

South Carolina Department of Environmental Services Summary Response to Comments

Heidelberg Materials Southeast Agg LLC | I-000431 | Pelham Quarry
Spartanburg County, South Carolina
February 25, 2025

This summary is being provided in conjunction with the South Carolina Department of Environmental Services' (SCDES) decision to approve the application and modification of a permit for the Pelham Quarry located along E Howell Road in Greer, SC in Spartanburg County, S.C. Operation of this mine site is to excavate granite.

SCDES is committed to preserving South Carolina's air, land, water, and coast through science, service, and sustainability. Through the passage of environmental statutes and regulations, the S.C. General Assembly has established the conditions and criteria that SCDES follows in the permitting process. SCDES's role is to ensure that a proposed project meets all regulatory requirements that are protective of human health and the environment, and to provide local communities with meaningful opportunities to participate in our permitting process. If it has been determined that an applicant or application has met all applicable regulatory requirements, SCDES does not have the authority to withhold the modification of a permit.

As part of the permitting process, SCDES engages other state and federal agencies, the surrounding communities, and the general public prior to making a final permit decision in order to:

- 1) Provide information about the proposed permitted activities in the communities;
- 2) Give agencies, community members, and other interested parties an opportunity to submit relevant information to SCDES for consideration prior to making a final permit decision; and,
- 3) Provide an opportunity to submit other concerns to the attention of SCDES and the applicant.

Public meetings and public hearings are methods SCDES uses to hear concerns and receive comments during the permitting process. A public meeting is an informal conversation with SCDES staff, to include questions and answers. A public hearing is a formal opportunity for comments to be stated and recorded by a court reporter for inclusion in the official file.

SCDES held a public meeting and hearing on the proposed Pelham Quarry on October 17, 2024. These events were conducted in person at the Gibbs Cancer Center & Research Institute (2759 South Hwy. 14, Greer, SC). SCDES also extended the period to accept written comments through November 1, 2024.

SCDES values all public comments received during the permitting process and is committed to addressing and considering all relevant information prior to making a final permit decision. Public input is an important part of the permitting process and can result in changes to permit conditions and operational practices if a permit is issued.

Contents

Section 1: The South Carolina Mining Act2

Section 2: Groundwater3

Section 3: Surface Water4

Section 4: Noise4

Section 5: Public Safety.....5

Section 6: Traffic5

Section 7: Blasting.....5

Section 8: Air Quality5

Section 9: Zoning6

Section 10: Land and Property Value/Economic Impact6

Section 11: Community/Quality of Life.....7

Section 12: General Opposition7

The following responses are being provided in response to comments received during the public comment period, the public meeting, and the public hearing for Pelham Quarry.

Section 1: The South Carolina Mining Act

The principal law governing mining in this state is Title 48 Chapter 20: The South Carolina Mining Act. The legislative purpose of the Act is to provide that: (1) the usefulness, productivity, and scenic value of all lands and waters involved in mining within the state receive the greatest practical degree of protection and restoration; and that (2) no mining may be carried on in the state unless plans for the mining include reasonable provisions for protection of the surrounding environment and for reclamation of the area of land affected by mining. A complete copy of the Act can be found here:

<https://www.scstatehouse.gov/code/t48c020.php>

The Act provides specific criteria for review of mine permit applications by SCDES. The Act does not supersede local zoning ordinances. Issues related to zoning (i.e., property value and industrial development) are under the jurisdiction of county and municipal planning departments and governed by zoning and land use regulations. SCDES has not been given the authority to consider the effect of a mining operation on property values. SCDES is required to evaluate the application in a timely manner and to consider relevant environmental issues.

The Act allowed the development of regulations to establish minimum standards for mining operations. Regulations 89-10 through 89-350 became effective on June 24, 1983 and have been subsequently modified. These regulations outline the requirements for permitting the design, construction, operation, maintenance, reclamation, and closure of mine sites. The complete list of regulations can be found here:

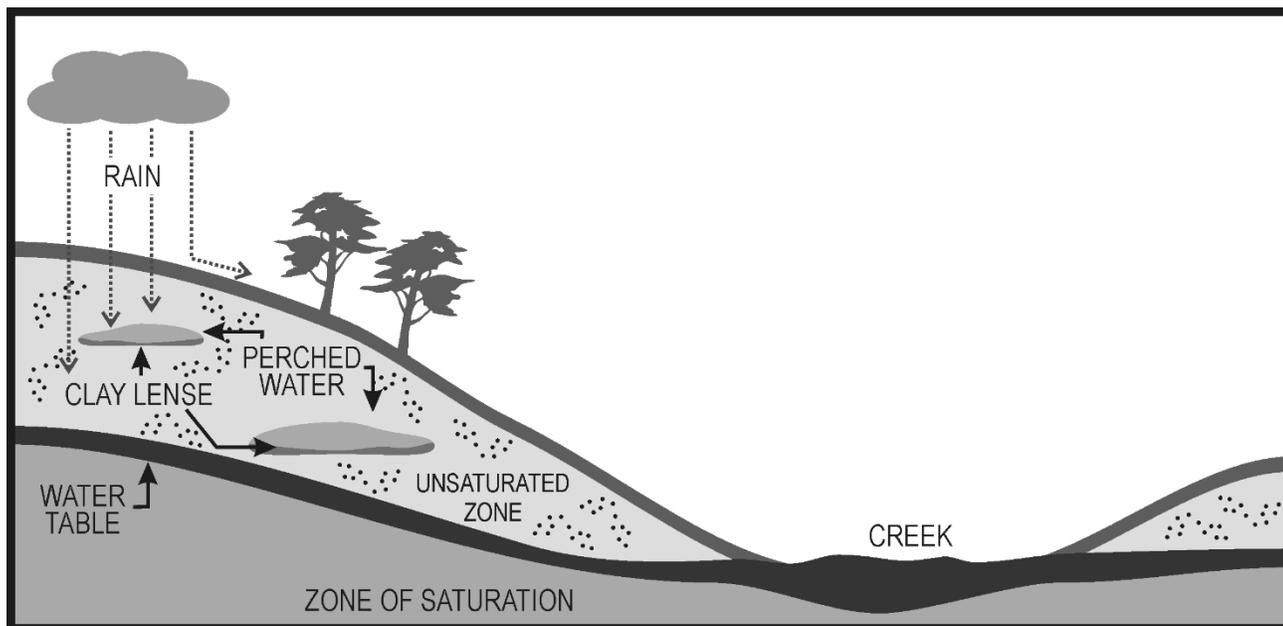
https://scdhec.gov/sites/default/files/Library/Regulations/R.89-10_89-350.pdf

In reaching the decision to approve the permit modification application for the Pelham Quarry, SCDES staff reviewed all information contained in the application, supplemental information submitted by the applicant, and all agency and public comments to ensure that the requirements of the Act and Regulations had been met. SCDES has determined that the applicant has met the applicable requirements and is approved to construct and operate the mine in accordance with the conditions and limits set forth in Permit No. I-000431.

Section 2: Groundwater

Groundwater is water that collects or flows below the soil surface. The main source for groundwater is rainfall. Runoff from rainwater can go directly into water bodies or seeps into the ground. When water soaks (infiltrates) into the ground, gravity pulls the water down through the spaces between the soil particles and rocks until it reaches a depth where all of the spaces are filled with water, or saturated. The water level where the soils are saturated is called the water table. The area above the water table is called the unsaturated zone, the area below the water table is the saturated zone.

As shown in the following diagram, the water table is not always at the same depth below the land surface - the level moves up or down depending on rainfall and the rate water is removed (e.g., irrigation, industry, well). The unsaturated zone may contain pockets (lenses) of tightly bound clayey soils that do not allow the water to infiltrate. In this situation, the water will collect (perch) on the top of these impermeable lenses. This is "perched water" and is not the true water table along the top of the saturated zone.



Due to groundwater seepage from natural fractures/joints in the host rock, quarry dewatering will be necessary when the pit floor extends below the water table. Additionally, where feasible, stormwater runoff shall be diverted into the pit, collected into the sump, and discharged in the same manner as groundwater. Any accumulation of groundwater and stormwater shall be pumped into a sediment basin prior to discharge. Water discharged from the mine to a receiving stream must be discharged through an outfall regulated by an NPDES permit.

If an operator receives a complaint concerning adverse impacts to neighboring wells, the operator is to notify SCDES's Manager of the Mining and Reclamation Section, Columbia, SC, within 48 hours. After investigation, if DES determines dewatering activities at the mine are affecting a drinking water well or water supply well, the operator shall be responsible for repairing, deepening, or re-drilling such wells. Until that permanent water supply is re-established, the operator shall supply the owner with a temporary water supply (e.g., bottled water for drinking, provisions for laundry).

Active pumping and discharge of water shall cease if the dewatering discharge causes flooding conditions to property downstream of the mine site.

Section 3: Surface Water

Discharge Monitoring and Sediment Control: The operator is permitted to discharge wastewater and stormwater through the approved outfall(s) in accordance with the *NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG730042)*. Discharges from the outfall(s) will be subject to numeric effluent limits (total suspended solids and pH) and other permit requirements that are protective of human health and the environment. Should the operator be unable to meet the requirements of the NPDES permit, SCDES's Bureau of Water would initiate their compliance and/or enforcement procedures, accordingly.

Stormwater will be routed into the pit or any of the sediment basins throughout the site, in order to capture sediment runoff. This sediment will be allowed to settle out of the stormwater prior to being discharged offsite. The NPDES permit requires the operator to have proper Best Management Practices (BMPs) and a Stormwater Pollution Prevention Plan (SWPPP) in place. Furthermore, the operator shall operate the site in accordance with the approved mine maps.

The NPDES general permit requires that stormwater outfalls have appropriate BMP's to minimize the discharge of pollutants. The permit also requires benchmark monitoring of stormwater discharges. Benchmark monitoring involves collecting a quarterly sample during the first 30 minutes of the stormwater discharge and analyzing it for Total Suspended Solids. If the average of the four quarterly benchmark samples is greater than 100 mg/l Total Suspended Solids, then the operator must either improve their BMP's or document that it is not feasible to improve their BMP's. If the average of the four quarterly benchmark samples is less than 100 mg/l Total Suspended Solids, benchmark sampling is no longer required during this permit term for that outfall.

Potential for Flooding: The mine operating permit is conditioned such that "Active pumping and discharge of water shall cease if the dewatering discharge causes flooding conditions to property downstream of the mine site". At no time will the operator be allowed to flood neighboring properties.

Section 4: Noise

The majority of noise generated with mining activity is associated with motorized vehicles and equipment. The level of noise perceived at residences is usually related to the distance from the source of the sound, weather conditions, topography, and the type and condition of the equipment. Equipment such as trucks, dozers, and loaders usually has an average noise level determined by the manufacturer. The majority of the equipment averages 75 to 90 decibels (db) at a distance of fifty feet. Sound decreases (attenuates) with distance at the rate of about 3 to 5 dB each time the distance between the source and the person hearing it is doubled.

Another factor used to buffer noise is topography. Overburden will be used to construct berms to block the direct path of sound. Additionally, the mine operating permit requires the operator to maintain equipment (e.g., mufflers on trucks, trackhoes, pumps) to minimize noise from the site.

The combination of undisturbed vegetated buffers, earthen berms, maintenance of equipment, and distance from the operation will consequently reduce the potential for sound heard offsite. There may be instances when the sound of equipment (back up alarms, trucks, etc.) can be heard, but the decibel levels should not be excessive.

Although no state standards exist for noise emitted from this type of industry, the Mine Safety & Health Administration (MSHA) does have noise standards applicable for worker safety to protect hearing. Therefore noise, limited at the source to protect workers, has the added benefit of limiting noise beyond the permit area.

Section 5: Public Safety

Public safety around a mine site is always a concern. A primary method to ensure public safety is controlling access to the mine property. A gated entry and warning signs will minimize physical hazards to persons and adjoining land uses. Additionally, natural barriers (e.g., streams, wetlands, vegetation) and constructed berms provide a deterrent for accidental entry into a mine site. The combination of these barriers and site characteristics will limit public exposure to the operations at the site.

Section 6: Traffic

A common concern expressed is the increase of truck traffic hauling mined material. The SC Mining Act only authorizes SCDES to regulate truck traffic on roads *inside* the permit boundary. SCDES can only evaluate impacts to public roads as it pertains to the physical effects from the mining operation (e.g. blasting, undermining, etc.). It does not give SCDES the authority to regulate or restrict vehicle traffic outside the permit boundary or deny a permit based on the potential increased use of such roads.

Other concerns with road systems, including use of the roads or general wear-and-tear issues, are under the jurisdiction of S.C. Department of Transportation (SCDOT), S.C. Public Service Commission, or Spartanburg County Department of Public Works.

The operator has proposed to relocate the quarry entrance from E. Howell Road to Brockman-McClimon Road. This should address traffic safety concerns that have been expressed on the use of E. Howell Road. The operator will need to obtain county and SCDOT approvals prior to the relocation of the entrance. However, neither the operator nor SCDES can regulate traffic on public roads.

Section 7: Blasting

Surface blasting requirements are regulated in R.89-150. All blasting is required to be performed by a S.C. licensed blaster and be within 1.0 inch per second peak particle velocity (PPV) at the closest inhabited structure, which is considered more than adequate to protect the structure's integrity.

Per Regulation 89-150.I., to provide for adequate public safety, SCDES is required to establish a minimum distance between blasting and any structure not owned by the operator. This modification will not change the previously approved blasting setback at this site.

Ground vibrations, due to blasting, may be felt outside of the permit boundary. Federal guidelines on surface blasting state that a PPV of 2.0ips is considered safe for structures; South Carolina goes one step further and limits PPV to 1.0ips (Regulation 89-150.E.) at the closest structure for an additional measure of safety. So, while ground vibrations may be felt offsite as an annoyance, it is not considered intense enough to cause damage to structures or roads. Additionally, the air blast from a quarry may be heard off-site, but would not be strong enough to produce damage to residential structures.

R.89-150.A. requires the operator to perform a Pre-Blast Survey of inhabited structures that are within one-half mile of any blasting at the landowners' approval. A copy of this report will be given to the operator, the landowner, and SCDES.

Section 8: Air Quality

Dust: Fugitive dust emissions from the proposed mining activities has been a concern with this proposed mine. The Division of Mining and Solid Waste Management is responsible for regulating dust emissions from a mining site. Sources of dust include: moving equipment, handling of the mineral resource and overburden, truck traffic, and wind erosion.

At active sites, the major contributors of dust are equipment and truck traffic. Properly constructed access roads with dust suppression methods (e.g., water trucks, sprinklers) is the most effective way to manage dust from traffic. The operator will use a watering truck. The frequency of watering will depend on weather conditions and volume of traffic.

Wind erosion of areas stripped of vegetation and material stockpiles are also sources for potential dust. The operator, where feasible, shall establish vegetation in non-active mine areas barren of vegetation to stabilize the soil and reduce potential for wind erosion and dust emissions. The combination of minimizing land disturbance and re-vegetation will lessen the potential for windblown dust.

Health Risks with Dust Exposure: Health risks are mitigated by controlling the dust at the source. Source control measures include best management practices, such as water trucks, dust suppressants, sprinklers, etc.

MSHA is responsible for protecting the health of workers at mine operations. As part of their duties, MSHA monitors exposure of workers to dust. Results from monitoring show the risk is greatest within work environments involving processing (crushing/grinding) and operating equipment. If a problem concerning overexposure exists, MSHA would require the company install some type of engineering control to eliminate the concern at the source.

Meeting MSHA requirements to control dust in the immediate work area will further minimize any exposure risk outside the permitted area. No elevated exposure risk is anticipated from the mine beyond the property line.

We are exposed on a daily basis to dust from non-industrial sources such as dirt roads, fields, and bare lots. Although the proposed mining operation does not add any new hazards, engineering and administrative controls have been designed to minimize the production of airborne dust. Based on the proposed controls at the mine (natural buffers, distance from property lines, controls on the haul road), an increase in the exposure to silica or other materials beyond the property line is not anticipated.

Information on air monitoring in South Carolina is available on SCDES's Bureau of Air Quality website at:

<http://www.scdhec.gov/HomeAndEnvironment/Air/AmbientAir/>.

Section 9: Zoning

Appropriate or compatible land use is determined by local government. SCDES has no authority regarding zoning in Spartanburg County. Specifically, the S.C. Mining Act states in Section 48-20-250, "*No provision of this chapter supersedes, affects, or prevents the enforcement of a zoning regulation or ordinance within the jurisdiction of an incorporated municipality or county or by an agency or department of this State, except when a provision of the regulation or ordinance is in direct conflict with this chapter.*" SCDES recognizes that each county and municipality across the state has different priorities and unique requirements. SCDES relies on county and municipal governments, through zoning and other ordinances, to regulate where residential, commercial, and industrial zones may occur.

Section 10: Land and Property Value/Economic Impact

Comments were received regarding the impact to property values and possible economic impacts. All zoning decisions are made at the local level by a city or county zoning authority, usually before a permit request is received. DES cannot dictate where a facility locates or factor property value impacts into our permitting decision. We encourage residents to contact their local city or county council representatives for more information on how to get involved in local zoning and planning issues.

Section 11: Community/Quality of Life

Comments were received regarding the potential impacts of the proposed mine on the local community's way of life. SCDES is committed to fulfilling the agency's responsibilities to protect and promote the health of the public and the environment. Through the exercise of those responsibilities, SCDES works to improve the quality of life of individuals and communities. However, the agency may only act within the limits of its statutory and regulatory authority. Through statutes and regulations, the General Assembly has established conditions and criteria the agency uses to ensure public health and environmental protection. SCDES is required to make its permit decision based only on technical review of the permit application and the Act and Regulations in place at the time of SCDES's review.

Section 12: General Opposition

SCDES received several comments requesting denial of a permit. While SCDES appreciates all comments received, it is important to recognize that we do not have the authority to make permitting decisions based on community, business, employee, or customer approval or disapproval of a proposed operation. SCDES is required by law to make a decision based only on the technical review of an application and the regulatory requirements in place at the time of that review. In 48-20-70 of the Act, SCDES is required to grant an operating permit to the applicant if there are no technical reasons to deny the permit.