

Office of Regulatory Management  
Economic Review Form

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| <b>Agency name</b>   | Department of Environmental Quality   |
| <b>Virginia Administrative Code (VAC) Chapter citation(s)</b>      | Article 60 (9VAC5-40-9000 et seq.) of 9VAC5-40  |
| <b>VAC Chapter title(s)</b>  | 9VAC5-40, Existing Stationary Sources   |
| <b>Action title</b>  | Adopt New Regulation to Incorporate Federal Requirements for Existing Crude Oil and Natural Gas Facilities (Rev. B24) |
| <b>Date this document prepared</b>                                 | November 21, 2024   |
| <b>Regulatory Stage (including Issuance of Guidance Documents)</b> | Final Exempt  |

**Cost Benefit Analysis**

Complete Tables 1a and 1b for all regulatory actions. You do not need to complete Table 1c if the regulatory action is required by state statute or federal statute or regulation and leaves no discretion in its implementation.

Table 1a should provide analysis for the regulatory approach you are taking. Table 1b should provide analysis for the approach of leaving the current regulations intact (i.e., no further change is implemented). Table 1c should provide analysis for at least one alternative approach. You should not limit yourself to one alternative, however, and can add additional charts as needed.

Report both direct and indirect costs and benefits that can be monetized in Boxes 1 and 2. Report direct and indirect costs and benefits that cannot be monetized in Box 4. See the ORM Regulatory Economic Analysis Manual for additional guidance.

**Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)**

| <p>(1) Direct &amp; Indirect Costs &amp; Benefits (Monetized)</p> | <p><b>Direct Costs:</b></p> <p>The extent of direct costs to a facility will depend on what emissions management options are selected by each facility on a case-by-case basis.</p> <table border="1"> <thead> <tr> <th>Facility type</th> <th>Number of facilities</th> </tr> </thead> <tbody> <tr> <td>Wells</td> <td>Approximately 8,398*</td> </tr> <tr> <td>Compressor Stations</td> <td>Approximately 48**</td> </tr> </tbody> </table> <p>*Number of currently active permits based on information from VDOE.<br/>** DEQ-issued air permits.</p> <p>For the production and processing sector, well-managed and operated natural gas companies already aggressively monitor for and repair leaks as they represent the loss of product for sale. A consistent national program will help to ensure a level playing field, and reward companies that are already in compliance.</p> <p>For the transmission and storage sector, virtually all of these facilities have already obtained permits, and should be well-positioned to make adjustments needed to meet the new requirements.</p> <p>The U.S. Environmental Protection Agency (EPA) cost-benefit analysis was conducted on a national basis and its results cannot be extrapolated to Virginia in particular; however, EPA's economic impact analysis anticipates that impacts to the industry will be minor while realizing important health and welfare reductions of methane and other pollutants.</p> <p><b>Indirect Costs:</b><br/>No indirect costs have been identified.</p> <p><b>Direct Benefits:</b><br/>One of the primary direct benefits of this regulatory action is that it will contribute to the reduction of air pollution--including, in addition to methane, several criteria and toxic pollutants--thus benefitting the health and welfare of all Virginians.</p> <p>DEQ has been working with stakeholders--industrial, environmental, policy--since 2018 to consider the best approach toward managing methane emissions from this sector. There exists general consensus among all parties that relying on EPA's regulations would provide the most benefit (consistency of requirements) in the most cost-effective manner.</p> <p><b>Indirect Benefits:</b></p> | Facility type        | Number of facilities | Wells | Approximately 8,398* | Compressor Stations | Approximately 48** |
|---|---|----------------------|----------------------|-------|----------------------|---------------------|--------------------|
|   | Facility type   | Number of facilities |                      |       |                      |                     |                    |
| Wells   | Approximately 8,398*  |                      |                      |       |                      |                     |                    |
| Compressor Stations   | Approximately 48**  |                      |                      |       |                      |                     |                    |

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|  | <p>There is an indirect benefit to the Commonwealth in retaining implementation authority over its oil and natural gas resources rather than leaving it in the hands of the federal government.</p> <p>For the production and processing sector, the department has learned anecdotally that most affected facilities plan to hire consultants to perform compliance testing and monitoring. This represents a cost to the facility but a benefit to the consultants. Similarly, repair projects may be contracted out, resulting in a cost to the facility but a benefit to the contractor. There may be some circumstances when hiring in-house staff to perform these functions may prove to be more cost-effective. Ultimately, affected facilities will opt for testing and repair services that are the most cost-effective for their specific needs.</p> <p>No indirect benefits have been identified for the transmission and storage sector at this time.</p> |                            |
| (2) Present Monetized Values               | Direct & Indirect Costs  | Direct & Indirect Benefits |
|  | (a) None identified.   | (b) None identified.       |
| (3) Net Monetized Benefit                  | None identified.   |                            |
| (4) Other Costs & Benefits (Non-Monetized) | None identified.   |                            |
| (5) Information Sources                    | U.S. Energy Information Administration, U.S. Environmental Protection Agency (EPA), EPA Greenhouse Gas Reporting Program; oil and natural gas industry contacts, Virginia Department of Energy (VDOE)  |                            |

**Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)**

|  |  |
|--|--|
| (1) Direct & Indirect Costs & Benefits (Monetized) | <p>Direct Costs:</p> <p>Costs would be the same for the regulated community if the regulation was not adopted. It is a federal program for which compliance is mandatory, regardless of whether it is implemented by the state or by the federal government.</p> <p>Indirect Costs:</p> <p>There may be an indirect cost to affected facilities and the department if EPA were to impose a federal plan. A federal plan in conjunction with existing state requirements would open the potential for facilities to undergo multiple redundant inspections, permitting exercises, monitoring and recordkeeping requirements, and so on. Most facilities already monitor for and repair leaks in</p> |
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|  | <p>the interests of cost efficiency (if not the existence of a state permit); the absence of a level playing field penalizes the good actors at the expense of the poor.</p> <p><b>Direct Benefits:</b><br/>The direct benefits described in Table 1a of a state-implemented program, as opposed to a federally-implemented program, would not be realized if the regulation was not adopted.</p> <p><b>Indirect Benefits:</b><br/>The indirect benefits described in Table 1a of a state-implemented program, as opposed to a federally-implemented program, would not be realized if the regulation was not adopted.</p> |                            |
| (2) Present Monetized Values               | Direct & Indirect Costs  | Direct & Indirect Benefits |
|  | (a) None identified.   | (b) None identified.       |
| (3) Net Monetized Benefit                  | None identified.   |                            |
| (4) Other Costs & Benefits (Non-Monetized) | None identified.   |                            |
| (5) Information Sources                    | See Table 1a.  |                            |

**Table 1c: Costs and Benefits under Alternative Approach(es)**

This action is mandated by federal statute and no alternative approach was identified.

**Impact on Local Partners**

Use this chart to describe impacts on local partners. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

**Table 2: Impact on Local Partners**

|  |   |
|--|---|
| (1) Direct & Indirect Costs & Benefits (Monetized) | <p><b>Direct Costs:</b><br/>No direct costs specific to local partners are associated with the regulation.</p> <p><b>Indirect Costs:</b><br/>No indirect costs specific to local partners are associated with the regulation.</p> <p><b>Direct Benefits:</b><br/>Direct benefits to local partners may be realized as described in Table 1a.</p> <p><b>Indirect Benefits:</b></p> |
|--|---|

|  |   |                            |
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|  | Indirect benefits to local partners may be realized as described in Table 1a. |                            |
| (2) Present Monetized Values               | Direct & Indirect Costs   | Direct & Indirect Benefits |
|  | (a) None identified.  | (b) None identified.       |
| (3) Other Costs & Benefits (Non-Monetized) | None identified.  |                            |
| (4) Assistance                             | None identified.  |                            |
| (5) Information Sources                    | See Table 1a.   |                            |

**Impacts on Families**

Use this chart to describe impacts on families. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

**Table 3: Impact on Families**

|  |  |                            |
|--|--|----------------------------|
| (1) Direct & Indirect Costs & Benefits (Monetized) | Direct Costs:<br>No direct costs specific to families are associated with the regulation.<br>Indirect Costs:<br>No indirect costs specific to families are associated with the regulation.<br>Direct Benefits:<br>Direct benefits to families may be realized as described in Table 1a.<br>Indirect Benefits:<br>Indirect benefits to families may be realized as described in Table 1a. |                            |
| (2) Present Monetized Values                       | Direct & Indirect Costs  | Direct & Indirect Benefits |
|  | (a) None identified.   | (b) None identified.       |
| (3) Other Costs & Benefits (Non-Monetized)         | None identified.   |                            |

|                         |               |
|-------------------------|---------------|
| (4) Information Sources | See Table 1a. |
|-------------------------|---------------|

**Impacts on Small Businesses**

Use this chart to describe impacts on small businesses. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

**Table 4: Impact on Small Businesses**

|   |   |                         |
|---|---|-------------------------|
| <p>(1) Direct &amp; Indirect Costs &amp; Benefits (Monetized)</p> | <p><b>Direct Costs:</b><br/>                 See Table 1a. Because of the way that production facilities are registered with the Virginia Department of Energy (VDOE), it is not possible to determine what, if any of these, may be considered to be small businesses. It is reasonable to assume that there may be some small businesses involved in this industry; however, given the nature of the industry and its well-understood environmental controls, no disproportionate impacts are anticipated. As mentioned elsewhere, any company regardless of size has a strong economic impetus to control product loss. No specific small business concerns have been raised by any of DEQ's industry contacts.</p> <p>The majority, if not all of compressor stations are owned by companies (such as Enervest, Diversified Energy, Columbia Gas, Williams) that are not considered to be small businesses.</p> <p>As discussed above, the production and processing sector has a vested interest in managing their product and correcting leaks that result in product loss, regardless of the size of the parent company; in addition to protecting product production, the transmission and storage sector is also currently subject to a suite of state and federal permitting requirements that they must continue to meet.</p> <p><b>Indirect Costs:</b><br/>                 See Table 1a. Ultimately, these are federal standards that must be met. The department believes that it is beneficial to businesses, including small businesses, to work directly with the state environmental agency rather than the federal government.</p> <p><b>Direct Benefits:</b><br/>                 See Table 1a.</p> <p><b>Indirect Benefits:</b><br/>                 See table 1a.</p> |                         |
|   | (2) Present Monetized Values  | Direct & Indirect Costs |

|  |                      |                      |
|--|----------------------|----------------------|
|  | (a) None identified. | (b) None identified. |
| (3) Other Costs & Benefits (Non-Monetized) | None identified.     |                      |
| (4) Alternatives                           | None identified.     |                      |
| (5) Information Sources                    | See Table 1a.        |                      |

**Changes to Number of Regulatory Requirements**

**Table 5: Regulatory Reduction**

For each individual action, please fill out the appropriate chart to reflect any change in regulatory requirements, costs, regulatory stringency, or the overall length of any guidance documents.

*Change in Regulatory Requirements*

| VAC Section(s) Involved*                       | Authority of Change | Initial Count | Additions | Subtractions | Total Net Change in Requirements                  |
|--|---------------------|---------------|-----------|--------------|---|
| 9VAC5-40-9000                                  | (M/A):              | 0             | 0         | 0            | 0   |
|  | (D/A):              | 0             | 0         | 0            | 0   |
|  | (M/R):              | 0             | 0         | 0            | 0   |
|  | (D/R):              | 0             | 0         | 0            | 0   |
| 9VAC5-40-9010                                  | (M/A):              | 0             | 0         | 0            | 0   |
|  | (D/A):              | 0             | 0         | 0            | 0   |
|  | (M/R):              | 0             | 0         | 0            | 0   |
|  | (D/R):              | 0             | 0         | 0            | 0   |
| 9VAC5-40-9020                                  | (M/A):              | 0             | 7         | 0            | +7  |
|  | (D/A):              | 0             | 3         | 0            | +3  |
|  | (M/R):              | 0             | 163       | 0            | +163  |
|  | (D/R):              | 0             | 0         | 0            | 0   |
| 9VAC5-40-9030                                  | (M/A):              | 0             | 0         | 0            | 0   |
|  | (D/A):              | 0             | 0         | 0            | 0   |
|  | (M/R):              | 0             | 1         | 0            | +1  |
|  | (D/R):              | 0             | 0         | 0            | 0   |
| <b>Grand Total of Changes in Requirements:</b> |                     |               |           |              | (M/A): +7<br>(D/A): +3<br>(M/R): +163<br>(D/R): 0 |

**Key:**

*Please use the following coding if change is mandatory or discretionary and whether it affects externally regulated parties or only the agency itself:*

**(M/A):** Mandatory requirements mandated by federal and/or state statute affecting the agency itself

**(D/A):** Discretionary requirements affecting agency itself

**(M/R):** Mandatory requirements mandated by federal and/or state statute affecting external parties, including other agencies

**(D/R):** Discretionary requirements affecting external parties, including other agencies

*Cost Reductions or Increases (if applicable)*

| <b>VAC Section(s) Involved*</b> | <b>Description of Regulatory Requirement</b> | <b>Initial Cost</b> | <b>New Cost</b> | <b>Overall Cost Savings/Increases</b> |
|---------------------------------|--|---------------------|-----------------|---------------------------------------|
| N/A                             |  |                     |                 |                                       |
|                                 |  |                     |                 |                                       |

*Other Decreases or Increases in Regulatory Stringency (if applicable)*

| <b>VAC Section(s) Involved*</b> | <b>Description of Regulatory Change</b> | <b>Overview of How It Reduces or Increases Regulatory Burden</b> |
|---------------------------------|---|--|
| N/A                             |   |  |
|                                 |   |  |

*Length of Guidance Documents (only applicable if guidance document is being revised)*

| <b>Title of Guidance Document</b> | <b>Original Word Count</b> | <b>New Word Count</b> | <b>Net Change in Word Count</b> |
|-----------------------------------|----------------------------|-----------------------|---------------------------------|
| N/A                               |                            |                       |                                 |
|                                   |                            |                       |                                 |

\*If the agency is modifying a guidance document that has regulatory requirements, it should report any change in requirements in the appropriate chart(s).