

**SUBCHAPTER H: REGULATION OF QUARRIES IN THE
JOHN GRAVES SCENIC RIVERWAY
§§311.71 - 311.82
Effective August 3, 2006**

§311.71. Definitions.

The following words and terms, when used in the subchapter, have the following meanings.

(1) **25-year, 24-hour rainfall event**--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours, as defined by the National Weather Service and Technical Paper Number 40, "Rainfall Frequency Atlas of the U.S.," May 1961, and subsequent amendments; or equivalent regional or state rainfall information.

(2) **Aggregates**--Any commonly recognized construction material originating from a quarry or pit by the disturbance of the surface, including dirt, soil, rock asphalt, granite, gravel, gypsum, marble, sand, stone, caliche, limestone, dolomite, rock, riprap, or other nonmineral substance. The term does not include clay or shale mined for use in manufacturing structural clay products.

(3) **Aquifer**--A saturated permeable geologic unit that can transmit, store, and yield to a well, the quality and quantities of groundwater sufficient to provide for a beneficial use. An aquifer can be composed of unconsolidated sands and gravels; permeable sedimentary rocks, such as sandstones and limestones; and/or heavily fractured volcanic and crystalline rocks. Groundwater within an aquifer can be confined, unconfined, or perched.

(4) **Best management practices**--Any prohibition, management practice, maintenance procedure, or schedule of activity designed to prevent or reduce the pollution of water in the state. Best management practices include treatment, specified operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.

(5) **John Graves Scenic Riverway**--That portion of the Brazos River Basin and its contributing watershed, located downstream of the Morris Shepard Dam on the Possum Kingdom Reservoir in Palo Pinto County, Texas, and extending to the county line between Parker and Hood Counties, Texas.

(6) **Natural hazard lands**--Geographic areas in which natural conditions exist that pose or, as a result of quarry operations, may pose a threat to the health, safety, or welfare of people, property, or the environment, including areas subject to landslides, cave-ins, large or encroaching sand dunes, severe wind or soil erosion, frequent flooding, avalanches, and areas of unstable geology.

(7) **Navigable**--Designated by the United States Geological Survey (USGS) as perennial on the most recent topographic map(s) published by the USGS, at a scale of 1:24,000.

(8) **Operator**--Any person engaged in or responsible for the physical operation and

control of a quarry.

(9) **Overburden**--All materials displaced in an aggregates extraction operation that are not, or reasonably would not be expected to be, removed from the affected area.

(10) **Owner**--Any person having title, wholly or partly, to the land on which a quarry exists or has existed.

(11) **Pit**--An open excavation from which aggregates have been, or are being, extracted with a depth of five feet or more below the adjacent and natural ground level.

(12) **Quarry**--The site from which aggregates for commercial sale are being, or have been, removed or extracted from the earth to form a pit, including the entire excavation, stripped areas, haulage ramps, and the immediately adjacent land on which the plant processing the raw materials is located. The term does not include any land owned or leased by the responsible party not being currently used in the production of aggregates for commercial sale or an excavation to mine clay or shale for use in manufacturing structural clay products.

(13) **Quarrying**--The current and ongoing surface excavation and development without shafts, drafts, or tunnels, with or without slopes, for the extraction of aggregates for commercial sale from natural deposits occurring in the earth.

(14) **Reclamation**--The land treatment processes designed to minimize degradation of water quality, damage to fish or wildlife habitat, erosion, and other adverse effects from quarries. Reclamation includes backfilling, soil stabilization and compacting, grading, erosion control measures, appropriate revegetation, or other measures, as appropriate.

(15) **Responsible party**--Any owner, operator, lessor, or lessee who is primarily responsible for overall function and operation of a quarry located in the water quality protection area as defined in this section.

(16) **Restoration**--Those actions necessary to change the physical, chemical, and/or biological qualities of a receiving water body in order to return the water body to its background condition. Restoration includes on- and off-site stabilization to reduce or eliminate an unauthorized discharge, or substantial threat of an unauthorized discharge from the permitted site.

(17) **Structural controls**--Physical, constructed features that prevent or reduce the discharge of pollutants. Structural controls include, but are not limited to, sedimentation/detention ponds; velocity dissipation devices such as rock berms, vegetated berms, and buffers; and silt fencing.

(18) **Tertiary containment**--A containment method by which an additional wall or barrier is installed outside of the secondary storage vessel or other secondary barrier in a manner designed to prevent a release from migrating beyond the tertiary wall or barrier before the release can be detected.

(19) **Water body**--Any navigable watercourse, river, stream, or lake within the water quality protection area.

(20) **Water quality protection area**--The Brazos River and its contributing watershed within Palo Pinto and Parker Counties, Texas, downstream from the Morris Shepard Dam, and extending to the county line between Parker and Hood Counties, Texas.

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§311.72. Applicability.

(a) This subchapter applies to a pilot program regulating quarrying within the water quality protection area designated by this subchapter, in the John Graves Scenic Riverway. This subchapter expires on September 1, 2025.

(b) This subchapter does not apply to:

(1) the construction or operation of a municipal solid waste facility regardless of whether the facility includes a pit or quarry that is associated with past quarrying;

(2) a quarry, or associated processing plant, that since on or before January 1, 1994, has been in regular operation without cessation of operation for more than 30 consecutive days and under the same ownership;

(3) the construction or modification of associated equipment located on a quarry site or associated processing plant site described in paragraph (2) of this subsection;

(4) an activity, facility, or operation regulated under Natural Resources Code, Texas Surface Coal Mining and Reclamation Act, Chapter 134; or

(5) quarries mining clay and shale for use in manufacturing structural clay products.

(c) Operations or facilities to which this subchapter does not apply under subsection (b) of this section, must maintain adequate documentation on site sufficient to demonstrate their exclusions.

(1) Documentation demonstrating ownership includes, but is not limited to: deeds, property tax receipts, leases, or insurance records.

(2) Documentation demonstrating continuous operation without cessation of operation for more than 30 consecutive days beginning on or before January 1, 1994, includes, but is not limited to: production records, sales receipts, payroll records, sales tax records, income tax records, or financial statements/reports.

(3) Documentation demonstrating the construction or operation of a municipal solid waste facility, an activity, facility, or operation regulated under Natural Resources Code, Texas Surface

Coal Mining and Reclamation Act, Chapter 134; or quarries mining clay and shale for use in manufacturing structural clay products includes, but is not limited to: any permit issued by the commission, Railroad Commission of Texas, or United States Environmental Protection Agency.

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§311.73. Prohibitions.

(a) The construction or operation of any new quarry, or the expansion of any existing quarry, within 200 feet of any water body located within a water quality protection area in the John Graves Scenic Riverway is prohibited.

(b) Unless authorized under this subchapter, the construction or operation of any new quarry, or the expansion of an existing quarry, located between 200 feet and 1,500 feet of any water body located within a water quality protection area in the John Graves Scenic Riverway is prohibited.

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§311.74. Authorization.

(a) Any responsible party shall seek and obtain a permit subject to the requirements of Chapters 205 and 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits).

(b) The following additional requirements imposed through this subchapter for discharges from quarries located within a water quality protection area in the John Graves Scenic Riverway are based on the location of the quarry.

(1) In addition to the requirements of Chapters 205 and 305 of this title, a quarry located within a water quality protection area in the John Graves Scenic Riverway must meet the following requirements:

(A) §311.75(1) of this title (relating to Permit Application Requirements);

(B) §311.79 of this title (relating to Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway); and

(C) §311.81(a) of this title (relating to Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway).

(2) In addition to the requirements of Chapters 205 and 305 of this title and paragraph (1) of this subsection, any quarry located within the 100-year floodplain or within one mile of a water body within a water quality protection area in the John Graves Scenic Riverway must obtain an individual permit.

(3) In addition to the requirements of Chapters 205 and 305 of this title and paragraphs (1) and (2) of this subsection, all quarries located within 200 feet to 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway, and subject to the prohibition under §311.73(b) of this title (relating to Prohibitions), must meet the following requirements:

(A) §311.75(2) of this title;

(B) §311.80 of this title (relating to Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway); and

(C) §311.81(b) of this title.

(4) For any quarry subject to the provisions of paragraph (2) of this subsection, a part of which is also located outside of the 100-year floodplain of, or beyond one mile from, a water body, the requirements of paragraph (2) of this subsection are applicable to the entire quarry. The executive director may waive, modify, or otherwise adjust these requirements for that portion of the quarry located outside of the 100-year floodplain of, or beyond one mile from, a water body.

(5) For any quarry subject to the provisions of paragraph (3) of this subsection, a part of which is also located more than 1,500 feet from a water body, the requirements of paragraph (3) of this subsection will be applicable to the entire quarry. The executive director may waive, modify, or otherwise adjust these requirements for that portion of the quarry located more than 1,500 feet from a water body.

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§311.75. Permit Application Requirements.

Any responsible party who is required to obtain a permit, or who requests an amendment, modification, or renewal of a permit, shall complete, sign, and submit an application to the executive director, according to the provisions in Chapters 205 and 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits). Quarries located in the John Graves Scenic Riverway must submit additional information based on the location of the quarry.

(1) A quarry located within a water quality protection area in the John Graves Scenic Riverway must submit the following:

(A) a Restoration Plan as outlined in §311.76 of this title (relating to Restoration Plan); and

(B) evidence of sufficiently funded bonding or proof of financial resources to mitigate, remediate, and correct any potential future effects on a water body by an unauthorized discharge to a water body in an amount no less than that specified in §311.81(a) of this title (relating to Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John

Graves Scenic Riverway).

(2) In addition to the permit application requirements specified in paragraph (1) of this section, all applications for quarries located within 200 feet to 1,500 feet of any water body within a water quality protection area in the John Graves Scenic Riverway must include:

(A) a Technical Demonstration as outlined in §311.77 of this title (relating to Technical Demonstration); and

(B) a Reclamation Plan as outlined in §311.78 of this title (relating to Reclamation Plan).

(3) In addition to the permit application requirements in paragraphs (1) and (2) of this section, the executive director may require any additional information deemed appropriate and necessary to demonstrate compliance with the provisions of Texas Water Code, Chapter 26, Subchapter M or this subchapter.

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§311.76. Restoration Plan.

(a) The Restoration Plan must include a proposed plan of action for how the responsible party will restore the receiving waters to background conditions in the event of an unauthorized discharge that affects those receiving waters. The Restoration Plan, at a minimum, must:

(1) identify receiving waters at risk of an unauthorized discharge from the quarry;

(2) describe the process to be used in documenting the existing physical, chemical, and/or biological background conditions of each of the adjacent receiving waters;

(3) provide a schedule for completing the determination of background conditions of each of the receiving waters and for updating background conditions in the future, as appropriate;

(4) identify the goals and objectives of potential restoration actions;

(5) provide a reasonable range of restoration alternatives and the preferred restoration alternative that may be implemented to return the affected waters to background conditions in the event of an unauthorized discharge;

(6) describe the process for monitoring the effectiveness of the preferred restoration action, including performance criteria, that will be used to determine the success of the restoration or need for interim site stabilization;

(7) identify a process for public involvement in the selection of the restoration alternative to be implemented to restore the receiving waters to background conditions; and

(8) provide a detailed estimate of the maximum probable costs required to complete a restoration action, given the size, location, and description of the quarry and the nature of the receiving waters. The maximum probable cost must be based on the costs to a third party conducting the action without a financial interest or ownership in the quarry.

(b) Certification of the Restoration Plan must be provided, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Components of the Restoration Plan may be independently certified, as appropriate.

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§311.77. Technical Demonstration.

(a) The Technical Demonstration must include, at a minimum:

(1) a time schedule for the proposed quarry from initiation to termination of operations, including reclamation;

(2) a detailed description of the type of quarrying to be conducted, including the processes/methods employed (e.g., pit mining where blasting is employed);

(3) a geological description of the quarry area, including a detailed description of the material deposit: type, geographical extent, depth, and volume; and a description of the general area geology;

(4) identification and a detailed description of any other operations on site, including raw-material processing and/or secondary products (e.g., cement) processing;

(5) identification and a detailed description of type, character, and volume of wastewater and storm water generated on site;

(6) a topographic map, at a scale appropriate to represent the quarry operation and all of the following within the boundaries of the quarry:

(A) waterbodies;

(B) existing and proposed roads including quarry access roads;

(C) existing and proposed railroads;

(D) the 100-year floodplain boundaries, if applicable;

(E) structures (e.g., office buildings);

(F) the location of all known wells including, but not limited to, water wells,

oil wells, and unplugged and abandoned wells;

(G) active, post, and reclaimed quarrying areas;

(H) buffer areas;

(I) raw material, intermediate material, final product, waste product, byproduct, and/or ancillary material storage and processing areas;

(J) chemical and fuel storage areas;

(K) vehicle/equipment maintenance, cleaning, and fueling areas;

(L) vehicle/equipment loading and unloading areas;

(M) baghouses and other air treatment units exposed to precipitation; and

(N) waste disposal areas;

(7) a Surface Water Drainage and Water Accumulation Plan. The Surface Water Drainage and Water Accumulation Plan must be designed to prevent damage to fish, wildlife, and fish/wildlife habitat from erosion, siltation, and runoff from quarry operations. The Surface Water Drainage and Water Accumulation Plan must, at a minimum:

(A) describe the use and monitoring of structural controls and best management practices as identified in paragraph (8) of this subsection designed to control erosion, siltation, and runoff; and

(B) provide a topographic map, at a scale appropriate to represent the quarry operation and all of the following within the boundaries of the quarry:

(i) the location of each process wastewater and/or storm water outfall;

(ii) an outline of the drainage area that contributes storm water to each outfall;

(iii) treatment, detention, and water storage tanks and ponds;

(iv) structural controls for managing storm water and/or process wastewater; and

(v) physical features of the site that would influence storm water runoff or contribute a dry weather flow; and

(8) a Best Available Technology Evaluation. The Best Available Technology

Evaluation assists staff in reviewing and determining the best available technology designed to control erosion, siltation, and runoff from the quarry to minimize disturbance and adverse effects to fish, wildlife, and related environmental resources. Where practical, the Best Available Technology Evaluation must assist staff in reviewing and determining best available technology designed to enhance fish, wildlife, and related environmental resources.

(A) The Best Available Technology Evaluation must assess the use of structural controls and best management practices.

(B) The Best Available Technology Evaluation must evaluate performance criteria outlined in §311.79 and §311.80 of this title (relating to Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway and Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway).

(C) Structural control design and construction must be certified by a licensed Texas professional engineer. Design and construction plans/specifications must be maintained on site and made available at the request of the executive director; and

(9) a procedure and schedule for reviewing the Technical Demonstration for consistency with quarry operations and site conditions and effectiveness in controlling erosion, siltation, and runoff.

(b) Certification of the Technical Demonstration must be provided, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Components of the Technical Demonstration may be independently certified, as appropriate.

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§311.78. Reclamation Plan.

(a) The Reclamation Plan establishes procedures and standards for reclamation of the quarry.

(1) The Reclamation Plan must, at a minimum:

(A) provide a description of the proposed use of the disturbed area following reclamation;

(B) develop site-specific standards for reclamation appropriate to the end use proposed in subparagraph (A) of this paragraph that addresses the following:

(i) removal or final stabilization of all raw material, intermediate material, final product, waste product, byproduct, and/or ancillary material;

(ii) removal of waste or closure of all waste disposal areas;

- (iii) removal of structures, where appropriate;
- (iv) removal and reclamation of all temporary roads and/or railroads;
- (v) backfilling, regrading, and recontouring;
- (vi) slope stability for remaining highwalls and detention ponds;
- (vii) revegetation of the reclaimed area giving consideration to species diversity and the use of native species;
- (viii) establishment of wildlife habitat;
- (ix) establishment of drainage patterns;
- (x) establishment of permanent control structures (e.g., retention ponds), where necessary, to address erosion, siltation, and runoff from post quarrying and reclaimed areas; and
- (xi) removal of all equipment;

(C) provide a description of how reclamation will be conducted (e.g., phased reclamation) and a timetable for the completion of reclamation activities.

(2) The Reclamation Plan must include a detailed estimate of the maximum probable cost required to complete and implement the plan. The maximum probable cost must be based on the cost to a third party conducting the reclamation without a financial interest or ownership in the quarry operation.

(b) Certification of the Reclamation Plan must be provided, within the appropriate area or discipline, by a licensed Texas professional engineer or a licensed Texas professional geoscientist. Components of the Reclamation Plan may be independently certified, as appropriate.

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§311.79. Performance Criteria for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway.

The following performance criteria are applicable to quarries located within a water quality protection area in the John Graves Scenic Riverway.

- (1) Discharges from quarries shall meet the following effluent limitations.

Parameter	Daily Average Limitation
Total Suspended Solids	45 milligrams per liter
pH	Between 6.0 and 9.0 standard units

(2) Discharges from quarries resulting from a rainfall event greater than the 25-year, 24-hour rainfall event are not subject to effluent limitations in paragraph (1) of this section.

(3) Discharges from quarries shall be monitored as follows.

Parameter	Monitoring Frequency
Total Suspended Solids	1/day, when discharging
pH	1/day, when discharging

(4) Results of analysis for monitoring conducted as specified in §311.75(3) of this title (relating to Permit Application Requirements) shall be submitted monthly on approved self-report forms. Monitoring and reporting records, including strip charts and records of calibration and maintenance, shall be retained on site, or shall be readily available for review by a commission representative for a period of three years from the date of the record or sample, measurement, or report.

(5) The permittee shall install a permanent rain gauge at the plant site and keep daily records of rainfall and the resulting flow. Monitoring records shall be retained on site, or shall be readily available for review by a commission representative for a period of three years from the date of the record.

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§311.80. Additional Performance Criteria for Quarries Located Between 200 Feet and 1,500 Feet of a Water Body Located Within a Water Quality Protection Area in the John Graves Scenic Riverway.

Authorizations to discharge from quarries located between 200 feet and 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway require the permittee to satisfy the following performance criteria. An evaluation of these performance criteria must be incorporated into the Technical Demonstration, as required in §311.77 of this title (relating to Technical Demonstration).

(1) The down-gradient perimeter of the quarry must include a final control structure to manage the discharge of wastewater and/or storm water. The final control structure must be designed and constructed as follows.

(A) Certification of the final control structure design and construction must be provided by a licensed Texas professional engineer. Design and construction plans and specifications must be maintained on site and made available at the request of the executive director.

(B) The final control structure side slopes must not exceed a gradient of 1:3 (33%).

(C) The final control structure must be designed to impound, at minimum, the volume of water resulting from a 25-year, 24-hour rainfall event for the final control structure drainage area.

(D) The final control structures must be properly stabilized (via use of vegetation, riprap, and/or other acceptable technique) to prevent the final control structure from being a source of pollution and/or to prevent structural failure.

(E) The final control structure must be inspected once every 14 calendar days and within 24 hours of any rainfall event totaling 0.5 inches or greater. Where an inspection identifies failure and/or problems with the final control structure, corrections must be made within seven calendar days of the inspection. Records of these inspections and any site stabilizations must be maintained on site for a period of three years and made available to the executive director, upon request.

(F) A minimum 200-foot vegetative buffer must be maintained between the final control structure and any water body.

(2) All treatment, detention, and water storage tanks and ponds must be operated to maintain a minimum freeboard of two feet.

(3) A permanent depth marker shall be installed and maintained on all treatment, detention, and water storage tanks and ponds. The depth marker shall identify the volume required for the design rainfall event, as specified in paragraph (1)(C) of this section, and freeboard.

(4) The quarry operation must demonstrate compliance with all the requirements of 36 Code of Federal Regulations Part 800 (Protection of Historic Properties) and 9 Texas Natural Resources Code, Chapter 191 (Antiquities Code).

(5) The quarry operation must not have a detrimental effect on any federal endangered/threatened, aquatic/aquatic-dependent species/proposed species; or their critical habitat.

(6) Waste management units must be located a minimum horizontal distance from water wells, in accordance with 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers), or where those regulations do not apply, the minimum distance to a water well must be 500 feet.

(7) Secondary containment of chemical and fuel storage is required. Where quarry operations overlay aquifer and/or aquifer recharge areas and sufficient confining layers do not exist to

preclude contamination of groundwater, tertiary containment is required for all chemical and fuel storage.

(8) Quarry operations must not be located on natural hazard land, areas subject to frequent flooding, or in areas of unstable geology.

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§311.81. Financial Responsibility for Quarries Located Within a Water Quality Protection Area in the John Graves Scenic Riverway.

(a) An owner or operator of a quarry located within a water quality protection area in the John Graves Scenic Riverway shall establish and maintain financial assurance for restoration in accordance with Chapter 37, Subchapter W of this title (relating to Financial Assurance for Quarries). The amount of financial assurance must be no less than the amount determined by the executive director as sufficient to meet the requirements of the Restoration Plan in §311.76(a)(8) of this title (relating to Restoration Plan).

(b) An owner or operator of a quarry located between 200 feet and 1,500 feet of a water body within a water quality protection area in the John Graves Scenic Riverway shall establish and maintain financial assurance for reclamation in accordance with Chapter 37, Subchapter W of this title. The amount of financial assurance must be no less than the amount determined by the executive director as sufficient to meet the requirements of the Reclamation Plan in §311.78(a)(2) of this title (relating to Reclamation Plan).

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§311.82. Existing Quarries.

(a) Existing quarries required to seek and obtain authorization in accordance §311.74(b)(1) of this title (relating to Authorization), must submit a Notice of Intent as required by a commission-issued general permit, in accordance with §311.74(b)(1) of this title. Subject to the provisions of this subsection and maintaining compliance, existing quarries subject to the requirements of §311.74(b)(1) of this title that have authorization under a Texas Pollutant Discharge Elimination System Permit or Texas Land Application Permit issued under Chapters 205 and 305 of this title (relating to General Permits for Waste Discharges and Consolidated Permits), may continue to operate under the terms of that permit until the commission issues or denies authorization under this subchapter.

(b) Existing quarries required to seek and obtain authorization in accordance with §311.74(b)(2) of this title must submit an individual Texas Pollutant Discharge Elimination System or Texas Land Application Permit application not later than 180 days following the effective date of this subchapter. Subject to the provisions of this subsection and maintaining compliance, existing quarries subject to the requirements of §311.74(b)(2) of this title that have authorization under a Texas Pollutant Discharge Elimination System Permit or Texas Land Application Permit issued under Chapters 205 and

305 of this title, may continue to operate under the terms of that permit until the commission issues or denies authorization under this subchapter.

(c) Existing quarries required to seek and obtain authorization in accordance with §311.74(b)(3) of this title must submit an individual Texas Pollutant Discharge Elimination System or Texas Land Application Permit application not later than 180 days following the effective date of this subchapter. An existing quarry may not operate until the commission issues authorization under this subchapter.

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