number of new OSWI ACIs, particularly in the wake of Hurricane Helene and the management of storm debris.

Projected CPI

The projected CPI used in this analysis was calculated using the average increases in CPI from 2017-2025 while excluding 2023 and 2024, which had abnormal levels of inflation. If these years were included in the average, the projected CPI would be 3.10%. Alternatively, if a five-year average from 2021-2025 was used, the CPI would be 4.15%. Table 20 below shows the total impacts of this rulemaking if these other CPIs were used in the analysis. Using either of the alternative CPIs results in total impacts within 2% of the original values.

Table 20: Effects of Alternative CPIs on Total Impact at a 7% Discount Rate

NPV of all quantified costs (-) and savings (+) @7% Discount Rate, 2024$			
CPI	**Years Included**	**Total Impact (1 small facility)**	**Total Impact (18 small facilities)**
2.11%	2017-2022; 2025	$138,044	-$50,676
3.10%	2017-2025	$138,949	-$50,986
4.15%	2021-2025	$139,914	-$51,317

VIII. Rule Alternatives

The DAQ is not required to analyze alternative approaches under the proposed rulemaking unless a substantial economic impact to the government or private sector entities is expected to result from the rulemaking. Substantial economic impact is defined in North Carolina's Administrative Procedures Act in N.C.G.S. 150B-21.4, Fiscal and Regulatory Impact Analysis on Rules, as an aggregate financial impact on all persons affected of at least one million dollars in a 12-month period. Because the proposed amendments to 15A NCAC 02D .1904 and 15A NCAC 02Q .0810 do not meet the requirements of a substantial economic impact, no rule alternatives were analyzed for this fiscal note. Additionally, the

Disaster Recovery Act of 2024 requires that Rule 02D .1904 be substantively identical to Section 10.5.(c) of the Act.[3]

IX. Conclusion

The proposed rule changes to 15A NCAC 02D .1904 and 02Q .0810 are intended to update the DAQ's rules for ACIs to incorporate recent EPA and NCGA actions and best management practices for burning vegetative materials in an ACI. While larger units (i.e., CISWI ACIs) will continue to need a Title V permit under federal rules and 02D .1904, smaller units (i.e., OSWI ACIs) are no longer required to obtain a Title V permit unless the unit is located at a site with potential emissions exceeding major source thresholds. The primary impact of the proposal is anticipated to result from savings for each of the 18 facilities with OSWI ACIs that will no longer need to pay annual Title V permit fees, along with avoided labor costs associated with permitting and maintaining compliance with a Title V permit. While fee savings to industry is an equivalent loss in revenue to the State, the change to Division funding may be partially offset by decreased labor costs associated with the permitting and compliance of these facilities as Title V sources. Additionally, some of these 18 OSWI ACIs may obtain a non-Title V, or small permit, dependent on the current and future anticipated operations of the facility. This would result in annual small permit fees for those facilities, along with the labor costs associated with obtaining and complying with the small permit. Likewise, the DAQ would incur labor costs from reviewing small permit applications and reports and inspecting these facilities, although additional small permit fees would be received by the Division annually from each small facility. Over the next five-year period, this analysis estimates the overall NPV of the quantified costs and savings to all entities to range from a savings of $138,044 (if only one OSWI ACI obtains a small permit) to a net cost of $50,676 (if all 18 OSWI ACIs obtain a small permit) in 2024$ using a discount rate of 7%. Net savings are expected for each of the 18 OSWI ACIs, while net costs (as reduced revenue) are expected for DAQ.

The DAQ does not anticipate any impact on air quality or health benefits as a result of this rulemaking, since emissions are expected to remain constant and the opacity limitations for ACIs in Rule 02D .1904 remain unchanged. This proposed revision primarily alters the permit class of some ACIs, affecting their permitting and reporting requirements, as detailed in Section V above.

Lastly, as described previously in this fiscal note, the costs, savings, and revenue impacts summarized in this analysis are not attributable to this proposed rulemaking. Rather, these impacts are attributable to the Disaster Recovery Act of 2024, which enacted this change in permitting requirements for OSWI ACIs until such time that Rule 02D .1904 is revised to align with EPA's recent changes to the corresponding federal requirements.

Appendix A: Illustration of OSWI and CISWI ACI Applicability

"OSWI ACI" includes:

ACIs with capacity < 35 TPD and burning only:

- 100% wood waste,
- 100% clean lumber,
- 100% yard waste, or
- 100% mixture of only wood waste, clean lumber, and/or yard waste.

References: 40 CFR §60.2888(b) and §60.2994(b)

ACIs located at an institutional facility that burn only the following materials, and those materials are generated at that institutional facility:

- 100% wood waste,
- 100% clean lumber,
- 100% yard waste, or
- 100% mixture of only wood waste, clean lumber, and/or yard waste.

References: 40 CFR §60.2888(b) and §60.2994(b)

Commenced construction after 12/9/04; or Commenced reconstruction or modification on or after 6/16/06.

New OSWI ACI

covered by:

NSPS: 40 CFR Part 60, Subpart EEEE

applicable requirements:

Only a subset of the OSWI NSPS requirements (§60.2970 - 60.2974) apply to new OSWI ACIs, which are incorporated into Rule 02D .1904.

Commenced construction on or before 12/9/04; and Not reconstructed or modified on or after 6/16/06.

Existing OSWI ACI

covered by:

Emission Guidelines: 40 CFR Part 60, Subpart FFFF

applicable requirements:

Only a subset of the OSWI EG requirements (§60.3062 - 60.3068) apply to existing OSWI ACIs, which are incorporated into Rule 02D .1904.

"CISWI ACI" includes:

ACIs with capacity ≥ 35 TPD and burning only:

- 100% wood waste,
- 100% clean lumber, or
- 100% mixture of only wood waste, clean lumber, and/or yard waste.

(except for ACIs located at institutional facilities, which are covered under OSWI rules.)

References: 40 CFR §60.2010, §60.2245(b), §60.2550, and §60.2810(b)

Note: ACIs with capacities ≥ 35 TPD burning only 100% yard waste are not covered as CISWI ACIs because they are covered under either: the Large Municipal Waste Combustor (MWC) Rules if the ACI capacity is >250 TPD (Subparts Cb, Ea, and Eb); or the Small MWC Rules if the ACI capacity is 35-250 TPD (Subparts AAAA and BBBB).

References: 40 CFR §60.2020(b), §60.2555(b), §60.32b(j), §60.50b(k)

Commenced construction after 6/6/10; or Commenced reconstruction or modification on or after 8/7/13.

New CISWI

covered by:

NSPS: 40 CFR Part 60, Subpart CCCC

applicable requirements:

Only a subset of the CISWI NSPS requirements (§60.2242 - 60.2260) apply to new CISWI ACIs, which are incorporated into Rule 02D .1904.

Commenced construction on or before 6/6/10; and Not reconstructed or modified on or after 8/7/13.

Existing CISWI

covered by:

Emission Guidelines: 40 CFR Part 60, Subpart DDDD

applicable requirements:

Only a subset of the CISWI EG requirements (§60.2805 - 60.2870) apply to existing CISWI ACIs, which are incorporated into Rule 02D .1904.

15A NCAC 02D .1904 is proposed for amendment as follows:

15A NCAC 02D .1904 AIR CURTAIN INCINERATORS

(a) Applicability. This Rule applies to ~~the following air curtain incinerators:~~ new and existing air curtain incinerators that combust only the following materials:

(1) 100 percent wood waste;

(2) 100 percent clean lumber;

(3) 100 percent yard waste; or

(4) 100 percent mixture of only wood waste, clean lumber, and yard waste.

~~(1) new and existing air curtain incinerators subject to 40 CFR 60.2245 through 60.2260 or 60.2970 through 60. 2974 that combust the following materials:~~

~~(A) 100 percent wood waste;~~

~~(B) 100 percent clean lumber;~~

~~(C) 100 percent yard waste; or~~

~~(D) 100 percent mixture of only wood waste, clean lumber, and yard waste.~~

~~(2) new and existing temporary air curtain incinerators used at industrial, commercial, institutional, or municipal sites.~~

(b) Definitions. For the purpose of this Rule, the following definitions apply:

(1) "Clean lumber" means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood or wood products that have been painted, pigment-stained, or pressure treated, or manufactured wood products that contain adhesives or resins.

(2) "Malfunction" means an unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures caused entirely or in part by poor maintenance, careless operations, or another upset condition within the control of the emission source are not considered a malfunction.

(3) "New air curtain incinerator" means an air curtain incinerator that began operating on the effective date of this Rule or later.

(4) "Operator" means the person in operational control over the open burning.

(5) "Permanent air curtain incinerator" means an air curtain incinerator whose owner or operator operates the air curtain incinerator at one facility or site during the term of the permit.

(6) "Temporary air curtain incinerator" means an air curtain incinerator ~~whose owner or operator moves the air curtain incinerator to another site and operates it for land clearing or right-of-way maintenance at that site on one or more occasions during the term of the permit.~~ that is located at temporary land clearing or right-of-way maintenance sites for less than nine months.

(7) "Temporary-use air curtain incinerator used in disaster recovery" means an air curtain incinerator that meets the following requirements:

(A) combusts less than 35 tons per day of debris consisting of the materials listed in ~~Parts (a)(1)(A)~~Subparagraphs (a)(1) through ~~(C)~~ (4) of this Rule;

(B) combusts debris within the boundaries of an area officially declared a disaster or emergency by federal, state, or local government; and

(C) combusts debris for less than 16 weeks unless the owner or operator submits a request for additional time no less than 1 week prior to the end of the 16-week period and provides the reasons that the additional time is needed. The Director shall provide written approval for the additional time if he or she finds that the additional time is warranted based on the information provided in the request.

Examples of disasters or emergencies include tornadoes, hurricanes, floods, ice storms, high winds, or acts of bioterrorism.

(8) "Wood waste" means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(A) grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial, institutional, or industrial sources as part of maintaining yards or other private or public lands;

(B) construction, renovation, or demolition wastes;

(C) clean lumber; and

(D) treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated, or manufactured wood products that contain adhesives or resins.

(9) "Yard waste" means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include:

(A) construction, renovation, or demolition wastes;

(B) clean lumber; and

(C) wood waste.

(c) Air curtain incinerators shall comply with the following conditions and requirements:

(1) the operation of air curtain incinerators in particulate and ozone nonattainment areas shall cease in a county that the Department or the Forsyth County Office of Environmental Assistance and Protection has forecasted to be an Air Quality Action Day Code "Orange" or above during the 24-hour time period covered by that Air Quality Action Day;

(2) the wind direction at the time that the burning is initiated and the wind direction as forecasted by the National Weather Service during the time of the burning shall be away from areas, including public roads within 250 feet of the burning as measured from the edge of the pavement or other roadway surface, that may be affected by smoke, ash, or other air pollutants from the burning;

(3) no fires shall be started or material added to existing fires when the North Carolina Forest Service, Fire Marshall, or other governmental agency has banned burning for that area;

(4) burning shall be conducted only between the hours of 8:00 a.m. and 6:00 p.m. No combustible materials shall be added to the air curtain incinerator prior to or after this time period;

(5) The air curtain incinerator shall not be operated more than the maximum source operating hours-per-day and days-per-week. The maximum source operating hours-per-day and days-per-week shall be set to protect the ambient air quality standard and prevention of significant deterioration (PSD) increment for ~~particulate.~~ total suspended particulate, PM10, and PM2.5. The maximum source operating hours-per-day and days-per-week shall be determined using the modeling procedures in 15A NCAC 02D .1106(b), (c), and (f). This Subparagraph shall not apply to temporary air curtain incinerators;

(6) air curtain incinerators shall meet manufacturer's specifications for operation and upkeep to ensure complete burning of material charged into the pit. Manufacturer's specifications shall be kept on site and be available for inspection by Division ~~staff;~~ staff. Ash shall not build up to a depth higher than one-third the depth of the pit or to where it begins to impede combustion. The ash shall be spread out and watered after removal from the pit to prevent fugitive emissions. Material shall not be loaded into the pit to a depth where it protrudes above the air curtain;

(7) the owner or operator of an air curtain incinerator shall allow the ashes to cool and water the ash prior to its removal to prevent the ash from becoming airborne;

(8) only distillate oil, kerosene, diesel fuel, natural gas, or liquefied petroleum gas may be used to start the fire; and

(9) the location of the burning shall be at least 300 feet from any dwelling, group of dwellings, or commercial or institutional establishment, or other occupied structure not located on the property on which the burning is conducted. The regional office supervisor may grant exceptions to the setback requirements if a signed, written statement waiving objections to the air curtain burning is obtained from a resident or an owner of each dwelling, commercial or institutional establishment, or other occupied structure within 300 feet of the burning site. In case of a lease or rental agreement, the lessee or renter, and the property owner shall sign the statement waiving objections to the burning. The statement shall be submitted to and approved by the regional office supervisor before initiation of the burn. Factors that the regional supervisor shall consider in deciding to grant the exception include: all the persons who need to sign the statement waiving the objection have signed it; the location of the burn; and the type, amount, and nature of the combustible substances.

(d) Exemptions. Temporary-use air curtain incinerators used in disaster recovery are excluded from the requirements of this Rule if the following conditions are met:

(1) the air curtain incinerator meets the definition of a temporary-use air curtain incinerators used in disaster recovery as specified in Subparagraph (b)(7) of this Rule;

(2) the air curtain incinerator meets requirements pursuant to 40 CFR 60.2969 or 60.3061 to which the air curtain incinerator is subject; and

(3) the air curtain incinerator is operated in a manner consistent with the operations manual for the air curtain incinerator and the charge rate during operation remains less than or equal to the lesser of 35 tons per day or the maximum charge rate specified by the manufacturer of the air curtain incinerator.

(e) Permitting. Air curtain incinerators shall be subject to 15A NCAC 02Q ~~.0500.~~ .0500 as specified in this Paragraph.

(1) The owner or operator of a new or ~~existing~~ existing, permanent or temporary air curtain incinerator with a combustion capacity greater than or equal to 35 tons per day that burns only the materials listed in Subparagraphs (a)(1), (2) and (4) of this Rule shall obtain a General Title V Operating Permit pursuant to 15A NCAC 02Q ~~.0509.~~ .0509 or .0510. The owner or operator of a new, permanent or temporary air curtain incinerator shall complete and submit a permit application 60 days prior to the date the unit commences operation.

~~(2) The owner or operator of a new or existing temporary air curtain incinerator shall obtain a General Title V Operating Permit pursuant to 15A NCAC 02Q .0510.~~

(2) The following air curtain incinerators shall not be required to obtain a Title V Operating Permit unless the air curtain incinerator is located at a major facility, as defined in 15A NCAC 02Q .0103:

(A) air curtain incinerators that burn less than 35 tons per day of only the materials listed in Subparagraphs (a)(1) through (4) of this Rule collected from the general public and from residential, commercial, institutional, and industrial sources;

(B) air curtain incinerators located at institutional facilities that burn only the materials listed in Subparagraphs (a)(1) through (4) of this Rule generated at that facility; and

(C) air curtain incinerators with a capacity greater than or equal to 35 tons per day that burn only 100% yard waste.

~~(3) The owner or operator of an existing permanent or temporary air curtain incinerator shall complete and submit a permit application within 12 months after the effective date of this Rule.~~

~~(4) The owner or operator of a new permanent or temporary air curtain incinerator shall complete and submit a permit application 60 days prior to the date the unit commences operation.~~

~~(5) The owner or operator of an existing permanent or temporary air curtain incinerator that is planning to close rather than obtaining a permit pursuant to 15A NCAC 02Q .0509 or 15A NCAC 02Q .0510 shall submit a closure notification to the Director within 12 months after the effective date of this Rule.~~

(f) Opacity limits. Air curtain incinerators shall comply with the opacity requirements specified in this Paragraph.

(1) The owner or operator of an existing air curtain ~~incinerators~~ incinerator specified in Subparagraph (e)(1) of this Rule shall meet the following opacity limits:

(A) Maintain opacity to less than or equal to 35 percent ~~opacity, as~~ opacity (as determined by the average of ~~3~~ three 1-hour blocks consisting of ~~10~~ ten 6-minute average opacity ~~values,~~

values) during startup of the air curtain incinerator, where startup is defined as the first 30 minutes of ~~operation.~~ operation;

(B) Maintain opacity to less than or equal to 10 percent ~~opacity, as~~ opacity (as determined by the average of ~~3~~ three 1-hour blocks consisting of ~~10~~ ten 6-minute ~~values,~~ average opacity values) at times of operation other than during startup or during malfunctions.

(2) The owner or operator of a new air curtain incinerator specified in Subparagraph (e)(1) of this Rule shall meet the opacity limits specified in Subparagraph (f)(1) of this Rule within 60 days after the air curtain incinerator reaches the charge rate at which it will ~~operate,~~ operate but ~~within~~ no later than 180 days after its initial startup.

(3) The owner or operator of an existing air curtain incinerator specified in Subparagraph (e)(2) of this Rule shall meet the following opacity limits:

(A) Maintain opacity to less than or equal to 35 percent opacity (6-minute average) during startup of the air curtain incinerator, where startup is defined as the first 30 minutes of operation; and

(B) Maintain opacity to less than or equal to 10 percent opacity (6-minute average) at times of operation other than during startup or during malfunctions.

(4) The owner or operator of a new air curtain incinerator specified in Subparagraph (e)(2) of this Rule shall meet the opacity limits specified in Subparagraph (f)(3) of this Rule within 60 days after the air curtain incinerator reaches the charge rate at which it will operate but no later than 180 days after the initial startup.

(g) Performance tests. Air curtain incinerators shall comply with the performance testing requirements specified in this Paragraph.

(1) Initial and annual opacity tests shall be conducted using 40 CFR 60 Appendix A-4 Test Method 9 to determine compliance with the opacity limitations specified in Subparagraph (f)(1) of this Rule.

(2) The owner or operator of an existing air curtain incinerator shall conduct an initial performance test for opacity as specified in 40 CFR 60.8 within 90 days after the effective date of this rule.

(3) The owner or operator of a new air curtain incinerator shall conduct an initial performance test for opacity as specified in 40 CFR 60.8 within 60 days after achieving the maximum charge rate at which the affected air curtain incinerator will be operated, but not later than 180 days after initial startup of the air curtain incinerator.

(4) After the initial test for opacity, the owner or operator of a new or existing air curtain incinerator subject to this Rule shall conduct annual opacity tests on the air curtain incinerator no more than 12 calendar months following the date of the previous test.

(5) The owner or operator of an existing air curtain incinerator that has ceased operations and is restarting after more than 12 months since the previous test shall conduct an opacity test upon startup of the unit.

(h) Recordkeeping and Reporting Requirements. Air curtain incinerators shall comply with the recordkeeping and reporting requirements specified in this Paragraph.

(1) Prior to commencing construction of an air curtain incinerator, the owner or operator of a new air curtain incinerator shall submit the following information to the Director:

(A) a notification of intent to construct an air curtain incinerator;

(B) the planned initial startup date of the air curtain incinerator; and

(C) the materials planned to be combusted in the air curtain incinerator.

(2) The owner or operator of a new or existing air curtain incinerator shall do the following:

(A) notify Division of startup within 15 days of commencing operation of the unit;

~~(A)~~(B) keep records of results of initial and annual opacity tests onsite in either paper copy or electronic format for five years;

~~(B)~~(C) make records available for submission to the Director or for an inspector's onsite review;

~~(C)~~(D) report the results of the initial and annual opacity tests as the average of ~~3~~three 1-hour blocks consisting of ~~10~~ten 6-minute average opacity values;

~~(D)~~(E) submit initial opacity test results to the Division within 60 days following the initial test and submit annual opacity test results within 12 months following the previous report;

~~(E)~~(F) submit initial and annual opacity test reports to the Division as specified in 15A NCAC 02D .0605(i); ~~and~~

~~(F)~~(G) keep a copy of the initial and annual reports onsite for a period of five ~~years.~~ years;

(H) if at a permanent site, keep a daily log of specific materials burned, amounts of material burned in pounds per day, and the number of hours the air curtain incinerator is operated per day. The logs at a permanent air curtain burner site shall be maintained on site for a minimum of two years; and

(I) if at a temporary site, keep a log of total number of tons of material burned daily per temporary site.

(i) In addition to complying with the requirements of this Rule, an air curtain incinerator subject to:

(1) 40 CFR Part 60, Subpart CCCC, shall also comply with 40 CFR 60.2245 through 60.2260; or

(2) 40 CFR Part 60, Subpart EEEE, shall also comply with 40 CFR 60.2970 through ~~60. 2974~~ 60.2973.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10); 143-215.108; S.L. 2011-394, s.2; 40 CFR 60.2865;*
Eff. July 1, 1996;
Amended Eff. July 3, 2012; July 1, 2007; December 1, 2005; August 1, 2004;
Readopted Eff. September 1, 2019;
Amended Eff. _____; September 1, 2023.

15A NCAC 02Q .0810 is proposed for amendment as follows:

15A NCAC 02Q .0810 AIR CURTAIN ~~BURNERS~~ INCINERATORS

(a) This Rule shall apply to facilities whose only sources ~~requiring a permit~~ are one or more air curtain ~~burners.~~ incinerators.

(b) A facility whose air curtain ~~burners~~ incinerators combust less than ~~8,100~~ 76,000 tons per rolling 12 calendar months of only ~~land clearing debris~~ wood waste, clean lumber, yard waste, or a mixture of these materials per year shall be exempt from the requirements of 15A NCAC 02Q ~~.0500.~~ .0500 unless otherwise required by 15A NCAC 02D .1904.

(c) The owner or operator of ~~a~~ an ~~a~~ air curtain ~~burner~~ incinerators exempted by this Rule from the requirements of 15A NCAC 02Q .0500 shall submit to the regional supervisor of the appropriate Division regional office, by March 1 of each year, a report containing the following information:

(1) the name and location of the facility;

(2) the quantity and types of material combusted per calendar month ~~during~~ from January 1 through December 31 of the previous calendar year; and

(3) the signature of a responsible official, as defined in 15A NCAC 02Q .0303, certifying as to the truth and accuracy of the report.

The owner or operator of a facility exempted by this Rule from the requirements of 15A NCAC 02Q .0500 shall provide documentation of the quantity and types of material combusted to the Director upon request and shall retain the previous three years of records on the amount and types of material combusted per year.

~~(d) The owner or operator of a facility exempted by this Rule from the requirements of 15A NCAC 02Q .0500 shall provide documentation of the quantity of material combusted to the Director upon request. The owner or operator of a facility exempted by this Rule from the requirements of 15A NCAC 02Q .0500 shall retain records to document the amount of material combusted per year for the previous three years.~~

~~(e)~~(d) For facilities governed by this Rule, the owner or operator shall report to the Director any exceedance of a requirement of this Rule within one week of its occurrence.

History Note: *Authority G.S. 143-215.3(a); 143-215.107(a)(10); 143-215.108;*
Eff. December 1, 2005;
Readopted Eff. April 1, ~~2018.~~2018;
Amended Eff.