

## Regulatory Impact Analysis for Gasoline Service Stations and Dispensing Facilities Rule Revision

**Rule Citation Number** 15A NCAC 02Q .0802

**Rule Topic:** Gasoline Service Stations and Dispensing Facilities Rule Revision

**DEQ Division:** Division of Air Quality

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**Impact Summary:**

State government:	Yes
Local government:	No
Substantial impact:	No
Private Sector:	Yes

**Authority:** G.S. 143-215.3(a)(1); 143-215.107(a)(5)

**Necessity:** To amend the rule criteria for designation of gasoline service stations and dispensing facilities as exempt from Title V permitting requirements by changing the gasoline throughput to reflect the fleet's onboard refueling vapor recovery efficiencies.

### I. Purpose

The North Carolina Division of Air Quality (DAQ) is proposing revisions to 15A NCAC 02Q .0802, *Gasoline Service Stations and Dispensing Facilities*, that would increase the annual throughput limit in Paragraphs (d) and (e) from 15 million gallons to 52 million gallons. This rule change is based on a recalculation of the annual threshold that incorporates the increase of vapor recovery technology in the vehicle fleet and uses current U.S. Environmental Protection Agency (EPA) AP-42 emission factors. The annual threshold in the Rule exempts gasoline service stations or gasoline dispensing facilities from the requirement to obtain a Title V permit by limiting emissions below the major source permitting thresholds for regulated air pollutants and hazardous air pollutants (HAPs).

## II. Background

The provisions in 15A NCAC 02Q, Section .0801, *Exclusionary Rules – Purpose and Scope*, redefine potential emissions as actual emissions for certain industries, thus allowing a facility to remain a minor source for Title V permit requirements so long as their actual emissions remain below the major source thresholds of 100 tons per year (tpy) of each regulated air pollutant, or 10 tpy for a single HAP or 25 tpy for any combination of HAPs.

Rule 02Q .0802 was originally adopted and became effective August 1, 1995. The rule provides an exemption from the requirement to obtain a Title V permit under 15A NCAC 02Q .0500, *Title V Procedures*, for gasoline service stations and dispensing facilities that remain below an established annual threshold of 15 million gallons of gasoline dispensed calculated on a calendar month rolling average basis. Emissions from these facilities result from filling the underground storage tank, underground tank breathing and emptying, vehicle refueling displacement losses, and vehicle refueling spillage. The rule requires periodic reports from exempt facilities when their annual throughput exceeds certain increments (currently set at 10 million gallons and 13 million gallons). At such time that the annual throughput of an exempt facility surpasses 15 million gallons, the owner or operator must submit a Title V permit application by the end of the following month. The rule further allows the Director to request documentation of annual throughput records to support the exemption.

On April 6, 1994, the EPA promulgated standards for installation of onboard refueling vapor recovery (ORVR) technology in new light duty vehicles (LDVs) and light duty trucks (LDTs).<sup>1</sup> ORVR technology decreases vehicle refueling displacement losses using carbon canisters that capture the gasoline vapors displaced from the vapor space of the vehicle's gasoline tank during refueling.<sup>2</sup> The standards were implemented in a phased approach, beginning with a requirement that 40% of new model year 1998 cars were manufactured with ORVR technology. The standards gradually introduced increased ORVR requirements to various portions of the vehicle fleet, determined by vehicle type and model year. By 2006, nearly all new gasoline-powered highway vehicles were required to be equipped with the technology. In 2012, EPA determined that ORVR technology is in widespread use throughout the motor vehicle fleet for purposes of controlling motor vehicle refueling emissions.<sup>3</sup> Over time, non-ORVR vehicles in the fleet will continue to be replaced with ORVR vehicles.<sup>4</sup>

Newer vehicles manufactured with ORVR controls have lower emissions of volatile organic compounds (VOCs) and HAPs per gallon of gasoline dispensed than older vehicles without vapor recovery, thus

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<sup>1</sup> 59 FR 16262, Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Refueling Emission Regulations for Light-Duty Vehicles and Light Duty Trucks, April 6, 1994.

[https://archives.federalregister.gov/issue\\_slice/1994/4/6/16258-16332.pdf#page=5](https://archives.federalregister.gov/issue_slice/1994/4/6/16258-16332.pdf#page=5)

<sup>2</sup> Fact Sheet on Final Rule Determining Widespread Use of Onboard Refueling Vapor Recovery and Waiver of Stage II Requirements, EPA, [https://www.epa.gov/sites/default/files/2015-09/documents/stage\\_2\\_vapor\\_factsheet.pdf](https://www.epa.gov/sites/default/files/2015-09/documents/stage_2_vapor_factsheet.pdf)

<sup>3</sup> 77 FR 28776, Approval and Promulgation of Implementation Plans; North Carolina; State Implementation Plan Miscellaneous Revisions <https://www.federalregister.gov/documents/2013/05/16/2013-11563/approval-and-promulgation-of-implementation-plans-north-carolina-state-implementation-plan>

<sup>4</sup> 76 FR 41731, Air Quality: Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver <https://www.federalregister.gov/documents/2011/07/15/2011-17888/air-quality-widespread-use-for-onboard-refueling-vapor-recovery-and-stage-ii-waiver>

lowering the vehicle refueling displacement component of the total emissions calculation. As the percentage of vehicles with ORVR in the fleet increases, so does the maximum amount of gasoline these facilities can dispense while keeping actual emissions below major source thresholds.

### **III. Reason for Rule Change**

The DAQ received a request from Barghusen Consulting Engineers, Inc., on behalf of Costco to review the annual throughput exclusion of 15 million gallons of gasoline dispensed in 15A NCAC 02D .0802. They noted that the percentage of vehicles using ORVR had increased and that the EPA had updated their gasoline dispensing AP-42 emission factors since 1995 when the Rule was adopted.

To address this request, the DAQ reviewed updated EPA AP-42 emission factors for gasoline service stations and dispensing facilities and the increased prevalence of ORVR technology since the original adoption of Rule 02Q .0802. The DAQ determined that the gasoline throughput limit in Paragraph (d) could be increased while still ensuring the facilities' actual emissions remain below the major source thresholds identified in Rule 02Q .0801.

The recalculation of the throughput limit used updated AP-42 emission factors and assumed 85% of the vehicle fleet has ORVR with 98% control efficiency.<sup>5</sup> The assumption of 85% ORVR penetration in North Carolina's LDV and LDT fleet was determined by reviewing vehicle registration data from 2017-2020 and applying the EPA's phased-in ORVR requirements to the number of vehicles from each model year. The data consistently showed that the percentage of North Carolina's LDT and LDV fleet estimated to have ORVR continues to increase each year, surpassing 85% in 2020. Using these factors, the maximum annual throughput of gasoline dispensing was calculated to be 52 million gallons to stay under the 100 tpy Title V limit for VOCs, and the 10 tpy limit for a single HAP or 25 tpy limit for any combination of HAPs. Based on this calculation, the DAQ is proposing to amend the annual throughput limit in Paragraphs (d) and (e) in 15A NCAC 02Q .0802 from 15 million gallons to 52 million gallons.

### **IV. Proposed Rule**

The DAQ is proposing amendment to the following rule: 15A NCAC 02Q .0802, *Gasoline Service Stations and Dispensing Facilities*.

The proposed rule change concerns setting a new maximum throughput in Paragraphs (d) and (e), calculated on a monthly rolling average and based on the improved efficiency of on-road motorized vehicles as described above in Section III.

### **V. Estimating the Fiscal Impacts**

This section provides a summary of the costs and savings associated with the proposed revisions to this rule. For consistency, the fiscal estimations presented throughout this analysis are provided in inflation-

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<sup>5</sup> Memorandum from Glenn W. Passavant, EPA Office of Transportation and Air Quality to Public Docket, Updated Data for ORVR Widespread Use Assessment, February 29, 2012. <https://www.regulations.gov/document/EPA-HQ-OAR-2010-1076-0071>

adjusted 2023-dollar (2023\$) terms, except where noted otherwise.<sup>6</sup> This analysis covers an 8-year period from 2024 through 2031, to capture the impacts due to avoided renewal of the four facilities with synthetic minor permits, which occur on an 8-year cycle.

Private Sector

In North Carolina, four gasoline service stations currently hold synthetic minor permits to qualify them as a non-major Title V source. Pursuant to 02Q .0801(d), these facilities submitted requests indicating they do not wish to be subject to the 15A NCAC 02Q .0800’s requirements and instead obtained synthetic minor permits based on an annual gasoline throughput limit (per 12-month rolling average period) that maintain emissions below the major source thresholds for Title V facilities. Additionally, there is one gasoline service station that is currently exempt under Rule 02Q .0802 but has indicated they are approaching the current 15-million-gallon threshold and will be submitting a synthetic minor permit application to the DAQ in 2023. Upon revision of Rule 02Q .0802 as described in Sections II and III, these facilities would no longer need to hold a synthetic minor permit. The facilities are listed in Table 1 below.

**Table 1: Private Sector Synthetic Minor Permitted Gasoline Station Facilities**

Facility Name	DAQ Facility ID	DAQ Region	Synthetic Minor Permit Issuance	Permit Renewal Required
Costco Gasoline Loc. No. 1333	4900333	Mooresville	10/21/2019	9/30/2027
Costco Gasoline Loc. No. 1587	9200860	Raleigh	6/15/2021	3/31/2029
Costco Gasoline Loc. No. 339	4101278	Winston-Salem	11/17/2022	10/31/2030
Costco Gasoline Loc. No. 645	9200870	Raleigh	7/17/2023	6/30/2031
Costco Gasoline Loc. No. 1206	9200869	Raleigh	<i>Application expected 2023</i>	<i>Estimated 2031</i>

These facilities are currently permitted as synthetic minor sources, which has an associated flat fee of \$1,500<sup>7</sup> annually, as specified in 15A NCAC 02Q .0203. The four currently-permitted facilities have no history of a notice of violation, so they qualify for a discounted flat fee of \$1,125 to pay for their synthetic minor permits, as specified in 15A NCAC 02Q .0203(a). For the purposes of calculating annual permit fee savings, the 25% discount is applied to all five facilities. Therefore, if the proposed Rule changes were adopted, the changes would provide an overall savings of \$5,625 annually to the affected facilities as shown in Table 2 below.

<sup>6</sup> For converting to 2023 dollars, the Implicit Price Deflators (IPD) for Gross Domestic Product were used, National Income and Product Accounts Tables, Table 1.1.9, Implicit Price Deflators for Gross Domestic Product. Accessed 6/22/23. U.S. Department of Commerce, Bureau of Economic Analysis..

<sup>7</sup> Current Calendar Year 2023 Permit Fees: <https://www.deq.nc.gov/air-quality/permits/2023daqpermitapplicationfeeschedulememoandtablepdf/download?attachment>

At this time, the DAQ is not aware of any other gasoline service stations that hold a synthetic minor permit due to an annual throughput that is above the current threshold limit of 15 million gallons and below the new proposed threshold of 52 million gallons per year.

**Table 2: Private Sector Permit Fee Savings**

nominal \$				
State Government Permit Fee	Occurrence	Permit Fee	# Facilities	Total
Synthetic Minor Discounted* Fee	Annually	\$1,125	5	\$5,625
Actual Annual Total Savings	---	---	---	\$5,625
Actual Eight Year Total Savings	---	---	---	\$45,000

\* Discount of 25% applied to facilities without a history of violation pursuant to 15A NCAC 02Q .0203(a).

In addition to the annual permit fee, the facilities are expected to experience savings under the proposed rule change in terms of avoided labor costs associated with maintaining compliance, reporting, and preparing renewal applications. Based on the complexity of the permit application for renewal and the emission inventory, which is required every eight years, the estimated cost for the permit preparation includes the labor of an Engineer with 0-5 years' experience for approximately 40 hours. In addition, the permit application requires 4 hours of manager review and 8 hours of clerical labor. Additionally, the facilities are required to submit an annual malfunction report as permit holders, which is estimated to require an Engineer I with 0-5 years' experience approximately 8 hours of labor to prepare and send to their respective DAQ Regional Office. In addition, the annual compliance and emissions inventory report will require 2 hours of manager review and 4 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.<sup>8</sup> The fully loaded hourly rates were calculated using the benefits and overhead percentages from the EPA Control Cost Manual.<sup>9</sup> Table 3 below summarizes the estimated savings to the five facilities associated with these tasks.

<sup>8</sup> U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2022, State (xls). <https://www.bls.gov/oes/tables.htm>

<sup>9</sup> U.S. Environmental Protection Agency, 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.](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.)

**Table 3: Private Sector Labor Savings**

<b>Task</b>	<b>Staff</b>	<b>Occurrence per facility</b>	<b>Hours of Labor</b>	<b>Hourly Pay (2023\$/hr)</b>	<b>Total (2023\$)*</b>
Permit Renewal Application and Emission Inventory Preparation and Submission	Engineer I	Every 8 years	40	\$93	\$3,737
	Manager	Every 8 years	4	\$120	\$480
	Clerical	Every 8 years	8	\$39	\$312
Average Annual Permit Application Total Labor Savings per Facility					\$4,529
Eight-Year Permit Renewal Application Total Labor Savings (5 Facilities)					\$22,647
Malfunction Report Preparation and Submission	Engineer I	Annually	8	\$93	\$747
	Manager	Annually	2	\$120	\$240
	Clerical	Annually	4	\$39	156
Annual Compliance Report Submission Total Labor Savings per Facility					\$1,144
Eight-Year Compliance Report Submission Total Labor Savings (5 Facilities)					\$45,745

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

As shown in Table 3 above, the labor saved by the private sector for preparing and submitting malfunction reports is estimated at \$1,144 annually, which sums to a total of \$45,745 over the next 8 years. Additionally, the facilities are estimated to save a total of \$22,647 over the next 8 years for preparing and submitting renewal applications for their synthetic minor permits. This averages to about \$2,831 per year but would occur in four separate increments of \$2,661 (for each of the four facilities) since each facility would renew their permit in a different year. Table 6 in Section VII allocates the permit renewal costs to the year in which each facility would need to renew their synthetic minor permit. Combining these annual and 8-year savings results in an estimated \$108,724 saved by the private sector in labor over the next 8-year period.

Pursuant to the incremental reporting thresholds in 02Q .0802(e)(1) and (2), the DAQ receives reports from the one facility; however, the facility is expected to submit to the DAQ a synthetic minor permit application in 2023 (DAQ Facility ID No. 9200869) and would no longer be subject to the reporting requirement after the permit is issued to the facility. Therefore, the changes in incremental reporting thresholds in 02Q .0802(e)(1) and (2) will not affect any facility currently submitting annual or semiannual reports for having an annual throughput exceeding 10 million gallons or 13 million gallons, respectively. There are two additional Costco facilities with annual throughputs that may exceed 10 million gallons in the coming years, triggering the requirement to submit annual throughput reports to DAQ (in the absence of these proposed rule revisions); however, it is unknown if or when this requirement would be triggered. Therefore, any potential avoided costs due to the proposed increase in these reporting thresholds are not estimated in this analysis.

State Government Impacts

The DAQ anticipates an impact on State government as a result of this proposed rule change since the proposed new maximum throughput would impact five facilities that currently hold a permit or are expected to hold a permit by the time the proposed rule revisions would become effective. Under the proposed higher threshold, these five facilities would be excluded from the requirement to hold a Title V permit pursuant to 15A NCAC 02Q .0500. Therefore, this proposed rule change results in a specific loss of funding from DAQ’s receipt of annual permit fees from the known five facilities, since these facilities will no longer need a synthetic minor permit as long as their throughput remains below the new limit.

An annual flat fee of \$1,500 is specified in 15A NCAC 02Q .0203 for facilities holding a synthetic minor permit. As these facilities had no history of violation, they were allowed a cost reduction in their permit fees. Therefore, it is assumed these facilities qualify for a reduction of 25% in accordance with 15A NCAC 02Q .0203(a) and assessed a fee of \$1,125 each, resulting in a total of \$5,625 in reduced permit fees received by DAQ. As stated above, these synthetic minor facilities are required to renew their permit every eight years. However, there is no fee charged for these renewal applications. Table 4 shows a summary of the annual permit fee impacts to DAQ.

**Table 4: State Government - Reduced Revenue from Permit Fees**

nominal \$				
State Government Permit Fee	Occurrence	Permit Fee	# Facilities	Total
Synthetic Minor Discounted* Fee	Annually	\$1,125	4	\$5,625
Total Reduced Annual Fee Revenue	---	---	---	\$5,625
Total Reduced Eight-Year Fee Revenue	---	---	---	\$45,000

\* Discount of 25% applied to facilities without a history of violation pursuant to 15A NCAC 02Q .0203(a).

The State government will also have a change in labor expended as a result of the proposed rule change. Due to the complexity and nature of the synthetic minor 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 32 hours of labor. This would be a total of 160 hours for the five facilities no longer requiring an eight-year renewal. Additionally, the labor of an Engineer I to inspect each facility is estimated to require 16 hours annually, as well as two hours to review the annual compliance report and emissions inventory. A summary of each of these labor savings is provided in Table 5.

**Table 5: State Government Labor Savings**

State Government Labor		Occurrence Per Facility	Hours of Labor Per Task	Hourly Pay	Total (2023\$)
Permit Renewal and Emission Inventory Review	Engineer I	Every 8 years	32	\$47	\$7,556
	Engineering Supervisor I		1	\$73	\$365
Malfunction Report Review and Processing	Engineer I	Annually	16	\$47	\$472
	Engineering Supervisor I		1	\$73	\$365
Facility Inspection	Engineer I	Annually	2	\$47	\$3,778
	Engineering Supervisor I		1	\$73	\$365
Annual State Labor Savings (5 Facilities)					\$4,981
Eight-Year Total State Labor Savings (5 Facilities)					\$47,768

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

Hourly pay is calculated with an estimated 2080 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<sup>10</sup> and five years of experience. The Engineering Supervisor I pay is calculated using the midpoint of salary schedule NC21 and twenty years of experience.<sup>11</sup>

As shown in Table 5 above, the labor saved by DAQ for annual tasks, such as conducting inspections and reviewing malfunction reports and emission inventories is estimated at \$4,981 annually, which sums to a total of \$39,847 over the next 8 years. Additionally, the DAQ is estimated to save a total of \$7,921 over the next 8 years for labor spent reviewing and processing renewal applications for these synthetic minor permits. This averages to about \$990 per year but would occur in increments of \$1,584 (for each of the five facilities) since the facilities would not all renew their permits in the same year. Table 6 in Section VII allocates the permit renewal costs to the year in which each facility would need to renew their synthetic minor permit. Combining these annual and 8-year savings results in an estimated \$47,768 saved by DAQ in labor over the next 8-year period.

#### 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 proposed higher limit in 15A NCAC 02Q .0802 into their own respective rules, these local air agencies may experience impacts of

<sup>10</sup> NC OSHR website <https://oshr.nc.gov/state-employee-resources/classification-compensation/compensation/salary-schedule-nc>

<sup>11</sup> NC OSHR total compensation calculator <https://oshr.nc.gov/state-employee-resources/classification-compensation/total-compensation-calculator>



similar nature to those described for State government above. Currently, there are no known gasoline service stations or dispensing facilities under the jurisdiction of these local programs holding synthetic minor permits. Therefore, this analysis does not include any fiscal impacts to the local air quality programs as a result of the proposed amendment.

## **VI. Public Health and Environmental Impact**

Increasing the allowable throughput limit in Rule 02Q .0802(d) is not expected to cause significant impacts to air quality. The improved efficiency of fueling on-road mobile vehicles is the primary factor in determining the impact to air quality from gasoline service stations, and it is clear there have been significant improvements since this threshold was last evaluated. This proposed revision simply alters the class of some gasoline service stations, affecting their permitting and reporting requirements, as detailed in Section V above.

This exemption from requiring a Title V permit reduces permit fees associated with the operation of a facility, but the facility must still comply with all other state and local air quality regulations applicable. The primary impact from an emissions perspective is the change in permitting requirements. Unique to these facilities whether they are classified as a synthetic minor under Title V or not, the control equipment for emissions this rule applies to is the emissions equipment on the vehicles which receive their fuel from these types of gasoline service stations and dispensing facilities.

## **VII. Cost and Benefit Analysis**

The DAQ developed a cost and benefit analysis of the proposed rule changes for 15A NCAC 02Q .0802. The analysis is based on the five affected facilities and state government impacts. This analysis uses the cost impacts developed in the previous sections for the private sector and state government and the final calculations are provided in Table 6 below. It is important to note that this section shows costs and reduced DAQ revenues as positive values, while savings and avoided costs are shown as negative values.

*Table 6: Summary of Fiscal Impacts to Private Sector and State Government*

Cost(+)/Savings(-) Type	2024	2025	2026	2027	2028	2029	2030	2031
<i>Private Sector (undiscounted, inflation-adjusted 2023\$)</i>								
Annual Fees	-\$5,488	-\$5,354	-\$5,223	-\$5,096	-\$4,972	-\$4,850	-\$4,732	-\$4,617
Staff Time – Malfunction Report	-\$5,718	-\$5,718	-\$5,718	-\$5,718	-\$5,718	-\$5,718	-\$5,718	-\$5,718
Staff Time – Renewal Application and Emission Inventory Preparation	\$0	\$0	\$0	-\$4,529	\$0	-\$4,529	-\$4,529	-\$9,059
<b>Total Net for Private Sector</b>	<b>-\$11,206</b>	<b>-\$11,072</b>	<b>-\$10,942</b>	<b>-\$15,343</b>	<b>-\$10,690</b>	<b>-\$15,098</b>	<b>-\$14,980</b>	<b>-\$19,394</b>
<i>State Government (DAQ) (undiscounted, inflation-adjusted 2023\$)</i>								
Annual Fees	\$5,488	\$5,354	\$5,223	\$5,096	\$4,972	\$4,850	\$4,732	\$4,617
Staff Time - Inspections	-\$4,143	-\$4,143	-\$4,143	-\$4,143	-\$4,143	-\$4,143	-\$4,143	-\$4,143
Staff Time - Malfunction Report Review and Processing	-\$838	-\$838	-\$838	-\$838	-\$838	-\$838	-\$838	-\$838
Staff Time - Permit Renewal and Emission Inventory Review	\$0	\$0	\$0	-\$1,584	\$0	-\$1,584	-\$1,584	-\$3,533
<b>Total Net for State Government</b>	<b>\$507</b>	<b>\$373</b>	<b>\$242</b>	<b>-\$1,469</b>	<b>-\$9</b>	<b>-\$1,715</b>	<b>-\$1,833</b>	<b>-\$3,533</b>
<i>Summary</i>								
<b>Grand Total (undiscounted, inflation-adjusted 2023\$)</b>	<b>-\$10,699</b>	<b>-\$10,699</b>	<b>-\$10,699</b>	<b>-\$16,813</b>	<b>-\$10,699</b>	<b>-\$16,813</b>	<b>-\$16,813</b>	<b>-\$22,926</b>
<b>Grand Total (present value at 7% discount rate, 2023\$)</b>	<b>-\$9,999</b>	<b>-\$9,345</b>	<b>-\$8,734</b>	<b>-\$12,826</b>	<b>-\$7,628</b>	<b>-\$11,203</b>	<b>-\$10,470</b>	<b>-\$13,343</b>
<b>Net Present Value (7% discount rate, 2023\$)</b>	<b>-\$83,548</b>							

The fiscal analysis was performed over an eight-year period because this best reflects the period of initial and ongoing cost cycle for both the state government and the private sector, since synthetic minor permits are renewed every 8 years. This allows each type of cost and savings to be captured in the analysis timeframe. The starting year for the cost-benefit analysis is 2024 since the proposed rule revision is expected to become effective in mid-2024. Additionally, the savings associated with renewal applications, which only occur once every 8 years for each facility, are shown for the year in which each of the four facilities' synthetic minor permit is set to expire (and would therefore need to be renewed in the absence of this proposed rule amendment becoming effective). For the fifth facility, which is expected to have a synthetic minor permit before these proposed rule amendments would become effective, the analysis assumes that the facility would pay its first annual permit fee in 2024 and renew its permit in 2031 (under the baseline, or without the proposed rule amendments).

Following the summation of undiscounted costs and savings to the private sector and State government, the future impacts are converted to present-day equivalent values using a discount rate of 7% in accordance with North Carolina General Statute (N.C.G.S.) 150B-21.4(b1)(5).

The DAQ calculated the total net financial impact for each year by adding the costs and subtracting savings. Table 6 presents the cash flows and the summation of the impacts. Over the first year, the proposed rule amendment would benefit the private sector and state government approximately \$10,699 in 2023-dollar terms (inflation-adjusted, undiscounted), which includes a savings of \$11,206 for the private sector and a net cost of \$507 for state government. For years 2027 and beyond, the analysis shows that the DAQ would also experience a net savings, primarily due to the staff resources saved that would otherwise be spent reviewing and processing synthetic minor permit renewal applications for these facilities.

When considering impacts to both the private sector and State government and using a discount rate of 7%, the estimated net benefit of the proposed amendments ranges year-to-year, with the highest net benefit occurring in 2031 at \$13,343 and the lowest net benefit occurring in 2028 at \$7,628 present-day equivalent values. The net present value (NPV) of costs and benefits to the private sector and state government resulting from the proposed rule amendments over the eight-year period is a net savings of \$83,548 when discounted at a rate of 7% (in 2023\$).

## **VIII. Rule Alternatives**

The DAQ is not required to analyze alternative approaches under the proposed rulemaking unless a substantial economic impact to the government and/or private sector entities is expected to result from the rulemaking. Substantial economic impact is defined in North Carolina's Administrative Procedures Act in NC General Statute 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 amendment to 15A NCAC 02Q .0802 does not meet the requirements of a substantial economic impact, no rule alternatives were analyzed for this fiscal note.

## **IX. Conclusion**

The proposed rule changes to 15A NCAC 02Q .0802 are intended to update the DAQ's gasoline service station and dispensing facility throughput exclusionary threshold to reflect the increase of vapor recovery technology for on-road motor vehicles. While this proposed rule change will impact State government with respect to five synthetic minor permits affected, the change to division funding is minimally impactful with the DAQ no longer receiving payments of \$45,000 from the five identified facilities over the next 8 years (\$40,332 in 2023\$. The DAQ will also save approximately \$47,768 in staff time following this rule change over the eight-year period.

The private sector is calculated to save in permit fees and labor costs approximately \$108,724 over the eight-year period or approximately \$13,590 annually.<sup>12</sup>

The public will experience no impact on the health benefits this rule provides as the new threshold limit is calculated to the same standard as the original threshold, but now utilizes the most up to date information. The improved efficiency of fueling on-road mobile vehicles is the primary factor in determining the impact to air quality from gasoline service stations, and it is clear there have been significant improvements since this threshold was last evaluated. This proposed revision simply alters the class of some gasoline service stations, affecting their permitting and reporting requirements, as detailed in Section V above.

The DAQ expects the proposed rule change will ensure North Carolina to remain in statewide compliance with air quality federal standards as required pursuant to Title V of the Clean Air Act and 40 CFR Part 70.

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<sup>12</sup> Combining the total eight-year values from Table 2 and Table 3 provides this \$187,848 total which is then divided by eight to equal \$23,481.

1 15A NCAC 02Q .0802 is proposed for amendment as follows:

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3 **15A NCAC 02Q .0802 GASOLINE SERVICE STATIONS AND DISPENSING FACILITIES**

4 (a) For the purpose of this Rule the following definitions shall apply:

5 (1) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline  
6 tanks from stationary storage tanks.

7 (2) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the  
8 motoring public from stationary storage tanks.

9 (b) This Rule shall apply only to gasoline service stations and gasoline dispensing facilities that are in compliance  
10 with 15A NCAC 02D .0928.

11 (c) Potential emissions ~~form~~from gasoline service stations and gasoline dispensing facilities shall be determined using  
12 actual gasoline throughput.

13 (d) A gasoline service station or gasoline dispensing facility that has an annual throughput, on a calendar month  
14 rolling average basis, of less than ~~15,000,000~~ 52,000,000 gallons shall be exempt from the requirements of 15A NCAC  
15 02Q .0500.

16 (e) The owner or operator of a gasoline service station or gasoline dispensing facility exempted by this Rule from  
17 15A NCAC 02Q .0500 shall submit a report containing the information described in Paragraph (f) of this Rule if:

18 (1) annual throughput exceeds ~~10,000,000~~ 45,000,000 gallons, by the end of the month following the  
19 month that throughput exceeds ~~10,000,000~~ 45,000,000 gallons and every 12 months thereafter;

20 (2) annual throughput exceeds ~~13,000,000~~ 50,000,000 gallons, by the end of the month following the  
21 month that throughput exceeds ~~13,000,000~~ 50,000,000 gallons and every six months thereafter; or

22 (3) annual throughput exceeds ~~15,000,000~~ 52,000,000 gallons, by the end of the month following the  
23 month that throughput exceeds ~~15,000,000~~ 52,000,000 gallons and shall submit a permit application  
24 pursuant to 15A NCAC 02Q .0500.

25 (f) The report required by Paragraph (e) of this Rule shall include:

26 (1) the name and location of the gasoline service station or gasoline dispensing facility;

27 (2) the annual throughput of gasoline for each of the 12-month periods ending on each month since the  
28 previous report was submitted, including monthly gasoline throughput for each month required to  
29 calculate the annual gasoline throughput for each 12-month period; and

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

32 (g) The owner or operator of a gasoline service station or gasoline dispensing facility exempted by this Rule from the  
33 requirements of 15A NCAC 02Q .0500 shall provide documentation of annual throughput to the Director upon request.

34 The owner or operator of a gasoline service station or gasoline dispensing facility exempted by this Rule from the  
35 requirements of 15A NCAC 02Q .0500 shall retain records to document annual throughput for all 12-month periods  
36 during the previous three years.

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

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4 *History Note: Authority G.S. 143-215.3(a); 143-215.107(a)(10); 143-215.108;*

5 *Eff. August 1, 1995;*

6 *Readopted Eff. April 1, ~~2018~~2018;*

7 *Amended Eff.*

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