

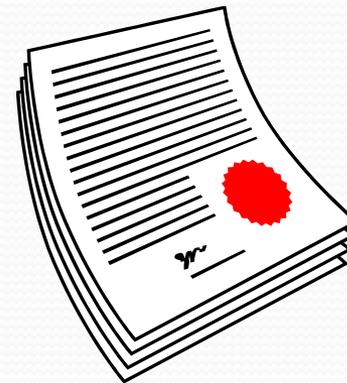
Environmental Impact Assessment Regulation for Oil or Gas Well Drilling Operations in Tidewater Virginia

**DMME RAP Meeting
September 24, 2014**



EIA Regulation – Outline

- 9VAC15-20 “Guidelines for the Preparation of Environmental Impact Assessments for Oil or Gas Well Drilling Operations in Tidewater Virginia”
- Implementing § 62.1-195.1 (E)
- Outline:
 - 9VAC15-20-10. Definitions.
 - 9VAC15-20-20. Authority.
 - 9VAC15-20-30. Purpose.
 - 9VAC15-20-40. Applicability.
 - 9VAC15-20-50. General information requirements.



EIA Regulation – Outline, cont.

- 9VAC15-20-60. Description of the gas or oil operation.
- 9VAC15-20-70. Description of the environment and natural resource features potentially affected by the gas or oil operation.
- 9VAC15-20-80. Procedures for estimating the probability of a discharge.
- 9VAC15-20-90. Procedures for determining the consequences of a discharge.
- 9VAC15-20-100. Spill release and contingency planning.
- 9VAC15-20-110. Hydrogen sulfide release contingency planning.

EIA Regulation – Outline, cont.

- 9VAC15-20-120. Economic impacts.
- 9VAC15-20-130. Fiscal impacts.
- 9VAC15-20-140. Examination of secondary environmental impacts due to induced economic development.
- 9VAC15-20-150. Department of Environmental Quality notification by the Department of Mines, Minerals and Energy.
- 9VAC15-20-160. Initiation of assessment review by state and local agencies and by the general public.
- 9VAC15-20-170. Review of comments.

EIA Regulation - Definitions

9VAC15-20-10. Definitions.

- "Tidewater Virginia" means that area of Virginia as defined in § 62.1-44.15:68 of the Code of Virginia and the localities of Manassas and Manassas Park.



EIA Regulation – Purpose and Applicability

9VAC15-20-30. Purpose.

- Criteria and procedures for EIA development and review
- Develop useful information about the potential environmental, fiscal or economic impacts associated with drilling an oil or gas well in Tidewater Virginia and related production and transportation activities.
- Assist Department of Environmental Quality, appropriate state agencies, planning district commissions, potentially affected local governments, and the public in understanding, analyzing and making decisions

9VAC15-20-40. Applicability.

- Requirements and criteria apply to all oil or gas well drilling operations proposed in Tidewater Virginia, whether an exploratory well or a production well

EIA Regulation – Description of gas or oil operation

9VAC15-20-50. General information requirements.

9VAC15-20-60. Description of the gas or oil operation.

- Description of the gas or oil operation to be performed.
- Discussion of the operation to include [appropriate maps and plats]:
- Description of the operation to include a discussion of the following:
 - Type of drilling operation;
 - Power systems, energy or fuel sources;
 - Fluid circulation systems;
 - Well control and blowout prevention devices;

EIA Regulation – Description of gas or oil operation, cont.

- Any proposed utility connections;
- Projected types, quantities, and chemical characteristics of waste;
- Projected types, quantities, and chemical characteristics of solid wastes;
- Proposed on-site and off-site solid and liquid waste management procedures;
- Any planned enhanced recovery activities;
- Projected air emissions by source, quantity, chemical characteristics, and duration;

EIA Regulation – Description of gas or oil operation, cont.

- Methods which will be used to acquire necessary water supplies to conduct the proposed operation;
- Descriptions of proposed erosion and sediment control practices and stormwater management practices;
- Descriptions of proposed site reclamation and revegetation plans for all operations areas;
- Descriptions of proposed gas or oil production and transportation facilities and equipment.

EIA Regulation – Description of the environment and natural resource features potentially affected by the gas or oil operation

9VAC15-20-70. Description of the environment and natural resource features potentially affected by the gas or oil operation.

- Describe existing environment and natural resource features which will be or may be affected by the gas or oil operation and how they will be or may be affected.
- Analysis to encompass, at the minimum, any area located within 1320 feet of a proposed well and within 100 feet of proposed pipeline systems
- Discussion to include:
 - Physical site conditions
 - Biological conditions and resources
 - Culturally important areas

EIA Regulation – Description of the environment and natural resource features potentially affected by the gas or oil operation, cont.

- Physical site conditions incl. among others
 - Existing surface water quality characteristics and how water quality may be affected
 - Existing air quality and how air quality may be affected
 - A description of the existing water quality of groundwater aquifers which will be or may be affected by drilling activities or liquid waste disposal activities
 - Identification and location of any public water supply intakes within 10 miles downstream of the proposed well site;
 - Identification and location of any public or private water supply wells located within a one-mile radius of the proposed operation
 - Chesapeake Bay Preservation Areas, both Resource Protection Areas (RPAs) and Resource Management Areas (RMAs), located within 1320 feet of the proposed operations area

EIA Regulation – Description of the environment and natural resource features potentially affected by the gas or oil operation, cont.

- Discussion of noise impacts and associated reduction measures
- Discussion of light or glare impacts and associated minimization steps
- Description of actions and measures that will be taken to avoid, minimize, and mitigate impacts on natural, scenic, recreational, and historic resources identified in the assessment. Also discuss irrevocable or irreversible losses of the natural resources identified in the assessment

EIA Regulation – Procedures for estimating the probability of a discharge

9VAC15-20-80. Procedures for estimating the probability of a discharge.

- Analysis of the probabilities of accidental discharges into the environment
 - drilling, production, and transportation
 - well blowout, equipment failure, transportation accidents etc
 - spill probability for discharge events -- minor, moderate, or major.

EIA Regulation – Procedures for determining the consequences of a discharge

9VAC15-20-90. Procedures for determining the consequences of a discharge.

- Description of potential environmental and natural resource effects
 - finfish, shellfish and other marine or freshwater organisms;
 - birds and other wildlife;
 - air and water quality;
 - land and water resources

EIA Regulation – Spill release and contingency planning; Hydrogen sulfide release contingency planning.

9VAC15-20-100. Spill release and contingency planning.

- A discharge contingency plan prepared in conformance with the requirements of the State Water Control Board's regulation entitled "Facility and Aboveground Storage Tank (AST) Regulation" (9VAC25-91) will fulfill the information requirement of this section.

9VAC15-20-110. Hydrogen sulfide release contingency planning.

- Steps that will be taken to respond
 - if indicators of hydrogen sulfide gas are encountered,
 - if there exists a potential for a release of hydrogen sulfide gas, or
 - in the event of a hydrogen sulfide release

EIA Regulation – Economic impacts

9VAC15-20-120. Economic impacts.

- Potential impacts of the proposed operation on the economic characteristics of the affected locality and, as necessary, surrounding localities.
- Address how economic characteristics will be affected during (i) the drilling and construction phases of the operation, and (ii) the production phases of the operation.
- Include demographic structure, employment levels, local business contracts, existing land uses, industrial and commercial bases, and dominant economic sectors
- Describe the actions and measures that will be taken to avoid impacts, minimize impacts, and mitigate unavoidable impacts on economic characteristics identified in the assessment.

EIA Regulation – Fiscal impacts

9VAC15-20-130. Fiscal impacts.

- Analysis of the existing fiscal characteristics, revenue structure, and physical infrastructure in the county, city, or town
- Identify measures that may need to be undertaken in order to maintain or expand the services, revenue sources, expenditure levels and capital facilities of the affected local government
- Describe any new, upgraded or expanded infrastructure and capital facilities that will be necessary to support the proposed operation
- Provide estimates how much improvements may cost
- Identify the person or persons who will be responsible for providing necessary infrastructure or capital facility improvements

EIA Regulation – Fiscal impacts, cont.

- Assessment to address:
 - The transportation systems including roads, railroads or existing oil or gas pipelines
 - Infrastructure and capital facility support systems available including utility services, water services, sewer services, solid waste disposal services and facilities, etc.
 - The availability of public safety and health services such as hospitals, emergency rescue services, police and fire services and related infrastructure

EIA Regulation – Fiscal impacts, cont.

- Distribution of existing temporary and permanent housing units within the locality
- Public service needs (such as educational services, recreational needs, and social services) that will be generated by the immigration of laborers into the affected locality
- Describe the actions and measures that will be taken to avoid, minimize, and mitigate impacts on fiscal characteristics identified in the assessment

EIA Regulation – Examination of secondary environmental impacts due to induced economic development

9VAC15-20-140. Examination of secondary environmental impacts due to induced economic development.

- Analysis should include impacts on natural, scenic, open space, recreational, and historic resources
- Analysis should discuss any new infrastructure development such as
 - construction of new roads,
 - pipeline systems,
 - sewers,
 - schools,
 - water supplies,
 - public services,
 - waste handling facilities,
 - housing units, etc.

EIA Regulation – Coordination

- Within 3 days of receipt of EIA, submit notice in the VA Register and in a newspaper of general circulation of opportunity for public comment
- State agencies, affected localities and PDCs must provide DEQ with comments within 50 days
- DEQ Director reviews all comments and prepares a report with findings and recommendations and communicates to DMME within 90 days
- DMME must consider these findings and recommendations before issuing their permit

Questions?



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Statute § 62.1-195.1

Chesapeake Bay; drilling for oil or gas prohibited.

B. Environmental Impact Assessment

- Required for drilling in any area of Tidewater Virginia where drilling is not prohibited under subsection A
- To be submitted as part of the permit application to DMME
- To include
 - 1. The probabilities and consequences of accidental discharge of oil or gas into the environment during drilling, production, and transportation on:
 - a. Finfish, shellfish, and other marine or freshwater organisms;
 - b. Birds and other wildlife that use the air and water resources;
 - c. Air and water quality; and
 - d. Land and water resources;
 - 2. Recommendations for minimizing any adverse economic, fiscal, or environmental impacts; and
 - 3. An examination of the secondary environmental effects of induced economic development due to the drilling and production.

Statute § 62.1-195.1

Chesapeake Bay; drilling for oil or gas prohibited.

C. Coordination Process

Upon receipt of an environmental impact assessment, the Department of Mines, Minerals and Energy shall notify the Department of Environmental Quality to coordinate a review of the environmental impact assessment. The Department of Environmental Quality shall:

- 1. Publish in the Virginia Register of Regulations a notice sufficient to identify the environmental impact assessment and providing an opportunity for public review of and comment on the assessment. The period for public review and comment shall not be less than 30 days from the date of publication;
- 2. Submit the environmental impact assessment to all appropriate state agencies to review the assessment and submit their comments to the Department of Environmental Quality; and
- 3. Based upon the review by all appropriate state agencies and the public comments received, submit findings and recommendations to the Department of Mines, Minerals and Energy, within 90 days after notification and receipt of the environmental impact assessment from the Department.

Statute § 62.1-195.1

Chesapeake Bay; drilling for oil or gas prohibited.

- D. The Department of Mines, Minerals and Energy may not grant a permit under § 45.1-361.29 until it has considered the findings and recommendations of the Department of Environmental Quality.
- E. The Department of Environmental Quality shall, in conjunction with other state agencies and in conformance with the Administrative Process Act (§ 2.2-4000 et seq.), develop criteria and procedures to assure the orderly preparation and evaluation of environmental impact assessments required by this section.
 - “Guidelines” for EIA preparation and review process found in 9VAC15-20.