

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners **Date:** January 7, 2011

Thru: LaDonna Castañuela, Chief Clerk
Mark R. Vickery, P.G. Executive Director

From: Richard A. Hyde, P.E., Deputy Director
Office of Permitting and Registration

Docket No.: 2010-0251-RUL

Subject: Commission Approval for Rulemaking Adoption
Chapter 106, Permits by Rule
Chapter 116, Control of Air Pollution by Permits for
New Construction or Modification
Oil and Gas Amendments to Permit by Rule and
Repeal of Standard Permit
Rule Project No. 2010-018-106-PR

Background and reason(s) for the rulemaking:

The executive director is evaluating all permits by rule (PBR) and standardized authorizations through a multiple-phased process known as the PBR Study. Through this study, the executive director has determined a need to significantly revise the PBR and standard permit for oil and gas facilities or groups of facilities at a site (OGS) and that updated regulatory oversight would be beneficial to ensure protectiveness for air contaminants such as benzene, hydrogen sulfide, and other air contaminants associated with oil and gas production sites. These updates are particularly critical for OGS in urban locations or in close proximity to the public. Overall, this rulemaking is necessary to ensure that authorizations for OGS are improved for enforceability, updated based on current scientific information, and to properly regulate all operations.

Scope of the rulemaking:

A) Summary of what the rulemaking will do:

The executive director recommends the repeal of the existing §106.352, Oil and Gas Production Facilities, and the adoption of a new PBR and a new non-rule standard permit for oil and gas production facilities that would provide updated, comprehensive, and protective authorizations for many common oil and gas sites in Texas. In a concurrent action, the executive director recommends that the proposed repeal of §116.620, Installation and/or Modification of Oil and Gas Facilities be withdrawn. In response to public comment, the standard permit will remain as an authorization for new oil and gas site in Texas counties outside of the Barnett Shale region until January 5, 2012 and for renewals until January 1, 2016.

The new PBR and standard permit include operating specifications and emissions limitations for typical equipment (facilities) during normal operation, which includes

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production and planned maintenance, start-up and shutdown (MSS). The PBR and standard permit both include a list of best management practices (BMP). The PBR and standard permit specifically address the appropriateness of multiple authorizations at one contiguous property and reference the many new federal standards which have been promulgated by the United States Environmental Protection Agency (EPA), as well as include revised criteria for registration and changes at existing, authorized sites. Specific requirements also include flexibility in meeting emission standards based on stack height and distance to receptors. The standard permit also includes best available control technology (BACT) requirements, but encourages recovery over destruction of control of streams.

Existing sites must notify the executive director with site identification and which historical authorization is claimed (PBR or standard permit) by 2013. This notification will occur through the E-permit system. Existing sites must also meet planned MSS requirements by January 5, 2012. Any change at an existing site which increases actual emissions or requires new construction will trigger application of all new requirements for oil and gas sites.

B) Scope required by federal regulations or state statutes:

The executive director recommends these actions to ensure that facilities authorized by PBRs remain an insignificant source of air contaminants as required under Texas Health and Safety Code (THSC), §382.05196, Permits by Rule, and to ensure enforceability and use of BACT as required under THSC, §382.05195, Standard Permits.

C) Additional staff recommendations that are not required by federal rule or state statute:

None.

Statutory authority:

The new section will be adopted and the new standard permit will be issued under THSC, §382.002, Policy and Purpose, which authorizes the commission to safeguard the state's air resources consistent with the protection of public health, general welfare, and physical property, §382.011, General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.023, Orders, which authorizes the commission to issue orders necessary to carry out the policy and purposes of the Texas Clean Air Act (TCAA), THSC §382.051, Permitting Authority of Commission; Rules, which authorizes the commission to issue permits, including THSC, §382.057 PBR for insignificant facilities; and THSC §382.0513, Permit Conditions, which authorizes the commission to establish and enforce permit conditions consistent with Subchapter C of the TCAA; THSC, §382.05196, which authorizes the commission to adopt PBRs for types of facilities that make an insignificant contribution of air contaminants to the atmosphere; and THSC, §382.05195, which authorizes the commission to issue a standard permit for new or existing similar facilities.

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Effect on the:

A) Regulated community:

Oil and gas facilities currently authorized under a PBR and that remain unmodified are not affected by this adoption except for indentifying notification and planned MSS.

Unmodified facilities authorized under a standard permit would be required to comply with the new standard permit at the next renewal cycle as of January 1, 2016. With either authorization, modification or addition of new facilities would require reauthorization under the appropriate new PBR or standard permit.

The executive director has determined that there could be significant costs for facilities required to use the new authorizations. Sampling of emission streams can range from \$800 to \$5,000. Installation of emission controls can range for \$10,000 to \$100,000 based on the specific facilities located at a site and control options selected by the site owner or operator for the PBR or as required BACT for the standard permit. Painting of tanks as required for larger potential emitting tanks under standard permit can cost from \$2,000 to \$20,000.

The authorization of MSS, the use of BMP, and the flexibility in meeting emissions standard are all new features of the PBR and standard permit and will require adjustments by oil and gas owners or operators.

B) Public:

The public will benefit from updated regulations that allow the executive director to more effectively monitor compliance, develop a more accurate inventory of oil and gas sites, and ensure that sites are operating under regulations that are protective of human health.

C) Agency programs:

The executive director has structured the rule so that the resources of the Air Permits Division will be adequate to handle any increases in workload.

Stakeholder meetings:

A stakeholder meeting was held in Austin on April 8, 2010 with simultaneous video-teleconferences with meetings at the Dallas/Ft.Worth and Tyler regional offices.

Stakeholder areas of concern include:

- Linking of sites under a single authorization based on one-quarter mile separation.
- Use of other PBRs
- Painting of tanks versus lease contractual requirements
- Expense of controls
- Complex restrictions, requirements, and records

Public comment:

The executive director received over 200 comments on the proposal. Commenters included Texas Oil and Gas Association, Anadarko, Noble, ExxonMobil, Texas Pipeline Association, Permian Basin Petroleum Association and Gas Processor's Association and

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numerous other smaller companies related to the oil and gas industry. The Lone Star Chapter of the Sierra Club, and the Environmental Defense Fund were the principal commenters for environmental groups.

One hundred fifty individuals submitted comments.

Texas Oil and Gas Association, Anadarko, Noble, ExxonMobil, Texas Pipeline Association, Permian Basin Petroleum Association and Gas Processor's Association commented that the proposal was a major environmental rule and required a full rules impact analysis based on the cost of protectiveness review, controls, sampling, and recordkeeping. Companies and individuals commented that the rule was overly burdensome and expensive and would result in major portions of the industry leaving the state with severe damage to supporting businesses and tax revenue. Further, monitoring results did not justify this extensive revision to the oil and gas regulations. The executive director also received numerous comments on specific technical aspects of required control devices, assumed control device efficiency, and the cost/benefits of periodic leak monitoring.

The executive director acknowledges that the cost of the four items listed by industry can be substantial based on the size and operation of individual oil and gas sites. When the control costs are analyzed as a fraction of the recorded profits of the industry and potential revenue per individual site, the percentages are approximately one and three percent of the revenue figures. The executive director calculated these percentages based on the worst case for the implementation of controls, maximum control costs and average revenues. Additionally, the analysis did not consider savings resulting from recovered product and the reduction in costs due to regulation changes from proposal to adoption of the rule. For example, the frequency of required leak detection has been reduced and the use of representative samples has been included in the adoption recommendation.

The executive director has extensive records of underestimated or previously undetected emissions from oil and gas sites. These are not isolated instances but have occurred state-wide and indicate a pattern. Additionally, the executive director has reviewed the industry literature which indicates continued exploration increases in production for natural gas wells, particularly in the Barnett Shale region. Based on this information the executive director recommends that this rule be adopted.

The Lone Star Chapter of the Sierra Club, Environmental Defense Fund, other local environmental organizations, and numerous individuals wanted the proposal to be more stringent. Frequently mentioned subjects included an inadequate definition of receptor, failure to specify the determination of the $\frac{1}{4}$ distance for site inclusion in effects review, and the application of the proposed regulations to existing, unmodified facilities.

The executive director has added day-care centers and hospitals to the definition of receptor which was proposed including residences, schools, and places of worship. The requirement for protectiveness review would be retained and the $\frac{1}{4}$ distance to existing

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sites that must be included in that review has been made more stringent by requiring measurement from the outermost facilities. The executive director recommends that these regulations not be retroactive based on long standing agency policy and legal precedence.

Significant changes from proposal:

- Requirements will be phased in beginning on February 1, 2011. New and modified facilities in the 23 counties of the Barnett Shale region will be subject to all the requirements of the new PBR. New facilities in the rest of the state will be subject to the current PBR until January 5, 2012.
- Definition of “receptor” will include hospitals and day-care centers.
- Leak detection and repair program, reflective colors for storage tanks, and other control requirements are optional BMP for the PBR. Accordingly, a physical walk-through inspection and leak repair quarterly is added as an option.
- All emission controls under the PBR are optional based on the ability to meet effects evaluation results.
- Level 1 or 2 notification is required prior to construction or modification. Registration will follow at 180 days and 90 days respectively. Registration will provide the enforceable conditions of the authorization.
- Impacts evaluations are required for project increases when there are property lines or receptors in close proximity.
- Revised sampling requirements to require representative samples instead of specific periodic samples of gas streams and engine performance.
- Revised modeling based on public comments resulting in new emission limits and increased flexibility for effects evaluation, particularly for engines and turbines.

Potential controversial concerns and legislative interest remaining after proposal and public comment:

Legislative interest is high and some legislators have been briefed on the adoption. Topics of potential controversy include:

- Use of a single site authorization and the linking of sites
- Control requirements on existing sites
- Attention of environmental groups, particularly in the Barnett Shale Region, desiring updated regulations
- Possible delays to economic growth

Does this rulemaking affect any current policies or require development of new policies?

Guidance for the new PBR and standard permit will be developed, but adoption of these proposals will not significantly affect internal policies.

What are the consequences if this rulemaking does not go forward? Are there alternatives to rulemaking?

The current PBR and standard permit could remain in place. However, these regulations have not been updated to reflect current science and monitoring of oil and gas emissions.

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Key points in adoption rulemaking schedule:

Texas Register proposal publication date: August 13, 2010
Anticipated Texas Register publication date: February 11, 2011
Anticipated effective date: April 1, 2011 ~~February 17, 2011~~
Six-month Texas Register filing deadline: February 13, 2011

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