FOCUS report

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Aggregate industry regulations could come before Texas Legislature

In recent years the booming population of Texas has fueled demand for construction materials used to make buildings and roads. The corresponding growth of the aggregate industry, which produces and processes construction materials such as crushed stone, sand, and gravel, has brought renewed scrutiny to the way the industry is regulated in the state.

The aggregate production and processing industry includes quarries and facilities such as rock crushers. This industry is closely related to the concrete industry, which uses aggregate materials in its products. The term "aggregate production operations," often abbreviated to "APOs," is frequently used to refer to different types of operations and facilities within these industries, although the term's statutory definition is narrower. *See "Defining 'Aggregates'" on page 2.*

The 86th Legislature in 2019 considered a number of aggregate-related bills before enacting HB 907 by Huberty, which increased the frequency of required inspections for certain aggregate production operations and raised the maximum penalty for operations that fail to meet registration requirements. A House interim study committee on aggregate production operations created in December 2019 is charged with reviewing the impact of these operations across the state and investigating related issues, including nuisance concerns, transportation safety issues, reclamation efforts, and the enforcement of current industry regulations.

While aggregate production and processing operations are present in every U.S. state, Texas ranks first in the nation in the production of crushed stone and construction sand and gravel, according to the U.S. Geological Survey. Aggregate operations are subject to a number of federal, state, and local regulations, depending on their type and location.

Some Texas residents have suggested that more regulation of the aggregate industry is needed to protect public health and private property rights and to prevent environmental harm. In some cases, property owners and local governments have taken legal action to prevent new aggregate operations from opening. Others say the industry is already appropriately regulated and that adding to the regulatory

Defining "Aggregates"

Construction aggregate materials include sand, gravel, and crushed stone, which can be used alone or as components in products such as concrete and asphalt. Aggregate production operations are defined in Water Code ch. 28A as sites from which aggregates are or have been removed or extracted from the earth, such as quarries and gravel pits. Outside of statute, aggregate processing operations are those that process aggregate materials for use, such as rock crushing facilities. Often, an aggregate production operation will contain a processing facility on-site. The aggregate industry and concrete industry are closely related and similarly regulated. The concrete industry includes facilities such as concrete batch plants, which combine aggregate, cement, and other ingredients to produce concrete, that are subject to air and water quality regulations similar to those for aggregate production and processing operations.

The term "aggregate production operations," often abbreviated to "APOs," is frequently used to refer to various types of operations and facilities not included in the statutory definition. For example, rock crushing facilities, concrete batch plants, and hot mix asphalt plants are often informally included in this term. In this report, the phrase "aggregate industry" is used in this broad sense, containing production, processing, and concrete operations, while "production operations" and "processing operations" are used more narrowly.

burden could cause economic harm. They say the aggregate industry is a necessary component of the state's continued expansion and responsible for more than 100,000 jobs in the state. Current oversight properly balances the rights of landowners and operators with protection of health and the environment, they say.

This report provides a brief introduction to the current regulatory framework for the aggregate industry in Texas, with a focus on registration and air permitting requirements administered by the Texas Commission on Environmental Quality (TCEQ). It also reviews several proposals to change or expand regulation of the industry, including proposals that could come before the 87th Legislature.

State regulation of aggregate and concrete operations

Aggregate and concrete operations in Texas are subject to a number of state regulations. Some aspects of aggregate operations, such as certain quarry safety requirements, fall under the jurisdiction of the Texas Department of Transportation and may be subject to other federal, state, and local rules and requirements. However, regulatory oversight and enforcement of the industry is conducted primarily by TCEQ. Unlike mining operations that produce coal and uranium in Texas, aggregate production operations are not subject to Railroad Commission oversight.

Aggregate and concrete operations may be required to obtain specific permits, such as air quality permits for certain facilities and permits for water and stormwater management, in order to operate. In addition, certain aggregate production operations are required to register with TCEQ. The agency may penalize operators who violate permit and registration requirements.

In addition to state regulation, aggregate and concrete operations may be subject to local requirements, including groundwater conservation district regulations. For example, an aggregate operation located within the Edwards Aquifer region may be required to receive authorization from the

Edwards Aquifer Authority to withdraw water from the aquifer for use in their operations. Similarly, operations or facilities located within a city's jurisdiction may be subject to zoning rules or other limitations.

Registration. Under Water Code ch. 28A, commercial aggregate production operations must register with TCEQ and renew their registrations annually. They also must undergo regular TCEQ inspections. Certain operations, including those that only process aggregates but do not produce them, are not required to register with TCEQ or undergo related inspections.

TCEQ must publish the number and location of registered aggregate production operations in its annual enforcement reports. The registration requirement for aggregate production operations went into effect on September 1, 2012, and according to the most recent report published by TCEQ, 1,056 aggregate production operations were registered in the state in fiscal year 2020, up from 639 at the end of fiscal year 2013.

HB 907 by Huberty, enacted in 2019 by the 86th Legislature, increased the frequency of required TCEQ inspections of registered aggregate production operations from once every three years to once every two years during the first six years in which an operation is registered. After the first six years, TCEQ must inspect an operation at least once every three years.

In addition, HB 907 increased from $10,000 to $20,000 the maximum penalty that TCEQ may assess per year for operations that fail to register. The bill also increased from $25,000 to $40,000 the maximum total penalty that may be assessed for an aggregate production operation that operates for three or more years without being registered.

Air quality. Under the Texas Clean Air Act, Health and Safety Code ch. 382, operations and facilities across all industries that might produce air contaminants, including certain aggregate and concrete facilities such as rock crushers or cement mixers, must obtain authorization from TCEQ before they begin operating or make changes to their facilities. Air contaminants are defined by Health and Safety Code sec. 382.003(2) as "particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor, including any combination of those items, produced by processes other than natural." TCEQ authorizations are issued under the New Source Review Program.

Types of air permits

Facilities that are likely to emit air contaminants are required to obtain authorization from TCEQ before beginning operation. Facilities may qualify as "de minimis," meaning they will produce so few emissions they do not need a TCEQ permit to operate, or may fall into other permitting categories. Below are the types of TCEQ air permits that may be available to a facility under the New Source Review Program, ranging from the smallest to the greatest amount of emissions allowed by permit type.

Permit by rule

Certain sources that will not produce significant emissions

Standard permit

Sources that produce more emissions than authorized by PBRs but fall into well defined categories

New Source Review

Case-by-case permits that may be issued for either minor or major sources of emissions after review by TCEQ

Operations across all industries can satisfy the authorization requirement under the New Source Review Program either by qualifying as de minimis, meaning "of minimum impact," or by qualifying for or receiving a permit. Aggregate processing facilities generally do not qualify as de minimis sources as they produce more emissions than allowed by this kind of authorization. A facility or other source of air contaminants must meet one or more conditions under Texas Administrative Code Title 30, sec. 116.119 to qualify as de minimis. Qualifying sources do not require any further state air authorization from the agency.

Operations that do not qualify as de minimis sources may satisfy the authorization requirement by qualifying for a permit by rule or applying for and receiving a standard permit or a New Source Review air quality permit, depending on the type and scale of the operation's facilities.

Permit by rule. Certain types of facilities that do not qualify as de minimis but that TCEQ finds will not be significant sources of air contaminants may be eligible for a permit by rule under Health and Safety Code sec. 382.05196. To qualify for a permit by rule, a facility must meet emission limits as set out in Texas Administrative Code Title 30, sec. 106.4. TCEQ issues about 100 types of permit by rule authorizations, several of which apply to aggregate- and concrete-related facilities. For example, a permit by rule is available for bulk mineral handling facilities that meet certain emission control and setback requirements (Texas Administrative Code sec. 106.144).

Standard permits. Facilities that will produce more air contaminants than authorized under a permit by rule but that fall into specific and well defined categories may be entitled to operate under a standard air quality permit. Health and Safety Code sec. 382.05195 authorizes TCEQ to issue a standard permit for similar new or existing facilities if the commission finds that the standard permit is enforceable and that the commission can adequately monitor compliance with the permit's terms. Authorizations to operate under a standard permit are valid for up to 10 years.

Operators may apply for a standard permit if they meet requirements set in statute, in TCEQ rule, or by the agency. For certain standard permits, operators must issue a notice of application for authorization to operate under the permit, the public must be given opportunity to comment, and there must be opportunity for a public meeting. Some standard permit applications may go to a contested case hearing.

Standard permits are available for some aggregate and concrete facilities, such as concrete batch plants, concrete batch plants with enhanced controls, and temporary and permanent rock and concrete crushers. These permits may specify how distant facilities must be from surrounding residences or public spaces and from other facilities. They also may require that facility operators take certain measures to control dust and other emissions, and set reporting requirements, among other specifications.

New Source Review permits. Facilities that do not qualify for a permit by rule or a standard permit may apply for a New Source Review (NSR) permit. NSR permits are either minor or major, depending on the level of emissions a facility is likely to produce, and are reviewed and issued on a case-by-case basis. Applications for these permits go through both an administrative and technical review by TCEQ staff. Texas Administrative Code Title 30 ch. 116, subch. B outlines application and review processes for NSRs.

Large facilities that emit significant amounts of air contaminants may be authorized by an NSR permit. For example, a rock crushing plant that exceeded the size or operation limits set by the standard permit could still be permitted through a new source review. NSR permits include limits on air emissions, requirements for emission controls and air quality monitoring, and other conditions as determined by TCEQ. Specific permit requirements for some operations, such as concrete crushing facilities, are listed in the Texas Administrative Code.

NSR permit applications are subject to public notice and comment requirements, and the public may request a public meeting to discuss the permit application. NSR permit applications also may be subject to contested case hearings.

2005 recommendations on aggregate industry regulation

In 2003 the Advisory Committee on Rock Crushers and Quarries was created by Gov. Rick Perry after a bill in the 78th Legislature that sought to establish new requirements and regulations for issuing TCEQ air permits for rock crushers died in the Senate Natural Resources Committee.

The advisory committee was charged with studying TCEQ's authority to consider all appropriate issues in permitting and regulating rock crushers. Its work focused on issues that were not at that time considered by the state as part of permitting processes for rock quarrying and crushing operations, including:

- the impact of local truck traffic around quarries and rock crushers;
- rock crushers' impact on air quality beyond the crushers' immediate vicinity, as well as on ground and surface water;
- the impact of blasting on ground and surface water; and
- the reclamation of land used as a rock quarry after mining operations ceased.

In January 2005, the committee submitted an interim report to the governor and Legislature that included a number of legislative proposals but was not signed by a majority of the committee. The report recommended requiring operators of rock quarries to obtain a quarry permit consisting of five components: a site plan, a transportation plan, blasting regulations, a reclamation plan, and an approved air quality permit. The recommendations also included establishing or raising penalties for regulatory violations by operators and changes to certain TCEQ permits for rock crushers.

A second, dissenting report also was submitted to the Legislature by members of the committee. The dissenting report included some regulatory proposals similar to those in the interim report but did not include the recommendation to require a permit for rock quarries.

During the regular session of the 79th Legislature in 2005, measures based on the committee's recommendations were considered but not enacted.

Past and current proposals to change aggregate regulation

Since 2005, proposals to change how aggregate production and processing operations are regulated have often focused on issues similar to those identified in the advisory committee reports, such as restoring lands environmentally affected by aggregate operations. Concerned parties have also called for increased air quality monitoring requirements to be part of the permitting process and for required best management practices to be established. The 87th Legislature may consider measures to address these or similar issues, as well as other proposals related to the regulation of aggregate and concrete operations.

During the regular session of the 86th Legislature in 2019, legislation was introduced that would have required TCEQ to establish best management practices for aggregate producers, such as practices to minimize noise or dust, and would have set reclamation requirements for such operations. Other

proposals included those to amend air quality permit requirements and to require increased air quality monitoring, among other changes.

Establishing best management practices. In 2019 the 86th Legislature considered HB 909 by Huberty, which would have instructed TCEQ to adopt best management practices for aggregate production operations to comply with applicable environmental laws and rules. The bill was left pending before the House Environmental Regulation Committee. Proposals that would require aggregate operations to implement established best management practices similar to those required in other states could come before the 87th Legislature in 2021. These could include new regulation of aggregate-related truck traffic, dust suppression measures, and practices to minimize the noise of some processes.

Supporters of establishing and requiring the implementation of best management practices say that doing so would help protect Texans who live near aggregate operations and would not place an excessive burden on operators. Many states already require operators to implement such practices, and while Texas does not currently have similar requirements, many operators in the state have voluntarily taken measures to protect and respect their neighbors and communities. These operators have continued to be competitive in the market, showing that implementing best practices would not cause serious economic harm to companies. Requiring best management practices would level the playing field for the industry and ensure that all aggregate operators acted as good neighbors, supporters say.

Critics of establishing and requiring the implementation of best management practices say that doing so is unnecessary. Such practices have already been adopted voluntarily by many Texas aggregate production operations and do not need to be legislated, they say. Rather, the industry and individual operators should continue to work with their neighbors and communities to address any concerns raised by their operations. Critics also say that the aggregate industry is already heavily regulated and that requiring the state to determine best management practices and require their implementation would only add to the regulatory burden borne by the industry. They say aggregate operators should be allowed to determine and implement best practices within their communities as appropriate without interference from the state.

Amending air quality permit requirements. In 2019 lawmakers also considered but did not enact several bills to amend or expand requirements for certain air quality permits for aggregate- and concrete-related facilities. The Legislature considered, among other proposals, bills that would:

- require that applications for standard air quality permits for certain concrete plants include a plot of the facility showing property lines, emission points, and evidence that required setbacks were met (HB 798);
- increase the setback distance from 440 yards to 880 yards between rock and concrete crushing facilities and certain buildings, such as a residence or school (HB 4247); and
- require operators of facilities located within a municipality or its jurisdiction or within 880 yards of property that had entered into a development agreement with a municipality to include a letter from the municipality with their applications for a standard air quality permit verifying that the construction and operation of the facility was compatible with the municipality's zoning regulations and agreements (HB 4600).

One of these bills, HB 798 by Walle, passed to engrossment in the House before dying in the Senate. Others, such as HB 4600 by Wilson, were left pending before House committees, while some bills, including HB 4247 by Wilson, did not receive public hearings.

The 86th Legislature also considered proposals to modify permitting conditions by introducing new air quality monitoring requirements for certain aggregate- and concrete-related permit holders. HB 4409 by Wilson would have required as a condition of a permit related to the production of aggregates, the operation of a concrete plant, or the operation of a hot mix asphalt plant that the permit holder install and maintain equipment to monitor air emissions from the facility. Data collected by these monitors would have to have been provided on a publicly accessible website maintained by the commission using fees collected for that purpose. HB 4409 died in the House Committee on Environmental Regulation.

A proposal also was put forward in 2019 that would have required TCEQ to consider cumulative air pollution impacts when approving a preconstruction air quality permit or permit amendment. Under HB 522 by Allen, which died in the House Committee on Environmental Regulation, the agency would have had to consider the effects on the public's health and on physical property of not only the expected air contaminant emissions from the proposed facility or facility modification but from all other permitted facilities within a three-mile radius of that facility when deciding whether to approve the permit or amendment.

In addition, lawmakers put forward proposals that would have expanded the list of those who could request a public hearing from TCEQ related to the construction of a concrete plant under a permit by rule or a standard permit. Some of these bills, including HB 999 by Collier and HB 1280 by Allen, were left pending before House committees after receiving public hearings. Others did not receive hearings.

Supporters of expanding air quality permitting requirements for aggregate processing operations and related facilities say that the current permitting process does not adequately protect public health or provide enough opportunity for public input. They say that while aggregate processing is necessary for the growth and development of the state and many local operators make efforts to be good neighbors to nearby landowners, national and international companies who lack connections to local communities increasingly have entered the Texas aggregate market to take advantage of a less strict regulatory environment. These operators may have little incentive to protect their neighbors from the effects of their operations, supporters say, and strengthening the air permitting process is necessary to protect communities from related air emissions, including dangerous particulate matter.

Supporters say that TCEQ should increase air quality monitoring of aggregate production and processing operations. They say current permit requirements are guided by air quality modeling conducted by the commission but that without monitoring at the site of emissions these models may not be sufficiently accurate or protective. While TCEQ may not currently have the resources to conduct such monitoring, this could be resolved with future appropriations, by using simpler and more affordable equipment, or by requiring operators to install monitors along their property.

Measures to increase transparency and public participation in the permitting process, particularly for certain standard air quality permits, also should be implemented, supporters say. This could include expanding the types of persons who could request public hearings before certain facilities received a TCEQ air permit. Supporters say these changes would help industry by reducing the number of permit applications that go to contested case hearings, saving operators time and money.

Critics of expanding air quality permitting requirements for aggregate processing operations and related facilities say the current permitting process as overseen by TCEQ has been determined to be protective of both the public and the environment. As long as the conditions of a permit are met, they say, public health and safety are being preserved and there is no need to expand permitting requirements. TCEQ also currently has the authority to investigate and punish bad actors who do not meet permitting conditions.

Implementing further requirements would slow the permitting process and could harm the industry, resulting in higher prices for aggregate products and fewer workers employed by aggregate operations.

Critics of expanding requirements also say that requiring an increase in air quality monitoring by TCEQ would require significant funding and may not be possible with the agency's current resources. They say that requiring more air monitoring as part of the permitting process could reduce available resources for monitoring of other significant sources of emissions. It is unnecessary to incur the costs required to monitor air emissions from aggregate processing facilities, critics say, because evidence does not indicate that the current modeling process is not sufficiently protective.

Critics also say that requiring additional transparency and public participation measures as part of the permitting process for certain standard air quality permits would only slow the process without changing the outcome of permit applications. This ultimately would result in more time and expense with no real benefit to the public, they say.

Reclamation, permitting requirements. In 2019 the 86th Legislature considered several bills that would have required aggregate production operations to submit reclamation plans and bonds in order to operate.

One bill, HB 2710 by Murr, would have required certain aggregate production operations to submit a reclamation plan for affected land when applying for or renewing their registration with TCEQ. Aggregate operations also would have been required to submit a performance bond payable to the state for $2,500 per acre to be affected by the operation's extractions activities. This bond later could have been released to the operator if TCEQ was satisfied that the reclamation assured by the bond had been accomplished. HB 2710 was left pending in the House Committee on Environmental Regulation.

In addition to introducing reclamation requirements, some bills considered by the 86th Legislature would have moved oversight of aggregate production operations from TCEQ to the Railroad Commission (RRC). These bills included HB 509 by Wilson, which also would have required that aggregate production operations obtain a permit in order to operate. Applications for the required permit would have had to contain information on the operation's probable impact on local water quality and availability and meet other requirements. The bill was left pending in the House Energy Resources Committee.

HB 2871 and HB 3798, both by Biedermann, also would have moved oversight for aggregate production operations from TCEQ to RRC and required that operators apply for and receive reclamation permits. HB 2871 would have applied only to aggregate production operations that included facilities that were required to hold air permits, while HB 3798 would have applied only to aggregate production operations as currently defined in statute. HB 2871 was left pending in the House Energy Resources Committee, and HB 3798 was left pending in the Environmental Regulation Committee.

Supporters of implementing reclamation requirements for aggregate production operations say that doing so would more effectively protect citizens' property rights and the state's environment, resources, and natural beauty. They say these operations now may operate within a short distance of residential areas and other critical infrastructure, such as schools and hospitals, without any financial guarantee that they will return affected land to a usable state once production operations end. This sometimes results in aggregate mines being abandoned, supporters of reclamation requirements say, leaving unsafe and scarred land behind that can contribute to negative environmental impacts, including increased silt runoff during flooding events, and can decrease nearby property values.

Supporters say RRC is experienced in regulating mining in Texas, as the agency oversees open pit mining for coal and uranium. They say these industries are required to bond for the reclamation of land affected by mining operations and that the aggregate production industry should be subject to similar requirements. These requirements would not be burdensome, supporters say, because they simply ensure that operators follow established best practices that many have already implemented. Aggregate operators in many other states are subject to reclamation requirements and continue to operate productively and profitably, supporters say.

Critics of implementing reclamation requirements for aggregate production operations say such measures are unnecessary and potentially burdensome to the industry and to consumers of aggregate materials. The aggregate industry is effectively regulated under the existing structure, critics say, and further permitting and reclamation requirements could harm the profitability of aggregate operations, increase the cost of aggregate materials for consumers, and slow construction projects that are increasingly important for the state's continued growth.

Existing regulations for aggregate production operations properly protect public safety and the environment, critics say, and many operators take measures to restore land used for such operations. They also say aggregate production operations present less risk to the public and environment than coal or uranium operations and should not be regulated in the same way. Processes to produce aggregate materials can vary based on the product and location, critics say, making it inappropriate to require aggregate producers to meet the same reclamation requirements as mining operations currently overseen by RRC.

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